



**AIR EMISSION PERMIT NO. [10900008-007]
[989-91-OT-2, AMENDMENT No. 4]**

IS ISSUED TO

ST. MARY'S HOSPITAL
1216 Southwest 2nd Street
Rochester, Minnesota 55902

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

Total facility permit application received December 15, 1995.

This major permit amendment incorporates the Title I conditions and compliance demonstration requirements into the facility's operating permit. These Title I State Implementation Plan (SIP) conditions consist of emission limits necessary to demonstrate compliance with national and state ambient standards for sulfur dioxide. The Permittee must comply with all the conditions of the permit and with all general conditions listed in Minn. R. 7007.0800, subp. 16, and all standard permit requirements listed in 40 CFR § 70.6(a). 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.

Issue Date: February 28, 1997

Expiration: Pursuant to Minn. R. 7007.0350, subp. 2, if a stationary source is operating under an air emission permit issued by the Minnesota Pollution Control Agency (MPCA) under Minn. R. 7001.1200 to 7001.1220, and if the Permittee submits a complete application for reissuance by March 15, 1995, under Minn. R. 7007.0100 to 7007.1850, the permit shall be considered not to expire until a new permit is issued.

A handwritten signature in cursive script, appearing to read "Michael J. Sandusky".

Michael J. Sandusky
Acting Division Manager
Air Quality Division

for Peder J. Larson
Commissioner
Minnesota Pollution Control Agency

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NOTICE TO THE PERMITTEE

Your stationary source may be subject to the requirements of the 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 (612)296-6300

Outside Metro Area 1-800-657-3864

TTY (612)282-5332

The rules governing these programs are contained in Minnesota Rules (Minn. R.) chapters (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.

FACILITY DESCRIPTION

St. Mary's Hospital is a tertiary care hospital which includes several buildings located on a 49 acre campus. The primary emission units at the facility are three identical boilers which exhaust through a common stack, one cogeneration turbine, and two emergency generators. The design heat input of each boiler is 107.05 MMBtu/hr while combusting natural gas. Each boiler combusts natural gas with distillate fuel oil as back up. The cogeneration turbine burns only natural gas. One emergency generator burns natural gas with distillate fuel oil as back up. The other generator burns only distillate fuel oil. The boilers were installed in 1992, the cogeneration turbine in 1996, and the emergency generators in 1984 and 1978.

Deletions:

Additions:

Add the following Section IX, entitled SIP Related Conditions, to Air Emission Permit No. 989-91-OT-2:

IX. State Implementation Plan (SIP) Related Conditions

Subject Items:	EU038	Boiler, Unit # 1
	EU039	Boiler, Unit # 2
	EU040	Boiler, Unit # 3

Associated Items: SV025

The following requirements and conditions apply to each of the boiler units identified above.

What to do	Why to do it
Sulfur Content of Fuel: less than or equal to 0.5% by weight. The Permittee shall burn only natural gas or very low sulfur oil (as defined in 40 CFR 60.41b).	Title I Condition: State Implementation Plan for SO ₂ (also ensures compliance with 40 CFR 60.42b)
The Permittee shall ensure that the fuel supplier uses an approved American Society of Testing and Materials (ASTM) method to determine the sulfur content of liquid fuels in order to determine compliance with the sulfur content standard.	Title I Condition: State Implementation Plan for SO ₂
The Permittee shall obtain and maintain a fuel supplier receipt from the fuel supplier for each shipment of very low sulfur oil certifying that the oil meets the definition of very low sulfur oil as defined in 40 CFR 60.41b.	Title I Condition: State Implementation Plan for SO ₂ (also ensures compliance with 40 CFR 60.49b(r))

Subject Items: EU041 Emergency Generator (Electro Motive)

Associated Items: SV026

What to do	Why to do it
Sulfur Content of Fuel: less than or equal to 0.41% by weight. The Permittee shall burn only distillate oil.	Title 1 Condition: State Implementation Plan for SO ₂
The Permittee shall ensure that the fuel supplier uses an approved ASTM method to determine the sulfur content of liquid fuels in order to determine compliance with the sulfur content standard.	Title 1 Condition: State Implementation Plan for SO ₂
<p>Fuel Oil Sulfur Content: The Permittee shall determine the sulfur content using either method 1 or 2:</p> <p>Method 1. The Permittee shall obtain and maintain a fuel supplier receipt for each shipment of distillate fuel oil delivered certifying that the shipment complies with the ASTM specifications for distillate fuel oil and that the sulfur content is less than or equal to 0.41% by weight as determined by ASTM method D 1552 or in accordance with the current ASTM method.</p> <p>Method 2. The Permittee shall calculate and record the sulfur content of the fuel oil in each tank which supplies fuel to the emergency generators after each delivery of fuel oil to the tank.</p>	Title 1 Condition: State Implementation Plan for SO ₂

The following steps shall be taken:

a) The Permittee shall sample fuel oil from the tank(s) prior to the initial delivery of fuel oil when using this method. Sampling of each tank shall be conducted at least once a calendar year for any calendar year in which this method is used. The Permittee shall analyze the oil sample to determine the sulfur content of the fuel oil in percent by weight in accordance with ASTM method D 1552 or with the current ASTM method. The percent sulfur of the sample shall be used to determine the average percent sulfur in the equation below (fill in as Last Average % Sulfur).

b) Before the end of the following business day after each fuel delivery to a tank which supplies fuel oil to the emergency generators, the Permittee shall calculate the maximum percent sulfur of the fuel oil using the following equation:

$$\text{Average \% Sulfur} = ((\text{Last Average \% Sulfur} * \text{Last Volume}) + (\% \text{ Sulfur of the Oil Delivery} * \text{Volume of the Oil Delivery})) / \text{Volume}$$

Where:

$$\text{Volume} = \text{Last Volume} - \Sigma \text{Volume Oil Burned} + \Sigma \text{Volume of Oil Delivered}$$

% Sulfur Each Oil Shipment = The sulfur content of the fuel from the fuel supplier receipt. The fuel supplier receipt shall certify the maximum sulfur weight percent of the fuel oil shipment as determined by ASTM method D 1552 or in accordance with the current ASTM method. The Permittee shall obtain and maintain receipts from the fuel supplier.

Subject Items: EU042 Emergency Generator (Fairbanks Morse)

Associated Items: SV027

What to do	Why to do it
Sulfur Content of Fuel: less than or equal to 0.41% by weight. The Permittee shall burn only natural gas or distillate oil.	Title I Condition: State Implementation Plan for SO ₂
The Permittee shall ensure that the fuel supplier uses an approved ASTM method to determine the sulfur content of liquid fuels in order to determine compliance with the sulfur content standard.	Title I Condition: State Implementation Plan for SO ₂
<p>Fuel Oil Sulfur Content: The Permittee shall determine the sulfur content using either method 1 or 2:</p> <p>Method 1. The Permittee shall obtain and maintain a fuel supplier receipt for each shipment of distillate fuel oil delivered certifying that the shipment complies with the ASTM specifications for distillate fuel oil and that the sulfur content is less than or equal to 0.41% by weight as determined by ASTM method D 1552 or in accordance with the current ASTM method.</p>	Title I Condition: State Implementation Plan for SO ₂

Method 2. The Permittee shall calculate and record the sulfur content of the fuel oil in each tank which supplies fuel to the emergency generators after each delivery of fuel oil to the tank. The following steps shall be taken:

a) The Permittee shall sample fuel oil from the tank(s) prior to the initial delivery of fuel oil using this method. Sampling of each tank shall be conducted at least once a calendar year for any calendar year in which this method is used. The Permittee shall analyze the oil sample to determine the sulfur content of the fuel oil in percent by weight in accordance with ASTM method D 1552 or with the current ASTM method. The percent sulfur of the sample shall be used to determine the average percent sulfur in the equation below (fill in as Last Average % Sulfur).

b) Before the end of the following business day after each fuel delivery to a tank which supplies fuel oil to the emergency generators, the Permittee shall calculate the maximum percent sulfur of the fuel oil using the following equation:

$$\text{Average \% Sulfur} = \left(\frac{(\text{Last Average \% Sulfur} * \text{Last Volume}) + (\% \text{ Sulfur of the Oil Delivery} * \text{Volume of the Oil Delivery})}{\text{Volume}} \right)$$

Where:

$$\text{Volume} = \text{Last Volume} - \Sigma \text{Volume Oil Burned} + \Sigma \text{Volume of Oil Delivered}$$

% Sulfur Each Oil Shipment = The sulfur content of the fuel from the fuel supplier receipt. The fuel supplier receipt shall certify the maximum sulfur weight percent of the fuel oil shipment as determined by ASTM method D 1552 or in accordance with the current ASTM method. The Permittee shall obtain and maintain receipts from the fuel supplier.

Subject Item: Total Facility

What to do	Why to do it
<p>Deviations from requirements cited as "Title I Condition: State Implementation Plan for SO₂" shall be reported semiannually with the Semiannual Deviations Report required by this permit. Reporting for these conditions shall occur even if there were no deviations for the reporting period.</p>	<p>Title I condition: State Implementation Plan for SO₂</p>
<p>State Implementation Plan Recordkeeping: Retain all records at the stationary source for a period of five years from the date of the required monitoring, sample, measurement, or report that corresponds with a "Title I condition: State Implementation Plan for SO₂" requirement.</p>	<p>Title I Condition: State Implementation Plan for SO₂</p>

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