

AIR EMISSION PERMIT NO. 16300015- 002

IS ISSUED TO

3M Company

3M - Cottage Grove Center Utilities
10746 Innovation Drive
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 Oper. Permit - Reissuance	04/30/2004

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

Permit Type: Federal; Pt 70/Limits to Avoid NSR

Issue Date: November 7, 2005

Expiration: November 7, 2010

All Title I Conditions do not expire.

Richard J. Sandberg, Manager
Air Quality Permits Section
Industrial 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

Appendix I: 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:

The 3M Cottage Grove Utilities Plant includes provisions for a temporary boiler to provide steam for maintenance to other 3M Cottage Grove facilities, a wastewater treatment plant, a maintenance shop, and a gas station.

This permit authorizes the Permittee to bring on site a temporary boiler of typically 90,000 lbs/hr steam generation capacity (greater than 100 million Btu/hr heat input) to provide steam for production and heating activities while maintenance is being performed on the normal source of steam and/or pipeline from it. The normal source of steam is from a facility nearby under separate ownership. The boilers which were in service when the Title V application was prepared in 1995 (one capable of operation on natural gas or residual fuel oil and two coal-fired) are permanently shutdown and are being dismantled.

The wastewater plant consists of three Phases. Phase 1 treats wastewater generated in several manufacturing operations by means of neutralization, flocculation, and clarification. Phase 2 treats both wastewater generated from manufacturing and domestic wastewater in a conventional activated sludge process. Included in this phase are an equalization tank, aeration tank, clarification tanks, and aerobic digester. Phase 3 treats wastewater from the on-site incinerator using several neutralization, flocculation, and clarification tanks. Water from the Phase 1 and 2 systems flows through polishing ponds prior to discharge.

The maintenance shop includes equipment for welding, grinding, parts washing and other maintenance activities.

The gas station includes a 1000 gallon diesel fuel tank and a 2000 gallon gasoline tank.

The facility also includes a 6000 gallon heptane tank that supplies fuel for a fire extinguisher training area. The training area is permitted separately by the local fire Marshall (Minn. Stat. § 88.17, subd. 3(a)).

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/07/05

Facility Name: 3M - Cottage Grove Center Utilities
 Permit Number: 16300015 - 002

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
COMPLIANCE WITH NATIONAL AND MINNESOTA AMBIENT AIR STANDARDS	hdr
The Permittee shall comply, and up on written request demonstrate compliance, with National Primary and Secondary Ambient Air Quality Standards, Minn. R. 7009.0010 to 7009.0080.	40 CFR pt. 50; Minn. Stat. Sec. 116.07, subds. 4a and 9; Minn. R. 7007.0100, subds. 7A, 7L and 7M; Minn. R. 7007.0800, subps. 1, 2, and 4; Minn. R. 7009.0010-7009.0080
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 control practices and shall include a preventative maintenance program for the equipment and practices, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment and practices 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 practices, and the records kept to demonstrate plan implementation.	Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)
Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment (any requirements applying to continuous emission monitors are listed separately in this permit).	Minn. R. 7007.0800, subp. 4(D)
Operation of Monitoring Equipment: Unless otherwise noted in Tables A, B, and/or C, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system.	Minn. R. 7007.0800, subp. 4(D)
Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.	Minn. R. 7011.0020
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

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/07/05

Facility Name: 3M - Cottage Grove Center Utilities

Permit Number: 16300015 - 002

<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</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>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>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</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</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)</p>
<p>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.</p>	<p>Minn. R. 7007. 0800, subp. 5(B)</p>
<p>Record keeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).</p>	<p>Minn. R. 7007.0800, subp. 5(C)</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>The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.</p>	<p>Minn. R. 7007.0800, subp. 16</p>
<p>Inspections: Upon presentation of credentials and other documents as may be required by law, allow the Agency, or its representative, to enter the Permittee's premises to have access to and copy any records required by this permit, to inspect at reasonable times (which include any time the source is operating) any facilities, equipment, practices or operations, and to sample or monitor any substances or parameters at any location.</p>	<p>Minn. R. 7007.0800, subp. 9(A)</p>
<p>Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance. To be submitted on a form approved by the Commissioner.</p>	<p>Minn. R. 7019.3000 through Minn. R. 7019.3010</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

11/07/05

Facility Name: 3M - Cottage Grove Center Utilities

Permit Number: 16300015 - 002

Subject Item: EU 001 Temporary boiler, NSPS

What to do	Why to do it
Requirements applicable to a temporary boiler which is subject to 40 CFR part 60, subpart Db (heat input greater than 100 million Btu/hr and constructed, reconstructed, or modified after June 19, 1984) using only natural gas	hdr
Nitrogen Oxides: less than or equal to 0.20 lbs/million Btu heat input using 30-day Rolling Average if the boiler is a high heat release rate design; less than or equal to 0.10 lbs/million Btu heat input if the boiler is a low heat release rate design. A boiler is a low heat release design if the heat release rate at maximum heat input is less than or equal to 70,000 Btu/hr-cubic foot. Otherwise, the boiler is a high heat release design. As an alternative, the owner/operator shall comply with the alternative limitation following.	40 CFR section 60.44b(a)
As an alternative to the emission limit above, the Permittee shall: 1. Use for this temporary boiler only a boiler with a rated maximum heat input of less than 250 million Btu/hr, 2. Combust only natural gas, and 3. Operate this boiler with an annual capacity factor of 10 percent or less.	40 CFR section 60.44b(k)
Install: due before Initial Startup of this temporary boiler a CEMs to measure NOx emissions, if the Permittee chooses to comply with the nitrogen oxides emission limit in 40 CFR section 60.44b(a).	40 CFR section 60.48b(b)
Nitrogen Oxides: The NOx standards apply at all times including periods of startup, shutdown, and malfunction.	40 CFR section 60.44b(h)
Initial Performance Test: If this boiler has not previously completed an Initial Performance Test, conduct an Initial Performance Test using the CEMs data and measure NOx emissions as a 30-day rolling average.	40 CFR section 60.46b(e)
Recordkeeping: maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the facility; or any periods during which a continuous monitoring system or monitoring device is inoperative	40 CFR section 60.7(b)
Notification of the Date Construction Began: due 60 days before Start of Construction if the Permittee chooses to comply with the nitrogen oxides limit in 40 CFR Section 60.44b(a) and therefore install a CEM.	Minn. R. 7007.0800, subp. 16(L); most stringent, meets requirements of 40 CFR Section 60.7(a)(1); Minn. R. 7019.0100, subp. 1
Notification of the Date Construction Began: due 30 days after Start of Construction if the Permittee chooses to comply with the alternative conditions in 40 CFR Section 60.44b(k)	40 CFR Section 60.7(a)(1)
Notification of the Anticipated Date of Initial Startup: due 30 days before Anticipated Date of Initial Startup	40 CFR Section 60.7(a)(2); Minn. R. 7019.0100, subp. 1
Notification of the Actual Date of Initial Startup: due 15 days after Initial Startup	40 CFR Section 60.7(a)(3); Minn. R. 7019.0100, subp. 1
Continuous Emission Monitor Requirements: If the permittee chooses to comply with the emission limit for nitrogen oxides above (rather than the 10 percent annual capacity factor limit), the permittee shall comply with the following requirements for the continuous emission monitoring system.	hdr
Continuous Operation: CEMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit startup, shutdown, or malfunction except for periods of acceptable monitor downtime. This requirement applies whether or not a numerical emission limit applies during these periods. A CEMS must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment. Acceptable monitor downtime includes reasonable periods due to the following causes: A. damage to the monitoring system due to Acts of God such as lightning strikes, tonadoes, or floods which render the monitor inoperative; B. sudden and not reasonably preventable breakdowns; C. scheduled monitor maintenance based upon manufacturer's recommended maintenance schedule which cannot reasonably be conducted when the emission unit is not operating; or	40 CFR Section 60.13(e)(6); Minn. R. 7017.1090, subp. 1
continued: D. unavoidable monitor downtime in order to conduct daily drift checks, calibration error audits, relative accuracy test audits, linearity checks, and cylinder gas audits required by a compliance document, applicable requirement, or by request of the commissioner.	40 CFR Section 60.13(e)(6); Minn. R. 7017.1090, subp. 1
CEM Certification Test: due 60 days after achieving maximum capacity but not later than 180 days after initial startup	40 CFR section 60.13(b); Minn. R. 7017.1050, subp. 7
CEMS Certification Test Plan: due 30 days before CEMS certification test	40 CFR Section 60.7(a)(5); Minn R. 7017.1060, subp. 1 and 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/07/05

Facility Name: 3M - Cottage Grove Center Utilities

Permit Number: 16300015 - 002

CEM Certification Test Pretest Meeting: due 7 days before CEM Certification Test	Minn. R. 7017.1060, subp. 3
CEM Certification Test Report: due 45 days after CEM certification test	40 CFR Section 60.13(c)(2); Minn. R. 7017.1080, subp. 1, 2, and 4
CEMS Certification Test Report - Microfiche Copy: due 105 days after CEMS Certification Test	Minn. R. 7017.1080, subp. 3
Excess Emissions/Downtime Reports (EERs): due 30 days after end of each calendar quarter following Permit Issuance (Submit Deviations Reporting Form DRF-1 as amended). The EER must contain all of the information requested in 40 CFR Section 60.7(c). The EER shall indicate all periods of monitor bypass and all periods of exceedances of the limit including exceedances allowed by an applicable standard, i.e., during startup, shutdown, and malfunction.	40 CFR Section 60.7(c); Minn. R. 7017.1110, subp. 1 and 2
QA Plan: Develop and implement a written quality assurance plan that covers the CEMS. The plan shall be on site and available for inspection within 30 days after monitor certification. The plan shall contain all of the information required by 40 CFR pt. 60, App. F, section 3.	40 CFR pt. 60, App. F, section 3; Minn. R. 7017.1170, subp. 2
CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following CEMS Certification Test. If the Relative Accuracy is 15 % or less the next CEMS RATA is not due for 24 months. Follow the procedures in 40 CFR pt. 60, Appendix B and Appendix F.	Minn. R. 7017.1170, subp. 5
Relative Accuracy Test Audit (RATA) Notification: due 30 days before CEMS Relative Accuracy Test Audit (RATA).	Minn. R. 7017.1180, subp. 2
Relative Accuracy Test Audit (RATA) Results Summary: due 30 days after end of each calendar year in which the CEMS RATA was conducted.	Minn. R. 7017.1180, subp. 3
CEMS Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at zero (low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) gas concentrations at least once daily. The CEMS shall be adjusted whenever the CD exceeds twice the specification of 40 CFR pt. 60, Appendix B. 40 CFR pt. 60, Appendix F shall be used to determine out-of-control periods for CEMS.	40 CFR pt. 60, Appendix F, section 4.1; 40 CFR section 60.13(d)(1); Minn. R. 7017.1170, subp. 3
Cylinder Gas Audit: due before end of each calendar quarter following CEM Certification Test except during calendar quarters in which a RATA was performed.	40 CFR pt. 60, Appendix F, section 5.1.2; Minn. R. 7017.1170, subp. 4
Cylinder Gas Audit (CGA) Results Summary: due 30 days after end of each calendar half-year following Cylinder Gas Audit (CGA)	Minn. R. 7017.1180, subp. 1
Recordkeeping: The owner or operator must retain records of all CEMS monitoring data and support information for a period of five years from the date of the monitoring, sample, measurement, or report. Records shall be kept at the source.	40 CFR section 60.7(f); Minn. R. 7017.1130

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/07/05

Facility Name: 3M - Cottage Grove Center Utilities

Permit Number: 16300015 - 002

Subject Item: EU 002 Temporary boiler, State rules

What to do	Why to do it
Requirements applicable to a temporary boiler not subject to any subpart under 40 CFR part 60 and using only natural gas for fuel	hdr
Total Particulate Matter: less than or equal to 0.4 lbs/million Btu heat input	Minn. R. 7011.0510, subp. 1
Opacity: less than or equal to 20 percent opacity , except for one 6-minute period per hour of not more than 60 percent opacity	Minn. R. 7011.0510, subp. 2
Fuel Types Allowed: natural gas only	Minn. R. 7007.0800, subp. 2
Notification of the Date Construction Began: due 30 days after Start of Construction	Minn. R. 7007.0800, subp. 16(L)
Notification of the Anticipated Date of Initial Startup: due 30 days before Anticipated Date of Initial Startup	Minn. R. 7007.0800, subp. 16(L)
Notification of the Actual Date of Initial Startup: due 15 days after Initial Startup	Minn. R. 7007.0800, subp. 16(L)

TABLE A: LIMITS AND OTHER REQUIREMENTS

11/07/05

Facility Name: 3M - Cottage Grove Center Utilities

Permit Number: 16300015 - 002

Subject Item: EU 003 Emergency generator - wwtp

What to do	Why to do it
Opacity: less than or equal to 20 percent opacity once operating temperatures have been attained	Minn. R. 7011.2300, subp. 1
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input	Minn. R. 7011.2300, subp. 2
Recordkeeping: Maintain records of the fuel oil supplier certification of fuel oil sulfur content	Minn. R. 7007.0800, subp. 4(B)

TABLE B: SUBMITTALS

11/07/05

Facility Name: 3M - Cottage Grove Center Utilities
Permit Number: 16300015 - 002

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:

AQ Permit Technical Advisor
Industrial 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:

AQ Compliance Tracking Coordinator
Industrial 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

11/07/05

Facility Name: 3M - Cottage Grove Center Utilities

Permit Number: 16300015 - 002

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before expiration of Existing Permit	Total Facility
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup	EU002
Notification of the Anticipated Date of Initial Startup	due 30 days before Anticipated Date of Initial Startup	EU002
Notification of the Date Construction Began	due 30 days after Start Of Construction	EU002
Notification of the Date Construction Began	due 30 days after Start Of Construction if the Permittee chooses to comply with the alternative conditions in 40 CFR Section 60.44b(k).	EU001
Notification of the Date Construction Began	due 60 days before Start Of Construction if the Permittee chooses to comply with the nitrogen oxides limit in 40 CFR Section 60.44b(a) and therefore installs a CEM.	EU001

TABLE B: RECURRENT SUBMITTALS

11/07/05

Facility Name: 3M - Cottage Grove Center Utilities

Permit Number: 16300015 - 002

What to send	When to send	Portion of Facility Affected
Semiannual Deviations Report	due 30 days after end of each calendar half-year starting 11/02/1999 . The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31.	Total Facility
Compliance Certification	due 31 days after end of each calendar year starting 11/02/1999 (for the previous calendar year). To be submitted on a form approved by the Commissioner, both to the Commissioner, and to the U.S. EPA regional office in Chicago. This report covers all deviations experienced during the calendar year. The EPA copy shall be sent to: Mr. George Czerniak, Chief, Air Enforcement and Compliance Assurance Branch, Air and Radiation Division, EPA Region V, 77 West Jackson Boulevard, Chicago, Illinois 60604	Total Facility

APPENDIX MATERIAL

Facility Name: 3M - Cottage Grove Center Utilities

Permit Number: 16300015-002

Insignificant Activities and Applicable Requirements

The table below lists the insignificant activities that are currently at the facility and their associated general applicable requirements.

Minn. R. 7007.1300, subpart	Rule Description of the Activity	Applicable Requirement
3(A)	Fuel use: space heaters fueled by natural gas or propane. Propane space heaters-Building 121 (2), Building 185 (9), Building 48 (1)	Minn. R. 7011.0510/0515
3(B)(2)	Propane furnaces- Building 121 (2), Building 185 (1)	Minn. R. 7011.0510/0515
3(E)(1)	Gasoline storage tanks with a combined total tankage capacity of not more than 10,000 gallons	Minn. R. 7011.0710/0715
3(E)(2)	Non-hazardous air pollutant VOC storage tanks with a combined storage capacity of not more than 10,000 gallons of nonhazardous air pollutant VOCs and with a vapor pressure of not more than 1.0 psia at 60 F (diesel fuel and heptane)	Minn. R. 7011.0710/0715
3(G)	Hamilton Fume Hoods (2) Building 39	Minn. R. 7011.0510/0515 Minn. R. 7011.0710/0715 Minn. R. 7011.0610
3(H)(3)	Welding Equipment for plant maintenance – Building 24 (1), Building 48 (1)	
3(H)(7)	Misc. cleaning tank- Building 3 (1)	Minn. R. 7011.7010/0715
3(I)	Lime silo-Building 38 (out of service), Degreaser-Building 2 (1), Venturi scrubber on lime slurry tank-Building 183 (1)	
3(J)	Fugitive Emissions from roads and parking lots.	Minn. R. 7011.0150
3(K)	Infrequent use of spray paint equipment for routine housekeeping or plant upkeep activities not associated with primary production processes at the stationary source, such as spray painting of buildings, machinery, vehicles, and other supporting equipment.	Minn. R. 7011.0710/0715

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 16300015-002

This technical support document is intended for all parties interested in the 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 determination to issue the permit.

1. General Information

1.1. Applicant and Stationary Source Location:

Applicant/Address	Stationary Source/Address (SIC Code: 4952)
3M 3M Center I-94 and McKnight Road Maplewood, MN 55144-1000	10746 Innovation Boulevard Cottage Grove Washington County
Contact: Wayne Neumann Phone: (651) 458-1377	

1.2. Description of the Permit Action

The 3M Cottage Grove Utilities Plant includes a wastewater treatment plant, a maintenance shop, and a gas station.

All three boilers which were in use at the time of the Title V permit application (1995) are shutdown and being dismantled. The current primary source of steam is from a neighboring facility under separate ownership. This permit also authorizes the installation of a temporary portable boiler when steam from the usual source is unavailable.

The wastewater plant consists of three Phases. Phase 1 treats wastewater generated in several manufacturing operations by means of neutralization, flocculation, and clarification. Phase 2 treats both wastewater generated from manufacturing and domestic wastewater in a conventional activated sludge process. Included in this Phase are an equalization tank, aeration tank, clarification tanks, and aerobic digester. Phase 3 treats wastewater from the on-site incinerator using several neutralization, flocculation, and clarification tanks. Water from the Phase 1 and 2 systems flows through polishing ponds prior to discharge.

The maintenance shop includes equipment for welding, grinding, parts washing and other maintenance activities.

The gas station includes a 1000 gallon diesel fuel tank and a 2000 gallon gasoline tank.

The facility also includes a 6000 gallon heptane tank that supplies fuel for a fire extinguisher training area. The training area is permitted separately by the local fire marshal (Minn. Stat. § 88.17, subd. 3(a)).

1.3 Description of any Changes Allowed with this Permit Issuance

There are no changes allowed by this Part 70 permit reissuance. Emergency Generator EU 004 was removed prior to this permit action.

1.4. Facility Emissions:

EU #	SV#	Emission Unit Description	PM tpy	PM10 tpy	SO2 tpy	NOx tpy	CO tpy	VOC tpy	Single HAP tpy	All HAPs tpy
001	001	boiler, temporary	*	*	*	*	*	*	*	*
002	002	boiler, temporary	*	*	*	*	*	*	*	*
003	003	Emergency generator	0.04	0.04	0.04	0.62	0.14	0.05	**	**
		wastewater treatment	**	**	**	**	**	30.10	7.01	16.77

Table 1. Total Facility Potential to Emit Summary

	PM tpy	PM10 tpy	SO2 tpy	NOx tpy	CO tpy	VOC tpy	Single HAP tpy	All HAPs tpy
Total Facility Limited Potential Emissions**	0.04	0.04	0.04	0.62	0.14	30.15	7.01	16.77
Total Facility Actual Emissions**	**	**		0.13	0.02	4.08	0.76	

**Blank spaces indicate emissions are estimated to be less than 0.01 ton (20 lbs) per year. Actual emissions are based on assumed operation of the generators of 24 hours per year plus the estimated actual emissions for the wastewater treatment plant in the application.

Table 2. Facility Classification

Classification	Major/Affected Source	Synthetic Minor	Minor
PSD			X
Part 70 Permit Program	X		
Part 63 NESHAP	X		

2. Regulatory and/or Statutory Basis

New Source Review

New Source Review - Prevention of Significant Deterioration, 40 CFR Section 52.21

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 may sometimes be aggregated into a single source if one is considered a support facility to the other(s). At Cottage Grove, Utility Plant is classified in SIC code 4952. None of the individual facilities qualifies as a support facility, since no facility provides 50 percent 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 a wastewater treatment plant that receives some wastewater from all facilities at this location.

SIC Codes currently assigned to the Cottage Grove operations are:

Name	MPCA File No.	Delta ID	SIC
Tape Manufacturing	23AE	16300080	2672
Abrasive Systems Division	23AX	16300017	3291
Automotive - Building 17	23AH	16300065	2297
Corporate Incinerator	23AI	16300025	4953
Film - Building 17	23AF	16300023	3081
Industrial Specialty, Bldg 74, 101 & 110	23AS	16300002	3229
Sensitizer Bldg 111	23AK	16300071	3861
SMD Chemicals	23AC	16300022	2891
TCM Division	23AT	16300059	3993
<i>Utilities (wastewater)</i>	23AB	16300015	4952

Part 70 Permit Program

A major source for this program is one which has the potential-to-emit 100 tons per year or more of any air pollutant, or which is a major source under the HAP program. The utility plant by itself is not a major source for this program, but the entire Cottage Grove facility is considered a major source under Part 70 due to its major source status under Part 63.

New Source Performance Standards (NSPS)

There are no New Source Performance Standards applicable to the operations at this facility at the present time. The Permittee has authorization to bring an emergency boiler on site. This boiler would be subject to 40 CFR 60, subp. Db.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

For this program, all facilities 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 utilities plant by itself does not exceed these thresholds, but the entire Cottage Grove facility does, so the utilities plant is 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. 7011.2300 Standards of Performance for Stationary Internal Combustion Engines

Table 3. Regulatory Overview of Facility

EU, GP, or SV	Applicable Regulations	Comments:
EU001	40 CFR part 60, subpart Db	For natural gas-fired boilers greater than 100 million Btu/hour heat input and manufactured after June 19, 1984, this regulation establishes a limit on NOx emissions, or, as an alternate to the emission limit, a limit of 10 % annual capacity factor
EU002	Minn. R. 7011.0500 - 7011.0550	These state rules establish limits for PM and SO2 for boilers not subject to a regulation under 40 CFR part 60.
EU003, EU004	Minn. R. 7011.2300	This state rule establishes a limit on the opacity of the stack gases, and the emission of sulfur dioxide from internal combustion engines.

3. Technical Information

3.1 Calculations of Potential to Emit

Calculations of Potential to Emit are included as Attachment 1 to this document.

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

Emission Unit or Group	Requirement (basis)	Additional Monitoring	Discussion
EU 001	NOx	None	The regulation requires a continuous emission monitor for NOx, or operation at an annual capacity factor of 10 % or less
EU002	PM	None	No periodic monitoring is required since this boiler, which can burn only natural gas, cannot emit at a rate higher than the emission limit specified by the Minn. R.
EU003, EU004	SO ₂	Recordkeeping: Monthly Fuel records	A record of fuel oil supplier certifications of fuel sulfur content must be maintained

3.3 Insignificant Activities

3M has several operations which are classified as insignificant activities. These are listed in Appendix 1 to the permit.

3.4 Comments Received

Public Notice Period: September 22, 2005 – October 21, 2005

EPA 45-day Review Period: September 22, 2005 – November 7, 2005

Comments were not received from the public during the public notice period. No changes were made to the permit.

Comments were received from EPA during their review period. No changes were made to the permit as a result of the comments. Changes were made to this document as a result of comments from EPA.

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. 16300015-002 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: Elisabeth Freymiller (permit writer/engineer)
 Dave Beil (peer reviewer)
 Bob Berg (enforcement)

Attachments: 1. PTE Calculation Spreadsheets
 2. Facility Description and CD-01 Forms