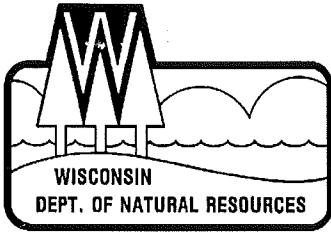


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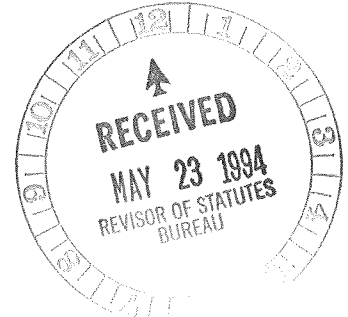
George E. Meyer
Secretary

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

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STATE OF WISCONSIN)
DEPARTMENT OF NATURAL RESOURCES)

SS



TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, George E. Meyer, Secretary of the Department of Natural Resources and custodian of the official records of said Department, do hereby certify that the annexed copy of Natural Resources Board Order No. AM-2-93 was duly approved and adopted by this Department on March 24, 1994. I further certify that said copy has been compared by me with the original on file in this Department and that the same is a true copy thereof, and of the whole of such original.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the Department at the Natural Resources Building in the City of Madison, this 12th day of May, 1994.

George E Meyer
George E. Meyer, Secretary

(SEAL)

7-1-94



ORDER OF THE STATE OF WISCONSIN
NATURAL RESOURCES BOARD
AMENDING AND CREATING RULES

.....
IN THE MATTER of amending ss. NR 439.075(2)(a)4. and .
439.09(9)(b) and creating ss. NR 424.02(3) to (7), 424.05, .
439.09(7m) and 439.095(1)(e) and (5)(e) of the Wisconsin . AM-2-93
Administrative Code pertaining to the regulation of .
volatile organic compound emissions from yeast manufacturing. .
.....

Authorizing statutes: ss. 144.31(1)(a), 144.38 and 227.11(2)(a), Stats.
Statutes interpreted: s. 144.31(1)(f), Stats. The State Implementation Plan
(SIP) developed under that provision is revised.

As part of the Clean Air Act Amendments of 1990, states with ozone nonattainment areas are required to establish Reasonably Available Control Technology (RACT) for major stationary sources of volatile organic compounds (VOCs). RACT is defined as the lowest emission rate that a source is capable of achieving considering economic and technological feasibility. Yeast manufacturing is one major source category identified in the ozone nonattainment areas. The Department has identified only one facility, a baker's yeast manufacturer, which would be subject to the proposed rule.

SECTION 1. NR 424.02(3) to (7) are created to read:

NR 424.02(3) "Fermentation batch" means a fermentation cycle occurring in a fermenter.

(4) "First generation fermenter" means a vessel in which yeast and nutrients are aerated to produce yeast for a trade fermenter.

(5) "Liquid yeast" means a hypothetical weight of yeast determined by multiplying an actual weight of yeast by the actual weight percent solids divided by 30%.

(6) "Stock fermenter" means a vessel in which yeast and nutrients are aerated to produce yeast for a first generation fermenter.

(7) "Trade fermenter" means a vessel in which yeast and nutrients are aerated to produce the final fermentation batch.

SECTION 2. NR 424.05 is created to read:

NR 424.05 YEAST MANUFACTURING. (1) APPLICABILITY. (a) This section applies to any yeast manufacturing facility which is:

1. Located in the county of Kenosha, Milwaukee, Ozaukee, Racine, Washington or Waukesha and which has maximum theoretical emissions of VOCs greater than or equal to 25 tons per year, or

2. Located in the county of Kewaunee, Manitowoc or Sheboygan and which has maximum theoretical emissions of VOCs greater than or equal to 100 tons per year.

(b) Any facility that becomes or is currently subject to this section by exceeding the applicability thresholds in par. (a) shall remain subject to this section even if its emissions later fall below the applicability threshold.

(2) EMISSION LIMITATIONS. (a) Except as provided in par. (b), no owner or operator of a yeast manufacturing facility may cause, allow or permit the average concentration of VOCs in the exhaust gas stream from a fermenter during a fermentation batch to exceed the levels in subds. 1 to 3. These levels are on a saturated water basis and are based on total VOCs expressed as propane.

1. 100 ppm from a trade fermenter.
2. 150 ppm from a first generation fermenter.
3. 300 ppm from a stock fermenter.

(b) The emission limitations of par. (a) do not apply to the emissions resulting from the fermentation of any yeast variety which comprises less than 1% by weight of the facility's total annual liquid yeast production.

(3) COMPLIANCE DEADLINES. Compliance shall be achieved for each fermenter subject to the emission limitations of sub. (2)(a) by:

(a) May 31, 1995 for each fermenter for which compliance is achieved through methods other than installation of emission control equipment.

(b) November 30, 1995 for each fermenter for which compliance is achieved through the installation of emission control equipment.

(4) NOTIFICATION AND COMPLIANCE CERTIFICATION. (a) Notification. The owner or operator of any yeast manufacturing facility subject to the compliance deadline in sub. (3)(b) for any fermenter, shall submit a

notification to the department no later than May 31, 1995, which contains the following information, at a minimum:

1. The name and location of the facility.
2. Identification of each fermenter at the facility.
3. The applicable emission limitation for each fermenter.
4. Whether add-on control equipment will be used to achieve compliance with sub. (2)(a) for each fermenter.

(b) Initial compliance certification. The owner or operator of any yeast manufacturing facility to which this section applies shall, by the applicable compliance deadline in sub. (3), submit a certification for each fermenter that the fermenter is in compliance with the applicable emission limitation, as demonstrated by the continuous emission monitoring required under sub. (5)(a) for fermenters meeting the deadline in sub. (3)(a) and as demonstrated by the compliance emission testing required under sub. (5)(b) for fermenters meeting the deadline in sub. (3)(b).

(5) TEST METHODS AND PROCEDURES. (a) The owner or operator of a yeast manufacturing facility shall, for each fermenter for which compliance with the emission limitations of sub. (2)(a) is achieved through methods other than emission control equipment, install, calibrate, maintain and operate a continuous emission monitor in accordance with ss. NR 439.09 and 439.095 in order to determine compliance with the emission limitations of sub. (2)(a).

(b) The owner or operator of a yeast manufacturing facility shall, for each fermenter for which compliance with the emission limitations of sub. (2)(a) is achieved through use of emission control equipment, comply with the requirements of ss. NR 439.055, 439.06, 439.07 and 439.075. Compliance emission testing under this paragraph shall be conducted at least once every 24 months. Each biennial test shall be performed within 90 days of the anniversary date of the test conducted to certify compliance as required under sub. (4)(b).

(c) Testing under pars. (a) and (b) shall be conducted at a point in the exhaust gas stream prior to the introduction of any dilution air. Dilution

air, for purposes of this paragraph, is considered to be any air not needed to control the fermentation process.

(6) RECORDKEEPING. In addition to meeting the recordkeeping requirements of s. NR 439.04(1) to (3), the owner or operator of a facility subject to this section shall:

(a) Record in a daily log:

1. Operation time for all control devices and monitoring equipment.
2. Details of all routine and non-routine maintenance performed on all control devices and monitoring equipment including dates and duration of any outages.
3. The fermentation cycle for which a fermenter is being used.

(b) Maintain records of:

1. The pounds of liquid yeast produced each year for each yeast variety.
2. The total pounds of liquid yeast produced each year.
3. The weight percent that each yeast variety represents of the facility's total annual liquid yeast production.
4. The information required under par. (a).

SECTION 3. NR 439.075(2)(a)4. is amended to read:

NR 439.075(2)(a)4. Compliance emission testing for organic compounds is required for an emission point subject to an emission limitation in s. NR 421.03, 421.04, 422.05 to 422.08, 422.09 to 422.155, 423.05, or 424.03 ~~or~~ 424.04 to 424.05 which uses a control device to achieve compliance with the applicable requirements. This test shall include a determination of the overall control efficiency of the control device on the affected emission point.

SECTION 4. NR 439.09(7m) is created to read:

NR 439.09(7m) Continuous emissions monitoring systems for measuring VOCs shall comply with all the provisions and requirements in the department's approval issued under s. NR 439.095(1).

SECTION 5. NR 439.09(9)(b) is amended to read:

NR 439.09(9)(b) Sulfur dioxide, nitrogen oxides, oxygen, carbon dioxide, carbon monoxide, hydrogen sulfide and total reduced sulfur and VOC monitors shall complete one cycle of sampling, analyzing and data recording for each successive 15-minute period. The values recorded shall be averaged hourly. Hourly averages shall be computed from 4 data points equally spaced over each 1 hour period, except during periods when calibration, quality assurance or maintenance activities are being performed. During these periods, a valid hour shall consist of at least 2 data points separated by a minimum of 15 minutes.

SECTION 6. NR 439.095(1)(e) and (5)(e) are created to read:

NR 439.095(1)(e) Yeast manufacturing fermenters identified in sub. (5) shall be monitored for VOCs.

(5)(e) Yeast manufacturing plants. The owner or operator of any yeast manufacturing facility subject to s. NR 424.05 shall install, calibrate, maintain and operate a continuous monitoring system for the measurement of VOCs which meets the performance specifications of the department's approval issued under sub. (1) for each fermenter which does not use add-on control equipment to meet the emission limitations of s. NR 424.05(2)(a).

The foregoing rule was approved and adopted by the State of Wisconsin Natural Resources Board on March 24, 1994.

The rule shall take effect on the first day of the month following publication in the Wisconsin administrative register as provided in s. 227.22(2)(intro.), Stats.

Dated at Madison, Wisconsin 5/14/94

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

By

George E. Meyer
George E. Meyer, Secretary

(SEAL)