

AIR EMISSION PERMIT NO. 08500002-003

IS ISSUED TO

Hutchinson Utilities Commission

HUTCHINSON UTILITIES COMMISSION - PLANT 1

44 4th Avenue Northeast
Hutchinson, McLeod County, Minnesota 55350

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	Issuance Date	Action
Total Facility Operating Permit - Reissuance	11/06/2006	See below	003

This permit replaces Permit No. 08500002-002, and authorizes the Permittee to operate the stationary source at the address listed above unless otherwise noted in Table A. The Permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

Permit Type: Federal; Part 70/Existing Major for New Source Review

Issue Date: May 21, 2008

Expiration: May 21, 2013
Title I Conditions do not expire.

Jeff J. Smith, Manager
Air Quality Permits Section
Industrial Division

for Brad Moore
Commissioner
Minnesota Pollution Control Agency

TABLE OF CONTENTS

Notice to the Permittee

Permit Shield

Facility Description

Table A: Limits and Other Requirements

Table B: Submittals

Table C: *Not used in this permit*

Appendices:

Appendix A: *Not used in this permit*

Appendix B: Stack Parameters Used In NO_x Modeling

Appendix C: Insignificant Activities Required To Be Listed

NOTICE TO THE PERMITTEE:

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

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

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

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

PERMIT SHIELD:

Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provision of the applicable requirement identified in the permit as the basis of each condition. Subject to the limitations of Minn. R. 7007.1800 and 7017.0100, subp. 2, notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

FACILITY DESCRIPTION:

This facility is a municipal electric power plant that operates for backup electric service, peak shaving during peak demand periods, and for routine exercising of equipment. The facility is composed of four dual-fuel reciprocating internal combustion engine generators, two diesel reciprocating internal combustion engine generators, a natural gas-fired combined cycle gas turbine generator, a 30 kilowatt (kw) emergency generator, a small heating boiler, six space heaters, a 310,000 gallon fuel oil storage tank, and 5 fuel oil day tanks (total storage capacity for all tanks is 312,881 gallons). Total generating capacity (excluding the emergency generator) is 35,780 kw.

ACTION 003

This permit action is a reissuance of the part 70 operating permit. No changes are authorized by this permit action.

TABLE A: LIMITS AND OTHER REQUIREMENTS

A-1

05/21/08

Facility Name: Hutchinson Utilities Commission -Plant 1

Permit Number: 08500002 - 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
Permit Appendices: This permit contains appendices as listed in the permit Table of Contents. The Permittee shall comply with all requirements contained in the appendices.	Minn. R. 7007.0800, subp. 2
DETERMINING IF A PROJECT/MODIFICATION IS SUBJECT TO NEW SOURCE REVIEW	hdr
<p>These requirements apply where there is a reasonable possibility (as defined in 40 CFR Section 52.21(r)(6)(vi)) that a proposed project, analyzed using the actual-to-projected-actual (ATPA) test (either by itself or as part of the hybrid test described in Section 52.21(a)(2)(iv)(f)) and found to not be part of a major modification, may result in a significant emissions increase. If the ATPA test is not used for a particular project, or if there is not a reasonable possibility that the proposed project could result in a significant emissions increase, then these requirements do not apply to that project.</p> <p>Even though a particular modification is not subject to New Source Review, or where there isn't a reasonable possibility that a proposed project could result in a significant emissions increase, a permit amendment, recordkeeping, or notification may still be required under Minn. R. 7007.1150 - 7007.1500.</p>	Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.0800, subp. 2
<p>Preconstruction Documentation -- Before beginning actual construction on a project, the Permittee shall document the following:</p> <ol style="list-style-type: none"> 1. Project description 2. Identification of any emission unit (EU) whose emissions of an NSR pollutant could be affected 3. Pre-change potential emissions of any affected existing EU, and the projected post-change potential emissions of any affected existing or new EU. 4. A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded due to increases not associated with the modification and that the EU could have accommodated during the baseline period, an explanation of why the amounts were excluded, and any creditable contemporaneous increases and decreases that were considered in the determination. <p>The Permittee shall maintain records of this documentation.</p>	Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.1200, subp. 4; Minn. R. 7007.0800, subps. 4 & 5
The Permittee shall monitor the actual emissions of any regulated NSR pollutant that could increase as a result of the project and that were analyzed using the ATPA test, and the potential emissions of any regulated NSR pollutant that could increase as a result of the project and that were analyzed using potential emissions in the hybrid test. The Permittee shall calculate and maintain a record of the sum of the actual and potential (if the hybrid test was used in the analysis) emissions of the regulated pollutant, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity of or potential to emit of any unit associated with the project.	Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 & 5
<p>The Permittee must submit a report to the Agency if the annual summed (actual, plus potential if used in hybrid test) emissions differ from the preconstruction projection and exceed the baseline actual emissions by a significant amount as listed at 40 CFR Section 52.21(b)(23). Such report shall be submitted to the Agency within 60 days after the end of the year in which the exceedances occur. The report shall contain:</p> <ol style="list-style-type: none"> a. The name and ID number of the facility, and the name and telephone number of the facility contact person b. The annual emissions (actual, plus potential if any part of the project was analyzed using the hybrid test) for each pollutant for which the preconstruction projection and significant emissions increase are exceeded. c. Any other information, such as an explanation as to why the summed emissions differ from the preconstruction projection. 	Title I Condition: 40 CFR Section 52.21(r)(6); Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 & 5
OPERATIONAL REQUIREMENTS	hdr

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-2**

05/21/08

Facility Name: Hutchinson Utilities Commission -Plant 1

Permit Number: 08500002 - 003

The Permittee shall comply with National Primary and Secondary Ambient Air Quality Standards, 40 CFR pt. 50, and the Minnesota Ambient Air Quality Standards, Minn. R. 7009.0010 to 7009.0080. Compliance shall be demonstrated upon written request by the MPCA.	40 CFR pt. 50; Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subps. 7A, 7L & 7M; Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080.
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
Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A).	Minn. R. 7007.0800, subp. 9(A)
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 enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7030.0010 - 7030.0080
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
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
MODELING REQUIREMENTS	hdr
Parameters Used in Modeling: Parameters used in the modeling performed for determining GP 001 emission unit operating hours limits are listed in the permit Appendix. If the Permittee intends to change any of the parameters, the Permittee must submit revised parameters to the Commissioner and receive written approval before making any changes. The revised parameter information submittal must include at a minimum: locations, heights and diameters of the stacks; locations and dimensions of nearby buildings; velocity and temperatures of stack gases; and emission rates. The Permittee shall demonstrate that plume dispersion characteristics based on parameter revisions equal or exceed dispersion characteristics modeled for permit No. 08500002-002. If the revised information does not demonstrate equivalent or better dispersion characteristics, or if a conclusion cannot readily be made about the dispersion, the Permittee must remodel. (continued)	Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subps 7A, 7L & 7M; Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080
Parameters Used in Modeling (continued): For changes that do not involve an emission rate increase and do not require a permit amendment, the proposal must be submitted as soon as practicable, but no less than 60 days before making the change to any parameter. For changes that involve increases in emission rates and require a minor permit amendment, the proposal must be submitted as soon as practicable, but no less than 60 days before making the change to any parameter. For changes that involve increases in emission rates and that require a permit amendment other than a minor amendment, the proposal must be submitted prior to or with the permit amendment application. This is a state-only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act.	Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subps 7A, 7L & 7M; Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080
RECORDKEEPING	hdr
Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350, subp. 2), including records of the emissions resulting from those changes.	Minn. R. 7007.0800, subp. 5(B)
Recordkeeping: Retain all records at the stationary source for a period of five (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)

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-3**

05/21/08

Facility Name: Hutchinson Utilities Commission -Plant 1

Permit Number: 08500002 - 003

Recordkeeping: When the Permittee determines that no permit amendment or notification is required prior to making a change, the Permittee must retain records of all calculations required under Minn. R. 7007.1200. Records shall be kept for a period of five years from the date the change was made or until permit reissuance, whichever is longer. Records shall be kept at the stationary source for the current calendar year of operation and may be kept at the stationary source or office of the stationary source for all other years. Records may be maintained in either electronic or paper format.	Minn. R. 7007.1200, subp. 4
REPORTS AND SUBMITTALS	hdr
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
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
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
Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.	Minn. R. 7007.1150 through Minn. R. 7007.1500
Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H).	Minn. R. 7007.1400, subp. 1(H)
Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance. The Permittee shall submit this on a form approved by the Commissioner.	Minn. R. 7019.3000 through Minn. R. 7019.3010
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095

TABLE A: LIMITS AND OTHER REQUIREMENTS**A-4**

05/21/08

Facility Name: Hutchinson Utilities Commission -Plant 1

Permit Number: 08500002 - 003

Subject Item: GP 001 Reciprocating Engines**Associated Items:** EU 001 Engine 2 (Dual Fuel); SV 001

EU 002 Engine 3 (Dual Fuel); SV 002

EU 003 Engine 4 (Dual Fuel); SV 003

EU 004 Diesel Engine 5; SV 004

EU 005 Diesel Engine 6; SV 005

EU 006 Engine 7 (Dual Fuel); SV 006

EU 008 Emergency Generator; SV 008

What to do	Why to do it
Opacity: less than or equal to 20 percent opacity once operating temperatures have been attained. This standard applies individually to each GP 001 emission unit.	Minn. R. 7011.2300, subp. 1
Sulfur Content of Fuel: less than or equal to 0.05 percent by weight for diesel fuel oil. This standard applies individually to each GP 001 emission unit that burns diesel fuel oil, and is more restrictive than the 0.5 lb SO ₂ /mmBtu limit of Minn. R. 7011.2300, subp. 2.	Minn. R. 7007.0800, subp. 2; meets requirements of Minn. R. 7011.2300, subp. 2
Permitted Fuels: Dual Fuel (95% Pipeline Natural Gas/5% Diesel) - EU 001, EU 002, EU 003, and EU 006. Diesel Fuel Oil - EU 001, EU 002, EU 003, EU 004, EU 005, and EU 006 Natural Gas - EU 008	Minn. R. 7007.0800, subp. 2
Operating Hours Limits (12-month Rolling Sum): EU 001 - 300 hr/yr EU 002 - 600 hr/yr EU 003 - 600 hr/yr EU 004 - 300 hr/yr EU 005 - 300 hr/yr EU 006 - 600 hr/yr This is a state-only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act.	Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subps. 7A, 7L & 7M; Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080
Recordkeeping of Operating Hours - The Permittee shall record the individual operating hours for each emission unit subject to this requirement: 1. Once each day the Permittee shall record the individual operating hours for EU 001, EU 002, EU 003, EU 004, EU 005, and EU 006 for the previous day; 2. By the 15th day of each month, the Permittee shall calculate and record the individual operating hours for EU 001, EU 002, EU 003, EU 004, EU 005, and EU 006 for the previous month and the previous 12-month period (12-month rolling sum). The 12-month rolling sum shall be determined by summing the monthly operating hours for the previous 12 months, for each emission unit subject to this requirement.	Minn. R. 7007.0800, subp. 4 and 5
Diesel Fuel Supplier Certification: The Permittee shall obtain and maintain a fuel supplier certification for each shipment of diesel fuel oil, certifying that the sulfur content does not exceed 0.05% by weight. In lieu of a certification for each delivery, the Permittee may obtain a single certification stating that all fuel deliveries thereafter will contain no greater than 0.05% sulfur by weight, and that if a delivery contains greater than 0.05% sulfur by weight, that the fuel supplier will notify the Permittee of such in writing at the time of delivery.	Minn. R. 7007.0800, subp. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Hutchinson Utilities Commission -Plant 1
Permit Number: 08500002 - 003

Subject Item: EU 007 Gas Turbine 8 (combined cycle); SV 007

Associated Items: SV 007

What to do	Why to do it
Opacity: less than or equal to 20 percent opacity once operating temperatures have been attained.	Minn. R. 7011.2300, subp. 1
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input (potential to emit based on permitted fuel type is 0.0034 lb/mmBtu).	Minn. R. 7011.2300, subp. 2
Permitted Fuel: Pipeline Natural Gas only	Minn. R. 7007.0800, subp. 2

TABLE B: SUBMITTALS**B-1** 05/21/08

Facility Name: Hutchinson Utilities Commission -Plant 1
Permit Number: 08500002 - 003

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.

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 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 any application for a permit or permit amendment to:

AQ Permit Technical Advisor
Industrial Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

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

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

AQ Compliance Tracking Coordinator
Industrial Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

Facility Name: Hutchinson Utilities Commission -Plant 1
Permit Number: 08500002 - 003

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before expiration of Existing Permit	Total Facility

TABLE B: RECURRENT SUBMITTALS**B-3** 05/21/08

Facility Name: Hutchinson Utilities Commission -Plant 1

Permit Number: 08500002 - 003

What to send	When to send	Portion of Facility Affected
Semiannual Deviations Report	due 30 days after end of each calendar half-year starting 05/07/2002. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. If no deviations have occurred, the Permittee shall submit the report stating no deviations.	Total Facility
Compliance Certification	due 31 days after end of each calendar year starting 05/07/2002. The Permittee shall submit the certification on a form approved by the Commissioner, both to the Commissioner and to the US EPA regional office in Chicago. This report covers all deviations experienced during the calendar year.	Total Facility

Appendix B: Stack Parameters Used In NO_x Modeling for Permit No. 0850000-002

SV #	EASTING	NORTHING	ELEV (M)	EMISSION RATE #/HOUR*	STACK HEIGHT (FT)	STACK DIA (FT)	STACK TEMP DEG (F)	EXIT VELOCITY (FT/MIN)
SV 001	391913	4972348	317	2.08	47.90	1.969	859.	6570.87
SV 002	391925	4972331	317	7.67	37.89	2.657	880.	6958.66
SV 003	391927	4972330	317	7.67	37.89	2.657	880.	6958.66
SV 004	391937	4972326	317	2.30	37.89	2.493	415.	4096.46
SV 005	391943	4972324	317	2.30	37.89	2.493	415.	4096.46
SV 006	391949	4972322	317	8.33	47.90	3.346	443.	4092.52
SV 007	391990	4972312	317	140.79	55.51	6.102	324.	4820.87
SV 008	391909	4972336	317	0.14	2.00	0.164	1200.	12834.65
SV 009	391963	4972334	317	0.14	29.99	0.656	300.	1232.28

*SV 001 through SV 006 lb/hr emission rates were determined by dividing the limited pound per year emissions by 8760 hr/yr
For example, SV 001 lb/hr potential emission rate is 60.8 lb/hr, and is limited to 300 hr/yr.
 $(60.8 \text{ lb/hr} * 300 \text{ hr/yr}) / 8760 \text{ hr/yr} = 2.08 \text{ lb/hr}$

SV 008 is an emergency generator, and the lb/hr emission rate was determined similarly, using 600 hr/yr. An operating hours limit is not needed because equipment is designed to run a maximum of 500 hr/yr, as supported by the 1995 EPA emergency generator PTE guidance memo that allows calculation of PTE based on 500 hr/yr.

Appendix C: Insignificant Activities Required To Be Listed

TK 001 - 310,000 gallon fuel oil storage tank plus 5 indoor day tanks for a total capacity of 312,881 gallons (Minn. R. 7007.1300, subp. 4). EPA TANKS 4.09 program predicts VOC emissions of 207 lb/yr.

6 natural gas-fired space heaters total heat input of 1.275 mmBtu/hr and potential NO_x emissions of 1,117 lb/yr (Minn. R. 7007.1300, subp. 3.A.). Applicable rules are Minn. R. 7011.0510 and Minn. R. 7011.0515. (Opacity and PM)

1 natural gas-fired boiler (EU 009) with a heat input of 1.438 mmBtu/hr and potential NO_x emissions of 1,260 lb/yr (Minn. R. 7007.1300, subp. 3.I.(2)). Applicable Rule is Minn. R. 7011.0515. (Opacity and PM)

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 08500002-003

This technical support document (TSD) is for all parties interested in the permit and meets the requirements of 40 CFR § 70.7(a)(5) and Minn. R. 7007.0850, subp. 1. The purpose of this document is to provide the legal and factual justification for each applicable requirement or policy decision considered in the determination to issue the permit.

1. General Information

1.1. Applicant and Stationary Source Location:

Owner and Operator Address and Phone Number	Facility Address (SIC Code: 4911)
Hutchinson Utilities Commission 225 Michigan Street Hutchinson, Minnesota 55350 Steve Lancaster (320) 587-4721	44 Fourth Avenue Northeast Hutchinson McLeod County

1.2. Description of the Permit Action

This is a reissuance of the title V operating permit.

This facility is a municipal electric power plant that operates for backup electric service (if the primary electric provider loses power), peak shaving during peak demand periods, and for routine exercising of equipment. The facility is composed of four dual-fuel reciprocating engine generators, two diesel reciprocating engine generators, a natural gas/oil-fired gas turbine generator, a 30 kilowatt (kw) emergency generator, small heating boiler, six space heaters, a 310,000 gallon fuel oil storage tank, and 5 fuel oil day tanks (total storage capacity for all tanks is 312,881 gallons). Total generating capacity (excluding the emergency generator) is 35,780 kw.

1.3 Description of any Changes Allowed with this Permit Issuance

No changes are authorized by this permit action.

1.4 Description of All Amendments Issued Since the Issuance of the Last Total Facility Permit

Permit Number and Issuance Date	Action Authorized
No. 08500002-002 9/17/2003	Added operating limits for the six reciprocating engines, required increase of stack heights and incorporates stack and emissions data relied upon during state-only NO _x ambient air modeling

1.5. Facility Emissions:

Table 1. Total Facility Potential to Emit Summary

	PM tpy	PM ₁₀ tpy	SO ₂ tpy	NO _x tpy	CO tpy	VOC tpy	Total HAPs tpy
Total Facility Limited Potential Emissions	8.8	8.8	4.5	359	104	9.1	0.79
Total Facility Actual Emissions (2006)	1.07	1.04	0.69	61.9	18.8	1.66	HAPs not reported in emission inventory

Table 2. Facility Classification

Classification	Major/Affected Source	Synthetic Minor	Minor
PSD	NO _x	CO	PM, PM ₁₀ , SO ₂ , VOC, Pb
Part 70 Permit Program	NO _x , CO	VOC	PM ₁₀ , SO ₂ , Pb
Part 63 NESHAP			HAPs

¹SO₂ based on applicable Minn. R. 7011.2300 limit of 0.5 lb/mmBtu

2. Regulatory and/or Statutory Basis

New Source Review

The facility is an existing major source under New Source Review regulations. No changes are authorized by this permit. The facility includes a combined cycle gas turbine (gas turbine No. 8). Electric output is less than 25 MW and therefore the unit is not an electric utility steam generating unit as defined at §52.21. The facility is not a listed source category under §52.21, and as a result the facility is subject to the 250 ton per year major source threshold (and not the 100 ton per year major source threshold).

Part 70 Permit Program

This facility is a major source under the part 70 permit program.

New Source Performance Standards (NSPS)

There are no New Source Performance Standards applicable to the operations at this facility. The reciprocating engines and combustion turbine were manufactured before the applicability dates for Subparts IIII and GG, respectively.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

The source is a natural minor source for HAPs. No area source NESHAPs apply to this source.

Minnesota State Rules

Portions of the facility are subject to the following Minnesota Standards of Performance:

- Minn. R. 7011.2300 Standards of Performance for Stationary Internal Combustion Engines

Table 3. Regulatory Overview of Facility

Subject Item	Applicable Regulations	Comments
Total Facility	Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subps. 7A, 7L & 7M; Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010 - 7009.0080	Parameters relied upon during NO _x modeling can not be changed if such changes do not result in equal or better dispersion characteristics of NO _x emissions that were modeled for permit No. 08500002-002. This is a state-only requirement and is not enforceable by the EPA Administrator and citizens under the Clean Air Act.
EU 001 - EU 006 (in GP 001)		Operating hours limits and recordkeeping for EU 001 through EU 006 to avoid violation of NO _x MAAQS. These are a state-only requirements not enforceable by the EPA Administrator and citizens under the Clean Air Act.
	Minn. R. 7011.2300	Opacity and SO ₂ limits for internal combustion engines
EU 007	Minn. R. 7011.2300	Opacity and SO ₂ limits for internal combustion engines

Native American Tribes

This facility is located in McLeod County. Upper and Lower Sioux Tribes have indicated they would like to be informed of air permitting activities for sources located in McLeod County. Tribes were contacted October 26, 2007 and indicated they had no special interest in this project.

3. Technical Information

HUC has removed diesel fuel as a permitted fuel for the gas turbine (EU 007). The gas turbine is permitted to combust only natural gas. This results in a reduction of the limited NO_x potential emissions and a reduction in NO_x ambient impacts. NO_x modeling performed as part of permit No. 0850000-002 used EU 007 NO_x emissions based on fuel oil combustion (140.8 lb/hr), which is worst-case compared to EU 007 NO_x emissions from natural gas combustion (51.2 lb/hr). Therefore, remodeling of NO_x emissions is not required due to this change of permitted fuel type.

3.1 Emission Calculations

Emissions were calculated using AP-42 emission factors.

3.2 Periodic Monitoring

In accordance with the Clean Air Act, it is the responsibility of the owner or operator of a facility to have sufficient knowledge of the facility to certify that the facility is in compliance with all applicable requirements.

In evaluating the monitoring included in the permit, the MPCA considers the following:

- The likelihood of violating the applicable requirements;
- Whether add-on controls are necessary to meet the emission limits;
- The variability of emissions over time;
- The type of monitoring, process, maintenance, or control equipment data already available for the emission unit;
- The technical and economic feasibility of possible periodic monitoring methods; and
- The kind of monitoring found on similar units elsewhere.

Table 4 summarizes the periodic monitoring requirements for those emission units for which the monitoring required by the applicable requirement is nonexistent or inadequate.

Table 4. Periodic Monitoring

Emission Unit or Group	Requirement (basis)	Additional Monitoring	Discussion
EU 001, EU 002, EU 003, EU 004, EU 005, EU 006 (in GP 001)	Annual operating hours limits (Minn. Stat. Section 116.07, subds. 4a & 9; Minn. R. 7007.0100, subps. 7A, 7L & 7M; Minn. R. 7007.0800, subps. 1, 2 & 4; Minn. R. 7009.0010-7009.0080) 20% opacity and 0.5 lb SO ₂ /mmBtu (Minn. R. 7011.2300)	Daily and monthly recordkeeping of operating hours Fuel supplier certifications of sulfur content	Needed to verify compliance with modeling-based operating hours limits to avoid exceedance of annual NO _x MAAQS

3.3 Insignificant Activities

Table 5 summarizes the insignificant activities required to be listed that are present at the facility.

Table 5. Insignificant Activities

Insignificant Activity	General Applicable Emission limit	Discussion
310,000 gallon fuel oil storage tank & 5 indoor day tanks; total capacity of 312,881 gallons	None (due to low vapor pressure of fuel oil)	
Individual units with actual emissions less than 2000 lb/year of certain pollutants	PM, variable depending on airflow Opacity ≤ 20% (Minn. R. 7011.0510/0515)	1.438 mmBtu/hr natural gas-fired boiler; highly unlikely this unit could violate the applicable requirement based on AP-42 factors and fuel type.
Space heaters	PM, variable depending on airflow Opacity ≤ 20% (Minn. R. 7011.0510/0515)	6 natural gas-fired space heaters total heat input of 1.275 mmBtu/hr; unlikely they could violate the applicable requirement based on AP-42 factors and fuel type.

3.4 Comments Received

Public Notice Period: March 21 – April 21, 2008

EPA 45-day Review Period: March 21 – May 6, 2008

No comments were received from the public during the public notice or the EPA review period.

4. Conclusion

Based on the information provided by Hutchinson Utilities Commission, the MPCA has reasonable assurance that the operation of the emission facility, as described in the Air Emission Permit No. 08500002-003 and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Marshall Cole (permit writer/engineer)
 Brett Rohne (enforcement)
 Peggy Bartz (peer reviewer)

AQ File No. 929A; DQ #1290

Attachments: 1. Emissions Summary
 2. CD-01 Forms