



State of Ohio Environmental Protection Agency

Street Address:

1800 WaterMark Drive  
Columbus, OH 43215-1099

TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

P.O. Box 1049  
Columbus, OH 43216-1049

08/06/98

**CERTIFIED MAIL**

01-25-04-0519

**RE: Final Chapter 3745-35 Permit To Operate**

The Kroger Co. Columbus Bakery  
Pete Anderson  
P.O. Box 03586  
Mt. Vernon Station  
Columbus, OH 43203

Dear Pete Anderson

The enclosed Permit(s) to Operate allow you to operate the described emissions unit(s) in the manner indicated in the Permit(s). Because each permit contains several terms and conditions, I urge you to read them carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action of the Director is final 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. It must be filed with the Environmental Review Appeals Commission within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. It is also requested by the Director that a copy of the appeal be served upon the Environmental Enforcement Section of the Office of the Attorney General. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
236 East Town Street  
Room 300  
Columbus, Ohio 43215

If you have any questions, please contact the Central District Office at (614) 728-3778.

Very truly yours,

Thomas G. Rigo, Manager  
Field Operations and Permit Section  
Division of Air Pollution Control

cc: Central District Office  
Jim Orlemann, DAPC Engineering  
Becky Castle, DAPC PMU



## PERMIT TO OPERATE AN EMISSIONS UNIT

Effective Date: 08/06/98

Facility ID: 01-25-04-0519

Expiration Date: 08/06/03

FINAL ISSUE

This document constitutes issuance for:

The Kroger Co. Columbus Bakery  
457 Cleveland Avenue  
Columbus, OH 43215

of a permit to operate for:

P002 (Bread Line #2)  
Baking of yeast leavened bread products

### PART I General Terms & Conditions

#### 1 Compliance Requirements

The above-described emissions unit is and shall remain in full compliance with all applicable State and federal laws and regulations and the terms and conditions of this permit.

#### 2. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

#### 3. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, *i.e.*, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

#### **4. Records Retention Requirements**

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of three years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Such records may be maintained in computerized form.

#### **5. Inspections and Information Requests**

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State and federal air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

#### **6. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions unit or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of this emissions unit(s) that is (are) served by such control system(s).

#### **7. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permittee. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

#### **8. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

#### **9. Permit Renewal**

Approximately six months prior to the expiration date of this permit, a notice regarding the renewal of this permit will be sent to the permittee's designated facility contact. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency. It is the permittee's responsibility to renew this permit even if no notice of its expiration is received.

The following Ohio EPA District Office or local air agency has jurisdiction in the area in which the facility is located:

Central District Office  
3232 Alum Creek Drive  
PO Box 1049  
Columbus, OH 43216-1049  
(614) 728-3778

You will be contacted approximately six months prior to expiration date regarding the renewal of this permit. If you are not contacted, please contact the Central District Office.

10. The permittee is also subject to the attached special terms and conditions.

OHIO ENVIRONMENTAL PROTECTION AGENCY

Director 

**Part II: Special Terms and Conditions**

**A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Bread Line #2	OAC rule 3745-35-07 OAC rule 3745-17-10(B)(1) OAC rule 3745-17-07(A)(1)	1.56 tons VOC/yr  0.020 pound of particulate emissions per MMBtu of actual heat input. Visible particulate emissions from any stack shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.

**2. Additional Terms and Conditions**

None

**B. Operational Restrictions**

1. The maximum production rate for this emissions unit shall not exceed 1,557 tons of baked goods per year, based upon a rolling, 13-period\* summation of the production rates.  
 \* a period is a 4-week block of time

**C. Monitoring and/or Record Keeping Requirements**

1. The permittee shall maintain the following records per 4-week period
  - a. The production rate for each 4-week period, in tons.
  - b. The rolling, 13-period summation of the production rates.

**D. Reporting Requirements**

1. The permittee shall submit annual reports which identify any exceedances of the rolling, 13-period production rate limitation, as well as corrective actions that were taken to achieve compliance. The annual reports also shall include calculations of the estimated total VOC emissions for the calendar year. These reports shall be submitted by January 31 of each year.

**E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):
  - 1.a Emission Limitation  
1.56 tons VOC/yr  
  
Applicable Compliance Method  
Compliance shall be based on the record keeping specified in Section C.1, i.e., by multiplying the rolling 13-period summation of the production rates by the VOC emission factor of 2.0 lbs/ton, and dividing by 2,000 lbs/ton. The emission factor was calculated for each baked good as described in E.1.b.

**E. Testing Requirements (continued)**

- 1.b The emission factor in section 1.a (2.0 lbs VOC/ton of bread) was calculated by using the following equation:

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

VOC ef = emission factor in pounds of uncontrolled VOC 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 of an hour,

$S$  = final (spiking) baker's 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 value for VOC ef is the same for all yeast leavened products.

The above equation was taken from the USEPA publication "Alternative Control Technology Document for Bakery Oven Emissions" (EPA 453/R-92-017) dated December 1992.

- 1.c Emission Limitation  
0.020 pound of particulate emissions per MMBtu of actual heat input.

**Applicable Compliance Method**

Compliance shall be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (3,900 cu.ft/hr) by the AP-42 (Fifth Edition) emission factor for natural gas combustion (6.2 lbs/MMcu.ft), and dividing by the maximum hourly heat input capacity of the emissions unit (3.86 MMBtu/hr). If required, the permittee shall demonstrate compliance with this limitation in accordance with the method(s) and procedures specified in OAC rule 3745-17-03(B)(9).

- 1.d Emission Limitation  
Visible particulate emissions from any stack shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.

**Applicable Compliance Method**

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1)

**F. Miscellaneous Requirements**

1. The following terms and conditions are federally enforceable, pursuant to OAC rule 3745-35-07: A - F.



## PERMIT TO OPERATE AN EMISSIONS UNIT

Effective Date: 8/6/98

Facility ID: 01-25-04-0519

Expiration Date: 08/06/03

FINAL ISSUE

This document constitutes issuance for:

The Kroger Co. Columbus Bakery  
457 Cleveland Avenue  
Columbus, OH 43215

of a permit to operate for:

P004 (Bun Lne #4)  
Baking of yeast leavened bun products

### PART I General Terms & Conditions

#### Compliance Requirements

The above-described emissions unit is and shall remain in full compliance with all applicable State and federal laws and regulations and the terms and conditions of this permit.

#### 2. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

#### 3. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, ~~i.e.~~, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

#### **4. Records Retention Requirements**

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of three years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Such records may be maintained in computerized form.

#### **5. Inspections and Information Requests**

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State and federal air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

#### **6. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions unit or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of this emissions unit(s) that is (are) served by such control system(s).

#### **Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permittee. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

#### **8. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

#### **9. Permit Renewal**

Approximately six months prior to the expiration date of this permit, a notice regarding the renewal of this permit will be sent to the permittee's designated facility contact. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency. It is the permittee's responsibility to renew this permit even if no notice of its expiration is received.

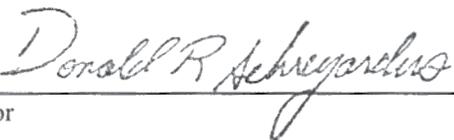
The following Ohio EPA District Office or local air agency has jurisdiction in the area in which the facility is located:

Central District Office  
3232 Alum Creek Drive  
PO Box 1049  
Columbus, OH 43216-1049  
(614) 728-3778

You will be contacted approximately six months prior to expiration date regarding the renewal of this permit. If you are not contacted, please contact the Central District Office.

10. The permittee is also subject to the attached special terms and conditions.

**OHIO ENVIRONMENTAL PROTECTION AGENCY**

  
\_\_\_\_\_  
Director

**Part II: Special Terms and Conditions**

**A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Bun Line #4	OAC rule 3745-35-07 OAC rule 3745-17-10(B)(1) OAC rule 3745-17-07(A)(1)	4.73 tons VOC/yr  0.020 pound of particulate emissions per MMBtu of actual heat input. Visible particulate emissions from any stack shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.

**2. Additional Terms and Conditions**

None

**B. Operational Restrictions**

1. The maximum production rate for this emissions unit shall not exceed 8,602 tons of baked goods per year, based upon a rolling, 13-period\* summation of the production rates.

\* a period is a 4-week block of time

**C. Monitoring and/or Record Keeping Requirements**

1. The permittee shall maintain the following records per 4-week period
  - a. The production rate for each 4-week period, in tons.
  - b. The rolling, 13-period summation of the production rates.

**D. Reporting Requirements**

1. The permittee shall submit annual reports which identify any exceedances of the rolling, 13-period production rate limitation, as well as corrective actions that were taken to achieve compliance. The annual reports also shall include calculations of the estimated total VOC emissions for the calendar year. These reports shall be submitted by January 31 of each year.

**E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A. of these terms and conditions shall be determined in accordance with the following method(s):
  - 1.a Emission Limitation  
4.73 tons VOC/yr  
  
 Applicable Compliance Method  
 Compliance shall be based on the record keeping specified in Section C.1, i.e., by multiplying the rolling 13-period summation of the production rates by the VOC emission factor of 1.10 lbs/ton, and dividing by 2,000 lbs/ton. The emission factor was calculated for each baked good as described in E.1.b.

**E. Testing Requirements (continued)**

- 1.b The emission factor in section 1.a (1.10 lbs VOC/ton of buns) was calculated by using the following equation:

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

VOC ef = emission factor in pounds of uncontrolled VOC 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 of an hour,

S = final (spiking) baker's 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 value for VOC ef is the same for all yeast leavened products.

The above equation was taken from the USEPA publication "Alternative Control Technology Document for Bakery Oven Emissions" (EPA 453/R-92-017) dated December 1992.

- 1.c Emission Limitation  
0.020 pound of particulate emissions per MMBtu of actual heat input.

**Applicable Compliance Method**

Compliance shall be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (2,100 cu.ft/hr) by the AP-42 (Fifth Edition) emission factor for natural gas combustion (6.2 lbs/MMcu.ft), and dividing by the maximum hourly heat input capacity of the emissions unit (2.04 MMBtu/hr). If required, the permittee shall demonstrate compliance with this limitation in accordance with the method(s) and procedures specified in OAC rule 3745-17-03(B)(9).

- 1.d Emission Limitation  
Visible particulate emissions from any stack shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.

**Applicable Compliance Method**

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

**F. Miscellaneous Requirements**

1. The following terms and conditions are federally enforceable, pursuant to OAC rule 3745-35-07: A - F.



## PERMIT TO OPERATE AN EMISSIONS UNIT

Effective Date: 8/6/98

Facility ID: 01-25-04-0519

Expiration Date: 08/06/03

FINAL ISSUE

This document constitutes issuance for:

The Kroger Co. Columbus Bakery  
457 Cleveland Avenue  
Columbus, OH 43215

of a permit to operate for:

P005 (Sweet Goods Line)  
Baking of yeast leavened sweet good products

### PART I General Terms & Conditions

#### 1. Compliance Requirements

The above-described emissions unit is and shall remain in full compliance with all applicable State and federal laws and regulations and the terms and conditions of this permit.

#### 2. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

#### 3. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, ~~i.e.~~, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

#### **4. Records Retention Requirements**

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of three years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Such records may be maintained in computerized form.

#### **5. Inspections and Information Requests**

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State and federal air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

#### **6. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions unit or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of this emissions unit(s) that is (are) served by such control system(s).

#### **7. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permittee. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

#### **8. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

#### **9. Permit Renewal**

Approximately six months prior to the expiration date of this permit, a notice regarding the renewal of this permit will be sent to the permittee's designated facility contact. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency. It is the permittee's responsibility to renew this permit even if no notice of its expiration is received.

The following Ohio EPA District Office or local air agency has jurisdiction in the area in which the facility is located:

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3232 Alum Creek Drive  
PO Box 1049  
Columbus, OH 43216-1049  
(614) 728-3778

You will be contacted approximately six months prior to expiration date regarding the renewal of this permit. If you are not contacted, please contact the Central District Office.

10. The permittee is also subject to the attached special terms and conditions

OHIO ENVIRONMENTAL PROTECTION AGENCY

A handwritten signature in cursive script that reads "Donald R. Schegardus". The signature is written in black ink and is positioned above a horizontal line.

Director

**Part II: Special Terms and Conditions**

**A Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Sweet Goods Line	OAC rule 3745-35-07 OAC rule 3745-17-10(B)(1) OAC rule 3745-17-07(A)(1)	12.9 tons VOC/yr  0.020 pound of particulate emissions per MMBtu of actual heat input. Visible particulate emissions from any stack shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.

**2. Additional Terms and Conditions**

None

**B. Operational Restrictions**

1. The maximum production rate for this emissions unit shall not exceed 3,848 tons of baked goods per year based upon a rolling, 13-period\* summation of the production rates.  
 \* a period is a 4-week block of time

**C. Monitoring and/or Record Keeping Requirements**

1. The permittee shall maintain the following records per 4-week period
  - a. The production rate for each 4-week period, in tons.
  - b. The rolling, 13-period summation of the production rates

**D. Reporting Requirements**

1. The permittee shall submit annual reports which identify any exceedances of the rolling, 13-period production rate limitation, as well as corrective actions that were taken to achieve compliance. The annual reports also shall include calculations of the estimated total VOC emissions for the calendar year. These reports shall be submitted by January 31 of each year.

**E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A. of these terms and conditions shall be determined in accordance with the following method(s):
  - 1.a Emission Limitation  
12.9 tons VOC/yr  
  
Applicable Compliance Method  
Compliance shall be based on the record keeping specified in Section C.1, i.e., by multiplying the rolling 13-period summation of the production rates by the VOC emission factor of 6.70 lbs/ton, and dividing by 2,000 lbs/ton. The emission factor was calculated for each baked good as described in E.1.b.

**E. Testing Requirements (continued)**

1.b The emission factor in section 1.a (6.70 lbs VOC/ton of rolls) was calculated by using the following equation:

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

VOC ef = emission factor in pounds of uncontrolled VOC 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 of an hour,

$S$  = final (spiking) baker's 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 value for VOC ef is the same for all yeast leavened products.

The above equation was taken from the USEPA publication "Alternative Control Technology Document for Bakery Oven Emissions" (EPA 453/R-92-017) dated December 1992.

**Emission Limitation**

0.020 pound of particulate emissions per MMBtu of actual heat input.

**Applicable Compliance Method**

Compliance shall be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (1,300 cu.ft/hr) by the AP-42 (Fifth Edition) emission factor for natural gas combustion (6.2 lbs/MMcu.ft), and dividing by the maximum hourly heat input capacity of the emissions unit (1.27 MMBtu/hr). If required, the permittee shall demonstrate compliance with this limitation in accordance with the method(s) and procedures specified in OAC rule 3745-17-03(B)(9).

**Emission Limitation**

Visible particulate emissions from any stack shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.

**Applicable Compliance Method**

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

**F. Miscellaneous Requirements**

1. The following terms and conditions are federally enforceable, pursuant to OAC rule 3745-35-07: A - F.



## PERMIT TO OPERATE AN EMISSIONS UNIT

Effective Date: 8/6/98

Facility ID: 01-25-04-0519

Expiration Date: 08/06/03

FINAL ISSUE

This document constitutes issuance for:

The Kroger Co. Columbus Bakery  
457 Cleveland Avenue  
Columbus, OH 43215

of a permit to operate for:

P006 (Cracker Line #1)  
Baking of yeast leavened cracker products

### PART I General Terms & Conditions

#### 1. Compliance Requirements

The above-described emissions unit is and shall remain in full compliance with all applicable State and federal laws and regulations and the terms and conditions of this permit.

#### 2. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

#### 3. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner

Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, ~~i.e.~~, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

#### **4. Records Retention Requirements**

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of three years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Such records may be maintained in computerized form.

#### **5. Inspections and Information Requests**

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State and federal air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

#### **6. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions unit or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of this emissions unit(s) that is (are) served by such control system(s).

#### **Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permittee. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

#### **8. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

#### **9. Permit Renewal**

Approximately six months prior to the expiration date of this permit, a notice regarding the renewal of this permit will be sent to the permittee's designated facility contact. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency. It is the permittee's responsibility to renew this permit even if no notice of its expiration is received.

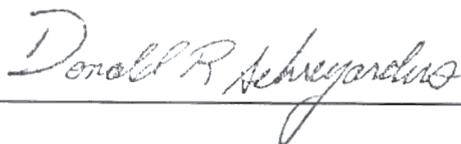
The following Ohio EPA District Office or local air agency has jurisdiction in the area in which the facility is located:

Central District Office  
3232 Alum Creek Drive  
PO Box 1049  
Columbus, OH 43216-1049  
(614) 728-3778

You will be contacted approximately six months prior to expiration date regarding the renewal of this permit. If you are not contacted, please contact the Central District Office.

10. The permittee is also subject to the attached special terms and conditions.

**OHIO ENVIRONMENTAL PROTECTION AGENCY**

A handwritten signature in cursive script, reading "Donald R. Shegards", is written over a horizontal line.

Director

**Part II: Special Terms and Conditions**

**A Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Cracker Line #1	OAC rule 3745-35-07 OAC rule 3745-17-10(B)(1) OAC rule 3745-17-07(A)(1)	6.43 tons VOC/yr  0.020 pound of particulate emissions per MMBtu of actual heat input. Visible particulate emissions from any stack shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.

**2. Additional Terms and Conditions**

None

**B. Operational Restrictions**

1. The maximum production rate for this emissions unit shall not exceed 3,135 tons of baked goods per year, based upon a rolling, 13-period\* summation of the production rates.

\* a period is a 4-week block of time

**C. Monitoring and/or Record Keeping Requirements**

1. The permittee shall maintain the following records per 4-week period:
  - a. The production rate for each 4-week period, in tons.
  - b. The rolling, 13-period summation of the production rates.

**D. Reporting Requirements**

1. The permittee shall submit annual reports which identify any exceedances of the rolling, 13-period production rate limitation, as well as corrective actions that were taken to achieve compliance. The annual reports also shall include calculations of the estimated total VOC emissions for the calendar year. These reports shall be submitted by January 31 of each year.

**E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

- 1.a Emission Limitation  
6.43 tons VOC/yr

**Applicable Compliance Method**

Compliance shall be based on the record keeping specified in Section C.1, i.e., by multiplying the rolling 13-period summation of the production rates by the VOC emission factor of 4.10 lbs/top, and dividing by 2,000 lbs/ton. The emission factor was calculated for each baked good as described in E.1.b.

**E. Testing Requirements (continued)**

- 1.b The emission factor in section 1.a (4.10 lbs VOC/ton of crackers) was calculated by using the following equation:

$VOC\ ef = 0.95Y_i + 0.195t_i - 0.51S - 0.86t_s + 1.90$ , where

VOC ef = emission factor in pounds of uncontrolled VOC 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 of an hour,

$S$  = final (spiking) baker's 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 value for VOC ef is the same for all yeast leavened products.

The above equation was taken from the USEPA publication "Alternative Control Technology Document for Bakery Oven Emissions" (EPA 453/R-92-017) dated December 1992.

- 1.c Emission Limitation  
0.020 pound of particulate emissions per MMBtu of actual heat input.

**Applicable Compliance Method**

Compliance shall be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (6,100 cu.ft/hr) by the AP-42 (Fifth Edition) emission factor for natural gas combustion (6.2 lbs/MMcu.ft), and dividing by the maximum hourly heat input capacity of the emissions unit (6.19 MMBtu/hr). If required, the permittee shall demonstrate compliance with this limitation in accordance with the method(s) and procedures specified in OAC rule 3745-17-03(B)(9).

- 1.d Emission Limitation  
Visible particulate emissions from any stack shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.

**Applicable Compliance Method**

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

**F. Miscellaneous Requirements**

1. The following terms and conditions are federally enforceable, pursuant to OAC rule 3745-35-07: A - F



## PERMIT TO OPERATE AN EMISSIONS UNIT

Effective Date: 8/6/98

Facility ID: 01-25-04-0519

Expiration Date: 08/06/03

FINAL ISSUE

This document constitutes issuance for:

The Kroger Co. Columbus Bakery  
457 Cleveland Avenue  
Columbus, OH 43215

of a permit to operate for:

P007 (Cracker Line #2)  
Baking of yeast leavened cracker products

### PART I General Terms & Conditions

#### 1. Compliance Requirements

The above-described emissions unit is and shall remain in full compliance with all applicable State and federal laws and regulations and the terms and conditions of this permit.

#### 2. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

#### 3. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

**4. Records Retention Requirements**

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of three years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Such records may be maintained in computerized form.

**5. Inspections and Information Requests**

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**6. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions unit or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of this emissions unit(s) that is (are) served by such control system(s).

**7. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permittee. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

**8. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

**9. Permit Renewal**

Approximately six months prior to the expiration date of this permit, a notice regarding the renewal of this permit will be sent to the permittee's designated facility contact. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency. It is the permittee's responsibility to renew this permit even if no notice of its expiration is received.

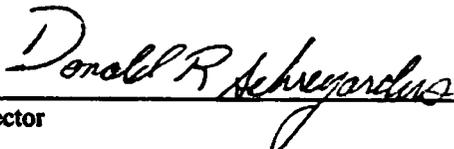
The following Ohio EPA District Office or local air agency has jurisdiction in the area in which the facility is located:

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(614) 728-3778

You will be contacted approximately six months prior to expiration date regarding the renewal of this permit. If you are not contacted, please contact the Central District Office.

10. The permittee is also subject to the attached special terms and conditions

OHIO ENVIRONMENTAL PROTECTION AGENCY

  
\_\_\_\_\_  
Director

**Part II: Special Terms and Conditions**

**A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Cracker Line #2	OAC rule 3745-35-07 OAC rule 3745-17-10(B)(1) OAC rule 3745-17-07(A)(1)	13.9 tons VOC/yr  0.020 pound of particulate emissions per MMBtu of actual heat input. Visible particulate emissions from any stack shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.

**2. Additional Terms and Conditions**

None

**B. Operational Restrictions**

1. The maximum production rate for this emissions unit shall not exceed 6,760 tons of baked goods per year, based upon a rolling, 13-period\* summation of the production rates.  
 a period is a 4-week block of time

**C. Monitoring and/or Record Keeping Requirements**

1. The permittee shall maintain the following records per 4-week period:
  - a. The production rate for each 4-week period, in tons.
  - b. The rolling, 13-period summation of the production rates.

**D. Reporting Requirements**

1. The permittee shall submit annual reports which identify any exceedances of the rolling, 13-period production rate limitation, as well as corrective actions that were taken to achieve compliance. The annual reports also shall include calculations of the estimated total VOC emissions for the calendar year. These reports shall be submitted by January 31 of each year.

**E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A. of these terms and conditions shall be determined in accordance with the following method(s):
  - 1.a Emission Limitation  
13.9 tons VOC/yr  
  
 Applicable Compliance Method  
 Compliance shall be based on the record keeping specified in Section C.1, i.e., by multiplying the rolling 13-period summation of the production rates by the VOC emission factor of 4.10 lbs/ton, and dividing by 2,000 lbs/ton. The emission factor was calculated for each baked good as described in E.1.b.

**E. Testing Requirements (continued)**

- 1.b** The emission factor in section 1.a (4.10 lbs VOC/ton of crackers) was calculated by using the following equation:

$VOC\ ef = 0.95Y_i + 0.195t_i - 0.51S - 0.86t_s + 1.90$ , where

VOC ef = emission factor in pounds of uncontrolled VOC 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 of an hour,

$S$  = final (spiking) baker's 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 value for VOC ef is the same for all yeast leavened products.

The above equation was taken from the USEPA publication "Alternative Control Technology Document for Bakery Oven Emissions" (EPA 453/R-92-017) dated December 1992.

- 1.c** Emission Limitation  
0.020 pound of particulate emissions per MMBtu of actual heat input.

**Applicable Compliance Method**

Compliance shall be determined by multiplying the maximum hourly gas burning capacity of the emissions unit (6,100 cu.ft/hr) by the AP-42 (Fifth Edition) emission factor for natural gas combustion (6.2 lbs/MMcu.ft), and dividing by the maximum hourly heat input capacity of the emissions unit (6.19 MMBtu/hr). If required, the permittee shall demonstrate compliance with this limitation in accordance with the method(s) and procedures specified in OAC rule 3745-17-03(B)(9).

- 1.d** Emission Limitation  
Visible particulate emissions from any stack shall not exceed twenty percent opacity, as a six-minute average, except as provided by rule.

**Applicable Compliance Method**

Compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1)

**F. Miscellaneous Requirements**

1. The following terms and conditions are federally enforceable, pursuant to OAC rule 3745-35-07: A - F