

**Attachment 3: Copy of Joint Title I/Title V Document - Title I SIP Conditions Only**

**AIR EMISSION PERMIT NO. 10900011- 004**

**IS ISSUED TO**

Rochester Public Utilities

**ROCHESTER PUBLIC UTILITIES - SILVER LAKE**

425 West Silver Lake Drive Northeast  
Rochester, Olmsted County, MN 55906

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 Issuance Date
Total Facility Operating Permit	September 15, 1995	July 22, 1997
Major Amendment	December 23, 1997	March 5, 1999
Major Amendment	March 17, 2003	October 1, 2004
Total Facility Operating Permit – Reissuance, incorporates Major and Administrative Amendment	January 24, 2002	See below

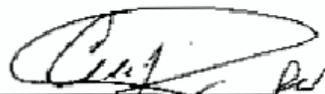
This permit supersedes Air Emissions Permit Nos. 10900011-001, 002 and 003 and authorizes the Permittee to modify and operate the stationary source at the address listed above unless otherwise noted in Table A. The Permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Any additions or changes to conditions incorporated into Minnesota’s State Implementation Plan (SIP) under 40 CFR § 52.1220, designated “Title I Conditions: State Implementation Plan (SIP) for SO<sub>2</sub> or PM<sub>10</sub>” must go through the federal SIP approval process. Terms used in the permit are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

Unless otherwise indicated, all Minnesota rules cited as the origin of the permit terms are incorporated into the SIP under 40 CFR § 52.1220 and as such are enforceable by U.S. Environmental Protection Agency (EPA) Administrator or citizens under the Clean Air Act.

**Permit Type:** Federal; Pt 70/Includes Existing NSR Conditions, Title I SIP Conditions and Phase II Acid Rain

**Issue Date:** September 7, 2007

**Expiration:** September 7, 2012  
All Title I Conditions do not expire.

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

for Brad Moore  
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:**

This permit is a Joint Title I/Title V Operating Permit Reissuance, as it includes non-expiring Title I Conditions to implement the State Implementation Plan (SIP) pursuant to 40 CFR § 50; 40 CFR § 51; 40 CFR § 52.1220; Minn. R. 7007.0100, subp. 25(B); Minn. R. 7007.0450, subp. 2 and Minn. R. 7007.1050, subp. 4.

The facility is an existing electric generating station having a total generating capacity of approximately 100 megawatts (MWe). The largest of the four boilers has a generating capacity of approximately 60 MWe.

The primary fuels fired in the facility's four boilers are bituminous coal and natural gas. All four boilers are pulverized coal-fired, dry-bottom boilers. Boiler Nos. 1 through 3 use multicyclones in series with electrostatic precipitators for particulate control. Boiler No. 4 uses only an electrostatic precipitator for control. Boiler Nos. 1, 2, 3, and 4 were constructed in 1949, 1952, 1962, and 1969, respectively. Other emission sources include a natural gas fired steam heating boiler, coal handling and storage facilities. Boiler No. 1 (emission unit 001 or EU 001) and Boiler No. 2 (EU 002) vent to stack SV 001, Boiler No. 3 (EU 003) vents to stack SV 002 and Boiler No. 4 vents to stack SV 003.

The Federal Compliance Assurance Monitoring (CAM) Rule (40 CFR Part 64) requires RPU to design and implement monitoring which provides a reasonable assurance of compliance with the particulate matter emission limits for Boilers 1, 2, 3 and 4. The requirements of RPU's monitoring plan and general requirements of the CAM rule are included in the permit.

This permit action authorizes the construction of an Emission Reduction Project (ERP) at the Silver Lake Plant. The ERP will involve installation on EU004 of 1) a dry scrubber designed to reduce SO<sub>2</sub> emissions by 85 percent, 2) NO<sub>x</sub> control technology, and 3) a fabric filter for enhanced control of PM and PM<sub>10</sub> (this will replace the ESP). The ERP also includes construction of additional ash and lime storage/handling facilities. Emissions from each combustor are continuously monitored for Sulfur Dioxide (SO<sub>2</sub>) and opacity. EU004 also includes continuous monitors for Nitrogen Oxides (NO<sub>x</sub>). This permit action includes limits to avoid the Federal New Source Review Prevention of Significant Deterioration (40 CFR § 52.21) for CO. Performance testing is required for PM<sub>10</sub> and CO emissions.

The facility is subject to SIP conditions to ensure that Olmsted County maintains attainment of the NAAQS for SO<sub>2</sub> and PM<sub>10</sub>. Conditions to be incorporated into Minnesota's SIP are cited in the permit as "Title I Condition: SIP for SO<sub>2</sub>" or "Title I Condition: SIP for PM<sub>10</sub>." This SIP revision makes changes only to the SIP conditions for SO<sub>2</sub>. MPCA has determined that, due to changes in modeling protocol, the current SIP conditions for this facility result in modeled non-attainment of the SO<sub>2</sub> NAAQS. Therefore, the proposed SIP revision includes the addition of stricter SO<sub>2</sub> limits on all existing boilers and allows for the operation of pollution control equipment on Unit 4. The new SIP conditions still result in modeled non-attainment under certain conditions and at certain elevated receptors. Therefore, the SIP revision also includes a requirement for RPU to submit a plan and a permit application for further emission reductions that result in modeled compliance at all receptors. Because the proposed changes to the SIP conditions overall result in lower emissions and lower ambient air concentrations of SO<sub>2</sub>, MPCA believes this SIP revision represents reasonable further progress towards modeled attainment of the NAAQS in Olmsted County.

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: Rochester Public Utilities - Silver Lake

Permit Number: 10900011 - 004

**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
SIP CONDITIONS	hdr
State Implementation Plan Recordkeeping: Retain all records at the stationary source or at the RPU-Service Center Facility (4000 E. River Road NE) for a period of five (5) years from the date of the required monitoring, sample, measurement, or report that corresponds with a "Title I Condition: State Implementation Plan for SO2 NAAQS..." requirement.	Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y
Permanent Records for SIP: The Permittee shall permanently maintain the following information together with all amendments, revisions, and modifications to this information: 1. The Permittee shall maintain a file or files of information on the design, construction and operation of each emission facility, emission source, stack, structures pertinent to modeling for downwash, and any other information required to conduct SO2 ambient air quality modeling of emissions from the facility. 2. The Permittee shall maintain a file at the facility which includes all SO2 emission compliance demonstration plans which upon approval by the MPCA or EPA become integral and enforceable parts of the SIP.  [This requirement will be incorporated as a SIP Condition at 40 CFR Section 52.1220 on the date EPA approves the revisions into the SIP.]	Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y
Deviations from requirements cited as "Title I Condition: State Implementation Plan for SO2 NAAQS..." shall be reported semiannually with the Semiannual Deviations Report required by this permit. Reporting for these conditions shall occur even if there were no deviations for the reporting period.	Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y
Reporting: The Permittee may undertake certain changes to the facility without obtaining a modification to the SIP. However, if the Permittee does make a change, and if the change in any way affects SO2 emissions (changes the amount or the concentration, velocity, direction, or location of SO2 emissions in a manner that is not consistent with the scenarios modeled for the SIP analysis) the Permittee shall notify the Commissioner prior to undertaking the change. The notification shall describe the change and why it does not require a modification of the SIP.  [This requirement will be incorporated as a SIP Condition at 40 CFR Section 52.1220 on the date EPA approves the revisions into the SIP.]	Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y
Changes NOT Requiring a Modification to the SIP:  The Permittee is authorized to make changes to the facility in compliance with Minnesota air permit rules and without obtaining a modification to the SIP as long as the change does not increase, from any emission point, the SO2 emission rates (in lb/hr) allowed by this permit or overall SO2 emissions or adversely affect the conditions assumed in the air dispersion scenarios modeled for the SIP analysis. The dispersion modeling parameters for the worst-case scenario are described in an appendix to this permit, and form the basis of the SO2 modeling.  [This requirement will be incorporated as a SIP Condition at 40 CFR Section 52.1220 on the date EPA approves the revisions into the SIP.]	Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y
Remodeling for Attainment Demonstration:  Before making any physical changes or changes to the method of operation which may adversely affect the conditions assumed in the air dispersion scenarios modeled for the SIP analysis (worst-case scenario listed in an appendix to this permit), the Permittee shall demonstrate to the MPCA the SO2 plume dispersion characteristics following the physical change or change characteristics modeled using the parameters in the permit appendix. The information submitted must include, at a minimum, the locations, heights and diameters of the stacks, locations and dimensions of nearby buildings, the velocity and temperatures of the gases emitted, and the emission rates of SO2.  [This requirement will be incorporated as a SIP Condition at 40 CFR Section 52.1220 on the date EPA approves the revisions into the SIP.]	Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: Rochester Public Utilities - Silver Lake

Permit Number: 10900011 - 004

<p>Activities Requiring a Modification to the SIP:</p> <p>Activities requiring a modification of the SIP prior to the Permittee commencing the activity include, but are not limited to, the following:</p> <ol style="list-style-type: none"> <li>1. Any change to stack emissions exit velocity and/or exit temperature which may adversely affect the conditions assumed in the air dispersion scenarios modeled for the SIP analysis;</li> <li>2. Any change to the exit point heat content of stack emissions which may adversely affect the conditions assumed in the air dispersion scenarios modeled for the SIP analysis;</li> <li>3. Any reduction to stack height below that contained in the appendix to this permit.</li> <li>4. Any increase in stack exit diameter above that contained in the appendix to this permit; and</li> <li>5. Any construction or modification of structures that increase the effective structural dimensions.</li> </ol> <p>[This requirement will be incorporated as a SIP Condition at 40 CFR Section 52.1220 on the date EPA approves the revisions into the SIP.]</p>	<p>Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y</p>
<p>General Operation and Maintenance Requirements for the SIP: The Permittee shall operate and maintain the process and control equipment in a manner that does not adversely affect the dispersion scenarios and parameters modeled for the SIP analysis (worst case scenario is listed in Appendix B).</p> <p>[This requirement will be incorporated as a SIP Condition at 40 CFR Section 52.1220 on the date EPA approves the revisions into the SIP.]</p>	<p>Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y</p>
<p><b>SOURCE-SPECIFIC REQUIREMENTS</b></p>	<p>hdr</p>
<p>Operation of EU004 with CE008 and CE009 (EU004 subsequent to construction of Emission Reduction Project) is authorized under the following condition:</p> <p>A complete permit application that provides for a mechanism to achieve modeled compliance with the NAAQS and MAAQS has been received, and acknowledged via electronic mail or letter, by the Commissioner. The permit application must include the appropriate modeling runs to support the proposal.</p> <p>The application is due 30 days before initial startup of EU004 with CE008 and CE009.</p>	<p>Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y</p>
<p>Submittal of Permit Application: due 30 days before Initial Startup of EU004 with CE008 and CE009. The application is part of the compliance plan for achieving compliance with the NAAQS. The Permittee shall submit a complete permit application which contains a specific proposal for changes which will result in modeled compliance with the NAAQS. The permit application must include the appropriate modeling runs to support the proposal.</p>	<p>Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y</p>
<p><b>COMPLIANCE ASSURANCE MONITORING (CAM)</b> Operation of Approved Monitoring and Recordkeeping/Report Requirements</p>	<p>hdr</p>
	<p>hdr</p>

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: Rochester Public Utilities - Silver Lake

Permit Number: 10900011 - 004

REPORTING/SUBMITTALS	hdr
<p>Semiannual Deviations Report: due 30 days after end of each calendar half-year following Permit Issuance. The first report covers January 1 - June 30, which is due by July 30 of each year. The second report covers July 1 - December 31, which is due by January 30 of each year. The report may be submitted quarterly at the option of the permittee. This report shall list deviations from all permit terms, including exceedances (not only those corresponding to Title I conditions). If no deviations have occurred, the Permittee shall submit the report stating no deviations. The report shall be submitted on a form approved by the Commissioner.</p>	<p>Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y; Minn. R. 7007.0800, subp. 6(A)(2)</p>

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: Rochester Public Utilities - Silver Lake

Permit Number: 10900011 - 004

**Subject Item: GP 001 Boilers 1,2,3, and 4**

- Associated Items:**
- EU 001 Boiler, Unit # 1
  - EU 002 Boiler, Unit #2
  - EU 003 Boiler, Unit #3
  - EU 004 Boiler, Unit #4
  - SV 001 Boilers #1 & #2 Stack
  - SV 002 Boiler #3 Stack
  - SV 003 Boiler #4 Stack

What to do	Why to do it
LIMITS	hdr
<p>TACWEF Limits: For each boiler the Permittee operates at a heat input rate greater than the rate used in SO2 emissions modeling, the Permittee shall comply with a revised SO2 emission limit. The revised limit shall be determined by multiplying the 24-hour TACWEF limits and the 3-hour and 24-hour SO2 limits in this permit, by an adjustment factor calculated as shown below. If more than one boiler is operated at a heat input rate greater than the rate used during SO2 emissions modeling, the lowest of the calculated adjustment factors shall be used to modify the TACWEF limits and the 3-hour and 24-hour limits.</p> <p>Adjustment Factor = <math>\frac{\text{heat input rate during modeling}}{\text{actual heat input rate}}</math></p> <p>The factor is a dimensionless number, and heat inputs are expressed in MMBtu/hr.</p> <p>Modeling heat input rates are as follows:</p> <p>Boiler 1 - 115.5 MMBtu/hr                      Boiler 2 - 152.7 MMBtu/hr                      Boiler 3 - 284.5 MMBtu/hr                      Boiler 4 - 614.5 MMBtu/hr</p>	<p>Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y</p>
<p>TACWEF Limits: The above requirement will be terminated on the date that EPA approves this revision into the SIP at 40 CFR Section 52.1220.</p>	<p>Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y</p>
<p>Total Ambient Culpability Weighted Emission Factors (TACWEF): Using SO2 CEM data, SO2 emissions from GP001 must simultaneously comply with the following equations, on a 24-hour average basis (calendar day):</p> <p>(1) <math>0.132 \cdot F1 + 0.167 \cdot F2 + 0.281 \cdot F3 + 0.420 \cdot F4 &lt; 2.2752</math> lb/mmBtu                      (2) <math>0.235 \cdot F1 + 0.260 \cdot F2 + 0.417 \cdot F3 + 0.088 \cdot F4 &lt; 2.4164</math> lb/mmBtu                      (3) <math>0.121 \cdot F1 + 0.160 \cdot F2 + 0.288 \cdot F3 + 0.430 \cdot F4 &lt; 2.3292</math> lb/mmBtu</p> <p>where: F1, F2, F3 and F4 represent the monitored SO2 emission level of EU001, EU002, EU003 and EU004, respectively (in units of lb SO2/mmBtu) for a given monitoring cycle and the coefficients are dimensionless numbers determined from previous dispersion modeling submittals already approved by the MPCA. Note: SO2 emissions from EU001 and EU002 are measured collectively in SV001.</p> <p>[This requirement will be terminated on the date that EPA approves this revision into the SIP at 40 CFR Section 52.1220.]</p>	<p>Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y</p>
<p>Fuel Usage: less than or equal to 250000 tons/year of coal per calendar year.</p> <p>[This requirement will be incorporated as a SIP Condition at 40 CFR Section 52.1220 on the date EPA approves the revisions into the SIP.]</p>	<p>Title I Condition: SIP for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y; Title I Condition: Minn. R. 7009.0020 and 40 CFR Section 52.21(k) [State and Federal annual ambient air quality standards for SO2, PM-10 and NO2 and the ambient air increments established in 40 CFR Section 52.21(c)]</p>
<p>Fuel Usage: less than or equal to 350000 tons/year of coal per calendar year.</p> <p>[This requirement will be terminated on the date that EPA approves this revision into the SIP at 40 CFR Section 52.1220.]</p>	<p>Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y</p>
RECORDKEEPING	hdr

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: Rochester Public Utilities - Silver Lake

Permit Number: 10900011 - 004

<p>The permittee shall calculate and record each 24 hours (calendar day basis), the SO<sub>2</sub> emission value for each of the three 24-hour TACWEF equations during operation.</p> <p>[This requirement will be terminated on the date that EPA approves this revision into the SIP at 40 CFR Section 52.1220.]</p>	<p>Title I Condition: State Implementation Plan (SIP) for SO<sub>2</sub> NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y</p>

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: Rochester Public Utilities - Silver Lake

Permit Number: 10900011 - 004

**Subject Item: GP 004 CEMS and COMS required by SIP and/or State Rules**

- Associated Items:**
- EU 001 Boiler, Unit # 1
  - EU 002 Boiler, Unit #2
  - EU 003 Boiler, Unit #3
  - MR 003 O2: SV001
  - MR 006 O2: EU003
  - MR 015 SO2: SV001
  - MR 016 Opacity: EU003
  - MR 017 SO2: EU003
  - MR 023 Opacity: SV001
  - SV 001 Boilers #1 & #2 Stack
  - SV 002 Boiler #3 Stack

What to do	Why to do it
CONTINUOUS EMISSION MONITORS (CEMS) and CONTINUOUS OPACITY MONITORS (COMS) [Updated to 2007 helpfile language]	hdr
<p>Continuous Operation: CEMS must be operated and data recorded during all periods of emission unit operation when combusting solid and/or liquid fuel 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.</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>	Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y
QA Plan: Develop and implement a written quality assurance plan that covers each 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.	Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y
CEMS QA/QC: The owner or operator of an affected facility shall operate, calibrate, and maintain each CEMS according to the QA/QC procedures in 40 CFR pt. 60, Appendix F as amended except as allowed elsewhere in this permit.	Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y
CEMS/COMS Re-installation: Re-install CEMS/COMS when and if necessary, according to the procedures in Minn. Rules and procedures approved by this agency.	Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: Rochester Public Utilities - Silver Lake

Permit Number: 10900011 - 004

**Subject Item: GP 005 Boilers 1, 2 and 3**

- Associated Items:**
- EU 001 Boiler, Unit # 1
  - EU 002 Boiler, Unit #2
  - EU 003 Boiler, Unit #3
  - MR 003 O2: SV001
  - MR 006 O2: EU003
  - MR 015 SO2: SV001
  - MR 016 Opacity: EU003
  - MR 017 SO2: EU003
  - MR 023 Opacity: SV001
  - SV 001 Boilers #1 & #2 Stack
  - SV 002 Boiler #3 Stack

What to do	Why to do it
<p>Sulfur Dioxide: less than or equal to 1.90 lbs/million Btu heat input using 24-hour Block Average basis (calendar day) when any two or more boilers in GP 005 burn coal in any amount during a calendar day. When any two or more boilers in GP 005 burn coal in any amount during a calendar day, each boiler in GP 005 is subject to the emission limit listed in this condition for that 24-hour period (calendar day). The Permittee shall calculate and record, each 24 hours, the 24-hour SO2 emission value.</p> <p>The SO2 CEM on SV 001 shall be used to measure SO2 emissions from EUs 001 and 002. The SO2 CEM on SV 002 shall be used to measure SO2 emissions from EU 003.</p> <p>[This requirement will be incorporated as a SIP Condition at 40 CFR Section 52.1220 on the date that EPA approves this revision into the SIP.]</p>	<p>Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y; Title I Condition: Minn. R. 7009.0020 and 40 CFR Section 52.21(k) [State and Federal 24-hr ambient air quality standards for SO2 and the 24-hr ambient air increments for SO2 established in 40 CFR Section 52.21(c)]</p>

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: Rochester Public Utilities - Silver Lake

Permit Number: 10900011 - 004

**Subject Item: SV 001 Boilers #1 & #2 Stack**

**Associated Items:** EU 001 Boiler, Unit # 1

EU 002 Boiler, Unit #2

GP 001 Boilers 1,2,3, and 4

GP 004 CEMS and COMS required by SIP and/or State Rules

GP 005 Boilers 1, 2 and 3

MR 003 O2: SV001

MR 015 SO2: SV001

MR 023 Opacity: SV001

What to do	Why to do it
EMISSION LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 0.4 lbs/million BTU heat input	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y
Sulfur Dioxide: less than or equal to 3.2 lbs/million Btu heat input using 3-hour Block Average and 24-hour average basis (calendar day). The Permittee shall calculate and record each 3 hours and each 24 hours (calendar day basis), the 3-hour and 24-hour SO2 emission values, respectively, during operation.  [This requirement will be terminated on the date that EPA approves this revision into the SIP at 40 CFR Section 52.1220.]	Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y
Sulfur Dioxide: less than or equal to 2.30 lbs/million Btu heat input using 3-hour Block Average basis (calendar day). The Permittee shall calculate and record each 3 hours, the 3-hour SO2 emission values during operation.  [This requirement is effective upon permit issuance and will be incorporated as a SIP Condition at 40 CFR Section 52.1220 on the date EPA approves the revisions into the SIP.]	Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y; Minn. R. 7009.0020 & 40 CFR 52.21(k) [to not cause or contribute to a violation of the State and Federal 3-hr SO2 ambient air quality standards and the 3-hr ambient air increments for SO2 est. in 40 CFR 52.21(c)]
Sulfur Dioxide: less than or equal to 2.30 lbs/million Btu heat input using 24-hour Block Average basis (calendar day). The Permittee shall calculate and record each 24 hours, the 24-hour SO2 emission values during operation.  [This requirement is effective upon permit issuance and will be incorporated as a SIP Condition at 40 CFR Section 52.1220 on the date EPA approves the revisions into the SIP.]	Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y; Condition: Minn. R. 7009.0020 & 40 CFR 52.21(k) [to not cause or contribute to a violation of the State and Federal 3-hr SO2 ambient air quality standards and the 24-hr ambient air increments for SO2 est. in 40 CFR 52.21(c)]
CONTINUOUS EMISSION MONITORS (CEMS) and CONTINUOUS OPACITY MONITORS (COMS)	hdr
The Permittee shall install, maintain, calibrate and operate SO2 Continuous Emission Monitoring Systems, in accordance with 40 CFR pt. 60 Appendix B and Minn. R. 7017.1000 (Performance Specification 2), located at the common outlet breeching for EU001 and EU002. The permittee's calculations shall be used to determine compliance with the 1-hour, and 24-hour TACWEF equations.  [This requirement will be terminated on the date that EPA approves this revision into the SIP at 40 CFR Section 52.1220.]	Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: Rochester Public Utilities - Silver Lake

Permit Number: 10900011 - 004

<p>The Permittee shall install, maintain, calibrate and operate SO2 Continuous Emission Monitoring Systems, in accordance with 40 CFR pt. 60, Appendix B, as amended and Minn. R. 7017.1010 (Performance Specification 2), located at the common outlet breeching for EU001 and EU002. The SO2 CEMS shall be used to determine compliance with the SO2 limits. See GP004 for more requirements.</p> <p>[This requirement will be incorporated as a SIP condition at 40 CFR Section 52.1220 on the date that EPA approves this revision into the SIP.]</p>	<p>Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y</p>
<p>PERFORMANCE TESTING</p>	<p>hdr</p>

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: Rochester Public Utilities - Silver Lake

Permit Number: 10900011 - 004

**Subject Item: SV 002 Boiler #3 Stack**

**Associated Items:** EU 003 Boiler, Unit #3

GP 001 Boilers 1,2,3, and 4

GP 004 CEMS and COMS required by SIP and/or State Rules

GP 005 Boilers 1, 2 and 3

MR 006 O2: EU003

MR 016 Opacity: EU003

MR 017 SO2: EU003

What to do	Why to do it
EMISSION LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 0.4 lbs/million BTU heat input	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y
Sulfur Dioxide: less than or equal to 3.2 lbs/million Btu heat input using 3-hour Block Average and 24-Hour Average basis (calendar day). The Permittee shall calculate and record, each 3 hours and each 24 hours, the 3-hour and 24-hour SO2 emission values, respectively, during operation.  [This requirement will be terminated on the date that EPA approves this revision into the SIP at 40 CFR Section 52.1220.]	Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y
Sulfur Dioxide: less than or equal to 2.30 lbs/million Btu heat input using 3-hour Block Average basis (calendar day). The Permittee shall calculate and record, each 3 hours, the 3-hour SO2 emission values during operation.  [This requirement is effective upon permit issuance and will be incorporated as a SIP Condition at 40 CFR Section 52.1220 on the date EPA approves the revisions into the SIP.]	Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y; Minn. R. 7009.0020 & 40 CFR 52.21(k) [to not cause or contribute to a violation of the State and Federal 3-hr SO2 ambient air quality standards and the 3-hr ambient air increments for SO2 est. in 40 CFR 52.21(c)]
Sulfur Dioxide: less than or equal to 2.30 lbs/million Btu heat input using 24-hour Block Average basis (calendar day). The Permittee shall calculate and record each hours, the 24-hour SO2 emission values during operation.  [This requirement is effective upon permit issuance and will be incorporated as a SIP Condition at 40 CFR Section 52.1220 on the date EPA approves the revisions into the SIP.]	Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y; Minn. R. 7009.0020 & 40 CFR 52.21(k) [to not cause or contribute to a violation of the State and Federal 24-hr SO2 ambient air quality standards and the 24-hr ambient air increments for SO2 est. in 40 CFR 52.21(c)]
CONTINUOUS EMISSION MONITORS (CEMS) and CONTINUOUS OPACITY MONITORS (COMS) [Updated to 2007 helpfile language]	hdr
The Permittee shall install, maintain, calibrate and operate SO2 Continuous Emission Monitoring Systems, in accordance with 40 CFR pt. 60 Appendix B and Minn. R. 7017.1000 (Performance Specification 2), located at the common outlet breeching for EU003. See GP004 for requirements. The permittee's calculations shall be used to determine compliance with the 24-hour SO2 limits.	Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: Rochester Public Utilities - Silver Lake

Permit Number: 10900011 - 004

<p>The Permittee shall install, maintain, calibrate and operate SO2 Continuous Emission Monitoring Systems, in accordance with 40 CFR pt. 60 Appendix B and Minn. R. 7017.1000 (Performance Specification 2), located at the stack or outlet breeching for EU003. See GP004 for requirements. The permittee's calculations shall be used to determine compliance with the SO2 limits.</p> <p>[This requirement will be terminated on the date that EPA approves this revision into the SIP at 40 CFR Section 52.1220.]</p>	<p>Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y</p>
<p>PERFORMANCE TESTING</p>	<p>hdr</p>

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: Rochester Public Utilities - Silver Lake

Permit Number: 10900011 - 004

**Subject Item: SV 003 Boiler #4 Stack**

**Associated Items:** EU 004 Boiler, Unit #4

GP 001 Boilers 1,2,3, and 4

MR 018 Opacity: EU004

MR 019 SO2: EU004

MR 020 NOx: EU004

MR 021 CO2: EU004

MR 022 FLOW: EU004

What to do	Why to do it
EMISSION LIMITS	hdr
Particulate Matter < 10 micron: less than or equal to 0.4 lbs/million BTU heat input	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y
Sulfur Dioxide: less than or equal to 3.2 lbs/million Btu heat input using 3-hour Block Average and 24-Hour Average basis (calendar day). The Permittee shall calculate and record each 3 hours and each 24 hours (calendar day basis), the 3-hour and 24-hour SO2 emission values, respectively during operation.  [This requirement will be terminated on the date that EPA approves this revision into the SIP at 40 CFR Section 52.1220.]	Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y
Sulfur Dioxide: less than or equal to 2.10 lbs/million Btu heat input using 3-hour Block Average basis and 24-hour average basis (calendar day). The Permittee shall calculate and record each 3 hours and 24 hours (calendar day basis), the 3-hour and 24-hour SO2 emission values.  [This requirement is effective upon permit issuance and will be incorporated after the date that EPA approves this revision into the SIP at 40 CFR Section 52.1220 and will be terminated after commencement of operation of CE008.]	Title I Condition: SIP for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y; Minn. R. 7009.0020 & 40 CFR Section 52.21(k) [State and Federal 3-hr & 24-hr SO2 ambient air quality standards and the 3-hr & 24-hr ambient air increments for SO2 est. in 40 CFR Section 52.21(c)]
Sulfur Dioxide: less than or equal to 0.60 lbs/million Btu heat input using 3-hour Block Average basis (calendar day). The Permittee shall calculate and record, each 3 hours, the 3-hour SO2 emission values during operation.  [This requirement will be incorporated as a SIP Condition at 40 CFR Section 52.1220 on the date EPA approves the revisions into the SIP. It will become effective 180 days after commencement of operation of CE008, but no later than 7/1/2010.]	Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y; Minn. R. 7009.0020 & 40 CFR 52.21(k) [State and Federal 3-hr SO2 ambient air quality standards and the 3-hr ambient air increments for SO2 est. in 40 CFR 52.21(c)]
Sulfur Dioxide: less than or equal to 0.60 lbs/million Btu heat input using 24-hour Block Average basis (calendar day). The Permittee shall calculate and record, each 24 hours, the 24-hour SO2 emission values during operation.  [This requirement will be incorporated as a SIP Condition at 40 CFR Section 52.1220 on the date EPA approves the revisions into the SIP. It will become effective 180 days after commencement of operation of CE008, but no later than 7/1/2010.]	Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y; Minn. R. 7009.0020 & 40 CFR 52.21(k) [State and Federal 24-hr SO2 ambient air quality standards and the 24-hr ambient air increments for SO2 est. in 40 CFR 52.21(c)]

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: Rochester Public Utilities - Silver Lake

Permit Number: 10900011 - 004

CONTINUOUS EMISSIONS MONITORING SYSTEMS (CEMS)	hdr
<p>SO2 CEMS: The Permittee shall install, maintain, calibrate and operate SO2 Continuous Emission Monitoring Systems, in accordance with 40 CFR pt. 60 Appendix B and Minn. R. 7017.1000 (Performance Specification 2), located as follows:</p> <p>1) Common outlet breeching or stack for EU001 and EU002;                  2) Stack or outlet breeching for EU003; and                  3) Stack or outlet breeching for EU004.</p> <p>The permittee's calculations shall be used to determine compliance with the 24-hour TACWEF equations.</p> <p>[This requirement will be terminated on the date that EPA approves this revision into the SIP at 40 CFR Section 52.1220.]</p>	Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y
<p>SO2 CEMS: The Permittee shall install, maintain, calibrate and operate SO2 Continuous Emission Monitoring Systems, in accordance with 40 CFR pt. 75, and Minn. R. 7017.1010, subp. 1(B) - (Performance Specifications), located at the stack or outlet breeching for EU004. The Permittee shall use this SO2 CEM emissions data to determine compliance with the SO2 emission limits. Additional monitoring requirements are located under Subject Items MR018 - 022.</p> <p>[This requirement will be incorporated as a SIP Condition according to 40 CFR Section 52.1220 on the date that EPA approves this revision into the SIP.]</p>	Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y; 40 CFR Section 75.10(a)(1); Minn. R. 7017.1020
<p>Continuous Operation: 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.</p> <p>[This requirement will be incorporated as a SIP Condition according to 40 CFR Section 52.1220 on the date that EPA approves this revision into the SIP.]</p>	Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y; Minn. R. 7017.1090
<p>CEMS QA/QC: The owner or operator of an affected facility shall operate, calibrate, and maintain each CEMS according to the QA/QC procedured in 40 CFR pt. 75, Appendix B as amended, except as allowed elsewhere in this permit.</p>	Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y; 40 CFR Section 75.21
<p>Non Part 75 CEMS QA/QC: The owner or operator of an affected facility shall operate, calibrate, and maintain each CEMS according to the QA/QC procedures in 40 CFR pt. 60, Appendix F as amended except as allowed elsewhere in this permit.</p> <p>[This requirement will be terminated on the date that EPA approves this revision into the SIP at 40 CFR Section 52.1220.]</p>	Title I Condition: State Implementation Plan (SIP) for SO2 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

**A-19**

09/07/07

Facility Name: Rochester Public Utilities - Silver Lake

Permit Number: 10900011 - 004

ACID RAIN RECORDKEEPING/REPORTING/SUBMITTALS	hdr
PERFORMANCE TESTING	hdr
Performance Test: due before end of each 60 months starting 08/15/2004 to measure emissions of PM10 from SV 003. The first test required by this condition is to be completed by 8/15/2009.	Title I Condition: PM10 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y; Minn. R. 7017.2020, subp. 1; 40 CFR Section 64.6(b)

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: Rochester Public Utilities - Silver Lake

Permit Number: 10900011 - 004

**Subject Item: EU 001 Boiler, Unit # 1**

- Associated Items:**
- CE 001 Centrifugal Collector - High Efficiency
  - CE 002 Electrostatic Precipitator - High Efficiency
  - GP 001 Boilers 1,2,3, and 4
  - GP 004 CEMS and COMS required by SIP and/or State Rules
  - GP 005 Boilers 1, 2 and 3
  - MR 003 O2: SV001
  - MR 015 SO2: SV001
  - MR 023 Opacity: SV001
  - SV 001 Boilers #1 & #2 Stack

What to do	Why to do it
OPERATING LIMITS	hdr
Fuel type restriction: No types of low sulfur coal shall be combusted which have not been demonstrated capable of meeting the SV001 PM10 limitation. The Permittee is authorized to conduct coal test burning for a new coal type for a maximum of five (5) days total time with a five (5) day advance notice to the Division Manager. Once the coal test burning of the new coal type is completed, for any subsequent use of that coal the Permittee must demonstrate compliance with the PM10 limit.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y
RECORDKEEPING	hdr
OTHER REQUIREMENTS	hdr
See SV001 for Emission Limits and Performance Testing Requirements associated with EU001.	
See GP001 for SO2 and fuel usage limits associated with EU001.	
See GP003 for Industrial Boiler MACT requirements associated with EU001.	
See GP004 for CEMS/COMS Requirements associated with EU001.	
See CE002 for ESP Requirements associated with EU001.	

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

A-22

09/07/07

Facility Name: Rochester Public Utilities - Silver Lake

Permit Number: 10900011 - 004

**Subject Item: EU 002 Boiler, Unit #2**

- Associated Items:**
- CE 003 Centrifugal Collector - High Efficiency
  - CE 004 Electrostatic Precipitator - High Efficiency
  - GP 001 Boilers 1,2,3, and 4
  - GP 004 CEMS and COMS required by SIP and/or State Rules
  - GP 005 Boilers 1, 2 and 3
  - MR 003 O2: SV001
  - MR 015 SO2: SV001
  - MR 023 Opacity: SV001
  - SV 001 Boilers #1 & #2 Stack

<b>What to do</b>	<b>Why to do it</b>
OPERATING LIMITS	hdr
Fuel type restriction: No types of low sulfur coal shall be combusted which have not been demonstrated capable of meeting the SV001 PM10 limitation. The Permittee is authorized to conduct coal test burning for a new coal type for a maximum of five (5) days total time with a five (5) day advance notice to the Division Manager. Once the coal test burning of the new coal type is completed, for any subsequent use of that coal the Permittee must demonstrate compliance with the PM10 limit.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y
RECORDKEEPING	hdr
OTHER REQUIREMENTS	hdr
See SV001 for Emission Limits and Performance Testing Requirements associated with EU002.	
See GP001 for SO2 and fuel usage limits associated with EU002.	
See GP003 for Industrial Boiler MACT requirements associated with EU002.	
See GP004 for CEMS/COMS Requirements associated with EU002.	
See CE004 for ESP Requirements associated with EU002.	

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: Rochester Public Utilities - Silver Lake

Permit Number: 10900011 - 004

**Subject Item: EU 003 Boiler, Unit #3**

- Associated Items:**
- CE 005 Centrifugal Collector - High Efficiency
  - CE 006 Electrostatic Precipitator - High Efficiency
  - GP 001 Boilers 1,2,3, and 4
  - GP 004 CEMS and COMS required by SIP and/or State Rules
  - GP 005 Boilers 1, 2 and 3
  - MR 006 O2: EU003
  - MR 016 Opacity: EU003
  - MR 017 SO2: EU003
  - SV 002 Boiler #3 Stack

<b>What to do</b>	<b>Why to do it</b>
OPERATING LIMIT	hdr
Fuel type restriction: No types of low sulfur coal shall be combusted which have not been demonstrated capable of meeting the SV002 PM10 limitation. The Permittee is authorized to conduct coal test burning for a new coal type for a maximum of five (5) days total time with a five (5) day advance notice to the Division Manager. Once the coal test burning of the new coal type is completed, for any subsequent use of that coal the Permittee must demonstrate compliance with the PM10 limits.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y
RECORDKEEPING	hdr
OTHER REQUIREMENTS	hdr
See SV002 for Emission Limits and Performance Testing Requirements associated with EU003.	
See GP001 for SO2 and fuel usage limits associated with EU003.	
See GP003 for Industrial Boiler MACT requirements associated with EU003.	
See GP004 for CEMS/COMS Requirements associated with EU003.	
See CE006 for ESP Requirements associated with EU003.	

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: Rochester Public Utilities - Silver Lake

Permit Number: 10900011 - 004

**Subject Item: EU 004 Boiler, Unit #4**

- Associated Items:**
- CE 007 Electrostatic Precipitator - High Efficiency
  - CE 008 Spray Dryer Absorber (other)
  - CE 009 Fabric Filter - Medium Temperature i.e., 180 F<T<250 F
  - GP 001 Boilers 1,2,3, and 4
  - MR 018 Opacity: EU004
  - MR 019 SO2: EU004
  - MR 020 NOx: EU004
  - MR 021 CO2: EU004
  - MR 022 FLOW: EU004
  - SV 003 Boiler #4 Stack

What to do	Why to do it
OPERATING LIMITS	hdr
Fuel type restriction: No types of low sulfur coal shall be combusted which have not been demonstrated capable of meeting the SV003 PM10 limitation. The Permittee is authorized to conduct coal test burning for a new coal type for a maximum of five (5) days total time with a five (5) day advance notice to the Division Manager. Once the coal test burning of the new coal type is completed, for any subsequent use of that coal the Permittee must demonstrate compliance with the PM10 limits.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y; MN SIP
RECORDKEEPING AND REPORTING	hdr

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: Rochester Public Utilities - Silver Lake

Permit Number: 10900011 - 004

**Subject Item: FS 001 Coal unloading, handling and storage**

<b>What to do</b>	<b>Why to do it</b>
The Permittee shall store no more than 100,000 tons of coal at the Silver Lake Plant.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y
The Permittee shall store coal and/or coal/petroleum coke blend and not more than 45 percent shall be less than 1/4 inch size upon delivery to the Silver Lake Plant per ASTM D4749.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y
The Permittee shall clean up all coal spilled on roads or access areas within 24 hours of the spill.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y
The Permittee shall post a sign and shall ensure that all vehicular traffic shall comply with a speed limit not to exceed five (5) miles per hour in the coal handling area, unless responding to an emergency.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y
To prevent trackout of coal onto paved roads, the Permittee shall direct vehicles to drive only on the unpaved roads designated as roadways within the coal yard.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y
When adding to an existing stockpile, the Permittee shall not exceed a 23 foot freefall height.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y
Ash waste loaded into open-top haul trucks shall be wetted prior to loading. After loading, either the surface of the ash shall be thoroughly wetted or the haul truck shall be covered.	Title I Condition: State Implementation Plan (SIP) for PM10 NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y

APPENDIX MATERIAL

Facility Name: Rochester Public Utilities - Silver Lake

Permit Number: 10900011-004

**APPENDIX B**

Title I Condition: State Implementation Plan (SIP) for SO<sub>2</sub> NAAQS 40 CFR pt. 50; 40 CFR pt. 52, subp. Y; MN SIP

**Rochester Public Utilities Boiler Stack Parameters for Modeling**

Load (%)	SV01			SV02		
	Heat Input (mmBtu/hr)	T (K)	V (m/s)	Heat Input (mmBtu/hr)	T (K)	V (m/s)
100	333.0	452.5	20.5	293.0	421.7	16.35
90	299.7	448.5	18.3	263.7	421.0	14.75
80	266.4	444.4	16.2	234.4	420.1	13.25
70	233.1	440.4	14.0	205.1	419.5	11.75
60	199.8	436.3	11.8	175.8	418.6	10.25
50	166.5	432.0	9.65	146.5	416.0	8.75
40	133.2	428.0	7.7	117.2	413.0	7.25
24-hour Max	268.2 (80.5%)	444.5	16.25	284.5 (97.1%)	421.6	15.70

Load (%)	SV03 <sup>(1)</sup>			SV03 <sup>(2)</sup>		
	Heat Input (mmBtu/hr)	T (K)	V (m/s)	Heat Input (mmBtu/hr)	T (K)	V (m/s)
100	684.0	411.7	21.34	684.0	341.5	22.40
90	615.6	410.8	19.43	615.6	340.9	20.3
80	547.2	409.3	17.58	547.2	340.9	18.35
70	478.8	407.2	15.52	478.8	340.0	16.35
60	410.4	404.3	12.70	410.4	339.6	14.40
50	342.0	401.3	10.67	342.0	339.3	12.40
40	273.6	398.0	9.70	273.6	338.7	10.45
24-hour Max	614.8 (89.8%)	410.8	19.44	614.5 (89.8%)	340.7	20.3

1. Existing Boiler #4 Parameters
2. Future Boiler #4 Parameters after implementation of ERP