

- Yi - initial percent of yeast;
- ti - total yeast fermentation time (hours);
- S - final (spike) percent of yeast;
- ts - spiking time (hours).

These limits define the potential emissions of VOM from baking operations and are based on the actual emissions determined from maximum production capacity. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus preceding 11 months.

- 3. Operation and emissions of the fuel combustion equipment shall not exceed the following limits:

Natural Gas Usage: 6.5 mmscf/month, 65.0 mmscf/year

<u>Pollutant</u>	<u>Emission Factor</u> (lb/mmscf)	<u>Emissions</u>	
		(Ton/Mo)	(Ton/Yr)
Nitrogen Oxides (NO _x)	100	0.3	3.3
Carbon Monoxide (CO)	84	0.3	2.7
Volatile Organic Material (VOM)	5.5	0.02	0.2

These limits are based on the maximum production capacity and standard emission factors. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus preceding 11 months.

- 4. This permit is issued based on negligible emission of particulate matter from flour receiving and pneumatic transfer system. For this purpose emission shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/yr.
- 5a. The Permittee shall keep daily records of the following items for each baking unit:
 - i. The names and amounts of products baked (Ton/Day);
 - ii. Percentage of yeast (initial and second)of each product;
 - iii. Fermentation time (initial and spike) of each product (hours);
 - iv. VOM emission factor (Lb/Ton) and VOM emission (Lb/Day) calculations.
- b. The Permittee shall keep monthly records of the following items for total facility:
 - i. The names and amounts of products baked (Ton/Mo);
 - ii. VOM emissions (Ton/Mo, Ton/Yr);
 - iii. Natural Gas Consumption (mmscf/Mo, mmscf/Yr).

6. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.
7. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedances or violation and efforts to reduce emissions and future occurrences.
8. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year: annual bread production (tons) from the prior calendar year.

If there have been no exceedances during the prior calendar year, the Annual Emission Report shall include a statement to that effect.

9. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Illinois EPA
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Illinois EPA
Division of Air Pollution Control - Regional Office
Eisenhower Tower
1701 First Avenue
Maywood, Illinois 60153

Page 4

If you have any questions on this permit, please call Valeriy Brodsky at 217/782-2113.

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

DES:VJB:psj

Attachment

cc: Illinois EPA, FOS Region 1
Illinois EPA, Compliance Section
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emission from the Bread Bakery operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. This is production of 12,850 tons of bread per year. The resulting maximum emissions are well below the levels, e.g., 25 tons per year of VOM at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that material is handled, and control measures are more effective than required in this permit.

1. VOM Emissions from the baking operations:

Baked Goods Production: 1,300 Tons/Month, 12,850 Tons/Year
VOM emissions: 2.5 Tons/Month, 24.5 Tons/Year

VOM emissions shall be calculated using emission factor given by AP-42 equation (5th Edition, Section 9.9.6):

$$EF = 0.95Y_i + 0.19t_i - 0.51S - 0.86t_s + 1.90, \text{ where}$$

EF - Emission Factor (pounds of VOM emissions per ton of baked product);

Y_i - initial percent of yeast;

t_i - total yeast fermentation time (hours);

S - final (spike) percent of yeast;

t_s - spiking time (hours).

2. Emissions of the fuel combustion equipment:

Natural Gas Usage: 6.5 mmscf/month, 65.0 mmscf/year

<u>Pollutant</u>	<u>Emission Factor</u> <u>(lb/mmscf)</u>	<u>Emissions</u> <u>(Ton/Mo) (Ton/Yr)</u>	
Nitrogen Oxides (NO _x)	100	0.3	3.3
Carbon Monoxide (CO)	84	0.3	2.7
Volatile Organic Material (VOM)	5.5	0.02	0.2

3. This permit is issued based on negligible emission of particulate matter from flour receiving and pneumatic transfer system. For this purpose emission shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/yr.