



Environmental
Protection Agency

Ted Strickland, Governor
Lee Fisher, Lt. Governor
Chris Korleski, Director

11/8/2010

JAMIE HATFIELD
Wonder Bakery - Northwood
8071 WALES RD
NORTHWOOD, OH 43619

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 0387000364
Permit Number: P0106587
Permit Type: Initial Installation
County: Wood

Certified Mail

Yes	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
Yes	SYNTHETIC MINOR TO AVOID TITLE V
Yes	FEDERALLY ENFORCABLE PTIO (FEPTIO)

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Kevin Boyce," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, OH 43215

If you have any questions, please contact Ohio EPA DAPC, Northwest District Office at (419)352-8461 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. This permit can be accessed electronically on the DAPC Web page, www.epa.ohio.gov/dapc, by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: Ohio EPA-NWDO



Response to Comments

Response to comments for: Permit-To-Install and Operate

Facility ID:	0387000364
Facility Name:	Wonder Bakery - Northwood
Facility Description:	
Facility Address:	8071 WALES RD NORTHWOOD, OH 43619 Wood County
Permit #:	P0106587, Initial Installation
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the The Daily Sentinel on 09/30/2010. The comment period ended on 10/30/2010.	
Hearing date (if held)	
Hearing Public Notice Date (if different from draft public notice)	

The following comments were received during the comment period specified. Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. PDF copies of the original comments in the format submitted are available upon request.

No public comments received.



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for
Wonder Bakery - Northwood**

Facility ID: 0387000364
Permit Number: P0106587
Permit Type: Initial Installation
Issued: 11/8/2010
Effective: 11/8/2010
Expiration: 11/8/2015



Division of Air Pollution Control
Permit-to-Install and Operate
for
Wonder Bakery - Northwood

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Authorization

Facility ID: 0387000364

Application Number(s): A0039678, A0039937, A0039943, A0040344

Permit Number: P0106587

Permit Description: This permit action addresses in installation of a new bakery oven and also modifies existing synthetic minor requirements for the facility.

Permit Type: Initial Installation

Permit Fee: \$1,700.00

Issue Date: 11/8/2010

Effective Date: 11/8/2010

Expiration Date: 11/8/2015

Permit Evaluation Report (PER) Annual Date: Oct 1 - Sept 30, Due Nov 15

This document constitutes issuance to:

Wonder Bakery - Northwood
8071 WALES RD
NORTHWOOD, OH 43619

of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page.

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402
(419)352-8461

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency



Chris Korleski
Director

Authorization (continued)

Permit Number: P0106587
Permit Description: This permit action addresses in installation of a new bakery oven and also modifies existing synthetic minor requirements for the facility.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

Emissions Unit ID:	P001
Company Equipment ID:	Line # 1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P004
Company Equipment ID:	Oven Chain Lubricant
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P005
Company Equipment ID:	High Speed Bun Line
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

A. Standard Terms and Conditions

1. What does this permit-to-install and operate ("PTIO") allow me to do?

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

2. Who is responsible for complying with this permit?

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

3. What records must I keep under this permit?

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

4. What are my permit fees and when do I pay them?

There are two fees associated with permitted air contaminant sources in Ohio:

- PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

- Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

5. When does my PTIO expire, and when do I need to submit my renewal application?

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

6. What happens to this permit if my project is delayed or I do not install or modify my source?

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

7. What reports must I submit under this permit?

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.

10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Ohio EPA DAPC, Northwest District Office in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed

permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

12. What happens if one or more emissions units operated under this permit is/are shut down permanently?

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting¹ a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emissions unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

13. Can I transfer this permit to a new owner or operator?

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated

¹ Permittees that use Ohio EPA's "Air Services" can mark the affected emissions unit(s) as "permanently shutdown" in the facility profile along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

15. What happens if a portion of this permit is determined to be invalid?

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.

B. Facility-Wide Terms and Conditions

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
 - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (1) None.

C. Emissions Unit Terms and Conditions



1. P001, Line # 1

Operations, Property and/or Equipment Description:

Yeast Leavened Bakery Oven

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. b(1)d., b(1)h., d(3), d(4), d(5), d(6), and e(4).

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b(1)a., b(2)a., c(1), d(1), d(2), e(2), and f(1)a.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	95 tons volatile organic compound (VOC) per rolling, 12-month period for emissions units P001, P004 and P005, combined. [See b)(2)a.]
b.	ORC 3704.03 (T)	VOC emissions shall not exceed 7.5 lb/ton of bread produced [see b)(2)b.]
c.	OAC 3745-31-05(A)(3), as effective 11/30/01	0.10 lb nitrogen oxides (NOx)/mmBtu , 2.63 tons NOx/year; 0.08 lb carbon monoxide (CO)/mmBtu, 2.10 tons CO/year See b)(2)c.
d.	OAC 3745-31-05(A)(3), as effective 12/01/06	See b)(2)d.
e.	OAC rule 3745-17-11(B)	See b)(2)e.
g.	OAC rule 3745-17-07(A)	See b)(2)f.
f.	OAC 3745-18-06(E)	105.8 lbs/hour [see b)(2)h.]

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
h.	ORC 3704.03(F)(4)(b) OAC rule 3745-114-01	See d)(3) through d)(6) and e)(4).

(2) Additional Terms and Conditions

- a. This permit establishes the following federally enforceable emission limitations on volatile organic compounds (VOC) for purposes of avoiding applicability of Title V permitting requirements:
 - i. 95 tons VOC per rolling, 12-month period from emissions units P001, P004 and P005, combined [see c)(1)].
- b. The BAT requirements of ORC 3704.03(T) have been determined to be the establishment of the emission limitation in section b)(1)b.
- c. The “Best Available Technology” (BAT) requirement under OAC rule 3745-31-05(A)(3), effective 11/30/01, has been determined to be the establishment of emission limitations in section b)(1)c.

It should be noted that NOx and CO emissions are generated as the products of combustion from the use of natural gas in the bread line. The use of natural gas also results in emissions of VOC, sulfur dioxide (SO2), and particulate matter equal to or less than ten microns in diameter (PM10). The potential emissions for all products of combustion are based on a maximum heat input of 6.0 mmBtu/hr (natural gas) and result in negligible emission quantities of SO2, VOC, and PM10 and; therefore, have not been addressed through individual BAT limitations for natural gas combustion within this permit.

- d. This rule applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

BAT requirements under OAC rule 3745-31-05(A)(3)(a), as effective December 1, 2006, do not apply to the NOx and CO emissions from this air contaminant source since the potential to emit for NOx and CO is each less than 10 tons per year. Additionally, the BAT requirements under OAC rule 3745-31-05(A)(3)(a), as effective December 1, 2006, do not apply to SO2, and PM10 emissions associated with natural gas combustion from this emissions unit since the uncontrolled potential to emit for each pollutant is less than 10 tons per year.

Potential emissions for all products of combustion were determined by applying the appropriate natural gas emission factors from AP-42, Table 3.2-3 (07/2000) to a maximum fuel heat input of 6.0 mmBtu/hr.

- e. The uncontrolled mass rate of emissions (UMRE) of PE from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, pursuant to OAC rule 3745-17-11(A)(4), Table 1 of OAC rule 3745-17-11 does

not apply because the PWR is equal to zero. The burning of natural gas is the only source of PE from this emissions unit.

- f. This emissions unit is exempt from the visible emission limitation specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.
- g. The short-term emission limitations for NOx and CO represent the potentials to emit. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with these emission limitations.
- h. The potential to emit (defined as the maximum capacity to emit an air pollutant under the physical and operational design) for SO2 from the bread line is less than the allowable emission limitation established by OAC rule 3745-18-06(E)(2). See f)(1)c. for details regarding the potential to emit for SO2 emissions.

c) Operational Restrictions

- (1) The maximum rolling, 12-month quantity of baked goods produced in emissions units P001 & P005, combined with the amount of chain lubricant used in P004, is limited by the following equation:

$$\sum_{M=1}^{12} \left\{ \sum_{i=1}^m [(E_i)(BG_i)] + \sum_{i=1}^n [(V_i)(G_i)] \right\} \div 2000 \text{ lbs/ton} \leq 95$$

where,

M = the increment of the rolling 12-month period;

m = total number of unique Baked Goods produced in P001 & P005;

E_i = VOC emission factor for baked goods material i, in pounds per ton of baked goods material produced [see d)(1) for VOC emission factor];

BG_i = amount of baked goods material i produced, in tons;

n = total number of chain lubricants used in P004;

V_i = VOC content in pounds per gallon of each chain lubricant employed;

G_i = gallons used of each chain lubricant.

To ensure federal enforceability during the first 12 calendar months of operation under the provisions of this permit, baked good material production for emission units P001, P004, and P005, combined, is limited by the following:



Maximum Allowable Baked Good Material Production & Chain Lubricant Usage

MONTH(S)	$\sum \left\{ \sum_{i=1}^m [(E_i)(BG_i)] + \sum_{i=1}^n [(V_i)(G_i)] \right\} \div 2000 \text{ lbs/ton}$ <p style="text-align: center;">is less than or equal to</p>
1-1	19.0
1-2	38.0
1-3	57.0
1-4	76.0
1-12	95.0

After the first 12 calendar months of operation under the provisions of this permit, compliance with the baked good material production restriction shall be based upon a rolling, 12-month summation.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall collect and record the following information each month for this emissions unit:

- a. name and identification of each type of baked good
- b. The VOC emission factor (EF) for each baked good as calculated using the equation given below. The records shall list all variables stated in the emission factor equation.

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

where,

VOC EF = emission factor in pounds of uncontrolled OC emissions per ton of bread or other yeast leavened product produced;

Y_i = initial baker's percent of yeast to the nearest tenth of a percent;

t_i = total yeast action time (fermentation time) of initial yeast, in hours, to the nearest tenth;

S = final (spiking) bakers percent of yeast to the nearest tenth of a percent; and

t_s = spiking yeast action time, in hours, to the nearest tenth of an hour.

The above equation was taken from the USEPA publication "Alternative Control Technology Document for Bakery Oven Emissions" (EPA 453/R-92-017, December 1992) as published in AP42, Fifth Edition, Volume I.

- c. the production rate of each type of baked good, in tons;
 - d. the VOC emission rate for each type of baked good, in tons [d)(1)b. times d)(1)c.]
 - e. the VOC emission rate for all baked goods, in tons [summation of d)(1)d.]
- (2) The permittee shall collect and record the following information each month for purposes of demonstrating compliance with the emission limitation of 95 tons VOC per rolling 12-month for emissions units P001, P004 and P005, combined.
- a. The VOC emission rate for all VOC emissions from P001, P004, and P005 combined, in tons [summation of the monthly VOC emission rate from each emissions unit, see individual emission units for monthly record keeping requirements].
 - b. Beginning after the first 12 calendar months of operation under the provisions of this permit or the rolling, 12-month summation of the monthly VOC emissions.
 - c. Also, during the first 12 calendar months of operation under the provisions of this permit, the permittee shall record the cumulative VOC emissions for each calendar month from P001, P004, and P005 combined.
- (3) The PTI application for this emissions unit group was evaluated based on the actual materials and the design parameters of the exhaust system(s) for P001, P004, and P005 as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using the air dispersion model SCREEN3. The predicted 1-hour maximum ground-level concentration result(s) was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:
- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
 - i. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "X" hours per day and "Y" days per week, from that of 8 hours per day and 5 days per week, in this case 24 hours per day and 6 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$\text{TLV}/10 \times 8/X \times 5/Y = 4 \text{ TLV}/XY = \text{MAGLC}$$

Where

X = 24 and

Y = 6.

- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: Acetaldehyde

Molecular Wt: 44.05

STEL (ppm): 25

TLV (ppm): $25 \times 0.737 = 18.4$

TLV (mg/m³): 33.13

TLV (ug/m³): 33,100

Maximum Hourly Emission Rate: 49.2 lbs/hr x 0.03 (concentration of acetaldehyde in VOC emissions) = 1.48 lb/hr

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 147 ug/m³

MAGLC (ug/m³): $920 = (4 \times 33100) / (24 \times 6)$

The permittee has demonstrated that emissions of acetaldehyde from this emissions unit is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

- (4) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration", the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;

- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
- c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

- (5) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):
 - a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
 - b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
 - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
 - d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.
- (6) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. all exceedances of the rolling, 12-month VOC emission limitation for emission units P001, P004, and P005, combined;
 - b. for the first 12 calendar months of operation under the provisions of this permit, all exceedances of the maximum allowable cumulative production levels;
 - c. the probable cause of each deviation (excursion);
 - d. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - e. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

- (3) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- (4) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the annual Permit Evaluation Report (PER). If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

f) Testing Requirements

- (1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following method(s):
 - a. Emission Limitation:
95.0 tons VOC per rolling, 12-month period (for emissions units P001, P004 and P005, combined)

Applicable Compliance Method:

Compliance shall be based on the record keeping requirements as specified in d)(2).

b. Emission Limitations:

0.1 lb NOx/mmBtu; 2.63 tons NOx/year

Applicable Compliance Method:

The lb/mmBtu and annual emission limitations represent the potential to emit for this emissions unit and were established in accordance with the uncontrolled emission factor for small boilers from AP-42, Table 1.4-1 [7/98].

The annual emission limitation was determined by multiplying the lb/mmBtu emission limitation, a maximum heat input of 6.0 mmBtu/hour, and a maximum operating rate of 8,760 hours/year and then dividing by 2,000 pounds/ton. Therefore, provided compliance is shown with the lb/mmBtu limitation, compliance with the annual emission limitation shall also be demonstrated.

c. Emission Limitations:

0.08 lb CO/mmBtu; 2.10 tons CO/year

Applicable Compliance Method

The lb/mmBtu and annual emission limitations represent the potential to emit for this emissions unit and were established in accordance with the uncontrolled emission factor for small boilers from AP-42, Table 1.4-1 [7/98].

The annual emission limitation was determined by multiplying the lb/mmBtu emission limitation, a maximum heat input of 6.0 mmBtu/hour, and a maximum operating rate of 8,760 hours/year and then dividing by 2,000 pounds/ton. Therefore, provided compliance is shown with the lb/mmBtu limitation, compliance with the annual emission limitation shall also be demonstrated.

d. Emission Limitation:

105.8 lbs SO₂/hour

Applicable Compliance Method:

The potential to emit (defined as the maximum capacity to emit an air pollutant under the physical and operational design) for SO₂ from this emissions unit is less than the allowable limitation established by OAC rule 3745-18-06(E)(2) and, therefore, compliance is assured. The potential to emit is based on an AP-42 emission factor of 0.0006 lb SO₂/mmBtu [Table 1.6-2 (9/03)] and a maximum heat input of 6.0 mmBtu per hour. If required, a determination of the SO₂ potential to emit shall be determined in accordance with the test methods and procedures of 40 CFR Part 60, Appendix A, Methods 1-4, and 6.

e. Emission Limitation:

VOC emissions shall not exceed 7.5 lb/ton of bread produced

Applicable Compliance Method:

The permittee shall demonstrate compliance with the 7.5 lb VOC/ton of bread* limitation based on the record keeping requirements in d)(1). *The 7.5 lb VOC/ton emission limitation represents a “worst-case” emission factor.

If required, the permittee shall demonstrate compliance with the hourly allowable OC emission limitation above in accordance with 40 CFR Part 60 Appendix A, Methods 1 through 4 and 18, 25, or 25A, as appropriate.

g) Miscellaneous Requirements

- (1) This permit action supersedes the requirements of Permit to Install 03-10548 issued August 27, 1997 for this emissions unit.



2. P004, Oven Chain Lubricant

Operations, Property and/or Equipment Description:

Oven Chain Lubricant

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	ORC 3704.03 (T)	The maximum volatile organic compound (VOC) content of the chain lubricants shall not exceed 6.2 lb/gallon. See b)(2)b.
b.	OAC rule 3745-31-05(D)	95 tons VOC per rolling, 12-month period for emissions units P001, P004 and P005, combined. [See b)(2)a.]
c.	OAC rule 3745-21-07(G)(2)	See b)(2) c and c)(2).

(2) Additional Terms and Conditions

a. This permit establishes the following federally enforceable emission limitations on volatile organic compounds (VOC) for purposes of avoiding applicability of Title V permitting requirements:

i. 95 tons VOC per rolling 12-month period from emissions units P001, P004 and P005, combined [see c)(1)].

b. The BAT requirements of ORC 3704.03(T) have been determined to be the establishment of the emission limitation in section b)(1)a.

- c. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following terms and conditions shall become void after U.S. EPA approves the rule revision: c)(2), d)(1), and e)(2).

The emission limitations and control requirements from the amended 21-07 rule, and the associated operational restrictions, monitoring, record keeping, and reporting requirements contained in this permit, shall become federally enforceable on the date the U.S. EPA approves the revised OAC rule 3745-21-07 as a revision to the Ohio SIP. The following terms shall become federally enforceable after U.S. EPA approves the rule revision: none.

c) Operational Restrictions

- (1) The maximum rolling 12-month quantity of baked goods produced in emissions units P001 & P005 combined with the amount of chain lubricant used in P004, is limited by the following equation:

$$\sum_{M=1}^{12} \left\{ \sum_{i=1}^m [(E_i)(BG_i)] + \sum_{i=1}^n [(V_i)(G_i)] \right\} \div 2000 \text{ lbs/ton} \leq 95$$

where,

M = the increment of the rolling 12-month period;

m = total number of unique Baked Goods produced in P001 & P005;

E_i = VOC emission factor for baked goods material i, in pounds per ton of baked goods material produced [see d)(1) for VOC emission factor];

BG_i = amount of baked goods material i produced, in tons;

n = total number of chain lubricants used in P004;

V_i = VOC content in pounds per gallon of each chain lubricant employed;

G_i = gallons used of each chain lubricant.

To ensure federal enforceability during the first 12 calendar months of operation under the provisions of this permit, baked good material production for emission units P001, P004, and P005 combined is limited by the following:



Maximum Allowable Baked Good Material Production & Chain Lubricant Usage

MONTH(S)	$\sum \left\{ \sum_{i=1}^m [(E_i)(BG_i)] + \sum_{i=1}^n [(V_i)(G_i)] \right\} \div 2000 \text{ lbs/ton}$ <p style="text-align: center;">is less than or equal to</p>
1-1	19.0
1-2	38.0
1-3	57.0
1-4	76.0
1-12	95.0

After the first 12 calendar months of operation under the provisions of this permit, compliance with the baked good material production restriction shall be based upon a rolling 12-month summation.

- (2) The use of photochemically reactive materials, as defined in OAC rule 3745-21-01, in this emissions unit is prohibited.
- d) Monitoring and/or Recordkeeping Requirements
 - (1) The permittee shall collect and record the following information each month for this emissions unit:
 - a. The name and identification number of each oven chain lubricant employed.
 - b. documentation of whether or not each chain lubricant employed is a photochemically reactive material, as defined in OAC rule 3745-21-01.
 - c. The volume, in gallons, of the oven chain lubricant employed.
 - d. The VOC content of each chain lubricant, in pounds per gallon, as applied.
 - e. The VOC emission rate for each chain lubricant employed, in pounds per month (d)(1)c times d)(1)d.
 - f. the VOC emission rate for all chain lubricants employed, in tons [summation of d)(1)e.]
 - (2) The permittee shall collect and record the following information each month for purposes of demonstrating compliance with the emission limitation of 95 tons VOC per rolling 12-month for emissions units P001, P004 and P005, combined.
 - a. The VOC emission rate for all VOC emissions from P001, P004, and P005 combined, in tons [summation of the monthly VOC emission rate from each

emissions unit, see individual emission units for monthly record keeping requirements].

- b. Beginning after the first 12 calendar months of operation under the provisions of this permit or the rolling, 12-month summation of the monthly VOC emissions.

Also, during the first 12 calendar months of operation under the provisions of this permit, the permittee shall record the cumulative VOC emissions for each calendar month from P001, P004, and P005, combined.

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. all exceedances of the rolling, 12-month VOC emission limitation for emission units P001, P004, and P005 combined;
 - b. for the first 12 calendar months of operation under the provisions of this permit, all exceedances of the maximum allowable cumulative production levels;
 - c. the probable cause of each deviation (excursion);
 - d. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - e. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

- (3) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- (4) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the annual Permit Evaluation Report (PER). If no

changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

f) Testing Requirements

a. Emission Limitation:

The VOC content of all chain lubricants shall not exceed 6.2 lb/gallon.

Applicable Compliance Method:

The permittee shall demonstrate compliance with the VOC content limitation above based on the record keeping requirements in d)(1).

Formulation data or USEPA Method 24 shall be used to calculate the VOC contents of all the lubricant materials.

b. Emission Limitation:

95.0 tons VOC per rolling, 12-month period (for emissions units P001, P004 and P005, combined)

Applicable Compliance Method:

Compliance shall be based on the record keeping requirements as specified in d)(2).

g) Miscellaneous Requirements

- (1) This permit action supersedes the requirements of Permit to Install 03-10548 issued August 27, 1997 for this emissions unit.



3. P005, High Speed Bun Line

Operations, Property and/or Equipment Description:

Yeast Leavened Bakery Oven

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. b)(1)d., b)(1)h., d)(3), d)(4), d)(5), d)(6), and e)(4).

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(1)a., b)(2)a., c)(1), d)(1), d)(2), e)(2), and f)(1)a.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D)	95 tons VOC per rolling, 12-month period for emissions units P001, P004 and P005, combined. [See b)(2)a.]
b.	ORC 3704.03 (T)	VOC emissions shall not exceed 7.6 lb/ton of bread produced. See b)(2)b.
c.	OAC 3745-31-05(A)(3), as effective 11/30/01	See b)(2)c.
d.	OAC 3745-31-05(A)(3), as effective 12/01/06	See b)(2)d.
	OAC rule 3745-17-11(B)	See b)(2)e.
	OAC rule 3745-17-07(A)	See b)(2)f.
	OAC 3745-18-06(E)	57.55 lbs/hour [see b)(2)g.]
	ORC 3704.03(F)(4)(b) OAC rule 3745-114-01	See d)(3) through d)(6) and e)(4).

(2) Additional Terms and Conditions

- a. This permit establishes the following federally enforceable emission limitations on volatile organic compounds (VOC) for purposes of avoiding applicability of Title V permitting requirements:
 - i. 95 tons VOC per rolling 12-month period from emissions units P001, P004 and P005, combined [see c)(1)].
- b. The BAT requirements of ORC 3704.03(T) have been determined to be the establishment of the emission limitation in section b)(1)b.
- c. The "Best Available Technology" (BAT) requirement under OAC rule 3745-31-05(A)(3), effective 11/30/01, has resulted in no emission limitations being established for this emissions unit.

Emissions of nitrogen oxides (NO_x), carbon monoxide (CO), sulfur dioxide (SO₂), particulate matter equal to or less than ten microns in diameter (PM₁₀), and VOC are generated as the products of combustion from the use of natural gas in the bread line. The potential emissions for all products of combustion are based on a maximum heat input of 4.08 mmBtu/hr (natural gas) and result in negligible emission quantities and therefore have not been addressed through individual BAT limitations for natural gas combustion within this permit.

- d. This rule applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

BAT requirements under OAC rule 3745-31-05(A)(3)(a), as effective December 1, 2006, do not apply to the NO_x, CO, SO₂, and PM₁₀ emissions associated with natural gas combustion from this emissions unit since the uncontrolled potential to emit for each pollutant is less than 10 tons per year.

Potential emissions for all products of combustion were determined by applying the appropriate natural gas emission factors from AP-42, Table 3.2-3 (07/2000) to a maximum fuel heat input of 4.08 mmBtu/hr.

- e. The uncontrolled mass rate of emissions (UMRE) of PE from this emissions unit is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, pursuant to OAC rule 3745-17-11(A)(4), Table 1 of OAC rule 3745-17-11 does not apply because the PWR is equal to zero. The burning of natural gas is the only source of PE from this emissions unit.
- f. This emissions unit is exempt from the visible emission limitation specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.
- g. The potential to emit (defined as the maximum capacity to emit an air pollutant under the physical and operational design) for SO₂ from the bread line is less than the allowable emission limitation established by OAC rule 3745-18-06(E)(2). See f)(1)b. for details regarding the potential to emit for SO₂ emissions.

c) Operational Restrictions

- (1) The maximum rolling 12-month quantity of baked goods produced in emissions units P001 & P005 combined with the amount of chain lubricant used in P004, is limited by the following equation:

$$\sum_{M=1}^{12} \left\{ \sum_{i=1}^m [(E_i)(BG_i)] + \sum_{i=1}^n [(V_i)(G_i)] \right\} \div 2000 \text{ lbs/ton} \leq 95$$

where,

M = the increment of the rolling 12-month period;

m = total number of unique Baked Goods produced in P001 & P005;

E_i = VOC emission factor for baked goods material i, in pounds per ton of baked goods material produced [see d)(1) for VOC emission factor];

BG_i = amount of baked goods material i produced, in tons;

n = total number of chain lubricants used in P004;

V_i = VOC content in pounds per gallon of each chain lubricant employed;

G_i = gallons used of each chain lubricant.

To ensure federal enforceability during the first 12 calendar months of operation under the provisions of this permit, baked good material production for emission units P001, P004, and P005 combined is limited by the following:

Maximum Allowable Baked Good Material Production & Chain Lubricant Usage

MONTH(S)	$\sum \left\{ \sum_{i=1}^m [(E_i)(BG_i)] + \sum_{i=1}^n [(V_i)(G_i)] \right\} \div 2000 \text{ lbs/ton}$ <p>is less than or equal to</p>
1-1	19.0
1-2	38.0
1-3	57.0
1-4	76.0
1-12	95.0

After the first 12 calendar months of operation under the provisions of this permit, compliance with the baked good material production restriction shall be based upon a rolling 12-month summation.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall collect and record the following information each month for this emissions unit:

- a. name and identification of each type of baked good
- b. The VOC emission factor (EF) for each baked good as calculated using the equation given below. The records shall list all variables stated in the emission factor equation.

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

where,

VOC EF = emission factor in pounds of uncontrolled OC emissions per ton of bread or other yeast leavened product produced;

Y_i = initial baker's percent of yeast to the nearest tenth of a percent;

t_i = total yeast action time (fermentation time) of initial yeast, in hours, to the nearest tenth;

S = final (spiking) bakers percent of yeast to the nearest tenth of a percent; and

t_s = spiking yeast action time, in hours, to the nearest tenth of an hour.

The above equation was taken from the USEPA publication "Alternative Control Technology Document for Bakery Oven Emissions" (EPA 453/R-92-017, December 1992) as published in AP42, Fifth Edition, Volume I.

- c. the production rate of each type of baked good, in tons;
 - d. the VOC emission rate for each type of baked good, in tons [d)(1)b. times d)(1)c.]
 - e. the VOC emission rate for all baked goods, in tons [summation of d)(1)d.]
- (2) The permittee shall collect and record the following information each month for purposes of demonstrating compliance with the emission limitation of 95 tons VOC per rolling 12-month for emissions units P001, P004 and P005, combined.
- a. The VOC emission rate for all VOC emissions from P001, P004, and P005 combined, in tons [summation of the monthly VOC emission rate from each emissions unit, see individual emission units for monthly record keeping requirements].
 - b. Beginning after the first 12 calendar months of operation under the provisions of this permit or the rolling, 12-month summation of the monthly VOC emissions.

- c. Also, during the first 12 calendar months of operation under the provisions of this permit, the permittee shall record the cumulative VOC emissions for each calendar month from P001, P004, and P005 combined.
- (3) The PTI application for this emissions unit group was evaluated based on the actual materials and the design parameters of the exhaust system(s) for P001, P004, and P005 as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using the air dispersion model SCREEN3. The predicted 1-hour maximum ground-level concentration result(s) was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:
- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
- i. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "X" hours per day and "Y" days per week, from that of 8 hours per day and 5 days per week, in this case 24 hours per day and 6 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):
- $$\text{TLV}/10 \times 8/X \times 5/Y = 4 \text{ TLV}/XY = \text{MAGLC}$$
- Where
- X = 24 and
- Y = 6.
- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: Acetaldehyde

Molecular Wt: 44.05

STEL (ppm): 25

TLV (ppm): $25 \times 0.737 = 18.4$

TLV (mg/m³): 33.13

TLV (ug/m³): 33,100

Maximum Hourly Emission Rate: 16.1 lbs/hr x 0.03 (concentration of acetaldehyde in VOC emissions) = 0.48 lb/hr

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 48 ug/m³

MAGLC (ug/m³): $920 = (4 \times 33100) / (24 \times 6)$

The permittee has demonstrated that emissions of acetaldehyde from this emissions unit is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

- (4) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration", the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
 - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

- (5) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

- a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
 - b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
 - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
 - d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.
- (6) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.
- e) Reporting Requirements
- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
 - (2) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. all exceedances of the rolling, 12-month VOC emission limitation for emission units P001, P004, and P005 combined;
 - b. for the first 12 calendar months of operation under the provisions of this permit, all exceedances of the maximum allowable cumulative production levels;
 - c. the probable cause of each deviation (excursion);
 - d. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - e. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to

March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

- (3) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
 - (4) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration, in the annual Permit Evaluation Report (PER). If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.
- f) Testing Requirements
- (1) Compliance with the emission limitations in b)(1) shall be determined in accordance with the following method(s):
 - a. Emission Limitation:
95.0 tons VOC per rolling, 12-month period (for emissions units P001, P004 and P005, combined)

Applicable Compliance Method:
Compliance shall be based on the record keeping requirements as specified in d)(2).
 - b. Emission Limitation:
57.55 lbs SO₂/hour

Applicable Compliance Method:
The potential to emit (defined as the maximum capacity to emit an air pollutant under the physical and operational design) for SO₂ from this emissions unit is less than the allowable limitation established by OAC rule 3745-18-06(E)(2) and therefore compliance is assured. The potential to emit is based on an AP-42 emission factor of 0.0006 lb SO₂/mmBtu [Table 1.6-2 (9/03)] and a maximum heat input of 4.08 mmBtu per hour. If required a determination of the SO₂ potential to emit shall be determined in accordance with the test methods and procedures of 40 CFR Part 60, Appendix A, Methods 1-4, and 6.
 - c. Emission Limitation:
VOC emissions shall not exceed 7.6 lb/ton of bread produced

Applicable Compliance Method:
The permittee shall demonstrate compliance with the 7.6 lb VOC/ton of bread* limitation based on the record keeping requirements in d)(1).

*The 7.6 lb VOC/ton emission limitation represents a “worst-case” emission factor.

If required, the permittee shall demonstrate compliance with the hourly allowable OC emission limitation above in accordance with 40 CFR Part 60 Appendix A, Methods 1 through 4 and 18, 25, or 25A, as appropriate.

g) Miscellaneous Requirements

- (1) None.