

**AIR EMISSION PERMIT NO. 04300002- 001
IS ISSUED TO**

Board of Public Works

Blue Earth Light & Water
124 East 6th Street
Blue Earth, Faribault County, Minnesota 56013

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	1/29/99

This permit authorizes the permittee to operate the stationary source at the address listed above unless otherwise noted in Table A. The permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

Permit Type: Federal; Part 70
Synthetic Minor
Issue Date: August 24, 1999
Expiration: August 24, 2004
All Title I Conditions do not expire.

Rodney Massey
Manager
South District

for Karen A. Studders
Commissioner
Minnesota Pollution Control Agency

JR:dms

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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's) 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	(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.

The permit shield, however does not apply to:

- 1. Any national ambient air quality standards adopted under section 109 of the Clean Air Act or increment or visibility under Part C of Title I of the Clean Air Act;**
- 2. Any state ambient air quality standard under Minn. R. ch. 7009; and**
- 3. The state noise pollution control rules, Minn. R. ch. 7030.**

FACILITY DESCRIPTION:

The primary sources discharging emissions to the atmosphere are three boilers and six diesel engine generators. Fuels burned at the facility are natural gas and distillate oil.

With this permit, Blue Earth Light and Water proposes to install a 500 KW emergency station power diesel engine electrical generating unit. The generator will be used during complete electric power outages to provide emergency power to the utility plant. The unit will have a transfer switch that automatically starts the generator in the event of a power failure. The generator will provide emergency power for the community's district heating system. The emergency power will also allow the utility to more easily start up their larger generating units to provide electricity to the community. Finally, the new 500 KW unit will be used for peaking power during periods of peak system demand. The proposed generator is designated as stack/vent #11 and emission unit #11.

TABLE A: LIMITS AND OTHER REQUIREMENTS

08/24/99

Facility Name: Blue Earth Light & Water

Permit Number: 04300002 - 001

Table A contains limits and other requirements with which your facility must comply. The limits are located in the first column of the table (What To do). The limits can be emission limits or operational limits. This column also contains the actions that you must take and the records you must keep to show that you are complying with the limits. The second column of Table A (Why to do it) lists the regulatory basis for these limits. Appendices included as conditions of your permit are listed in Table A under total facility requirements.

Subject Item:	Total Facility
What to do	Why to do it
Nitrogen Oxides: less than or equal to 450000 lbs/year (225 tons per year) based on a 12 month rolling sum.	Title I Condition: To limit potential NOx emissions to less than major source levels as defined by 40 CFR Section 52.21
Maintain records on site of type and amount of fuel burned in all emission units. Daily usage of natural gas and distillate fuel oil shall be determined with fuel meters and recorded each day that fuel is combusted. The fuel usage in each emission unit for the previous 12 months will be summed to obtain the 12 month sum.	Title I Condition: To limit potential NOx emissions to less than major source levels as defined by 40 CFR Section 52.21
Each month, by the 15th, calculate the previous 12 month rolling sum of NOx emissions. The 12 month fuel usage for each emission unit shall be used in the equation below to determine the rolling 12 month sum of NOx emissions. [0.10*(MCF of natural gas used by EU 002, 003, and 006)]+ [3.40*(MCF of natural gas used by EU 004)]+ [0.02*(Gallons of diesel used by EU 002, 003, and 006)]+ [0.442*(Gallons of diesel used by EU 004)]+ [0.665*(Gallons of diesel used by EU 005)]+ [0.423*(Gallons of diesel used by EU 007, 008, and 009)]+ [0.347*(Gallons of diesel used by EU 011)] = lb NOx per year	Title I Condition: To limit potential NOx emissions to less than major source levels as defined by 40 CFR Section 52.21
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)
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
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)
Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.	Minn. R. 7011.0020
Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3. At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.	Minn. R. 7019.1000, subp. 3
Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2. At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.	Minn. R. 7019.1000, subp. 2

TABLE A: LIMITS AND OTHER REQUIREMENTS

08/24/99

Facility Name: Blue Earth Light & Water

Permit Number: 04300002 - 001

Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment.	Minn. R. 7019.1000, subp. 1
Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description: 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.	Minn. R. 7019.1000, subp. 1
Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate.	Minn. R. 7019.1000, subp. 4
Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated, unless otherwise noted in Table A.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)
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
Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.	Minn. R. 7007.1150 through Minn. R. 7007.1500
Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H).	Minn. R. 7007.1400, subp. 1(H)
Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350 subp. 2), including records of the emissions resulting from those changes.	Minn. R. 7007.0800, subp. 5(B)
Record keeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).	Minn. R. 7007.0800, subp. 5(C)
Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	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)
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095

TABLE A: LIMITS AND OTHER REQUIREMENTS

08/24/99

Facility Name: Blue Earth Light & Water

Permit Number: 04300002 - 001

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

Associated Items: EU 002 Boiler #2 (7 MMBtu)
 EU 003 Boiler #3 (23 MMBtu)
 EU 006 Boiler #4 (6 MMBtu)

What to do	Why to do it
EMISSION LIMITS (Emission limits apply to each unit individually.)	hdr
Total Particulate Matter: less than or equal to 0.4 lbs/million Btu heat input	Minn. R. 7011.0515, subp. 1
Opacity: less than or equal to 20 percent opacity ; except for one six minute period per hour of not more than 60 percent opacity. An exceedance of this opacity standard occurs whenever any one hour period contains two or more six minute periods during which the average opacity exceeds 20 percent or whenever any one hour period contains one or more six minute periods during which the average opacity exceeds 60 percent.	Minn. R. 7011.0515, subp. 2
Sulfur Dioxide: less than or equal to 2 lbs/million Btu heat input based on a one (1) hour averaging period for liquid fossil fuels.	Minn. R. 7011.0550, subp. 2 liquid fuels
OPERATING CONDITIONS	hdr
Fuels: Burn only distillate fuel oil as defined by ASTM, and natural gas.	Minn. R. 7007.0800, subp. 2
MONITORING	hdr
Fuel Supplier Certification: The Permittee shall obtain a certification from the distillate fuel oil supplier specifying the sulfur content in percent by weight, for each fuel oil delivery.	Minn. R. 7007.0800, subp. 4
PERFORMANCE TESTING	hdr
Performance Test: due 180 days after Permit Issuance. The Permittee shall test for opacity.	Minn. R. 7007.0800, subp. 2
Performance Test Pre-test Meeting: due 7 days before Performance Test	Minn. R. 7017.2030, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

08/24/99

Facility Name: Blue Earth Light & Water

Permit Number: 04300002 - 001

Subject Item: GP 002

- Associated Items:** EU 004 Engine #1 (Nordberg)
 EU 005 Engine #2 (Cat 1825 kW)
 EU 007 Engine #3 (Cat 1600 kW)
 EU 008 Engine #4 (Cat 1600 kW)
 EU 009 Engine #5 (Cat 1600 kW)
 EU 011 Emergency Station Power

What to do	Why to do it
EMISSION LIMITS (Emission limits apply to each unit individually.)	hdr
Sulfur Content of Fuel: less than or equal to 0.05 percent	40 CFR 72.7 Minn. R. 7011.2300, subp. 2
Opacity: less than or equal to 20 percent opacity once operating temperatures have been attained.	Minn. R. 7011.2300, subp. 1
OPERATING CONDITIONS	hdr
Burn only natural gas and distillate oil in EU004, and distillate oil in EU 005, 007, 008, 009, 011.	Minn. R. 7007.0800, subp. 2
MONITORING	hdr
Fuel Supplier Certification: The Permittee shall obtain a certification from the distillate fuel oil supplier specifying the sulfur content in percent by weight, for each fuel oil delivery.	Minn. R. 7007.0800, subp. 4
PERFORMANCE TESTING	hdr
Initial Performance Test: due 180 days after Permit Issuance to measure opacity. All units are to be tested.	Minn. R. 7007.0800, subp. 2
Performance Test Pre-test Meeting: due 7 days before Performance Test	Minn. R. 7017.2030, subp. 4

TABLE B: SUBMITTALS

08/24/99

Facility Name: Blue Earth Light & Water
Permit Number: 04300002 - 001

Table B lists most of the submittals required by this permit. Please note that some submittal requirements may appear in Table A or, if applicable, within a compliance schedule located in Table C. Table B is divided into two sections in order to separately list one-time only and recurrent submittal requirements.

Each submittal must be postmarked or received by the date specified in the applicable Table. Those submittals required by parts 7007.0100 to 7007.1850 must be certified by a responsible official, defined in Minn. R. 7007.0100, subp. 21. Other submittals shall be certified as appropriate if certification is required by an applicable rule or permit condition.

Send any application for a permit or permit amendment to:

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

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

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

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

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

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

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

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

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

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

08/24/99

Facility Name: Blue Earth Light & Water

Permit Number: 04300002 - 001

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before expiration of Existing Permit	Total Facility
Computer Dispersion Modeling Protocol	due 1,096 days after Permit Issuance for NOx. This protocol will describe the proposed modeling methodology and input data, in accordance with all requirements of 40 CFR pt. 51, App. W. The protocol will be based on projected operating conditions under the next permit term. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Total Facility
Computer Dispersion Modeling Results	due 1,462 days after Permit Issuance To be submitted after the MPCA has reviewed and approved the modeling protocol. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Total Facility
Performance Test Notification (written)	due 30 days before Performance Test	GP001, GP002
Performance Test Plan	due 30 days before Performance Test	GP001, GP002
Performance Test Report - Microfiche Copy	due 105 days after Performance Test	GP001, GP002
Performance Test Report	due 45 days after Performance Test	GP001
Performance Test Report	due 45 days after Performance Test	GP002
Testing Frequency Plan	due 60 days after Initial Performance Test for opacity. The plan shall specify a testing frequency using the initial performance test data and MPCA test frequency guidance. Future performance tests at one, two, and five year intervals, or as applicable shall be required on written approval of the MPCA per Minn. R. 7017.2020, subp. 1.	GP001
Testing Frequency Plan	due 60 days after Initial Performance Test for opacity. The plan shall specify a testing frequency using the initial performance test data and MPCA test frequency guidance. Future performance tests at one, two, and five year intervals, or as applicable shall be required on written approval of the MPCA per Minn. R. 7017.2020, subp. 1.	GP002

TABLE B: RECURRENT SUBMITTALS

08/24/99

Facility Name: Blue Earth Light & Water

Permit Number: 04300002 - 001

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

APPENDIX MATERIAL

Facility Name:Blue Earth Light & Water

Permit Number: 04300002-001

Numbering Cross Reference List for Title IV Affected Units

Emission Unit Number	Facility I.D.	Acid Rain Unit Number
EU005	Engine #2 (Cat 1825 kw)	10
EU007	Engine #3 (Cat 1600 kw)	7
EU008	Engine #4 (Cat 1600 kw)	8
EU009	Engine #5 (Cat 1600 kw)	9
EU011	Emergency Station Power	11

New Unit Exemption

For more information, see instructions and refer to 40 CFR 72.7

This submission is Original Revised

Step 1

Identify the new unit by plant name, State, ORIS Code (if assigned) and Unit ID#.

Blue Earth Light and Water	MN		7, 8, 9, 10, 11
Plant Name	State	ORIS Code	Unit ID#

Step 2

List to one decimal place the nameplate capacity of each generator served by the unit. Then total these entries and enter the result.

Unit 7: 1.6 Unit 8: 1.6 Unit 9: 1.6 Unit 10: 1.8 Unit 11: 0.5 MWe	MWe	MWe	MWe	MWe	Total MWe
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Step 3

List all fuels currently burned or expected to be burned, by the unit and the percent sulfur content by weight of each.

Content	Fuel (current)	Sulfur Content (current)	Fuel (expected)	Sulfur (expected)
	#2 Diesel	<0.05%	#2 Diesel	<0.05

Step 4

Identify the first full calendar year in which the unit meets (or will meet) the requirements of 40 CFR 72.7(a).

January 1, Unit 7: 1995
Unit 8: 1995
Unit 9: 1995
Unit 10: 1996
Unit 11: 1999

Special Provisions

step 5

Read the special provisions.

(1) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 72.7 shall (i) comply with the requirements of 40 CFR 72.7(a) for all periods for which the unit is exempt under 40 CFR 72.7 and (ii) comply with the requirements of the Acid Rain Program concerning all periods for which the exemption is in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.

(2) For any period for which a unit is exempt under 40 CFR 72.7, the unit is not an affected unit under the Acid Rain Program and 40 CFR parts 70 and 71 and is not eligible to be an opt-in source under 40 CFR part 74. As an unaffected unit, the unit shall continue to be subject to any other applicable requirements under 40 CFR parts 70 and 71.

(3) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 72.7 shall retain at the source that includes the unit records demonstrating that the requirements of 40 CFR 72.7(a) are met. The 5-year period for keeping records may be extended for cause, at any time prior to the end of the period, in writing by the Administrator or the permitting authority. Such records shall include, for each delivery of fuel to the unit or for fuel delivered to the unit continuously by pipeline, the type of fuel, the sulfur content, and the sulfur content of each sample taken. The owners or operators bear the burden of proof that the requirements of paragraph 40 CFR 72.7(a) are met.

(4) On the earliest of the following dates, a unit exempt under 40 CFR 72.7(b), (c), or (e) shall lose its exemption and become an affected unit under the Acid Rain Program and 40 CFR parts 70 and 71: (i) the date on which the unit first serves one or more generators with total nameplate capacity in excess of 25 MWe; (ii) the date on which the unit burns any coal or coal-derived fuel except for coal-derived gaseous fuel with a total sulfur content no greater than natural gas; or (iii) January 1 of the year following the year in which the annual average sulfur content for gaseous fuel burned at the unit exceeds 0.05 percent by weight (as determined under 40 CFR 72.7(d)) or for nongaseous fuel burned at the unit exceeds 0.05 percent by weight (as determined under 40 CFR 72.7(d)). Notwithstanding 40 CFR 72.30(b) and (c), the designated representative for a unit that loses its exemption under 40 CFR 72.7 shall submit a complete Acid Rain permit application on the later of January 1, 1990, or 60 days after the first date on which the unit is no longer exempt. For the purpose of applying monitoring requirements under 40 CFR 75, a unit that loses its exemption under 72.7 shall be treated as a new unit that commenced commercial operation on the first date on which the unit is no longer exempt.

TECHNICAL SUPPORT DOCUMENT
For
DRAFT AIR EMISSION PERMIT NO. 04300002-001

This technical support document 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 and Operator Address	Facility Address (SIC Code: 4911)
Board of Public Works 125 E. 7th Street Blue Earth, MN 56013	124 E 6th St Blue Earth Faribault County

1.2. Description of the facility

Emission sources at the Blue Earth Light and Water plant consist of three boilers, and five engine generators.

1.3 Description of any changes allowed with this permit issuance

With this permit, Blue Earth Light and Water proposes to install a 500 KW emergency station power diesel engine electrical generating unit. The generator will be used during complete electric power outages to provide emergency power to the utility plant. The unit will have a transfer switch that automatically starts the generator in the event of a power failure. The generator will provide emergency power for the community's district heating system. The emergency power will also allow the utility to more easily start up their larger generating units to provide electricity to the community. Finally, the new 500 KW unit will be used for peaking power during periods of peak system demand. The proposed generator is designated as stack/vent #11 and emission unit #11.

1.4 Description of all amendments issued since the issuance of the last total facility permit and to be included in the Part 70 Permit.

Permit Number and Issuance Date	Action Authorized

Permit Action Number:
 Date: 12/18/2003

Amendment 1 to 858-90-OT-2	Installation and operation of a 6 mmBtu per hour boiler.
Amendment 2 to 858-90-OT-2	Established synthetic minor limits for new source review, and allowed the installation and operation of three new generators

1.5. Facility Emissions:

Table 1. Total Facility Potential to Emit Summary:

EU #	SV#	Emission Unit Description	PM tpy	PM10 tpy	SO2 tpy	NOx tpy	CO tpy	VOC tpy	Pb tpy	Single HAP tpy	All HAPs tpy
001		Boiler No. 1									
002	002	Boiler No. 2	0.438	0.237	1.577	4.380	1.095	0.074	-		
003		Boiler No. 3	1.439	0.729	5.181	14.39	8.06	0.528	-		
004		Engine No. 1	4.854	3.990	3.55	225	5.92	6.268	-		
005		Engine No. 2	2.24	2.24	10.59	225	22.35	3.76	-		
006		Boiler No. 4	0.376	0.203	1.353	3.76	2.10	0.138	-		
007		Engine No. 3	4.38	4.38	14.01	215	42.0	7.01			
008		Engine No. 4	4.38	4.38	14.01	215	42.	7.01	-		
009		Engine No. 5	4.38	4.38	14.01	215	42	7.01	-		
010		Fuel Oil Tank	-	-	-	-	-	0.004	-		
011		Emergency Station	2.935	2.935	1.139	56.2	1.84	0.613	-		

	PM tpy	PM10 tpy	SO2 tpy	NOx tpy	CO tpy	VOC tpy	Pb tpy	Single HAP tpy	All HAPs tpy
Total Facility Limited Potential Emissions*	2.24	2.24	9.57	225	22.4	3.76	-	-	-

*Total facility potential emissions take the permit limits on total facility NOx emissions into account. This effectively limits the amount of fuel that can be burned at the site. It was assumed that all distillate oil was burned in one of the engine generators to develop the worst case potential emissions for all pollutants.

Table 2. Facility(TF) and Permit Classification

Classification (put x in appropriate box)	Major/Affected Source	*Synthetic Minor	*Minor
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Permit Action Number:

Date: 12/18/2003

PSD (list pollutant)		NOx	PM10, SO2, CO, VOC
NAAR (list pollutant)			
Part 70 Permit Program (list pollutant)	NOx	CO	PM10, SO2, VOC

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

2. Regulatory and/or Statutory Basis

Summary Regulatory and/or Statutory Basis of the Emission or operational Limit

Regulatory Overview of Facility

*EU, GRP, or SV #	Applicable Regulations	**Comments:
Total Facility	40 CFR 52.21	Title I Conditions set to limit NOx emissions to less than major source levels as defined by 40 CFR 52.21
EU002, 003, 006 Boilers	Minn. R. 7011.0515	Standards of Performance for New Indirect Heating Equipment
EU004, 005, 007, 008, 009, 011 Engines	Minn. R. 7011.2300	Standards of Performance for Internal Combustion Engines
EU005, 007, 008, 009, 010, 011 Engines	40 CFR 72	Title IV, Acid Rain Requirements All units are affected units, and are operating under new unit exemptions. This limits sulfur content of any fuel burned to less than 0.05%.

3. Technical Information

Compliance Demonstration; Boilers: The boilers are subject to opacity, particulate and sulfur dioxide limits derived from Minnesota Rules. Testing for opacity is required. To monitor sulfur dioxide, certifications from the distillate fuel oil supplier are required with each deliver. A requirement for stack testing for particulate is not required by the permit because AP42 predicts particulate emissions of 2.00 lb per thousand gallons, or 0.014 lb/mmBtu. The limit is 0.4 lb/mmBtu, much greater than the predicted 0.014 lb/mmBtu.

Permit Action Number:

Date: 12/18/2003

Compliance Demonstration; Engines: The engines are subject to opacity and sulfur dioxide limits. Fuel supplier certifications are required for sulfur monitoring, and emissions testing is required for opacity. Opacity tests will be repeated based on the results of the testing, and whether or not the limit is likely to be exceeded. (See MPCA testing frequency guidance attached.)

Compliance Demonstration; Title I Synthetic Minor Conditions: Daily monitoring of fuel use, and calculation of the daily rolling sum of NOx emissions is required. The factors used for these calculations are based on manufacturer's data where available, and AP42 when not available. The limit has been set well below the major source levels (225 tons per year vs. 250 tons per year) to account for the possibility of some error in the factors. Because the limit is set well below major source levels, testing for NOx is not required.

Acid Rain Applicability: Units EU005, 007, 008, 009, 010, 011 (Engines #2, #3, #4, #5, and emergency station power) are affected units under Title IV. Due to size and the type of fuel they burn, they are eligible for, and have obtained, new unit exemptions.

Units EU001, 002, 003, 004, and 006 are not affected units under Title IV (Part 72) due to their size, and date of installation.

4. Conclusion

Based on the information provided by Blue Earth Light and Water, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 04300002-001 and this technical support document, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Jenny L. Reinertsen, Marshall Cole

Attachment: Testing Frequency Guidance
Emission Calculations

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