

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

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

Y_i - Initial Yeast Percentage;

t_i - Total Fermentation Time (hours);

S - Second Yeast Percentage (if applicable);

t_s - Fermentation Time for Second Yeast Percentage (if applicable).

- c. 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.
- 3a. Natural gas shall be the only fuel fired in combustion equipment.
- b. Emissions and operation of the fuel combustion equipment shall not exceed the following limits:

Gas Usage		Pollutant	Emission	Emissions	
(10^6 scf/Mo)	(10^6 scf/Yr)		Factor	(T/Mo)	(T/Yr)
9.5	114	Volatile Organic Material (VOM)	5.28	0.025	0.30
		Nitrogen Oxides (NO _x)	100	0.48	5.70
		Carbon Monoxide (CO)	84	0.40	4.79
		Particulate Matter (PM)	13.7	0.065	0.78

- c. These limits define the potential emissions of VOM from natural gas combustion and are based on the actual emissions determined from maximum production capacity and standard emission factors.
- d. 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.
- 4a. The Permittee shall keep records of the following items for each baking unit:
 - i. Amount of product baked (Ton/Mo, Ton/Yr);
 - ii. Percentage of yeast (initial and second);
 - iii. Fermentation time (initial and second, hours);
 - iv. VOM emissions calculations (Ton/Mo, Ton/Yr);

- v. Natural gas consumption (10^6 scf/Mo, 10^6 scf/Yr).
 - b. 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 Agency and 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 Agency request for records during the course of a source inspection.
- 5. 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 Agency's Compliance Unit 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.
 - 6. 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.
 - 7. 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 Agency
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 Agency's regional office at the following address unless otherwise indicated:

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

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

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

DES:JPB:psj

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 Agency used the annual operating scenario which results in maximum emissions from such a plant. 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.

1a. VOM emissions from the baking operations:

<u>Yeast Containing Production Rate</u>		<u>Yeast Content</u>	<u>Ferm. Time</u>	<u>VOM Emissions</u>	
<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>	<u>(Wt. %)</u>	<u>(Hr)</u>	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>
465	5,580	5.0	10.75	2.03	24.4

b. These limits define the potential emissions of VOM from baking equipment and are based on the actual emissions determined from maximum production capacity. VOM emissions shall be calculated using the following formula (ACT EPA 453/R-92-017):

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

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

Y_i - Initial Yeast Percentage;

t_i - Total Fermentation Time (hours);

S - Second Yeast Percentage (if applicable);

t_s - Fermentation Time for Second Yeast Percentage (if applicable).

2. Emissions from the fuel combustion equipment shall not exceed the following limits:

<u>Gas Usage</u>		<u>Pollutant</u>	<u>Emission Factor</u>	<u>Emissions</u>	
<u>(10⁶ scf/Mo)</u>	<u>(10⁶ scf/Yr)</u>		<u>(Lb/10⁶ scf)</u>	<u>(T/Mo)</u>	<u>(T/Yr)</u>
9.5	114	Volatile Organic Material (VOM)	5.28	0.025	0.30
		Nitrogen Oxides (NO _x)	100	0.48	5.70
		Carbon Monoxide (CO)	84	0.40	4.79
		Particulate Matter (PM)	13.7	0.065	0.78

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This table defines the potential emissions from the fuel combustion units and is based on the maximum operating rate and standard emission factors for natural gas combustion.

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