

**AIR EMISSION PERMIT NO. 10900006- 003
IS ISSUED TO**

International Business Machine Corporation
IBM - Rochester
 3605 Highway 52 North
 Rochester, Olmsted County, Minnesota 55901-7829
 (All emission units)

And

Celestica Wisconsin
 P.O. Box 5000
 Chippewa Falls, Wisconsin 54729
 (Emission unit # 040)

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

Permit Type	Application Date
Total Facility Operating Permit	June 15, 1995
Moderate Amendment	1998
Major Amendment	November 1998
Moderate Amendment	December 23, 1999

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

Permit Type: State; Synthetic Minor Part 70; True State Minor Amendment; Major Amendment

Issue Date: July 19, 2000

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

 Bruce Braaten
 Rodney E. Massey, P.E.
 Director
 South District

For Karen A. Studders
 Commissioner
 Minnesota Pollution Control Agency

BB:jfh

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NOTICE TO THE PERMITTEE:

Your stationary source may be subject to the requirements of the Minnesota Pollution Control Agency's (MPCA) solid waste, hazardous waste, and water quality programs. If you wish to obtain information on these programs, including information on obtaining any required permits, please contact the MPCA general information number at:

Metro Area	(651) 296-6300
Outside Metro Area	1-800-657-3864
TTY	(651) 282-5332

The rules governing these programs are contained in Minn. R. chs. 7000-7105. Written questions may be sent to: Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, Minnesota 55155-4194.

Questions about this air emission permit or about air quality requirements can also be directed to the telephone numbers and address listed above.

PERMIT SHIELD:

Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provision of the applicable requirement identified in the permit as the basis of each condition. Certain requirements, which have been determined not to apply, are listed in Table A of this permit.

FACILITY DESCRIPTION:

The permit allows a two Phase modification:

Phase I: Existing Boiler #1 (83MMBtu/hr) (EU001) can currently burn natural gas, LP gas, distillate oil, and residual oil. As part of Phase I, Boiler #1 would no longer be allowed to burn residual oil. In addition, existing Boiler #4 (81.4 MMBtu/hr) (EU049) is currently only allowed to burn natural gas. Phase I would allow Boiler #4 to also burn distillate oil. Boiler #4 is subject to NSPS Subpart Dc. Hence, additional NSPS requirements are triggered by the use of distillate oil. Boiler #4 (EU049) will continue to operate its low NO_x burner and burn natural gas or 0.5 percent or less sulfur oil. Phase I will also removed one diesel emergency generator (EU026), one diesel fire pump (EU036), and one natural gas sludge dryer (EU043). Two diesel emergency generators will be added (EU51, EU52).

Phase II: Boiler #1 (83 MMBtu/hr) (EU001) will be removed. At this time, Boiler #1 has been allowed to burn both natural gas and distillate oil. Boiler #5 (EU050) will be installed. Boiler #5 will be 84 MMBtu/hr. Boiler #5 will be allowed to burn both natural gas and distillate oil. Boiler #5 will install and operate a low NO_x burner. Boiler #5 will be subject to NSPS Subpart Dc.

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/19/00

Facility Name: IBM - Rochester

Permit Number: 10900006 - 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
A. OPERATING REQUIREMENTS	hdr
Inapplicable Requirement: The operation of this facility does not result in a major source as defined in Minn. R. 7007.0200, subp. 2(A)(1), providing the permittee meets the requirements of this permit. The permit shield applies to this determination under Minn. R. 7007.1800, subp. A(2).	Minn. R. 7007.0200, subp. 2(A)(1); Minn. R. 7007.1800, subp. (A)(2)
Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment.	Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)
Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.	Minn. R. 7011.0020
Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150.	Minn. R. 7011.0150
Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not federally enforceable.	Minn. R. 7030.0010 - 7030.0080
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
Inspections: Upon presentation of credentials and other documents as may be required by law, allow the Agency, or its representative, to enter the Permittee's premises to have access to and copy any records required by this permit, to inspect at reasonable times (which include any time the source is operating) any facilities, equipment, practices or operations, and to sample or monitor any substances or parameters at any location.	Minn. R. 7007.0800, subp. 9(A)
B. CONTROL EQUIPMENT REQUIREMENTS	hdr
Air Pollution Control Equipment: Operate all pollution control equipment identified in this 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)
C. MONITORING REQUIREMENTS	hdr
Monitoring Equipment: Install or make needed repairs to monitoring equipment within 60 days of issuance of the permit if monitoring equipment is not installed and operational on the date the permit is issued.	Minn. R. 7007.0800, subp. 4(D)
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)
D. RECORD KEEPING REQUIREMENTS	hdr
State Implementation Plan Recordkeeping: Retain all records at the stationary source 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 SO ₂ " requirement.	Title I Condition: State Implementation Plan for SO ₂
Record keeping: 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)
Record keeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).	Minn. R. 7007.0800, subp. 5(C)
E. REPORTING REQUIREMENTS	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/19/00

Facility Name: IBM - Rochester

Permit Number: 10900006 - 003

Deviations from requirements cited as "Title I Condition: State Implementation Plan for SO2" shall be reported semiannually with the Semiannual Deviations Report required by this permit. If deviations from any requirement cited as "Title I Condition: State Implementation Plan for SO2" did not occur during the reporting period, the permittee shall indicate such in the Semiannual Deviation Report.	Title I Condition: State Implementation Plan for SO2
Amendments to Title I Conditions: If any permit requirement cited as "Title I Condition: State Implementation Plan for SO2" is amended, the amendment must first comply with procedures of parts 7007.0850 (Permit Application Notice and Comment) and 7007.0950 (EPA Review and Objection) applicable to major amendments to Part 70 permits.	Title I Condition: State Implementation Plan for SO2
<p>Shutdowns: 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 advanced 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.</p> <p>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.</p>	Minn. R. 7019.1000, subp. 3
<p>Breakdowns: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2.</p> <p>At the time of notification or as soon 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 again when the breakdown is over.</p>	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
Written 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: cause of the deviation; exact dates of the period of the deviation; if the deviation has not been corrected, the anticipated time it is expected to continue; and 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 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 Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095
F. 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
<p>General Performance Test (PT) Requirements:</p> <p>Performance Tests are due as outlined in Tables A and B of the permit. See Table B for additional testing requirements.</p> <p>PT Notifications (written): due 30 days before each Performance Test PT Plan: due 30 days before each Performance Test PT Pre-test Meeting: due 7 days before each Performance Test PT Report: due 45 days after each Performance Test PT Report - Microfiche: due 105 days after each Performance Test</p>	Minn. R. 7017.2030, subp. 1-4 and Minn. R. 7017.2035 subp. 1-2.

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/19/00

Facility Name: IBM - Rochester

Permit Number: 10900006 - 003

Subject Item: GP 001 Boilers, Generators, and Fire Pumps

Associated Items:

- EU 001 Boiler 1
- EU 002 Boiler 2
- EU 003 Boiler 3
- EU 004 Emergency Electric Generator
- EU 005 Emergency Electric Generator
- EU 006 Emergency Electric Generator
- EU 007 Emergency Electric Generator
- EU 008 Emergency Electric Generator
- EU 009 Emergency Electric Generator
- EU 010 Emergency Electric Generator
- EU 011 Emergency Electric Generator
- EU 012 Emergency Electric Generator
- EU 013 Emergency Electric Generator
- EU 014 Emergency Electric Generator
- EU 015 Emergency Electric Generator
- EU 016 Emergency Electric Generator
- EU 017 Emergency Electric Generator
- EU 018 Emergency Electric Generator
- EU 019 Emergency Electric Generator
- EU 020 Emergency Electric Generator
- EU 021 Emergency Electric Generator
- EU 022 Emergency Electric Generator
- EU 023 Emergency Electric Generator
- EU 024 Emergency Electric Generator
- EU 025 Emergency Electric Generator
- EU 027 Emergency Electric Generator
- EU 028 Emergency Electric Generator
- EU 029 Emergency Electric Generator
- EU 030 Auxiliary Emergency Electric Generator 1
- EU 031 Auxiliary Emergency Electric Generator 2
- EU 032 Auxiliary Emergency Electric Generator 3
- EU 033 Auxiliary Emergency Electric Generator 4
- EU 034 Auxiliary Emergency Electric Generator 5
- EU 035 Fire Pump 1
- EU 037 Fire Pump 3
- EU 049 Boiler 4
- EU 050 Boiler 5
- EU 051 Emergency Electric Generator
- EU 052 Emergency Electric Generator
- SV 001
- SV 002
- SV 003
- SV 004
- SV 005
- SV 006

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/19/00

Facility Name: IBM - Rochester

Permit Number: 10900006 - 003

Associated Items: SV 007
SV 008
SV 009
SV 010
SV 011
SV 012
SV 013
SV 014
SV 015
SV 016
SV 017
SV 018
SV 019
SV 020
SV 021
SV 022
SV 023
SV 024
SV 025
SV 027
SV 028
SV 029
SV 030
SV 031
SV 032
SV 033
SV 034
SV 035
SV 037
SV 049
SV 050
SV 051
SV 052

What to do	Why to do it
A. EMISSION LIMITS	hdr
Nitrogen Oxides: less than or equal to 99 tons/year using 12-month Rolling Sum	Title I Condition: Limit to avoid major source classification under 40 CFR 52.21; limit to avoid major source classification under 40 CFR pt. 70.
Sulfur Dioxide: less than or equal to 99 tons/year using 12-month Rolling Sum	Title I Condition: Limit to avoid major source classification under 40 CFR 52.21; limit to avoid major source classification under 40 CFR pt. 70.
B. RECORD KEEPING REQUIREMENTS	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/19/00

Facility Name: IBM - Rochester

Permit Number: 10900006 - 003

<p>Record keeping: by the 15th day of each calendar month, calculate and record nitrogen oxide emissions for the previous month and previous 12-month period. Monthly nitrogen oxide emissions shall be calculated according to the following equation:</p> $\text{NOx} = [(Q_{\text{ngb}} * 0.00014 \text{ lb NOx/cf}) + (Q_{\text{ngbl}} * \text{NGBLFAC in lb NOx/cf}) + (Q_{\text{r}} * 0.055 \text{ lb NOx/gal}) + (Q_{\text{lp}} * 0.019 \text{ lb NOx/gal}) + (Q_{\text{d}} * 0.020 \text{ lb NOx/gal}) + (H_{\text{ng}} * 0.003400 \text{ lb NOx/cf} * 849 \text{ cf/hr}) + (H_{\text{df}} * 0.61 \text{ lb NOx/gal} * 252.5 \text{ gal/hr}) + (Q_{\text{df}} * 0.61 \text{ lb NOx/gal})]$ <p>where NGBLFAC = 0.000100 lb NOx/cf or the most recent MPCA approved NOx test data</p>	<p>Title I Condition: Recordkeeping to avoid major source classification under 40 CFR 52.21; recordkeeping to avoid major source classification under 40 CFR pt. 70; Minn. R. 7007.0800, subp. 5</p>
<p>(continued from previous requirement)</p> <p>Where:</p> <p>Q_{ngb} = cubic feet (cf) of natural gas combusted in boilers 1, 2, & 3</p> <p>Q_{ngbl} = cubic feet (cf) of natural gas combusted in boilers 4, & 5</p> <p>Q_{r} = gallons (gal) of residual oil combusted in boilers</p> <p>Q_{lp} = gallons of LP gas combusted in boilers</p> <p>Q_{d} = gallons of distillate oil combusted in boilers</p> <p>H_{ng} = hours of operation with natural gas combusted in generators and fire pumps</p> <p>H_{df} = hours of operation with diesel fuel combusted in generators and fire pumps</p> <p>Q_{df} = gallons of diesel fuel combusted in auxiliary generators</p> <p>Fuel usages (Q) are volumes per month for the previous month. Hours of operation (H) are hours per month for the previous month.</p> <p>Calculations of emissions for the first eleven months after permit issuance shall be based on actual operating history.</p>	<p>Title I Condition: Recordkeeping to avoid major source classification under 40 CFR 52.21; recordkeeping to avoid major source classification under 40 CFR pt. 70; Minn. R. 7007.0800, subp. 5 (continued from previous requirement)</p>
<p>Record keeping: by the 15th day of each calendar month, calculate and record sulfur dioxide emissions for the previous month and previous 12-month period. Monthly sulfur dioxide emissions shall be calculated according to the following equation:</p> $\text{SO}_2 = [(Q_{\text{ngb}} * 0.0000006 \text{ lb SO}_2/\text{cf}) + (Q_{\text{r}} * 0.159 \text{ lb SO}_2/\text{gal} * \text{Sr}) + (Q_{\text{lp}} * 0.00010 \text{ lb SO}_2/\text{gal} * \text{Slp}) + (Q_{\text{d}} * 0.144 \text{ lb SO}_2/\text{gal} * \text{Sd}) + (H_{\text{ng}} * 0.0000006 \text{ lb SO}_2/\text{cf} * 849 \text{ cf/hr}) + (H_{\text{df}} * 0.008 \text{ lb SO}_2/\text{gal} * 252.5 \text{ gal/hr}) + (Q_{\text{df}} * 0.008 \text{ lb SO}_2/\text{gal})]$ <p>Where:</p> <p>Q_{ngb} = cubic feet (cf) of natural gas combusted in boilers</p> <p>Q_{r} = gallons (gal) of residual oil combusted in boilers</p> <p>Q_{lp} = gallons of LP gas combusted in boilers</p> <p>Q_{d} = gallons of distillate oil combusted in boilers</p> <p>(continued on next requirement)</p>	<p>Title I Condition: Recordkeeping to avoid major source classification under 40 CFR 52.21; recordkeeping to avoid major source classification under 40 CFR pt. 70; Minn. R. 7007.0800, subp. 5.</p>
<p>(continued from previous requirement)</p> <p>H_{ng} = hours of operation with natural gas combusted in generators and fire pumps</p> <p>H_{df} = hours of operation with diesel fuel combusted in generators and fire pumps</p> <p>Sr = Sulfur content in residual oil in percent sulfur by weight, determined according to requirement in GP 001</p> <p>Sd = Sulfur content in distillate oil in percent sulfur by weight, determined according to requirement in GP 001</p> <p>Slp = Sulfur content expressed in gr/100 cubic feet gas vapor.</p> <p>Q_{df} = gallons of diesel fuel combusted in auxiliary generators</p> <p>Fuel usages (Q) are volumes per month for the previous month. Hours of operation (H) are hours per month for the previous month.</p> <p>Calculations of emissions for the first eleven months after permit issuance shall be based on actual operating history.</p>	<p>Title I Condition: Recordkeeping to avoid major source classification under 40 CFR 52.21; recordkeeping to avoid major source classification under 40 CFR pt. 70; Minn. R. 7007.0800, subp. 5 (continued from previous requirement)</p>
<p>Fuel Usage Recordkeeping: by the 15th day of the month for GP 002 and the five auxiliary emergency electric generators in GP003:</p> <ol style="list-style-type: none"> 1) record the type of fuel combusted during the previous month; 2) record the total fuel usage for each fuel type during the previous month and the previous 12-month period. 	<p>Title I Condition: recordkeeping to avoid major source classification under 40 CFR 52.21; recordkeeping to avoid major source classification under 40 CFR pt. 70; Minn. R. 7007.0800, subp. 5; meets requirements of 40 CFR Section 60.48c(g)</p>
<p>Hours of Operation Recordkeeping: by the 15th day of the month for GP 003, excluding the five auxiliary emergency generators:</p> <ol style="list-style-type: none"> 1) record the type of fuel combusted during the previous month; 2) record the total hours of operation for each fuel type during the previous month and the previous 12-month period. 	<p>Title I Condition: Limit to avoid major source classification under 40 CFR 52.21; recordkeeping to avoid major source classification under 40 CFR pt. 70; Minn. R. 7007.0800, subp. 5</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/19/00

Facility Name: IBM - Rochester

Permit Number: 10900006 - 003

<p>The permittee shall either: 1) obtain and maintain a fuel supplier receipt from the fuel supplier for each shipment of residual oil, distillate oil and diesel fuel certifying that the shipment complies with the American Society of Testing and Materials (ASTM) specifications for residual oil, distillate oil and diesel fuel and that the sulfur content is less than or equal to 1.50 percent by weight for residual oil, 0.50 percent by weight for distillate oil, and 0.05 percent by weight for diesel fuel;</p> <p>OR</p> <p>(continued on next requirement)</p>	Title I Condition: State Implementation Plan for SO2
<p>(continued from previous requirement)</p> <p>2) sample the fuel oil from the tank(s) after each delivery. Sampling shall be conducted within 48 hours after each delivery, or within 48 hours after the last of multiple deliveries in a calendar week if oil is combusted at the time of delivery. If oil is not combusted at the time of delivery, sampling shall be conducted within 30 days after each delivery or within 30 days after the last of multiple deliveries in a calendar week but prior to combustion of any oil. Samples shall be collected from a location representative of the contents of the tank. Record the date and the time of delivery, time of fuel sampling, initials of person recording the information, and the results of the fuel analysis. The fuel samples shall be analyzed to determine the sulfur content of the fuel in percent by weight, in accordance with the current ASTM Method for that fuel.</p>	Title I Condition: State Implementation Plan for SO2 (continued from previous requirement)

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/19/00

Facility Name: IBM - Rochester

Permit Number: 10900006 - 003

Subject Item: GP 002 Boilers 1, 2, 3, 4, and 5

Associated Items: EU 001 Boiler 1

EU 002 Boiler 2

EU 003 Boiler 3

EU 049 Boiler 4

EU 050 Boiler 5

What to do	Why to do it
A. EMISSION LIMITS	hdr
Sulfur Dioxide: less than or equal to 143.8 lbs/hour using 24-hour Block Average (midnight to midnight) for any calendar day when residual oil is burned, and two or more boilers burn oil.	Title I condition: State implementation Plan for SO2
Total Particulate Matter: less than or equal to 0.6 lbs/million Btu heat input (applies individually and only to EU 001, EU 002, and EU 003 in GP 002).	Minn. R. 7011.0510, 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 (applies individually and only to EU 001, EU 002, and EU 003 in GP 002).	Minn. R. 7011.0510, subp. 2
B. OPERATING REQUIREMENTS	hdr
Fuel usage: Boiler #1 is limited to natural gas, LP gas, and distillate oil; Boilers #2 & #3 are limited to natural gas, residual oil, LP gas, and distillate oil; and, Boilers #4 & #5 are limited to natural gas and distillate oil.	Title I Condition: State Implementation Plan for SO2
Sulfur Content of Fuel: less than or equal to 0.5 percent by weight for distillate oil.	Title I Condition: State Implementation Plan for SO2
Sulfur Content of Fuel: less than or equal to 1.5 percent by weight for residual oil.	Title I Condition: State Implementation Plan for SO2
Install and operate a NOx burner, in each of Boilers #4 & #5, that will not emit more than 0.000100 lb NOx/cubic feet of natural gas.	Title I Condition: Limit to avoid major source classification under 40 CFR 52.21
No more than 4 boilers may be in operation at the same time.	Title I Condition: State Implementation Plan for SO2
C. RECORD KEEPING REQUIREMENTS	hdr
SO2 Emission Limit Recordkeeping: once each day, record the calculated 24-hr Block Average (midnight to midnight) SO2 emission limit for the previous calendar day if residual oil was burned in two boilers during the previous day.	Title I condition: State Implementation Plan for SO2
SO2 Emission Calculations and Recordkeeping: once each day, calculate and record the 24-hour block average SO2 emission rate for the previous calendar day, using the following formula: Emission Rate (lb SO2/hr) = [(Ar * 0.159 * Sr) + (Ad * 0.144 * Sd) + (Alp * 0.0001 * SIp)] Ar = 24-hr block average residual oil usage (gal/hr) Ad = 24-hr block average distillate oil usage (gal/hr) Alp = 24-hr block average LP gas usage (gal/hr) Sr = the weight percent sulfur (determined according to the requirements in GP 001) Sd = the weight percent sulfur (determined according to the requirements in GP 001) SIp = the sulfur content expressed in gr/100 cf of gas vapor.	Title I Condition: State Implementation Plan for SO2
Recordkeeping: for each calendar day (midnight to midnight) when residual oil is used in two boilers, calculate and record the individual 24-hour block average usages for residual oil, distillate oil, and LP gas (in gallons per hour) by the end of the following calendar day. The 24-hour block average usage is determined by dividing the usage rate for the calendar day (in gallons per day) by 24 hours/day.	Title I Condition: State Implementation Plan for SO2
Recordkeeping: record the type of fuel combusted in each boiler, for each hour of boiler operation.	Title I Condition: State Implementation Plan for SO2
Recordkeeping: record number of boilers in operation, at any time.	Title I Condition: State Implementation Plan for SO2
ADDITIONAL REQUIREMENTS	hdr
Equipment Removal and/or Dismantlement: due 30 days after Startup of Boiler # 5. Within 30 days after startup of Boiler #5, Boiler #1 shall be removed.	Title I Condition: State Implementation Plan for SO2; Minn. R. 7007.0800, subp. 6

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/19/00

Facility Name: IBM - Rochester

Permit Number: 10900006 - 003

Subject Item: GP 003 Generators and Fire Pumps

Associated Items:

- EU 004 Emergency Electric Generator
- EU 005 Emergency Electric Generator
- EU 006 Emergency Electric Generator
- EU 007 Emergency Electric Generator
- EU 008 Emergency Electric Generator
- EU 009 Emergency Electric Generator
- EU 010 Emergency Electric Generator
- EU 011 Emergency Electric Generator
- EU 012 Emergency Electric Generator
- EU 013 Emergency Electric Generator
- EU 014 Emergency Electric Generator
- EU 015 Emergency Electric Generator
- EU 016 Emergency Electric Generator
- EU 017 Emergency Electric Generator
- EU 018 Emergency Electric Generator
- EU 019 Emergency Electric Generator
- EU 020 Emergency Electric Generator
- EU 021 Emergency Electric Generator
- EU 022 Emergency Electric Generator
- EU 023 Emergency Electric Generator
- EU 024 Emergency Electric Generator
- EU 025 Emergency Electric Generator
- EU 027 Emergency Electric Generator
- EU 028 Emergency Electric Generator
- EU 029 Emergency Electric Generator
- EU 030 Auxiliary Emergency Electric Generator 1
- EU 031 Auxiliary Emergency Electric Generator 2
- EU 032 Auxiliary Emergency Electric Generator 3
- EU 033 Auxiliary Emergency Electric Generator 4
- EU 034 Auxiliary Emergency Electric Generator 5
- EU 035 Fire Pump 1
- EU 037 Fire Pump 3
- EU 051 Emergency Electric Generator
- EU 052 Emergency Electric Generator
- SV 004
- SV 005
- SV 006
- SV 007
- SV 008
- SV 009
- SV 010
- SV 011
- SV 012
- SV 013
- SV 014

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/19/00

Facility Name: IBM - Rochester

Permit Number: 10900006 - 003

Associated Items: SV 015
SV 016
SV 017
SV 018
SV 019
SV 020
SV 021
SV 022
SV 023
SV 024
SV 025
SV 027
SV 028
SV 029
SV 030
SV 031
SV 032
SV 033
SV 034
SV 035
SV 037
SV 051
SV 052

What to do	Why to do it
Fuel usage is limited to diesel fuel and natural gas.	Title I Condition: State Implementation Plan for SO ₂
Sulfur Content of Fuel: less than or equal to 0.05 percent by weight for diesel fuel.	Title I Condition: State Implementation Plan for SO ₂ ; meets requirements of Minn. R. 7011.2300, subp. 2
Opacity: less than or equal to 20 percent opacity once operating temperature has been attained (applies individually to each emission unit in GP 003).	Minn. R. 7011.2300, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/19/00

Facility Name: IBM - Rochester

Permit Number: 10900006 - 003

Subject Item: GP 004 Dc Boilers 4 and 5**Associated Items:** EU 049 Boiler 4

EU 050 Boiler 5

What to do	Why to do it
EMISSIONS LIMITS	hdr
Opacity: less than or equal to 20 percent except for one 6-minute period per hour of not more than 27 percent opacity.	40 CFR 60.43c(c)
OPERATING REQUIREMENTS	hdr
Sulfur content of fuel: less than or equal to 0.5 percent by weight for distillate oil.	40 CFR 60.42c(d)
REPORTING AND RECORDKEEPING REQUIREMENTS	hdr
Fuel supplier certifications shall include: i) the name of the oil supplier; and, ii) a statement from the oil supplier that the oil sulfur content is less than or equal to 0.50 percent by weight for distillate oil.	40 CFR 60.48c(f)
Record and maintain records of the amounts of each fuel combusted during each day for each individual boiler.	40 CFR 60.48c(g)
PERFORMANCE TESTS	hdr
Performance Test: due 180 days after Initial Startup to measure NO _x for Boiler #5 (EU 050). For additional applicable performance test requirements see 'General Performance Test Requirements' in Table A, Subject Item "Total Facility".	Title I Condition: To avoid classification as a major source under 40 CFR 52.21; Minn. R. 7017.2020, subp. 1, and Minn. R. 7017.2030, subp. 4
Initial Performance Test: due 180 days after Initial Startup, but not to exceed 60 days after achieving the maximum production rate at which the affected facility will be operated to measure opacity for Boiler #5 (EU 050) while combusting distillate oil. For additional applicable performance test requirements see 'General Performance Test Requirements' in Table A, Subject Item "Total Facility".	40 CFR 60.45c(a); Minn. R. 7017.2020, subp. 1, and Minn. R. 7017.2030, subp. 4
Performance Test: due 180 days after Startup with distillate oil, but not to exceed 60 days after achieving maximum capacity with distillate oil to measure Opacity for Boiler #4 (EU 049). For additional applicable performance test requirements see 'General Performance Test Requirements' in Table A, Subject Item "Total Facility".	Minn. R. 7017.2020, subp. 1
ADDITIONAL REQUIREMENTS	hdr
If New Source Performance Standards or Minnesota Performance Standards change, in such a manner as to alter the emission limits, applicability thresholds, or requirements contained in this permit, prior to the installation of Boiler #5, the Permittee shall evaluate and, if necessary, reapply for a permit amendment.	Minn. R. 7007.0800, subp. 2
Boiler #5, individually, shall not exceed 84.0 MMBtu/hr in nameplate heat input capacity and 70,000 lbs/hr in nameplate rated steam capacity .	Title I Condition: to avoid classification as a major source under 40 CFR 52.21

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/19/00

Facility Name: IBM - Rochester

Permit Number: 10900006 - 003

Subject Item: SV 044**Associated Items:** EU 044 Lime Silo

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
Operation of CE 001: the Permittee shall capture all emissions from EU 044 and vent them to CE 001.	Minn. R. 7007.0800, subp. 14
Total Particulate Matter: greater than or equal to 85 percent collection efficiency for CE 001 to meet the total particulate matter emission limit in Minn. R. 7011.0715, subp. 1(A).	Minn. R. 7011.0715, subp. 3
Particulate Matter < 10 micron: greater than or equal to 85 percent collection efficiency for CE 001.	Control equipment requirement to avoid major source classification under 40 CFR 70.2; Minn. R. 7007.0800, subp. 2 and 14
Check for visible emissions (during daylight hours) from the control equipment (CE 001) once each time the silo is loaded.	Minn. R. 7007.0800, subp. 4
Corrective Action: If visible emissions (VEs) are observed, determine the cause and take corrective actions as soon as possible to eliminate the VEs.	Minn. R. 7007.0800, subp. 2
Recordkeeping: record the time and date of each VE inspection, and whether or not any VEs were observed. If VEs were observed, also record a brief description of the type of corrective actions taken, and the date the actions were taken.	Minn. R. 7007.0800, subp. 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/19/00

Facility Name: IBM - Rochester

Permit Number: 10900006 - 003

Subject Item: SV 045**Associated Items:** EU 045 Metal Chip Collector

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
Operation of CE 002: the Permittee shall capture all emissions from EU 045 and vent them to CE 002.	Minn. R. 7007.0800, subp. 14
Total Particulate Matter: greater than or equal to 85 percent collection efficiency for CE 002 to meet the total particulate matter emission limit in Minn. R. 7011.0715, subp. 1(A).	Minn. R. 7011.0715, subp. 3
Particulate Matter < 10 micron: greater than or equal to 85 percent collection efficiency for CE 002.	Control equipment requirement to avoid major source classification under 40 CFR 70.2; Minn. R. 7007.0800, subp. 2 and 14
Pressure Drop: greater than or equal to 0.2 inches of water column and less than or equal to 4.0 inches of water column	Monitoring of control equipment used to avoid major source classification under 40 CFR 70.2; Minn. R. 7007.0800, subp. 2 and 14
Inspect quarterly, or as required by manufacturing specifications, all components that are not subject to wear or plugging including structural components, housings, ducts, and hoods. Maintain a written record of the inspection and any action resulting from the inspection.	Minn. R. 7007.0800, subp. 2 and 14
Inspect monthly, or as required by manufacturing specifications, all components that are subject to wear or plugging for example: bearings, belts, hoses, fans, nozzles, orifices, and ducts. Maintain a written record of the inspection and any action resulting from the inspection.	Minn. R. 7007.0800, subp. 2 and 14
Calibrate the pressure gauge annually, or as often as required by manufacturing specifications and maintain a written record of the calibration and any action resulting from the calibration.	Minn. R. 7007.0800, subp. 2 and 14
If necessary, the permittee shall apply for an amendment to update the pressure drop range given for this control device once vendor data is available or after actual normal operating data has been obtained. If necessary, the Permittee shall apply for the amendment no later than 60 days after permit issuance.	Minn. R. 7007.1500, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/19/00

Facility Name: IBM - Rochester

Permit Number: 10900006 - 003

Subject Item: SV 046**Associated Items:** EU 046 Router/Dust Collector

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
Operation of CE 003: the Permittee shall capture all emissions from EU 046 and vent them to CE 003.	Minn. R. 7007.0800, subp. 14
Total Particulate Matter: greater than or equal to 85 percent collection efficiency for CE 003 to meet the total particulate matter emission limit in Minn. R. 7011.0715, subp. 1(A).	Minn. R. 7011.0715, subp. 3
Particulate Matter < 10 micron: greater than or equal to 85 percent collection efficiency for CE 003.	Control equipment requirement to avoid major source classification under 40 CFR 70.2; Minn. R. 7007.0800, subp. 2 and 14
Pressure Drop: greater than or equal to 0.2 inches of water column and less than or equal to 6.0 inches of water column	Monitoring of control equipment used to avoid major source classification under 40 CFR 70.2; Minn. R. 7007.0800, subp. 2 and 14
Inspect quarterly, or as required by manufacturing specifications, all components that are not subject to wear or plugging including structural components, housings, ducts, and hoods. Maintain a written record of the inspection and any action resulting from the inspection.	Minn. R. 7007.0800, subp. 2 and 14
Inspect monthly, or as required by manufacturing specifications, all components that are subject to wear or plugging for example: bearings, belts, hoses, fans, nozzles, orifices, and ducts. Maintain a written record of the inspection and any action resulting from the inspection.	Minn. R. 7007.0800, subp. 2 and 14
Calibrate the pressure gauge annually, or as often as required by manufacturing specifications and maintain a written record of the calibration and any action resulting from the calibration.	Minn. R. 7007.0800, subp. 2 and 14
If necessary, the permittee shall apply for an amendment to update the pressure drop range given for this control device once vendor data is available or after actual normal operating data has been obtained. If necessary, the Permittee shall apply for the amendment no later than 60 days after permit issuance.	Minn. R. 7007.1500, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/19/00

Facility Name: IBM - Rochester

Permit Number: 10900006 - 003

Subject Item: SV 047**Associated Items:** EU 047 Router/Dust Collector

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
Operation of CE 004: the Permittee shall capture all emissions from EU 047 and vent them to CE 004.	Minn. R. 7007.0800, subp. 14
Total Particulate Matter: greater than or equal to 85 percent collection efficiency for CE 004 to meet the total particulate matter emission limit in Minn. R. 7011.0715, subp. 1(A).	Minn. R. 7011.0715, subp. 3
Particulate Matter < 10 micron: greater than or equal to 85 percent collection efficiency for CE 004.	Control equipment requirement to avoid major source classification under 40 CFR 70.2; Minn. R. 7007.0800, subp. 2 and 14
Pressure Drop: greater than or equal to 0.2 inches of water column and less than or equal to 6.0 inches of water column	Monitoring of control equipment used to avoid major source classification under 40 CFR 70.2; Minn. R. 7007.0800, subp. 2 and 14
Inspect quarterly, or as required by manufacturing specifications, all components that are not subject to wear or plugging including structural components, housings, ducts, and hoods. Maintain a written record of the inspection and any action resulting from the inspection.	Minn. R. 7007.0800, subp. 2 and 14
Inspect monthly, or as required by manufacturing specifications, all components that are subject to wear or plugging for example: bearings, belts, hoses, fans, nozzles, orifices, and ducts. Maintain a written record of the inspection and any action resulting from the inspection.	Minn. R. 7007.0800, subp. 2 and 14
Calibrate the pressure gauge annually, or as often as required by manufacturing specifications and maintain a written record of the calibration and any action resulting from the calibration.	Minn. R. 7007.0800, subp. 2 and 14
If necessary, the permittee shall apply for an amendment to update the pressure drop range given for this control device once vendor data is available or after actual normal operating data has been obtained. If necessary, the Permittee shall apply for the amendment no later than 60 days after permit issuance.	Minn. R. 7007.1500, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

07/19/00

Facility Name: IBM - Rochester

Permit Number: 10900006 - 003

Subject Item: SV 048**Associated Items:** EU 048 Router/Dust Collector

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity	Minn. R. 7011.0715, subp. 1(B)
Operation of CE 005: the Permittee shall capture all emissions from EU 048 and vent them to CE 005.	Minn. R. 7007.0800, subp. 14
Total Particulate Matter: greater than or equal to 85 percent collection efficiency for CE 005 to meet the total particulate matter emission limit in Minn. R. 7011.0715, subp. 1(A).	Minn. R. 7011.0715, subp. 3
Particulate Matter < 10 micron: greater than or equal to 85 percent collection efficiency for CE 005.	Control equipment requirement to avoid major source classification under 40 CFR 70.2; Minn. R. 7007.0800, subp. 2 and 14
Pressure Drop: greater than or equal to 0.2 inches of water column and less than or equal to 6.0 inches of water column	Monitoring of control equipment used to avoid major source classification under 40 CFR 70.2; Minn. R. 7007.0800, subp. 2 and 14
Inspect quarterly, or as required by manufacturing specifications, all components that are not subject to wear or plugging including structural components, housings, ducts, and hoods. Maintain a written record of the inspection and any action resulting from the inspection.	Minn. R. 7007.0800, subp. 2 and 14
Inspect monthly, or as required by manufacturing specifications, all components that are subject to wear or plugging for example: bearings, belts, hoses, fans, nozzles, orifices, and ducts. Maintain a written record of the inspection and any action resulting from the inspection.	Minn. R. 7007.0800, subp. 2 and 14
Calibrate the pressure gauge annually, or as often as required by manufacturing specifications and maintain a written record of the calibration and any action resulting from the calibration.	Minn. R. 7007.0800, subp. 2 and 14
If necessary, the permittee shall apply for an amendment to update the pressure drop range given for this control device once vendor data is available or after actual normal operating data has been obtained. If necessary, the Permittee shall apply for the amendment no later than 60 days after permit issuance.	Minn. R. 7007.1500, subp. 1

TABLE B: SUBMITTALS

07/19/00

Facility Name: IBM - Rochester
Permit Number: 10900006 - 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:

Permit Technical Advisor
Permit Section
Air Quality Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Also, where required by an applicable rule or permit condition, send to the Permit Technical Advisor notices of:

- accumulated insignificant activities,
- installation of control equipment,
- replacement of an emissions unit, and
- changes that contravene a permit term.

Unless another person is identified in the applicable Table, send all other submittals to:

Supervisor
Compliance Determination Unit
Air Quality Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Send submittals that are required to be submitted to the U.S. EPA regional office to:

Mr. George Czerniak
Air and Radiation Branch
EPA Region V
77 West Jackson Boulevard
Chicago, Illinois 60604

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

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

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

07/19/00

Facility Name: IBM - Rochester

Permit Number: 10900006 - 003

What to send	When to send	Portion of Facility Affected
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup. Submit the name and number of the emission unit and the actual date of initial startup (for Boiler #5). This notification shall also include: 1) the design heat input capacity of each boiler and identification of boilers fuels to be combusted; and, 2) the annual capacity factor at which the Permittee anticipates operating each boiler based on all fuels fired and based on each individual fuel fired.	GP004
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup. Submit the name and number of the emission unit and the actual date of initial startup.	EU049
Notification of the Anticipated Date of Initial Startup	due 30 days before 11/23/1998, but no more than 60 days before. Submit the name and number of the emission unit and the anticipated date of initial startup.	EU049
Notification of the Anticipated Date of Initial Startup	due 30 days before Anticipated Date of Initial Startup, but no more than 60 days before. Submit the name and number of the emission unit and the anticipated date of initial startup (for Boiler #5) . This notification shall include: 1) the design heat input capacity of each boiler and identification of boilers fuels to be combusted; and 2) the annual capacity factor at which the Permittee anticipates operating each boiler based on all fuels fired and based on each individual fuel fired.	GP004
Notification of the Date Construction Began	due 30 days after Start Of Construction. Submit the name and number of the emission unit and the anticipated date of initial startup (for Boiler #5). This notification shall include: 1) the design input capacity of each boiler and identification of boilers fuels to be combusted; and 2) the annual capacity factor at which the Permittee anticipates operating each boiler based on all fuels fired and based on each individual fuel fired.	GP004
Notification of the date of Equipment Removal/Dismantlement	due 45 days after Startup of Boiler #1.	GP002
Testing Frequency Plan	due 60 days after Initial Performance Test for EU 050. The plan shall specify a testing frequency to measure opacity and NOx using the test data and MPCA guidance for EU050. In addition, the plan shall address a testing schedule for opacity of EU049. Future performance tests based on year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written MPCA approval per Minn. R. 7017.2020, subp. 1.	GP004

TABLE B: RECURRENT SUBMITTALS

07/19/00

Facility Name: IBM - Rochester

Permit Number: 10900006 - 003

What to send	When to send	Portion of Facility Affected
Quarterly Report	due 30 days after end of each calendar quarter following Quarterly Report. Keep records and submit quarterly reports. Each quarterly report shall be postmarked by the 30th day following the end of the reporting period. The quarterly report shall include a statement certifying that the records of fuel supplier certifications submitted represent all of the fuel combusted during the quarter.	GP004
Semiannual Deviations Report	due 30 days after end of each calendar half-year following Permit Issuance . The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31.	Total Facility
Compliance Certification	due 30 days after end of each calendar year following Permit Issuance (for the previous calendar year). To be submitted on a form approved by the Commissioner. The report covers all deviations experienced during the calendar year.	Total Facility
Emissions Inventory Report	due 91 days after end of each calendar year following Permit Issuance (April 1). To be submitted on a form approved by the Commissioner.	Total Facility

TECHNICAL SUPPORT DOCUMENT
For
DRAFT AIR EMISSION PERMIT NO. 10900006-003

This Technical Support Document (TSD) is for all the interested parties of the draft permit. The purpose of this document is to set forth the legal and factual basis for the draft permit conditions, including references to the applicable statutory or regulatory provisions.

1. General Information

1.1. Applicant and Stationary Source Location:

Owner/Operator Address and Phone Number (list both if different)	Facility Address (SIC Code: 3571)
New Orchard Road Armonk, New York 10504	3605 Highway 52 North Rochester, Minnesota 55901 Olmsted County

1.2. Description of the Facility

The facility manufactures electronic digital computers and has production units that manufacture circuit boards and disks. This permit is a non-expiring State Total Facility Operating Permit. Emission units at the facility include four (4) boilers, that have a combined heat input of 332.2 MMBtu/hr, which makes the facility subject to the 100 ton-per-year major source definition under 40 CFR § 52.21 (fossil-fuel boilers totaling more than 250 MMBtu/hr heat input). The facility has accepted federally enforceable emission limits to maintain its nitrogen oxide (NO_x), and sulfur dioxide (SO₂) emissions under 100 tpy, and therefore, 40 CFR § 52.21, does not apply. The facility also has thirty-two (32) emergency electric generators and two (2) fire pumps. Five (5) fabric filter baghouses control small sources of particulates.

This permit contains conditions cited as "Title I condition: State Implementation Plan." These conditions are necessary to demonstrate compliance with the national ambient air quality standards for SO₂ since the facility is located in an area which is designated as nonattainment for SO₂. These conditions do not expire, even if the permit expires. After issuance, the permit will be submitted to the U.S. Environmental Protection Agency for inclusion into Minnesota's State Implementation Plan (SIP).

1.3 Description of the Activities Allowed By This Permit Action

The permit allows a two Phase modification.

Phase I: Existing Boiler #1 (83MMBtu/hr) (EU001) can currently burn natural gas, LP gas, distillate oil, and residual oil. As part of Phase I, Boiler #1 would no longer be allowed to burn residual oil. In addition, existing Boiler #4 (81.4 MMBtu/hr) (EU049) is currently only allowed to burn natural gas. Phase I would allow Boiler #4 to also burn distillate oil. Boiler #4 is subject to NSPS Subpart Dc. Hence, additional NSPS requirements are triggered by the use of distillate

oil. Boiler #4 (EU049) will continue to operate its low NOx burner and burn natural gas or 0.5 percent or less sulfur oil. Phase I will also remove one diesel emergency generator (EU026), one diesel fire pump (EU036), and one natural gas sludge dryer (EU043). Two diesel emergency generators will be added (EU51, EU52).

A diagram of the proposed changes for Phase I is attached.

Phase II: Boiler #1 (83 MMBtu/hr) (EU001) will be removed. At this time, Boiler #1 has been allowed to burn both natural gas and distillate oil. Boiler #5 (EU050) will be installed. Boiler #5 will be 84 MMBtu/hr. Boiler #5 will be allowed to burn both natural gas and distillate oil. Boiler #5 will install and operate a low NOx burner. Boiler #5 will be subject to NSPS subpart Dc. These changes are anticipated to occur about January 2001.

A Phase III was initially proposed. Phase III is included in the permit application. At this time, the facility, however, has decided not to permit Phase III

An Environmental Assessment Worksheet (EAW) or an Environmental Impact Statement (EIS) has not been completed for this project. The activity authorized by the permit is not listed in Minn. R. 4431.4300 Mandatory EAW Categories or in Minn. R. 4410.4400 Mandatory EIS Categories.

1.4. Facility Emissions:

Table 1a. Emissions Associated With Phase I of the Modification

Pollutant	Potential to Emit from the modification (lb/hr)	Potential to Emit from the modification on (TPY)	NSR/ 112(g) Thres hold Level (TPY)	NSR/ MACT Review Required (Yes or No)
PM	-6.02	1.50	25	No
PM10	-6.02	1.50	15	No
SO2	-46.87	0	40	No
NOx	-2.16	22.15	40	No
VOC	0.72	2.1	40	No
CO	9.62	30.75	100	No

Table 1b. Emissions Associated With Phase II of the Modification

Pollutant	Potential to Emit from the modification (lb/hr)	Potential to Emit from the modification (TPY)	NSR/ 112(g) Thresh old Level (TPY)	NSR/ MACT Review Required (Yes or No)
PM	0.962	0.25	25	No
PM10	0.962	0.25	15	No
SO2	-0.65	0.042	40	No
NOx	13.97	-3.21	40	No
VOC	1.142	0.33	40	No
CO	3.24	1.55	100	No

Table 1c. Net Emissions Associated With Phase I, and II of the Modification

Pollutant	Potential to Emit from the modificatio n (lb/hr)	Potential to Emit from the modification (TPY)	NSR/ 112(g) Thresh old Level (TPY)	NSR/ MACT Review Required (Yes or No)
PM	-5.062	1.75	25	No
PM10	-5.062	1.75	15	No
SO2	-47.52	0.042	40	No
NOx	11.808	18.94	40	No
VOC	1.862	2.43	40	No
CO	12.86	32.3	100	No

Table 2. Total Facility Potential (including this amendment) to Emit Summary:

EU No.	Emission Unit Description	PM Tpy	PM₁₀ Tpy	SO₂ Tpy	NO_x Tpy	CO Tpy	VO C tpy	Pb Tpy
001 – 037 & 049	Boilers, Emergency Generators and Fire Pumps	33.95	28.75	99.0	99.0	43.9	7.29	0.0
038	Production Unit 1	0.0	0.0	0.0	0.0	0.0	0.36	0.0
039	Production Unit 2	0.0	0.0	0.0	0.0	0.0	0.25	0.0
040	Production Unit 3	0.0	0.0	0.0	0.0	0.0	4.38	0.0
041	Production Unit 4	0.0	0.0	0.0	0.0	0.0	4.38	0.0
054	Pre-Process Cleaners	0.0	0.0	0.0	0.0	0.0	26.9	0.0

							8	
056	Post-Process Cleaners	0.0	0.0	0.0	0.0	0.0	26.9 8	0.0
042	Production Unit 5	0.0	0.0	0.0	0.0	0.0	2.2	0.0
043*	Sludge Dryer	0.0	0.0	0.0	0.0	0.0	0.0	0.0
044	Lime Silo with Fabric Filter	3.8	3.8	0.0	0.0	0.0	0.0	0.0
045	Metal Chip Collector	7.5	7.5	0.0	0.0	0.0	0.0	0.0
046	Router #1 with Fabric Filter	0.7	0.7	0.0	0.0	0.0	0.0	0.0
047	Router #2 with Fabric Filter	0.7	0.7	0.0	0.0	0.0	0.0	0.0
048	Router #3 with Fabric Filter	0.6	0.6	0.0	0.0	0.0	0.0	0.0
FS 001	Roadway Dust	14.7	2.9	0.0	0.0	0.0	0.0	0.0
TK 001	Storage Tank	0.0	0.0	0.0	0.0	0.0	0.1	0.0

*EU043 removed from facility.

	PM Tpy	PM₁₀ Tpy	SO₂ tpy	NO x tpy	CO Tpy	VO C Tpy	Pb tpy
Total Facility Limited Potential Emissions*	68.9 5	44.95	99.0	99.0	47.9	72.9 2	0.0
Total Facility Actual Emissions	3.8	3.6	8.3	64.3	8.4	10.3	0.0

* SO2 and NOx have 99 tpy limits remaining in place.

Table 3. Facility(TF) and Permit Classification

Classification	Major/Affected Source	*Synthetic Minor	*Minor
PSD		NO _x , PM, PM ₁₀	
NAAR		SO ₂	
Part 70 Permit Program		NO _x , SO ₂ , PM ₁₀	CO, Pb, VOC, Single HAP, Total HAP

2. Regulatory and/or Statutory Basis

Regulatory Overview of Units Affected by the Modification

EU, GRP, or SV No.	Applicable Regulations	Comments:
GP 002	State Implementation Plan for SO ₂	Sulfur dioxide emission limit (pounds/hour), record keeping. Limit was derived from computer dispersion modeling.
GP 002	State Implementation Plan for SO ₂	Fuel usage was specifically assigned to the particular boilers.
GP 002	State Implementation Plan for SO ₂	No more than 4 boilers may operate at the same time.
EU 050	Title I Condition: to avoid major source classification under 40 CFR § 52.21	Boiler #5 shall install and, whenever in operation, operate low NO _x burners.
GP 004	40 CFR 60, subpart Dc	Natural gas and distillate oil requirements

3. Technical Information

This permit maintains the lb/hr SO₂ emission limits for GP 002. These limits are necessary to demonstrate compliance with the ambient air quality standards for SO₂ since the facility is located in an area, which is designated as nonattainment for SO₂. The emission limits necessary were determined through modeling for this permit amendment. Also maintained in the permit are restrictions on the sulfur content of certain fuels, restrictions on the types of fuels that can be combusted, record keeping requirements, and SO₂ emission calculation requirements.

This facility is not a major source under section 302 of the Clean Air Act for Volatile Organic Compounds and is not a major source under section 112 of the Clean Air Act (Hazardous Air Pollutants).

This permit allows the installation and operation of a low-NO_x burner on the new boiler (EU050). The NO_x emissions for the new boiler will also be calculated and reported using the emission factors included in the permit.

The existing NO_x and SO_x emissions limits of 99 tons per year remain in place. These limits apply to Group 1. These Group includes all the boilers, generators, and fire pumps. All of the recordkeeping requirements for these limits also remain in place.

Performance tests will be required for NO_x on the new boiler. These tests were included due to considerations of the use of the low NO_x emission factors in the calculations as well as the 99 ton per year NO_x limit.

A provision was added to deal with unforeseen, but potential, changes in an applicable NSPS or Minnesota performance standard. Boiler #5 may not be installed until 2002. If a rule requirement change occurs, an evaluation of the impacts of rule change will need to be addressed prior to the installation of the boilers.

Several SO₂ emission limits were eliminated from Group #2 of the previous permit. That was because Boiler #1 will no longer be allowed to burn residual oil (only two boilers are now allowed to burn residual oil). Previous limits were based on three boilers burning residual oil. The latest modeling verified that the 143.8 lb/hr limit applied to a combination of up to two on residual, whether or not distillate oil was burned at the same time.

On March 21, 2000, IBM submitted a request for an administrative amendment. IBM sold their Electronic Card Assembly & Test (ECAT) manufacturing equipment and operations to Celestica Corporation. The ECAT is identified as Emission Unit #040 and/or Production Unit #3. At the present time, Celestica will lease, from IBM, Building #114. It is anticipated that Celestica will move its operations within 24 months. Accordingly, the cover page of this permit has been changed to incorporate the administrative amendment into this permit action.

It is noted that this permit changes one of the SO₂ emission limits. This limit states "SO₂: less than or equal to 143.8 lbs/hr using 24-hour Block Average (midnight to midnight) for any calendar day when residual oil is burned, and two or more boilers burn oil." This limitation would not apply to one boiler burning residual oil and no others burning oil; or when one or more boilers burn distillate oil and no residual oil is burned. The limitation would apply when residual oil is burned in one boiler and either distillate or residual oil is burned in one or more boilers. Residual oil is already limited to Boilers #2 and #3 and distillate oil can be burned by all four boilers.

It is also noted that this permit action has submitted to the MPCA prior to the IBM's amendment #4. However, permit amendment #4 was issued prior to the issuance of this permit (003).

4. Conclusion

Based on the information provided by International Business Corporation, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 10900006-003 and this technical support document, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

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Attachment: Phase I – II emission changes summary
Phase I changes diagram
Calculations

Attachment A: Fuel Usage for Each Modification Phase

Phase I

Boiler 1 (83 MMBtu/hr) – eliminate residual oil usage; replace with natural gas or distillate oil

Boiler 4 (84 MMBtu/hr) – add distillate oil to formerly natural gas only capability

Phase II

Boiler 1 (83 MMBtu/hr) – remove Boiler 1 (natural gas, LP, & distillate oil)

Boiler 5 (84 MMBtu/hr) – install Boiler 5 (natural gas & distillate oil)