

AIR EMISSION PERMIT NO. 16300002- 001

IS ISSUED TO

3M

3M - Cottage Grove Specialty Additives
10746 Innovation Road, Buildings 74, 101, and 110
Cottage Grove, Washington County, MN 55016

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	04/17/1995, supplement 10/23/2002

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 defined in the state air pollution control rules unless the term is explicitly defined in the permit.

Permit Type: Federal; Part 70

Issue Date: March 24, 2005

Expiration: March 24, 2010

All Title I Conditions do not expire.

Richard J. Sandberg
Air Permits Section Manager
Industrial Division

for Sheryl A. Corrigan
Commissioner
Minnesota Pollution Control Agency

DB:lh

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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.

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 produces glass products for use at other 3M facilities and other customers.

Emissions result from handling the raw materials in the form of bulk powders, from fuel combustion, and from production processes. Natural gas is the primary fuel, with propane for backup. Direct electrical heating is also used.

Emission units include storage silos for the raw materials, blenders, furnaces, milling, final product forming, and packaging. All emission units emit some particulate matter. Fuel-burning units also emit nitrogen oxides and carbon monoxide and very small amounts of sulfur dioxide and volatile organic compounds.

TABLE A: LIMITS AND OTHER REQUIREMENTS

03/24/05

Facility Name: 3M Cottage Grove Specialty Additives

Permit Number: 16300002 - 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
EMISSION CAP LIMITS	hdr
<p>Total Particulate Matter: less than or equal to 110 tons/year using 12-month Rolling Sum to be calculated by the 21st day of each month for the previous 12-month period as described later in this permit.</p> <p>All Total Particulate Matter (TPM)-emitting equipment is subject to this limit. If the Permittee replaces any TPM-emitting equipment, adds new TPM-emitting equipment, or modifies the existing equipment, such equipment is subject to this permit limit and all of the requirements under EMISSION CAP LIMITS listed as Total Facility requirements. Prior to making the change, the Permittee shall apply for and obtain the appropriate permit amendment. The Permittee is not required to repeat the calculations described in Minn. R. 7007.1200, subp. 2.</p> <p>A permit amendment is needed regardless of the emissions change if the change will be subject to new applicable requirements or requires revisions to the limits or monitoring and recordkeeping in this permit. Changes to existing monitoring, recordkeeping or reporting requirements require a major amendment.</p>	<p>Title I Condition: limit to avoid classification as a major source under 40 CFR Section 52.21</p>
<p>Sulfur Dioxide: less than or equal to 120 tons/year using 12-month Rolling Sum to be calculated by the 21st day of each month for the previous 12-month period as described later in this permit.</p> <p>All sulfur dioxide (SO2)-emitting equipment is subject to this limit. If the Permittee replaces any SO2-emitting equipment, adds new SO2-emitting equipment, or modifies the existing equipment, such equipment is subject to this permit limit and all of the requirements under EMISSION CAP LIMITS listed as Total Facility requirements. Prior to making the change, the Permittee shall apply for and obtain the appropriate permit amendment. The Permittee is not required to repeat the calculations described in Minn. R. 7007.1200, subp. 2.</p> <p>A permit amendment is needed regardless of the emissions change if the change will be subject to new applicable requirements or requires revisions to the limits or monitoring and recordkeeping in this permit. Changes to existing monitoring, recordkeeping or reporting requirements require a major amendment.</p>	<p>Title I Condition: limit to avoid classification as a major source under 40 CFR Section 52.21</p>
<p>Nitrogen Oxides: less than or equal to 135 tons/year using 12-month Rolling Sum to be calculated by the 21st day of each month for the previous 12-month period as described later in this permit.</p> <p>All nitrogen oxides (NOx)-emitting equipment is subject to this limit. If the Permittee replaces any NOx-emitting equipment, adds new NOx-emitting equipment, or modifies the existing equipment, such equipment is subject to this permit limit and all of the requirements under EMISSION CAP LIMITS listed as Total Facility requirements. Prior to making the change, the Permittee shall apply for and obtain the appropriate permit amendment. The Permittee is not required to repeat the calculations described in Minn. R. 7007.1200, subp. 2.</p> <p>A permit amendment is needed regardless of the emissions change if the change will be subject to new applicable requirements or requires revisions to the limits or monitoring and recordkeeping in this permit. Changes to existing monitoring, recordkeeping or reporting requirements require a major amendment.</p>	<p>Title I Condition: limit to avoid classification as a major source under 40 CFR Section 52.21</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

03/24/05

Facility Name: 3M Cottage Grove Specialty Additives

Permit Number: 16300002 - 001

<p>Volatile Organic Compounds: less than or equal to 110 tons/year using 12-month Rolling Sum of total mass of VOC to be calculated by the 21st day of each month for the previous 12-month period as described later in this permit.</p> <p>All volatile organic compound (VOC)-emitting equipment is subject to this limit. If the Permittee replaces any VOC-emitting equipment, adds new VOC-emitting equipment, or modifies the existing equipment, such equipment is subject to this permit limit and all of the requirements under EMISSION CAP LIMITS listed as Total Facility requirements. Prior to making the change, the Permittee shall apply for and obtain the appropriate permit amendment. The Permittee is not required to repeat the calculations described in Minn. R. 7007.1200, subp. 2.</p> <p>A permit amendment is needed regardless of the emissions change if the change will be subject to new applicable requirements or requires revisions to the limits or monitoring and recordkeeping in this permit. Changes to existing monitoring, recordkeeping or reporting requirements require a major amendment.</p>	<p>Title I Condition: limit to avoid classification as a major source under 40 CFR Section 52.21</p>
<p>Daily Recordkeeping: On each day of operation, the Permittee shall calculate, record, and maintain records of the total quantity of all materials processed or used at the facility which result in emission of PM, PM10, SO2, NOx, or VOC. As an alternative, the Permittee may record hours of operation of emitting units. The records must provide adequate data to calculate emissions of PM, PM10, SO2, NOx, and VOC.</p>	<p>Title I Condition: Recordkeeping limit to avoid classification as a major source under 40 CFR Section 52.21</p>
<p>Monthly Recordkeeping: By the 21st day of each month, the Permittee shall calculate and record the PM, PM10, SO2, NOx, and VOC emissions for the previous month and the 12-month rolling sum emissions for the previous 12 month period by summing the monthly emissions data for the previous 12 months.</p>	<p>Title I Condition: recordkeeping for limit to avoid classification as a major source under 40 CFR Section 52.21</p>
<p>Insignificant Activities: The Permittee shall evaluate the emissions from changes made under Minn. R. 7007.1300 on a monthly basis, and shall include emissions from Insignificant Activities in the monthly rolling sum.</p>	<p>Title I Condition: limit to avoid classification as a major source under 40 CFR Section 52.21</p>
<p>The Permittee shall not begin construction of any single project or projects that are connected or phased which will cause a total increase in actual emissions of greater than 99 tons per year for any criteria pollutant without first getting a permit amendment to authorize the project. Connected and phased have meanings as defined in Minn. R. 4410.0200 subps. 9b and 60. The Permittee shall not begin construction of any other project which is listed in Minn. R. 4410,4300 or Minn. R. 4410.4400 without first getting a permit amendment to authorize the project. Such projects may require the completion of an Environmental Assessment Worksheet or an Environmental Impact Statement prior to the amendment being issued. this is a state only requirement and is not federally enforceable.</p>	<p>Minn. R. 4410.4300 and Minn. R. 4410.4400</p>
<p>OPERATIONAL REQUIREMENTS</p>	<p>hdr</p>
<p>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.</p>	<p>Minn. R. 7011.0020; 40 CFR Section 52.1222</p>
<p>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.</p>	<p>Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)</p>
<p>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.</p>	<p>Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)</p>
<p>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.</p>	<p>Minn. R. 7019.1000, subp. 4</p>
<p>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.</p>	<p>Minn. R. 7011.0150; 40 CFR Section 52.1222</p>
<p>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.</p>	<p>Minn. R. 7030.0010 - 7030.0080</p>
<p>Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A).</p>	<p>Minn. R. 7007.0800, subp. 9(A); 40 CFR Section 70.6(c)(2)</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

03/24/05

Facility Name: 3M Cottage Grove Specialty Additives

Permit Number: 16300002 - 001

The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16; 40 CFR Section 70.6(a)(4), (5), and (6)
PERFORMANCE TESTING	hdr
Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A or B.	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. Rs. 7017.2030, subp. 1-4, 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
MONITORING REQUIREMENTS	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); 40 CFR Section 70.6(a)(3)(i)(C)
Operation of Monitoring Equipment: Unless otherwise noted in Tables A 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); 40 CFR Section 70.6(a)(3)(i)(C)
RECORDKEEPING	hdr
Recordkeeping: Retain all records required by this permit for a period of at least five (5) years from the date of monitoring, sample, measurement, or report. Records shall be retained at the stationary source for at least two (2) years, after which they may be transferred to and retained at the 3M Center for at least three (3) years. Records which must be retained at this location for at least two (2) years 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); 40 CFR Section 70.6(a)(3)(ii)(B)
Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) including records of the emissions resulting from those changes.	Minn. R. 7007.0800, subp. 5(B)
Recordkeeping: Maintain records describing any 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); 40 CFR Section 70.4(b)(12)
REPORTING and 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; 40 CFR Section 52.1222

TABLE A: LIMITS AND OTHER REQUIREMENTS

03/24/05

Facility Name: 3M Cottage Grove Specialty Additives

Permit Number: 16300002 - 001

<p>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.</p> <p>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.</p>	<p>Minn. R. 7019.1000, subp. 2; 40 CFR Section 52.1222</p>
<p>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.</p>	<p>Minn. R. 7019.1000, subp. 1; 40 CFR Section 52.1222</p>
<p>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:</p> <ol style="list-style-type: none"> 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. 	<p>Minn. R. 7019.1000, subp. 1; 40 CFR Section 52.1222</p>
<p>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.</p>	<p>Minn. R. 7007.1150 through Minn. R. 7007.1500; 40 CFR Section 70.7(d) and (e)</p>
<p>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).</p>	<p>Minn. R. 7007.1400, subp. 1(H); 40 CFR Section 70.7(d)(1)(vi)</p>
<p>Emission 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.</p>	<p>Minn. R. 7019.3000 through Minn. R. 7019.3010; 40 CFR Section 52.1222</p>
<p>Emission Fees: due 60 days after receipt of an MPCA bill.</p>	<p>Minn. R. 7002.0005 through Minn. R. 7002.0095</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

03/24/05

Facility Name: 3M Cottage Grove Specialty Additives

Permit Number: 16300002 - 001

Subject Item: EU 001 #2 Furnace

Associated Items: SV 001 050 Vent for #2 Furnace

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)
Fuel: Natural gas	Minn. R. 7007.0800, subp. 2
Performance Test: due 30 days after Resuming Operation after permit issuance	Minn. R. 7017.2020, subp. 1
Performance Test Notifications and Submittals; 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 day before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy: due 105 day 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

TABLE A: LIMITS AND OTHER REQUIREMENTS

03/24/05

Facility Name: 3M Cottage Grove Specialty Additives

Permit Number: 16300002 - 001

Subject Item: EU 002 #8 Flash Dryer**Associated Items:** CE 001 Centrifugal Collector - High Efficiency

SV 002 051 Vent for Centrifugal Collector for #8 Flash Dryer

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 of 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

03/24/05

Facility Name: 3M Cottage Grove Specialty Additives

Permit Number: 16300002 - 001

Subject Item: EU 003 Glass Bubble Maker #18

Associated Items: CE 002 Electrostatic Precipitator - High Efficiency

SV 003 052 Vent for ESP for Former 18

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 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)
CONTROL EQUIPMENT REQUIREMENTS	hdr
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 95 percent control efficiency	Title I Condition: Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Particulate Matter < 10 micron: greater than or equal to 95 percent control efficiency	Title I Condition: Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
Operaitonal Requirement: All three fields of CE002 must be operating when EU003 is operating.	Minn. R. 7007.0800, subp. 14
Monitoring: The Permittee shall keep a record to demonstrate the all three fields are in operation when EU003 is operating.	Minn. R. 7007.0800, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

03/24/05

Facility Name: 3M Cottage Grove Specialty Additives

Permit Number: 16300002 - 001

Subject Item: EU 004 Glass Bubble Maker #20

Associated Items: CE 004 Fabric Filter - Medium Temperature i.e., 180 F<T<250 F

SV 004 054 Vent for fabric Filter for Former 20

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.0675 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.	Title I Condition: Limit to comply with 40 CFR Part 51, Appendix S; Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
CONTROL EQUIPMENT REQUIREMENTS	hdr
The Permittee shall operate and maintain the filter at all times that any emission unit controlled by the filter is in operation.	Title I Condition: Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the filter 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
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 99 percent control efficiency	Title I Condition: Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Particulate Matter < 10 micron: greater than or equal to 99 percent control efficiency	Title I Condition: Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
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 the monitored filter is in operation.	Minn. R. 7007.0800, subp. 4
Pressure Drop: greater than or equal to 3 inches of water column and less than or equal to 30 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. The Permittee shall record the pressure drop once every day when in operation.	Title I Condition: Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
Recordkeeping of Pressure Drop. 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: Monitoring for Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

03/24/05

Facility Name: 3M Cottage Grove Specialty Additives

Permit Number: 16300002 - 001

Subject Item: EU 005 Glass Bubble Maker #21

Associated Items: CE 005 Fabric Filter - Medium Temperature i.e., 180 F<T<250 F

SV 005 055 Vent for Fabric Filter for Former 21

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.0675 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.	Title I Condition: Limit to comply with 40 CFR Part 51, Appendix S; Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
CONTROL EQUIPMENT REQUIREMENTS	hdr
The Permittee shall operate and maintain the fabric filter at all times that any emission unit controlled by the fabric filter is in operation.	Title I Condition: Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the fabric filter 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
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 99 percent control efficiency	Title I Condition: Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Particulate Matter < 10 micron: greater than or equal to 99 percent control efficiency	Title I Condition: Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
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 the monitored fabric filter is in operation.	Minn. R. 7007.0800, subp. 4
Pressure Drop: greater than or equal to 3 inches of water column and less than or equal to 30 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. The Permittee shall record the pressure drop once every day when in operation.	Title I Condition: Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
Recordkeeping of Pressure Drop. 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: Monitoring for Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

03/24/05

Facility Name: 3M Cottage Grove Specialty Additives

Permit Number: 16300002 - 001

Subject Item: EU 022 Glass Furnace #74-04A

Associated Items: CE 024 Fabric Filter - High Temperature, i.e., T>250 Degrees F

SV 007 065 Vent for Fabric Filter for Reject Hopper, Remelt Feeder, and Glass Furnace

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.01 grains/dry standard cubic foot applicable during electric heating	Title I Condition: limit to avoid classification as a major source or major modification under 40 CFR Section 52.21; most stringent, meets limit set by Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
EU022 and EU023 cannot operate simultaneously. EU022 represents normal production operation with electric heating.	Title I Condition: limit to avoid classification as a major source or major modification under 40 CFR Section 52.21
Production limit: The emission unit shall not be operated at an hourly production rate, calculated as a daily average as specified below, higher than the production rate during the most recent performance test demonstrating compliance with the emission limits above.	Minn. R. 7017.2025, subp. 3(C)
Recordkeeping: The Permittee shall maintain records of the weight of each product container and the time filling is complete. By the 21st day of each month, the Permittee shall calculate an average pounds/hour production rate for each calendar day in the previous month from this data.	Minn. R. 7007.0800. subp. 4(B)

TABLE A: LIMITS AND OTHER REQUIREMENTS

03/24/05

Facility Name: 3M Cottage Grove Specialty Additives

Permit Number: 16300002 - 001

Subject Item: EU 023 Glass Furnace #74-04B**Associated Items:** SV 008 066 Vent for Bypass for Glass Furnace

What to do	Why to do it
EU022 and EU023 cannot operate simultaneously. EU023 bypass is used only during warmup of this unit with natural gas. No raw materials are fed to this unit during this time.	Title I Condition: limit to avoid classification as a major source or major modification under 40 CFR Section 52.21
Fuel Usage: less than or equal to 2.88 million cubic feet/year using 12-month Rolling Sum using only natural gas for fuel for startup. Electric heating is used for normal operation after startup.	Title I Condition: limit to avoid classification as a major source or major modification under 40 CFR Section 52.21
Daily Recordkeeping. For each day of operation with natural gas, the Permittee shall record the total quantity of natural gas used. By the 21st day of each month, the Permittee shall calculate and record the 12-month rolling sum of natural gas used during the previous 12 months.	Title I Condition: recordkeeping for limit to avoid classification as a major source under 40 CFR Section 52.21

TABLE A: LIMITS AND OTHER REQUIREMENTS

03/24/05

Facility Name: 3M Cottage Grove Specialty Additives

Permit Number: 16300002 - 001

Subject Item: EU 024 Fritting Systems #74-05

Associated Items: CE 025 Fabric Filter - Medium Temperature i.e., 180 F<T<250 F

SV 009 067 Vent for Fabric Filter for Fritting System

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.014 grains/dry standard cubic foot	Title I Condition: limit to avoid classification as a major source or major modification under 40 CFR Section 52.21; most stringent, meets limit set by Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
Production limit: The emission unit shall not be operated at an hourly production rate, calculated as a daily average as specified below, higher than the production rate during the most recent performance test demonstrating compliance with the emission limits above.	Minn. R. 7017.2025, subp. 3(C)
Recordkeeping: The Permittee shall maintain records of the weight of each product container and the time filling is complete. By the 21st day of each month, the Permittee shall calculate an average pounds/hour production rate for each calendar day in the previous month from this data.	Minn. R. 7007.0800, subp. 4(B)
CONTROL EQUIPMENT REQUIREMENTS	hdr
The Permittee shall operate and maintain the fabric filter at all times that any emission unit controlled by the fabric filter is in operation.	Title I Condition: Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the fabric filter 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
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 99 percent control efficiency	Title I Condition: Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Particulate Matter < 10 micron: greater than or equal to 99 percent control efficiency	Title I Condition: Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
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 the monitored fabric filter is in operation.	Minn. R. 7007.0800, subp. 4
Pressure Drop: greater than or equal to 1 inches of water column and less than or equal to 10 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. The Permittee shall record the pressure drop once every day when in operation.	Title I Condition: Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
Recordkeeping of Pressure Drop. 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: Monitoring for Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

03/24/05

Facility Name: 3M Cottage Grove Specialty Additives

Permit Number: 16300002 - 001

Subject Item: EU 025 Impact Mill

Associated Items: CE 026 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

SV 010 068 Vent for Fabric Filter for Impact Mill

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.016 grains/dry standard cubic foot	Title I Condition: limit to avoid classification as a major source or major modification under 40 CFR Section 52.21; most stringent, meets limit set by Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
CONTROL EQUIPMENT REQUIREMENTS	hdr
The Permittee shall operate and maintain the fabric filter at all times that any emission unit controlled by the fabric filter is in operation.	Title I Condition: Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the fabric filter 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
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 99 percent control efficiency	Title I Condition: Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Particulate Matter < 10 micron: greater than or equal to 99 percent control efficiency	Title I Condition: Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
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 the monitored fabric filter is in operation.	Minn. R. 7007.0800, subp. 4
Pressure Drop: greater than or equal to 1 inches of water column and less than or equal to 10 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. The Permittee shall record the pressure drop once every day when in operation.	Title I Condition: Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
Recordkeeping of Pressure Drop. 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: Monitoring for Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

03/24/05

Facility Name: 3M Cottage Grove Specialty Additives

Permit Number: 16300002 - 001

Subject Item: EU 026 Agglomerator System #74-04

Associated Items: CE 027 Fabric Filter - Medium Temperature i.e., 180 F<T<250 F

SV 011 069 Vent for Fabric Filter for Cyclone and Dryer/Agglomerator System

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.029 grains/dry standard cubic foot	Title I Condition: limit to avoid classification as a major source under 40 CFR Section 52.21; most stringent, meets limit set by Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
Production limit: The emission unit shall not be operated at an hourly production rate, calculated as a daily average as specified below, higher than the production rate during the most recent performance test demonstrating compliance with the emission limits above.	Minn. R. 7017.2025, subp. 3(C)
Recordkeeping: The Permittee shall maintain records of the weight of each product container and the time filling is complete. By the 21st day of each month, the Permittee shall calculate an average pounds/hour production rate for each calendar day in the previous month from this data.	Minn. R. 7007.0800, subp. 4(B)
CONTROL EQUIPMENT REQUIREMENTS	hdr
The Permittee shall operate and maintain the fabric filter at all times that any emission unit controlled by the fabric filter is in operation.	Title I Condition: Limit taken to avoid classification as a major source and modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the fabric filter 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
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 99 percent control efficiency	Title I Condition: Limit taken to avoid classification as a major source and modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Particulate Matter < 10 micron: greater than or equal to 99 percent control efficiency	Title I Condition: Limit taken to avoid classification as a major source and modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
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 the monitored fabric filter is in operation.	Minn. R. 7007.0800, subp. 4
Pressure Drop: greater than or equal to 1 inches of water column and less than or equal to 10 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. The Permittee shall record the pressure drop once every day when in operation.	Title I Condition: Limit taken to avoid classification as a major source and modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
Recordkeeping of Pressure Drop. 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: Monitoring for Limit taken to avoid classification as a major source and modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

03/24/05

Facility Name: 3M Cottage Grove Specialty Additives

Permit Number: 16300002 - 001

Subject Item: EU 034 Emergency Backup Generator #55**Associated Items:** SV 012 073 Vent for Emergency Generator

What to do	Why to do it
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.2300, subp. 1
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input . This limit is met with fuel oil containing less than or equal to 0.5 % sulfur by weight.	Minn. R. 7011.2300, subp. 2
Fuel Supplier Certification: Obtain and maintain a fuel supplier certification for each shipment of No. 2 fuel oil, certifying the Sulfur Content of Fuel: less than or equal to 0.5 percent by weight	Minn. R. 7007.0800, subps. 4 & 5
Hours of Operation: The Permittee shall maintain documentation of hours of operation on site that the unit is an emergency diesel generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, based on operation of no more than 500 hours per year.	Minn. R. 7007.0800, subp. 4 & 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

03/24/05

Facility Name: 3M Cottage Grove Specialty Additives

Permit Number: 16300002 - 001

Subject Item: CE 006 Fabric Filter - Low Temperature, i.e., T<180 Degrees F

Associated Items: EU 007 Adds Blend to Former

EU 008 Adds Blend to Former

EU 009 Transfers Raw Materials

EU 010 Packaging (Bin)

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 6.34 lbs/hour	Title I Condition: limit to avoid classification as a major source or major modification under 40 CFR Section 52.21; most stringent, meets limit set by Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
CONTROL EQUIPMENT REQUIREMENTS	hdr
The Permittee shall operate and maintain the fabric filter at all times that any emission unit controlled by the fabric filter is in operation.	Title I Condition: Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the fabric filter 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
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 99 percent control efficiency	Title I Condition: Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Particulate Matter < 10 micron: greater than or equal to 99 percent control efficiency	Title I Condition: Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
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 the monitored fabric filter is in operation.	Minn. R. 7007.0800, subp. 4
Pressure Drop: greater than or equal to 1 inches of water column and less than or equal to 10 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. The Permittee shall record the pressure drop once every day when in operation.	Title I Condition: Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
Recordkeeping of Pressure Drop. 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: Monitoring for Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

03/24/05

Facility Name: 3M Cottage Grove Specialty Additives

Permit Number: 16300002 - 001

Subject Item: CE 024 Fabric Filter - High Temperature, i.e., T>250 Degrees F

Associated Items: EU 021 Holds Rejected Raw Material

EU 022 Glass Furnace #74-04A

EU 035 Reject Hopper Material Collection

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.01 grains/dry standard cubic foot	Title I Condition: limit to avoid classification as a major source or major modification under 40 CFR Section 52.21; most stringent, meets limit set by Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
CONTROL EQUIPMENT REQUIREMENTS	hdr
The Permittee shall operate and maintain the fabric filter at all times that any emission unit controlled by the fabric filter is in operation.	Title I Condition: Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the fabric filter 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
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 99 percent control efficiency	Title I Condition: Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Particulate Matter < 10 micron: greater than or equal to 99 percent control efficiency	Title I Condition: Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
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 the monitored fabric filter is in operation.	Minn. R. 7007.0800, subp. 4
Pressure Drop: greater than or equal to 1 inches of water column and less than or equal to 10 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. The Permittee shall record the pressure drop once every day when in operation.	Title I Condition: Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 2 and 14
Recordkeeping of Pressure Drop. 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: Monitoring for Limit taken to avoid classification as a major source or major modification under 40 CFR Section 52.21; Minn. R. 7007.0800, subp. 4 and 5

TABLE B: SUBMITTALS

03/24/05

Facility Name: 3M Cottage Grove Specialty Additives
Permit Number: 16300002 - 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

03/24/05

Facility Name: 3M Cottage Grove Specialty Additives

Permit Number: 16300002 - 001

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before expiration of Existing Permit	Total Facility
Computer Dispersion Modeling Protocol	due 365 days after Permit Issuance for PM10, covering all 3M Cottage Grove facilities receiving a Part 70 permit. This protocol will describe the proposed modeling methodology and input data, in accordance with MPCA modeling guidance for Title V air dispersion modeling analyses. This is a state-only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Total Facility
Computer Dispersion Modeling Results	due 180 days after receipt of written MPCA approval covering all 3M Cottage Grove facilities receiving a Part 70 permit. The submittal should adhere to MPCA modeling guidance for Title V air dispersion modeling analyses. This is a state-only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Total Facility

TABLE B: RECURRENT SUBMITTALS

03/24/05

Facility Name: 3M Cottage Grove Specialty Additives

Permit Number: 16300002 - 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 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 US EPA regional office in Chicago. This report covers all deviations experienced during the calendar year.	Total Facility

APPENDIX MATERIAL

Facility Name: 3M Cottage Grove Specialty Additives

Permit Number: 16300002-001

Appendix I – Insignificant Activities

As described in instructions for IA-01

G: quality control laboratory

H(1): less than 200 gallons VOC use

H(3): hydraulic and hydrostatic testing equipment

H(4): brazing, soldering, and welding equipment

Minn. R. 7007.100, 3D(2)

Blenders, EU031, EU032

Bins, EU029, 030

Mill product collection, EU036

Nuisance dust system, EU027, EU028

Reject hopper, EU035

#2 blending system

Offline packaging systems, EU010, EU011, EU038

Floated products line

Remelt transport, EU037

Weigh hoppers

Required to be listed in Part 70 permits

Product collection

Raw material handling

Dryer

Input hopper

Packaging room

Powder pusher

Bag baler

Frit product collection

Product collection (2)

Additive bag feeders (2)

Weigh hopper

Silica weigh hopper

ESP dust transport

charging and weighing

trailer loading

silica storage silo

blender

furnace hopper

lime storage silo, EU018

product storage silos, EU013, EU014

raw material bins, EU019

bag dump stations, EU020

reject hopper material collection, EU021

Insignificant Activities – Periodic Monitoring

The Permittee listed several current insignificant activities in the permit application and supplemental submittals, as noted in Table 6. The permit is required to include periodic monitoring for all emissions units, including insignificant activities, per EPA guidance. The insignificant activities at this Facility are only subject to general applicable requirements. Using the criteria outlined earlier in this TSD, the following table documents the justification why no additional periodic monitoring is necessary for the current insignificant activities, and likely future ones, that might be located at this site.

Table 6. Insignificant Activities

Insignificant Activity	Currently on site? (Y/N)	General Applicable Emission limit	Discussion
Space heaters fueled by kerosene, natural gas or propane	Y	PM, variable depending on airflow Opacity ≤ 20% with exceptions (Minn. R. 7011.0610)	For these units based on the fuels used and published emissions factors, it is highly unlikely that they could violate the applicable requirement. These units are vented inside a building, so testing is not feasible.
Fuel use in furnaces or boilers with a capacity of less than 500,000 Btu/hr.	Y	PM ≤ 0.4 lb/MMBtu Opacity ≤ 20 % (Minn. R. 7011.0610)	For these units based on the fuels used and EPA published emissions factors, it is highly unlikely that they could violate the applicable requirement. In addition, these units are operated and vented inside a building, so testing for PM or opacity is not feasible.
Infrared electric ovens	N	Opacity ≤ 20% (Minn. R. 7011.0110)	While no emissions estimation method exists for these units, based on general knowledge of how they operate, it is highly unlikely that they could generate visible emissions. In addition, these units would be operated and vented directly into the building, so monitoring or testing is not feasible.
Emissions from laboratory operations, as defined in Minn. R. 7007.1300, subp. 3(G)	Y	PM, variable depending on airflow Opacity ≤ 20% (Minn. R. 7011.0715)	These are very small, intermittent, bench-top operations that typically do not even have any emissions. It is highly unlikely that they could violate the applicable requirement.
Brazing, soldering or welding equipment	Y	PM, variable depending on airflow Opacity ≤ 20% (Minn. R. 7011.0715)	For these units, based on EPA published emissions factors, it is highly unlikely that they could violate the applicable requirement. In addition, these units are operated and vented inside a building, so testing for PM or opacity is not feasible.
Blueprint copiers and photographic processes	N	Opacity ≤ 20% (Minn. R. 7011.0110)	While no emissions estimation method exists for these units, based on general knowledge of how they operate, it is highly unlikely that

Insignificant Activity	Currently on site? (Y/N)	General Applicable Emission limit	Discussion
			they could generate visible emissions. In addition, these units would be operated and vented directly into the building, so monitoring or testing is not feasible.
Cleaning operations: alkaline/phosphate cleaners and associated cleaners and associated burners	Y	PM, variable depending on airflow Opacity \leq 20% (Minn. R. 7011.0610 + Minn. R. 7011.0715)	For these units, there are some factors available for the burners, but very little information regarding the cleaning operation itself. However, based on general knowledge of how they operate, it is highly unlikely that they could violate the applicable requirement or that testing would be feasible.
Infrequent use of spray paint equipment for routine housekeeping or plant upkeep activities	N	PM, variable depending on airflow or process weight rate Opacity \leq 20% (Minn. R. 7011.0715)	While spray equipment will have the potential to emit particulate matter, these particular activities are those not associated with production, so they would be infrequent and usually occur outdoors. Testing or monitoring is not feasible.
Individual units that have potential emissions of less than 2.28 lb/hr of various criteria pollutants and less than certain thresholds of HAPs.	Y	PM \leq 0.4 lb/MMBtu Opacity \leq 20 % (Minn. R. 7011.0515) or PM, variable depending on airflow Opacity \leq 20% (Minn. R. 7011.0715)	Based on calculations provided by the Permittee (see Attachment 3), it is highly unlikely that they could violate the applicable requirement. In addition, these units are operated and vented inside a building, so testing for PM or opacity is not feasible.

TECHNICAL SUPPORT DOCUMENT
For
DRAFT AIR EMISSION PERMIT NO. 16300002-001

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 and state regulations (40 CFR § 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 preliminary determination to issue the draft permit.

1. General Information

1.1. Applicant and Stationary Source Location:

Owner and Operator Address and Phone Number (list both if different)	Facility Address SIC Code: 3229
<p style="text-align: center;">3M Company P.O. Box 33331 St. Paul, Minnesota</p>	<p style="text-align: center;">Specialty Additives, Bldg 74, 101, 110 3M Cottage Grove Center Cottage Grove Washington County</p>

1.2. Description of the permit action

This facility manufactures specialty glass products. Specialty Additives (Buildings 74, 101 and 110), Building 112, and Building 19 are all classified in SIC 32xx and thus comprise a single stationary source for PSD purposes.

1.3 Description of any changes allowed with this permit issuance

3M has requested limits on the potential-to-emit for each of these facilities so that the total PTE is less than 250 tons/year. Each 3M permit for the facilities in the table below will include a provision that allows new emission units to be installed, or existing units to be modified, usually under the Minor or Moderate Amendment process (depending on hourly emissions). Modifications may also qualify as Insignificant based on hourly emissions. The federal NSR regulations do not apply as long as total facility emissions are less than the facility-wide limits.

3M must apply for a major amendment if there is a significant change in monitoring, recordkeeping or reporting.

	Building 112	Building 74, 101, 110	Building 19
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Pollutant	Proposed FlexCap Limit	Actual Emissions	Proposed FlexCap Limit	Actual Emissions	Proposed FlexCap Limit	Actual Emissions
PM	100 tons/yr	10	110	12	30	1
SO ₂	90	1	120	30	NA	0
NO _x	110	32	135	55	NA	0
VOC	90	1	110	20	45	1

Building 19 is a small production facility for abrasive media, such as disks, that are used for fine grinding such as polishing. A separate Part 70 permit application has been submitted for Building 19.

1.4 Description of previous permits issued and to be included in the Part 70 Permit.

Permit Number and Issuance Date	Action Authorized
23A-85-I/O-56 February 13, 1985	Installation of Makers 20 and 21, shutdown of Maker 17 TSP secondary nonattainment issues
23AS-88-I/O-2 October 3, 1988	Materials handling for Bldg 101
23AS-89-I/O-3 February 14, 1989	Dust collector for spray dryer
23AS-90-I/O-2 October 1, 1990	Electric glass frit furnace and APCE
Amendment 1 to 23AS-90-I/O-2	Stack extension

1.5. Facility Emissions:

Table 1. Total Facility Potential to Emit Summary:

EU #	SV#	Emission Unit Description	PM tpy	PM10 tpy	SO2 tpy	NOx tpy	CO tpy	VOC tpy
001		#2 furnace	(23.65)	(23.65)	32.66	23.53	1.47	0.26
002		#8 flash dryer	(10.25)	(10.25)				
003		Glass bubble maker # 18	(62.90)	(62.90)	4.56	2.19	0.46	0.12
004		Glass bubble maker # 20	(92.90)	(92.90)	2.76	6.44	1.61	0.13
005		Glass bubble maker # 21	(92.90)	(92.90)	22.76	6.44	1.61	0.13
022		Glass furnace #74-04A	(1.65)	(1.65)	3.68	13.03	1.53	
023		Glass furnace # 74-04B	*					
024		Fritting system # 74-05	(2.85)	(2.85)	0.004	0.66	0.14	0.03
025		Frit milling system # 74-06	(10.12)	(10.12)				
026		Agglomerator system # 74-	(3.28)	(3.28)	0.01	0.88	0.18	0.05
034		Emergency generator	0.17	0.17	0.16	2.35	0.51	0.16
007 – 010		CE006 fabric filter	(27.77)	(27.77)				
021, 022, 035		CE024 fabric filter	(1.66)	(1.66)				

* used during startup only

	PM tpy	PM10 tpy	SO2 tpy	NOx tpy	CO tpy	VOC tpy
Total Facility Limited Potential Emissions	110	110	120	135	6.0	110
Total Facility Actual Emissions (application)	54.3	54.1	11.0	16.1	2.6	0.3

Numbers in () in this table are the maximum allowed emissions for that emission unit when operated 8760 hours/year. The sourcewide emissions are limited by the total facility limits.

Emission Unit summary

EU

001 included	011 IA	021 included	031 IA
002 included	012 IA	022 included	032 IA
003 included	013 IA	023 included	033 IA
004 included	014 IA	024 included	034 included
005 included	015 <i>unused number</i>	025 included	035 IA
006 removed	016 <i>unused number</i>	026 included	036 IA
007 included	017 IA	027 IA	037 IA
008 included	018 IA	028 IA	038 IA
009 included	019 IA	029 IA	
010 included	020 IA	030 IA	

Table 2. Facility(TF) and Permit Classification

Classification (put x in appropriate box)	Major/Affected Source	*Synthetic Minor	*Minor
PSD (list pollutant)		PM, PM10	
NAAR (list pollutant)	NA	NA	NA
Part 70 Permit Program (list pollutant)	PM, PM10, SO2, NOx, VOC		CO, HAP

* Refers to potential emissions that are less than those specified as major by 40 CFR 52.21, 40 CFR pt. 51 Appendix S, and 40 CFR pt. 70.

2. Regulatory and/or Statutory Basis

Emission Limits from Previous Permits

EU 004 and EU 005 were installed under permit 23A-85-I/O-56 issued in 1985. At that time there was a National Ambient Air Quality Standard for TSP and the area was classified nonattainment for TSP. 3M was required to provide offsets for the emissions of TSP from these two emission units. The Industrial Process Equipment rule (IPER) set a limit of 0.072 grains per dry standard cubic foot based on an expected exhaust gas volume of 19,600 cfm. 3M agreed to a slightly more stringent limit of 0.0675 grains per dry standard cubic foot. Operating experience has shown that exhaust gas volume is approximately 40,000 cfm, at which the IPER sets a limit of about 0.055 grains per dry standard cubic foot. Thus the 0.0675 limit remains in effect as a not-to-exceed limit, but if IPER sets a more stringent limit, IPER dictates.

Emission Units EU 022/023, 024, 025, and 026 were installed under permit 23AS-90-I/O-2 which established limits of 0.01, 0.014, 0.016, and 0.029 grains per dry standard cubic foot respectively to limit emission increase to less than the federal significant level.

New Source Review

Prevention of Significant Deterioration (PSD) uses two different thresholds for major source status, 100 or 250 tons per year, depending on the type of industry. The underlying definition of stationary source for PSD requires grouping all facilities under common ownership or control which are on contiguous or adjacent property **and which also have the same first two-digit SIC Code**. Facilities with different SIC Codes are aggregated into a single source if one is considered a support facility to the other(s). At Cottage Grove, Specialty Additives is classified in SIC Code 32xx as are Buildings 112 and 19.

None of the facilities at Cottage Grove qualifies as a support facility to any other, since no facility provides 50 % or more of its products or services to any other facility at this location. The Corporate Incinerator incinerates wastes from 3M facilities nationwide. The utilities plant is primarily a wastewater treatment plant that receives some wastewater from all facilities at this location.

SIC Codes currently assigned to the Cottage Grove operations are:

Building No.	MPCA File No.	Delta ID	SIC
74, 101, & 110	23AS	16300002	3229
112, Abrasives	23AX	16300017	3291
17 - Auto	23AH	16300065	2297
17 - Film	23AF	16300023	3081
133 - TCM	23AT	16300059	3993
Utilities (wastewater)	23AB	16300015	4952
Corporate Incinerator	23AI	16300025	4953
3, 4, 6, 7, 11, 15, 16, 25, 70, 73 - SMD chem.	23AC	16300022	2891
102 – Tape/TPTC	23AE	16300080	2672

Buildings 74+101+110 together with Building 112 and Building 19 is considered a single stationary source for PSD, subject to the 250 ton/year threshold.

Part 70 Permit Program

A major source for this program is one which has the PTE 100 tons per year or more of any air pollutant, or which is a major source under the HAP program. The entire Cottage Grove facility is a major source under Part 63 and therefore is a major source for purposes of Part 70.

New Source Performance Standards (NSPS)

There are no New Source Performance Standards applicable to the operations at this facility. The main glass furnace is electrically heated when in production and thus is not subject to the NSPS. The other glass furnace was constructed before the effective date of the NSPS.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

For this program, all emission units under common ownership or control and on contiguous or adjacent properties must be grouped together and considered a single stationary source. This single source is considered a major source if it has the potential-to-emit (PTE) 10 tons per year or more of any HAP, or 25 tons per year or more of all HAP added together. The entire Cottage Grove center constitutes a contiguous area under the ownership and control of 3M and exceeds the thresholds, so it is a major source of HAP. Specialty Additives is thus considered a part of a major source for HAPs.

Minnesota State Rules

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

- Minn. R. 7011.0610 Standards of Performance for Fossil-Fuel-Burning Direct Heating Equipment
- Minn. R. 7011.0715 Standards of Performance for Post-1969 Industrial Process Equipment
- Minn. R. 7011.2300 Standards of Performance for Stationary Internal Combustion Engines

Continuous and Periodic Monitors – missing data and acceptable monitor downtime

Minn. R. 7017.1090, subp. 2, “Acceptable Monitor Downtime,” lists and describes circumstances under which an emission unit may be operating and data normally recorded by a continuous or periodic monitor is not recorded. This Minnesota rule is written primarily for continuous emission monitors (CEMS) and continuous opacity monitors (COMS) which directly measure emissions or opacity.

Minn. R. 7017.1090, subp. 2 is paraphrased and adapted below to address parameter monitoring specified in Section 3.2 of this Technical Support Document and associated permit. Examples of parameter monitoring would include combustion chamber temperature in a thermal oxidizer, baghouse pressure drop, or scrubber water flowrate and pressure drop.

Acceptable Monitor Downtime. Monitor downtime is a violation (of the requirement to monitor during all times that the emission unit operates), **except for reasonable periods of monitor downtime due to the following causes:**

- A. damage to the monitoring system due to acts of God such as lightning strikes, tornadoes, or floods which render the monitor inoperative;
- B. sudden and not reasonably preventable monitor breakdowns;
- C. scheduled monitor maintenance based on equipment manufacturer’s recommended maintenance schedule or schedule specified in the Operation and Maintenance Plan which cannot reasonably be conducted when the emission unit is not operating; or
- D. unavoidable monitor downtime in order to conduct (required calibrations, audits and accuracy checks) which are required by a compliance document, applicable requirement, or by request of the commissioner.
 “Compliance document” includes the permit. “Acceptable Monitor Downtime” is reported as “Monitor Downtime” on the semiannual deviations report. Monitor downtime due to other circumstances such as failure to complete described maintenance or failure to operate the monitor as described in the Operation and Maintenance Plan (for the air pollution control equipment) is reported as a deviation on the semiannual deviation report.

Visible Emissions Issues

Visible emissions and deviations: The observation of visible emissions is not itself a reportable deviation, but instead may trigger some corrective action.

Visible emissions during inclement weather: Visible emission observations can only be made during daytime. Even during bad weather, more than one effort should be made during the day. If bad weather conditions persist throughout all daylight hours, this must be noted in the log of visible emissions observations.

Visible emissions observations for Emission Units for which some visibles are expected: The Operation and Maintenance Plan will include a description of the normal range and occurrence of visible emissions, noting especially when higher visibles may occur, such as startup and shutdown.

Fabric filter monitoring

The Bubble Maker fabric filters (CE003 and CE004) consist of six chambers, each with 200 bags. At all times, five chambers are operating, and one is being cleaned. Due to the nature of the particulate matter being collected, the variation in exhaust gas flowrate depending on product type and heat input, and the type of fabric, these control devices operate at higher and more variable pressure drops than most other filters.

Table 3. Regulatory Overview of Facility

EU, GRP, or SV #	Applicable Regulations	Comments:
FC	Title I Condition	Source-wide limits so that the source is not a major source under 40 CFR Section 52.21. The permittee may make changes without considering the applicability of federal New Source Review as long as source-wide actual emissions are below these limits. The permittee must apply for minor, moderate, or major amendments if required by Minn. R. Ch. 7007.
EU001, 002, 003	Minn. R. 7011.0715	Limits emission of particulate matter and opacity
EU004, 005, 022, 024, 025, 026	Title I Condition and Minn. R. 7011.0715	Limits emission of particulate matter and opacity
EU034	Minn. R. 7011.2300	Limits sulfur dioxide emission and opacity
CE006	Title I Condition and	Limits emission of particulate matter and opacity

	Minn. R. 7011.0715	
CE024	Title I Condition and Minn. R. 7011.0715	Limits emission of particulate matter and opacity

3. Technical Information

- *Special permit conditions.* See discussion of limits from previous permits in section 2 of this document.
- *Emission calculations.* Copies of calculation forms from the application are attached.
- *Insignificant activities.* The list of Insignificant Activities is attached to the permit as Appendix I with a list of applicable Minnesota Rules.

3.1 Calculations of Potential to Emit

Table 1 in this document summarizes the PTE of the Facility. An Attachment contains detailed supporting information prepared by the MPCA and the Permittee.

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. Based on the information provided by the 3M Company, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 16300002-001 and this technical support document, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Table 4. Periodic Monitoring

Emission Unit or Group	Requirement (basis)	Additional Monitoring	Discussion
EU001	Industrial Process Equipment Rule (IPER) Minn. R. 7011.0700 – 7011.0735	Performance test if reactivated	This emission is shutdown and not expected to operate
EU003	IPER	Daily record of number of fields on-line	
EU004	IPER with lower cap	Daily record of pressure drop O and M plan on site	With a fabric filter for control, this emission unit is unlikely to exceed the allowable limit, so the periodic monitoring for the filter is considered sufficient
EU005	IPER with lower cap	Daily record of pressure drop O and M plan on site	With a fabric filter for control, this emission unit is unlikely to exceed the allowable limit, so the periodic monitoring for the filter is considered sufficient
EU022	0.01 gr/dscf 20 % opacity Production limit	Daily record of pressure drop O and M plan on site Records of filling time and weight of each product container	Several product containers can be filled each hour.
EU023		None	This is a bypass stack for EU022 when EU022 has been shutdown and needs to be brought up to normal operating condition. This is accomplished by natural gas combustion, during which no raw materials are added to EU022, and there is negligible emission. When full temperature is reached, heating switches to electricity, and emissions are vented through a baghouse.
EU024	0.014 gr/dscf 20 % opacity	Daily record of pressure drop O and M plan on site	With a fabric filter for control, this emission unit is unlikely to exceed the allowable limit, so the periodic monitoring

Emission Unit or Group	Requirement (basis)	Additional Monitoring	Discussion
			for the filter is considered sufficient
EU025	0.016 gr/dscf 20 % opacity	Daily record of pressure drop O and M plan on site	With a fabric filter for control, this emission unit is unlikely to exceed the allowable limit, so the periodic monitoring for the filter is considered sufficient
EU026	0.029 gr/dscf 20 % opacity	Daily record of pressure drop O and M plan on site	With as fabric filter, this emission unit is unlikely to exceed the allowable limit, so the periodic monitoring for the filter is considered sufficient
EU034	0.5 % sulfur in fuel oil 20 % opacity	Fuel oil supplier certification with each delivery of fuel	

3.3 Insignificant Activities

Specialty Additives has several operations which are classified as insignificant activities. These are listed in Appendix I to the permit.

3.4 Permit Organization

In general, the permit meets the MPCA Guidance for ordering and grouping of requirements.

3.5 Comments Received

A letter from the Mille Lacs Band of Ojibwe Indians asked a question about the TSD and requested correction or clarification of differences between MPCA's and US EPA's databases.

The question was how buildings 19, 74+101+110, and 112 are being treated for the purposes of the federal PSD regulation since they appear to have the same first two-digit SIC Code.

Buildings 74+101+110 appear onsite to be one building. This one building has been divided by 3M into three sections designated 74, 101, and 110 for 3M's own purposes. This building, known as Specialty Additives, manufactures glass-like products.

Buildings 19 and 112 and Specialty Additives all have the same first two-digit SIC Code and are obviously under common ownership/control and on contiguous or adjacent property. Thus for the purposes of the federal PSD regulation, Buildings 19, 112 and Specialty Additives constitute a single stationary source. 3M recognized this in the applications for operating permits for these facilities. These facilities are subject to the 250 ton per year threshold for major source determination. Because the total actual emissions from these facilities is less than 250 tons per

year, 3M has proposed limits on the potential-to-emit from each of these so they are not a major source for PSD purposes. These proposed limits are shown in the table at the top of page 2 in this document which is reproduced below.

Pollutant	Building 112		Building 74, 101, 110		Building 19	
	Proposed FlexCap Limit	Actual Emissions	Proposed FlexCap Limit	Actual Emissions	Proposed FlexCap Limit	Actual Emissions
PM	100 tons/yr	10	110	12	30	1
SO2	90	1	120	30	NA	0
NOx	110	32	135	55	NA	0
VOC	90	1	110	20	45	1

4. Conclusion

Based on the information provided by 3M, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 16300002-001 and this technical support document, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Attachments: 1. PTE Calculations

Staff Members on Permit Team: David L. Beil, Robert C. Berg

If you are viewing this document in an electronic format and there are attachments listed that you wish to see but are not included here, contact the person listed in the public notice for information.