

217/782-2113

CONSTRUCTION PERMIT

PERMITTEE

Campagna - Turano Bakery, Inc.  
Attn: Les Messina  
6501 West Roosevelt Road  
Berwyn, Illinois 60402

# Draft

Application No.: 04090044                      I.D. No.: 031021ABE  
Applicant's Designation:                      Date Received: September 15, 2004  
Subject: Bakery Production Facility  
Date Issued: ---  
Location: 6501 West Roosevelt Road, Berwyn.

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of an expansion of the bakery production facility, including one new natural gas fired conveyorized baking oven and other ancillary equipment as described in the above referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1.0 Unit Specific Conditions

1.1 Unit 05: Natural Gas fired Baking Oven

1.1.1 Description

This new natural gas fired conveyorized baking oven is used to produce bread. Bakery products that contain yeast as an ingredient generate ethanol, a volatile organic material (VOM), which is released during the baking process.

1.1.2 List of Emission Units and Air Pollution Control Equipment

Emission Unit	Description	Rated Heat Input Capacity	Emission Control Equipment
05	Natural Gas Conveyorized Baking Oven	5.0 Million Btu/hr (Total)	None

1.1.3 Applicability Provisions and Applicable Regulations

- a. The "affected ovens" for the purpose of these unit-specific conditions, are the Natural Gas Fired Baking Ovens, as described in Conditions 1.1.1 and 1.1.2.
- b. The affected ovens are subject to 35 IAC 212.321(a), which provides that, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 [35 IAC 212.321(a)].
- c. The affected ovens are subject to 35 IAC 214.301, which provides that the Permittee shall not cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2,000 ppm [35 IAC 214.301].

1.1.4 Non-Applicability of Regulations of Concern

- a. This permit is issued based on the affected ovens not being subject to 35 IAC 218.301, Use of Organic Material, because ethanol is not a photochemically reactive material as defined in 35 IAC 211.4690 and the oven has not caused an odor nuisance.
- b. This permit is issued based on the affected ovens not being subject to 35 IAC Part 218, Subpart TT: Other emission units, because bakeries are exempted from the control requirements in Subpart TT, pursuant to 35 IAC 218.980(f).

1.1.5 Operational and Production Limits and Work Practices

- a.
  - i. Natural gas shall be the only fuel fired in the affected ovens.
  - ii. The maximum firing rate of the new oven shall not exceed 5 million Btu/hr
- b. The rated capacity of the new affected oven shall not exceed 1,705 lbs of product per hour.
- c. At all times, the Permittee shall to the extent practicable, maintain and operate the affected

ovens, in a manner consistent with good air pollution control practice for minimizing emissions.

1.1.6 Emission Limitations

- a. i. Volatile organic material emissions from the new affected oven, shall not exceed the following:

<u>Pollutants</u>	<u>(Lb/hr)</u>	<u>(Tons/year)</u>
VOM	3.08*	12.2
NO <sub>x</sub>	0.48	2.12
CO	0.40	1.75

\* Monthly average

- ii. Emissions of particulate matters (PM) and sulfur dioxide (SO<sub>2</sub>) from the new affected oven are negligible. For this purpose negligible emissions shall not exceed 0.1lb/hr and 0.44 tons/year.

- b. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

1.1.7 Testing Requirements

None

1.1.8 Monitoring Requirements

None

1.1.9 Recordkeeping Requirements

The Permittee shall maintain records of the following items for the new affected oven.

- a. Bread production (ton/month and ton/year);
- b. Natural gas consumption (million standard ft<sup>3</sup>/month and million standard ft<sup>3</sup>/year); and
- c. Monthly and annual aggregate VOM emissions, based on bread production and the applicable emission factor from Condition 1.1.12(b), with supporting documentation and calculations.

1.1.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, of any deviations of the affected ovens with the permit requirements. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

- i. Deviations from emission limits shall be reported in 30 days.
- ii. Other deviation shall be reported in a quarterly reports.

1.1.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

1.1.12 Compliance Procedures

Compliance with the emission limits shall be based on the recordkeeping requirements in Condition 1.1.9 and the emission factors and formulas listed below:

- a. Compliance with the emission limits in Conditions 1.1.3(b) and (c) is assumed to be achieved under inherent operating conditions of the affected oven, so that no compliance procedures are set in this permit addressing these requirements.
- b. Compliance with the VOM emission limits in Condition 1.1.6 from the affected oven shall be based on the recordkeeping requirements in Condition 1.1.9 and applicable emission factor(s) derived from Section 9.9.6, AP-42, Volume I, Supplement C, February, 1997, based on specific baking conditions, or the emission factor equation in Section 9.9.6, AP-42, was derived from USEPA's "Alternative Control Technology Document for Bakery Oven Emissions", (453/R-92-017, December, 1992).

Based on data in the permit application, the current emission factor is 3.28 lb VOM/ton product.

$$\text{Oven Emissions (lb)} = (\text{Bread production, ton}) \times (\text{the applicable emission factor, lb/ton})$$

- c. Compliance with the emission limits in Condition 1.1.6 from the combustion of natural gas in the affected ovens shall be based on the recordkeeping requirements in Condition 1.1.9

and the emission factors and formulas listed below:

<u>Pollutant</u>	<u>Emission Factor (lb/mmft<sup>3</sup>)</u>
NO <sub>x</sub>	100
CO	84

These are the emission factors for uncontrolled natural gas combustion in commercial boilers (0.3 - < 10 mmBtu/hr), Table 1.4-1, AP-42, Volume I, Supplement B, October 1996.

Combustion Emissions (lb) = (Natural gas consumption, million ft<sup>3</sup>) x (the applicable emission factor, lb/million ft<sup>3</sup>)

- 3.0 This permit is issued based on this project not being a major modification subject to 35 IAC Part 203, Major Stationary Sources Construction and Modification (MSSCAM) because the emissions of VOM from the new oven is less than 25 tons per year. (See Attachment A).
- 4.0 This permit does not increase the current VOM limitation for the entire source, i.e., 52.4 tons/year that is contained in the source's CAAPP Permit, due to Construction of the new conveyORIZED oven.
- 5.0 This permit is issued based on the construction of two storage silos, transfer systems and mixers with filters being negligible. For this purpose each negligible emission unit shall not exceed 0.1 lb/hr and 0.44 tons/year.
- 6.0 The affected may continue to operate under this construction permit until the next reopening of the CAAPP permit.

If you have any questions on this, please call Ricardo Ng at 217/782-2113.

Donald E. Sutton, P.E.  
Manager, Permit Section  
Division of Air Pollution Control

DES:RNG:jar

cc: Region 1

**Attachment A**

NSR Applicability for Volatile Organic Material (VOM)  
(2004 to 2000)

**Table 1. Emissions Increases Associated With The Proposed Modification**

<u>Item of Equipment</u>	<u>Proposed Commencement of Operation Date</u>	<u>VOM Emissions Increase (Tons/Year)</u>	<u>Permit Number</u>
Unit 05	2004	12.2	04090044
Other insignificant units	2004	1.32	04090044

**Table II - Source-Wide Creditable Contemporaneous Emission Increases**

<u>Item of Equipment</u>	<u>Commencement of Operation Date</u>	<u>VOM Emissions Increase (Tons/Year)</u>	<u>Permit Number</u>
Unit 03 and Two boilers	2003	12.59	02060069

**Table III - Source-Wide Creditable Contemporaneous Emission Decreases**

<u>Item of Equipment</u>	<u>Shut Down Date</u>	<u>VOM Emissions Decrease (Tons/Year)</u>	<u>Permit Number</u>
Unit 01	2003	4.82	02060069

**Table IV - Overall Emissions Increase**

	<u>(Tons/Year)</u>
Increases Associated With The Proposed Modification	13.52
Contemporaneous Emission Increases	12.59
Contemporaneous Emission Decrease	<u>-4.82</u>
Total Net Change	21.29

RNG