

May 1, 2003

Mr. Donald Krapinski
The Kroger Company - Indianapolis Bakery
6801 English Avenue
Indianapolis, Indiana 46219

Re: 097-16909-00161
First Significant Permit Revision to:
FESOP 097-14050-00161

Dear Mr. Krapinski:

The Kroger Company - Indianapolis Bakery was issued a permit on June 27, 2002 for a bakery. A letter requesting a revision to this permit was received on December 16, 2002. Pursuant to the provisions of 326 IAC 2-8-11.1, a significant permit revision to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of replacing the two (2) existing bread lines BR1 and BR2 with a new bread line BD1.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

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

Effective Date of the Permit

3. Pursuant to IC 13-15-5-3, this approval to construct becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

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

Office of Environmental Services (OES) has assigned the processing of this application to Eastern Research Group, Inc. (ERG). Therefore, questions should be directed to Ms. Yu-Lien Chu, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919) 468-7871 to speak directly to Ms. Chu. Questions may also be directed to Monica Dick of my staff at (317) 327-2512.

Originally signed by John B. Chavez

John B. Chavez
Administrator

Attachments

ERG/YC

cc: File - Marion County
U.S. EPA, Region V
Marion County Health Department
OES - Monica Dick
Air Compliance Section Inspector - Donald Riggins
Compliance Data Section - Karen Nowak
Administrative and Development - Sara Cloe
Technical Support and Modeling - Michele Boner

**Federally Enforceable State
Operating Permit (FESOP) Renewal
Indiana Department of Environmental Management
Office Of Air Quality
and
City of Indianapolis
Office of Environmental Services**

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

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 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.

Operation Permit No.: F097-14050-00161	
Issued by: John B. Chavez, Administrator Office of Environmental Services	Issuance Date: June 27, 2002 Expiration Date: June 27, 2007

First Significant Permit Revision No.: 097-16909-00161	Affected pages: 5, 27-29, 31, 37 and 38
Issued by: Originally signed by John B. Chavez John B. Chavez, Administrator Office of Environmental Services	Issuance Date: May 1, 2003

TABLE OF CONTENTS

SECTION A	SOURCE SUMMARY	5
A.1	General Information [326 IAC 2-8-4]	
A.2	Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-4]	
A.3	Insignificant Activities [326 IAC 2-8-4]	
A.4	FESOP Applicability [326 IAC 2-8-2]	
A.5	Prior Permit Superseded [326 IAC 2-1.1-9.5]	
SECTION B	GENERAL CONDITIONS	8
B.1	Permit No Defense [IC 13]	
B.2	Definitions [326 IAC 2-8-1]	
B.3	Permit Term [326 IAC 2-8-4(2)]	
B.4	Enforceability [326 IAC 2-8-6]	
B.5	Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3 (h)]	
B.6	Severability [326 IAC 2-8-4(4)]	
B.7	Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]	
B.8	Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)][326 IAC 2-8-5(a)(4)]	
B.9	Compliance Order Issuance [326 IAC 2-8-5(b)]	
B.10	Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]	
B.11	Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)]	
B.12	Annual Compliance Certification [326 IAC 2-8-5(a)(1)]	
B.13	Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)]	
B.14	Emergency Provisions [326 IAC 2-8-12]	
B.15	Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]	
B.16	Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]	
B.17	Permit Renewal [326 IAC 2-8-3(h)]	
B.18	Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]	
B.19	Operational Flexibility [326 IAC 2-8-15]	
B.20	Permit Revision Requirement [326 IAC 2-8-11.1]	
B.21	Inspection and Entry [326 IAC 2-8-5(a)(2)] [I13-14-2-2]	
B.22	Transfer of Ownership or Operation [326 IAC 2-8-10]	
B.23	Annual Fee Payment [326 IAC 2-7-19][326 IAC 2-8-4(6)] [326 IAC 2-8-16]	
SECTION C	SOURCE OPERATION CONDITIONS	19
	Emission Limitations and Standards [326 IAC 2-8-4(1)]	
C.1	Overall Source Limit [326 IAC 2-8]	
C.2	Opacity [326 IAC 5-1]	
C.3	Open Burning [326 IAC 4-1][IC 13-17-9]	
C.4	Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]	
C.5	Fugitive Dust Emissions [326 IAC 6-4]	
C.6	Operation of Equipment [326 IAC 2-8-5(a)(4)]	
C.7	Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]	
	Testing Requirements [326 IAC 2-8-4(3)]	
C.8	Performance Testing [326 IAC 3-6]	
	Compliance Requirements [326 IAC 2-1.1-11]	
C.9	Compliance Requirements [326 IAC 2-1.1-11]	

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

TABLE OF CONTENTS (Continued)

- C.10 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]
- C.11 Maintenance of Monitoring Equipment [326 IAC 2-8-4(3)(A)(iii)]
- C.12 Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5]

- C.13 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]
- C.14 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]
- C.15 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4] [326 IAC 2-8-5]
- C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

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

- C.17 Emission Statement [326 IAC 2-6] [326 IAC 2-8-4(3)]
- C.18 General Record Keeping Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-5]
- C.19 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

Stratospheric Ozone Protection

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

SECTION D.1 FACILITY OPERATION CONDITIONS 27

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]
- D.1.2 Particulate [326 IAC 6-3-2]
- D.1.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

Compliance Determination Requirements

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

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

- D.1.5 Record Keeping Requirements
- D.1.6 Reporting Requirements

SECTION D.2 FACILITY OPERATION CONDITIONS 30

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

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

Compliance Determination Requirements

- D.2.2 Reporting Requirements

SECTION D.3 FACILITY OPERATION CONDITIONS - Insignificant Activities 31

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

- D.3.1 Particulate Matter (PM) [326 IAC 6-2-4]
- D.3.2 Particulate Matter PM[326 IAC 6-3]
- D.3.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]
- D.3.4 Volatile Organic Compounds (VOC) [326 IAC 8-3-5(a)]

Certification Form 34
Emergency Occurrence Form 35
Quarterly Report Form 37, 38
Quarterly Deviation and Compliance Monitoring Report Form 39

TABLE OF CONTENTS (Continued)

Natural Gas Fired Boiler Certification 41

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 the City of Indianapolis 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 2-8-4]

The Permittee owns and operates a bakery.

Authorized individual:	General Manager
Source Address:	6801 English Avenue, Indianapolis, IN 46219
Mailing Address:	6801 English Avenue, Indianapolis, IN 46219
General Source Phone:	(317) 322-5043
SIC Code:	2051
County Location:	Marion
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, Under PSD Minor Source Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Summary [326 IAC 2-8-4]

The 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 a 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. Maximum throughput of 3.3 tons of dough per hour. Oven lubricant maximum usage of 20.0 gallons per month. Equipped with one (1) 5.25 million Btu per hour natural gas fired oven. Propane used as emergency backup fuel. Constructed in 1960.
- (c) One (1) natural gas fired boiler identified as Boiler # 2. Maximum heat input of 10.04 million Btu per hour. Propane fired as an emergency backup fuel. Constructed between 1972 & 1983.
- (d) One (1) natural gas fired boiler identified as Boiler # 3. Maximum heat input of 10.04 million Btu per hour. Propane fired as an emergency backup fuel. Constructed in 1969.

A.3 Insignificant Activities [326 IAC 2-8-4]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(20):

- (a) Natural gas combustion units less than 10 million Btu per hour;
- (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;

- (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
- (j) Air make-up units;
- (k) Cake oven #4 maximum process rate (P) of .33 tons per hour (1.75 MMBtu per hour natural gas combustion emissions);
- (l) Cake oven #5 maximum process rate (P) of .33 tons per hour (1.75 MMBtu per hour natural gas combustion emissions);
- (m) Flour handling system;
- (n) Propane tank;
- (o) Parts washer;
- (p) One (1) natural gas fired boiler, 6.7 million Btu per hour;
- (q) One (1) natural gas fired Basket Washer (<1 mmBTU per hour);
- (r) Boiler # 1 Natural Gas-fired-6.7 mmBtu per hour;
- (s) Boiler # 4 Natural Gas-fired-6.7 mmBtu per hour;
- (t) Boiler # 5 Natural Gas-fired-6.7 mmBtu per hour.

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 Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and OES for a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either
 - (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deletedby this permit.
- (b) All previous registrations and permits are superseded by this permit.

SECTION B GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

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.

B.2 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.3 Permit Term [326 IAC 2-8-4(2)]

This permit is issued for a fixed term of five (5) years from the original date, 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.

B.4 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, Office of Environmental Services, 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 the Office of Environmental Services.

B.5 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.6 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.7 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.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]

- (a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

City of Indianapolis
Office of Environmental Services
Air Quality Management Section
2700 South Belmont Avenue

Indianapolis Indiana 46221-2097

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

- (b) The Permittee shall furnish to IDEM, OAQ, and OES within a reasonable time, any information that IDEM, OAQ, and/or 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 the “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 or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality.[326 IAC 2-8-4(5)(E)]
- (c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17. 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.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ and/or 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.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:
 - (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; and
 - (3) Denial of a permit renewal application.
- (b) 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.
- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in condition B, Emergency Provisions.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)]

- (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.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.12 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 in letter form no later than April 15 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

City of Indianapolis
Office of Environmental Services
Air Quality Management Section
2700 South Belmont Avenue
Indianapolis Indiana 46221-2097

- (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/or 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, IDEM, OAQ, and/or OES may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ and/or OES upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ and/or OES. IDEM, OAQ and/or OES may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept 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 and/or OES within a reasonable time.

B.14 Emergency Provision [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 describes the following:
 - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ or 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 No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section) or,

Telephone No.: 317-233-5674 (ask for Compliance Section)

Facsimile No.: 317-233-5967

OES

Telephone No.: 317/327-2234

Facsimile No.: 317/327-2274

Failure to notify IDEM, OAQ or OES, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

- (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 Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and
City of Indianapolis
Office of Environmental Services
Air Quality Management Section
2700 South Belmont Avenue
Indianapolis Indiana 46221-2097

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 the "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) IDEM, OAQ and/or 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 or 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.

B.15 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 Provision), 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, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

City of Indianapolis
Office of Environmental Services
Air Quality Management Section
2700 South Belmont Avenue
Indianapolis Indiana 46221-2097

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 need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "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.
- (c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

B.16 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 FESOP 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 the "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 or 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/or 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 or OES at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ or OES may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 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/or 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 the "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, P.O. Box 6015
Indianapolis, IN 46206-6015

and

City of Indianapolis
Office of Environmental Services
Air Quality Management Section
2700 South Belmont Avenue
Indianapolis Indiana 46221-2097

- (b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]
 - (1) A timely renewal application is one that is:
 - (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (B) 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/or OES on or before the date it is due.
 - (2) If IDEM, OAQ and/or OES upon receiving a timely and complete 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.
- (c) Right to Operate After Application for Renewal [326 IAC 2-8-9]

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/or 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 needed to process the application.

B.18 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, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

City of Indianapolis
Office of Environmental Services
Air Quality Management Section
2700 South Belmont Avenue
Indianapolis Indiana 46221-2097

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement the 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.19 Operational Flexibility [326 IAC 2-8-15]

(a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without 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 emissions allowable under 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, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

City of Indianapolis

Office of Environmental Services
Air Quality Management Section
2700 South Belmont Avenue
Indianapolis Indiana 46221-2097

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 which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to 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), (c)(1), and (d).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in 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).
- (d) 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.

B.20 Permit Revision 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.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to

assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ and/or OES, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements

B.22 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, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

City of Indianapolis
Office of Environmental Services
Air Quality Management Section
2700 South Belmont Avenue
Indianapolis Indiana 46221-2097

The application which shall be submitted by the Permittee does require the certification by the "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 2-8-11(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) 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 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

C.1 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 from the entire source shall be limited to less than one-hundred (100) tons per three hundred sixty-five (365) consecutive day period. This limitation shall also make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable; and
- (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 three hundred sixty-five (365) consecutive day 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) 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.

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

C.2 Opacity [326 IAC 5-1]

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

- (a) Opacity shall not exceed an average of thirty percent (30%) opacity in twenty-four (24) consecutive readings as determined by 326 IAC 5-1-4,
- (b) Opacity shall not exceed sixty percent (60%) opacity for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

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

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

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

C.5 Fugitive Dust Emissions [326 IAC 6-4]

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

C.6 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

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).

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality Compliance Data Section
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

City of Indianapolis
Office of Environmental Services
Air Quality Management Section
2700 South Belmont Avenue
Indianapolis Indiana 46221-2097

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "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 14-10-4 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) **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. The requirement that the inspector be accredited is federally enforceable.

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

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

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

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

City of Indianapolis
Office of Environmental Services
Air Quality Management Section
2700 South Belmont Avenue
Indianapolis Indiana 46221-2097

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

Compliance Requirements [326 IAC 2-1.1-11]

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

The Commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. 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 upon issuance of this permit. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

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

C.11 Maintenance of Monitoring Equipment [326 IAC 2-8-4(3)(A)(iii)]

- (a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hour until such time as the continuous monitor is back in operation.
- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing performed 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.

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

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

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

- (a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on April 12, 1996.
- (b) Upon direct notification by IDEM, OAQ and/or OES that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.14 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.15 Compliance Response Plan - Preparation, Implementation, Records, and Reports
[326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ and OES upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and is comprised of:
- (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.
 - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
- (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or
 - (2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
 - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.
 - (4) Failure to take reasonable response steps shall constitute a violation of the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
- (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
 - (3) An automatic measurement was taken when the process was not operating.

- (4) The process has already returned or is returning to operating within “normal” parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

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

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

The documents submitted pursuant to this condition do not require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

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

C.17 Emission Statement [326 IAC 2-6] [326 IAC 2-8-4(3)]

- (a) The Permittee shall submit a certified, annual emission statement that meets the requirements of 326 IAC 2-6 (Emission Reporting). This annual statement must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8) (Emission Statement Operating Year). The annual statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Office of Environmental Services
Air Quality Management Compliance Data Section

2700 South Belmont Avenue
Indianapolis, Indiana 46221

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

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

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

- (a) Records of all required data, reports and support information 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 kept 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.19 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (a) The source 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 the "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, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

City of Indianapolis
Office of Environmental Services
Air Quality Management Section
2700 South Belmont Avenue
Indianapolis Indiana 46221-2097

- (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/or OES on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period.

The report does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

- (e) Reporting periods are based on calendar years.

Stratospheric Ozone Protection

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

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

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

SECTION D.1

FACILITY OPERATION CONDITIONS

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

- (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 a 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 (Emission Unit ID BU3) . Maximum throughput of 3.3 tons of dough per hour. Oven lubricant maximum usage of 20.0 gallons per month. Equipped with one (1) 5.25 million Btu per hour natural gas fired oven. Propane used as emergency backup fuel. Installed in 1960.

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

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

D.1.1 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), VOC emissions from bread line BD1, including the use of chain lubrication, 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), VOC emissions from bun line BU3, including the use of chain lubrication, 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.

With the combined VOC emissions from the ovens, 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. Therefore, the requirements of 326 IAC 2-7 are not applicable.

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

Pursuant to 326 IAC 6-3-2, particulate emissions from the Emission Units BU3 and BD1 shall not exceed the pound per hour emission rate established as E in the following formula:

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

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

- (a) Particulate emissions shall not exceed 14.1 pounds per hour for Emission Unit ID BD1 based on a process weight rate of 6.3 tons per hour.
- (b) Particulate emissions shall not exceed 9.1 pounds per hour for Emission Unit ID BU3 based on a process weight rate of 3.3 tons per hour.

D.1.3 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 Units BD1 and BU3.

Compliance Determination Requirements

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

Compliance with the VOC limitation contained in Condition D.1.1 shall be determined by:

(a) Compliance with the VOC usage limitations contained in condition D.1.1 for the use of chain lubrication shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ, and OES reserve the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

(b) The monthly VOC emissions from the bread baking process are determined by the following equation:

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

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:

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

- 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

IDEM, OAQ and OES reserve the authority to determine compliance using alternate method(s) as approved by the Administrator.

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

D.1.5 Record Keeping Requirements

(a) To document compliance with Condition D.1.1, the Permittee shall maintain records in accordance with (1) through (5) below for each bread line. Records maintained for (1) through (5) 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) The total VOC emissions for each twenty-eight (28) days; and
- (5) The weight of VOCs emitted for each compliance period.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.6 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 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

FACILITY OPERATION CONDITIONS

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

- (c) One (1) natural gas fired boiler identified as Boiler # 2. Maximum heat input of 10.04 million Btu per hour. Propane fired as an emergency backup fuel. Constructed between June 8, 1972 and September 21, 1983.
- (d) One (1) natural gas fired boiler identified as Boiler # 3. Maximum heat input of 10.04 million Btu per hour. Propane fired as an emergency backup fuel. Constructed in 1969.

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

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

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

Pursuant to 326 IAC 6-2-2(a) Particulate emissions from indirect heating facilities constructed prior to September 21, 1983 and located in Marion County, Boiler # 2 and Boiler # 3 shall be limited based on the following equation:

$$Pt = \frac{0.87}{Q^{0.16}}$$

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 per hour) 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 operation 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.

- (a) Pursuant to 326 IAC 6-2-2(c) Boiler # 2, with a Q = 20.08, Pt shall not exceed 0.54 pounds per mmBtu.
- (b) Pursuant to 326 IAC 6-2-2(b) Boiler # 3, with a Q = 10.04, Pt shall not exceed 0.60 pounds per mmBtu.

D.2.2 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.2.1 shall be submitted using the attached natural gas fired boiler certification to the address listed in Section C - General Reporting Requirements, 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.3

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)] Insignificant Activities

- (b) Brazing equipment, cutting torches, soldering equipment and welding equipment not resulting in the emission of HAPs.
- (i) Degreasing Operations Cleaners and solvents, that do not exceed 145 gallons usage per 12 months, except if subject to 326 IAC 20-6 Constructed prior to 1980.
- (k) Cake oven #4 maximum process rate (P) of .33 tons per hour (1.75 MMBtu per hour natural gas combustion emissions).
- (l) Cake oven #5 maximum process rate (P) of .33 tons per hour (1.75 MMBtu per hour natural gas combustion emissions).
- (m) Flour handling system;
- (r) Boiler # 1 Natural Gas-fired-6.7 MMBtu per hour constructed after September 21,1983.
- (s) Boiler # 4 Natural Gas-fired-6.7 MMBtu per hour constructed after September 21,1983.
- (t) Boiler # 5 Natural Gas-fired-6.7 MMBtu per hour constructed after September 21,1983.

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

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

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

Pursuant to 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating, PM emissions from Boiler # 1, # 4 and # 5 shall each be limited to 0.4 pounds per million BTU of heat input.

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

- (a) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from Cake Oven # 4 and Cake Oven # 5 shall each not exceed the allowable PM emission rate for dough usage based on the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

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

For Cake Oven # 4, E shall not exceed; 2.0 pounds PM per hour
Where P = .33 tons per hour

For Cake Oven # 5, E shall not exceed; 2.0 pounds PM per hour
Where P = .33 tons per hour

- (b) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate for the flour handling system, brazing equipment, cutting torches, soldering equipment and welding equipment shall not exceed the allowable PM emission rate based on the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

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

D.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)]

- (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.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
and
CITY OF 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, IN 46219
Mailing Address: 6801 English Avenue, Indianapolis, IN 46219
FESOP Permit No.: F097-14050-00161

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 DATA SECTION
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967
CITY OF INDIANAPOLIS
OFFICE of ENVIRONMENTAL SERVICES
DATA COMPLIANCE
2700 South Belmont Avenue
Indianapolis, Indiana 46221
Phone:317-327-2234
Fax:317-327-2274**

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

Source Name: The Kroger Company-Indianapolis Bakery
Source Address: 6801 English Avenue, Indianapolis, IN 46219
Mailing Address: 6801 English Avenue, Indianapolis, IN 46219
FESOP Permit No.: F097-14050-00161

This form consists of 2 pages

Page 1 of 2

☛ This is an emergency as defined in 326 IAC 2-7-1(12)
☐ The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
☐ The Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), 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
 SPR Permit No.: F097-16909-00161
 Facility: Bread Line BD1
 Parameter: VOC Emissions
 Limit: 49 tons per thirteen (13) consecutive twenty-eight (28) day period with compliance determined at the end of each twenty-eight (28) days.

YEAR: _____

28 day period ending date	Column 1	Column 2	Column 1 + Column 2
	This twenty-eight (28) day period	Previous 12 twenty-eight (28) day period	Total

- 9 No deviation occurred in this quarter.
- 9 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**

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
 SPR Permit No.: F097-16909-00161
 Facility: Bun Line BU3
 Parameter: VOC Emissions
 Limit: 17 tons per thirteen (13) consecutive twenty-eight (28) day period with compliance determined at the end of each twenty-eight (28) days.

YEAR: _____

28 day period ending date	Column 1	Column 2	Column 1 + Column 2
	Twenty-eight (28) day period	Previous 12 twenty-eight (28) day period	Total

- 9 No deviation occurred in this quarter.
- 9 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.

**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, IN 46219
 Mailing Address: 6801 English Avenue, Indianapolis, IN 46219
 FESOP Permit No.: F097-14050-00161

Months: _____ to _____ Year: _____ Page 1 of 2

<p>This report is an affirmation that the source has met all the requirements stated in this permit. 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. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".</p>	
<p><input checked="" type="radio"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.</p>	
<p><input checked="" type="radio"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD</p>	
<p>Permit Requirement (specify permit condition #)</p>	
<p>Date of Deviation:</p>	<p>Duration of Deviation:</p>
<p>Number of Deviations:</p>	
<p>Probable Cause of Deviation:</p>	
<p>Response Steps Taken:</p>	
<p>Permit Requirement (specify permit condition #)</p>	
<p>Date of Deviation:</p>	<p>Duration of Deviation:</p>
<p>Number of Deviations:</p>	
<p>Probable Cause of Deviation:</p>	
<p>Response Steps Taken:</p>	

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.

**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)
NATURAL GAS FIRED BOILER CERTIFICATION**

Source Name: The Kroger Company-Indianapolis Bakery
Source Address: 6801 English Avenue, Indianapolis, IN 46219
Mailing Address: 6801 English Avenue, Indianapolis, IN 46219
FESOP Permit No.: F097-14050-00161

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

Report period

Beginning: _____
Ending: _____

Boiler Affected

Alternate Fuel
FromTo

Days burning alternate fuel

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:

Attach a signed certification to complete this report.

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

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

Source Background and Description

Source Name:	The Kroger Company - Indianapolis Bakery
Source Location:	6801 English Avenue, Indianapolis, Indiana 46219
County:	Marion
SIC Code:	2051
Operation Permit No.:	097-14050-00161
Operation Permit Issuance Date:	June 27, 2002
Permit Revision No.:	097-16909-00161
Permit Reviewer:	ERG/YC

The Office of Air Quality (OAQ) and the Office of Environmental Services (OES) have reviewed a revision application from the Kroger Company - Indianapolis Bakery (referred to as "Kroger") relating to the construction and operation of the following unit:

- (a) One (1) bread line, identified as BD1, with a maximum production rate of 6.3 tons of bread per hour, equipped with a 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. This unit will replace the existing bread lines BR1 and BR2.

History

On December 13, 2002, Kroger submitted an application to the OAQ and OES requesting to replace two (2) existing bread lines BR1 and BR2 with a new bread line BD1. There were two (2) bread lines (BR1, BR2) and one (1) bun line (BU3) at Kroger. The VOC emissions from the these existing lines are limited to less than 66 tons per thirteen (13) consecutive twenty eight (28) day period in FESOP #097-14050-00161, issued on June 27, 2002. The new bread line BD1 was permitted to construct in interim permit #097-16909-00161, issued on December 30, 2002, and has been constructed. Bread lines BR1 and BR2 have been removed from the source.

Existing Approvals

The source was issued a FESOP renewal 097-14050-00161 on June 27, 2002. The source has since received the following:

- (a) Interim Permit No. 097-16909i-00161, issued on December 30, 2002.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
Stack #9	BD1	32	1.17	2,400	440
Stack #10	BD1	32	1.17	4,200	440

Recommendation

The staff recommends to the Commissioner that the Significant Permit Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on December 16, 2002. Additional information was received on February 19, 2003.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, pages 1 and 2).

Potential To Emit of the Revision

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source 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.”

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	0.23
PM-10	0.23
SO ₂	0.02
VOC	87.1
CO	2.50
NO _x	2.98

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
TOTAL	Negligible

Justification for Revision

The FESOP is being modified through a FESOP Significant Permit Revision. This revision is being performed pursuant to 326 IAC 2-8-11.1(f)(1)(E) as the potential to emit VOC from the new bread line BD1 is greater than 25 tons/yr.

Potential to Emit after Revision

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units. The control equipment is considered federally enforceable only after issuance of this Permit Revision.

Process/facility	Potential to Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Bread Line BD1	0.23	0.23	0.02	Less than 49.0	2.50	2.98	Negligible
Bun Line BU3	0.12	0.12	0.20	Less than 17.0	0.48	2.32	Negligible
*Other Existing Units (boilers and insignificant units)	10.5	10.5	10.9	10.7	13.4	22.4	Negligible
Total Emissions	10.9	10.9	11.1	Less than 76.7	16.4	27.7	Negligible
Title V Major Source Thresholds	100	100	100	100	100	100	Less than 10 for a single HAP and 25 for any combination of HAPs.

*Note: The potential to emit from the other existing units at the source are from the Technical Support Document (TSD) for FESOP 097-14050-00161, issued June 27, 2002. These emissions do not include the removed bread lines BR1 and BR2.

After replacing the existing bread line BR1 and BR2 with the new proposed bread line BD1, the potential to emit of the criteria pollutants from the entire source is still less than the Title V major source thresholds. Therefore, the requirements of 326 IAC 2-7 are not applicable to this source.

County Attainment Status

The source is located in Marion County.

Pollutant	Status
PM-10	Attainment
SO ₂	Maintenance Attainment
NO ₂	Attainment
Ozone	Maintenance Attainment
CO	Maintenance Attainment
Lead	Maintenance Attainment

- (a) Volatile organic compounds (VOC) and are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Marion County has been designated as attainment or unclassifiable for ozone.
- (b) Marion County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions
 Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to bread line BD1.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to bread line BD1.

State Rule Applicability - Entire Source

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

This source was constructed in 1960 and modified in 2003 (this revision). This source is not in 1 of 28 source categories defined in 326 IAC 2-2-1(p)(1) and the potential to emit of all regulated pollutants before controls from this source is less than 250 tons/yr. Therefore, the requirements of 326 IAC 2-2 are not applicable.

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

This source was constructed prior to July 27, 1997 and modified in 2003 (this revision). The potential HAP emissions from the new bread line BD1 are less than 10 tons/yr for a single HAP and less than 25 tons/yr for any combination of HAPs. Therefore, the requirements of 326 IAC 2-4.1 are not applicable.

326 IAC 2-8-4 (FESOP)

The potential to emit VOC from the entire source is greater than 100 tons/yr. In FESOP #097-14050-00161, issued on June 27, 2002, the VOC emissions from the existing bread lines BR1, BR2, and BU3 were permitted to less than 66 tons per thirteen (13) consecutive twenty-eight (28) day period. The proposed bread line BD1 will replace the existing bread lines BR1 and BR2. Pursuant to 326 IAC 2-8-4 and in order to maintain the FESOP status, the source proposed the following limitations for the bread lines:

- (a) VOC emissions from bread line BD1, including the use of chain lubrication, 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) VOC emissions from bun line BU3, including the use of chain lubrication, 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.

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

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of VOC and is located in Marion county. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Opacity Limitations)

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

- (a) Opacity shall not exceed an average of thirty percent (30%) 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.

State Rule Applicability - Bread Line BD1

326 IAC 8-1-6 (General Reduction Requirements for VOC Emissions)

The potential VOC emissions from the new bread line BD1 are greater than 25 tons per year and there are no other applicable 326 IAC 8 rules that apply to this new bread line. Therefore, the requirements of 326 IAC 8-1-6 (Best Available Control Technology) are applicable to the new bread line (BD1). OAQ and OES have reviewed the BACT analysis provided by the source (see Appendix B) and have agreed that a VOC emission limit of 49 tons per thirteen (13) consecutive twenty-eight (28) day period is the BACT for the new bread line BD1.

326 IAC 6-3-2 (Manufacturing Processes)

The allowable particulate emissions from the bread line BD1 shall be limited to 14.1 lbs/hr when the process weight rate is 6.3 tons/hr.

The pounds per hour limitation was calculated with the following equation:

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

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

According to the emission calculations (see Appendix A), the potential to emit PM from this bread line is less than 14.1 lbs/hr. Therefore, this new bread line is in compliance with 326 IAC 6-3-2.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less 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 requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also 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.

There are no specific monitoring requirements applicable to the new bread line BD1.

Proposed Changes

A.1 General Information [326 IAC 2-8-4]

The Permittee owns and operates a bakery.

Authorized individual:	General Manager
Source Address:	6801 English Avenue, Indianapolis, IN 46219
Mailing Address:	6801 English Avenue, Indianapolis, IN 46219
General Source Phone:	(317) 322-5043
SIC Code:	2051

County Location: Marion
Source Location County Status: Attainment for all criteria pollutants
Source Status: ~~Minor Source, FESOP Program~~
~~PSD Synthetic Minor Source~~
Federally Enforceable State Operating Permit (FESOP)
Minor Source, Under PSD
Minor Source Section 112 of the Clean Air Act
Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Summary [326 IAC 2-8-4]

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

- ~~(a) Bread Line #1. Maximum throughput of 4.85 tons of dough per hour. Oven lubricant maximum usage of 20.0 gallons per month. Equipped with one (1) 5.25 million Btu per hour natural gas fired oven. Propane used as emergency backup fuel. Constructed in 1960.~~
- ~~(b) Bread Line #2. Maximum throughput of 4.75 tons of dough per hour. Oven lubricant maximum usage of 20.0 gallons per month. Equipped with one (1) 5.25 million Btu per hour natural gas fired oven. Propane used as emergency backup fuel. Constructed in 1960.~~
- (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 a 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.**
- (eb) Bun Line #3. Maximum throughput of 3.3 tons of dough per hour. Oven lubricant maximum usage of 20.0 gallons per month. Equipped with one (1) 5.25 million Btu per hour natural gas fired oven. Propane used as emergency backup fuel. Constructed in 1960.**
- (ec) One (1) natural gas fired boiler identified as Boiler # 2. Maximum heat input of 10.04 million Btu per hour. Propane fired as an emergency backup fuel. Constructed between 1972 & 1983**
- (ed) One (1) natural gas fired boiler identified as Boiler # 3. Maximum heat input of 10.04 million Btu per hour. Propane fired as an emergency backup fuel. Constructed in 1969.**

SECTION D.1

FACILITY OPERATION CONDITIONS

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

- ~~(a) Bread Line #1 (Emission Unit ID BR 1). Maximum throughput of 4.85 tons of dough per hour. Oven lubricant maximum usage of 20.0 gallons per month. Equipped with one (1) 5.25 million Btu per hour natural gas fired oven. Propane used as emergency backup fuel. Installed in 1960.~~
- ~~(b) Bread Line #2 (Emission Unit ID BR 2). Maximum throughput of 4.75 tons of dough per hour. Oven lubricant maximum usage of 20.0 gallons per month. Equipped with one (1) 5.25 million Btu per hour natural gas fired oven. Propane used as emergency backup fuel. Installed in 1960.~~
- (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 a 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.**
- ~~(eb) Bun Line #3 (Emission Unit ID BU 3) . Maximum throughput of 3.3 tons of dough per hour. Oven lubricant maximum usage of 20.0 gallons per month. Equipped with one (1) 5.25 million Btu per hour natural gas fired oven. Propane used as emergency backup fuel. Installed in 1960.~~

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

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

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

~~Pursuant to 326 IAC 2-8-4 (1) (FESOP), combined total VOC emissions from Emission Unit ID's BR 1, BR 2, BU 3 and VOC emissions from the use of Chain Lubrication for Emission Unit ID's BR 1, BR 2 and BU 3 shall not exceed 66.0 tons per rolling thirteen (13) consecutive twenty eight (28) day period.~~

~~Compliance with Condition D.1.1 shall make the requirements of 326 IAC 2-7~~

- (a) Pursuant to 326 IAC 2-8-4 (FESOP) and 326 IAC 8-1-6 (BACT), VOC emissions from bread line BD1, including the use of chain lubrication, 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), VOC emissions from bun line BU3, including the use of chain lubrication, 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.**

With the combined VOC emissions from the ovens, 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. Therefore, the requirements of 326 IAC 2-7 are not applicable.

D.1.2 Particulate Matter (PM) [326 IAC 6-3-2(e)]

~~Pursuant to 326 IAC 6-3-2(e), particulate emissions PM from the Emission Units ID's BR 1, BR 2 and BU 3 and BD1 shall not exceed the pound per hour emission rate established as E in the following formula:~~

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

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

- ~~(a) PM shall not exceed 11.8 pounds per hour for Emission Unit ID BR 1 based on a process weight rate of 4.85 tons per hour~~
- ~~(b) PM shall not exceed 11.6 pounds per hour for Emission Unit ID BR 2 based on a process weight rate of 4.75 tons per hour~~
- (a) Particulate emissions shall not exceed 14.1 pounds per hour for Emission Unit ID BD1 based on a process weight rate of 6.3 tons per hour.**
- (eb) PM Particulate emissions shall not exceed 9.1 pounds per hour for Emission Unit ID BU3: based on a process weight rate of 3.3 tons per hour.**

D.1.3 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 Units ID's BR 1, BR 2 **BD1** and BU 3.

Compliance Determination Requirements

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

Compliance with the VOC limitation contained in Condition D.1.1 shall be determined by:

- (a) ~~Actual chain lubrication usage in Emission Unit ID's BR 1, BR 2 and BU 3 per rolling thirteen (13) consecutive twenty eight (28) day production periods; and~~ **Compliance with the VOC usage limitations contained in condition D.1.1 for the use of chain lubrication shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ, and OES reserve the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.**
- (b) ~~Pursuant to the emission factor equation for bakery oven VOC emissions found in "Alternative Control Technology (ACT) Document for Bakery Oven Emissions" 453/R-92-017 for actual bread and bun production per rolling thirteen (13) consecutive twenty eight (28) day production periods. The ACT emission factor utilized for Compliance Determination is:~~ **The monthly VOC emissions from the bread baking process are determined by the following equation:**

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

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:

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

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
ts = spiking time in hours to the nearest tenth of an hour

IDEM, OAQ and/or OES reserves the authority to determine compliance using alternate method(s) as approved by the Administrator.

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

D.1.5 Record Keeping Requirements

- (a) To document compliance with Condition D.1.1, the Permittee shall maintain records in accordance with (1) through (5) below for each bread line. ~~Records maintained for (1) through (5) shall be taken each twenty-eight (28) days and of date and actual bread and bun production, chain lubrication usage and VOC emissions per rolling thirteen (13) consecutive twenty eight (28) day period. Records maintained 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) The total VOC emissions for each twenty-eight (28) days; and
 - (5) The weight of VOCs emitted for each compliance period.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.6 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.1 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. ~~Each quarterly report shall consist of, at a minimum, a rolling thirteen (13) consecutive twenty eight (28) day production period VOC emissions total including all completed twenty eight (28) day production periods in the calendar quarter being reported. The quarterly report shall also include the end date of all twenty eight (28) day production periods completed during the quarter. 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 FACILITY OPERATION CONDITIONS

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

- (ec) One (1) natural gas fired boiler identified as Boiler # 2. Maximum heat input of 10.04 million Btu per hour. Propane fired as an emergency backup fuel. Constructed between June 8, 1972 and September 21, 1983.
- (ed) One (1) natural gas fired boiler identified as Boiler # 3. Maximum heat input of 10.04 million Btu per hour. Propane fired as an emergency backup fuel. Constructed in 1969.

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

**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, IN 46219
 Mailing Address: _____ 6801 English Avenue, Indianapolis, IN 46219
 FESOP Permit No.: F097-14050-00166

Facility: _____ Ovens # 1, # 2 and # 3 and Chain Lubrication Usage
 Parameter: _____ VOC Emissions
 Limit: _____ 66.0 tons VOC per rolling thirteen (13) consecutive twenty eight (28) day period;

_____ QUARTER _____ YEAR: _____

4-Week Period Ending Date	Oven # 1 VOC 4-Week Period Total (tons VOC)	Oven # 2 VOC 4-Week Period Total (tons VOC)	Oven # 3 VOC 4-Week Period Total (tons VOC)	Chain Lubrication Usage (gallons)	Thirteen 4-Week Period Rolling Total (tons VOC)
TOTAL					

_____ 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**

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
SPR Permit No.: F097-16909-00161
Facility: Bread Line BD1
Parameter: VOC Emissions
Limit: 49.0 tons VOC per thirteen (13) consecutive twenty-eight (28) day period with compliance determined at the end of each twenty-eight (28) days.

YEAR: _____

28 day period ending date	Column 1	Column 2	Column 1 + Column 2
	This twenty-eight (28) day period	Previous 12 twenty-eight (28) day periods	Total

- 9 No deviation occurred in this quarter.
- 9 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**

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
SPR Permit No.: F097-16909-00161
Facility: Bun Line BU3
Parameter: VOC Emissions
Limit: 17.0 tons VOC per thirteen (13) consecutive twenty-eight (28) day period with compliance determined at the end of each twenty-eight (28) days.

YEAR: _____

28 day period ending date	Column 1	Column 2	Column 1 + Column 2
	This twenty-eight (28) day period	Previous 12 twenty-eight (28) day periods	Total

- 9 No deviation occurred in this quarter.
- 9 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.

In addition, OAQ and OES have made the following corrections in the original FESOP:

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)] Insignificant Activities

- (b) Brazing equipment, cutting torches, soldering equipment and welding equipment not resulting in the emission of HAPs.
- (i) Degreasing Operations Cleaners and solvents, that do not exceed 145 gallons usage per 12 months, except if subject to 326 IAC 20-6 Constructed prior to 1980.
- (k) Cake oven #4 maximum process rate (P) of .33 tons per hour (1.75 MMBtu per hour natural gas combustion emissions).
- (l) Cake oven #5 maximum process rate (P) of .33 tons per hour (1.75 MMBtu per hour natural gas combustion emissions).
- (m) Flour handling system;**
- (r) Boiler # 1 Natural Gas-fired-6.7 MMBtu per hour constructed after September 21,1983.
- (s) Boiler # 4 Natural Gas-fired-6.7 MMBtu per hour constructed after September 21,1983.
- (t) Boiler # 5 Natural Gas-fired-6.7 MMBtu per hour constructed after September 21,1983.

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

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

- (b) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate for **the flour handling system, B**brazing equipment, cutting torches, soldering equipment and welding equipment shall not exceed the allowable PM emission rate based on the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

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

Conclusion

This permit revision shall be subject to the conditions of the attached proposed FESOP Significant Permit Revision No. 097-16909-00161.

**Appendix A: Emission Calculations
Emissions
From Bread Line BD1**

**Company Name: The Kroger Company - Indianapolis Bakery
Address: 6801 English Ave., Indianapolis, IN 46219
SPR: 097-16909-00161
Reviewer: ERG/YC
Date: March 14, 2003**

1. VOC Emissions from Bread Fermentation:

Maximum Production Rate: 6.3 tons/hr

According to AP-42, Chapter 9.9.6 - Bread Baking, the VOC emission factor from the bread baking process can be estimated with the following equation:

$$E.F. = 0.95 Y_i + 0.195 t_i - 0.51S - 0.86t_s + 1.90$$

Where

- 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

Based on the technical support document (TSD) for FESOP #097-14050-00161, issued on June 27, 2002, the VOC emission factor for the worst case scenario is 3.10 lbs/ton.

Therefore, the potential uncontrolled VOC emissions from bread baking =

$$6.3 \times 3.1 \text{ lbs/ton} \times 8760 \text{ hrs/yr} \times 1 \text{ tons}/2000 \text{ lbs} = \mathbf{85.5 \text{ tons/yr}}$$

2. Emissions from Natural Gas Combustion:

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
6.8	59.6

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO ₂	**NO _x	VOC	CO
	7.6	7.6	0.6	100	5.5	84.0
Potential Emission in tons/yr	0.23	0.23	0.02	2.98	0.16	2.50

*PM and PM10 emission factors are condensable and filterable PM10 combined.

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

Methodology

All Emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF - 1,000,000 Cubic Feet of Gas

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

3. Total Uncontrolled Emissions from the Bread Baking Oven:

Potential Emission in tons/yr	Pollutant					
	PM	PM10	SO ₂	NO _x	VOC	CO
	0.23	0.23	0.02	2.98	85.7	2.50

**Appendix A: Emission Calculations
VOC Emissions
From the Chain Lubrication in Bread Line BD1**

**Company Name: The Kroger Company - Indianapolis Bakery
Address: 6801 English Ave., Indianapolis, In 46219
SPR: 097-16909-00161
Reviewer: ERG/YC
Date: March 14, 2003**

1. Unit Description:

**Maximum Usage: 40 gallons/28 days
Maximum VOC Content: 6 lbs/gal**

2. Potential to Emit (PTE) of VOC:

VOC PTE = 6 lbs/gal x 40 gal/28 days x 13 (28 days/yr) x 1 ton/2000 lbs = **1.56 tons/yr**

Appendix B

BEST AVAILABLE CONTROL TECHNOLOGY (BACT) DETERMINATION

Source Background and Description

Source Name:	The Kroger Company - Indianapolis Bakery
Source Location:	6801 English Avenue, Indianapolis, Indiana 46219
County:	Marion
SIC Code:	2051
FESOP No.:	F097-14050-00161
FESOP Issuance Date:	June 27, 2002
Significant Permit Revision No.:	097-16909-00161
Permit Reviewer:	ERG/YC

The Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and the City of Indianapolis, Office of Environmental Services (OES) have performed the following Best Available Control Technology (BACT) review for a significant permit revision to an existing bakery, owned and operated by the Kroger Company - Indianapolis Bakery (referred to as "Kroger"), located at 6801 English Avenue, Indianapolis, Indiana 46219. This revision is related to the construction and operation of the following emission unit:

- (a) One (1) bread line, identified as BD1, with a maximum production rate of 6.3 tons of bread per hour, equipped with a 6.8 MMBtu/hr natural gas-fired oven, and exhausting through stacks #9 and #10. The maximum oven lubricant usage is 40 gallons per month.

This new bread line will replace the existing bread lines BR1 and BR2, which were constructed in 1960. The potential VOC emissions from the proposed new bread line (BD1) are greater than 25 tons/yr and this operation is not regulated by other provisions of 326 IAC 8. Therefore, bread line BD1 is subject to 326 IAC 8-1-6 and is required to control VOC emissions using BACT.

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

- (a) Identify all potentially available control options;
- (b) Eliminate technically infeasible control options;
- (c) Rank remaining control technologies by control effectiveness;
- (d) Evaluate the most effective controls and document the results; and
- (e) Select BACT.

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

The following BACT determinations are based on the following information:

- (a) The BACT analysis submitted by Kroger on February 19, 2003;
- (b) Information from vendors/suppliers;
- (c) The EPA RACT/BACT/LAER (RBLC) Clearinghouse; and
- (d) State, and Local air quality permits.

VOC BACT

The VOC emissions from the bread line are mainly from the yeast fermentation process. The potential to emit VOC from bread line BD1 is 85.5 ton/yr at the maximum production rate of 6.3 ton/hr of bread. The proposed new bread line BD1 will replace the existing bread lines BR1 and BR2, which had a total emission limit of 49 tons/yr in FESOP #097-14050-00161, issued on June 27, 2002. Since Kroger does not intend to increase the total production rate and would like to maintain their FESOP status, the source proposed to maintain the existing VOC emission limit of 49 tons/yr for the new bread line BD1.

Step 1 - Identify Control Options

The following available technologies were identified and evaluated to control VOC emissions from the bakeries:

- (a) IDEM, OAQ and OES searched EPA's RACT/BACT/LAER Clearinghouse (RBLC) and Indiana's Air Permits to identify sources with emissions similar to this source. The search identified the following:

<u>Company</u>	<u>PBLD ID</u>	<u>Date Issued and State</u>	<u>Type of Operation</u>	<u>BACT Requirements</u>	<u>Note</u>
Maple Leaf Bakery	CA-0854	10/06/98 (CA)	Baking Oven	Catalytic Oxidizer	Located in an Ozone Non-attainment Area
Freund Baking Company	CA-0859	07/16/97 (CA)	Baking Oven	Catalytic Oxidizer	Located in an Ozone Non-attainment Area
Holsum Bakery	AZ-0029	03/01/96 (AZ)	Baking Oven	Quencher/Scrubber 49.9 tons/yr of VOC	Located in an Ozone Non-attainment Area
Interstate Brands	Indiana's Permit: F097-7413-00171	12/12/97 (IN)	Baking Oven	91.4 tons/yr of VOC from the entire source	Located in an Ozone Attainment Area

- (b) Kroger also evaluated a variety of control technologies, including the following:
 - (1) Regenerative Thermal Oxidation;
 - (2) Catalytic Oxidation;
 - (3) Carbon Adsorption;
 - (4) Scrubber;
 - (5) Biofiltration; and

- (6) Condensation.

Step 2 - Eliminate technically infeasible control options

Based on the results from the RBLC database search, vendor review, and an evaluation of the control technologies, IDEM and OES have determined that the use of carbon adsorption, scrubber, biofiltration, and condensation are not technically feasible options for this source for the following reasons:

- (a) The use of carbon adsorption is infeasible because baking oils clog carbon pores and ethanol is difficult to strip from the carbon.
- (b) The use of scrubbers is infeasible due to the low effectiveness for VOC control and the generation of large amount of waste water.
- (c) The technology of biofiltration systems is infeasible because the high temperature exhaust stream from the baking oven inhibits microbiological activities.
- (d) The condensation method is infeasible because the high air flows, temperatures, and moisture content in the bakery oven exhausts. In addition, the oils contained in the exhausts reduce the control efficiency and create sanitation concerns.

Step 3 - Rank remaining control technologies by control effectiveness

The remaining technically feasible approaches for controlling VOC emissions from facilities that have a VOC PTE comparable in magnitude to the baking oven at this source are:

Options for VOC Control	*Overall VOC Control Efficiency
Regenerative Thermal Oxidizer	95%
Catalytic Oxidizer	95%
VOC Emission Limit	NA

*Note: The control efficiency includes capture efficiency and destruction efficiency.

Step 4 - Evaluate the most effective controls and document results

Kroger provided IDEM with a thorough economic analysis of the technically feasible control options. The analysis estimated the cost of the VOC control equipment, including the initial capital cost of the various components intrinsic to the complete system, and the estimated annual operating costs. The estimated total capital cost was calculated with the use of a factoring method of determining direct and indirect installation costs. The basic equipment costs were obtained from vendor's quoted prices. Annualized costs were developed based on information from the vendors and a literature review. The analysis assumed an interest rate of 7% and an equipment life of 10 years. The basis of cost effectiveness, used to evaluate the control options, is the ratio of the annualized cost to the amount of VOC (tons) removed per year. Note that the cost effectiveness of each option only accounts for the portion of VOC removed by the add-on controls, and the source proposed to limit the VOC emissions from bread line BD1 to less than 49 tons/yr. A summary of the cost figures determined in the analysis is provided in the table below:

Option	Capital Cost (\$)	Total Operating Cost (\$/yr)	Total Annualized Costs (\$/yr)	Potential VOC removal (ton/yr)	Cost Effectiveness (\$/ton VOC removed)
Regenerative Thermal Oxidizer (95% overall reduction)	\$512,800	\$108,600	\$181,612	46.6	\$3,897
Catalytic Oxidizer (95% overall reduction)	\$495,200	\$121,200	\$191,707	46.6	\$4,114
VOC Emission Limit	--	--	--	--	\$0

Note: A complete breakdown of the costs associated with the thermal and catalytic oxidizers is included in Appendix C.

Step 5 - Select BACT

IDEM and OES have determined that the BACT for the new bread line (BD1) at Kroger is the VOC emission limit of 49 tons per thirteen (13) consecutive month twenty-eight (28) day period with no add-on control. This determination is based on the following reasons:

- (a) All the bakeries with add-on controls listed in the RBLC database are located in an ozone non-attainment area. Kroger is located in an ozone maintenance attainment area.
- (b) Kroger is an existing source and has accepted FESOP limits to be a minor source.
- (c) Based on the BACT analysis in FESOP #097-7413-00170, issued on December 12, 1997, for Interstate Brands Corporation, the BACT for the bread oven #3 was determined to be a VOC emission limit for the entire source with no add-on control. Bread oven #3 at Interstate Brands Corporation, which is also located at Indianapolis, Indiana, has a similar production rate (6.6 tons/hr) to the one for the proposed bread line BD1 at Kroger (6.3 tons/hr).
- (d) The actual VOC emissions from Kroger was 26 tons/yr in 2001 and 2000. The proposed bread line BD1 will replace the existing bread lines BR1 and BR2, which were constructed in 1960. Kroger does not plan to increase the production rate after this replacement. The new oven for bread line BD1 is more efficient and less polluting than the existing ovens for bread lines BR1 and BR2.
- (d) All the bakeries with add-on controls listed in RBLC database did not perform the cost effectiveness analysis because the BACT for these bakeries were determined by comparing to the state's specific VOC rules. For example, 95% control is required for sources located in South Coast of California that have the potential to emit VOC greater than 50 lbs/day (= 9.1 tons/yr).

Specifically, the VOC emissions from bread line BD1, including the use of chain lubrication, shall not exceed 49 tons per twelve (12) consecutive month period with compliance determined at the end of each month. The monthly VOC emission from the baking oven shall be determined by the following:

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

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:

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

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

Appendix C

COST ANALYSIS FOR THERMAL AND CATALYTIC OXIDIZERS

CAPITAL COSTS	VENDOR	CMM Group, LLC Regenerative Thermal Oxidation	CMM Group, LLC Catalytic Thermal Oxidation
1. Purchased Equipment			
a. Basic Equipment & Exhaust Stack		\$151,800	\$142,600
b. Instrumentation		\$28,700	\$28,700
c. Taxes		\$0	\$0
d. Freight		\$2,500	\$2,500
<u>Total Purchased Equipment Cost</u>		<u>\$183,000</u>	<u>\$173,500</u>
2. Direct Installation Costs			
a. Foundations & Supports		\$25,000	\$25,000
b. Auxiliaries		\$20,000	\$20,000
c. Erection & Handling		\$25,000	\$25,000
d. Piping		\$10,000	\$25,000
e. Insulation and Painting		\$25,000	\$25,000
f. Electrical		\$32,000	\$32,000
g. Site Preparation		\$ --	\$ --
h. Additional Roof Structural Needs		\$50,000	\$50,000
<u>Total Direct Installation Costs</u>		<u>\$187,000</u>	<u>\$184,000</u>
<u>Total Direct Costs (TDC) (Purchased + Installation)</u>		<u>\$370,000</u>	<u>\$357,500</u>
Indirect Costs			
3 Engineering & Supervision		\$25,900	\$24,600
4 Loss of Production Cost		\$0	\$0
5 Construction & Field Expenses		\$9,100	\$8,700
6 Contractor Fees		\$18,300	\$17,400
7 Start Up and Performance Test		\$15,500	\$15,500
9 Contingency		\$74,000	\$71,500
<u>Total Indirect Costs</u>		<u>\$142,800</u>	<u>\$137,000</u>
<u>Total Installed Capital Cost</u>		<u>\$512,800</u>	<u>\$495,200</u>

ANNUALIZED COSTS

Direct Operating Costs		
1. Operating Labor	\$13,700	\$13,700
a. Number of Employees	1	1
b. Cost/Employee/Hour w/Benefits	\$25	\$25
c. Operation Hours (hr/yr)	574.5	574.5
2. Supervisory Labor	\$2,100	\$2,100
3. Maintenance Labor	\$13,700	\$13,700
4. Maintenance Materials	\$13,700	\$13,700
5. Replacement Parts	\$4,000	\$4,000
6. Utilities		
a. Natural Gas	\$5,000	\$8,000
Cost/MMBTU - Provided by Facility	\$5.0	\$5.0
b. Electricity	\$10,000	\$14,500
Cost/KWH - Provided by Facility	\$0.05	\$0.05
c. Water	\$ --	\$ --
d. Air	\$ --	\$ --
e. Catalyst Replacement (20% Basic Capital Cost/5 Years)	\$ --	\$2,800
f. Catalyst Cleaning	\$ --	\$3,000
<u>Total Direct Operating Costs</u>	<u>\$62,200</u>	<u>\$75,500</u>
Indirect Operating Costs		
7. Overhead (60% of Oper. Labor & Maintenance)	\$25,900	\$25,900
8. Property Tax (0.04 Capital Cost)	\$20,500	\$19,800
<u>Subtotal - Indirect Operating Costs</u>	<u>\$46,400</u>	<u>\$45,700</u>
<u>Total Operating Costs</u>	<u>\$108,600</u>	<u>\$121,200</u>
Capital Cost Recovery Factor (7% INT, 10 Years) = 0.14238		
<u>Capital Recovery Cost</u>	<u>\$73,012</u>	<u>\$70,507</u>
<u>Heat Recovery Credit</u>	<u>\$ 0</u>	<u>\$ 0</u>
<u>Total Annualized Costs</u>	<u>\$181,612</u>	<u>\$191,707</u>
Uncontrolled VOC Emissions (PTE - Requested Limit)	49.0	49.0
Control Efficiency	95%	95%
TPY VOC Removed at Control Efficiency	46.6	46.6
<u>Cost Effectiveness, \$/Ton VOC Removed</u>	<u>\$ 3,897</u>	<u>\$ 4,114</u>