



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant
DATE: July 11, 2005
RE: Holsum Of Fort Wayne / 091-20967-00106
FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

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

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER.dot 1/10/05



Mitchell E. Daniels,
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July 11, 2005

Mr. Robert M. Renock
Holsum of Fort Wayne, Inc.
500 North Fulton Avenue
Evansville, Indiana 47710

Re: 091-20967-00106
First Significant Source Modification to
Part 70 Permit No.: T091-17680-00106

Dear Mr. Renock:

Holsum of Fort Wayne, Inc. was issued Part 70 Operating Permit T091-17680-00106 on October 15, 2004 for a bakery, located at 800 Boyd Boulevard, LaPorte, Indiana 46350. An application to modify the source was received on March 15, 2005. Pursuant to 326 IAC 2-7-10.5, the following emission units are approved for construction at the source:

- (a) One (1) natural gas fired baking oven, identified as Bread Oven (BD2), with a maximum production of 12,075 pounds of per hour of bread and buns, with a maximum heat capacity of 7.08 MMBtu per hour, and exhausting at stacks 3 and 4. This unit will be constructed in 2005.
- (b) Revision to the maximum production of buns in the existing baking oven, identified as Bun Oven, from 20,525 to 5,400 pounds per hour of buns.
- (c) Removal of the existing natural gas fired baking oven, identified as Bread Oven (BD1), constructed in 1969 with a combined maximum production of 20,525 pounds of per hour of bread and buns, with a maximum heat capacity of 4.875 MMBtu per hour.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

- 1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
- 2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
- 3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.



4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.
6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

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

Pursuant to Contract No. A305-5-65, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Sanobar Durrani, ERG, Morrisville, North Carolina 27560, or call (919) 468-7810 to speak directly to Ms. Durrani. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, Indianapolis, Indiana, 46204, or call (800) 451-6027, and ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,
Original signed by

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments

ERG/SD

cc: File - LaPorte County
LaPorte County Health Department
Northwest Regional Office
Air Compliance Section Inspector - Letty Zepada
Compliance Data Section
Administrative and Development
Technical Support and Modeling - Michele Boner



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PART 70 OPERATING PERMIT RENEWAL OFFICE OF AIR QUALITY

**Holsum of Fort Wayne, Inc.
800 Boyd Boulevard
LaPorte, Indiana 46350**

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

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T091-17680-00106	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: October 15, 2004 Expiration Date: October 15, 2009
Significant Source Modification No.: 091-20967-00106	Affected pages: 2 through 7
Original signed by: Paul Dubenetzky, Chief Permits Branch Office of Air Quality	Issuance Date: July 11, 2005



SECTION A

SOURCE SUMMARY

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

On April 15, 2004, the United States Environmental Protection Agency (U.S. EPA) named 23 Indiana counties and one partials county nonattainment for the new 8-hour ozone standard. The designations became effective on June 15, 2004. LaPorte County has been designated as nonattainment for the 8-hour ozone standard. The following has been added to A.1 General Information:

- A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]
The Permittee owns and operates a stationary bakery plant.

Responsible Official:	Vice President/General Manager
Source Address:	800 Boyd Boulevard, LaPorte, Indiana 46350
Mailing Address:	500 N. Fulton Ave., Evansville, Indiana 47710
General Source Phone Number:	(219) 362-4561
SIC Code:	2051
County Location:	LaPorte
Source Location Status:	Nonattainment for ozone under the 8-hour standard Attainment for ozone under the 1-hour standard Attainment for all other criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under Emission Offset Minor Source, under PSD Rules

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

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

- (a) One (1) natural gas fired baking oven, identified as Bun Oven, constructed in 1969, with a maximum production of 5,400 pounds per hour of bread and buns, with a maximum heat capacity of 3.055 MMBtu per hour, exhausting at stacks 1 and 2.
- (b) One (1) natural gas fired baking oven, identified as Bread Oven (BD2), with a maximum production of 12,075 pounds per hour of bread and buns, with a maximum heat capacity of 7.82 MMBtu per hour, and exhausting at stacks 3 and 4.

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

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

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour:
 - (1) One (1) natural gas fired boiler, identified as B1, with a maximum heat capacity of 2.9 MMBtu per hour [326 IAC 6-2-3].

- (2) One (1) natural gas fired boiler, identified as B2, with a maximum heat capacity of 5.4 MMBtu per hour [326 IAC 6-2-4].
- (b) Six (6) flour silos, each having a capacity of 150,000 pounds, with a baghouse for equalizing pressure on top of the silo (and not for control), exhausting inside the building [326 IAC 6-3-2].
- (c) Paved and unpaved roads and parking lots with public access [326 IAC 6-4].
- (d) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (e) Heat exchanger cleaning and repair.
- (f) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (g) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

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

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

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

SECTION B

GENERAL CONDITIONS

...

B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

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

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Baking Ovens

- (a) One (1) natural gas fired baking oven, identified as Bun Oven, constructed in 1969, with a maximum production of 5,400 pounds per hour of bread and buns, with a maximum heat capacity of 3.055 MMBtu per hour, exhausting at stacks 1 and 2.
- (b) One (1) natural gas fired baking oven, identified as Bread Oven (BD2), with a maximum production of 12,075 pounds per hour of bread and buns, with a maximum heat capacity of 7.82 MMBtu per hour, and exhausting at stacks 3 and 4.

(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 2-7-5(1)]

D.1.1 Volatile Organic Compounds [326 IAC 2-3] [326 IAC 8-1-6]

- (a) Pursuant to 326 IAC 8-1-6, and to render the requirements of 326 IAC 2-3 not applicable, the potential to emit of VOC from the new bread oven (BD2) shall be limited to 60 tons per twelve (12) consecutive month period, with compliance determined at the end of each month by using the following equations:

$$\text{VOC Emissions (tons/month)} = \sum_{n=1}^{12} (P_i \times \text{Emission Rate}_i)$$

where:

- i = Type of bread;
- P_i = Bread production for type i bread; and
- n = Number of months.

$$\text{Emission Rate (lb VOC/ton of baked bread)} = 0.95 Y_i + 0.195 t_i - 0.51S - 0.86t_s + 1.90$$

where:

- Y_i = Initial baker's percent of yeast;
- t_i = Total yeast action time in hours;
- S = Final (spike) baker's percent of yeast; and
- t_s = Spiking time in hours.

- (b) The existing Bread Oven (BD1) shall not operate while the new Bread Oven (BD2) is in operation. The existing Bread Oven (BD1) shall be removed and replaced by the new Bread Oven (BD2).

D.1.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the new bread oven.

Record Keeping and Reporting Requirement

D.1.3 Record Keeping Requirements

- (a) To document compliance with Condition D.1.1, the Permittee shall maintain records of the type of bread production and emission rate (in pounds of VOC per ton of baked bread) calculated using the equation in AP-42, Chapter 9.9.6 - Bread Baking (February 1997).

- (b) To document compliance with Condition D.1.2, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.4 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 forms 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 "responsible official" as defined by 326 IAC 2-7-1(34).

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Holsum of Fort Wayne, Inc.
Source Address: 800 Boyd Boulevard, LaPorte, Indiana 46350
Mailing Address: 500 N. Fulton Ave., Evansville, Indiana 47710
Part 70 Permit No.: T091-17680-00106
Facility: New Bread Oven (BD2)
Parameter: VOC
Limit: Less than 60 tons per 12 consecutive month period with compliance determined at the end of each month

YEAR:

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

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

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

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for a Part 70 Significant Source Modification and Part 70 Significant Permit Modification

Source Background and Description

Source Name:	Holsum of Fort Wayne, Inc.
Source Location:	500 North Fulton Avenue, Evansville Indiana 47710
County:	LaPorte
SIC Code:	2051
Operation Permit No.:	T091-17680-00106
Operation Permit Issuance Date:	October 15, 2004
Significant Source Modification No.:	091-20967-00106
Significant Permit Modification No.:	091-21007-00106
Permit Reviewer:	ERG/SD

On June 1, 2005, the Office of Air Quality (OAQ) had a notice published in LaPorte Herald – Argus, Evansville, Indiana, stating that Holsum of Fort Wayne, Inc. had applied for a Significant Source Modification and Significant Permit Modification to their existing Part 70 Permit to construct and operate a new natural gas-fired Bread Oven (BD2), to remove the existing natural gas-fired Bread Oven (BD1), and to revise the production rate of the existing Bun Oven. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On June 22, 2005, Holsum of Fort Wayne, Inc. submitted comments on the proposed Significant Source Modification and Significant Permit Modification to the Part 70 Permit. The summary of the comments is as follows. (Deleted language appears as strikeouts, new language is bolded). The Table of Contents has been modified to reflect these changes.

Comment 1:

The Permittee requested that the word “combined” be removed from the facility description identified in Section A.2, item (a) and Section D.1, item (a). The maximum production rate for the Bun Oven changed with this permit modification. Before the modification, the combined maximum production for both the ovens (BD1 and Bun Oven) was 20,525 pounds per hour. With the construction of the new Bread Oven (BD2), the maximum production rate of the Bun Oven will be equal to 5,400 pounds per hour and the maximum production rate of the new Bread Oven (BD2) will be equal to 12,075 pounds per hour.

Response to Comment 1:

IDEM, OAQ has revised Section A.2 and D.1, item (a) as follows:

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

- (a) One (1) natural gas fired baking oven, identified as Bun Oven, constructed in 1969, with a ~~combined~~ maximum production of 5,400 pounds per hour of bread and buns, with a maximum heat capacity of 3.055 MMBtu per hour, exhausting at stacks 1 and 2.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Baking Ovens

- (a) One (1) natural gas fired baking oven, identified as Bun Oven, constructed in 1969, with a ~~combined~~ maximum production of 5,400 pounds per hour of bread and buns, with a maximum heat capacity of 3.055 MMBtu per hour, exhausting at stacks 1 and 2.

...

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

Comment 2:

The Permittee stated that the provisions of 326 IAC 2-3 (Emission Offset) are not applicable to the modification because the overall emission increases for VOC and NOx (even prior to the permit limitation of 60 tons per year) are below the Emission Offset significant levels. Therefore, Section D.1.1(a) should be amended to omit the statement, "...and to render the requirements of 326 IAC 2-3 not applicable..."

Response to Comment 2:

As described in the TSD, the source is located in LaPorte County which was designated as nonattainment for ozone under the 8-hour standard, effective June 15, 2004. The existing source is classified as a major source under the provisions of 326 IAC 2-3 (Emission Offset) because it has the potential to emit greater than 100 tons per year of VOC. On March 15, 2005 the Permittee submitted an application and requested the removal of the bread oven (BD1) and construction of a bread oven (BD2). The potential to emit of VOC from the bread oven (BD2) is equal to 89.5 tons per year. However, the Permittee requested to operate the bread oven (BD2) with VOC emissions limited to 60 tons per twelve (12) consecutive month period, with compliance determined at the end of each month. According to the Permittee, the average actual emissions for 2003 and 2004 from the bread oven (BD1) were equal to 39.4 tons per year. The net emissions increase from the modification without the limit (89.5 minus past actuals (39.4)) is equal to 50.1 tons per year, which is greater than 40 tons per year, the significant threshold level for VOC under Emission Offset (326 IAC 2-3); while the net emissions increase from the modification with the limit (Limited PTE (60) minus Past Actuals (39.4)) is equal to 20.8 tons per year, which is less than 40 tons per year, the significant thresholds level for VOC under Emission Offset (the source is located in a moderate nonattainment area). Therefore, compliance with the above limits ensures minor modification status under 326 IAC 2-3 (Emission Offset). No changes were made to Condition D.1.1(a).

Comment 3:

The Permittee requested the following changes to the Technical Support Document (TSD)

- (a) Page 1 of 11, item 1 under the History section which states "Revision to the maximum production of buns in the existing baking oven, identified as Bun Oven, from 20,525 to

5,400 pounds per hour of bread and buns.” should be clarified such that 20,525 pounds per hour is specified as the combined production rate of both existing ovens, while the production rate of Bread Oven (BD2) and Bun Oven is specified as 12,075 and 5,400 pounds per hour, respectively.

- (b) Page 7 of 11, item A.2 (a) under the Proposed Changes section should be revised to remove the word “combined.”
- (c) Page 4 of 11, item (c) under the Source Status section should be revised from “These emissions are based upon the Technical Support Document (TSD) for Part Permit Renewal...” to “These emissions are based upon the Technical Support Document (TSD) for Part 70 Permit Renewal...”

Response to Comment 3:

Although IDEM, OAQ agrees with the above requested revisions, no changes have been made to the TSD because IDEM, OAQ prefers that the TSD reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

Indiana Department of Environmental Management Office of Air Quality

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

Source Background and Description

Source Name:	Holsum of Fort Wayne, Inc.
Source Location:	800 Boyd Boulevard, LaPorte, Indiana 46350
County:	LaPorte
SIC Code:	2051
Operation Permit No.:	T091-17680-00106
Operation Permit Issuance Date:	October 15, 2004
Significant Source Modification No.:	091-20967-00106
Significant Permit Modification No.:	091-21007-00106
Permit Reviewer:	ERG/SD

The Office of Air Quality (OAQ) has reviewed a modification application from Holsum of Fort Wayne, Inc. relating to the construction and operation of the following emission units:

- (b) One (1) natural gas fired baking oven, identified as Bread Oven (BD2), with a maximum production of 12,075 pounds of per hour of bread and buns, with a maximum heat capacity of 7.82 MMBtu per hour, and exhausting at stacks 3 and 4. This unit will be constructed in 2005.

Note: The facility description is written and numbered as it will appear in Sections A and D of the permit.

History

Holsum of Fort Wayne, Inc. is an existing bakery currently operating under a Part 70 permit renewal (T091-17680-00106) issued on October 15, 2004. On March 15, 2005, the Permittee submitted an application to the IDEM, OAQ requesting the construction and operation of bread oven (BD2) as described above and the following modifications to the existing source:

- (1) Revision to the maximum production of buns in the existing baking oven, identified as Bun Oven, from 20,525 to 5,400 pounds per hour of bread and buns.
- (2) Removal of the existing natural gas fired baking oven, identified as Bread Oven (BD1), constructed in 1969 with a combined maximum production of 20,525 pounds of per hour of bread and buns, with a maximum heat capacity of 4.875 MMBtu per hour.

Enforcement Issue

There are no enforcement actions pending.

Process/Emission Unit	Potential to Emit (tons/year)						
	PM	PM10	SO ₂	VOC	CO	NO _x	HAPs
New Bread Oven (BD2)	0.00	0.00	0.00	*60.0	0.00	0.00	0.00
NG Combustion (BD2)	0.26	0.26	0.02	0.19	2.88	3.43	Negligible
Past Actuals (BD1)	0.00	0.00	0.00	39.4	0.00	0.00	
Net Emissions Change	0.26	0.26	0.02	20.8	2.88	3.43	0.00
PSD/Emission Offset Threshold Levels	250	250	250	40	250	40	NA

* The Permittee has requested VOC emissions from the new bread oven (BD2) to be limited to 60 tons per year pursuant to 326 IAC 8-1-6 (BACT).

- (a) This modification to an existing PSD minor stationary source is not major because the emission increases for PM, PM10, SO₂, and CO are less than the PSD significant levels. Therefore, the requirements of 326 IAC 2-2 (PSD) do not apply.
- (b) This modification to an existing Emission Offset major stationary source is not major because the emissions increases for VOC and NO_x are less than the Emission Offset significant levels. Therefore, the requirements of 326 IAC 2-3, (Emission Offset) do not apply.

Justification for Modification

The Part 70 Operating permit is being modified through a Part 70 Significant Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(f)(2) because this modification is subject to the requirements of 326 IAC 8-1-6. The Part 70 operating permit is being modified through a Part 70 Significant Permit modification pursuant to 326 IAC 2-7-12(d) because the modification involves significant changes to emission limitations and standards, record keeping, and reporting requirements in the permit.

County Attainment Status

The source is located in LaPorte County.

Pollutant	Status
PM10	Attainment
SO ₂	Attainment
NO ₂	Attainment
1-hour Ozone	Attainment
8-hour Ozone	Nonattainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are

considered when evaluating the rule applicability relating to ozone. LaPorte County has been designated as nonattainment for 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset.

- (b) LaPorte County has been classified as attainment in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (c) Fugitive Emissions
Since this type of operation is not in one of the 28 listed source categories under 326 IAC 2-2 and 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8,760 hours of operation per year at rated capacity and/or as otherwise limited).

Pollutant	Emissions (tons/year)
PM	10.8
PM10	10.8
SO ₂	0.02
VOC	182
CO	3.10
NOx	3.70

- (a) This existing source is not a major stationary under PSD source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.
- (b) This existing source is a major stationary source under Emission Offset because a nonattainment regulated pollutant (VOC) is emitted at a rate of 100 tons per year or more.
- (c) These emissions are based upon the Technical Support Document (TSD) for Part Permit Renewal No.: 091-17680-00106, issued October 15, 2004.

Federal Rule Applicability

- (a) This significant modification does not involve a pollutant-specific emissions unit:
 - (1) with the potential to emit before controls equal to or greater than one hundred (100) tons per year; and
 - (2) that is subject to an emission limit and has a control device that is necessary to meet than limit.

Therefore, the requirements of 40 CFR Part 64, Compliance Assurance Monitoring, are not applicable to this modification.

- (b) There are no New Source Performance Standards (NSPS) 326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.
- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20, 40 CFR 61, and 40 CFR 63) applicable to this proposed modification.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and 326 IAC 2-3 (Emission Offset)

- (a) Holsum of Fort Wayne, Inc. was constructed in 1969, prior to the promulgation of the PSD rules and is not in one (1) of the twenty-eight (28) PSD source categories. At the time of issuance of its Part 70 Permit (T091-7688-0010, issued April 16, 1999) the source was identified as a minor source under PSD. The Permittee is currently operating under a Part 70 Permit Renewal (T091-17680-00106), issued October 15, 2004.
- (b) Effective June 15, 2004, LaPorte county has been designated as nonattainment for ozone under the 8-hour standard. The existing source is classified as a major source under the provisions of 326 IAC 2-3 (Emission Offset) because it has the potential to emit greater than 100 tons per year of VOC.
- (c) On March 15, 2005 the Permittee submitted an application requesting the removal of the existing bread oven (BD1) and construction of a new bread oven (BD2). The potential to emit of VOC from the new bread oven (BD2) is equal to 89.5 tons per year. However, the Permittee has requested to operate the new bread oven (BD2) with VOC emissions limited to 60 tons per twelve (12) consecutive month period, with compliance determined at the end of each month by using the following equations:

$$\text{VOC Emissions (tons/month)} = \sum_{n=1}^{12} (P_i \times \text{Emission Rate}_i)$$

where:

- i = Type of bread;
P_i = Bread production for type i bread; and
n = Number of months.

$$\text{Emission Rate (lb VOC/ton of baked bread)} = 0.95 Y_i + 0.195 t_i - 0.51S - 0.86t_s + 1.90$$

where:

- Y_i = Initial baker's percent of yeast;
t_i = Total yeast action time in hours;
S = Final (spike) baker's percent of yeast; and
t_s = Spiking time in hours.

Note: The emission rate equation is from AP-42, Chapter 9.9.6 (Bread Baking)

According to submitted information, the average actual emissions for 2003 and 2004 from the existing bread oven (BD1) were equal to 39.4 tons per year. Therefore, the net emissions increase from the project (Limited PTE minus Past Actuals) is equal to 20.8 tons per year, which is less than 40 tons per year, the significant thresholds level for VOC under PSD and Emission Offset (the source is located in a moderate nonattainment area).

Therefore, the source remains a PSD minor source and the modification is not subject to the requirements of 326 IAC 2-2 (PSD); and compliance with the above limit ensures a minor modification status under 326 IAC 2-3 (Emission Offset) and 325 IAC 8-1-6 (BACT)(See the State Rule Applicability Section for New Bread Oven).

- (d) The potential to emit of all other criteria pollutants after this modification remain less than significant levels under 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset).

326 IAC 2-4.1 (Hazardous Air Pollutants)

The construction and operation of the new bread oven (BD2) is not subject to the provisions of 326 IAC 2-4.1 because it does not result in any HAP emissions. The bread oven produces VOC in the form of ethanol, which is classified as a non-HAP.

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

326 IAC 8-6 (Organic Solvent Emission Limitations)

The new Bread Oven (BD2) at the source is not subject to the requirements of 326 IAC 8-6 because it is located in LaPorte County and was constructed after January 1, 1980.

State Rule Applicability - New Bread Oven

326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)

The natural gas-fired bread oven (BD2) is not subject to the provisions of 326 IAC 6-2 (Emission Limitations for Sources of Indirect Heating) because this unit is not a boiler or process heater.

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

The new bread oven (BD2) is not subject to the requirements of 326 IAC 6-3-2 (Particulate Emissions Limitations for Manufacturing Processes) because pursuant to 326 IAC 6-3-1(b)(14), facilities with the potential to emit less than 0.551 pounds per hour are exempt from the rule. The particulate emissions from this unit are a result of combustion only.

326 IAC 8-1-6 (New Facilities: General Emission Reductions)

The potential VOC emissions from the new bread oven (BD2) are greater than twenty-five (25) tons per year each. Based on the submitted BACT analysis (see Appendix C), IDEM, OAQ has determined BACT to be equivalent to the following requirements:

Pursuant to 326 IAC 8-1-6, the VOC emissions from the new bread oven (BD2) shall be limited to 60 tons per twelve (12) consecutive month period, with compliance determined at the end of each month by using the following equations:

$$\text{VOC Emissions (tons/month)} = \sum_{n=1}^{12} (P_i \times \text{Emission Rate}_i)$$

where:

- i = Type of bread;
- P_i = Bread production for type i bread; and
- n = Number of months.

$$\text{Emission Rate (lb VOC/ton of baked bread)} = 0.95 Y_i + 0.195 t_i - 0.51S - 0.86t_s + 1.90$$

where:

- Y_i = Initial baker's percent of yeast;
- t_i = Total yeast action time in hours;
- S = Final (spike) baker's percent of yeast; and
- t_s = Spiking time in hours.

Note: The emission rate equation is from AP-42, Chapter 9.9.6 (Bread Baking).

Testing Requirements

VOC testing is not required for the new bread oven (BD2) because compliance shall be demonstrated based on record keeping and emission rate calculations.

Compliance Requirements

Permits issued under 326 IAC 2-7 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 2-7-5. 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 compliance monitoring requirements applicable to this modification.

Proposed Changes

Bold language has been added, language with a line through it has been deleted. The Table of Contents has been updated as necessary.

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

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

- (a) One (1) natural gas fired baking oven, identified as Bun Oven, constructed in 1969, with a combined maximum production of ~~20,525~~**5,400** pounds per hour of bread and buns, with a maximum heat capacity of 3.055 MMBtu per hour, exhausting ~~to~~ **at** stacks 1 and 2.
- (b) One (1) natural gas fired baking oven, identified as Bread Oven (**BD2**), ~~constructed in 1969, with a combined~~ maximum production of **12,075** ~~20,525~~ pounds per hour of bread and buns, with a maximum heat capacity of ~~7.824-875~~ MMBtu per hour, **and** exhausting ~~at~~ stacks 3 and 4.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Baking Ovens

- (a) One (1) natural gas fired baking oven, identified as Bun Oven, constructed in 1969, with a combined maximum production of ~~20,525~~**5,400** pounds per hour of bread and buns, with a maximum heat capacity of 3.055 MMBtu per hour, exhausting ~~to~~ **at** stacks 1 and 2.
- (b) One (1) natural gas fired baking oven, identified as Bread Oven (**BD2**), ~~constructed in 1969,~~ with a ~~combined~~ maximum production of **12,075** ~~20,525~~ pounds per hour of bread and buns, with a maximum heat capacity of ~~7.824-875~~ MMBtu per hour, **and** exhausting ~~at~~ stacks 3 and 4.

(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 2-7-5(1)]

~~The baking ovens are not subject to any rules.~~

D.1.1 Volatile Organic Compounds [326 IAC 2-3] [326 IAC 8-1-6]

- (a) Pursuant to 326 IAC 8-1-6, and to render the requirements of 326 IAC 2-3 not applicable, the potential to emit of VOC from the new bread oven (BD2) shall be limited to 60 tons per twelve (12) consecutive month period, with compliance determined at the end of each month by using the following equations:

$$\text{VOC Emissions (tons/month)} = \sum_{n=1}^{12} (P_i \times \text{Emission Rate}_i)$$

where:

- i = Type of bread;
- P_i = Bread Production for type i bread; and
- n = Number of months.

$$\text{Emission Rate (lb VOC/ton of baked bread)} = 0.95 Y_i + 0.195 t_i - 0.51S - 0.86t_s + 1.90$$

where:

- Y_i = Initial baker's percent of yeast;
- t_i = Total yeast action time in hours;
- S = Final (spike) baker's percent of yeast; and
- t_s = Spiking time in hours.

- (b) The existing Bread Oven (BD1) shall not operate while the new Bread Oven (BD2) is in operation. The existing Bread Oven (BD1) shall be removed and replaced by the new Bread Oven (BD2).

D.1.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the new bread oven.

Record Keeping and Reporting Requirement

D.1.3 Record Keeping Requirements

- (a) To document compliance with Condition D.1.1, the Permittee shall maintain records of the type of bread production and emission rate (in pounds of VOC per ton of baked bread) calculated using the equation in AP-42, Chapter 9.9.6 - Bread Baking (February 1997).

- (b) To document compliance with Condition D.1.2, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.4 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 forms 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 "responsible official" as defined by 326 IAC 2-7-1(34).

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE DATA SECTION**

Part 70 Quarterly Report

Source Name: Holsum of Fort Wayne, Inc.
 Source Address: 800 Boyd Boulevard, LaPorte, Indiana 46350
 Mailing Address: 500 N. Fulton Ave., Evansville, Indiana 47710
 Part 70 Permit No.: T091-17680-00106
 Facility: New Bread Oven (BD2)
 Parameter: VOC
 Limit: Less than 60 tons per 12 consecutive month period with compliance determined at the end of each month

YEAR:

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

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

Submitted by:
 Title / Position:

Signature:
Date:
Phone:

Attach a signed certification to complete this report.

Upon further review, IDEM, OAQ has decided to make the following revisions to the permit (bolded language has been added, the language with a line through it has been deleted).

1. The mailing address for IDEM has been changed throughout the permit as follows.

Indiana Department of Environmental Management
100 North Senate Avenue, ~~P.O. Box 6015~~
Indianapolis, Indiana ~~46206-6015~~ **46204**

2. Section A.1 has been revised as follows:

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

The Permittee owns and operates a stationary bakery plant.

Responsible Official:	Vice President/General Manager
Source Address:	800 Boyd Boulevard, LaPorte, Indiana 46350
Mailing Address:	500 N. Fulton Ave., Evansville, Indiana 47710
General Source Phone Number:	(219) 362-4561
SIC Code:	2051
County Location:	LaPorte
Source Location Status:	Nonattainment for ozone under the 8-hour standard Attainment for ozone under the 1-hour standard Attainment for all other criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under Nonattainment NSR-Emission Offset Minor Source, under PSD Rules

3. Indiana was required to incorporate credible evidence provisions into state rules consistent with the SIP call published by U.S. EPA in 1997 (62 FR 8314). Indiana has incorporated the credible evidence provision in 326 IAC 1-1-6. This rule is effective March 16, 2005; therefore, the condition reflecting this rule will be incorporated into the permit as follows:

B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

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

Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 091-20967-00106 and attached proposed Part 70 Significant Permit Modification No. 091-21007-00106.

**Appendix A: Emissions Calculations
VOC Emissions From
New Bread Oven B2**

Company Name: Holsum of Fort Wayne, Inc.
Address: 800 Boyd Boulevard, LaPorte, Indiana 46350
SSM to TV: 091-20967
Plt ID: 091-00106
Reviewer: ERG/SD
Date: April 29, 2005

Maximum Bread Production (lb buns per hour) =	12,075
* Emission Factor (lb VOC per ton buns) =	3.38
PTE of VOC (tons per year) =	89.5

METHODOLOGY

As per AP-42, Chapter 9.9.6 - Bread Baking (02/97), the VOC emission factor from the bread baking process can be estimated with the following equation:

$$* \text{E.F. (lb VOC/ton of baked bread)} = 0.95 Y_i + 0.195 t_i - 0.51S - 0.86t_s + 1.90 = \mathbf{3.38}$$

where:

Initial baker's percent of yeast (Y_i) = 3.59
 Total yeast action time in hours (t_i) = 2.5
 Final (spike) baker's percent of yeast (S) = 2.54
 Spiking time in hours (t_s) = 1.3

$$\text{PTE of VOC (ton/year)} = \text{Max. Bread Production (lbs/hour)} * \text{VOC EF (lbVOC/ton buns)} * 1 \text{ ton/2000 lbs} * 8760 \text{ hours/year} * 1 \text{ ton/2000 lbs.}$$

**Appendix A: Emission Calculations
Natural Gas Combustion Only
One (1) New Bread Oven**

Company Name: Holsum of Fort Wayne, Inc.
Address: 800 Boyd Boulevard, LaPorte, Indiana 46350
SSM to TV: 091-20967
Plt ID: 091-00106
Reviewer: ERG/SD
Date: April 29, 2005

Heat Input Capacity
(MMBtu/hour)

Potential Throughput
(MMCF/year)

7.82 (1unit total)

68.5

	Pollutant					
	* PM	* PM10	SO ₂	** NO _x	VOC	CO
Emission Factor (lb/MMCF)	7.6	7.6	0.6	100	5.5	84
Potential To Emit (tons/year)	0.26	0.26	0.02	3.43	0.19	2.88

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

**Emission factor for NO_x (Uncontrolled) = 100 lb/MMCF.

METHODOLOGY

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission factors are from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (July, 1998).

Potential Throughput (MMCF/year) = Heat Input Capacity (MMBtu/hour) * 8760 hours/year * 1 MMCF/1000 MMBtu

Potential To Emit (tons/year) = Potential Throughput (MMCF/year) * Emission Factor (lb/MMCF) * 1 ton/2000 lbs

See next page for HAPs emissions calculations.

Appendix A: Emission Calculations
Natural Gas Combustion Only
One (1) New Bread Oven

Company Name: Holsum of Fort Wayne, Inc.
Address: 800 Boyd Boulevard, LaPorte, Indiana 46350
SSM to TV: 091-20967
Plt ID: 091-00106
Reviewer: ERG/SD
Date: April 29, 2005

HAPs - Organics

Emission Factor (lb/MMCF)	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential To Emit (tons/year)	7.19E-05	4.11E-05	2.57E-03	6.17E-02	1.16E-04

HAPs - Metals

Emission Factor (lb/MMCF)	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential To Emit (tons/year)	1.71E-05	3.77E-05	4.80E-05	1.30E-05	7.19E-05

TOTAL HAPs (tons/year) = 6.46E-02

Methodology is the same as previous page.

The five highest organic and metal HAPs emission factors as provided above are from AP-42, Chapter 1.4, Table 1-4.2, 1.4-3 and 1.4-4 (July, 1998). Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emissions Calculations
Net Emissions Change**

Company Name: Holsum of Fort Wayne, Inc.
Address: 800 Boyd Boulevard, LaPorte, Indiana 46350
SSM to TV: 091-20967
Pit ID: 091-00106
Reviewer: ERG/SD
Date: April 29, 2005

Potential to Emit from the Bread Oven (tons per year)

	PM	PM10	SO₂	NO_x	VOC	CO
* Limited PTE (New Bread Oven Production)	0.00	0.00	0.00	0.00	60.0	0.00
** Past Actuals (Existing Bread Oven Production)	0.00	0.00	0.00	0.00	39.4	0.00
Net Emission Change from Modification	0.00	0.00	0.00	0.00	20.6	0.00
Future PTE (New Bread Oven - NG Combustion)	0.26	0.26	0.02	3.43	0.19	2.88
TOTALS	0.26	0.26	0.02	3.43	20.8	2.88

* The Permittee has requested a BACT limit pursuant to 326 IAC 8-1-6 for the new bread oven equal to 60 tons per year.

** The past average actuals were provided by the Permittee for years 2003 and 2004.

Appendix B

Best Available Control Technology (BACT) Determinations

Source Background and Description

Source Name:	Holsum of Fort Wayne, Inc.
Source Location:	800 Boyd Boulevard, LaPorte, Indiana 46350
County:	LaPorte
SIC Code:	2051
Part 70 No.:	091-17680-00106
Issued:	October 15, 2004
SSM No.:	091-20967-00106
SPM No.:	091-21007-00106
Permit Reviewer:	ERG/SD

The Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) has performed the following Best Available Control Technology (BACT) review for the modification to the existing bakery, owned and operated by Holsum of Fort Wayne, Inc. located at 800 Boyd Boulevard, LaPorte, Indiana 46350. The modification consists of adding one (1) new bread oven (BD2) and removing the existing one (1) bread oven (BD1).

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

IDEM, OAQ conducts BACT analyses in accordance with the *“Top-Down” Best Available Control Technology* process, 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 as necessary; and
- (e) Select BACT.

In accordance with EPA guidance, the BACT analysis should take into account the energy, environmental, and economic impacts. Emission reductions may be achieved through the application of available control techniques, changes in process design, and/or operational limitations. This BACT determination is based on the following information:

- (a) The BACT analysis information submitted by Holsum of Fort Wayne, Inc. on March 15, 2005;
- (b) Information from vendors/suppliers;
- (c) The EPA RACT/BACT/LAER (RBLA) Clearinghouse; and
- (d) State and local air quality permits.

VOC BACT

The VOC emissions from the bread oven line are mainly from the yeast fermentation process. Holsum of Fort Wayne, Inc. has proposed to install and operate one (1) new bread oven line at their existing bakery. The potential to emit of VOC from the new bread oven line is greater than twenty-five (25) tons per year. The proposed bread oven line (BD2) will replace the existing bread oven line (BD1). Since this process is not regulated by any other rule in 326 IAC 8, the Permittee is required to control VOC emissions from the new bread oven line pursuant to the provisions of 326 IAC 8-1-6 (BACT).

Step 1 – Regulatory Database Review and Identify Control Options

The following databases and control technologies were reviewed to identify and evaluate the various BACT requirements currently in place to control VOC emissions from the bakery operations:

- (a) IDEM, OAQ searched EPA's RACT/BACT/LAER Clearinghouse (RBLC) for SIC code 2051. The search identified three (3) bakeries; Freud Baking Company of Glendale, California (1999), Maple Leaf Bakery of Oxnard, California (1999) and Holsum Bakery of Arizona (1996); while a search for Indiana resulted in two (2) bakeries; Kroger Company (2002), and Interstate Brands (1997). A review of the permits is listed below.

<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
Kroger Co. – Indianapolis Bakery	Indiana's Permit: SPR097-16909-00161	May 1, 2003	Baking Oven	49 tons/yr of VOC from the bread oven line (no controls)	Located in an Ozone Non-attainment Area

- (b) IDEM, OAQ and the Permittee identified and evaluated the following available technologies to control VOC emissions from bakery operations:

- (1) Regenerative Thermal Oxidizer;
- (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, OAQ has determined that the use of carbon adsorption, scrubber, condensation, and biofiltration are not technically feasible options for this source for the following reasons:

Step 5 – Select BACT

IDEM, OAQ has determined that the BACT for the new bread oven line (BD2) at Holsum is the VOC emission limit of 60 tons per twelve (12) consecutive month period, with compliance determined at the end of each month, with no add-on controls. This determination is based on the following reasons:

- (a) Based on the BACT analysis in FESOP No. 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 equal to 91.4 tons per year from the entire source with no add-on control. The cost effectiveness for a RTO was estimated at \$4,849 per ton of VOC removed.
- (b) Based on the BACT analysis in SPR No. 097-16909-00161 issued May 1, 2003 to a FESOP (F097-74050-00161, issued June 27, 2002) for Kroger Company – Indianapolis Bakery, the BACT for the bread oven line BD1 was determined to be a VOC emission limit equal to 49 tons per thirteen (13) consecutive month twenty-eight (28) day period from the bread oven BD1 with no add-on control. The cost effectiveness for a RTO was estimated at \$3,500 per ton of VOC removed, while for a catalytic oxidizer it was estimated at \$3,700 per ton of VOC removed.
- (c) The average actual VOC emissions from the source are equal to 39.4 tons per year for 2004 and 2003. The proposed bread oven (BD2) will replace the existing bread oven (BD1), which was constructed in 1969. The production rate after this replacement will decrease from 20,525 pounds per hour of bread and buns to 12,075 pounds per hour of bread and buns
- (d) Cost-effectiveness data were not available for the bakeries with add-on controls listed in RBL database because the BACT for these bakeries were determined by 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 per year).

Specifically, BACT for this source is an emission limit such that VOC emissions from bread oven (BD2) shall not exceed 60.0 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:

$$\text{VOC Emissions (tons/month)} = \frac{3}{n} \sum_{i=1}^{12} (P_i \times \text{Emission Rate}_i)$$

where:

- i = Type of bread;
- P_i = Bread production for type i bread; and
- n = Number of months.

$$\text{Emission Rate (lb VOC/ton of baked bread)} = 0.95 Y_i + 0.195 t_i - 0.51S - 0.86t_s + 1.90$$

where:

- Y_i = Initial baker's percent of yeast;
- t_i = Total yeast action time in hours;
- S = Final (spike) baker's percent of yeast; and
- t_s = Spiking time in hours.

Note: The emission rate equation is from AP-42, Chapter 9.9.6 (Bread Baking).

**Appendix C: Cost Analysis for Control Devices
Regenerative Thermal Oxidizer (RTO)**

Company Name: Holsum of Fort Wayne, Inc.
Address: 800 Boyd Boulevard, LaPorte, Indiana 46350
SSM to TV: 091-20967
Plt ID: 091-00106
Reviewer: ERG/SD
Date: April 29th, 2005

Regenerative Thermal Oxidizer (RTO)

Design Air Flow Rate (scfm): 8,000 (provided by source)

I. Capital Cost

(formula)

1. Purchased Equipment:

Basic Equipment & Auxiliaries (A)		\$250,500	(provided by source)
Instruments & controls	0.10 A	\$0	
Taxes	0.05 A	\$12,525	(Indiana Tax Code)
Freight	0.05 A	\$5,300	(As per vendor proposal)
Total Purchase Cost (B)		\$268,325	

2. Direct Installation Costs:

Foundations & Supports	0.08 B	\$21,466	
Support Installation	0.08 B	\$21,466	
Erection & Handling	0.14 B	\$37,566	
Electrical	0.04 B	\$30,733	(plus \$20,000 for 3-phase NA 460 volt, 100 amp service drop)
Enclosure		\$5,367	
Piping	0.02 B	\$2,683	
Insulation	0.01 B	\$2,683	
Painting	0.01 B	\$0	
Site Preparation (As Required)		\$0	
Facilities and buildings (As required)		\$0	
Total Direct Installation Cost (C)		\$121,964	

Total Direct Capital Cost (TDC) (B+C) \$390,289

3. Indirect Costs:

Engineering	0.10 B	\$26,833	
Loss of Production Cost		\$0	
Construction & Field Expenses	0.05 B	\$13,416	
Start Up	0.02 B	\$5,367	
Performance Tests		\$0	
Contingencies	0.03 B	\$8,050	
Total Indirect Cost (D)		\$53,665	

Total Install Capital Cost (B+C+D) \$443,954

Capital Recovery Factor (7%, 10 year) 0.1424

Capital Recovery Cost (E) \$63,210

**Appendix C: Cost Analysis for Control Devices
Regenerative Thermal Oxidizer (RTO)**

Company Name: Holsum of Fort Wayne, Inc.
Address: 800 Boyd Boulevard, LaPorte, Indiana 46350
SSM to TV: 091-20967
Plt ID: 091-00106
Reviewer: ERG/SD
Date: April 29th, 2005

II. ANNUALIZED COSTS

1. Direct Operating Costs:

Operating Labor (F)		\$13,563
a. Number of Employees		1.00
b. Cost/Employee/Hour ****		\$24.8 (provided by source)
c. Operating Hours/Year		548
Supervisory Labor (F1)	0.15 F	\$2,034
Maintenance Labor (F2)		\$13,590
a. Number of Employees		1.00
b. Cost/Employee/Hour ****		\$24.8 (provided by source)
c. Operating Hours/Year		548
Maintenance Material (F3)	1 F2	\$13,590
Utilities		
a. Natural Gas		\$5,504
MMBTU/HR Input		0.088 (provided by source)
Operating Hours/Year		8,760
Cost/MMBTU ***		\$7.14 (rate in Indiana)
b. Electricity		\$13,828
KW Requirements/Hr		28.7
KWH/YR		8,760
Cost/KWH ***		\$0.055 (national ave.)
Water		\$0
Air		\$0
Replacement Parts		\$0
Total Direct Operating Cost (G)		\$62,110

2. Indirect Operating Costs:

Overhead	0.6 (F+F1+F2+F3)	\$25,667
Insurance, and Administrative Costs	0.03 (B+C+D)	\$13,319
Total Indirect Operating Cost (H)		\$38,986

3. Heat Recovery Credits (I):

		\$2,379
MMBTU/HR Input		0.088 (provided by source)
Operating Hours/Year		8,760
Unit Heat Efficiency		95%
Heat Exchange Efficiency		65%
Percent Heat Recovery		70%
Cost/MMBTU ***		\$7.14 (rate in Indiana)

Total Annual Operating Cost (G+H-I) \$98,716

Total Annualized Cost	(E+G+H-I)	\$161,927
Uncontrolled PTE (tons/yr)	60.0 (as calculated in Appendix A)	
Overall Control Efficiency		98.0%
Pollution Removed (tons/yr)		58.8
Cost Effectiveness (\$ /ton VOC removed)		\$2,754

**Appendix C: Cost Analysis for Control Devices
Catalytic Oxidizer (CO)**

Company Name: Holsum of Fort Wayne, Inc.
Address: 800 Boyd Boulevard, LaPorte, Indiana 46350
SSM to TV: 091-20967
Plt ID: 091-00106
Reviewer: ERG/SD
Date: April 29th, 2005

Catalytic Oxidizer (CO)

Design Air Flow Rate (scfm): 4,000 (provided by source)

I. Capital Cost

(formula)

1. Purchased Equipment:

Basic Equipment & Auxiliaries (A)		\$88,700	(provided by source)
Instruments & controls	0.10 A	\$17,000	(As per vendor proposal)
Taxes	0.05 A	\$4,435	(Indiana Tax Code)
Freight	0.05 A	\$3,200	(As per vendor proposal)
Total Purchase Cost (B)		\$113,335	

2. Direct Installation Costs:

Foundations & Supports	0.08 B	\$9,067	
Support Installation	0.08 B	\$9,067	
Erection & Handling	0.14 B	\$15,867	
Electrical	0.04 B	\$24,533	(plus \$20,000 for 3-phase NA 460 volt, 100 amp service drop)
Enclosure			
Piping	0.02 B	\$2,267	
Insulation	0.01 B	\$1,133	
Painting	0.01 B	\$1,133	
Site Preparation (As Required)		\$0	
Facilities and buildings (As required)		\$0	
Total Direct Installation Cost (C)		\$63,067	

Total Direct Capital Cost (TDC) (B+C) \$176,402

3. Indirect Costs:

Engineering	0.10 B	\$11,334	
Loss of Production Cost		\$0	
Construction & Field Expenses	0.05 B	\$5,667	
Start Up	0.02 B	\$2,267	
Performance Tests		\$0	
Contingencies	0.03 B	\$3,400	
Total Indirect Cost (D)		\$22,667	

Total Install Capital Cost (B+C+D) \$199,069

Capital Recovery Factor (7%, 10 year) 0.1424

Capital Recovery Cost (E) \$28,343

**Appendix C: Cost Analysis for Control Devices
Catalytic Oxidizer (CO)**

Company Name: Holsum of Fort Wayne, Inc.
Address: 800 Boyd Boulevard, LaPorte, Indiana 46350
SSM to TV: 091-20967
Plt ID: 091-00106
Reviewer: ERG/SD
Date: April 29th, 2005

II. ANNUALIZED COSTS

1. Direct Operating Costs:

Operating Labor (F)		\$13,563	
a. Number of Employees		1.00	
b. Cost/Employee/Hour ****		\$24.8	(provided by source)
c. Operating Hours/Year		548	
Supervisory Labor (F1)	0.15 F	\$2,034	
Maintenance Labor (F2)		\$13,590	
a. Number of Employees		1.00	
b. Cost/Employee/Hour ****		\$24.8	(provided by source)
c. Operating Hours/Year		548	
Maintenance Material (F3)	1 F2	\$13,590	
Utilities			
a. Natural Gas		\$5,504	
MMBTU/HR Input		0.088	(provided by source)
Operating Hours/Year		8,760	
Cost/MMBTU ***		\$7.14	(rate in Indiana)
b. Electricity		\$11,852	
KW Requirements/Hr		24.6	
KWH/YR		8,760	
Cost/KWH ***		\$0.055	(national ave.)
Water		\$0	
Air		\$0	
Replacement Parts		\$1,900	(As per vendor proposal)
Total Direct Operating Cost (G)		\$62,035	

2. Indirect Operating Costs:

Overhead	0.6 (F+F1+F2+F3)	\$25,667	
Insurance, and Administrative Costs	0.03 (B+C+D)	\$5,972	
Total Indirect Operating Cost (H)		\$31,639	

3. Heat Recovery Credits (I):

		\$2,379	
MMBTU/HR Input		0.088	(provided by source)
Operating Hours/Year		8,760	
Unit Heat Efficiency		95%	
Heat Exchange Efficiency		65%	
Percent Heat Recovery		70%	
Cost/MMBTU ***		\$7.14	(rate in Indiana)

Total Annual Operating Cost (G+H-I) \$91,295

Total Annualized Cost	(E+G+H-I)	\$119,638
Uncontrolled PTE (tons/yr)	60.0 (as calculated in Appendix A)	
Overall Control Efficiency		95.0%
Pollution Removed (tons/yr)		57.0
Cost Effectiveness (\$ /ton VOC removed)		\$2,099