

Facility ID: 1318047969 Issuance type: Final State Permit To Operate

This version of facility specific terms and conditions was converted from a database format to an HTML file during an upgrade of the Ohio EPA, Division of Air Pollution Control's permitting software. Every attempt has been made to convert the terms and conditions to look and substantively conform to the permit issued or being drafted in STARS. However, the format of the terms may vary slightly from the original. In addition, although it is not expected, there is a slight possibility that a term and condition may have been inadvertently "left out" of this reproduction during the conversion process. Therefore, if this version is to be used as a starting point in drafting a new version of a permit, it is imperative that the entire set of terms and conditions be reviewed to ensure they substantively mimic the issued permit. The official version of any permit issued final by Ohio EPA is kept in the Agency's Legal section. The Legal section may be contacted at (614) 644-3037.

In addition to the terms and conditions, hyperlinks have been inserted into the document so you may more readily access the section of the document you wish to review.

Finally, the term language under "Part II" and before "A. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

- [Go to Part II for Emissions Unit P004](#)
- [Go to Part II for Emissions Unit P005](#)
- [Go to Part II for Emissions Unit P006](#)

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Facility ID: 1318047969 Emissions Unit ID: P004 Issuance type: Final State Permit To Operate

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**Part II - Special Terms and Conditions**

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.

**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>
P004 - 3.36 mmBTU/hour direct natural gas-fired tunnel Oven No. 4	OAC rule 3745-31-05(A)(3) (Permit-to-Install No. 13-04559 issued on 3/16/2006)	9.42 lbs/hour and 41.27 tons/year of VOC
		Visible particulate emissions from the stack(s) serving this emissions unit shall not exceed 5% opacity, as a six-minute average.
		0.33 lb/hour and 1.45 tons/year of NOx from the combustion of natural gas.
		0.28 lb/hour and 1.23 tons/year of CO from the combustion of natural gas.
		See A.2.a below.
		The requirements of this rule include compliance with the requirements of OAC rule 3745-31-05(C).
	OAC rule 3745-17-07(A)	The visible emission limitation specified by this rule is less stringent than the requirements of OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the requirements of OAC rule 3745-31-05(A)(3).
	OAC rule 3745-18-06(A)	Exempt (See B.1 below).
	OAC rule 3745-21-07(G)	See A.2.b below.
	OAC rule 3745-31-05(C)	The combined annual VOC emissions from P004, P005, and P006 shall not exceed 91.0 tons/year as a rolling, 12-month summation (excluding products of combustion).
	Synthetic Minor to avoid Title V	

**2. Additional Terms and Conditions**

- (a) The hourly and annual emission limits for this emissions unit have been established at the unit's potential to emit; therefore, monitoring, recordkeeping, and reporting are not needed for these limits. No liquid organic materials are employed in this emissions unit; therefore, OAC rule 3745-21-07(G) is not applicable.

**B. Operational Restrictions**

1. The permittee shall only burn natural gas as fuel in this emissions unit.
2. The permittee shall determine the emission factor (EF) established by the following equation for VOC emissions for each different recipe used in bread baking operations taken from AP-42, Volume 1, Fifth Edition (January, 1995), section 9.9.6, "Bread Baking" for each recipe:

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

Where

VOC EF = pounds of VOC per ton of baked bread

$Y_i$  = initial baker's percentage of yeast

$t_i$  = total yeast action time in hours

S = final (spike) baker's percentage of yeast

$t_s$  = spiking time in hours

The total combined bread produced in P004, P005, and P006 shall be restricted on a rolling, 12-month summation.

The permittee shall calculate and sum the VOC emissions from each different recipe used in baking operations for the month and then add the total VOC emissions from the previous 11 months as shown below:

$$[\text{EF VOC}_i \times (\text{tons product}/\text{month})] / (2,000 \text{ pounds}/\text{ton}) + X$$

Where

$i$  = each different recipe used in baking operations

X = total VOC emissions for the past 11 months

The total combined emissions of VOC from P004, P005, and P006 shall not exceed 91.0 tons per year, based upon a rolling, 12-month summation of the VOC emissions using the above formula.

Compliance with the annual bread production and VOC emission limitation shall be based upon a rolling, 12-month summation of the bread production and VOC emissions.

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

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall maintain monthly records of the following information for P004, P005, and P006 combined:
  - a. the name and identification of each recipe produced;
  - b. the total amount of baked goods produced per recipe, in tons per month;
  - c. the emission factor for each recipe as calculated in Section B.2;
  - d. the total monthly VOC emissions, in tons, for each recipe by summing  $[(b. \times c.) / 2,000]$  for all recipes produced in accordance with Section B.2; and
  - e. the rolling 12-month summation of total VOC emissions, in tons.
3. The permit to install for this emissions unit P004 was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxics Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Ethanol

TLV (mg/m<sup>3</sup>): 1,880

Maximum Hourly Emission Rate (lbs/hour): 41.53 (combined total for P004 - P006)

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 37,860

MAGLC (ug/m<sup>3</sup>): 44,762

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used, or the use of new materials, that would result in the emissions of a compound with the lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value 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 pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy;" and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**D. Reporting Requirements**

- 1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) within 30 days after the deviation occurs.
- 2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month emission limitation for VOC shown in Section B.2. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) within 30 days after the deviation occurs.

**E. Testing Requirements**

- 1. Compliance with the emission limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):  
Emission Limitation:  
9.42 lbs/hr of VOC

**Applicable Compliance Method:**

Compliance with the pound per hour limitation shall be determined by multiplying the emission factor established by the equation for VOC emissions from bread baking operations was taken from AP-42, Volume 1, Fifth Edition (January, 1995), section 9.9.6, "Bread Baking" by the amount of bread produced, in tons. This is shown below in a one time calculation of Potential-to-Emit for the worst case recipe at the maximum production rate:

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

**Where**

- VOC EF = pounds of VOC per ton of baked bread
- Y<sub>i</sub> = initial baker's percentage of yeast
- t<sub>i</sub> = total yeast action time in hours
- S = final (spike) baker's percentage of yeast
- t<sub>s</sub> = spiking time in hours

$$\text{VOC EF} = 0.95(5.1\%) + 0.195(1.2) + 0.51(0\%) - 0.86(0\%) + 1.90 = 6.98 \text{ pounds VOC/ton baked bread}$$

$$(6.98 \text{ pounds VOC/ton baked bread}) \times (1.35 \text{ tons baked bread/hour}) = 9.42 \text{ pounds VOC/hour}$$

Emission Limitation:  
41.27 TPY of VOC

**Applicable Compliance Method:**

The annual emission limitation was established by multiplying the hourly emission rate by 8,760 hours of operation per year and dividing by 2,000 pounds per ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the pounds per hour limitation.

Emission Limitation:  
5% opacity as a 6-minute average

**Applicable Compliance Method:**

Compliance shall be demonstrated based upon the requirements specified in OAC rule 3745-17-03(B)(1) and the methods and procedures required in 40 CFR Part 60, Appendix A, Method 9.

Emission Limitation:  
The combined annual VOC emissions for P004, P005, and P006 shall not exceed 91.0 tons/year as a rolling, 12-month summation (excluding products of combustion).

**Applicable Compliance Method:**

Compliance shall be determined based on the recordkeeping from Section C above and the following:

The permittee shall calculate and sum the VOC emissions from each different recipe used in baking operations for the month, as follows:

$$[\text{EF VOC}_i \times (\text{tons product}_i/\text{month})] / (2,000 \text{ pounds/ton}) = \text{tons VOC/month}$$

**Where**

i = each different recipe used in baking operations

The permittee shall then sum the total monthly VOC emissions as a rolling, 12-month summation.

Emission Limitation:  
0.33 lb/hr of NOx from the 3.36 mmBTU/hour natural gas-fired burner

**Applicable Compliance Method:**

Compliance with the pound per hour limitation shall be determined by multiplying the emission factor of 100 lbs NOx/mmscf from Section 1.4 ("Natural Gas Consumption") of AP-42, Fifth Edition, Volume 1, Chapter 1 by the mmBTU/hour rating of the natural gas-fired burner. Since the emissions factor are given in a volume format, they were converted to an energy basis by dividing the given factor by 1,020 mmBTU/mmscf.

Emission Limitation:  
1.45 TPY of NOx from the 3.36 mmBTU/hour natural gas-fired burner

**Applicable Compliance Method:**

The annual emission limitation was established by multiplying the hourly emission rate by 8,760 hours of operation per year and dividing by 2,000 pounds per ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the pounds per hour limitation.

Emission Limitation:  
0.28 lb/hr of CO from the 3.36 mmBTU/hour natural gas-fired burner

**Applicable Compliance Method:**

Compliance with the pound per hour limitation shall be determined by multiplying the emission factor of 84 lbs CO/mmscf from Section 1.4 ("Natural Gas Consumption") of AP-42, Fifth Edition, Volume 1, Chapter 1 by the mmBTU/hour rating of the natural gas-fired burner. Since the emissions factor are given in a volume format, they were converted to an energy basis by dividing the given factor by 1,020 mmBTU/mmscf.

Emission Limitation:  
1.23 TPY of CO from the 3.36 mmBTU/hour natural gas-fired burner

**Applicable Compliance Method:**

The annual emission limitation was established by multiplying the hourly emission rate by 8,760 hours of operation per year and dividing by 2,000 pounds per ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the pounds per hour limitation.

**F. Miscellaneous Requirements**

1. The following terms and conditions are federally enforceable: A, B, C.1, C.2, D, and E.

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 1318047969 Emissions Unit ID: P005 Issuance type: Final State Permit To Operate

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**Part II - Special Terms and Conditions**

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.

**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>
P005 - 6.2 mmBTU/hour direct natural gas-fired tunnel oven No. 5	OAC rule 3745-31-05(A)(3) (Permit-to-Install No. 13-04559 issued on 3/16/2006)	13.96 lb/hour and 61.14 tons/year of VOC  Visible particulate emissions from the stack(s) serving this emissions unit shall not exceed 5% opacity, as a six-minute average.  0.61 lb/hour and 2.67 tons/year of NOx from the combustion of natural gas.  0.51 lb/hour and 2.23 tons/year of CO from the combustion of natural gas.
		See A.2.a below.
		The requirements of this rule include compliance with the requirements of OAC rule 3745-31-05(C).
	OAC rule 3745-17-07(A)	The visible emission limitation specified by this rule is less stringent than the requirements of OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-11	The emission limitation specified by this rule is less stringent than the requirements of OAC rule 3745-31-05(A)(3).
	OAC rule 3745-18-06(A)	Exempt (See B.1 below).
	OAC rule 3745-21-07(G)	See A.2.b below.
	OAC rule 3745-31-05(C)	The combined annual VOC emissions from P004, P005, and P006 shall not exceed 91.0 tons/year as a
	Synthetic Minor to avoid Title V	

rolling, 12-month summation (excluding products of combustion).

2. **Additional Terms and Conditions**

- (a) The hourly and annual emission limits for this emissions unit have been established at the unit's potential to emit; therefore, monitoring, recordkeeping, and reporting are not needed for these limits. No liquid organic materials are employed in this emissions unit; therefore, OAC rule 3745-21-07(G) is not applicable.

B. **Operational Restrictions**

1. The permittee shall only burn natural gas as fuel in this emissions unit.
2. The permittee shall determine the emission factor (EF) established by the following equation for VOC emissions for each different recipe used in bread baking operations taken from AP-42, Volume 1, Fifth Edition (January, 1995), section 9.9.6, "Bread Baking" for each recipe:

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

Where

VOC EF = pounds of VOC per ton of baked bread

$Y_i$  = initial baker's percentage of yeast

$t_i$  = total yeast action time in hours

S = final (spike) baker's percentage of yeast

$t_s$  = spiking time in hours

The total combined bread produced in P004, P005, and P006 shall be restricted on a rolling, 12-month summation.

The permittee shall calculate and sum the VOC emissions from each different recipe used in baking operations for the month and then add the total VOC emissions from the previous 11 months as shown below:

$$[\text{EF VOC}_i \times (\text{tons product/month})] / (2,000 \text{ pounds/ton}) + X$$

Where

$i$  = each different recipe used in baking operations

X = total VOC emissions for the past 11 months

The total combined emissions of VOC from P004, P005, and P006 shall not exceed 91.0 tons per year, based upon a rolling, 12-month summation of the VOC emissions using the above formula.

Compliance with the annual bread production and VOC emission limitation shall be based upon a rolling, 12-month summation of the bread production and VOC emissions.

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

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. The permittee shall maintain monthly records of the following information for P004, P005, and P006 combined:
  - a. the name and identification of each recipe produced;
  - b. the total amount of baked goods produced per recipe, in tons per month;
  - c. the emission factor for each recipe as calculated in Section B.2;
  - d. the total monthly VOC emissions, in tons, for each recipe by summing  $[(b. \times c.) / 2,000]$  for all recipes produced in accordance with Section B.2; and
  - e. the rolling 12-month summation of total VOC emissions, in tons.
3. The permit to install for this emissions unit P005 was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxics Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Ethanol

TLV (mg/m<sup>3</sup>): 1,880

Maximum Hourly Emission Rate (lbs/hour): 41.53 (combined total for P004 - P006)

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 37,860

MAGLC (ug/m<sup>3</sup>): 44,762

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used, or the use of new materials, that would result in the emissions of a compound with the lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value 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 pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy;" and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) within 30 days after the deviation occurs.
2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month emission limitation for VOC shown in Section B.2. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) within 30 days after the deviation occurs.

**E. Testing Requirements**

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

Emission Limitation:  
13.96 lbs/hr of VOC

Applicable Compliance Method:

Compliance with the pound per hour limitation shall be determined by multiplying the emission factor established by the equation for VOC emissions from bread baking operations was taken from AP-42, Volume 1, Fifth Edition (January, 1995), section 9.9.6, "Bread Baking" by the amount of bread produced, in tons. This is shown below in a one time calculation of Potential-to-Emit for the worst case recipe at the maximum production rate:

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

Where

VOC EF = pounds of VOC per ton of baked bread

$Y_i$  = initial baker's percentage of yeast

$t_i$  = total yeast action time in hours

$S$  = final (spike) baker's percentage of yeast

$t_s$  = spiking time in hours

$$\text{VOC EF} = 0.95(5.1\%) + 0.195(1.2) + 0.51(0\%) - 0.86(0\%) + 1.90$$

$$= 6.98 \text{ pounds VOC/ton baked bread}$$

$$(6.98 \text{ pounds VOC/ton baked bread}) \times (2.0 \text{ tons baked bread/hour}) = 13.96 \text{ pounds VOC/hour}$$

Emission Limitation:  
61.14 TPY of VOC

Applicable Compliance Method:

The annual emission limitation was established by multiplying the hourly emission rate by 8,760 hours of operation per year and dividing by 2,000 pounds per ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the pounds per hour limitation.

Emission Limitation:

5% opacity as a 6-minute average

Applicable Compliance Method:

Compliance shall be demonstrated based upon the requirements specified in OAC rule 3745-17-03(B)(1) and the methods and procedures required in 40 CFR Part 60, Appendix A, Method 9.

Emission Limitation:

The combined annual VOC emissions for P004, P005, and P006 shall not exceed 91.0 tons/year as a rolling, 12-month summation (excluding products of combustion).

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping from Section C above and the following:

The permittee shall calculate and sum the VOC emissions from each different recipe used in baking operations for the month, as follows:

$$[\text{EF VOC}_i \times (\text{tons product}_i/\text{month})] / (2,000 \text{ pounds/ton}) = \text{tons VOC/month}$$

Where  
i = each different recipe used in baking operations

The permittee shall then sum the total monthly VOC emissions as a rolling, 12-month summation.

Emission Limitation:  
0.61 lb/hr of NOx from the 6.2 mmBTU/hour natural gas-fired burner

Applicable Compliance Method:  
Compliance with the pound per hour limitation shall be determined by multiplying the emission factor of 100 lbs NOx/mmscf from Section 1.4 ("Natural Gas Consumption") of AP-42, Fifth Edition, Volume 1, Chapter 1 by the mmBTU/hour rating of the natural gas-fired burner. Since the emissions factor are given in a volume format, they were converted to an energy basis by dividing the given factor by 1,020 mmBTU/mmscf.  
Emission Limitation:  
2.67 TPY of NOx from the 6.2 mmBTU/hour natural gas-fired burner

Applicable Compliance Method:  
The annual emission limitation was established by multiplying the hourly emission rate by 8,760 hours of operation per year and dividing by 2,000 pounds per ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the pounds per hour limitation.  
Emission Limitation:  
0.51 lb/hr of CO from the 6.2 mmBTU/hour natural gas-fired burner

Applicable Compliance Method:  
Compliance with the pound per hour limitation shall be determined by multiplying the emission factor of 84 lbs CO/mmscf from Section 1.4 ("Natural Gas Consumption") of AP-42, Fifth Edition, Volume 1, Chapter 1 by the mmBTU/hour rating of the natural gas-fired burner. Since the emissions factor are given in a volume format, they were converted to an energy basis by dividing the given factor by 1,020 mmBTU/mmscf.  
Emission Limitation:  
2.23 TPY of CO from the 6.2 mmBTU/hour natural gas-fired burner

Applicable Compliance Method:  
The annual emission limitation was established by multiplying the hourly emission rate by 8,760 hours of operation per year and dividing by 2,000 pounds per ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the pounds per hour limitation.

**F. Miscellaneous Requirements**

1. The following terms and conditions are federally enforceable: A, B, C.1, C.2, D, and E.

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 1318047969 Emissions Unit ID: P006 Issuance type: Final State Permit To Operate

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**Part II - Special Terms and Conditions**

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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.

**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>
P006 - 7 mmBTU/hour direct natural gas-fired tunnel Oven No. 6	OAC rule 3745-31-05(A)(3) (Permit-to-Install No. 13-04559 issued on 3/16/2006)	18.15 lb/hour and 79.48 tons/year of VOC  Visible particulate emissions from the stack(s) serving this emissions unit shall not exceed 5% opacity, as a six-minute average.  0.69 lb/hour and 3.02 tons/year of NOx from the combustion of natural gas.  0.57 lb/hour and 2.50 tons/year of CO from the combustion of natural gas.

See A.2.a below.

The requirements of this rule include compliance with the requirements of OAC rule 3745-31-05(C).

OAC rule 3745-17-07(A)

The visible emission limitation specified by this rule is less stringent than the requirements of OAC rule 3745-31-05(A)(3).

OAC rule 3745-17-11

The emission limitation specified by this rule is less stringent than the requirements of OAC rule 3745-31-05(A)(3).

OAC rule 3745-18-06(A)

Exempt (See B.1 below).

OAC rule 3745-21-07(G)

See A.2.b below.

OAC rule 3745-31-05(C)

Synthetic Minor to avoid Title V

The combined annual VOC emissions from P004, P005, and P006 shall not exceed 91.0 tons/year as a rolling, 12-month summation (excluding products of combustion).

**2. Additional Terms and Conditions**

- (a) The hourly and annual emission limits for this emissions unit have been established at the unit's potential to emit; therefore, monitoring, recordkeeping, and reporting are not needed for these limits. No liquid organic materials are employed in this emissions unit; therefore, OAC rule 3745-21-07(G) is not applicable.

**B. Operational Restrictions**

- 1. The permittee shall only burn natural gas as fuel in this emissions unit.
- 2. The permittee shall determine the emission factor (EF) established by the following equation for VOC emissions for each different recipe used in bread baking operations taken from AP-42, Volume 1, Fifth Edition (January, 1995), section 9.9.6, "Bread Baking" for each recipe:

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

Where

VOC EF = pounds of VOC per ton of baked bread

$Y_i$  = initial baker's percentage of yeast

$t_i$  = total yeast action time in hours

S = final (spike) baker's percentage of yeast

$t_s$  = spiking time in hours

The total combined bread produced in P004, P005, and P006 shall be restricted on a rolling, 12-month summation.

The permittee shall calculate and sum the VOC emissions from each different recipe used in baking operations for the month and then add the total VOC emissions from the previous 11 months as shown below:

$$[\text{EF VOC}_i \times (\text{tons product}/\text{month})] / (2,000 \text{ pounds}/\text{ton}) + X$$

Where

$i$  = each different recipe used in baking operations

X = total VOC emissions for the past 11 months

The total combined emissions of VOC from P004, P005, and P006 shall not exceed 91.0 tons per year, based upon a rolling, 12-month summation of the VOC emissions using the above formula.

Compliance with the annual bread production and VOC emission limitation shall be based upon a rolling, 12-month summation of the bread production and VOC emissions.

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

- 1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- 2. The permittee shall maintain monthly records of the following information for P004, P005, and P006 combined:
  - a. the name and identification of each recipe produced;
  - b. the total amount of baked goods produced per recipe, in tons per month;
  - c. the emission factor for each recipe as calculated in Section B.2;
  - d. the total monthly VOC emissions, in tons, for each recipe by summing  $[(b. \times c.) / 2,000]$  for all recipes produced in accordance with Section B.2; and
  - e. the rolling 12-month summation of total VOC emissions, in tons.
- 3. The permit to install for this emissions unit P006 was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxics Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Ethanol

TLV (mg/m3): 1,880

Maximum Hourly Emission Rate (lbs/hour): 41.53 (combined total for P004 - P006)

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 37,860

MAGLC (ug/m3): 44,762

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used, or the use of new materials, that would result in the emissions of a compound with the lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value 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 pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" 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 the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy;" and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

**D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) within 30 days after the deviation occurs.
2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month emission limitation for VOC shown in Section B.2. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) within 30 days after the deviation occurs.

**E. Testing Requirements**

1. Compliance with the emission limitation(s) in Section A.1. of these terms and conditions shall be determined in accordance with the following method(s):  
Emission Limitation:  
18.15 lbs/hr of VOC

Applicable Compliance Method:

Compliance with the pound per hour limitation shall be determined by multiplying the emission factor established by the equation for VOC emissions from bread baking operations was taken from AP-42, Volume 1, Fifth Edition (January, 1995), section 9.9.6, "Bread Baking" by the amount of bread produced, in tons. This is shown below in a one time calculation of Potential-to-Emit for the worst case recipe at the maximum production rate:

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

Where

VOC EF = pounds of VOC per ton of baked bread

$Y_i$  = initial baker's percentage of yeast

$t_i$  = total yeast action time in hours

$S$  = final (spike) baker's percentage of yeast

$t_s$  = spiking time in hours

$$\text{VOC EF} = 0.95(5.1\%) + 0.195(1.2) + 0.51(0\%) - 0.86(0\%) + 1.90$$

$$= 6.98 \text{ pounds VOC/ton baked bread}$$

$$(6.98 \text{ pounds VOC/ton baked bread}) \times (2.60 \text{ tons baked bread/hour}) = 18.15 \text{ pounds VOC/hour}$$

Emission Limitation:

79.48 TPY of VOC

Applicable Compliance Method:

The annual emission limitation was established by multiplying the hourly emission rate by 8,760 hours of operation per year and dividing by 2,000 pounds per ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the pounds per hour limitation.

Emission Limitation:

5% opacity as a 6-minute average

**Applicable Compliance Method:**

Compliance shall be demonstrated based upon the requirements specified in OAC rule 3745-17-03(B)(1) and the methods and procedures required in 40 CFR Part 60, Appendix A, Method 9.

**Emission Limitation:**

The combined annual VOC emissions for P004, P005, and P006 shall not exceed 91.0 tons/year as a rolling, 12-month summation (excluding products of combustion).

**Applicable Compliance Method:**

Compliance shall be determined based on the recordkeeping from Section C above and the following:

The permittee shall calculate and sum the VOC emissions from each different recipe used in baking operations for the month, as follows:

$$[\text{EF VOC}_i \times (\text{tons product}_i/\text{month})] / (2,000 \text{ pounds/ton}) = \text{tons VOC/month}$$

Where

i = each different recipe used in baking operations

The permittee shall then sum the total monthly VOC emissions as a rolling, 12-month summation.

**Emission Limitation:**

0.69 lb/hr of NO<sub>x</sub> from the 7 mmBTU/hour natural gas-fired burner

**Applicable Compliance Method:**

Compliance with the pound per hour limitation shall be determined by multiplying the emission factor of 100 lbs NO<sub>x</sub>/mmscf from Section 1.4 ("Natural Gas Consumption") of AP-42, Fifth Edition, Volume 1, Chapter 1 by the mmBTU/hour rating of the natural gas-fired burner. Since the emissions factor are given in a volume format, they were converted to an energy basis by dividing the given factor by 1,020 mmBTU/mmscf.

**Emission Limitation:**

3.02 TPY of NO<sub>x</sub> from the 7 mmBTU/hour natural gas-fired burner

**Applicable Compliance Method:**

The annual emission limitation was established by multiplying the hourly emission rate by 8,760 hours of operation per year and dividing by 2,000 pounds per ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the pounds per hour limitation.

**Emission Limitation:**

0.57 lb/hr of CO from the 7 mmBTU/hour natural gas-fired burner

**Applicable Compliance Method:**

Compliance with the pound per hour limitation shall be determined by multiplying the emission factor of 84 lbs CO/mmscf from Section 1.4 ("Natural Gas Consumption") of AP-42, Fifth Edition, Volume 1, Chapter 1 by the mmBTU/hour rating of the natural gas-fired burner. Since the emissions factor are given in a volume format, they were converted to an energy basis by dividing the given factor by 1,020 mmBTU/mmscf.

**Emission Limitation:**

2.50 TPY of CO from the 7 mmBTU/hour natural gas-fired burner

**Applicable Compliance Method:**

The annual emission limitation was established by multiplying the hourly emission rate by 8,760 hours of operation per year and dividing by 2,000 pounds per ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the pounds per hour limitation.

**F. Miscellaneous Requirements**

1. The following terms and conditions are federally enforceable: A, B, C.1, C.2, D, and E.