



DATE: February 21, 2008

TO: Interested Parties / Applicant

RE: The Kroger Company - Indianapolis Bakery / SPR097-25643-00161

FROM: Timothy J. Method
Environmental Coordinator
Department of Public Works

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, Room 501, Indianapolis, IN 46204, **within fifteen (15) calendar days of the receipt 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 Indianapolis Office of Environmental Services, Air Permits at (317) 327-2234.

Enclosures



Air Quality Hotline: 317-327-4AIR | knozone.com

Department of Public Works
Office of Environmental Services

2700 Belmont Avenue
Indianapolis, IN 46221

317-327-2234
Fax 327-2274
TDD 327-5186
indygov.org/dpw



February 21, 2008

Paul Farber
The Kroger Company - Indianapolis Bakery
6801 English Avenue
Indianapolis, IN. 46219

Certified Mail: 7007 0710 0005 3965 9047

Re: First Significant Permit Revision
097-25643-00161 to
FESOP No.: F097-23672-00161

Dear Mr. Farber:

The Kroger Company - Indianapolis Bakery was issued a Federally Enforceable State Operating Permit (FESOP) renewal F097-23672-00161 on April 10, 2007 for the operation of a bakery located at 6801 English Avenue, Indianapolis, Indiana. A First Administrative Amendment F097-25243-00161 was issued on September 28, 2007. The Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and the City of Indianapolis, Office of Environmental Services (OES) received an application on December 12, 2007, relating to the construction and operation of a new bun line at this bakery. Pursuant to the provisions of 326 IAC 2-8-11.1(f), the FESOP, F097-23672-00161, is hereby revised as described in the enclosed Technical Support Document. Please find attached a copy of the 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 Anh-tuan Nguyen at (317) 327-2353.

Sincerely,

Original signed by

Timothy J. Method
Environmental Coordinator
Department of Public Works

Attachments: Revised Permit
FAR/an

cc: Air Permits-2
Air Compliance – Matt Mosier
IDEM, OAQ – Mindy Hahn
US EPA Region 5
Marion County Health Dept.



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Department of Public Works
Office of Environmental Services

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New Source Review and Federally Enforceable State Operating Permit Renewal

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY AND OFFICE OF ENVIRONMENTAL SERVICES

**The Kroger Company - Indianapolis Bakery
6801 English Avenue
Indianapolis, Indiana 46219**

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

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

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.

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

Operation Permit No.: F097-23672-00161	
Original Signed by: Felicia A. Robinson, Administrator Office of Environmental Services	Issuance Date: April 10, 2007 Expiration Date: April 10, 2017
First Administrative Amendment: AA097-25243-00161	Issued on: September 28, 2007
First Significant Permit Revision: SPR097-25643-00161	Condition Affected: A.1, A.2 and permit Section D.1
Issued by: Original signed by Timothy J. Method, Environmental Coordinator Department of Public Works	Issuance Date: February 21, 2008 Expiration Date: April 10, 2017



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**Department of Public Works
Office of Environmental Services**

2700 Belmont Avenue
Indianapolis, IN 46221

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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and Office of Environmental Services (OES). 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 bakery.

Source Address:	6801 English Avenue, Indianapolis, Indiana 46219
Mailing Address:	6801 English Avenue, Indianapolis, Indiana 46219
General Source Phone Number:	(317) 322-5000
SIC Code:	2051
County Location:	Marion
Source Location Status:	Nonattainment for PM 2.5 standard Attainment for all other criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD, Emission Offset Rules and Nonattainment NSR 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) bread line, identified as BD1 and constructed in 2003, with a maximum production rate of 6.3 tons of bread per hour, equipped with one (1) 6.8 MMBtu/hr natural gas-fired oven, and exhausting through stacks #9 and #10. The maximum oven lubricant usage is 40 gallons per 28 days.
- (b) Bun Line #3, identified as BU3, and constructed in 1960, with a maximum production rate of 3.3 tons of dough per hour, equipped with one (1) 5.25 million Btu per hour natural gas fired oven with propane used as emergency backup fuel. The maximum oven lubricant is 20.0 gallons per 28 days.
- (c) Two (2) 13.2 MMBtu/hr natural gas fired Smith Hughes boilers, identified as emission units Boiler #6 and Boiler #7, approved for construction in 2007, exhausting at one (1) stack/vent, identified as B1. Under NSPS Subpart Dc, the boilers are considered steam generating units, with construction beginning after June 9, 1989 and with a maximum heat input capacity of 100 MMBtu/hr or less, but greater than or equal to 10 MMBtu/hr.
- (d) One (1) Central vacuum system, identified as emission unit CS1, constructed in 1979, controlled by a baghouse and exhausting through stack CS1A.
- (e) Bun Line #4, identified as BU4, approved for construction in 2008, with a maximum production rate of 12,000 pounds of dough per hour, equipped with one (1) 8.0 MMBtu per hour natural gas fired oven with propane used as emergency backup fuel, with emissions controlled by a 2.5 MMBtu/hr natural gas fired catalytic oxidizer, identified as CE1.

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) Natural gas combustion units less than 10 million Btu per hour consisting of:
 - (1) One (1) natural gas fired Basket Washer (<1 MMBtu per hour), identified as BW1 constructed after September 21, 1983 [326 IAC 6-2-4];
 - (2) One (1) natural gas fired 4.6 MMBtu/hr direct contact water heater, identified as WH1, installed in 2007.
- (b) Brazing equipment, cutting torches, soldering equipment and welding equipment not resulting in the emission of HAPs;
- (c) Paved and unpaved roads and parking lots with public access [326 IAC 6-4];
- (d) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower;
- (e) Gasoline emergency generators not exceeding 110 horsepower;
- (f) Oven cleaner;
- (g) Vegetable shortening tank;
- (h) Corn syrup tank;
- (i) Operations cleaners and solvents, that do not exceed 145 gallons usage per 12 months, except if subject to 326 IAC 20-6 [326 IAC 8-3-2][326 IAC 8-3-5];
- (j) Air make-up units;
- (k) Cake oven #4 maximum process rate (P) of 0.33 tons per hour (1.75 MMBtu per hour natural gas combustion emissions);
- (l) Cake oven #5 maximum process rate (P) of 0.33 tons per hour (1.75 MMBtu per hour natural gas combustion emissions);
- (m) Flour handling system;
- (n) Propane tank;
- (o) Parts washer [326 IAC 8-3-2][326 IAC 8-3-5];
- (p) Two (2) bakery ovens, identified as TO-1 and TO-2, installed in 2005, each with a maximum heat input capacity of 2.4 million Btu per hour (MMBtu/hr) and a maximum production capacity of 1905 pounds of tortilla per hour, exhausting to stacks TO-1A and TO-2A, respectively.
- (q) Eight (8) storage silos, each having a capacity of 115,000 pounds, each equipped with a cloth breather bag, exhausting inside the building.

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) and the Office of Environmental Services (OES) to renew a Federally Enforceable State Operating Permit (FESOP).

SECTION B

GENERAL CONDITIONS

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

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

B.2 Revocation of Permits [326 IAC 2-1.1-9(5)]

Pursuant to 326 IAC 2-1.1-9(5) (Revocation of Permits), the Commissioner may revoke the construction approval portions of this permit if construction of Boilers #6 and #7 is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.3 Affidavit of Construction [326 IAC 2-8]

This document shall also become the approval to operate pursuant to 326 IAC 2-8 when prior to the start of operation for Boiler #6 and Boiler #7, the following requirements are met:

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

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

- (a) This permit, F097-23672-00161, 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 and OES, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

B.5 Term of Conditions [326 IAC 2-1.1-9.5]

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

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

B.6 Enforceability [326 IAC 2-8-6]

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

B.7 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.8 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.9 Duty to Provide Information [326 IAC 2-8-4(5)(E)]

- (a) The Permittee shall furnish to IDEM, OAQ and OES, within a reasonable time, any information that IDEM, OAQ and OES may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ and OES copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ and OES, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.10 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an "authorized individual" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1)

B.11 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 Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Office of Environmental Services
Air Compliance
2700 South Belmont Avenue
Indianapolis, Indiana 46221

- (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 and OES 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 and OES may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.12 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ and OES 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.13 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)]

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

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ and OES upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ and OES. IDEM, OAQ and OES may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.14 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, and OES 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 Section), or
Telephone Number: 317-233-0178 (ask for Compliance Section)
Facsimile Number: 317-233-6865
Office of Environmental Services phone: (317) 327-2234; fax: (317) 327-2274

- (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 Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Office of Environmental Services
Air Compliance
2700 South Belmont Avenue
Indianapolis, Indiana 46221

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 the certification 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 and OES 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 and OES 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.

- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.15 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of permits established prior to F097-23672-00161 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.16 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.17 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

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

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

and

Office of Environmental Services
Air Compliance
2700 South Belmont Avenue
Indianapolis, Indiana 46221

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

The Quarterly Deviation and Compliance Monitoring Report does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

B.18 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 the certification 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 and OES 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 and OES 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 and OES at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ and OES may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.19 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 OES 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 the certification 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
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Office of Environmental Services
Air Permits
2700 South Belmont Avenue
Indianapolis, Indiana 46221

- (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 and OES 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 and OES takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ and OES any additional information identified as being needed to process the application.

B.20 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
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Office of Environmental Services
Air Permits
2700 South Belmont Avenue
Indianapolis, Indiana 46221

Any such application shall be certified 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.21 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) through (d) 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
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Office of Environmental Services
Air Permits
2700 South Belmont Avenue
Indianapolis, Indiana 46221

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) through (d). 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 and OES in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).

- (b) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (c) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(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.22 Source Modification Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.23 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, and OES 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.24 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
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Office of Environmental Services
Air Permits
2700 South Belmont Avenue
Indianapolis, Indiana 46221

The application which shall be submitted by the Permittee does require the certification 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.25 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 and OES within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ and OES 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.26 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), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) The 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. This limitation shall make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) not applicable.

(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 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) 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 or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

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

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

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

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

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

and

Office of Environmental Services
Asbestos Section
2700 South Belmont Avenue
Indianapolis, Indiana 46221

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by 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 Accredited 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 Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

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

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

- (a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

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

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

and

Office of Environmental Services
Air Compliance
2700 South Belmont Avenue
Indianapolis, Indiana 46221

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification 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 certification 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 and OES not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ and OES if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

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

and

Office of Environmental Services
Air Compliance
2700 South Belmont Avenue
Indianapolis, Indiana 46221

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

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

C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(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 and OES approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative pressure gauge or other 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 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.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ and OES, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ and OES that retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ and OES may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

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

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

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

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. 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 or OES makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or OES within a reasonable time.

- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

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

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

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

and

Office of Environmental Services
Air Compliance
2700 South Belmont Avenue
Indianapolis, Indiana 46221

- (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 and OES on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

Stratospheric Ozone Protection

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

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

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

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Baking Lines

- (a) One (1) bread line, identified as BD1 and constructed in 2003, with a maximum production rate of 6.3 tons of bread per hour, equipped with one (1) 6.8 MMBtu/hr natural gas-fired oven, and exhausting through stacks #9 and #10. The maximum oven lubricant usage is 40 gallons per 28 days.
- (b) Bun Line #3, identified as BU3, and constructed in 1960, with a maximum production rate of 3.3 tons of dough per hour, equipped with one (1) 5.25 million Btu per hour natural gas fired oven with propane used as emergency backup fuel. The maximum oven lubricant is 20.0 gallons per 28 days.
- (e) Bun Line #4, identified as BU4, approved for construction in 2007, with a maximum production rate of 12,000 pounds of dough per hour, equipped with one (1) 8.0 MMBtu per hour natural gas fired oven with propane used as emergency backup fuel, with emissions controlled by a 2.5 MMBtu/hr natural gas fired catalytic oxidizer, identified as CE1.

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

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

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 2-8-4(1)] [326 IAC 8-1-6]

- (a) Pursuant to 326 IAC 2-8-4 (FESOP) and 326 IAC 8-1-6 (BACT), bread production and chain lubrication usage is limited such that VOC emissions from bread line BD1 shall not exceed 49.0 tons per thirteen (13) consecutive twenty-eight (28) day period with compliance determined at the end of each twenty-eight (28) days.
- (b) Pursuant to 326 IAC 2-8-4 (FESOP), bread production and chain lubrication usage is limited such that VOC emissions from bun line BU3 shall not exceed 17.0 tons per thirteen (13) consecutive twenty-eight (28) day period with compliance determined at the end of each twenty-eight (28) days.
- (c) Pursuant to 326 IAC 8-1-6, the Permittee shall employ Best Available Control Technology (BACT) for emission unit BU4. BACT for emission units BU4 has been determined to be:
 - (1) The VOC emissions from the bun oven (BU4) shall be controlled by a catalytic oxidizer.
 - (2) The minimum overall VOC control efficiency for the catalytic oxidizer (including the capture efficiency and destruction efficiency) shall be 95%, or the VOC outlet concentration shall not exceed 10 ppmv.
 - (3) The VOC emissions from the bun oven (BU4) shall not exceed 0.55 pounds per hour.

Compliance with this limit for BU4 shall also satisfy the requirements of 326 IAC 2-8 and render 326 IAC 2-7 not applicable.

Combined with the VOC emissions from the boilers and the insignificant activities, the VOC emissions from the entire source are limited to less than 100 tons per thirteen (13) consecutive twenty-eight (28) day period. These limits ensure that source wide VOC emissions are limited to

less than 100 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 are not applicable.

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

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this Permit, is required for Emission Unit BD1, Emission Unit BU3, Emission Unit BU4, and Emission Unit CE1.

Compliance Determination Requirements

D.1.3 Volatile Organic Compounds (VOC)

Compliance with the VOC limitation contained in Condition D.1.1(a) and (b) shall be determined by:

- (a) The twenty-eight (28) day VOC emissions from the bread baking process are determined by the following equation:

$$\text{VOC (tons/28 days)} = 3 P_i \times \text{EF}_i$$

Where

- i = Type of bread
 P_i = Bread production for type i bread
 EF_i = VOC emission factor for type i bread

According to AP-42, Chapter 9.9.6 - Bread Baking:

$$\text{VOC emission factor (EF)} = 0.95 Y_i + 0.195 t_i - 0.51S - 0.86t_s + 1.90$$

- where: Y_i = initial baker's % yeast to the nearest tenth of a percent
 t_i = total yeast action time in hours to the nearest tenth of an hour
 S = final (spike) baker's % yeast to the nearest tenth of a percent
 t_s = spiking time in hours to the nearest tenth of an hour

- (b) The VOC emissions from the chain lubrication shall be determined by the following equation:

$$\text{VOC (tons/28 days)} = \text{VOC content of chain lubrication (pounds per gallon)} \times \text{amount of chain lubricant used (gallons per 28 days)} \times 1 \text{ ton per 2000 pounds.}$$

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

In order to comply with Condition D.1.1(c), the catalytic oxidizer shall be in operation and control emissions from the bun oven at all times the bun oven is in operation.

D.1.5 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 Condition D.1.1(c), the Permittee shall perform VOC (including emission rate and overall control efficiency of the catalytic oxidizer) testing for the catalytic oxidizer, within 60 days after achieving the maximum capacity, but not later than 180 days after initial startup, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration.

D.1.6 Catalytic Oxidizer Temperature

- (a) A continuous monitoring system shall be calibrated, maintained, and operated on the catalytic oxidizer for measuring operating temperature. For the purpose of this condition,

continuous means no less than once per minute. The output of this system shall be recorded as a three (3) hour average. From the date of startup until the approved stack test results are available, the Permittee shall operate the catalytic oxidizer at or above the three (3) hour average temperature of 600°F.

- (b) The Permittee shall determine the three (3) hour average temperature from the most recent valid stack test that demonstrates compliance with Condition D.1.1(c), as approved by IDEM and OES.
- (c) On and after the date the approved stack test results are available, the Permittee shall operate the catalytic oxidizer at or above the three (3) hour average temperature as observed during the compliant stack test.

D.1.7 Parametric Monitoring

- (a) The Permittee shall determine the most appropriate duct pressure or fan amperage from the most recent valid stack test that demonstrates compliance with the limit in D.1.1(c), as approved by IDEM and OES.
- (b) The duct pressure or fan amperage shall be observed at least once per day when the catalytic oxidizer is in operation. On and after the date the approved stack test results are available, 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 Requirements [326 IAC 2-8-4(3)]

D.1.8 Record Keeping Requirement

- (a) To document compliance with Conditions D.1.1(a) and (b), the Permittee shall maintain records in accordance with (1) through (6) below for bread lines BD1 and BU3. Records maintained for (1) through (6) shall be taken each twenty-eight (28) days and shall be complete and sufficient to establish compliance with the VOC emission limit established in Condition D.1.1.
 - (1) The VOC content of each chain lubricant used.
 - (2) The amount of chain lubricant used for each twenty-eight (28) days.
 - (3) The amount of each type of the bread produced each twenty-eight (28) days.
 - (4) Information necessary to calculate the VOC emission factor for each type of bread made during the compliance period, including:
 - (A) The initial baker's percent of yeast;
 - (B) The total yeast action time in hours;
 - (C) The final (spike) baker's percent of yeast; and
 - (D) The spiking time in hours.
 - (5) The total weight of VOC emissions for each twenty-eight (28) days; and
 - (6) The total weight of VOC emitted for each compliance period.
- (b) To document compliance with Conditions D.1.1(c), D.1.6, and D.1.7, the Permittee shall maintain the following records for the catalytic oxidizer controlling the bun oven:

- (1) The continuous temperature records for the catalytic oxidizer and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.
 - (2) The daily records of the duct pressure or fan amperage for the catalytic oxidizer. 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 duct pressure or fan amperage reading (e.g. the process did not operate that day).
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.9 Reporting Requirement

A quarterly summary of the information to document compliance with Conditions D.1.1(a) and (b) shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting form(s) located at the end of this Permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Boilers

- (c) Two (2) 13.2 MMBtu/hr natural gas fired Smith Hughes boilers, identified as emission units Boiler #6 and Boiler #7, approved for construction in 2007, exhausting at one (1) stack/vent, identified as B1. Under NSPS Subpart Dc, the boilers are considered steam generating units, with construction beginning after June 9, 1989 and with a maximum heat input capacity of 100 MMBtu/hr or less, but greater than or equal to 10 MMBtu/hr.

(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 Matter Emissions (PM) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Indirect Heating), particulate emissions from the Boiler #6 and Boiler #7 shall be limited to 0.46 pounds per million British thermal units (lbs/MMBtu) based on the following equation:

$$Pt = 1.09 / Q^{0.26}$$

Where:

Pt = Pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input.

Q = Total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used. Q for Boiler #6 and Boiler #7 is 27.4 MMBtu/hr.

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

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this Permit, is required for Emission Unit Boiler #6 and Boiler #7.

New Source Performance Standards (NSPS) Requirements

D.2.3 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 for the boilers identified as Boiler #6 and Boiler #7 except as otherwise specified in 40 CFR Part 60, Subpart Dc.
- (b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

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

and

Indianapolis OES
Air Compliance
2700 South Belmont Ave.
Indianapolis, IN 46221

D.2.4 Standards of Performance for Small-Commercial-Institutional- Steam Generating Units Requirements [40 CFR Part 60, Subpart Dc] [40 CFR 60.24(f)(3)]

Pursuant to 40 CFR Part 60, Subpart Dc, the Permittee shall comply with the provisions of the NSPS, for the boilers, identified as Boiler #6 and Boiler #7 is specified as follows:

§ 60.40c Applicability and delegation of authority.

(a) Except as provided in paragraph (d) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million Btu per hour (Btu/hr)) or less, but greater than or equal to 2.9 MW (10 million Btu/hr).

(b) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, §60.48c(a)(4) shall be retained by the Administrator and not transferred to a State.

(c) Steam generating units which meet the applicability requirements in paragraph (a) of this section are not subject to the sulfur dioxide (SO₂) or particulate matter (PM) emission limits, performance testing requirements, or monitoring requirements under this subpart (§§60.42c, 60.43c, 60.44c, 60.45c, 60.46c, or 60.47c) during periods of combustion research, as defined in §60.41c.

(d) Any temporary change to an existing steam generating unit for the purpose of conducting combustion research is not considered a modification under §60.14.

§ 60.41c Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

Annual capacity factor means the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a period of 12 consecutive calendar months and the potential heat input to the steam generating unit from all fuels had the steam generating unit been operated for 8,760 hours during that 12-month period at the maximum design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility during a period of 12 consecutive calendar months.

Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388-77, 90, 91, 95, or 98a, Standard Specification for Classification of Coals by Rank (IBR--see Sec. 60.17), coal refuse, and petroleum coke. Coal-derived synthetic fuels derived from coal for the purposes of creating useful heat, including but not limited to solvent refined coal, gasified coal, coal-oil mixtures, and coal-water mixtures, are also included in this definition for the purposes of this subpart.

Coal refuse means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (kJ/kg) (6,000 Btu per pound (Btu/lb) on a dry basis.

Cogeneration steam generating unit means a steam generating unit that simultaneously produces both electrical (or mechanical) and thermal energy from the same primary energy source.

Combined cycle system means a system in which a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

Combustion research means the experimental firing of any fuel or combination of fuels in a steam generating unit for the purpose of conducting research and development of more efficient combustion or more effective prevention or control of air pollutant emissions from combustion, provided that, during these periods of research and development, the heat generated is not used for any purpose other than preheating combustion air for use by that steam generating unit (i.e., the heat generated is released to the atmosphere without being used for space heating, process heating, driving pumps, preheating combustion air for other units, generating electricity, or any other purpose).

Conventional technology means wet flue gas desulfurization technology, dry flue gas desulfurization technology, atmospheric fluidized bed combustion technology, and oil hydrodesulfurization technology.

Distillate oil means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396–78, 89, 90, 92, 96, or 98, “Standard Specification for Fuel Oils” (incorporated by reference—see §60.17).

Dry flue gas desulfurization technology means a sulfur dioxide (SO₂) control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline reagents used in dry flue gas desulfurization systems include, but are not limited to, lime and sodium compounds.

Duct burner means a device that combusts fuel and that is placed in the exhaust duct from another source (such as a stationary gas turbine, internal combustion engine, kiln, etc.) to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.

Emerging technology means any SO₂ control system that is not defined as a conventional technology under this section, and for which the owner or operator of the affected facility has received approval from the Administrator to operate as an emerging technology under §60.48c(a)(4).

Federally enforceable means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR Parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

Fluidized bed combustion technology means a device wherein fuel is distributed onto a bed (or series of beds) of limestone aggregate (or other sorbent materials) for combustion; and these materials are forced upward in the device by the flow of combustion air and the gaseous products of combustion. Fluidized bed combustion technology includes, but is not limited to, bubbling bed units and circulating bed units.

Fuel pretreatment means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit.

Heat input means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust gases from other sources (such as stationary gas turbines, internal combustion engines, and kilns).

Heat transfer medium means any material that is used to transfer heat from one point to another point.

Maximum design heat input capacity means the ability of a steam generating unit to combust a stated maximum amount of fuel (or combination of fuels) on a steady state basis as determined by the physical design and characteristics of the steam generating unit.

Natural gas means (1) a naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane, or (2) liquefied petroleum (LP) gas, as defined by the American Society for Testing and Materials in ASTM D1835–86, 87, 91, or 97, "Standard Specification for Liquefied Petroleum Gases" (incorporated by reference—see §60.17).

Noncontinental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Oil means crude oil or petroleum, or a liquid fuel derived from crude oil or petroleum, including distillate oil and residual oil.

Potential sulfur dioxide emission rate means the theoretical SO₂ emissions (nanograms per joule [ng/J], or pounds per million Btu [lb/million Btu] heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

Process heater means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

Residual oil means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society for Testing and Materials in ASTM D396–78, 89, 90, 92, 96, or 98, "Standard Specification for Fuel Oils" (incorporated by reference—see §60.17).

Steam generating unit means a device that combusts any fuel and produces steam or heats water or any other heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.

Steam generating unit operating day means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

Wet flue gas desulfurization technology means an SO₂ control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a liquid material. This definition includes devices where the liquid material is subsequently converted to another form. Alkaline reagents used in wet flue gas desulfurization systems include, but are not limited to, lime, limestone, and sodium compounds.

Wet scrubber system means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of particulate matter (PM) or SO₂.

Wood means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including but not limited to sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.

§ 60.48c Reporting and recordkeeping requirements.

(a) The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by §60.7 of this part. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

(3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

(g) The owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day. The owner or operator of an affected facility that only burns very low sulfur fuel oil or other liquid or gaseous fuels with potential sulfur dioxide emissions rate of 140 ng/J (0.32 lb/MMBtu) heat input or less shall record and maintain records of the fuels combusted during each calendar month.

(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

(j) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Central Vacuum System

- (d) One (1) Central vacuum system, identified as emission unit CS1, constructed in 1979, controlled by a baghouse and exhausting through stack CS1A.

Insignificant Activities

- (a) Natural gas combustion units less than 10 million Btu per hour consisting of:
- (1) One (1) natural gas fired Basket Washer (<1 MMBtu per hour), identified as BW1 constructed after September 21, 1983 [326 IAC 6-2-4];
- (i) Operations cleaners and solvents, that do not exceed 145 gallons usage per 12 months, except if subject to 326 IAC 20-6 [326 IAC 8-3-2][326 IAC 8-3-5]
- (o) Parts washer [326 IAC 8-3-2][326 IAC 8-3-5];

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

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

D.3.1 Particulate Matter Emissions (PM) [326 IAC 6-2-4]

Particulate emissions from BW1 shall be limited to 0.60 pounds per million British thermal units (lbs/MMBtu).

D.3.2 Particulate Matter Emissions (PM) [326 IAC 6-3-2]

Particulate emissions from CS1 shall be limited to 0.551 pounds per hour (lbs/hr).

D.3.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the owner or operator shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.3.4 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility existing prior to January 1, 1980 shall ensure that the following control equipment requirements are met:

- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
 - (B) The solvent is agitated; or
 - (C) The solvent is heated.
 - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility construction of which commenced after July 1, 1990, shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

Compliance Determination Requirements

D.3.5 Particulate Control

In order to comply with condition D.3.2, the baghouse for particulate control on the central vacuum system shall be in operation and control emissions from the central vacuum system at all times that the central vacuum system is in operation.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
and
INDIANAPOLIS OFFICE OF ENVIRONMENTAL SERVICES
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
CERTIFICATION**

Source Name: The Kroger Company - Indianapolis Bakery
Source Address: 6801 English Avenue, Indianapolis, Indiana 46219
Mailing Address: 6801 English Avenue, Indianapolis, Indiana 46219
FESOP Permit No.: F097-23672-00161

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 BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865**

**and
INDIANAPOLIS OFFICE OF ENVIRONMENTAL SERVICES
Air Compliance
2700 South Belmont Avenue
Indianapolis, IN 46221-2209**

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

Source Name: The Kroger Company - Indianapolis Bakery
Source Address: 6801 English Avenue, Indianapolis, Indiana 46219
Mailing Address: 6801 English Avenue, Indianapolis, Indiana 46219
FESOP Permit No.: F097-23672-00161

This form consists of 2 pages

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- | |
|---|
| <input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12) <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: _____

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION
 and
 CITY OF INDIANAPOLIS OFFICE OF ENVIRONMENTAL SERVICES**

FESOP Quarterly Report

Source Name: The Kroger Company - Indianapolis Bakery
 Source Address: 6801 English Avenue, Indianapolis, Indiana 46219
 Mailing Address: 6801 English Avenue, Indianapolis, Indiana 46219
 FESOP Permit No.: F097-23672-00161
 Facility: Bun Line BU3
 Parameter: Bread Production and VOC Emissions
 Limit: 17.0 tons of VOC Emissions per thirteen (13) consecutive twenty-eight (28) day period with compliance determined at the end of each twenty-eight (28) days.

$$\text{VOC (tons/28 days)} = [3 P_i \times (0.95 Y_i + 0.195 t_i - 0.51S - 0.86t_s + 1.90)] + [C \times A \times 1/2000]$$

Where

- i = Type of bread
- P_i = Bread production for type i bread
- Y_i = initial baker's % yeast to the nearest tenth of a percent
- t_i = total yeast action time in hours to the nearest tenth of an hour
- S = final (spike) baker's % yeast to the nearest tenth of a percent
- t_s = spiking time in hours to the nearest tenth of an hour
- C = VOC content of the chain lubrication in pounds per gallon
- A = Amount of chain lubrication used in gallons

QUARTER: _____ YEAR: _____

Month	Column 1			Column 2			Column 1 + Column 2		
	This twenty-eight (28) day period			Previous 12 twenty-eight (28) day period			Total		
	Bread Production	Chain Lubrication used	VOC Emissions	Bread Production	Chain Lubrication used	VOC Emissions	Bread Production	Chain Lubrication used	VOC Emissions
Month 1									
Month 2									
Month 3									

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

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

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION
 and
 CITY OF INDIANAPOLIS OFFICE OF ENVIRONMENTAL SERVICES**

FESOP Quarterly Report

Source Name: The Kroger Company - Indianapolis Bakery
 Source Address: 6801 English Avenue, Indianapolis, Indiana 46219
 Mailing Address: 6801 English Avenue, Indianapolis, Indiana 46219
 FESOP Permit No.: F097-23672-00161
 Facility: Bread Line BD1
 Parameter: Bread Production and VOC Emissions
 Limit: 49.0 tons of VOC Emissions per thirteen (13) consecutive twenty-eight (28) day period with compliance determined at the end of each twenty-eight (28) days.

$$\text{VOC (tons/28 days)} = [3 P_i \times (0.95 Y_i + 0.195 t_i - 0.51S - 0.86t_s + 1.90)] + [C \times A \times 1/2000]$$

Where

- i = Type of bread
- P_i = Bread production for type i bread
- Y_i = initial baker's % yeast to the nearest tenth of a percent
- t_i = total yeast action time in hours to the nearest tenth of an hour
- S = final (spike) baker's % yeast to the nearest tenth of a percent
- t_s = spiking time in hours to the nearest tenth of an hour
- C = VOC content of the chain lubrication in pounds per gallon
- A = Amount of chain lubrication used in gallons

QUARTER: _____ YEAR: _____

Month	Column 1			Column 2			Column 1 + Column 2		
	This twenty-eight (28) day period			Previous 12 twenty-eight (28) day period			Total		
	Bread Production	Chain Lubrication used	VOC Emissions	Bread Production	Chain Lubrication used	VOC Emissions	Bread Production	Chain Lubrication used	VOC Emissions
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: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION
and
CITY OF INDIANAPOLIS OFFICE OF ENVIRONMENTAL SERVICES**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: The Kroger Company - Indianapolis Bakery
Source Address: 6801 English Avenue, Indianapolis, Indiana 46219
Mailing Address: 6801 English Avenue, Indianapolis, Indiana 46219
FESOP Permit No.: F097-23672-00161

Months: _____ to _____ Year: _____

Page 1 of 2

<p>This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked ΔNo 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: _____

Attach a signed certification to complete this report.

Mail to: City of Indianapolis, Air Permits
2700 S. Belmont Avenue
Indianapolis, IN 46221

Permit Administration & Development Section
Office Of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204-2251

The Kroger Company - Indianapolis Bakery
6801 English Avenue
Indianapolis, Indiana 46219

Affidavit of Construction

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

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

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

3. By virtue of my position with _____, I have personal
(Company Name)

knowledge of the representations contained in this affidavit and am authorized to make

these representations on behalf of _____.
(Company Name)

4. I hereby certify that The Kroger Company - Indianapolis Bakery., 6801 English Avenue, Indianapolis, Indiana, 46219, completed construction of the two boilers identified as Boiler #6 and Boiler #7 on _____ in conformity with the requirements and intent of the construction permit application received by the Office of Air Quality and the Office of Environmental Services on November 30, 2006 and as permitted pursuant to **New Source Review and Federally Enforceable Operating Permit Renewal, F097-23672-00161, Plant ID No. 097-00161** issued on _____.

Further Affiant said not.

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

Signature

Date

STATE OF INDIANA)
)SS
COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of

Indiana on this _____ day of _____, 20 _____.

My Commission expires:

Signature

Name (typed or printed)

**Indiana Department of Environmental Management
Office of Air Quality
and
Indianapolis Office of Environmental Services**

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

Source Description and Location

Source Name:	The Kroger Company - Indianapolis Bakery
Source Location:	6801 English Avenue, Indianapolis, Indiana 46219
County:	Marion
SIC Code:	2051
Operation Permit No.:	F097-23672-00161
Operation Permit Issuance Date:	April 10, 2007
Significant Permit Revision No.:	SPR097-25643-00161
Permit Reviewer:	A. Nguyen

Existing Approvals

The source is operating under the following approvals:

- (a) FESOP Renewal F097-23672-00161, issued on April 10, 2007; and
- (b) First Administrative Amendment F097-25243-00161, issued on September 28, 2007.

County Attainment Status

The source is located in Marion County.

Pollutant	Status
PM2.5	non-attainment
PM10	attainment
SO ₂	maintenance attainment
NO ₂	attainment
8-hour Ozone	attainment
CO	attainment
Lead	attainment

*Note: On November 8, 2007 the Indiana Air Pollution Control Board finalized a temporary emergency rule to redesignate Clark, Floyd, Elkhart, St. Joseph, LaPorte, Boone, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, and Shelby Counties as attainment for the 8-hour ozone standard.

- (a) 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 emissions and NOx emissions are considered when evaluating the rule applicability relating to ozone.

On November 8, 2007, a temporary emergency rule took effect redesignating Marion County to attainment for the eight-hour ozone standard. The Indiana Air Pollution Control Board has begun the process for a permanent rule revision to incorporate these changes into 326 IAC 1-4-1. The permanent revision to 326 IAC 1-4-1 should take effect prior to the expiration of the emergency rule. Therefore, VOC emissions and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

- (b) Marion County has been classified as nonattainment for PM_{2.5} in 70 FR 943 dated January 5, 2005. Until U.S. EPA adopts specific New Source Review rules for PM_{2.5} emissions, it has directed states to regulate PM₁₀ emissions as a surrogate for PM_{2.5} emissions pursuant to the requirements of Emission Offset, 326 IAC 2-3.
- (c) Marion County has been classified as attainment or unclassifiable for PM₁₀, SO₂, CO and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.
- (e) Fugitive Emissions
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD or Emission Offset applicability.

Source Status

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

Pollutant	Emissions (tons/year)
PM	21.48
PM ₁₀	22.64
SO ₂	0.11
VOC	67.74
CO	19.27
NO _x	22.91

- (a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no 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(gg)(1).
- (b) These emissions are based upon the FESOP Renewal F097-23672-00161, issued on April 10, 2007 and the First Administrative Amendment F097-25243-00161, issued on September 28, 2007.

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

HAPs	Potential To Emit (tons/year)
Single	1.98
TOTAL	1.98

This existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because HAPs

emissions are less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

Description of Revision

The OAQ and OES have reviewed a significant permit revision application, submitted by the Kroger Company - Indianapolis Bakery on December 12, 2007, relating to the installation of a new bun oven and associated control device (catalytic oxidizer). The new oven and oxidizer will burn natural gas. The new oven will also generate potential VOC emissions over twenty-five (25) tons.

Pursuant to 326 IAC 8-1-6 (New Facilities; General Reduction Requirements), BACT is required for all facilities constructed after January 1, 1980 that have potential VOC emissions of equal to or greater than twenty-five (25) tons per year and are not regulated by other rules in 326 IAC 8. Since the potential emissions of the new bun oven are over 25 tons per year, it is subject to 326 IAC 8-1-6 BACT. A completed BACT analysis was submitted along with the application (See Appendix B).

The following is a list of the proposed emission unit and pollution control device:

- (a) Bun Line #4, identified as BU4, approved for construction in 2008, with a maximum production rate of 12,000 pounds of dough per hour, equipped with one (1) 8.0 MMBtu per hour natural gas fired oven with propane used as emergency backup fuel, with emissions controlled by a 2.5 MMBtu/hr natural gas fired catalytic oxidizer, identified as CE1.

Enforcement Issues

There are no pending enforcement actions related to this modification.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
BU4A	Bakery Oven			4200	400-500
CE1A	Catalytic Oxidizer	40	2	13584 @ 500 °F	600 - 1050

Emission Calculations

See Appendix A of this document for detailed emission calculations.

Permit Level Determination – FESOP Revision

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

The following table is used to determine the appropriate permit level under 326 IAC 2-8-11.1. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	0.17
PM10	0.35
SO ₂	0.58
VOC	48.86
CO	3.86
NO _x	6.46

HAPs	Potential To Emit (tons/year)
Single (acetaldehyde)	1.46
TOTAL	less than 25

This permit revision is subject to 326 IAC 2-8-11.1(f)(1)(C), because the source is adding an emission unit with potential emissions of VOC greater than twenty five (25) tons per year and that is subject to 326 IAC 8-1-6. As a result, this proposed permit revision qualifies as a significant permit revision under 326 IAC 2-8-11.1(f). The proposed permit revision is assigned the application tracking number SPR097-25643-00161.

PTE of the Entire Source with the Proposed Revision

The table below summarizes the potential to emit, reflecting all limits, of the emission units before and after the proposed Revision. 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.

Existing (before Revision) PTE appears as ~~strike throughs~~ and PTE after Revision appears in **bold**:

Process/Emission Unit	Potential to Emit (tons/year)						
	PM	PM10 ³	SO ₂	VOC	CO	NO _x	HAPs
BD1	0.06	0.23	0.02	49.00 ¹	2.50	2.98	1.47
BU3	0.04	0.17	0.01	17.00 ¹	1.93	2.30	0.51
Boiler #6	0.11	0.44	0.03	0.32	4.86	5.78	-
Boiler #7	0.11	0.44	0.03	0.32	4.86	5.78	-
Central Vacuum System	19.75	19.75	-	-	-	-	-
8 Silos (Insignificant)	0.41	0.41	-	-	-	-	-
Insignificant Activities	< 1	< 1	0.02	<1	3.42	4.07	-
Water Heater	0.0	0.2	0.0	0.1	1.7	2.0	-
BU4	0.17	0.35	0.58	2.43²	3.86	6.46	1.46
Total	21.48 21.65	22.64 22.99	0.11 0.69	67.74 70.17	19.27 23.13	22.91 29.37	3.44
Title V Major Source Thresholds	-	100	100	100	100	100	Less than 10 for a single HAP and 25 for any combination of HAPs.
PSD & Nonattainment NSR Major Source Thresholds	250	100	250	250	250	250	Less than 10 for a single HAP and 25 for any combination of HAPs.

1 - The VOC emissions for BD1 and BU3 are limited such that the requirements of 326 IAC 2-7 are not applicable.

- 2 - The VOC emissions for BU4 are limited to comply with 326 IAC 8-1-6 BACT.
- 3 - PM10 is a surrogate for PM2.5.

PTE of the Entire Source After the Issuance of the Proposed Revision

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

Process/Emission Unit	Potential to Emit (tons/year)						
	PM	PM10 ³	SO ₂	VOC	CO	NO _x	HAPs
BD1	0.06	0.23	0.02	49.00 ¹	2.50	2.98	-
BU3	0.04	0.17	0.01	17.00 ¹	1.93	2.30	-
Boiler #6	0.11	0.44	0.03	0.32	4.86	5.78	-
Boiler #7	0.11	0.44	0.03	0.32	4.86	5.78	-
Central Vacuum System	19.75	19.75	-	-	-	-	-
8 Silos (Insignificant)	0.41	0.41	-	-	-	-	-
Insignificant Activities	< 1	< 1	0.02	<1	3.42	4.07	-
Water Heater	0.0	0.2	0.0	0.1	1.7	2.0	-
BU4	0.17	0.35	0.58	2.43 ²	3.86	6.46	1.46
Total	21.65	22.99	0.69	70.17	23.13	29.37	-
Title V Major Source Thresholds	-	100	100	100	100	100	Less than 10 for a single HAP and 25 for any combination of HAPs.
PSD & Nonattainment NSR Major Source Thresholds	250	100	250	250	250	250	Less than 10 for a single HAP and 25 for any combination of HAPs.

- 1 - The VOC emissions for BD1 and BU3 are limited such that the requirements of 326 IAC 2-7 are not applicable.
- 2 - The VOC emissions for BU4 are limited to comply with 326 IAC 8-1-6 BACT.
- 3 - PM10 is a surrogate for PM2.5.

- (a) This revision to an existing minor stationary source is not major because the emissions increase is less than the PSD major source thresholds. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply. After the modification, this source is still a minor source under 326 IAC 2-2.
- (b) Marion County has been designated as nonattainment for PM 2.5 in 70 FR 943 dated January 5, 2005. According to the April 5, 2005 EPA memo titled "Implementation of New Source Review Requirements in PM2.5 Nonattainment Areas" authored by Steve Page, Director of OAQPS, until EPA promulgates the PM2.5 major NSR regulations, states should assume that a major stationary source's PM10 emissions represent PM2.5 emissions. IDEM will use the PM10 nonattainment major NSR program as a surrogate to address the requirements of nonattainment major NSR for the PM2.5 NAAQS. A major source in a nonattainment area is a source that emits or has the potential to emit one hundred (100) tons per year of any nonattainment regulated pollutant. The Kroger Company - Indianapolis Bakery has a potential to emit of PM10 below one hundred (100)

tons per year. Therefore, assuming that PM10 emissions represent PM2.5 emissions, 326 IAC 2-1.1-5 does not apply for PM2.5.

- (c) After this revision, this source is still a minor source pursuant to the Part 70 Permit program.

Federal Rule Applicability Determination

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed revision.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) applicable to this proposed revision.

State Rule Applicability Determination

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

326 IAC 2-1.1-5 (Non-attainment New Source Review)

This source is not major under nonattainment NSR because it has the potential to emit less than 100 tons of PM10 (as a surrogate for PM2.5). There have been no modifications to this source such that it is a major source of PM10 emissions. Therefore, the Non-attainment New Source Review requirements are not applicable.

326 IAC 2-2 (Prevention of Significant Deterioration(PSD))

This source is not a major source. This source is not one (1) of the twenty-eight (28) listed source categories. The potential to emit of each criteria pollutant from the entire source is less than 250 tons per year and the potential to emit of lead is less than twenty-five (25) tons per year. The emissions from this revision are less than major source thresholds and the source is still a minor source after the revision. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) are not applicable.

326 IAC 2-4.1 (Hazardous Air Pollutants)

The operation of the new bun oven (BU4) will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-6 (Emission Reporting)

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 or Porter Counties, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 2-8-4 (FESOP)

Pursuant to 326 IAC 2-8-4, the VOC emissions from the bun oven, identified as BU4, shall be limited to less than 0.55 pounds per hour, such that the requirements of 326 IAC 2-7 are not applicable.

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

Pursuant to 326 IAC 6-3-1(b)(14), manufacturing processes with the potential emissions less than five hundred fifty-one thousandths (0.551) pounds per hour of PM shall be exempt from 326 IAC 6-3. Emission unit BU4 has potential PM emissions less than 0.551 (See Appendix A, page 1). Therefore, 326 IAC 6-3 does not apply.

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

Potential VOC Emissions from the new bun oven, identified as BU4, exceed twenty five (25) tons per year. Therefore, VOC emissions shall be reduced using best available control technology

(BACT). BACT for the new bun oven, identified as BU4, has been determined as follows:

- (a) The VOC emissions from the bun oven (BU4) shall be controlled by a catalytic oxidizer.
- (b) The minimum overall VOC control efficiency for the catalytic oxidizer (including the capture efficiency and destruction efficiency) shall be 95%, or the VOC outlet concentration shall not exceed 10 ppmv.
- (c) The VOC emissions from the bun oven (BU4) shall not exceed 0.55 pounds per hour.

The above emission limit was calculated as follows:

Emission limit (lbs/hr) = PTE (tons/yr)*(1 - control efficiency)*(2000 lbs/ton)*(1 yr/8760 hrs)

Emission limit (lbs/hr) = (48.6 tons/yr)*(1-0.95)*(2000 lbs/ton)*(1 yr/8760 hrs) = 0.55 lbs/hr

See Appendix B for a more detailed BACT Analysis.

Testing Requirements

In order to demonstrate compliance with the BACT requirements, the Permittee shall perform VOC (including emission rate and overall control efficiency of the catalytic oxidizer) testing for the catalytic oxidizer, within 60 days after achieving the maximum capacity, but not later than 180 days after initial startup, utilizing methods as approved by the Administrator. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

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

The Compliance Determination Requirements applicable to this modification are as follows:

- (a) In order to comply with the BACT requirements, the catalytic oxidizer shall be in operation and control emissions from the bun oven at all times the bun oven is in operation.
- (b) A continuous monitoring system shall be calibrated, maintained, and operated on the catalytic oxidizer for measuring operating temperature. For the purposes of this condition, continuously means no less than once per minute. The output of this system shall be recorded as a 3-hour average. From the date of startup until the approved stack test results are available, the Permittee shall operate the catalytic oxidizer at or above the 3-hour average temperature of 600°F. The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with the

BACT requirements, as approved by IDEM, OAQ and OES. On and after the date the approved stack test results are available, the Permittee shall operate the catalytic oxidizer at or above the 3-hour average temperature as observed during the compliant stack test.

- (c) The duct pressure or fan amperage shall be observed at least once per day when the catalytic oxidizer is in operation. The Permittee shall determine the appropriate duct pressure or fan amperage from the most recent valid stack test that demonstrates compliance with the BACT limit. On and after the date the approved stack test results are available, the duct pressure or fan amperage shall be maintained within the normal range as established in the most recent compliance stack test.

These compliance determination requirements are necessary because the catalytic oxidizer must be installed and operated properly to ensure compliance with 326 IAC 8-1-6 (BACT) and 326 IAC 2-8 (FESOP).

The are no compliance monitoring requirements applicable to this modification

Proposed Changes

The changes listed below have been made to the Federally Enforceable State Operating Permit (FESOP) No. SPR097-25643-00161. Deleted language appears as ~~strike throughs~~ and new language appears in **bold**:

Change 1

On November 8, 2007, a temporary emergency rule took effect redesignating Marion County to attainment for the eight-hour ozone standard. The Indiana Air Pollution Control Board has begun the process for a permanent rule revision to incorporate these changes into 326 IAC 1-4-1. The permanent revision to 326 IAC 1-4-1 should take effect prior to the expiration of the emergency rule. Therefore, Marion County is no longer nonattainment for ozone under the 8-hour standard. Condition A.1 is revised as follows:

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

The Permittee owns and operates a stationary bakery.

Source Address:	6801 English Avenue, Indianapolis, Indiana 46219
Mailing Address:	6801 English Avenue, Indianapolis, Indiana 46219
General Source Phone Number:	(317) 322-5000
SIC Code:	2051
County Location:	Marion
Source Location Status:	Nonattainment for 8-hour ozone standard Nonattainment for PM 2.5 standard
Source Status:	Attainment for all other criteria pollutants Federally Enforceable State Operating Permit Program Minor Source, under PSD, Emission Offset Rules and Nonattainment NSR Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

Change 2:

In order to incorporate the new bun oven and associated applicable requirements, permit conditions A.2, and permit section D.1 has been revised as follows:

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) bread line, identified as BD1 and constructed in 2003, with a maximum production rate of 6.3 tons of bread per hour, equipped with one (1) 6.8 MMBtu/hr natural gas-fired oven, and exhausting through stacks #9 and #10. The maximum oven lubricant usage is 40 gallons per 28 days.
- (b) Bun Line #3, identified as BU3, and constructed in 1960, with a maximum production rate of 3.3 tons of dough per hour, equipped with one (1) 5.25 million Btu per hour natural gas fired oven with propane used as emergency backup fuel. The maximum oven lubricant is 20.0 gallons per 28 days.
- (c) Two (2) 13.2 MMBtu/hr natural gas fired Smith Hughes boilers, identified as emission units Boiler #6 and Boiler #7, approved for construction in 2007, exhausting at one (1) stack/vent, identified as B1. Under NSPS Subpart Dc, the boilers are considered steam generating units, with construction beginning after June 9, 1989 and with a maximum heat input capacity of 100 MMBtu/hr or less, but greater than or equal to 10 MMBtu/hr.
- (d) One (1) Central vacuum system, identified as emission unit CS1, constructed in 1979, controlled by a baghouse and exhausting through stack CS1A.
- (e) Bun Line #4, identified as BU4, approved for construction in 2008, with a maximum production rate of 12,000 pounds of dough per hour, equipped with one (1) 8.0 MMBtu per hour natural gas fired oven with propane used as emergency backup fuel, with emissions controlled by a 2.5 MMBtu/hr natural gas fired catalytic oxidizer, identified as CE1.**

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Baking Lines

- (a) One (1) bread line, identified as BD1 and constructed in 2003, with a maximum production rate of 6.3 tons of bread per hour, equipped with one (1) 6.8 MMBtu/hr natural gas-fired oven, and exhausting through stacks #9 and #10. The maximum oven lubricant usage is 40 gallons per 28 days.
- (b) Bun Line #3, identified as BU3, and constructed in 1960, with a maximum production rate of 3.3 tons of dough per hour, equipped with one (1) 5.25 million Btu per hour natural gas fired oven with propane used as emergency backup fuel. The maximum oven lubricant is 20.0 gallons per 28 days.
- (e) Bun Line #4, identified as BU4, approved for construction in 2008, with a maximum production rate of 12,000 pounds of dough per hour, equipped with one (1) 8.0 MMBtu per hour natural gas fired oven with propane used as emergency backup fuel, with emissions controlled by a 2.5 MMBtu/hr natural gas fired catalytic oxidizer, identified as CE1.**

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

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

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 2-8-4(1)] [326 IAC 8-1-6]

- (a) Pursuant to 326 IAC 2-8-4 (FESOP) and 326 IAC 8-1-6 (BACT), bread production and chain lubrication usage is limited such that VOC emissions from bread line BD1 shall not exceed 49.0 tons per thirteen (13) consecutive twenty-eight (28) day period with compliance determined at the end of each twenty-eight (28) days.
- (b) Pursuant to 326 IAC 2-8-4 (FESOP), bread production and chain lubrication usage is limited such that VOC emissions from bun line BU3 shall not exceed 17.0 tons per thirteen (13) consecutive twenty-eight (28) day period with compliance determined at the end of each twenty-eight (28) days.
- (c) **Pursuant to 326 IAC 8-1-6, the Permittee shall employ Best Available Control Technology (BACT) for emission unit BU4. BACT for emission unit BU4 has been determined to be:**
 - (1) **The VOC emissions from the bun oven (BU4) shall be controlled by a catalytic oxidizer.**
 - (2) **The minimum overall VOC control efficiency for the catalytic oxidizer (including the capture efficiency and destruction efficiency) shall be 95%, or the VOC outlet concentration shall not exceed 10 ppmv.**
 - (3) **The VOC emissions from the bun oven (BU4) shall not exceed 0.55 pounds per hour.**

Compliance with this limit for BU4 shall also satisfy the requirements of 326 IAC 2-8 and render 326 IAC 2-7 not applicable.

Combined with the VOC emissions from the boilers and the insignificant activities, the VOC emissions from the entire source are limited to less than 100 tons per thirteen (13) consecutive twenty-eight (28) day period. These limits ensure that source wide VOC emissions are limited to less than 100 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 are not applicable.

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

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this Permit, is required for Emission Unit BD1 and Emission Unit BU3, **Emission Unit BU4, and Emission Unit CE1.**

Compliance Determination Requirements

D.1.3 Volatile Organic Compounds (VOC)

Compliance with the VOC limitation contained in Condition D.1.1(a) and (b) shall be determined by:

- (a) The twenty-eight (28) day VOC emissions from the bread baking process are determined by the following equation:

$$\text{VOC (tons/28 days)} = P_i \times EF_i$$

Where

i = Type of bread

P_i = Bread production for type i bread

EF_i = VOC emission factor for type i bread

According to AP-42, Chapter 9.9.6 - Bread Baking:

$$\text{VOC emission factor (EF)} = 0.95 Y_i + 0.195 t_i - 0.51S - 0.86t_s + 1.90$$

where: Y_i = initial baker's % yeast to the nearest tenth of a percent
 t_i = total yeast action time in hours to the nearest tenth of an hour
 S = final (spike) baker's % yeast to the nearest tenth of a percent
 t_s = spiking time in hours to the nearest tenth of an hour

- (b) The VOC emissions from the chain lubrication shall be determined by the following equation:

$$\text{VOC (tons/28 days)} = \text{VOC content of chain lubrication (pounds per gallon)} \times \text{amount of chain lubricant used (gallons per 28 days)} \times 1 \text{ ton per 2000 pounds.}$$

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

In order to comply with Condition D.1.1(c), the catalytic oxidizer shall be in operation and control emissions from the bun oven at all times the bun oven is in operation.

D.1.5 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 Condition D.1.1(c), the Permittee shall perform VOC (including emission rate and overall control efficiency of the catalytic oxidizer) testing for the catalytic oxidizer, within 60 days after achieving the maximum capacity, but not later than 180 days after initial startup, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration.

D.1.6 Catalytic Oxidizer Temperature

- (a) A continuous monitoring system shall be calibrated, maintained, and operated on the catalytic oxidizer for measuring operating temperature. The output of this system shall be recorded as a three (3) hour average. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall operate the catalytic oxidizer at or above a three (3) hour average temperature of 600°F.
- (b) The Permittee shall determine the average temperature from the most recent valid stack test that demonstrates compliance with Condition D.1.1(c), as approved by IDEM and OES.
- (c) On and after the date the approved stack test results are available, the Permittee shall operate the catalytic oxidizer at or above the average temperature as observed during the compliant stack test.

D.1.7 Parametric Monitoring

- (a) The Permittee shall determine the most appropriate duct pressure or fan amperage from the most recent valid stack test that demonstrates compliance with the limit in D.1.1(c), as approved by IDEM and OES.
- (b) The duct pressure or fan amperage shall be observed at least once per day when the catalytic oxidizer is in operation. On and after the date the approved stack test results are available, 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 Requirements [326 IAC 2-8-4(3)]

D.4.4 1.8 Record Keeping Requirement

- (a) To document compliance with Conditions D.1.1(a) and (b), the Permittee shall maintain records in accordance with (1) through (6) below for bread lines BD1 and BU3. Records maintained for (1) through (6) shall be taken each twenty-eight (28) days and shall be complete and sufficient to establish compliance with the VOC emission limit established in Condition D.1.1.
- (1) The VOC content of each chain lubricant used.
 - (2) The amount of chain lubricant used for each twenty-eight (28) days.
 - (3) The amount of each type of the bread produced each twenty-eight (28) days.
 - (4) Information necessary to calculate the VOC emission factor for each type of bread made during the compliance period, including:
 - (A) The initial baker's percent of yeast;
 - (B) The total yeast action time in hours;
 - (C) The final (spike) baker's percent of yeast; and
 - (D) The spiking time in hours.
 - (5) The total weight of VOC emissions for each twenty-eight (28) days; and
 - (6) The total weight of VOC emitted for each compliance period.
- (b) To document compliance with Conditions D.1.1(c), D.1.6, and D.1.7, the Permittee shall maintain the following records for the catalytic oxidizer controlling the bun oven:
- (1) The continuous temperature records for the catalytic oxidizer and the 3-hour average temperature used to demonstrate compliance during the most recent compliant stack test.
 - (2) The daily records of the duct pressure or fan amperage for the catalytic oxidizer. 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 duct pressure or fan amperage reading (e.g. the process did not operate that day).
- ~~(b)~~ (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.4.5 1.9 Reporting Requirement

A quarterly summary of the information to document compliance with Conditions D.1.1(a) and (b) shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting form(s) located at the end of this Permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

The Table of Contents has also been revised to reflect the above changes.

Change 3:

On December 16, 2007, rule revisions to 326 IAC 2-1.1-9 and 326 IAC 2-8-4 were finalized allowing for ten (10) year permit terms on FESOP renewals. The Kroger Company - Indianapolis Bakery has requested this change to be included into their current permit renewal. The following changes were made to the cover page of the permit and permit condition B.4:

Issuance Date: April 10, 2007

Expiration Date: ~~April 10, 2012~~ **April 10, 2017**

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

- (a) This permit, F097-23672-00161, is issued for a fixed term of ~~five (5)~~ **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 and OES, 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.

Conclusion and Recommendation

The construction and operation of this proposed revision shall be subject to the conditions of the attached proposed FESOP Significant Permit Revision No. 097-25643-00161. The staff recommends to the Administrator that this FESOP Significant Permit Revision be approved.

Appendix A: Emission Calculations

BU4
Company Name: Kroger Company-Indianapolis Bakery
Address City IN Zip: 6801 English Avenue
Permit #: SPR097-25643-00161
Plt ID: 097-00161
Reviewer: AN
Date: 12/12/07

1. VOC Emissions from Bread Fermentation:

Maximum Production Rate: 12,000 lbs/hr or 6.0 tons/yr

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

- 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 1.85 lbs/ton

Therefore, the potential uncontrolled VOC emissions from bread baking =

$$6.0 \times 1.85 \text{ lbs/ton} \times 8760 \text{ hrs/yr} \times 1 \text{ tons}/2000 \text{ lbs} = \mathbf{48.61 \text{ tons/yr}}$$

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

Therefore, the potential uncontrolled HAP (acetaldehyde) emissions from bread baking =

$$48.61 \times 3\% = \mathbf{1.46 \text{ tons/yr}}$$

2. Emissions from Natural Gas Combustion:

Heat Input Capacity MMBtu/hr 8.0	Potential Throughput MMCF/yr 70.1
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Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO ₂	**NO _x	VOC	CO
Potential Emission in lbs/hr	0.015					
Potential Emission in tons/yr	0.07	0.27	0.02	3.50	0.19	2.94

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

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

Emission Factor in lb/MMcf	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Potential Emission in tons/yr	7.358E-05	4.205E-05	2.628E-03	6.307E-02	1.191E-04

Total HAPs	
Single	Combined
6.307E-02	6.613E-02

Emission Factor in lb/MMcf	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Potential Emission in tons/yr	1.752E-05	3.854E-05	4.906E-05	1.332E-05	7.358E-05

Methodology

All Emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF - 1,000,000 Cubic Feet of Gas

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

Emission Factors from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 3/98)

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

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

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

Appendix A: Emission Calculations

BU4
Company Name: Kroger Company-Indianapolis Bakery
Address City IN Zip: 6801 English Avenue
Permit #: SPR097-25643-00161
Plt ID: 097-00161
Reviewer: AN
Date: 12/12/07

3. Emissions from Propane Combustion:

Heat Input Capacity MMBtu/hr Potential Throughput kgals/year SO2 Emission factor = 0.10 x S
8.00 765.90 S = Sulfur Content = 15.00 grains/100ft³

Emission Factor in lb/kgal	Pollutant					
	PM*	PM10*	SO2 1.5 (0.10S)	NOx 14.0	VOC 0.5 **TOC value	CO 1.9
Potential Emission in tons/yr	0.2	0.2	0.6	5.4	0.2	0.7

*PM emission factor is filterable PM only. PM10 emission factor is assumed to be the same as PM based on a footnote in Table 1.5-1, therefore PM10 is filterable only as well.
 **The VOC value given is TOC. The methane emission factor is 0.2 lb/kgal.

Methodology

1 gallon of LPG has a heating value of 94,000 Btu
 1 gallon of propane has a heating value of 91,500 Btu (use this to convert emission factors to an energy basis for propane)
 (Source - AP-42 (Supplement B 10/96) page 1.5-1)
 Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.0915 MMBtu

Emission Factors are from AP42 (Supplement B 10/96), Table 1.5-1 (SCC #1-02-010-02)

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

Appendix A: Emission Calculations

CE1
Company Name: Kroger Company-Indianapolis Bakery
Address City IN Zip: 6801 English Avenue
Permit #: SPR097-25643-00161
Plt ID: 097-00161
Reviewer: AN
Date: 12/12/07

Heat Input Capacity
MMBtu/hr
2.5

Potential Throughput
MMCF/yr
21.9

	Pollutant					
	PM*	PM10*	SO ₂	**NO _x	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100	5.5	84.0
Potential Emission in lbs/hr	0.005					
Potential Emission in tons/yr	0.02	0.08	0.01	1.10	0.06	0.92

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

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

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	2.300E-05	1.314E-05	8.213E-04	1.971E-02	3.723E-05

Total HAPs	
Single	Combined
1.971E-02	2.066E-02

	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	5.475E-06	1.205E-05	1.533E-05	4.161E-06	2.300E-05

Methodology

All Emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF - 1,000,000 Cubic Feet of Gas

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

Emission Factors from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 3/98)

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

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

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

**Appendix A: Emission Calculations
Summary**

Company Name: Kroger Company-Indianapolis Bakery
Address City IN Zip: 6801 English Avenue
Permit #: SPR097-25643-00161
Plt ID: 097-00161
Reviewer: AN
Date: 12/12/07

Potential to Emit

Emission Unit	Fuel	PM	PM10	SO ₂	NO _x	VOC	CO	HAPs
BU4	natural gas	0.07	0.27	0.02	3.50	0.19	2.94	negligible
BU4	propane	0.15	0.15	0.57	5.36	0.19	0.73	negligible
BU4 bread fermentation						48.61		1.46
CE1	natural gas	0.02	0.08	0.01	1.10	0.06	0.92	negligible
Total		0.17	0.35	0.58	6.46	48.86	3.86	1.46

Appendix B

VOC CONTROL TECHNOLOGY / STATE BACT ANALYSIS for the BUN OVEN

Source Background and Description

Source Name The Kroger Company - Indianapolis Bakery
Source Location: 6801 English Avenue, Indianapolis, IN 46219
County: Marion
SIC Code: 2051
SPR No.: 097-25643-00161
Permit Reviewer: Anh-tuan Nguyen

The Kroger Company - Indianapolis Bakery submitted a permit application on December 12, 2007 requesting to install a new bun oven with associated control device (catalytic oxidizer). The new oven and oxidizer will burn natural gas. The new oven will also generate potential VOC emissions over twenty-five (25) tons.

The proposed new bun oven unit will have the potential to generate VOC emissions from the ethanol produced by the yeast fermentation of the dough. The estimated uncontrolled VOC emission rate is provided in the table below:

Emission Unit	Emission Unit Identification No.	Uncontrolled VOC Emissions (TPY)
Bun Oven	BU4	48.6

Pursuant to 326 IAC 8-1-6 (New Facilities; General Reduction Requirements), BACT is required for all facilities constructed after January 1, 1980 that have potential VOC emissions of equal to or greater than twenty-five (25) tons per year and are not regulated by other rules in 326 IAC 8. Based on the calculations (see Appendix A) and the analysis of applicable state regulations (see State Rule Applicability section of TSD), the one (1) bun oven (BU4) is subject to the requirements of 326 IAC 8-1-6.

The following BACT analysis is an evaluation of VOC BACT for the bun oven, identified as BU4 using the "Top Down BACT Guidance" published by the U.S. EPA, Office of Air Quality Planning and Standards, March 15, 1990.

Several sources were consulted regarding similar operations and associated controls implemented. These sources include the U.S. EPA RACT/BACT/LAER Clearinghouse database for process type (70.550 - Bakery Oven), recent permit applications, USEPA, air permitting authorities, and equipment vendors.

BACT Definition and Applicability

Federal guidance on BACT requires an evaluation that follows a "top down" process. In this approach, the applicant identifies the best-controlled similar source on the basis of controls required by the regulation or the permit, or the controls achieved in practice. The highest level of the control is then evaluated for technical feasibility.

The five basic steps of a top-down BACT analysis are listed below:

Step 1: Identify Potential Control Technologies

The first step is to identify potentially “available” control options for each emission unit and for each pollutant under review. Available options should consist of a comprehensive list of those technologies with a potentially practical application to the emissions unit in question. The list should include lowest achievable emission rate (LAER) technologies, innovative technologies and controls applied to similar source categories.

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.

Step 3: Rank The Remaining Control Technologies By Control Effectiveness

The third step is to rank the technologies not eliminated in Step 2 in order of descending control effectiveness for each pollutant of concern. If the highest ranked technology is proposed as BACT, it is not necessary to perform any further technical or economic evaluation, except for the environmental analyses.

Step 4: Evaluate The Most Effective Controls And Document The Results

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

Step 5: Select BACT

The fifth and final step is to select as BACT the most effective of the remaining technologies under consideration for each pollutant of concern. 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.

Step 1 – Identify Control Options

The following control technologies were identified and evaluated to control VOC emissions from the bun oven:

- (a) Carbon Adsorption
- (b) Condensation
- (c) Wet Packed Bed Scrubber
- (d) Biofiltration
- (e) Catalytic Oxidation
- (f) Thermal Oxidation

Step 2 – Eliminate Technically Infeasible Control Options

The test for technical feasibility of any control option is whether it is both available and applicable to reducing VOC emissions from the bun oven. The previously listed information resources were consulted to determine the extent of applicability of each identified control alternative.

- (a) Carbon Adsorption - Activated carbon beds have a track record of successful application for adsorbing specific VOC emissions. However, the application of the technology is subject to certain limitations which can negate its applicability for specific organic streams. Whenever an exhaust stream contains other contaminants such as particulates and moisture, the technology loses its efficiency. Moisture in the exhaust stream, and the presence of ketones, has proven to add operational difficulties to the effectiveness of carbon adsorption. Hot exhaust streams typically require cooling prior to the adsorption. This option is technically infeasible for baking operations because the fats and oils in the oven exhaust clog the carbon pores and ethanol is very difficult to strip from the carbon. Therefore, carbon adsorption is eliminated from further consideration due to technical infeasibility in this BACT analysis
- (b) Condensation - Condensation operates by chilling or pressurizing the VOC laden air stream and collecting the heavier hydrocarbon vapors. This technique has proven most efficient for effective streams containing VOCs with higher boiling points and at high VOC concentrations. This option is technically infeasible for baking operations because of the 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. Therefore, condensation is eliminated from further consideration due to technical infeasibility in this BACT analysis.
- (c) Wet Packed bed Scrubbing - In wet scrubbing, certain VOCs can be removed from a gas stream by using an appropriate scrubbing liquid which is dispersed over packed columns containing packing material. Mass transfer of a VOC occurs when the scrubbing liquid and the contaminated gas stream come into contact. VOCs are absorbed into the liquid and removed from the gas stream. VOC destruction is listed between 75% to 95%. This option is technically feasible however the environmental impact is transferred to the wastewater generated in by this process.
- (d) Catalytic oxidation is the process of oxidizing organic contaminants in a waste gas stream within a heated chamber containing a catalyst bed in the presence of oxygen for sufficient time to completely oxidize the organic contaminants to carbon dioxide and water. The catalyst is used to lower the activation energy of the oxidation reaction. The residence time, temperature, flow velocity and mixing, the oxygen concentration, and type of catalyst used in the combustion chamber affect the oxidation rate and destruction efficiency. Catalytic oxidizers typically require combustion of an auxiliary fuel (e.g., natural gas) to maintain combustion chamber temperature high enough to completely oxidize the contaminant gases. Catalytic oxidizers operate at lower temperatures and require less fuel than thermal oxidizers, they have a smaller footprint, and they need little or no insulation. Catalytic oxidizers are typically designed to have a residence time of 0.5 seconds or less and combustion chamber temperatures between 600 and 1,200°F. The types of catalysts used include platinum, platinum alloys, copper chromate, copper oxide, chromium, manganese, and nickel. These catalysts are deposited in thin layers on an inert substrate, usually a honeycomb shaped ceramic.

The two types of catalytic oxidation systems include recuperative and regenerative catalytic oxidizers, which are differentiated by the type of heat recovery equipment used. In a recuperative catalytic oxidizer, the waste gas stream is preheated using the heat content of

the treated gas stream, resulting in improved oxidizer efficiency and significant fuel cost savings. In a regenerative thermal oxidizer, a high-density media such as a packed ceramic bed, which was heated in a previous cycle, is used to preheat the incoming waste gas stream, resulting in improved oxidizer efficiency and significant fuel cost savings. VOC destruction efficiencies greater than 98% are achievable under certain operating conditions (EPA-453/R-92-017). However, based on the information reviewed for this BACT determination, a VOC destruction efficiency of 95% or a VOC outlet concentration of 10 ppmv or less is achievable on a consistent basis under normal operational conditions for a typical bakery bread oven. Therefore, this option is technically feasible.

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

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

Step 3 – Rank Remaining Control Technologies by Control Effectiveness

As shown in Steps 1 and 2, the only remaining viable control technologies for the bun oven is wet packed bed scrubbing, thermal oxidation, and catalytic oxidation. These types of technologies have been shown to be effective at reducing VOC emissions.

Rank	Control Option	Control Efficiency (%)
1	Catalytic Oxidation	95
2	Thermal Oxidation	95
3	Wet Scrubber	75 - 95

Step 4 – Evaluate the Most Effective Controls and Document Results

The following sources of information were reviewed to evaluate the remaining technically feasible options for controlling VOC emissions from the new bread oven:

- (a) The Alternative Control Technology Document for Bakery Oven Emissions (EPA-453/R-92-017) concludes that thermal oxidation and catalytic oxidization are technically feasible control options, with catalytic oxidation more cost-effective than thermal oxidation. Catalytic oxidization is the primary control technology used throughout the country for controlling VOC emissions from large bakery ovens. Also, the document concludes that wet scrubbing is not considered feasible for VOC reduction for bakery ovens.
- (b) The review of EPA's RACT/BACT/LAER Clearinghouse (RBLC) under SIC code 2051 and under Process Type Code 70.550 (Bakery Oven), as well as IDEM permits issued to date, identified the following permits with BACT requirements for bakery ovens (listed in descending order of most stringent BACT requirement, with the proposed BACT for this source included for reference):

Company	RBLC ID or Permit No.	Date Issued and State	Type of Unit	BACT Requirements	Note
Allen Foods, Inc.	F097-22633-00643	9/13/06 (IN)	Bakery Oven	Catalytic Oxidizer with 95% DRE or VOC outlet concentration shall not exceed 10 ppmv.	Located in an Ozone Non-attainment Area
Certified Grocers of California Ltd.	RBLC ID: CA-0468 Permit No.: 228274 & 219899	9/14/90 (CA)	Bakery Oven	Catalytic Afterburner with 95% DRE.	Located in an Ozone Non-attainment Area
Freund Baking Company	RBLC ID: CA-0859 Permit No.: 328570	7/16/97 (CA)	Bakery Oven	Catalytic Oxidizer with 94.5% DRE	Located in an Ozone Non-attainment Area
Maple Leaf Bakery	RBLC ID: CA-0854 Permit No.: 0473-170	10/6/98 (CA)	Bakery Oven	Catalytic Oxidizer with 92% DRE	Located in an Ozone Non-attainment Area
Holsum Bakery	RBLC ID: AZ-0029 Permit No.: 95-0432	3/1/96 (AZ)	Bakery Oven	Quencher/Scrubber Emission Limit: 49 tons/yr VOC	Located in an Ozone Non-attainment Area
Kroger Company - Indianapolis Bakery	SPR097-16909-00161	5/1/03 (IN)	Bakery Oven	No Add On Control Required. Emission limit: 49 tons/yr VOC from the bread oven.	Located in an Ozone Non-attainment Area
Holsum of Fort Wayne, In.	SPM091-21007-00106	7/26/05 (IN)	Bakery Oven	No Add On Control Required. Emission limit: 60 tons/yr VOC from the bread oven.	Located in an Ozone Non-attainment Area
Interstate Brands	F097-7413-00171	12/12/97 (IN)	Bakery Oven	No Add On Control Required. Emission limit: 91.4 tons/yr VOC from the entire source.	Located in an Ozone Attainment Area

- (c) The Kroger Company - Indianapolis Bakery provided the following summaries for five (5) permitted sources with bakery ovens, which are not documented in the RBLC (listed in descending order by date issued):

Plant/ Facility Description	RBLC ID or Permit #	Date Issued and State	Emission Unit	VOC Control Technology/VOC Emissions Limit
Allen Foods Inc.	F039-22633-00643	7/13/06 Indiana	Bread Oven	Catalytic Oxidation with 95% DRE
George Weston Bakeries, Inc.	067-0038	7/04 Connecticut	Bread/Roll Ovens	Catalytic Oxidation with 95% DRE
Butter Krust Baking Company, Inc.	24-07779698-2	12/4/01 Pennsylvania	Bread Oven	Catalytic Oxidation with 95% DRE
George Weston Bakeries, Inc.	08104R05	5/9/05 North Carolina	Bread Oven	Catalytic Oxidation with 95% DRE
Stroehmann Bakeries, L.C.	PA-46-003A	5/4/01 Pennsylvania	Bread/Roll Ovens	Catalytic Oxidation with 95% DRE

Step 5 – Select BACT

Based on the information presented above, the most effective control technology or top alternative for controlling VOC emissions from the bun oven is a catalytic oxidizer. Catalytic oxidation is the primary control option used throughout the country to control VOC emissions from large bakery ovens.

The Kroger Company - Indianapolis Bakery has proposed the catalytic oxidizer as BACT therefore an economic analysis is not necessary.

BACT Conclusion:

IDEM, OAQ and OES have determined that the following requirements represent BACT for the new bun oven (BU4) at the source:

- (a) The VOC emissions from the bun oven (BU4) shall be controlled by a catalytic oxidizer.
- (b) The overall VOC control efficiency for the catalytic oxidizer (including the capture efficiency and destruction efficiency) shall be 95%, or the VOC outlet concentration shall not exceed 10 ppmv.
- (c) The VOC emissions from the bun oven (BU4) shall not exceed 0.55 pounds per hour.