

AIR EMISSION PERMIT NO. 12300694- 003

IS ISSUED TO

3M Company

3M - Administrative Offices - Maplewood
I-94 & McKnight Road
Maplewood, Ramsey County, MN 55144

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	Permit Action Number	Issuance Date
Total Facility Operating Permit	03/17/1995	001	12/19/2003
Major Amendment	09/08/2004	002	1/10/2005
Minor Amendment	05/05/2005	003	See below

This permit supersedes Permit No. 123000694-002 and authorizes the Permittee to operate and construct 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/Major for NSR

Issue Date: 12/19/2003

Expiration: 12/19/2008

All Title I Conditions do not expire.

Minor Amendment

Issue Date: 09/13/2005

Richard J. Sandberg, Manager
Air Quality Permits Section
Industrial Division

for Sheryl A. Corrigan
Commissioner
Minnesota Pollution Control Agency

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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. 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 - PERMIT ACTION 001:

This permit is a Part 70 total facility operating permit issued under Minn. R. ch. 7007, and only covers part of the defined stationary source (as described below). The stationary source is an existing facility that is major for all air quality programs. (The research and development functions at the site (AQ File No. 23E) are covered by a separate Part 70 permit (12300015-005) for administrative reasons.) The original application was received March 16, 1995. An updated application—submitted in response to a request letter dated March 1, 2002, was received on May 23, 2002. This permit supersedes all previously issued permits/amendments for this part of the stationary source.

The 3M facility at this location is one stationary source under New Source Review (NSR) and the Part 70 Operating Permit Program, but is covered by two separate permits: the research and development complex (R&D facility) covered by the previously issued Part 70 permit, and the Administrative Offices covered by this permit. In addition, the site is considered one stationary source under the National Emissions Standards for Hazardous Air Pollutants for Source Categories (NESHAPs).

The center occupies approximately 425 acres in Maplewood, consists of approximately 44 buildings that support more than 50 different operating divisions, and contains more than 200 group or staff departments. Each division, while part of 3M Company, has autonomous operations. The emissions units in the Administrative Offices portion of the 3M Center include boilers, emergency generators, above and below ground fuel tanks supporting these units, and insignificant activities other than those associated with Research and Development operations, which are covered by Permit No. 12300015.

MAJOR AMENDMENT DESCRIPTION - PERMIT ACTION 002:

3M proposes to add a new boiler (Boiler 7 – EU 043) to supply steam to offices at the 3M Center. The primary fuel for this boiler is natural gas, and No. 2 fuel oil is backup. This boiler will utilize a low-NOx burner design and will have flue gas recirculation for additional NOx emission control.

This is a Synthetic Minor Modification at a Source Major for Part 70 and NSR. New permit conditions related to New Source Performance Standards (NSPS Subpart Db), and National Emissions Standards for Hazardous Air Pollutants (NESHAPs Subpart DDDDD) are added to existing permit. NOx and CO CEMS and COMS are added under EU 043 through this permit amendment. NESHAP requirements are added for EU 006. 3M requested to have Permit conditions related to “New Boiler 2” (EU 042) be deleted at this time.

A set of new requirements were added under Total Facility part of the Permit: DETERMINING IF A PROJECT/MODIFICATION IS SUBJECT TO NEW SOURCE REVIEW.

MINOR AMENDMENT DESCRIPTION – PERMIT ACTION 003:

3M proposes to install three residential boilers (EU 044, EU 045, and EU 046) and one emergency generator (EU 047) at a new administration building (Building 278) at 3M Center. The three residential boilers are single fuel natural gas each rated at a capacity of 2.00 MMBTU/hr.

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/13/05

Facility Name: 3M - Administrative Offices - Maplewood
 Permit Number: 12300694 - 003

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
OPERATIONAL REQUIREMENTS	hdr
The facility currently uses ozone-depleting substances as defined in 40 CFR pt. 82. Sections 601-618 of the 1990 Clean Air Act Amendments and 40 CFR pt. 82 may apply to your facility. Read Sections 601-618 and 40 CFR pt. 82 to determine all the requirements that apply to your facility.	40 CFR pt. 82
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.	40 CFR Section 60.12, and Minn R. 7001.0050; and Minn. R. 7011.0020
Air Pollution Control Equipment: Operate all pollution control equipment identified in the permit whenever the corresponding process equipment and emission units are operated, unless otherwise noted in Table A.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)
Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. At a minimum, the O & M plan shall identify all air pollution control equipment identified in the permit and shall include a preventative maintenance program for that equipment, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment, and the records kept to demonstrate plan implementation.	Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)
Operation Changes: In any shutdown, breakdown, or deviation immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate.	Minn. R. 7019.1000, subp. 4
Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150.	Minn. R. 7011.0150
Noise: Comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7030.0010 - 7030.0080
Inspections: Comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A).	Minn. R. 7007.0800, subp. 9(A)
Comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
PERFORMANCE TESTING	hdr
Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A, B, and/or C.	Minn. R. ch. 7017
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)
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)
RECORDKEEPING	hdr
Recordkeeping: Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the facility including; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.	40 CFR Section 60.7(b), and Minn. R. 7019.0100, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

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Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3 or changes contravening permit terms (as required by Minn. R. 7007.1350 subp. 2, including records of the emissions resulting from those changes.	Minn. R. 7007.0800, subp. 5(B)
Recordkeeping: Retain all records at the stationary source for a period of five years from the date of monitoring, sample, measurement, or report (unless a longer retention is required by an applicable requirement). 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).	40 CFR Section 60.7(f), and Minn. R. 7019.0100, subp. 1; and Minn. R. 7007.0800, subp. 5(C) and 5(D), and Minn. R. 7017.1130
MODELING REQUIREMENTS	hdr
Ambient Air Quality Standards: The Permittee shall comply, and upon written request demonstrate compliance, with National Primary and Secondary Ambient Air Quality Standards, 40 CFR pt. 50, and the Minnesota 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, subps. 7A, 7L and 7M; Minn. R. 7007.0800, subps. 1, 2, and 4; Minn. R. 7009.0010-7009.0080
REPORTING/SUBMITTALS	hdr
By the date specified in 40 CFR 63.52(e), submit to the MPCA a Part 2 MACT Hammer notification meeting the requirements of 40 CFR Section 63.53(b).	40 CFR Section 63.52(e)
Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3. At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.	Minn. R. 7019.1000, subp. 3
Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2. At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.	Minn. R. 7019.1000, subp. 2
Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment.	Minn. R. 7019.1000, subp. 1
Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description: 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.	Minn. R. 7019.1000, subp. 1
Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.	Minn. R. 7007.1150 through Minn. R. 7007.1500
Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H).	Minn. R. 7007.1400, subp. 1(H)
Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance. To be submitted on a form approved by the Commissioner.	Minn. R. 7019.3000 through Minn. R. 7019.3010
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095
DETERMINING IF A PROJECT/MODIFICATION IS SUBJECT TO NEW SOURCE REVIEW	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/13/05

Facility Name: 3M - Administrative Offices - Maplewood

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<p>These requirements apply where there is a reasonable possibility that a proposed project, analyzed using the actual-to-projected-actual (ATPA) test and found to not be part of a major modification, may result in a significant emissions increase. If the ATPA test is not used for a particular project, or if there is not a reasonable possibility that the proposed project could result in a significant emissions increase, then these requirements do not apply to that project.</p> <p>Even though a particular modification is not subject to New Source Review, a permit amendment, recordkeeping, or notification may still be required under Minn. R. 7007.1150 - 7007.1500.</p>	<p>Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000</p>
<p>Preconstruction Documentation -- Before beginning actual construction on a project, the Permittee shall document the following information:</p> <ol style="list-style-type: none"> 1. A description of the project 2. Identification of the emission unit(s) whose emissions of an NSR pollutant could be affected 3. A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the potential emissions, the projected actual emissions, the amount of emissions excluded due to increases not associated with the modification and that the unit(s) could have accommodated during the baseline period, an explanation of why the amounts were excluded, and any creditable contemporaneous increases and decreases that were considered in the determination. <p>The Permittee shall maintain records of this documentation.</p>	<p>Title I Condition: 40 CFR Section 52.21(r)(6) and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4 & 5</p>
<p>The Permittee shall monitor the actual emissions of any regulated NSR pollutant that could increase as a result of the project and that were analyzed using the ATPA test, and the potential emissions of any regulated NSR pollutant that could increase as a result of the project and that were analyzed using potential emissions. The Permittee shall calculate and maintain a record of the sum of the actual and potential (if used in the analysis) emissions of the regulated pollutant, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity of or potential to emit of any unit associated with the project.</p>	<p>Title I Condition: 40 CFR Section 52.21(r)(6) and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4 & 5</p>
<p>The Permittee must submit a report to the Agency if the annual summed (actual plus potential, if applicable) emissions differ from the preconstruction projection and exceed the baseline actual emissions by a significant amount as listed at 40 CFR Section 52.21(b)(23). Such report shall be submitted to the Agency within 60 days after the end of the year in which the exceedances occur. The report shall contain:</p> <ol style="list-style-type: none"> a. The name, address, and telephone number of the facility b. The annual emissions (actual plus potential, if any part of the project was analyzed using potential emissions) for each pollutant for which the preconstruction projection and significant emissions increase are exceeded. c. Any other information, such as an explanation as to why the summed emissions differ from the preconstruction projection. 	<p>Title I Condition: 40 CFR Section 52.21(r)(6) and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 4 & 5</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/13/05

Facility Name: 3M - Administrative Offices - Maplewood

Permit Number: 12300694 - 003

Subject Item: GP 001 Natural Gas Emergency Generators

- Associated Items:** EU 008 NG Generator 201-731417
 EU 009 NG Generator 205-821913
 EU 010 NG Generator 209-734566
 EU 012 NG Generator 210-296269
 EU 013 NG Generator 216-168605
 EU 015 NG Generator 218-321528
 EU 016 NG Generator 230-427957
 EU 018 NG Generator 235-EG0001
 EU 021 NG Generator 236-EG0001

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
Fuel type: Natural gas only by design.	Minn. R. 7005.0100, subp. 35a
Hours of Operation: Maintain documentation on site that the unit is an emergency generator by design that qualifies under the U.S. EPA memorandum entitled "Calculating Potential to Emit (PTE) for Emergency Generators" dated September 6, 1995, limiting operation to 500 hours per year.	Minn. R. 7007.0800, subp. 4 & 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/13/05

Facility Name: 3M - Administrative Offices - Maplewood

Permit Number: 12300694 - 003

Subject Item: GP 002 Diesel Emergency Generators

- Associated Items:** EU 022 Diesel Generator 217-494480
 EU 023 Diesel Generator 220-293964
 EU 024 Diesel Generator 220-293965
 EU 025 Diesel Generator 223-427829
 EU 026 Diesel Generator 224-313600
 EU 027 Diesel Generator 224-592212
 EU 028 Diesel Generator 277-EG0001
 EU 029 Diesel Generator 277-EG0002
 EU 030 Diesel Generator 277-EG0003
 EU 031 Diesel Generator 225-496643
 EU 032 Diesel Generator 5 243-512084
 EU 033 Diesel Generator 4 243-512085
 EU 034 Diesel Generator 3 243-512086
 EU 035 Diesel Generator 1 243-547783
 EU 036 Diesel Generator 2 243-547784
 EU 037 Diesel Generator 251-426692
 EU 038 Diesel Generator 260-469589
 EU 039 Diesel Generator 270-496687
 EU 040 Diesel Generator 275-627516
 EU 047 Diesel Generator 278

What to do	Why to do it
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input. Potential Emissions are 0.29 lbs/million BTU heat input per equipment design.	Minn. R. 7011.2300, subp. 2
Opacity: less than or equal to 20 percent opacity once operating temperatures have been attained.	Minn. R. 7011.2300, subp. 1
Fuel type: No. 2 fuel oil only by design.	Minn. R. 7005.0100, subp. 35a
Fuel Supplier Certification: Obtain and maintain a fuel supplier certification for each shipment of No. 2 fuel oil, certifying that the sulfur content does not exceed 0.5% by weight.	Minn. R. 7007.0800, subps. 4 & 5
Hours of Operation: Maintain documentation 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, limiting operation to 500 hours per year.	Minn. R. 7007.0800, subp. 4 & 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/13/05

Facility Name: 3M - Administrative Offices - Maplewood

Permit Number: 12300694 - 003

Subject Item: EU 001 Boiler 1 210-B01**Associated Items:** SV 001 Boiler 1 210-B01

What to do	Why to do it
Fuels allowed: No. 6 fuel oil and natural gas, by design	Minn. R. 7007.0800, subp. 2
Sulfur Content of Fuel: less than or equal to 1.5 percent by weight for No. 6 fuel oil	Minn. R. 7011.0510, subp. 1
Obtain and maintain fuel receipts from the fuel supplier which certify that the oil contains less than or equal to 1.5 weight percent sulfur	Minn. R. 7007.0800, subp. 2
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0510, subp. 2
When burning fuel oil, check for any visible emissions once daily during daylight hours. Record the time and date of each check and record whether or not any visible emission was observed. Corrective actions shall be taken as soon as possible. Record the corrective action taken, including the date and time it was taken.	Minn. R. 7007.0800, subp. 4(D)
Submit a written notification within 30 days after boiler is dismantled and no longer operational	Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/13/05

Facility Name: 3M - Administrative Offices - Maplewood

Permit Number: 12300694 - 003

Subject Item: EU 002 Boiler 2 210-B02**Associated Items:** SV 002 Boiler 2 210-B02

What to do	Why to do it
Fuels allowed: No. 6 fuel oil and natural gas, by design	Minn. R. 7007.0800, subp. 2
Sulfur Content of Fuel: less than or equal to 1.5 percent by weight for No. 6 fuel oil	Minn. R. 7011.0510, subp. 1
Obtain and maintain fuel receipts from the fuel supplier which certify that the oil contains less than or equal to 1.5 weight percent sulfur	Minn. R. 7007.0800, subp. 2
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0510, subp. 2
When burning fuel oil, check for any visible emissions once daily during daylight hours. Record the time and date of each check and record whether or not any visible emission was observed. Corrective actions shall be taken as soon as possible. Record the corrective action taken, including the date and time it was taken.	Minn. R. 7007.0800, subp. 4(D)
Submit a written notification within 30 days after boiler is dismantled and no longer operational	Minn. R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/13/05

Facility Name: 3M - Administrative Offices - Maplewood

Permit Number: 12300694 - 003

Subject Item: EU 003 Boiler 3 210-B03**Associated Items:** SV 003 Boiler 3 210-B03

What to do	Why to do it
Fuels allowed: No. 6 fuel oil and natural gas, by design	Minn. R. 7007.0800, subp. 2
Sulfur Content of Fuel: less than or equal to 1.5 percent by weight for No. 6 fuel oil	Minn. R. 7011.0510, subp. 1
Obtain and maintain fuel receipts from the fuel supplier which certify that the oil contains less than or equal to 1.5 weight percent sulfur	Minn. R. 7007.0800, subp. 2
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0510, subp. 2
When burning fuel oil, check for any visible emissions once daily during daylight hours. Record the time and date of each check and record whether or not any visible emission was observed. Corrective actions shall be taken as soon as possible. Record the corrective action taken, including the date and time it was taken.	Minn. R. 7007.0800, subp. 4(D)

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/13/05

Facility Name: 3M - Administrative Offices - Maplewood

Permit Number: 12300694 - 003

Subject Item: EU 004 Boiler 4 210-B04**Associated Items: SV 004 Boiler 4 210-B04**

What to do	Why to do it
Fuels allowed: No. 6 fuel oil and natural gas, by design	Minn. R. 7007.0800, subp. 2
Sulfur Content of Fuel: less than or equal to 1.5 percent by weight for No. 6 fuel oil	Minn. R. 7011.0510, subp. 1
Obtain and maintain fuel receipts from the fuel supplier which certify that the oil contains less than or equal to 1.5 weight percent sulfur	Minn. R. 7007.0800, subp. 2
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0510, subp. 2
When burning fuel oil, check for any visible emissions once daily during daylight hours. Record the time and date of each check and record whether or not any visible emission was observed. Corrective actions shall be taken as soon as possible. Record the corrective action taken, including the date and time it was taken.	Minn. R. 7007.0800, subp. 4(D)

TABLE A: LIMITS AND OTHER REQUIREMENTS

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Facility Name: 3M - Administrative Offices - Maplewood

Permit Number: 12300694 - 003

Subject Item: EU 005 Boiler 5 210-B05**Associated Items:** SV 005 Boiler 5 210-B05

What to do	Why to do it
Fuels allowed: No. 6 fuel oil and natural gas, by design	Minn. R. 7007.0800, subp. 2
Sulfur Content of Fuel: less than or equal to 1.5 percent by weight for No. 6 fuel oil	Minn. R. 7011.0510, subp. 1
Obtain and maintain fuel receipts from the fuel supplier which certify that the oil contains less than or equal to 1.5 weight percent sulfur	Minn. R. 7007.0800, subp. 2
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0510, subp. 2
When burning fuel oil, check for any visible emissions once daily during daylight hours. Record the time and date of each check and record whether or not any visible emission was observed. Corrective actions shall be taken as soon as possible. Record the corrective action taken, including the date and time it was taken.	Minn. R. 7007.0800, subp. 4(D)

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/13/05

Facility Name: 3M - Administrative Offices - Maplewood

Permit Number: 12300694 - 003

Subject Item: EU 006 Boiler 6 210-B06

Associated Items: CE 001 Flue Gas Recirculation

SV 006 Boiler 6 210-B06

What to do	Why to do it
MR 001, MR 002 and MR 003 are also included under EU 006.	hdr
LIMITS	hdr
Fuels allowed: natural gas with No. 2 fuel oil as backup, by design	Minn. R. 7007.0800, subp. 2
Fuel Usage: less than or equal to 1090000 gallons/year using 365-day Rolling Sum of No. 2 fuel oil. In addition: No. 2 fuel oil usage shall be less than or equal to 31000 gal/day; and natural gas and No. 2 fuel oil usage combined shall be less than or equal to 91324 MMBtu/mo.	Title I Condition: Limit to avoid classification as major modification under 40 CFR 52.21, and Minn. R. 7007.3000
Sulfur Content of Fuel: less than or equal to 0.5 percent by weight for No. 2 fuel oil	Title I Condition: Limit to avoid classification as major modification under 40 CFR 52.21 and Minn. R. 7007.3000; and 40 CFR 60.42b(j)(2), 60.45b(j), and 60.47b(f), and Minn. R. 7011.0565
Nitrogen Oxides: less than or equal to 0.067 lbs/million Btu heat input using 24-hour Block Average for natural gas, and 0.11 lbs/million Btu heat input for No. 2 fuel oil using 24-hour Block Average -- applies at all times including periods of startup, shutdown, or malfunction.	Title I Condition: Limit to avoid classification as major modification under 40 CFR 52.21, and Minn. R. 7007.3000; and 40 CFR 60.44b(a)(1), 60.44b(h), 60.44b(i) and 60.46b(a), and Minn. R. 7011.0565
PM10 and Total Particulate Matter: less than or equal to 0.021 lbs/million Btu heat input using 3-hour Average	Title I Condition: Limit to avoid classification as major modification under 40 CFR 52.21, and Minn. R. 7007.3000
Opacity: less than or equal to 20 percent opacity using 6-minute Average except for one 6-minute period per hour of not more than 27 percent opacity -- applies at all times, except during periods of startup, shutdown or malfunction	40 CFR 60.43b(f), 60.43b(g) and 60.46b(a), and Minn. R. 7011.0565
The Permittee shall comply with NESHAPs Subpart DDDDD no later than September 13, 2007.	40 CFR Section 63.7495(b)
EU 006 is subject to only the initial notification requirements in 40 CFR Section 63.9(b) (not subject to the emission limits, work practice standards, performance testing, monitoring plans, recordkeeping and reporting requirements of NESHAP Subpart DDDDD or any other requirements in subpart A of this part because EU 006 is an Existing large liquid fuel unit, as defined in 40 CFR Section 63.7545).	40 CFR Section 63.7506(b)(2)
MONITORING AND TESTING	hdr
Obtain and maintain fuel receipts from the fuel supplier which certify that the oil meets the definition of distillate oil and very low sulfur oil (less than or equal to 0.5 weight percent sulfur) in 40 CFR 60.41b.	Title I Condition: Monitoring for limit to avoid classification as major modification under 40 CFR 52.21, and Minn. R. 7007.3000; and 40 CFR 60.49b(r), and Minn. R. 7011.0565
Upon request, for the NOx limit, conduct a 30-day performance test on boiler (operating at a minimum of 57 percent of maximum capacity, averaged over the 30-day test period). During periods when performance tests are not requested, NOx emissions data collected pursuant to 40 CFR 60.48b(g)(1) are used to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the NOx limit. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NOx emission data for the preceding 30 steam generating unit operating days.	Title I Condition: Monitoring for limit to avoid classification as major modification under 40 CFR 52.21, and Minn. R. 7007.3000; 40 CFR 60.46b(e)(4), and Minn. R. 7011.0565; and Minn. R. 7017.2025 subp. 2
Operate, maintain, and calibrate a continuous emission monitoring system (CEMS), and record the output of the system, for measuring NOx emissions, following the procedures under 40 CFR 60.13 and 40 CFR pt. 60, Appendix B and Appendix F. Operate the CEMS and record data during all periods boiler EU006 is operating except for CEMS breakdowns and repairs. Record data during calibration checks, and zero and span adjustments. Express the 1-hour average NOx emission rates in lb/million Btu heat input to calculate the average emission rates using the data points required under 40 CFR 60.13(h).	Title I Condition: Monitoring for limit to avoid classification as major modification under 40 CFR 52.21, and Minn. R. 7007.3000; 40 CFR 60.48b(b)(1), (c), (d), (e) and (g)(1), and Minn. R. 7011.0565; and 40 CFR 60.13, and Minn. R. 7017.1010 subp. 1
Operate, maintain, and calibrate a continuous monitoring system for measuring the opacity of emissions (COMS), and record the output of the system, following the procedures under 40 CFR 60.13 and 40 CFR pt. 60, Appendix B.	40 CFR 60.48b(a), and Minn. R. 7011.0565; and 40 CFR 60.13, and Minn. R. 7017.1010 subp. 1
RECORDKEEPING AND REPORTING	hdr
Using purchase receipts and/or a fuel meter, record the type and amount of fuel used (and the combined heat input in MMBtu) for each calendar month by the 15th of the following month. In addition, daily record the amount of No. 2 fuel oil used and calculate and record the 365-day rolling sum.	Title I Condition: Recordkeeping for limit to avoid classification as major modification under 40 CFR 52.21, and Minn. R. 7007.3000

TABLE A: LIMITS AND OTHER REQUIREMENTS

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Facility Name: 3M - Administrative Offices - Maplewood

Permit Number: 12300694 - 003

<p>Record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for natural gas and very low sulfur oil for the reporting period on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month by the 30th of the following month.</p>	<p>40 CFR 60.49b(d), and Minn. R. 7011.0565</p>
<p>For NOx emissions, maintain records of the following for each steam generating unit operating day: (1) Calendar date. (2) Average hourly NOx emission rates (expressed as NO2) in lb/million Btu heat input measured. (3) 24-hour Block Average NOx emission rates in lb/million Btu heat input calculated at the end of each steam generating unit operating day from the measured hourly NOx emission rates from the preceding steam generating unit operating day. (4) Identification of the steam generating unit operating days when the calculated 24-hour Block Average NOx emission rates are in excess of the NOx limit, with the reasons for excess emissions as well as a description of corrective actions taken. (5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken. (continued)</p>	<p>40 CFR 60.49b(g), and Minn. R. 7011.0565; and 40 CFR 60.13 (including Appendices B and F), and Minn. R. 7017.1010 subp. 1</p>
<p>(continued) (6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data. (7) Identification of "F" factor used for calculations, method of determination, and the type of fuel combusted. (8) Identification of the times when the pollutant concentration exceeded full span of the CEMS. (9) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3. (10) Results of the daily CEMS drift tests and quarterly accuracy assessments as required under 40 CFR 60 Appendix F, Procedure 1.</p>	<p>(continued) 40 CFR 60.49b(g), and Minn. R. 7011.0565; and 40 CFR 60.13 (including Appendices B and F), and Minn. R. 7017.1010 subp. 1</p>
<p>Maintain records of opacity (COMS Data).</p>	<p>40 CFR 60.49b(f), and Minn. R. 7011.0565</p>
<p>Option for electronic submittal of Excess Emissions/Downtime Reports (EERs): Due 30 days after end of each calendar quarter following receipt of written MPCA approval in response to a written request to submit quarterly electronic reports for NOx and/or opacity as an alternative to written EERs on boiler (accompanied by a certification indicating whether compliance with the applicable emission standards and minimum data requirements in 40 CFR subp. Db was achieved).</p>	<p>40 CFR 60.49b(v), and Minn. R. 7011.0565</p>
<p>ADDITIONAL NOx CEMS REQUIREMENTS</p>	<p>hdr</p>
<p>Continuous Operation: NOx CEMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, 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 NOx 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 as listed in Items A, B, C and D of Minn. R. 7017.1090, subp. 2.</p>	<p>40 CFR Section 60.13(e), and Minn. R. 7017.1090, subp. 1</p>
<p>Comply with the provisions of 40 CFR pt. 60, subp. Db with respect to NOx CEMS operation. When NOx emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, obtain data using standby monitoring systems or other approved reference methods to provide data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.</p>	<p>40 CFR 60.48b (b), (c), (d), (e)(2), (e)(3), (f), and (g)(1), and Minn. R. 7011.0565</p>
<p>NOx CEMS Quality Assurance/Quality Control (QA/QC): Operate the CEMS according to the performance specifications listed in 40 CFR pt. 60, Appendix B, and operate, calibrate, and maintain the CEMS according to the QA/QC procedures in 40 CFR pt. 60, Appendix F, as amended, and maintain a written QA/QC plan available in a form suitable for inspection.</p>	<p>40 CFR Section 60.13(a) and 40 CFR pt. 60, Appendices B and F, and Minn. R. 7017.1010, subp. 1</p>
<p>CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year starting 12/19/2003 (for NOx CEMS). Follow the procedures in 40 CFR pt. 60, Appendix F.</p>	<p>40 CFR pt. 60, Appendix F, section 5.1.1; and Minn. R. 7017.1170, subp. 5</p>
<p>NOx 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.</p>	<p>40 CFR Section 60.13(d)(1), and 40 CFR pt. 60, Appendix F, section 4.1; and Minn. R. 7017.1170, subp. 3</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/13/05

Facility Name: 3M - Administrative Offices - Maplewood

Permit Number: 12300694 - 003

<p>CEMS Cylinder Gas Audit (CGA): due before end of each calendar half-year following CEM Certification Test (for NOx CEMS). Conduct CGA at least 3 months apart and not greater than 8 months apart. If a RATA is performed during the calendar half-year the CGA is not required. Follow the procedures in 40 CFR pt. 60, Appendix F.</p>	<p>40 CFR pt. 60, Appendix F, section 5.1.2; and Minn. R. 7017.1170, subp. 4</p>
<p>ADDITIONAL COMS REQUIREMENTS</p>	<p>hdr</p>
<p>Continuous Operation: COMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, 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 COMS must not be bypassed except in emergencies where failure to bypass would endanger human health, safety, or plant equipment.</p> <p>Acceptable monitor downtime includes reasonable periods as listed in Items A, B, C and D of Minn. R. 7017.1090, subp. 2.</p>	<p>40 CFR Section 60.13(e) and Minn. R. 7017.1010, subp. 1; and Minn. R. 7017.1090, subp. 1</p>
<p>COMS Quality Assurance (QA) Plan: Develop and implement a written QA plan for the COMS on the boiler. Keep the plan on site and available for inspection. The plan shall contain the written procedures listed in Minn. R. 7017.1210, subp. 1.</p>	<p>Minn. R. 7017.1210</p>
<p>COMS Daily Calibration Drift (CD) Check: The CD shall be quantified and recorded at zero (low-level) and upscale (high-level) opacity at least once daily. The COMS must be adjusted whenever the calibration drift (CD) exceeds twice the specification of PS-1 of 40 CFR pt. 60, Appendix B.</p>	<p>40 CFR Section 60.13(d)(2) and 40 CFR pt. 60, Appendix B; and Minn. R. 7017.1210, subp. 2</p>
<p>COMS Calibration Error Audit: due 30 days after end of each calendar half-year following COMS Certification Test. Conduct three point calibration error audits at least 3 months apart but no greater than 8 months apart. Filter values used shall correspond to approximately 11%, 20%, and 37% opacity.</p>	<p>Minn. R. 7017.1210, subp. 3</p>
<p>All COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data for each successive 6-minute period.</p>	<p>40 CFR Section 60.13(e)(1) and (h), and Minn. R. 7017.1010, subp. 1; and Minn. R. 7017.1200, subp. 1, 2, and 3</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/13/05

Facility Name: 3M - Administrative Offices - Maplewood

Permit Number: 12300694 - 003

Subject Item: EU 043 Boiler No. 7

Associated Items: CE 002 Flue Gas Recirculation

SV 043 Boiler 7, 210-B07 [1]

What to do	Why to do it
MR 004, MR 005, MR 006 and MR 007 are also included under EU 043.	hdr
LIMITS - Synthetic Minor PSD; MN Standards of Performance; NSPS Subpart Db; NESHAP Subpart DDDDD	hdr
Nitrogen Oxides: less than or equal to 39.0 tons/year using 365-day Rolling Sum	Title I Condition: Limit to avoid classification as major modification under 40 CFR 52.21, and Minn. R. 7007.3000
Sulfur Dioxide: less than or equal to 38.0 tons/year using 12-month Rolling Sum	Title I Condition: Limit to avoid classification as major modification under 40 CFR 52.21, and Minn. R. 7007.3000
Particulate Matter < 10 micron: less than or equal to 13.0 tons/year using 12-month Rolling Sum	Title I Condition: Limit to avoid classification as major modification under 40 CFR 52.21, and Minn. R. 7007.3000
Fuel Usage: less than or equal to 10 million gallons/year using 12-month Rolling Sum of No. 2 Fuel Oil.	Title I Condition: Limit to avoid classification as major modification under 40 CFR 52.21, and Minn. R. 7007.3000
Sulfur Content of Fuel: less than or equal to 0.05 percent by weight for No. 2 fuel oil.	Title I Condition: Limit to avoid classification as major modification under 40 CFR 52.21 and Minn. R. 7007.3000; and 40 CFR 60.42b(j)(2), 60.45b(j), and 60.47b(f), and Minn. R. 7011.0565 and Minn. R. 7011.0515, subp. 1
Nitrogen Oxides: less than or equal to 0.20 lbs/million Btu heat input using 30-day Rolling Average for a boiler with high heat release design (heat release rate at maximum heat input is greater than 70,000 Btu/hr-cubic foot). This limit applies at all times including periods of startup, shutdown, or malfunction.	Title I Condition: Limit to avoid classification as major modification under 40 CFR 52.21, and Minn. R. 7007.3000; and 40 CFR 60.44b(a)(1), 60.44b(h), 60.44b(i) and 60.46b(a), and Minn. R. 7011.0565
Opacity: less than or equal to 20 percent opacity using 6-minute Average except for one 6-minute period per hour of not more than 27 percent opacity -- applies at all times, except during periods of startup, shutdown or malfunction	40 CFR 60.43b(f), 60.43b(g) and 60.46b(a), and Minn. R. 7011.0565; also meets Minn. R. 7011.0515, subp. 2
<p>The Permittee must comply with emission limits and work practice standards required per NESHAPs Subpart DDDDD upon startup of EU 043 (Boiler No. 7).</p> <p>The Permittee must meet the notification requirements in 40 CFR Section 63.7545.</p> <p>The Permittee must be in compliance with the emission limits (including operating limits) and the work practice standards at all times, except during periods of startup, shutdown, and malfunction.</p> <p>The Permittee must always operate and maintain EU 043, including air pollution control and monitoring equipment, according to the provisions per 40 CFR Section 63.6(e)(1)(i).</p> <p>The Permittee demonstrate compliance with any applicable emission limit using fuel analysis if the emission rate calculated according to 40 CFR Section 63.7530(d) is less than the applicable emission limit.</p>	40 CFR Section 63.7495(a) and (d); 40 CFR Section 63.7505(a)(b)(c)
Total Particulate Matter: less than or equal to 0.03 lbs/million Btu heat input . This limit is applicable only when No. 2 Fuel Oil is used.	40 CFR Section 63.7500(a)(1) Table 1 to Subpart DDDDD - Emission Limits and Work Practice Standards
Hydrochloric acid: less than or equal to 0.0005 lbs/million Btu heat input . This permit condition regulates "Hydrogen Chloride". This limit is applicable only when No. 2 Fuel Oil is used.	40 CFR Section 63.7500(a)(1) Table 1 to Subpart DDDDD - Emission Limits and Work Practice Standards
<p>Carbon Monoxide: less than or equal to 400 parts per million using 30-day Rolling Average . Limit for CO of 400 ppm by volume on a dry basis corrected to 3 percent oxygen.</p> <p>Calculate and record a 30-day rolling average emissions rate on a daily basis. A new 30-day rolling average emission rate is calculated as the average of all of the hourly CO emission data for the preceeding 30 operating days.</p>	40 CFR Section 63.7500(a)(1) Table 1 to Subpart DDDDD - Emission Limits and Work Practice Standards; 40 CFR Section 63.7525
Fuels allowed - Primary: Natural Gas Backup: No. 2 Fuel Oil	Minn. R. 7007.0800, subp. 2
MONITORING AND TESTING	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/13/05

Facility Name: 3M - Administrative Offices - Maplewood

Permit Number: 12300694 - 003

<p>Obtain and maintain fuel receipts from the fuel supplier which certify that the oil meets the definition of distillate oil and very low sulfur oil (less than or equal to 0.05 weight percent sulfur) in 40 CFR 60.41b.</p>	<p>Title I Condition: Monitoring for limit to avoid classification as major modification under 40 CFR 52.21, and Minn. R. 7007.3000; and 40 CFR 60.42(j)(2), 40 CFR 60.49b(r), and Minn. R. 7011.0565</p>
<p>Initial Compliance Test: For the initial compliance test, nitrogen oxides from the steam generating unit are monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the nitrogen oxides emission standards under 40 CFR Section 60.44b. The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period.</p>	<p>Title I Condition: Monitoring for limit to avoid classification as major modification under 40 CFR 52.21, and Minn. R. 7007.3000; 40 CFR 60.46b(e)(1), and Minn. R. 7011.0565; and Minn. R. 7017.2025 subp. 2</p>
<p>Upon request, for the NOx limit, conduct a 30-day performance test on boiler. During periods when performance tests are not requested, NOx emissions data collected pursuant to 40 CFR 60.48b(g)(1) are used to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the NOx limit. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NOx emission data for the preceding 30 steam generating unit operating days.</p>	<p>Title I Condition: Monitoring for limit to avoid classification as major modification under 40 CFR 52.21, and Minn. R. 7007.3000; 40 CFR 60.46b(e)(4), and Minn. R. 7011.0565; and Minn. R. 7017.2025 subp. 2</p>
<p>Operate, maintain, and calibrate a continuous emission monitoring system (CEMS), and record the output of the system, for measuring NOx emissions, following the procedures under 40 CFR 60.13 and 40 CFR pt. 60, Appendix B and Appendix F. Operate the CEMS and record data during all periods boiler EU 043 is operating except for CEMS breakdowns and repairs. Record data during calibration checks, and zero and span adjustments. Express the 1-hour average NOx emission rates in lb/million Btu heat input to calculate the average emission rates using the data points required under 40 CFR 60.13(h).</p>	<p>Title I Condition: Monitoring for limit to avoid classification as major modification under 40 CFR 52.21, and Minn. R. 7007.3000; 40 CFR 60.48b(b)(1), (c), (d), (e) and (g)(1), and Minn. R. 7011.0565; and 40 CFR 60.13, and Minn. R. 7017.1010 subp. 1</p>
<p>The Permittee must install, operate, and maintain a continuous emission monitoring system (CEMS) for carbon monoxide (CO) according to the procedures in paragraphs (a)(1) through (6) of 40 CFR Section 63.7525 upon startup.</p>	<p>40 CFR Section 63.7525(a)</p>
<p>The Permittee must meet the requirements in paragraphs (a)(1) and (2) of 40 CFR Section 63.7506 and meet CO work practice standard in Table 1 to Subpart DDDDD.</p>	<p>40 CFR Section 63.7506(a)</p>
<p>Operate, maintain, and calibrate a continuous monitoring system for measuring the opacity of emissions (COMS), and record the output of the system, following the procedures under 40 CFR 60.13 and 40 CFR pt. 60, Appendix B. Opacity Standards apply at all times, except during periods of startup, shutdown or malfunction.</p>	<p>40 CFR 60.48b(a), and Minn. R. 7011.0565; and 40 CFR 60.13, and Minn. R. 7017.1010 subp. 1. 40 CFR 60.43b(g)</p>
<p>Initial compliance demonstration by conducting a performance evaluation of Permittee's continuous emission monitoring system for carbon monoxide according to 40 CFR Section 63.7525(a).</p>	<p>40 CFR Section 63.7510(c)</p>
<p>Initial Performance Test: due 180 days after Startup of the source. Demonstrate Initial Compliance with applicable emission limits and work practice standards. Conduct all applicable performance tests according to 40 CFR Section 63.7520 on an annual basis, unless the Permittee follows the requirements listed in paragraphs (b) through (d) of 40 CFR Section 63.7515.</p>	<p>40 CFR Section 63.7510(b) and (g); 40 CFR Section 63.7515(a)</p>
<p>Continuous Compliance Requirements: The Permittee must monitor and collect data according to 40 CFR Section 63.7535. The Permittee must demonstrate continuous compliance with each emission limit, operating limit, and applicable work practice standard in Table 1 of Subpart DDDDD according to methods specified in Table 8 to Subpart DDDDD and paragraphs (a)(1) through (10) of 40 CFR Section 63.7540. Carbon Monoxide Monitoring per 40 CFR Section 63.7535(a)(10)(i) through (iii).</p>	<p>40 CFR Section 63.7535 and Section 63.7540</p>
<p>RECORDKEEPING AND REPORTING</p>	<p>hdr</p>
<p>Recordkeeping of Amount of Fuel Used and NOx Concentration: To show compliance with the NOx emissions limit based on a 365-day rolling sum, the Permittee shall 1) record the type and amount of fuel used at this emission unit; 2) record NOx concentration of each fuel on a daily basis; and 3) calculate and record the 365-day rolling sum of NOx emissions, using 40 CFR Appendix A, Method 19 (Determination of Nitrogen Oxides Emission Rates). The calculation methodology shown in 40 CFR Appendix A, Method 19 may be used for computing CO emissions.</p>	<p>Title I Condition: Recordkeeping for limit to avoid classification as major modification under 40 CFR 52.21, and Minn. R. 7007.3000; 40 CFR Part 60, App. A, Meth. 19; Minn. R. 7007.0800, subp. 5</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/13/05

Facility Name: 3M - Administrative Offices - Maplewood

Permit Number: 12300694 - 003

<p>Recordkeeping of Amount and Type of Fuel Used:</p> <p>To show compliance with the PM, PM10, and SO2 emissions limit based on a 365-day rolling sum, the Permittee shall</p> <ol style="list-style-type: none"> 1) record the type and amount of fuel used at this emission unit; and 2) calculate and record the 365-day rolling sum of PM, PM10, and SO2 emissions, using the EPA AP-42 emission factors, or other factors approved by the Commissioner. 	<p>Title I Condition: Recordkeeping for limit to avoid classification as major modification under 40 CFR 52.21, and Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 5</p>
<p>Using purchase receipts and/or a fuel meter, record the type and amount of fuel used (and the combined heat input in MMBtu) for each calendar month by the 15th of the following month. In addition, daily record the amount of No. 2 fuel oil used and calculate and record the 365-day rolling sum.</p>	<p>Title I Condition: Recordkeeping for limit to avoid classification as major modification under 40 CFR 52.21, and Minn. R. 7007.3000</p>
<p>The Permittee must submit all of the notifications in 40 CFR Section 63.7(b) and (c), 40 CFR Section 63.8(e), (f)(4) and (6), 63.9(b) through (h) that are applicable by the dates specified.</p>	<p>40 CFR Section 63.7545(a)</p>
<p>Reporting:</p> <p>Submit each report in Table 9 to Subpart DDDDD that is applicable.</p>	<p>40 CFR Sections 63.7550</p>
<p>The Permittee must keep records according to paragraphs (a)(1) through (3) of 40 CFR Section 63.7555.</p> <p>For each CEMS and COMS, the Permittee must keep records according to paragraphs (b)(1) through (5) of 40 CFR Section 63.7555.</p> <p>Keep records required in Table 8 to Subpart DDDDD.</p> <p>Keep records in paragraphs (d)(1) through (5) of 40 CFR Section 63.7555.</p> <p>Keep records in paragraphs (e)(1) and (2) of 40 CFR Section 63.7555.</p>	<p>40 CFR Sections 63.7555</p>
<p>EU 043 records must be in a form suitable and readily available for expeditious review, according to 40 CFR Section 63.10(b)(1).</p> <p>The Permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.</p> <p>The Permittee must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR Section 63.10(b)(1). The Permittee can keep the records offsite for the remaining 3 years.</p>	<p>40 CFR Section 63.7560</p>
<p>Record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for natural gas and very low sulfur oil for the reporting period on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month by the 30th of the following month.</p>	<p>40 CFR 60.49b(d), and Minn. R. 7011.0565</p>
<p>For NOx emissions, maintain records of the following for each steam generating unit operating day:</p> <ol style="list-style-type: none"> (1) Calendar date. (2) Average hourly NOx emission rates (expressed as NO2) in lb/million Btu heat input measured. (3) The 30-day average NOx emission rates in lb/million Btu heat input calculated at the end of each steam generating unit operating day from the measured hourly NOx emission rates from the preceding 30 steam generating unit operating days. (4) Identification of the steam generating unit operating days when the calculated 30-day average NOx emission rates are in excess of the NOx limit under 40 CFR Section 60.44b, with the reasons for excess emissions as well as a description of corrective actions taken. (5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken. <p>(continued)</p>	<p>40 CFR 60.49b(g), and Minn. R. 7011.0565; and 40 CFR 60.13 (including Appendices B and F), and Minn. R. 7017.1010 subp. 1</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/13/05

Facility Name: 3M - Administrative Offices - Maplewood

Permit Number: 12300694 - 003

(continued) (6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data. (7) Identification of "F" factor used for calculations, method of determination, and the type of fuel combusted. (8) Identification of the times when the pollutant concentration exceeded full span of the CEMS. (9) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3. (10) Results of the daily CEMS drift tests and quarterly accuracy assessments as required under 40 CFR 60 Appendix F, Procedure 1.	(continued) 40 CFR 60.49b(g), and Minn. R. 7011.0565; and 40 CFR 60.13 (including Appendices B and F), and Minn. R. 7017.1010 subp. 1
Maintain records of opacity (COMS Data).	40 CFR 60.49b(f), and Minn. R. 7011.0565
Option for electronic submittal of Excess Emissions/Downtime Reports (EERs): Due 30 days after end of each calendar quarter following receipt of written MPCA approval in response to a written request to submit quarterly electronic reports for NOx and/or opacity as an alternative to written EERs on boiler (accompanied by a certification indicating whether compliance with the applicable emission standards and minimum data requirements in 40 CFR subp. Db was achieved during the reporting period). Before submitting reports in the electronic format, the Permittee shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format.	40 CFR 60.49b(v), and Minn. R. 7011.0565
NOx CEMS REQUIREMENTS - Per NSPS Subpart Db	hdr
Installation Notification: due 60 days before installing the continuous emissions monitoring system for NOx CEMS. The notification shall include plans and drawings of the system.	Minn. R. 7017.1040, subp. 1
Continuous Operation: NOx CEMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, 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 as listed in Items A, B, C and D of Minn. R. 7017.1090, subp. 2.	40 CFR Section 60.13(e), and Minn. R. 7017.1090, subp. 1
Comply with the provisions of 40 CFR pt. 60, subp. Db with respect to NOx CEMS operation. When NOx emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, obtain data using standby monitoring systems or other approved reference methods to provide data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.	40 CFR 60.48b (b), (c), (d), (e)(2), (e)(3), (f), and (g)(1), and Minn. R. 7011.0565
CEM Certification Test: due 60 days after achieving maximum capacity (for NOx CEMS) but not later than 180 days after initial startup.	40 CFR Section 60.13(b)
CEM Certification Test Pretest Meeting: due 7 days before CEM Certification Test (for NOx CEMS).	Minn. R. 7017.1060, subp. 3
QA Plan: Develop and implement a written quality assurance plan that covers each CEMS (for NOx 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 Part 60, Appendix F, Section 3.	Minn. R. 7017.1170, subp. 2; 40 CFR Part 60, Appendix F, Section 3
CEMS Quality Assurance/Quality Control (QA/QC): Operate the NOx CEMS according to the performance specifications listed in 40 CFR Part 60, Appendix B, and operate, calibrate, and maintain the CEMS according to the QA/QC procedures in 40 CFR Part 60, Appendix F, as amended, and maintain a written QA/QC plan available in a form suitable for inspection.	40 CFR Section 60.13(a) and 40 CFR pt. 60, Appendices B and F, and Minn. R. 7017.1010, subp. 1
CEMS Relative Accuracy Test Audit (RATA): due before end of each calendar year following CEM Certification Test (for NOx CEMS). Follow the procedures in 40 CFR Part 60, Appendix F.	40 CFR pt. 60, Appendix F, section 5.1.1; and Minn. R. 7017.1170, subp. 5
NOx 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 Section 60.13(d)(1), and 40 CFR pt. 60, Appendix F, section 4.1; and Minn. R. 7017.1170, subp. 3
CEMS Cylinder Gas Audit (CGA): due before end of each calendar quarter following CEM Certification Test (for NOx CEMS). A CGA is not required during any calendar quarter in which a RATA was performed.	40 CFR pt. 60, Appendix F, section 5.1.2; and Minn. R. 7017.1170, subp. 4
Recordkeeping: The owner or operator must retain records of all NOx 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 60.49b(f), and Minn. R. 7017.1130

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/13/05

Facility Name: 3M - Administrative Offices - Maplewood

Permit Number: 12300694 - 003

Records of Startup, Shutdown, or Malfunction: Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.	40 CFR Section 60.7(b)
CO CEMS REQUIREMENTS - Per NESHAP Subpart DDDDD	hdr
Installation Notification: due 60 days before installing the CO continuous emissions monitoring system. The notification shall include plans and drawings of the system.	DUPLICATE (1) Minn. R. 7017.1040, subp. 1
CEM Certification Test: due 60 days after achieving maximum capacity (for CO CEMS) but not later than 180 days after initial startup. Follow the procedures in 40 CFR Part 60, Appendix B.	40 CFR Section 63.8(e)
CEM Certification Test Pretest Meeting: due 7 days before CEM Certification Test (for CO CEMS).	Minn. R. 7017.2030, subp. 4
QA Plan: Develop and implement a written quality assurance plan that covers each CO 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 Part 60, Appendix F, Section 3.	Minn. R. 7017.1170, subp. 2
CEMS Relative Accuracy Test Audit (RATA): due before end of each year following CEM Certification Test (for CO CEMS). If the relative accuracy is 15% or less the next CEMS RATA is not due for 24 months. Follow the procedures in 40 CFR Part 60, Appendix B and Appendix F.	Minn. R. 7017.1170, subp. 5
CEMS Cylinder Gas Audit (CGA): due before end of each calendar half-year following CEM Certification Test for CO CEMS. Conduct CGA at least 3 months apart and not greater than 8 months apart. If a RATA is performed during the calendar half-year the CGA is not required. Follow the procedures in 40 CFR pt. 60, Appendix F.	Minn. R. 7017.1170, subp. 4
Startup, Shutdown and Malfunction Plan: Develop and implement a written startup, shutdown, and malfunction plan which complies with 40 CFR Section 63.6(e)(3).	40 CFR Section 63.6(e)(3)
Repair or Replacement Report: Due semiannually if facility followed the malfunction plan; or due within 24 hours after commencing actions inconsistent with the plan with a follow-up report due within 2 weeks after commencing action which contains information listed in 40 CFR Section 63.8(c)(ii).	40 CFR Section 63.8(c)
Q&M of CO CEMS/COMS: The Permittee shall ensure the immediate repair or replacement of parts to correct routine or predictable malfunctions as defined in the source's startup, shutdown, and malfunction plan. If the plan is followed and the monitor is repaired immediately, this action shall be reported in the source's semiannual startup, shutdown, and malfunction report. Those malfunctions which are not addressed in the plan shall be reported within 24 hours after commencing actions inconsistent with the plan.	40 CFR Section 63.8(c)(1)
CO CEMS Installation: Install CEMS such that representative measurements of emissions or process parameters from the source are obtained. In addition the CEMS shall be located according to procedures contained in the applicable performance specifications of 40 CFR Part 60, Appendix B.	40 CFR Section 63.8(c)(2)
Continuous Operation: CO CEMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, 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 as listed in Items A, B, C and D of Minn. R. 7017.1090, subp. 2	40 CFR Section 63.8(c)(4); Minn. R. 7017.1090
CO CEMS Daily Calibration Drift (CD) Test: The CD shall be quantified and recorded at zero (low level) and upscale (high level) gas concentrations at least once daily. The CEMS shall be adjusted whenever the CD exceeds the specification of 40 CFR Part 60, Appendix B. 40 CFR Part 60, Appendix F shall be used to determine out-of-control periods for CEMS.	40 CFR Section 63.8(c)(6); Minn. R. 7017.1170, subp. 3
CO CEMS Quality Control Program: The Permittee shall develop and implement a CEMS quality control program and keep record of such procedures onsite. The program shall follow the procedures of 40 CFR Part 60, Appendix F.	40 CFR Section 63.8(d)
Recordkeeping: The Permittee must retain records of all CO 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.	Minn. R. 7017.1170
COMS REQUIREMENTS - Per NSPS Subpart Db	hdr
Emissions Monitoring: The owner or operator shall use a COMS to measure opacity emissions from SV 043.	Minn. R. 7017.1006
Installation Notification: due 60 days before installing the continuous opacity monitoring system.	Minn. R. 7017.1040, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/13/05

Facility Name: 3M - Administrative Offices - Maplewood

Permit Number: 12300694 - 003

COMS Certification Test: due 60 days after achieving maximum capacity but not later than 180 days after initial startup.	Minn. R. 7017.1050, subp. 1; 40 CFR Section 60.8(a)
COMS Certification Test Pretest Meeting: due 7 days before COMS Certification Test	Minn. R. 7017.1060, subp. 3
Continuous Operation: COMS must be operated and data recorded during all periods of emission unit operation including periods of emission unit start-up, 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 COMS 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 as listed in Items A, B, C and D of Minn. R. 7017.1090, subp. 2.	40 CFR Section 60.13(e) and Minn. R. 7017.1010, subp. 1; and Minn. R. 7017.1090, subp. 1
COMS Quality Assurance (QA) Plan: Develop and implement a written QA plan for the COMS on the boiler. Keep the plan on site and available for inspection. The plan shall contain the written procedures listed in Minn. R. 7017.1210, subp. 1.	Minn. R. 7017.1210
COMS Daily Calibration Drift (CD) Check: The CD shall be quantified and recorded at zero (low-level) and upscale (high-level) opacity at least once daily. The COMS must be adjusted whenever the calibration drift (CD) exceeds twice the specification of PS-1 of 40 CFR pt. 60, Appendix B.	40 CFR Section 60.13(d)(2) and 40 CFR pt. 60, Appendix B; and Minn. R. 7017.1210, subp. 2
COMS Calibration Error Audit: due 30 days after end of each calendar half-year following COMS Certification Test. Conduct three point calibration error audits at least 3 months apart but no greater than 8 months apart. Filter values used shall correspond to approximately 11%, 20%, and 37% opacity.	Minn. R. 7017.1210, subp. 3
Recordkeeping: The owner or operator must retain records of all COMS 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.	Minn. R. 7017.1130
All COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data for each successive 6-minute period.	40 CFR Section 60.13(e)(1) and (h), and Minn. R. 7017.1010, subp. 1; and Minn. R. 7017.1200, subp. 1, 2, and 3

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/13/05

Facility Name: 3M - Administrative Offices - Maplewood

Permit Number: 12300694 - 003

Subject Item: EU 044 NG Boiler 278**Associated Items: SV 044 NG Boiler 278**

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.4 lbs/million Btu heat input . The Potential To Emit is 0.0072 lbs/million BTU heat input per equipment design.	Minn. R. 7011.0515, subp. 1
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0515, subp. 2
Fuels Allowed: Natural Gas only by design.	Minn.R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/13/05

Facility Name: 3M - Administrative Offices - Maplewood

Permit Number: 12300694 - 003

Subject Item: EU 045 NG Boiler 278**Associated Items: SV 045 NG Boiler 278**

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.4 lbs/million Btu heat input . The Potential To Emit is 0.0072 lbs/million BTU heat input per equipment design.	Minn. R. 7011.0515, subp. 1
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0515, subp. 2
Fuels Allowed: Natural Gas only by design.	Minn.R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/13/05

Facility Name: 3M - Administrative Offices - Maplewood

Permit Number: 12300694 - 003

Subject Item: EU 046 NG Boiler 278**Associated Items: SV 046 NG Boiler 278**

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.4 lbs/million Btu heat input . The Potential To Emit is 0.0072 lbs/million BTU heat input per equipment design.	Minn. R. 7011.0515, subp. 1
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0515, subp. 2
Fuels Allowed: Natural Gas only by design.	Minn.R. 7007.0800, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/13/05

Facility Name: 3M - Administrative Offices - Maplewood

Permit Number: 12300694 - 003

Subject Item: TK 001 No 2 Very Low Sulfur Fuel Oil

What to do	Why to do it
Recordkeeping: Maintain records showing the dimensions of the tank and an analysis showing the tank capacity. These records shall be maintained for the life of the source.	40 CFR 60.116b(a) and (b), and Minn. R. 7011.1520(C)

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/13/05

Facility Name: 3M - Administrative Offices - Maplewood

Permit Number: 12300694 - 003

Subject Item: TK 002 Gasoline (Unleaded)

What to do	Why to do it
Equip tank with a permanent submerged fill pipe.	Minn. R. 7011.1505, subp. 3(B)

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/13/05

Facility Name: 3M - Administrative Offices - Maplewood

Permit Number: 12300694 - 003

Subject Item: TK 003 Gasoline (Unleaded)

What to do	Why to do it
Equip tank with a permanent submerged fill pipe.	Minn. R. 7011.1505, subp. 3(B)

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/13/05

Facility Name: 3M - Administrative Offices - Maplewood

Permit Number: 12300694 - 003

Subject Item: TK 004 No 2 Very Low Sulfur Fuel Oil

What to do	Why to do it
Submit a written notification within 30 days after installing tank	Minn. R. 7007.0800, subp. 2
Recordkeeping: Maintain records showing the dimensions of the tank and an analysis showing the tank capacity. These records shall be maintained for the life of the source.	40 CFR 60.116b(a) and (b), and Minn. R. 7011.1520(C)

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/13/05

Facility Name: 3M - Administrative Offices - Maplewood

Permit Number: 12300694 - 003

Subject Item: TK 005 Diesel Fuel

What to do	Why to do it
Submit a written notification within 30 days after installing tank	Minn. R. 7007.0800, subp. 2
Equip tank with a permanent submerged fill pipe.	Minn. R. 7011.1505, subp. 3(B)

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/13/05

Facility Name: 3M - Administrative Offices - Maplewood

Permit Number: 12300694 - 003

Subject Item: TK 006 No 2 Very Low Sulfur Fuel Oil

What to do	Why to do it
Recordkeeping: Maintain records showing the dimensions of the tank and an analysis showing the tank capacity. These records shall be maintained for the life of the source.	40 CFR 60.116b(a) and (b), and Minn. R. 7011.1520(C)

TABLE B: SUBMITTALS

09/13/05

Facility Name: 3M - Administrative Offices - Maplewood
Permit Number: 12300694 - 003

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

09/13/05

Facility Name: 3M - Administrative Offices - Maplewood

Permit Number: 12300694 - 003

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before expiration of Existing Permit	Total Facility
CEM Certification Test Notification	due 30 days before CEM Certification Test (for CO CEMS).	EU043
CEM Certification Test Notification	due 30 days before CEM Certification Test (for NOx CEMS).	EU043
CEM Certification Test Plan	due 30 days before CEM Certification Test (for CO CEMS).	EU043
CEM Certification Test Plan	due 30 days before CEM Certification Test (for NOx CEMS).	EU043
CEM Certification Test Report - Microfiche Copy	due 105 days after CEM Certification Test (for CO CEMS).	EU043
CEM Certification Test Report - Microfiche Copy	due 105 days after CEM Certification Test (for NOx CEMS).	EU043
CEM Certification Test Report	due 45 days after CEM Certification Test (for CO CEMS).	EU043
CEM Certification Test Report	due 45 days after CEM Certification Test (for NOx CEMS).	EU043
CO CEMS Relative Accuracy Test Audit (RATA) Notification	due 30 days before CEMS Relative Accuracy Test Audit (RATA)	EU043
CO CEMS Relative Accuracy Test Audit (RATA) Results Summary	due 30 days after CEMS Relative Accuracy Test Audit (RATA)	EU043
Computer Dispersion Modeling Protocol	due 365 days after 12/19/2003 for SO ₂ , NO _x , and update PM ₁₀ emissions of the entire 3M Maplewood stationary source. 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 Computer Dispersion Modeling Protocol MPCA approval for SO ₂ , NO _x , and PM ₁₀ emissions of the entire 3M Maplewood stationary source. 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
COMS Certification Test Plan	due 30 days before COMS Certification Test	EU043
COMS Certification Test Report - Microfiche Copy	due 105 days after COMS Certification Test	EU043
COMS Certification Test Report	due 45 days after COMS Certification Test	EU043
Initial Compliance Status Report	due 60 days after Initial Performance Test and/or other initial compliance demonstrations according to 40 CFR Section 63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (9) of 40 CFR Section 63.7545, as applicable.	EU043
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup of EU 043, as specified in 40 CFR Section 63.9(b)(4) and (b)(5).	EU043
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup, as provided by 40 CFR Section 60.7. This notification shall include items 1, 2, 3, and 4 of 40 CFR Section 60.49b(a).	EU043
Relative Accuracy Test Audit (RATA) Notification	due 30 days before CEMS Relative Accuracy Test Audit (RATA) (for NOx CEMS).	EU043
Relative Accuracy Test Audit (RATA) Notification	due 30 days before CEMS Relative Accuracy Test Audit (RATA) for NOx CEMS.	EU006
Relative Accuracy Test Audit (RATA) Results Summary	due 30 days after CEMS Relative Accuracy Test Audit (RATA) (for NOx CEMS).	EU043

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

09/13/05

Facility Name: 3M - Administrative Offices - Maplewood

Permit Number: 12300694 - 003

Relative Accuracy Test Audit (RATA) Results Summary	due 30 days after CEMS Relative Accuracy Test Audit (RATA) for NOx CEMS.	EU006
Submittal	due 120 days after 11/12/2004, Initial Notification for 40 CFR 63, Subpart DDDDD. Submittal must include applicable information from 40 CFR Section 63.7545(b)(1) and (2).	EU006

TABLE B: RECURRENT SUBMITTALS

09/13/05

Facility Name: 3M - Administrative Offices - Maplewood

Permit Number: 12300694 - 003

What to send	When to send	Portion of Facility Affected
Cylinder Gas Audit (CGA) Results Summary	due 30 days after end of each calendar quarter following CEMS Cylinder Gas Audit (CGA) (for NOx CEMS).	EU043
Excess Emissions/Downtime Reports (EER's)	due 30 days after end of each calendar quarter following Initial Startup of the Monitor on boiler for NOx. Excess emissions are defined as any calculated 30-day rolling average NOx emission rate which exceeds the NOx limit. Include in the reports the information (described in permit Table A) recorded per 40 CFR 60.49b(g). The EER shall indicate all periods of monitor bypass and all periods of exceedances of the limit, including exceedances allowed by an applicable standard (e.g., during startup, shutdown, and malfunctions).	EU006, EU043
Excess Emissions/Downtime Reports (EER's)	due 30 days after end of each calendar quarter following Initial Startup of the Monitor on boiler for opacity. Excess emissions are defined as all 6-minute periods during which the average opacity exceeds the opacity limit. The EER shall indicate all periods of monitor bypass and all periods of exceedances of the limit, including exceedances allowed by an applicable standard (e.g., during startup, shutdown, and malfunctions).	EU006, EU043
COMS Calibration Error Audit Results Summary	due 30 days after end of each calendar half-year following COMS Calibration Error Audit (that is, 30 days after end of calendar quarter in which the audit occurred, which are done semiannually on boiler COMS)	EU006
COMS Calibration Error Audit Results Summary	due 30 days after end of each calendar half-year following COMS Calibration Error Audit (that is, 30 days after end of calendar quarter in which the audit occurred, which are done semiannually on boiler COMS)	EU043
Cylinder Gas Audit (CGA) Results Summary	due 30 days after end of each calendar half-year following CEMS Cylinder Gas Audit (CGA) (for CO CEMS).	EU043
Cylinder Gas Audit (CGA) Results Summary	due 30 days after end of each calendar half-year following CEMS Cylinder Gas Audit (CGA) for NOx CEMS.	EU006
Semiannual Deviations Report	due 30 days after end of each calendar half-year starting 12/19/2003 . The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. If no deviations have occurred, the Permittee shall submit the report stating no deviations.	Total Facility
Compliance Certification	due 31 days after end of each calendar year starting 12/19/2003 (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
Equipment List	due 30 days after end of each year following Start Of Construction of EU 044, EU 045, and EU 046. The Permittee shall submit the emission unit information required on MPCA permit application forms GI-04 and GI-05B.	Total Facility

TECHNICAL SUPPORT DOCUMENT
For
PROPOSED AIR EMISSION PERMIT NO. 12300694-003

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:

Stationary Source (SIC Code: 2672)	Owner and Operator Address
3M - Administrative Offices - Maplewood I-94 & McKnight Road Maplewood, MN 55144 Ramsey County	3M Company 3M Building 42-2E-27 P.O. Box 33331 St. Paul, MN 55133-3331
	Contact: Tina Mumm (651) 778-5036

1.2. Description of the Permit Action

This facility was issued a Part 70 total facility operating permit under Minn. R. ch. 7007, and only covers part of the defined stationary source (as described below). **The stationary source is an existing facility that is major for all air quality programs.** (The research and development functions at the site (AQ File No. 23E) are covered by a separate Part 70 permit (12300015-005) for administrative reasons.)

The 3M facility at this location is one stationary source under New Source Review (NSR) and the Part 70 Operating Permit Program, but is covered by two separate permits: the research and development complex (R&D facility) covered by the previously issued Part 70 permit, and the Administrative Offices covered by this permit (see also Attachment 4 of the TSD for the previously issued R&D Part 70 permit that provides further explanation of the stationary source definition). In addition, the site is considered one stationary source under the National Emissions Standards for Hazardous Air Pollutants for Source Categories (NESHAPs) in 40 CFR pt. 63.

The center occupies approximately 425 acres in Maplewood, consists of approximately 44 buildings. The emissions units in the Administrative Offices portion of the 3M Center include boilers, emergency generators, above and below ground fuel tanks supporting these units, and insignificant activities other than those associated with Research and Development operations, which are covered by Permit No. 12300015.

1.3 Description of the Activities Allowed by this Permit Action

This permit action is a minor amendment. 3M will install three residential boilers and one emergency generator at a new administration building (Building 278) at 3M Center. The three residential boilers are single fuel natural gas each rated at a capacity of 2.00 MMBTU/hr.

1.4. Facility Emissions:

Table 1. Non-Title I Emissions Increase Summary

Pollutant	After Change (lb/hr)	Before Change (lb/hr)	Net Change (lb/hr)	Insignificant Modification Thresholds (lb/hr <)	Minor and Moderate Amendment Thresholds (lb/hr < or ≥)	Type of Amendment (Minor or Moderate)
PM ₁₀	0.30	0	0.30	0.855	3.42	Insignificant
NO _x	4.20	0	4.20	2.28	9.13	Minor
SO ₂	0.24	0	0.24	2.28	9.13	Insignificant
CO	1.28	0	1.28	5.70	22.80	Insignificant
VOC	0.33	0	0.33	2.28	9.13	Insignificant
Lead	N/A	N/A	N/A	0.025	0.11	N/A

Table 3. Total Facility Potential to Emit Summary

	PM tpy	PM ₁₀ tpy	SO ₂ tpy	NO _x tpy	CO tpy	VOC tpy	Single HAP tpy	All HAPs tpy
Modification Limited Emissions	0.30	0.30	0.24	4.20	1.28	0.33	N/A	N/A

Table 4. 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

The facility is an existing major source under New Source Review regulations. This permit action is a minor amendment.

Part 70 Permit Program

The facility is a major source under the Part 70 permit program.

New Source Performance Standards (NSPS)

There are no New Source Performance Standards applicable to this permit modification.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

No new NESHAPS apply to this permit action.

EAW/EIS

EAW/EIS is not applicable to this permit action.

Minnesota State Rules

The new equipment is subject to portions of the facility are subject to the following Minnesota Standards of Performance:

- Minn. R. 7011.0515 Standards of Performance for New Indirect Heating Equipment
- Minn. R. 7011.2300 Standards of Performance for Stationary Internal Combustion Engines

Table 5. Regulatory Overview of Units Affected by the Modification/Permit Amendment

EU, GP, or SV	Applicable Regulations	Comments:
EU 047/ GP 002	Minn. R. 7007.0800, subp. 4 and 5	Limits hours of operation of emergency generator to 500 hours per year.
EU 047/ GP 002	Minn. R. 7005.0100, subp. 35a	Limits fuel type to No. 2 fuel only by design.
EU 044/ EU 045/ EU 046	Minn. R. 7007.0800, subp. 2	Limits fuel type to Natural Gas only by design.

3. Technical Information

3.1 Emissions Increase Analysis

A spreadsheet calculating the emissions increase is attached. The modification qualifies as an insignificant modification for all pollutants except NOx.

3.2 Periodic Monitoring

There are no additional monitoring requirements associated with this permit action.

3.3 EPA Review Period

EPA 45-day Review Period: July 27, 2005 – September 8, 2005

The proposed permit was sent to EPA for their 45-day review on July 27, 2005. Comments were not received from EPA during their review period. No changes have been made to the permit.

4. Conclusion

Based on the information provided by 3M – Administrative Offices – Maplewood, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 12300694-003 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)
 Bob Berg (enforcement)
 John Chikkala (peer reviewer)

Attachments: 1. Emissions Increase Calculation Spreadsheet
 2. Facility Description and CD-01 Forms