

**AIR EMISSION PERMIT NO. 10500054- 001
IS ISSUED TO**

Worthington Public Utilities

Worthington Diesel Generating Plant
350 Stower Drive
Worthington, Nobles County, MN 56187

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 Federal Pt. 70, Synthetic Minor PSD	Application Date March 1, 2001
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This permit authorizes the permittee to operate and construct the stationary source at the address listed above unless otherwise noted in Table A. The permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

Permit Type: Federal; Part 70, Limits to avoid federal new source review

Construction and Operation Issue Date: August 1, 2001

Operating Conditions Issue Date: September 21, 2001

Expiration: September 21, 2006
Title I Conditions do not expire.

Rodney E. Massey, P. E.
District Manager
South District

for Karen A. Studders
Commissioner
Minnesota Pollution Control Agency

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NOTICE TO THE PERMITTEE:

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

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

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

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

PERMIT SHIELD:

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

Subject to the limitations of Minn. R. 7007.1800 and 7017.0100, subp. 2, notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

FACILITY DESCRIPTION:

This permit allows for the construction and operation of a diesel engine electric generating station. Emission sources at the site will consist of seven engine generators, and two storage tanks for diesel fuel storage.

The permit contains federally enforceable limitations on fuel use that render the source minor under federal new source review. The units are exempt from the acid rain program due to fuel type and generator size.

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/21/01

Facility Name: Worthington Diesel Generating Plant

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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
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
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)

TABLE A: LIMITS AND OTHER REQUIREMENTS

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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
Application for Permit Reissuance: due 180 days before expiration of existing permit.	Minn. R. 7007.0400, subp. 2
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: 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)
Emissions Inventory Report due 91 days after the end of each calendar year following permit issuance. To 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

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Facility Name: Worthington Diesel Generating Plant

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What to do	Why to do it
EMISSION LIMITS	hdr
Opacity: less than or equal to 20 percent once operating temperatures have been attained. Limit applies to each unit individually.	Minn. R. 7011.2300, subp. 1
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input . (Met by fuel type limit.) Limit applies to each unit individually.	Minn. R. 7011.2300, subp. 2
OPERATING LIMITS	hdr
Sulfur Content of Fuel: less than or equal to 0.05 percent by weight . Compliance is determined by vendor certification. No shipment of fuel may exceed this percent.	40 CFR 72.7, New Unit Exemption
Fuel Usage: less than or equal to 1146625 gallons/year based on a 12 month rolling sum.	Title I Condition: Limit taken to restrict potential emissions to less than major source levels as defined by 40 CFR 52.21
COMPLIANCE DEMONSTRATION	hdr
Each month, by the 15th of the month, determine and record the previous month's fuel usage. Add the fuel use for each of the previous 12 months together and compare to the limit. Record the previous 12 month's fuel use.	Title I Condition: to demonstrate compliance with the limit taken to restrict potential emissions to less than major source levels
Vendor Certification: Maintain on site, vendor certifications for each delivery of fuel oil that specifies sulfur content of the fuel.	Minn. R. 7007.0800, subp. 4
EMISSIONS TESTING	hdr
Initial Performance Test: due 180 days after Initial Startup of the engines. Each engine shall be tested for opacity.	Minn. R. 7007.0800, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

09/21/01

Facility Name: Worthington Diesel Generating Plant

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What to do	Why to do it
The owner or operator shall keep copies of all records required by this section, except for the record required by paragraph (b) of this section, for at least 2 years. The record required by paragraph (b) will be kept for the life of the source.	40 CFR 60.116b(a)
The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.	40 CFR 60.116b(b)
Equip the storage vessel with a permanent submerged fill pipe.	Minn. R. 7011.1505

TABLE B: SUBMITTALS

09/21/01

Facility Name: Worthington Diesel Generating Plant
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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

09/21/01

Facility Name: Worthington Diesel Generating Plant

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What to send	When to send	Portion of Facility Affected
Computer Dispersion Modeling Information	due 1,096 days after Permit Issuance. Submit modeling data as specified in MPCA guidance for Modeling Information Requests for NOx. This modeling information is for data collection purposes, no modeling analysis is required at this time. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Total Facility
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup	GP001
Testing Frequency Plan	due 60 days after Initial Performance Test for opacity emissions. The plan shall specify a testing frequency based on the test data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of the MPCA.	GP001

TABLE B: RECURRENT SUBMITTALS

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Facility Name: Worthington Diesel Generating Plant

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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. If no deviations have occurred, the Permittee shall submit the report stating no deviations.	Total Facility
Compliance Certification	due 30 days after end of each calendar year following Permit Issuance (for the previous calendar year). To be submitted on a form approved by the Commissioner, 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

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 10500054-001

This technical support document is for all the interested parties of the permit. The purpose of this document is to set forth the legal and factual basis for the permit conditions, including references to the applicable statutory or regulatory provisions.

1. General Information

1.1. Applicant and Stationary Source Location:

Owner/Operator Address and Phone Number (list both if different)	Facility Address (SIC Code: 4911)
Worthington Public Utilities 318 9 th Street Box 458 Worthington, MN 56187	350 Stower Dr Worthington Nobles County

1.2. Description Of The Facility

This facility will consist of seven diesel engine generators. The fuel burned will be ultra low sulfur diesel oil (0.05% sulfur). Other emission sources on site will be two fuel oil storage tanks.

The permit contains limits on fuel use that limit annual capacity to about 12% of its potential. Those limits on fuel use restrict potential emissions to less than major source levels as defined by 40 CFR 52.21, the Prevention of Significant Deterioration program, and 40 CFR 63, the National Emission Standards for Hazardous Air Pollutants program.

1.4. Facility Emissions:

Table 2. *Total Facility Potential to Emit Summary:

	PM tpy	PM1 0 tpy	SO2 tpy	NOx tpy	CO tpy	VO C tpy	Pb tpy	Singl e HAP tpy	All HAP s tpy
Total Facility Limited Potential Emissions	2.95	2.95	3.85	244	29.7	9.24	-	4.25	6.01

Table 3. Permit Action Classification

Classification (put x in appropriate box)	Major/Affected Source	*Synthetic Minor	*Minor
PSD (list pollutant)		NOX	PM, PM10, SO2, CO, VOC
NAAR (list pollutant) NA			
Part 70 Permit Program (list pollutant)	NOx	HAPs	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 Units Affected by the Modification

Table 4. Regulatory Overview

*EU, GRP, or SV #	Applicable Regulations	**Comments
EU001-EU007 (GP001)	40 CFR 52.21 40 CFR 63	Limits on fuel use to restrict potential emissions to less than major source levels
	Minn. R. 7011.2300	Performance Standards for Internal Combustion Engines
TK001-TK002 (GP002)	40 CFR 60, Subp. Kb	Standards of Performance for Storage Vessels
	Minn. R. 7011.1505	Standards of Performance for Storage Vessels

3. Technical Information

Federal New Source Review: The permit contains limits on fuel use that restrict annual emissions of NOx, the pollutant of concern, to 245 tons per year. This is under the major source threshold of 250 tons.

In the past, the MPCA has set specific operational limits for the months during the first year of operation. This has been done at the behest of U.S. EPA Region V. Region V has stated that the reason for the specific limits during the first year of operation is to prevent the early use of the

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entire allotment for the year, thereby allowing the facility to create a situation in which it is likely to exceed its limit.

This permit does not specify when the allowable annual fuel use may be used. Worthington Public Utilities expects to begin operation of the facility early next year, possibly just prior to the beginning of the peaking season. Since the purpose of this generating plant is to provide peaking power, it is expected that the facility would operate primarily, if not solely, during the warmer summer months. As such, the MPCA is comfortable allowing Worthington Public Utilities to use the annual allowable fuel use at its discretion, all within the first few months of operation if necessary.

Federal New Source Performance Standards: There is no existing federal performance standard for stationary internal combustion engines. The tanks are subject to 40 CFR 60, Subp. Kb. They are of a size such that the only requirements of the regulation are to keep records of the dimensions.

Minnesota Performance Standards: The engines are subject to performance standards for internal combustion engines that set limits on sulfur and opacity emissions. The tanks are subject to performance standards for storage vessels that require a submerged fill.

Environmental Review: The company was required to perform an environmental review under Minnesota Rules. That Worksheet was public noticed June 25, 2001.

Dispersion Modeling: Screen 3 modeling was performed to verify that operation of the facility would not violate ambient NO_x standards. The results of the modeling were compared to both the annual ambient standard as well as the hourly emergency episode levels. Both were well below standards.

NESHAPs: The facility, with the federally enforceable fuel use limits, has potential HAP emissions of 0.06 tons per year of a single HAP, 0.12 tons total HAPs, and is therefore not considered a major source under the program. There are not existing NESHAP standards for this source category, major or area.

Title IV, Acid Rain Program: 40 CFR 72.7 exempts units from the Title IV program if; (1) the unit serves during the entire year one or more generators with a total nameplate capacity of 25 MWe or less, (2) burns fuel that does not include any coal or coal-derived fuel (with exceptions), and (3) burns gaseous fuel with an annual average sulfur content of 0.05 percent or less by weight and non-gaseous fuel with an annual average sulfur content of 0.05 percent or less by weight. The permit limits Worthington Public Utilities from receiving any shipment of oil that exceeds 0.05%. This is more restrictive than is required by the regulation.

Compliance Demonstration: The engines are subject to opacity limits and sulfur dioxide limits. The permit requires vendor certification to verify that sulfur will not exceed 0.05% by weight in the fuel. Performance testing for opacity is required.

4. Conclusion

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Date: 3/5/2004

Based on the information provided by Worthington Public Utilities, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 10500054-001 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

Attachment: Calculations
Dispersion Modeling Results