

**AIR EMISSION PERMIT NO. 10900032-001**

**IS ISSUED TO**

**Quest International**

Quest International  
2402 7th Street Northwest  
Rochester, Olmsted County, Minnesota 55901

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

Permit Type	Application Date	Issue Date	Action Number
Total Facility Operating Permit	01/17/95 with updates	See below	001

This permit authorizes the permittee to operate 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 defined in the state air pollution control rules unless the term is explicitly defined in the permit.

**Permit Type:** State; Limits to Avoid Part 70 and New Source Review

**Issue Date:** May 4, 2004

**Expiration:** Permit does not expire  
Title I Conditions do not expire.

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Ann M. Foss  
Major Facilities Section Manager  
Majors And Remediation Division

for Sheryl A. Corrigan  
Commissioner  
Minnesota Pollution Control Agency

## **TABLE OF CONTENTS**

**Notice to the Permittee**

**Permit Shield**

**Facility Description**

**Table A: Limits and Other Requirements**

**Table B: Submittals**

**Table C: Compliance Schedule - not used in this permit**

**Appendix: Insignificant Activities**

**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. Subject to the limitations of Minn. R. 7007.1800 and 7017.0100, subp. 2, notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

**FACILITY DESCRIPTION:**

This facility processes cheese whey, corn syrup solids, and related ingredients into food ingredients and frozen cultures. The main emission sources are two Cleaver Brooks 600 horsepower gas-fired boilers, two spray dryers, and a wet blend bag dump station dust collector. No facility changes are authorized by this permitting action.

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

05/04/04

Facility Name: Quest International

Permit Number: 10900032 - 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.**

<b>Subject Item: Total Facility</b>	
<b>What to do</b>	<b>Why to do it</b>
<b>OPERATIONAL REQUIREMENTS</b>	hdr
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
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. At a minimum, the O & M plan shall identify all air pollution control equipment and shall include a preventative maintenance program for that equipment, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment, and the records kept to demonstrate plan implementation.	Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)
Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate.	Minn. R. 7019.1000, subp. 4
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
Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7030.0010 - 7030.0080
Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A).	Minn. R. 7007.0800, subp. 9(A)
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
<b>PERFORMANCE TESTING</b>	hdr
Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A, B, and/or C.	Minn. R. ch. 7017
Performance Test Notifications and Submittals:  Performance Tests are due as outlined in Tables A and B of the permit. See Table B for additional testing requirements.  Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-test Meeting: due 7 days before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy: due 105 days after each Performance Test  The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2030, subp. 1-4, Minn. R. 7017.2018, and Minn. R. 7017.2035, subp. 1-2
Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as specified by Minn. R. 7017.2025 following formal review of a subsequent performance test on the same unit.	Minn. R. 7017.2025
<b>MONITORING REQUIREMENTS</b>	hdr
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)

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

05/04/04

Facility Name: Quest International

Permit Number: 10900032 - 001

Operation of Monitoring Equipment: Unless otherwise noted in Tables A and/or B, 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)
RECORDKEEPING	hdr
Recordkeeping: 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)
Recordkeeping: 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)
REPORTING/SUBMITTALS	hdr
Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3.  At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.	Minn. R. 7019.1000, subp. 3
Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2.  At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.	Minn. R. 7019.1000, subp. 2
Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment.	Minn. R. 7019.1000, subp. 1
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: 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. 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
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)
Emission Inventory Report: due 91 days after end of each calendar year following permit issuance (April 1). The report shall be submitted on a form approved by the Commissioner.	Minn. R. 7019.3000 through Minn. R. 7019.3100
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

05/04/04

Facility Name: Quest International

Permit Number: 10900032 - 001

**Subject Item:** GP 001 Boilers not in service**Associated Items:** EU 002 Boiler 2 - out of service Cleaver Brooks 1970

EU 003 Boiler 3 - out of service Cleaver Brooks 1977

What to do	Why to do it
Prohibition of Operation: The Permittee shall not operate EU 002 and EU 003 unless an amendment to this permit is obtained that specifically authorizes operation of one or both of these emission units.	Minn. R. 7007.0800, subp. 2 to avoid major source classification under 40 CFR Section 70.2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

05/04/04

Facility Name: Quest International

Permit Number: 10900032 - 001

**Subject Item:** GP 002 New Indirect Heating Equipment**Associated Items:** EU 004 Boiler 4 Cleaver Brooks 1977

EU 008 Main Office Space Heater

What to do	Why to do it
LIMITS AND OPERATING RESTRICTIONS - apply individually to each GP 002 emission unit	hdr
Total Particulate Matter: less than or equal to 0.4 lbs/million Btu heat input (maximum potential emission rate is 0.007 lb/mmBtu).	Minn. R. 7011.0515, subp. 1
Opacity: less than or equal to 20 percent except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0515, subp. 2
Permitted Fuels: Natural gas and propane	Minn. R. 7007.0800, subp. 2



**TABLE A: LIMITS AND OTHER REQUIREMENTS**

05/04/04

Facility Name: Quest International

Permit Number: 10900032 - 001

**Subject Item: GP 003 Dryers**

**Associated Items:** CE 002 Wet Scrubber - High Efficiency  
 CE 004 Wet Scrubber - High Efficiency  
 CE 007 Wet Scrubber - High Efficiency  
 CE 008 Wet Scrubber - High Efficiency  
 CE 009 Wet Scrubber - High Efficiency  
 EU 005 Large Delaval Spray Dryer  
 EU 006 Small Delaval Spray Dryer  
 SV 006 Small Deleval Spray Dryer Stack  
 SV 007 Large Delaval Spray Dryer Stack 1  
 SV 008 Large Delaval Spray Dryer Stack 2

What to do	Why to do it
EMISSION LIMITS AND OPERATING REQUIREMENTS	hdr
Particulate Matter < 10 micron: less than or equal to 8.0 lbs/hour as a total for the 2 stacks (SV 007 and SV 008) for the Large Delaval Spray Dryer.	Title I Condition: Limit to avoid major source status under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 to avoid major source status under 40 CFR Section 70.2
Particulate Matter < 10 micron: less than or equal to 2.0 lbs/hour for the stack (SV 006) for the Small Delaval Spray Dryer.	Title I Condition: Limit to avoid major source status under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 to avoid major source status under 40 CFR Section 70.2
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas and comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies individually to each emission unit.  The less stringent limits are 28.6 and 9.11 lb/hr, for EU 005 and EU 006 respectively, based on Minn. R. 7011.0735. Potential controlled total particulate matter emissions are 6.61 and 1.66 lb/hr, for EU 005 and EU 006 respectively, based on the dryer PM emission factor and the required wet scrubber control efficiency in GP 004.	Minn. R. 7011.0610, subp. 1(A)(1)
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity for each emission unit.	Minn. R. 7011.0610, subp. 1(A)(2)
Permitted Fuels: Natural gas and propane	Minn. R. 7007.0800, subp. 2
See GP 004 for dryer wet scrubber requirements.	hdr
PERFORMANCE TESTING REQUIREMENTS	hdr
See page A-1 of this permit for additional requirements pertaining to performance testing.	
Initial Performance Test: due 180 days after Permit Issuance to measure PM10 emissions from EU 005. Emissions from EU 005 are the total emissions measured simultaneously from SV 007 and SV 008.	Title I Condition: To avoid major source status under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 to avoid major source status under 40 CFR Section 70.2; Minn. R. 7017.2020, subp. 1
Initial Performance Test: due 180 days after Permit Issuance to measure PM10 emissions from EU 006. Emissions from EU 006 vent through SV 006.	Title I Condition: To avoid major source status under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 to avoid major source status under 40 CFR Section 70.2; Minn. R. 7017.2020, subp. 1

# TABLE A: LIMITS AND OTHER REQUIREMENTS

05/04/04

Facility Name: Quest International

Permit Number: 10900032 - 001

**Subject Item:** GP 004 Dryer Scrubbers

**Associated Items:** CE 002 Wet Scrubber - High Efficiency

CE 004 Wet Scrubber - High Efficiency

CE 007 Wet Scrubber - High Efficiency

CE 008 Wet Scrubber - High Efficiency

CE 009 Wet Scrubber - High Efficiency

What to do	Why to do it
Wet Scrubber Operation: The Permittee shall operate and maintain the wet scrubber(s) at all times that any emission unit controlled by the wet scrubber(s) is in operation.  CE 004, CE 007, CE 008, and CE 009 control emissions from the large dryer (EU 005).  CE 002 controls emissions from the small dryer (EU 006).	Title I Condition: To limit PM10 emissions to non-major source level in 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14 to limit PM10 emissions to non-major source level under 40 CFR Section 70.2, and to meet limits in Minn. R. 7011.0610
The Permittee shall operate and maintain each wet scrubber so that it achieves an overall control efficiency for Particulate Matter < 10 micron: greater than or equal to 90 percent collection efficiency	Title I Condition: To limit PM10 emissions to non-major source level in 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14 to limit PM10 emissions to non-major source level under 40 CFR Section 70.2
The Permittee shall operate and maintain each wet scrubber so that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 90 percent collection efficiency	Minn. R. 7007.0800, subp. 2 and 14 to meet limits in Minn. R. 7011.0610
Monitoring Equipment: The Permittee shall install the necessary monitoring equipment within 120 days after permit issuance, for measuring and recording water flow rate and pressure drop as required by this permit. After installation, the monitoring equipment must be in use and properly maintained when the monitored wet scrubber is in operation.	Minn. R. 7007.0800, subp. 4
Water flow rate: greater than or equal to 20 gallons/minute for CE 004, CE 007, CE 008, and CE 009, unless a new minimum is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated. This water flow rate applies to each large dryer scrubber.	Title I Condition: To limit PM10 emissions to non-major source level in 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14 to limit PM10 emissions to non-major source level under 40 CFR Section 70.2, and to meet limits in Minn. R. 7011.0610
Water flow rate: greater than or equal to 43 gallons/minute for CE 002 unless a new minimum is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated.	Title I Condition: To limit PM10 emissions to non-major source level in 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14 to limit PM10 emissions to non-major source level under 40 CFR Section 70.2, and to meet limits in Minn. R. 7011.0610
Pressure Drop: greater than or equal to 13 inches of water column for CE 004, CE 007, CE 008, and CE 009, unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated. This pressure drop applies to each large dryer scrubber.	Title I Condition: To limit PM10 emissions to non-major source level in 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14 to limit PM10 emissions to non-major source level under 40 CFR Section 70.2, and to meet limits in Minn. R. 7011.0610
Pressure Drop: greater than or equal to 6.4 inches of water column for CE 002 unless a new minimum is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated.	Title I Condition: To limit PM10 emissions to non-major source level in 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14 to limit PM10 emissions to non-major source level under 40 CFR Section 70.2, and to meet limits in Minn. R. 7011.0610
Daily Monitoring and Recordkeeping of Pressure Drop and Water Flow Rate. Once each day of operation, the Permittee shall observe and record the following for each GP 003 wet scrubber:  1. the pressure drop reading; 2. the water flow rate 3. the time and date of each pressure drop and water flow rate reading; 4. whether or not the recorded pressure drops and the water flow rates were above the minimum values specified in this permit.	Title I Condition: To limit PM10 emissions to non-major source level in 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14 to limit PM10 emissions to non-major source level under 40 CFR Section 70.2, and to meet limits in Minn. R. 7011.0610
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5, and 14

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

05/04/04

Facility Name: Quest International

Permit Number: 10900032 - 001

<p>Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:</p> <ul style="list-style-type: none"><li>- the recorded pressure drop or water flow rate is below the required minimum value; or</li><li>- the scrubber or any of its components are found during any inspection to need repair.</li></ul> <p>Corrective actions shall return the pressure drop and/or water flow rate to above the permitted minimum, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O &amp; M Plan for the scrubber. The Permittee shall keep a record of the type and date of any corrective action taken for each scrubber.</p>	<p>Minn. R. 7007.0800, subp. 4, 5, and 14</p>
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**TABLE A: LIMITS AND OTHER REQUIREMENTS**

05/04/04

Facility Name: Quest International

Permit Number: 10900032 - 001

**Subject Item:** EU 001 Boiler 1 Cleaver Brooks 1970**Associated Items:** SV 001 Boiler 1

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.6 lbs/million Btu heat input (maximum potential emission rate is 0.007 lb/mmBtu).	Minn. R. 7011.0510, subp. 1
Opacity: less than or equal to 20 percent except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0510, subp. 2
Permitted Fuels: Natural gas and propane	Minn. R. 7007.0800, subp. 2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

05/04/04

Facility Name: Quest International

Permit Number: 10900032 - 001

**Subject Item:** EU 007 Wet Blend Bag Dump**Associated Items:** CE 005 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SV 009 Wet Blend Bag Dump

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas and 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 from SV 009.	Minn. R. 7011.0715, subp. 1(B)
CONTROL EQUIPMENT REQUIREMENTS	hdr
The Permittee shall operate and maintain CE 005 such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 79 percent control efficiency	Minn. R. 7007.0800, subp. 2 and 14 to meet limits in Minn. R. 7011.0715
The Permittee shall operate and maintain CE 005 such that it achieves an overall control efficiency for Particulate Matter < 10 micron: greater than or equal to 79 percent control efficiency	Title I Condition: To limit PM10 emissions to non-major source level in 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14 to limit PM10 emissions to non-major source level under 40 CFR Section 70.2
Pressure Drop: greater than or equal to 0.78 inches of water column and less than or equal to 3.0 inches of water column , unless a new range is set pursuant to Minn. R. 7017.2025, subp. 3, based on the values recorded during the most recent MPCA approved performance test where compliance was demonstrated.	Title I Condition: To limit PM10 emissions to non-major source level in 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14 to limit PM10 emissions to non-major source level under 40 CFR Section 70.2 and to meet limits in Minn. R. 7011.0715
Recordkeeping of Pressure Drop: The Permittee shall record the pressure drop once every 24 hours when in operation. The Permittee shall record the time and date of each pressure drop reading and whether or not the recorded pressure drop was within the range specified in this permit.	Title I Condition: To limit PM10 emissions to non-major source level in 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 4 and 5 to limit PM10 emissions to non-major source level under 40 CFR Section 70.2 and to meet limits in Minn. R. 7011.0715
The Permittee shall operate and maintain CE 005 at all times that any emission unit controlled by CE 005 is in operation.	Title I Condition: To limit PM10 emissions to non-major source level in 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14 to limit PM10 emissions to non-major source level under 40 CFR Section 70.2 and to meet limits in Minn. R. 7011.0715
Monitoring Equipment: The Permittee shall install and maintain the necessary monitoring equipment for measuring and recording pressure drop as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when CE 005 is in operation.	Minn. R. 7007.0800, subp. 4
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the CE 005 components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5 and 14
Corrective Actions: The Permittee shall take corrective action as soon as possible if any of the following occur:  1. the recorded pressure drop is outside the required operating range; or 2. CE 005 or any of its components are found during the inspections to need repair.  Corrective actions shall return the pressure drop to within the permitted range, eliminate visible emissions, and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the fabric filter. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subp. 4, 5, and 14
The Permittee shall operate and maintain CE 005 in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14
Hood Certification and Evaluation: The CE 005 hood must conform to the requirements listed in Minn. R. 7011.0070, subp. 1. The Permittee shall maintain a copy of the certification on site, as well as an annual record of fan rotation speed, fan power draw, or face velocity of each hood, or other comparable air flow indication method.	Minn. R. 7007.0800, subp. 4, 5 and 14

## TABLE B: SUBMITTALS

05/04/04

Facility Name: Quest International  
Permit Number: 10900032 - 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

Send submittals that are required by the Acid Rain Program to:

U.S. Environmental Protection Agency  
Clean Air Markets Division  
1200 Pennsylvania Avenue NW (6204N)  
Washington, D.C. 20460

**TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS**

05/04/04

Facility Name: Quest International

Permit Number: 10900032 - 001

What to send	When to send	Portion of Facility Affected
Testing Frequency Plan	due 60 days after Initial Performance Test for PM10 emissions. The plan shall specify a testing frequency based on the initial performance test results and MPCA guidance. Future performance tests at 12-month, 36-month, and 60-month intervals, or as determined on a case-by-case basis, shall be required upon written approval of the test plan by the MPCA. A separate plan shall be submitted for each dryer (EU 005 and EU 006).	GP003

**TABLE B: RECURRENT SUBMITTALS**

05/04/04

Facility Name: Quest International

Permit Number: 10900032 - 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. If no deviations have occurred, the Permittee shall submit the report stating no deviations.	Total Facility
Compliance Certification	due 31 days after end of each calendar year following Permit Issuance (for the previous calendar year). The certification shall be submitted to the Commissioner on a form approved by the Commissioner. This report covers all deviations experienced during the calendar year.	Total Facility



APPENDIX: Insignificant Activities Required To Be Listed

Facility Name: Quest International

Permit Number: 10900032-001

Minn. R. 7007.1300	Equipment
subp. 3.A	Space Heaters fired by natural gas or propane
subp. 3.B.(2)	Natural gas-fired furnaces
subp. 3.G	Laboratory emissions
subp. 3.H.(3)	Welding equipment
subp. 3.I.(2)	Parts washer solvent usage $\leq$ 200 gallons per 12-month period
subp. 3.J	Fugitive emissions from paved roads and parking lots

**TECHNICAL SUPPORT DOCUMENT**  
**For**  
**DRAFT AIR EMISSION PERMIT NO. 10900032-001**

This technical support document is intended for all parties interested in the draft permit and to meet the requirements that have been set forth by the federal regulations and Minn. R. (40 CFR, Section 70.7(a)(5) and Minn. R. 7007.0850, subp. 1). The purpose of this document is to provide the legal and factual justification for each applicable requirement or policy decision considered in the determination to issue the draft permit.

**1. General Information**

**1.1. Applicant and Stationary Source Location:**

Applicant/Address	Stationary Source/Address (SIC Code: 2023)
Quest International 2402 7 <sup>th</sup> Street NW Rochester, MN 55901	2402 7 <sup>th</sup> Street NW Rochester Olmsted County
Contact: Greg Hitchcock (507) 285-3478	

**1.2. Description of the Permit Action and Facility**

This permit is a total facility state operating permit that authorizes operation of the facility, and contains limits and conditions to avoid part 70 and NSR major source status. The facility processes cheese whey, corn syrup solids, and related ingredients into food ingredients and frozen cultures. The main emission sources are two Cleaver Brooks 600 horsepower gas-fired boilers, two spray dryers, and a wet blend bag dump station dust collector.

**1.3 Description of any Changes Allowed with this Permit Issuance**

No changes are authorized by this permitting action.

**1.4 Permit History**

Permit Number and Issuance Date	Action Authorized
Not Applicable	No previous permits

**1.5. Facility Emissions:**

**Table 1. Total Facility Limited Potential to Emit Summary:**

	PM tpy	PM <sub>10</sub> tpy	SO <sub>2</sub> tpy	NO <sub>x</sub> tpy	CO tpy	VOC tpy	All HAPs tpy
Total Facility Limited Potential Emissions	38.8	46.4	5.53	71.1	28.7	1.91	<1
Total Facility Actual Emissions (2002)	0.51	0.51	0.04	6.93	6.0	0.38	Not Reported

**Table 2. Facility Classification**

Classification	Major/Affected Source	Synthetic Minor	Minor
PSD		PM <sub>10</sub>	PM, SO <sub>2</sub> , NO <sub>x</sub> , CO, VOC, Pb
Part 70 Permit Program		PM <sub>10</sub>	SO <sub>2</sub> , NO <sub>x</sub> , CO, VOC, Pb, HAPs

## 2. Regulatory and/or Statutory Basis

### New Source Review

The facility is an existing source that has uncontrolled potential PM<sub>10</sub> emissions exceeding the major source definition under the New Source Review permit program. Actual PM<sub>10</sub> emissions have never exceeded the major source threshold. In order to keep the source non-major for NSR, this draft permit contains Title I PM<sub>10</sub> emissions limits for the 2 spray dryers and Title I Conditions for PM<sub>10</sub> control equipment operation. The Title I PM<sub>10</sub> limits were determined by adding a 20% increment to the calculated controlled PM<sub>10</sub> emission rates. The 20% increment is intended to serve as a buffer to enable a demonstration of compliance during a PM<sub>10</sub> performance test. The additional increment is reasonable and appropriate because the limited total facility PM<sub>10</sub> is only 46.33 tpy.

Total limited potential PM emissions are less than the NSR major source level, due to applicable PM limitations in the Minn. Industrial Process Equipment Rule. Because this limited potential is less than the NSR major source level, the PM control equipment operating requirements in this draft permit are not cited as Title I Conditions, but are cited as Minn. R. 7007.0800, subps. 2 and 14.

Potential uncontrolled emissions of all other pollutants are less than the NSR major source level.

### Part 70 Permit Program

This permit contains enforceable limits and conditions to restrict emissions to less than the Part 70 major source level. This allows the draft permit to be a non-expiring state permit.

### New Source Performance Standards (NSPS)

There are no New Source Performance Standards applicable to this facility.

### National Emission Standards for Hazardous Air Pollutants (NESHAP)

There are no NESHAPs applicable to this facility and unlimited potential HAP emissions are less than the major source level under § 63.2.

### Minnesota State Rules

Portions of the facility are subject to the following Minnesota Standards of Performance:

- Minn. R. 7011.0510 Standards of Performance for Existing Indirect Heating Equipment
- Minn. R. 7011.0515 Standards of Performance for New Indirect Heating Equipment
- Minn. R. 7011.0715 Standards of Performance for Post-1969 Industrial Process Equipment

**Table 3. Regulatory Overview of Facility**

EU, GP, or SV	Applicable Regulations	Comments:
GP 001	Minn. R. 7007.0800, subp. 2	Boiler not in service - prohibition of operation
GP 002	Minn. R. 7007.0510	Standards of Performance for New Indirect Heating
GP 003	Minn. R. 7011.0610, subp. 1	Title I PM <sub>10</sub> limits; Direct Heating Equipment Rule PM and opacity limits; PM <sub>10</sub> emissions testing
GP 004	Title I Conditions; Minn. R. 7007.0800, subps. 2, 4, 5, 14	Dryer scrubber operating requirements
EU 001	Minn. R. 7007.0510	Standards of Performance for Existing Indirect Heating
EU 007	Minn. R. 7011.0715	Standards of Performance for New Industrial Process Equipment

## **3. Technical Information**

### **3.1 Calculations of Potential to Emit**

See attached spreadsheet for emission calculations. Emissions were calculated using available emissions factors (AP-42 and manufacturer's emissions information).

PM emissions from the wet blend bag dump and the dryers are subject to the Minnesota Industrial Process Equipment Rule and the Direct Heating Equipment Rule. With bag dump and dryer PM emissions limited by the IPER, total facility PM emissions would be 194.95 tpy. Because this potential annual PM emission rate is less than the NSR major source level of 250 tpy, Title I PM requirements are not necessary to restrict total facility PM to less than 250 tpy. All PM control operating requirements are cited as 'Minn. R. 7007.0800, subps. 2 and 14' and

not 'Title I Condition: to avoid major source status under 40 CFR Section 52.21'. However, uncontrolled PTE for PM<sub>10</sub> does exceed 250 tpy, so all PM<sub>10</sub> control equipment operating conditions are cited as Title I Conditions. Note that limited PM emissions are based on emissions factors and required control equipment efficiencies, and not PM emissions allowed by the Minnesota IPER.

### 3.2 Periodic Monitoring

In accordance with the Clean Air Act, it is the responsibility of the owner or operator of a facility to have sufficient knowledge of the facility to certify that the facility is in compliance with all applicable requirements.

In evaluating the monitoring included in the permit, the MPCA considers the following:

- The likelihood of violating the applicable requirements;
- Whether add-on controls are necessary to meet the emission limits;
- The variability of emissions over time;
- The type of monitoring, process, maintenance, or control equipment data already available for the emission unit;
- The technical and economic feasibility of possible periodic monitoring methods; and
- The kind of monitoring found on similar units elsewhere:

Table 4 summarizes the periodic monitoring requirements for those emission units for which the monitoring required by the applicable requirement is nonexistent or inadequate.

**Table 4. Periodic Monitoring**

<b>Emission Unit or Group</b>	<b>Requirement (basis)</b>	<b>Additional Monitoring</b>	<b>Discussion</b>
GP 002 EU 001 2 boilers and space heater	Minn. R. 7011.0510 & 7011.0515 PM & opacity	None	These 2 boilers and one office space heater are fired with NG and LPG only. The likelihood of violating the applicable PM and opacity limits is so low that no additional monitoring is appropriate
GP 003 Dryers	Minn. R. 7011.0610 PM & opacity	None	Dryers are controlled by wet scrubbers. See GP 004.
GP 004	Title I Conditions to avoid NSR for PM <sub>10</sub>	Control equipment monitoring and recordkeeping	Monitoring of scrubber pressure drop, water pressure, and water flow rate, as well as scrubber O & M, will ensure adequate scrubber operation and PM/PM <sub>10</sub> control. Monitor installation must be complete within 120 days after permit issuance.
EU 007	Minn. R.	None	Monitoring of filter pressure drop and filter O

<b>Emission Unit or Group</b>	<b>Requirement (basis)</b>	<b>Additional Monitoring</b>	<b>Discussion</b>
bag dump	7011.0715 PM & opacity		& M, will ensure adequate filter operation and PM/PM <sub>10</sub> control.

### **3.3 Insignificant Activities**

The Permittee has multiple space heaters, and fuel burning equipment (water heaters and hot air furnaces) which are classified as insignificant activities. These are listed in the Appendix to the permit. All are fired with either natural gas or propane. No periodic monitoring is warranted for the same reason as described in table 4 for GP 002/EU 001.

### **3.4 Comments Received During Public Notice**

None

## **4. Conclusion**

Based on the information provided by Quest International, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 10900032-001 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:     Marshall Cole (permit writer/engineer)  
    Greg Berger (enforcement)  
    Toni Volkmeier (peer reviewer)

Attachments:    1.   PTE Summary and Calculation Spreadsheets