

**AIR EMISSION PERMIT NO. 08500002-002**

**IS ISSUED TO**

**Hutchinson Utilities Commission**

Hutchinson Utilities Commission -Plant 1  
44 4th Avenue Northeast  
Hutchinson, McLeod County, MN 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	Issue Date	Action Number
Total Facility Operating Permit	06/24/1998	05/07/2002	001
Major Amendment	03/21/2003	See below	002

This permit authorizes the permittee to operate and modify 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 defined in the state air pollution control rules unless the term is explicitly defined in the permit.

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

**Issue Date:** September 17, 2003

**Expiration:** May 7, 2007

All Title I Conditions do not expire.

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Ann M. Foss  
Major Facilities Section Manager  
Majors And Remediation Division

for Sheryl A. Corrigan  
Commissioner  
Minnesota Pollution Control Agency

MC:lh

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**NOTICE TO THE PERMITTEE:**

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

Metro Area (651) 296-6300

Outside Metro Area 1-800-657-3864

TTY (651) 282-5332

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

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

**PERMIT SHIELD:**

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

**FACILITY DESCRIPTION:**

This 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 internal combustion engine generators, two diesel reciprocating internal combustion engine generators, a natural gas/oil-fired 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.

**PER 002**

This permitting action adds operating limits for the six reciprocating engines, requires the increase of reciprocating engine stack heights within 90 days after permit issuance, and incorporates stack and emissions data relied upon during NO<sub>x</sub> ambient air modeling. The stack and emissions data is located in the Appendix of the permit.

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

09/17/03

Facility Name: Hutchinson Utilities Commission -Plant 1

Permit Number: 08500002 - 002

**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**

<b>What to do</b>	<b>Why to do it</b>
Increase of Stack Heights: Within 90 days after permit issuance, the Permittee shall complete all stack height increases necessary to attain the stack height described for each stack/vent in the Appendix of this permit.	Minn. R. 7007.0800, subp. 2
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
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
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)

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

09/17/03

Facility Name: Hutchinson Utilities Commission -Plant 1

Permit Number: 08500002 - 002

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)
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: 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)
Emission Inventory Report: due 91 days after end of each calendar year following permit issuance (April 1). The Report shall be submitted on a form approved by the Commissioner.	Minn. R. 7019.3000 through Minn. R. 7019.3010
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

09/17/03

Facility Name: Hutchinson Utilities Commission -Plant 1

Permit Number: 08500002 - 002

**Subject Item: GP 001 Internal Combustion 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 007 Gas Turbine 8 (combined cycle); SV 007  
 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.	Minn. R. 7007.0800, subp. 2; meets requirements of Minn. R. 7011.2300, subp. 2
Permitted Fuels:  Pipeline Natural Gas - EU 001, EU 002, EU 003, EU 006, EU 007, and EU 008 Diesel Fuel Oil - EU 001, EU 002, EU 003, EU 004, EU 005, EU 006, and EU 007	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	Minn. R. 7009.0020 to avoid violation of the NOx National Ambient Air Quality Standard; Minn. R. 7007.0800, subp. 2
Stack Parameters and Emission Rates Relied Upon During NOx Modeling: The Permittee shall not make any change to the facility that would decrease the dispersion characteristics of NOx emissions from the emission units in GP 001. The stack parameters and emission rates relied upon during NOx modeling are listed in the Appendix of this permit.	Minn. R. 7009.0020 to avoid violation of the NOx National Ambient Air Quality Standard; Minn. R. 7007.0800, subp. 2
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 Oil Supplier Certification: The Permittee shall obtain a certification from the diesel fuel oil supplier for each fuel delivery, specifying the percent sulfur by weight in the fuel. All certifications shall be maintained for five years from the date of receipt.  In lieu of a certification for each delivery, the Permittee may obtain a single certification from the fuel supplier that guarantees a maximum sulfur content in all diesel fuel deliveries thereafter. The single certification shall also state that the supplier will notify the Permittee in writing on the date of delivery of diesel fuel oil with a sulfur content exceeding the guaranteed maximum value, that the diesel fuel oil sulfur content exceeds the guaranteed maximum value.	Minn. R. 7007.0800, subp. 4 and 5

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

09/17/03

Facility Name: Hutchinson Utilities Commission -Plant 1

Permit Number: 08500002 - 002

**Subject Item:** EU 009 Boiler; SV 009**Associated Items:** SV 009

What to do	Why to do it
Stack Parameters and Emission Rates Relied Upon During NOx Modeling: The Permittee shall not make any change to EU 009 or SV 009 that would decrease the dispersion characteristics of NOx emissions from SV 009. The stack parameters and emission rates relied upon during NOx modeling are listed in the Appendix of this permit.	Minn. R. 7009.0020 to avoid violation of the NOx National Ambient Air Quality Standard; Minn. R. 7007.0800, subp. 2



## TABLE B: SUBMITTALS

09/17/03

Facility Name: Hutchinson Utilities Commission -Plant 1  
Permit Number: 08500002 - 002

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**

09/17/03

Facility Name: Hutchinson Utilities Commission -Plant 1

Permit Number: 08500002 - 002

What to send	When to send	Portion of Facility Affected
Notification	due 15 days after Install of stack extensions to attain the stack height described for each stack/vent in the Appendix of this permit. The Notification shall indicate the height of each stack after installation of each stack extension. The Notification is due 15 days after completion of the installation of all extensions.	Total Facility

**TABLE B: RECURRENT SUBMITTALS**

09/17/03

Facility Name: Hutchinson Utilities Commission -Plant 1

Permit Number: 08500002 - 002

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 semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. If no deviations have occurred, the Permittee shall submit the report stating no deviations.	Total Facility
Compliance Certification	due 31 days after end of each calendar year starting 05/07/2002 . The Certification shall be submitted on a form approved by the Commissioner, both to the Commissioner and to the US EPA regional office in Chicago. This report covers all deviations experienced during the calendar year.	Total Facility

## APPENDIX

Facility Name: Hutchinson Utilities Commission -Plant 1

Permit Number: 08500002-002

STACK PARAMETERS USED IN NO<sub>x</sub> MODELING

SV #	EASTING	NORTHING	ELEV (M)	EMISSION RATE #/HOUR*	STACK HEIGHT (FT)	STACK DIA (FT)	STACK TEMP DEG (F)	EXIT VELOCITY (FT/MIN)	ACFM
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
SV 001	391913	4972348	317	2.08	47.90	1.969	859.	6570.87	19998
SV 002	391925	4972331	317	7.67	37.89	2.657	880.	6958.66	38597
SV 003	391927	4972330	317	7.67	37.89	2.657	880.	6958.66	38597
SV 004	391937	4972326	317	2.30	37.89	2.493	415.	4096.46	20003
SV 005	391943	4972324	317	2.30	37.89	2.493	415.	4096.46	20003
SV 006	391949	4972322	317	8.33	47.90	3.346	443.	4092.52	35996
SV 007	391990	4972312	317	140.79	55.51	6.102	324.	4820.87	140997
SV 008	391909	4972336	317	0.14	2.00	0.164	1200.	12834.65	271
SV 009	391963	4972334	317	0.14	29.99	0.656	300.	1232.28	417
TOTAL				171.43					

\*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.

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 NOx 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.

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

**DRAFT**

**TECHNICAL SUPPORT DOCUMENT  
For  
DRAFT AIR EMISSION PERMIT NO. 08500002-002**

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 and Phone Number	Facility Address (SIC Code: 4911)
Hutchinson Utilities Commission 225 Michigan Street Hutchinson, Minnesota 55350 (320) 587-4745	44 Fourth Avenue Northeast Hutchinson McLeod County

**1.2. Description Of The Facility**

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 the Activities Allowed By This Permit Action**

This permitting action adds operating limits for the six reciprocating engines, requires increase of stack heights within 90 days after permit issuance, and incorporates stack and emissions data relied upon during NO<sub>x</sub> ambient air modeling. The stack and emissions data is located in the Appendix of the permit.

## 1.4. Facility Emissions:

Table 1. Total Facility Potential to Emit Summary:

	PM tpy	PM <sub>10</sub> tpy	SO <sub>2</sub> tpy	NO <sub>x</sub> tpy	CO tpy	VOC tpy	Pb tpy	All HAPs tpy
Emission Changes Due To This Permitting Action*	(48.7)	(40.1)	(35.7)	(2235.7)	(755.5)	(120.2)	0	(2.98)
Total Facility Limited Potential Emissions	11.4	10.9	10.3	751.4	104.5	9.2	0.01	1.06

\*data in parenthesis is an emissions decrease

**2. Regulatory and/or Statutory Basis**

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

**Regulatory Overview of Units Affected by the Modification**

Table 2. Regulatory Overview for This Permitting Action

EU, GRP, or SV #	Applicable Regulations	Comments
FC	Minn. R. 7007.0800, subp. 2	Completion of stack height increases within 90 days after permit issuance to avoid violation of NO <sub>x</sub> NAAQS.
GP 001	Minn. R. 7009.0020 to avoid violation of the NO <sub>x</sub> National Ambient Air Quality Standard; Minn. R. 7007.0800, subp. 2	Operating hours limits and recordkeeping for EU 001 through EU 006 to avoid violation of NO <sub>x</sub> NAAQS
GP 001 EU 009	Minn. R. 7009.0020 to avoid violation of the NO <sub>x</sub> National Ambient Air Quality Standard; Minn. R. 7007.0800, subp. 2	Changes to stack parameters relied upon during NO <sub>x</sub> modeling can not be made that cause a decrease in dispersion characteristics of NO <sub>x</sub> emissions

### **3. Technical Information**

The Permittee was required by PER 001 to conduct NO<sub>x</sub> modeling because SCREEN3 identified potential NO<sub>x</sub> NAAQS problems. Based on the results of that modeling, the Permittee submitted an application for a major permit amendment to incorporate the operating hours limits into the permit for the six reciprocating internal combustion engines at the facility:

EU 001, EU 004, and EU 005: 300 hours per year for each emission unit;  
EU 002, EU 003, and EU 006: 600 hours per year for each emission unit.

All limits are on a 12-month rolling sum basis.

NO<sub>x</sub> emissions from EU 008 (a 30 kW emergency generator) operating at 600 hours per year were included in the modeling. An EU 008 operating hours limit was not added to the permit because the equipment is designed to operate a maximum of 500 hr/yr. This issue of design limitation is reflected in U.S Environmental Protection Agency's 1995 memo on guidance for calculating emergency generator Potential to Emit (PTE) which allows the use of 500 hr/yr for calculating emergency generator PTE.

The modeling was a state-only requirement, and therefore, the operating hours limits and recordkeeping are state-only requirements.

The PER 001 requirements for submittal of a NO<sub>x</sub> modeling protocol and modeling results, and implementation of corrective action based on modeling results, are no longer applicable and have been removed.

Comments Received During Public Notice or EPA 45-day Review Period: No comments were received during the public notice or the EPA 45-day review period.

### **4. Conclusion**

Based on the information provided by Hutchinson Utilities Commission, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 08500002-002 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: Marshall Cole, Jellil Abdella

Attachment: PER 002 Emissions Changes Spreadsheet