

AIR EMISSION PERMIT NO. 14500003- 001
IS ISSUED TO

KRAFT FOODS INC. - MELROSE
1000 East Kraft Drive
Melrose, Stearns County, Minnesota 56352

The emission units, control equipment and emission stacks at the stationary source authorized in this permit are as described in the following permit application(s):

Permit Type	Application Date
Total Facility Operating Permit	November 1, 1994
Major Amendment	January 30, 1998

This permit authorizes the Permittee to operate and modify the stationary source at the address listed above unless otherwise noted in Table A. The Permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

Permit Type: Federal; Syn Min PSD/NSR

Issue Date: July 28, 1998

Expiration: July 28, 2003
All Title I Conditions do not expire.

Toni Volkmeier for

Michael J. Sandusky
Division Manager
Air Quality Division

for Peder A. Larson
Commissioner
Minnesota Pollution Control Agency

TLV:lao

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NOTICE TO THE PERMITTEE:

Your stationary source may be subject to the requirements of the Minnesota Pollution Control Agency's (MPCA) solid waste, hazardous waste, and water quality programs. If you wish to obtain information on these programs, including information on obtaining any required permits, please contact the MPCA general information number at:

Metro Area	(651)296-6300
Outside Metro Area	1-800-657-3864
TTY	(651)282-5332

The rules governing these programs are contained in Minn. R. chs. 7000-7105. Written questions may be sent to: Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, Minnesota 55155-4194.

Questions about this air emission permit or about air quality requirements can also be directed to the telephone numbers and address listed above.

PERMIT SHIELD:

Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provision of the applicable requirement identified in the permit as the basis of each condition. Certain requirements which have been determined not to apply are listed in Table A of this permit.

The permit shield, however does not apply to:

1. Any national ambient air quality standards adopted under section 109 of the Clean Air Act or increment or visibility under Part C of Title I of the Clean Air Act,
2. Any state ambient air quality standard under Minn. R. ch. 7009, and
3. The state noise pollution control rules, Minn. R. ch. 7030.

FACILITY DESCRIPTION:

Kraft Foods Inc. operates an existing plant for the production of cheese in Melrose, Minnesota. The facility also produces ethanol using by-products of the cheese production process. The primary source of emissions from the facility is combustion of natural gas and residual oil in the three boilers.

The facility is authorized by this permit to install additional fermentation and distillation equipment to expand the ethanol production capacity to 3,000,000 gallons per year. Current boiler capacity is sufficient to meet the demands of the expanded ethanol production. No changes are authorized to the cheese production portion of the facility.

The portion of the facility producing ethanol is subject to a 100 ton per year (tpy) emission threshold for each criteria pollutant, under the federal Prevention of Significant Deterioration (PSD) program, 40 CFR § 52.21. The capacity of the ethanol production equipment is such that emissions of each criteria pollutant resulting from the production of ethanol is below 100 tpy.

The entire facility (cheese production and ethanol production combined) is subject to the 250 tpy emission threshold under PSD. The facility has accepted emission limits and operating limitations such that the emissions of each criteria pollutant from the facility are less than 250 tpy.

The facility is a major source under the Part 70 permit program (40 CFR § 70.2).

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/28/98

Facility Name: Kraft Foods Inc - Melrose

Permit Number: 14500003 - 001

Table A contains limits and other requirements with which your facility must comply. The limits are located in the first column of the table (What To do). The limits can be emission limits or operational limits. This column also contains the actions that you must take and the records you must keep to show that you are complying with the limits. The second column of Table A (Why to do it) lists the regulatory basis for these limits. Appendices included as conditions of your permit are listed in Table A under total facility requirements.

Subject Item:**Total Facility**

What to do	Why to do it
Production: less than or equal to 3000000 gallons/year using 12-month Rolling Sum of ethanol (prior to addition of denaturant).	Title I Condition: To avoid major source classification under 40 CFR Section 52.21
Recordkeeping: By the 15th day of every month, record the gallons of ethanol produced during the previous month, and the gallons of ethanol produced during the previous 12 months (12-month rolling sum).	Title I Condition: To avoid major source classification under 40 CFR Section 52.21
Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated, unless otherwise noted in Table A.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)
Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. The plan shall specify the minimum values for pressure drop and water flow rate for CE001 and CE002.	Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)
Shutdowns: Notify the Commissioner at least 24 hours in advance of a planned shutdown, or as soon as possible after an unplanned shutdown of any process or control equipment, if the shutdown would cause an increase in the emission of any regulated air pollutant. At the time of notification, notify the Commissioner of the cause of the shutdown and the estimated duration. Notify the Commissioner again when the shutdown is over.	Minn. R. 7019.1000, subp. 3
Breakdowns: Notify the Commissioner within 24 hours after a breakdown of more than one hour duration of any process or control equipment if the breakdown causes an increase in the emission of any regulated air pollutant. At the time of notification or as soon thereafter as possible, the permittee shall also notify the Commissioner of the cause of the breakdown and the estimated duration. Notify the Commissioner again when the breakdown is over.	Minn. R. 7019.1000, subp. 2
Monitoring Equipment: Install or make needed repairs to monitoring equipment within 60 days of issuance of the permit if monitoring equipment is not installed and operational on the date the permit is issued.	Minn. R. 7007.0800, subp. 4(D)
Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment (any requirements applying to continuous emission monitors are listed separately in this permit).	Minn. R. 7007.0800, subp. 4(D)
Operation of Monitoring Equipment: Unless otherwise noted in Tables A, B, and/or C, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system.	Minn. R. 7007.0800, subp. 4(D)
Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.	Minn. R. 7011.0020
Initial Notification of Deviations Endangering Human Health or the Environment: Immediately after discovery, notify orally or by facsimile the Commissioner or the state duty officer, of any deviation from permit conditions which could endanger human health or the environment.	Minn. R. 7019.1000, subp. 1
Written Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description: cause of the deviation; exact dates of the period of the deviation; if the deviation has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.	Minn. R. 7019.1000, subp. 1
Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.	Minn. R. 7007.1150 through Minn. R. 7007.1500
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095
Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150.	Minn. R. 7011.0150

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/28/98

Facility Name: Kraft Foods Inc - Melrose

Permit Number: 14500003 - 001

Inspections: Upon presentation of credentials and other documents as may be required by law, allow the Agency, or its representative, to enter the Permittee's premises to have access to and copy any records required by this permit, to inspect at reasonable times (which include any time the source is operating) any facilities, equipment, practices or operations, and to sample or monitor any substances or parameters at any location.	Minn. R. 7007.0800, subp. 9(A)
Record keeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007. 1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350 subp. 2), including records of the emissions resulting from those changes.	Minn. R. 7007. 0800, subp. 5(B)
Record keeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).	Minn. R. 7007.0800, subp. 5(C)
Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H).	Minn. R. 7007.1400, subp. 1(H)

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/28/98

Facility Name: Kraft Foods Inc - Melrose

Permit Number: 14500003 - 001

Subject Item: GP 001 Scrubber Monitoring Requirements**Associated Items:** CE 001 Gas Scrubber (General, Not Classified)

CE 002 Packed-Gas Adsorption Column

What to do	Why to do it
Record the pressure drop and water flow rate of each scrubber once each day of operation.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21
Corrective Action: if the pressure drop and/or water flow rate are not equal or greater than the minimum values specified in the Operation and Maintenance Plan, the Permittee shall take corrective action as soon as possible to achieve the required operating values. The Permittee shall keep a record of the type and date of all corrective actions taken.	Title I Condition: Corrective action to avoid major source classification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 14
Inspect quarterly, or as required by manufacturing specifications, all components that are not subject to wear or plugging, including structural components, housing, ducts, and hoods. Maintain a written record of the inspection and any action resulting from the inspection.	Minn. R. 7007.0800, subp. 2 and subp. 14
Inspect monthly, or as required by manufacturing specifications, all components that are subject to wear or plugging. Maintain a written record of the inspection and any action resulting from the inspection.	Minn. R. 7007.0800, subp. 2 and subp. 14
Calibrate the gauges annually, or as often as required by manufacturing specifications and maintain a written record of the calibration and any action resulting from the calibration.	Minn. R. 7007.0800, subp. 2 and subp. 14

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/28/98

Facility Name: Kraft Foods Inc - Melrose

Permit Number: 14500003 - 001

Subject Item: GP 002 Tanks subject to NSPS subp. Kb**Associated Items:** TK 004 Ethanol

TK 005 Ethanol

TK 006 No. 6 Fuel Oil

TK 007 No. 6 Fuel Oil

What to do	Why to do it
Recordkeeping: Maintain records showing the dimensions of each tank and an analysis showing each tank's capacity.	40 CFR Section 60.116b(b); Minn. R. 7011.1520(C)

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/28/98

Facility Name: Kraft Foods Inc - Melrose

Permit Number: 14500003 - 001

Subject Item: GP 003 Boiler 1 & 2 Gas Usage**Associated Items:** EU 001 Boiler No. 1

EU 002 Boiler No. 2

What to do	Why to do it
Fuel Usage: less than or equal to 751 million cubic feet/year using 12-month Rolling Sum of natural gas combusted by the boilers in GP 003.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21
Recordkeeping: By the 15th day of each month, calculate and record the natural gas combusted in Boilers 1 and 2 (EU 001 and EU 002) during the previous month and during the previous 12 months (12-month rolling sum). Records shall be based on the actual amount of fuel combusted, as measured using an in-line flow meter.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/28/98

Facility Name: Kraft Foods Inc - Melrose

Permit Number: 14500003 - 001

Subject Item: GP 004 Residual Oil Usage**Associated Items:** EU 001 Boiler No. 1

EU 002 Boiler No. 2

EU 003 Boiler No. 3

What to do	Why to do it
A. OPERATING LIMITS	hdr
Fuel Usage: less than or equal to 1845000 gallons/year using 12-month Rolling Sum of residual fuel oil combusted by the boilers in GP 004.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21
Sulfur Content of Fuel: less than or equal to 1.5 percent by weight	Title I Condition: To avoid major source classification under 40 CFR Section 52.21
B. RECORDKEEPING REQUIREMENTS	hdr
Recordkeeping: By the 15th day of each month, calculate and record the residual fuel oil use for the previous month and for the previous 12 months (12-month rolling sum). Records shall be based on the actual amount of fuel combusted, as measured using an in-line flow meter.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21
Recordkeeping: Maintain residual oil vendor certifications of the sulfur content (percent by weight) for all residual fuel oil combusted by the boilers in GP 004.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/28/98

Facility Name: Kraft Foods Inc - Melrose
Permit Number: 14500003 - 001

- Subject Item:** GP 005 Other Fuel Usage
- Associated Items:** EU 025 Office Space Heater
EU 026 Control Room Space Heater
EU 027 Separator Room Heater
EU 028 Lab Heater
EU 029 Waste Treatment Heater
EU 030 Waste Treatment Heater
EU 031 Waste Treatment Furnace
EU 032 Waste Treatment Furnace
EU 033 Emergency Generator

What to do	Why to do it
Fuel burned: Natural gas only.	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/28/98

Facility Name: Kraft Foods Inc - Melrose
Permit Number: 14500003 - 001

Subject Item: GP 006 New Ethanol Production Equipment

Associated Items: EU 009 Fermentor No. 5
EU 010 Fermentor No. 6
EU 014 Regeneration Vent
EU 015 Reflux Vents
EU 016 Reflux Vents
EU 017 Fermentor No. 7
EU 019 Beer Well

What to do	Why to do it
Notification of initial startup: Due 15 days after initial startup of each new emission unit.	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0800

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/28/98

Facility Name: Kraft Foods Inc - Melrose

Permit Number: 14500003 - 001

Subject Item: SV 003 Automatic cheese salter**Associated Items:** EU 004 Automatic Cheese Salter

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/28/98

Facility Name: Kraft Foods Inc - Melrose

Permit Number: 14500003 - 001

Subject Item: SV 004 Fermentation scrubber

Associated Items: EU 005 Fermentor No. 1
 EU 006 Fermentor No. 2
 EU 007 Fermentor No. 3
 EU 008 Fermentor No. 4
 EU 009 Fermentor No. 5
 EU 010 Fermentor No. 6
 EU 011 Pre-Fermentor
 EU 012 Pre-Fermentor
 EU 013 Yeast Tank
 EU 014 Regeneration Vent
 EU 015 Reflux Vents
 EU 016 Reflux Vents
 EU 017 Fermentor No. 7

What to do	Why to do it
A. EMISSION LIMITS	hdr
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
Volatile Organic Compounds: less than or equal to 6.75 lbs/hour	Title I Condition: To avoid major source classification under 40 CFR Section 52.21
B. POLLUTION CONTROL REQUIREMENTS	hdr
Volatile Organic Compounds: greater than or equal to 98 percent collection efficiency (See GP 001 for CE 002 monitoring and maintenance requirements).	Title I Condition: To avoid major source classification under 40 CFR Section 52.21
C. TESTING REQUIREMENTS	hdr
Initial Performance Test: due 180 days after Initial Startup of the new production equipment (GP 006) to measure emissions of volatile organic compounds.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21; Minn. R. 7017.2020, subp. 1
Performance Test Pre-test Meeting: due 7 days before Initial Performance Test	Minn. R. 7017.2030, subp. 4
Each emission unit shall be controlled by the scrubber (CE 002) while in production operation ("on-line"). Equipment may only be "offline" while not in production operation.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/28/98

Facility Name: Kraft Foods Inc - Melrose

Permit Number: 14500003 - 001

Subject Item: SV 006 Emergency generator**Associated Items:** EU 033 Emergency Generator

What to do	Why to do it
Opacity: less than or equal to 20 percent opacity once operating temperature has been attained.	Minn. R. 7011.2300, subp. 1
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input	Minn. R. 7011.2300, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/28/98

Facility Name: Kraft Foods Inc - Melrose

Permit Number: 14500003 - 001

Subject Item: EU 001 Boiler No. 1**Associated Items:** GP 003 Boiler 1 & 2 Gas Usage

GP 004 Residual Oil Usage

SV 001 Boilers 1 and 2

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.6 lbs/million Btu heat input	Minn. R. 7011.0510, subp. 1
Opacity: less than or equal to 20 percent opacity except as allowed in Minn. R. 7011.0510, subp. 2.	Minn. R. 7011.0510, subp. 2
Fuels Permitted: Natural gas or residual fuel oil only. (See GP 003 for additional limits on natural gas usage, and GP 004 for additional limits on fuel oil usage.)	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/28/98

Facility Name: Kraft Foods Inc - Melrose

Permit Number: 14500003 - 001

Subject Item: EU 002 Boiler No. 2**Associated Items:** GP 003 Boiler 1 & 2 Gas Usage

GP 004 Residual Oil Usage

SV 001 Boilers 1 and 2

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.6 lbs/million Btu heat input	Minn. R. 7011.0510, subp. 1
Opacity: less than or equal to 20 percent opacity except as allowed in Minn. R. 7011.0510, subp. 2.	Minn. R. 7011.0510, subp. 2
Fuels Permitted: Natural gas or residual fuel oil only. (See GP 003 for additional limits on natural gas usage, and GP 004 for additional limits on fuel oil usage.)	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/28/98

Facility Name: Kraft Foods Inc - Melrose

Permit Number: 14500003 - 001

Subject Item: EU 003 Boiler No. 3**Associated Items:** GP 004 Residual Oil Usage

SV 002 Boiler 3

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.4 lbs/million Btu heat input	Minn. R. 7011.0515, subp. 1
Opacity: less than or equal to 20 percent opacity except as allowed by Minn. R. 7011.0515, subp. 2.	Minn. R. 7011.0515, subp. 2
Fuels Permitted: Natural gas or residual fuel oil only. (See GP 004 for additional limits on fuel oil usage.)	Minn. Stat. Section 116.07, subd. 4a; Minn. R. 7007.0800, subp. 2
Fuel Usage: less than or equal to 475 million cubic feet/year using 12-month Rolling Sum of natural gas for EU 003.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21
Recordkeeping: By the 15th day of each month, calculate and record the natural gas combusted in the boiler (EU 003) during the previous month and during the previous 12 months (12-month rolling sum). Records shall be based on the actual amount of fuel combusted, as measured using an in-line flow meter.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/28/98

Facility Name: Kraft Foods Inc - Melrose

Permit Number: 14500003 - 001

Subject Item: FS 002 Truck traffic

What to do	Why to do it
Fugitive Emissions: Do not cause or permit the transporting of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Do not cause or permit a road or a driveway to be constructed, used, repaired, or demolished without applying all such reasonable measures as may be required to prevent particulate matter from becoming airborne.	Minn. R. 7011.0150

TABLE B: SUBMITTALS

07/28/98

Facility Name: Kraft Foods Inc - Melrose

Permit Number: 14500003 - 001

Table B lists most of the submittals required by this permit. Please note that some submittal requirements may appear in Table A or, if applicable, within a compliance schedule located in Table C. Table B is divided into two sections in order to separately list one-time only and recurrent submittal requirements.

Each submittal must be postmarked or received by the date specified in the applicable Table. Those submittals required by parts 7007.0100 to 7007.1850 must be certified by a responsible official, defined in Minn. R. 7007.0100, subp. 21. Other submittals shall be certified as appropriate if certification is required by an applicable rule or permit condition.

Send any application for a permit or permit amendment to:

Permit Technical Advisor
Permit Section
Air Quality Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Also, where required by an applicable rule or permit condition, send to the Permit Technical Advisor notices of:

- accumulated insignificant activities,
- installation of control equipment,
- replacement of an emissions unit, and
- changes that contravene a permit term.

Unless another person is identified in the applicable Table, send all other submittals to:

Supervisor
Compliance Determination Unit
Air Quality Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Send submittals that are required to be submitted to the U.S. EPA regional office to:

Mr. George Czerniak
Air and Radiation Branch
EPA Region V
77 West Jackson Boulevard
Chicago, Illinois 60604

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

07/28/98

Facility Name: Kraft Foods Inc - Melrose

Permit Number: 14500003 - 001

What to send	When to send	Portion of Facility Affected
Computer Dispersion Modeling Protocol	due 1,096 days after Permit Issuance , for nitrogen oxides. This protocol will describe the proposed modeling methodology and input data, in accordance with all requirements of 40 CFR pt. 51, Appendix W.	Total Facility
Computer Dispersion Modeling Protocol	due 1,096 days after Permit Issuance , for sulfur dioxide. This protocol will describe the proposed modeling methodology and input data, in accordance with all requirements of 40 CFR pt. 51, Appendix W.	Total Facility
Computer Dispersion Modeling Results	due 1,462 days after Permit Issuance , for nitrogen oxides. Results are to be submitted after the MPCA has reviewed and approved the modeling protocol.	Total Facility
Computer Dispersion Modeling Results	due 1,462 days after Permit Issuance , for sulfur dioxide. Results are to be submitted after the MPCA has reviewed and approved the modeling protocol.	Total Facility
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup	GP006
Performance Test Notification (written)	due 30 days before Initial Performance Test	SV004
Performance Test Plan	due 30 days before Initial Performance Test	SV004
Performance Test Report - Microfiche Copy	due 105 days after Initial Performance Test	SV004
Performance Test Report	due 45 days after Initial Performance Test	SV004
Testing Frequency Plan	due 60 days after Initial Performance Test for volatile organic compounds. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on year (12-month), 36-month, and 60-month intervals, or as applicable, shall be required on written approval of the MPCA.	SV004

TABLE B: RECURRENT SUBMITTALS

07/28/98

Facility Name: Kraft Foods Inc - Melrose

Permit Number: 14500003 - 001

What to send	When to send	Portion of Facility Affected
Semiannual Deviations Report	due 30 days after end of each calendar half-year following Permit Issuance . The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31.	Total Facility
Compliance Certification	due 30 days after end of each calendar year following Permit Issuance (for the previous calendar year). To be submitted on a form approved by the Commissioner, both to the Commissioner, and to the U.S. EPA regional office in Chicago. This report covers all deviations experienced during the calendar year.	Total Facility
Emissions Inventory Report	due 91 days after end of each calendar year following Permit Issuance (April 1). To be submitted on a form approved by the Commissioner.	Total Facility

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 14500003-001

This technical support document is intended for all parties interested in the permit. The purpose of this document is to set forth the legal and factual bases for the permit conditions, including references to the applicable statutory or regulatory provisions.

1. General Information

1.1. Applicant and Stationary Source Location:

Owner/Operator Address and Phone Number (list both if different)	Facility Address (SIC Code: 2022/2869)
<u>Owner</u> Kraft Foods, Inc. Kraft Court Glenview, Illinois 60025 <u>Contact</u> Larry O'Donnell Engineering Manager @ facility address phone: (320)256-7461, ext. 111 fax: (320)256-7578	Kraft Foods Inc. Kraft Cheese Division 1000 East Kraft Drive Melrose, Minnesota 56352 Stearns County

1.2. Description Of The Facility

Kraft Foods operates a cheese manufacturing plant and ethanol production facility in Melrose, Minnesota. The primary capability of the plant consists of the manufacture of natural cheeses, including parmesan, romano, and cheddar. A portion of the by-products from the cheese-making process are transferred to the adjoining alcohol plant, where they are fermented and used for the distillation of ethyl alcohol, which is sold as a motor vehicle fuel additive. The facility operates 24 hours per day, 365 days per year.

The portion of the facility that produces ethanol is subject to federal Prevention of Significant Deterioration (PSD) regulations when potential emissions reach 100 tons per year of any criteria pollutant. The capacity of the ethanol production facility is such that potential emissions of all criteria pollutants produced by the production of ethanol are less than 100 tons per year.

The facility as a whole (ethanol production plus cheese production) is subject to PSD when potential emissions reach 250 tons per year of any criteria pollutant. The permit contains conditions such that potential emissions of all criteria pollutants are less than 250 tons per year.

Since the potential emissions of the facility as a whole exceed 100 tons per year, the facility is subject to Part 70 permitting requirements.

1.3 Description of the Activities Allowed By This Permit Action

The permit is a Title V operating permit for the facility. In addition to allowing operation, this permit action allows expansion of the facility's ethanol production capacity from 1.9 million gallons per year to 3 million gallons per year. This includes installation of three additional fermentation tanks, a second beer well, a second distillation column; replacement of the existing dehydration column with a molecular sieve system; and removal of the ether condenser vent. No physical modifications affecting the facility's cheese production capability are authorized.

1.4 Changes Since Beginning of Public Notice

No comments were received during the public notice period, and no changes were made to the technical requirements of the permit. The only change made to the permit was added clarification that the Annual Compliance Certification is to be sent to EPA Region V. That correction appears under the total facility requirements (FC).

Revised AP-42 emission factors for natural gas combustion became available during the public notice period. Potential emissions were calculated based on the revised factors, and are summarized in Table 2 below.

No comments were received from EPA during the 45-day review period.

1.5. Facility Emissions:

Table 1. Increase in Potential Emissions Associated With the Modification

Pollutant	Potential to Emit from the modification (lb/hr)	Potential to Emit from the modification (TPY)	Emission Increases Authorized with this Permit Action	Emission Decreases Authorized with this Permit Action	Other contemporaneous emission increases/decreases (TPY)	Net Emission Change (TPY)	NSR/112(g) Threshold Level (TPY)	NSR/MACT Review Required (Yes or No)
VOC	3.02	13.23	N/A	N/A	N/A	13.23	100	NO
Methanol	0.23	1.02	N/A	N/A	N/A	1.02	10	NO

Table 2. Total Facility Potential to Emit Summary
(See GI-07 for details)

	PM tpy	PM ₁₀ tpy	SO ₂ tpy	NO _x tpy	CO tpy	VOC tpy	Pb tpy	Meth- anol tpy	All HAPs tpy
Total Facility Limited Potential Emissions (as of the public notice date)	66.7	42.4	225.5	246.4	27.4	35.7	0.11	2.75	3.58
Total Facility Limited Potential Emissions (corrected changed after public notice began)*	64.8	40.6	225.5	167.3	56.5	37.6	0.11	2.75	3.58
Total Facility Actual Emissions**	4.84	4.48	47.82	116.1	9.82	21.41	NR***	NR***	NR***

* Changes are due only to changes to the published AP-42 emission factors

** From 1996 Emission Inventory.

*** Not reported

Table 3. Permit Action Classification

Classification	Major/Affected Source	Synthetic Minor	Minor
PSD		SO ₂ , NO _x , VOC	PM, PM ₁₀ , CO, Pb
NAAR - N/A			
Part 70 Permit Program	SO ₂ , NO _x	PM ₁₀ , VOC	CO, Pb, HAPs

2. Regulatory Overview of Units Affected by the Modification

EU, GP, SV, etc	Applicable Regulations	Comments
FC	Minn. R. 7009 and 40 CFR 50	Modeling is required for NO _x and SO ₂ because the total facility limited emissions exceeds 100 tpy.
EU 001 EU 002	Minn. R. 7011.0510	PM limits are met by potential emissions based on boiler capacity and AP-42 emission factors
EU 003	Minn. R. 7011.0515	PM limits is met by potential emissions based on boiler capacity and AP-42 emission factors
EU 003	NSPS Subpart Db	Although this boiler was installed after the effective date of subpart Db, it was actually constructed in 1980, so subpart Db does not apply.
TK 001 TK 002 TK 003	NSPS Subpart Ka, Kb	These tanks were constructed prior to the effective date of Subpart Kb, so Kb does not apply. They contain ethanol, not a petroleum liquid, so Ka also does not apply.
TK 004 TK 005 TK 006 TK 007	NSPS Subpart Kb	These tanks have a capacity below 75 m ³ , so only the capacity recordkeeping portion of Kb applies
EU, GP,	Applicable	Comments

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SV , etc	Regulations	
TK 008	NSPS Subpart Kb	Since this tank is smaller than 40 m ³ , Kb does not apply at all

3. Technical Information

- Calculations required by permit - The permit requires monthly calculations as a 12-month rolling sum. This is consistent with requirements of other ethanol plant permits being issued. Quantity of milk available varies with the season and the particular conditions of the season. Production of cheese is dependent on the quantity of milk available, which affects the amount of steam that is needed, and the amount of ethanol that can be produced.
- CE 001 (listed as a Gas Scrubber) is actually a high efficiency wet scrubber without lime slurry (which doesn't appear as an option in Delta).

4. Conclusion

Based on the information provided by Kraft Foods, Inc., the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 14500003-001 and this technical support document, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: T. Volkmeier, M. Cole, D. Vaaler

Attachments: Facility Description and supporting calculations; CD-01 Forms