



Matt Blunt, Governor • Doyle Childers, Director

DEPARTMENT OF NATURAL RESOURCES

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JUN - 5 2007

Mr. Don Campbell
Manager, Plant Services
Heartland Regional Medical Center East
5325 Faraon Street
St. Joseph, MO 64506

Re: Heartland Regional Medical Center East, 021-0063
Permit Number: **OP2007-019**

Dear Mr. Campbell:

Enclosed with this letter is your intermediate operating permit. Please review this document carefully. Operation of your installation in accordance with the rules and regulations, cited in this document, is necessary for continued compliance. It is very important you read and understand the requirements contained in your permit.

If you have any questions or need additional information regarding this permit, please contact Jason Dickneite at the Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or telephone (573) 751-4817. Thank you for your time and attention.

Sincerely,

AIR POLLUTION CONTROL PROGRAM



Michael J. Stansfield, P.E.
Operating Permit Unit Chief

MJS: jdk

Enclosure

c: Ms. Tamara Freeman, U.S. EPA Region VII
Kansas City Regional Office
PAMS File: 2003-04-061



INTERMEDIATE STATE PERMIT TO OPERATE

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to operate the air contaminant source(s) described below, in accordance with the laws, rules, and conditions set forth here in.

Intermediate Operating Permit Number: OP2007-019
Expiration Date: JUN - 4 2012
Installation ID: 021-0063
Project Number: 2003-04-061

Installation Name and Address

Heartland Regional Medical Center East
5325 Faraon Street
St. Joseph, MO 64506
Buchanan County

Parent Company's Name and Address

Heartland Health Systems
5325 Faraon Street
St. Joseph, MO 64506

Installation Description:

Heartland Regional Medical Center East is a medical facility located in St. Joseph Missouri. Process operations include combustion boilers, emergency generators, fuel oil storage vessels, natural gas-fired combustion dryers, and parts washers. The primary fuel for the combustion boilers is natural gas and the back-up fuel is No. 2 fuel oil.

JUN - 5 2007

Effective Date

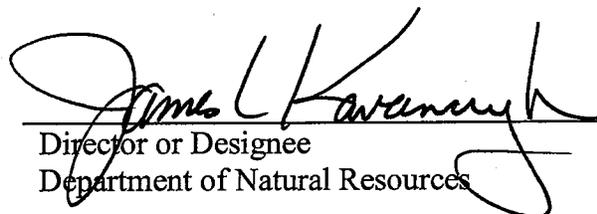

Director or Designee
Department of Natural Resources

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I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

Heartland Regional Medical Center East is a medical facility located in St. Joseph Missouri. Process operations include combustion boilers, emergency generators, fuel oil storage vessels, natural gas-fired combustion dryers, and parts washers. The primary fuel for the combustion boilers is natural gas and the back-up fuel is No. 2 fuel oil.

The installation is major for SO_x; however, the installation has accepted a voluntary limitation of the installation wide emissions of SO_x of 99.5 tons per year.

Reported Air Pollutant Emissions, tons per year							
Year	Particulate Matter ≤ Ten Microns (PM-10)	Sulfur Oxides (SO _x)	Nitrogen Oxides (NO _x)	Volatile Organic Compounds (VOC)	Carbon Monoxide (CO)	Lead (Pb)	Hazardous Air Pollutants (HAPs)
2005	0.41	0.08	5.39	0.28	4.29	--	--
2004	0.40	0.03	5.24	0.29	4.40	--	--
2003	0.37	0.06	4.89	0.26	3.96	--	--
2002	0.35	0.05	4.60	0.25	3.76	--	--
2001	0.37	0.16	4.86	0.25	3.92	--	--

EMISSION UNITS WITH LIMITATIONS

The following list provides a description of the equipment at this installation which emits air pollutants and which is identified as having unit-specific emission limitations.

Emission Unit #	Description of Emission Unit	2005 EIQ EP #
EU0010	Combustion Boiler #1	EP01
EU0020	Combustion Boiler #2	EP02
EU0030	Combustion Boiler #3	EP03
EU0040	Combustion Boiler #4	EP08
EU0050	1100 HP Emergency Generator	EP04
EU0060	1106 HP Emergency Generator	EP04/05
EU0070	Cummins Onan Emergency Generator	EP04

EMISSION UNITS WITHOUT LIMITATIONS

The following list provides a description of the equipment, which does not have unit specific limitations at the time of permit issuance.

Description of Emission Source	2005 EIQ EP #
Two 20,000-gallon No. 2 fuel oil underground storage vessels	EP06
One 4,000-gallon No. 2 fuel oil underground storage vessel	EP06
Two 160-gallon No. 2 fuel oil horizontal fixed roof storage vessels	EP06
One 275-gallon No. 2 fuel oil horizontal fixed roof storage vessel	EP06
Three natural gas-fired combustion dryers, 1.4 MMBtu/hr each	EP07
Two McQuay rooftop units, natural gas-fired, 1.875 MMBtu/hr each	EP07
Two sterilizers	NA
Two 20-gallon parts washers	NA

DOCUMENTS INCORPORATED BY REFERENCE

These documents have been incorporated by reference into this permit.

- 1) APCP Construction Permit #0498-003
- 2) APCP Construction Permit #062003-018

II. Plant Wide Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

PERMIT CONDITION PW001

10 CSR 10-6.065(2) and 10 CSR 10-6.065(5)(A) Voluntary Limitation(s)

Emission Limitation:

- 1) The permittee shall discharge into the atmosphere from the entire installation less than 99.5 tons of sulfur dioxide (SO_x) in any consecutive 12-month period.
- 2) The permittee shall comply with the following limitations to assure that SO_x emissions do not exceed the 99.5 ton per consecutive 12-month period limit.
 - a) Combustion Boilers #1 through #4 (EU0010 through EU0040) shall be limited to burning pipeline grade natural gas, No. 2 fuel oil with a sulfur content of no more than 0.5 % by weight, or any combination of these two fuels.
 - b) Generators (EU0050 through EU0070) shall be limited to burning No. 2 fuel oil with a sulfur content of no more than 0.5 % by weight.
 - c) The amount of fuel oil burned in the Combustion Boilers and Generators (EU0010 through EU0070) together shall not exceed 2,750,000 gallons in any consecutive 12-month period.

Monitoring:

The permittee shall monitor the amount of fuel oil burned in the Combustion Boilers and Generators (EU0010 through EU0070).

Recordkeeping:

- 1) The permittee shall record the amount of fuel oil burned in the Combustion Boilers and Generators (EU0010 through EU0070) on a monthly basis.
- 2) Attachment A contains a log including these recordkeeping requirements. This log, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 3) Attachment B contains a demonstration that the combustion of 2,750,000 gallons of No. 2 fuel oil will not cause the installation to exceed the plant-wide emission limitation of 99.5 tons SO_x per consecutive 12-month period. The permittee shall keep this attachment with this permit.
- 4) These records shall be made available to the Missouri Department of Natural Resources' personnel upon request.
- 5) All records shall be maintained for five years.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program (APCP) Enforcement Section, P. O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month, during which the source exceeds the limitation of this permit condition.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit

III. Emission Unit Specific Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

EU0010 AND EU0020 – COMBUSTION BOILERS #1 AND #2			
Emission Unit	Description	Manufacturer/Model #	2005 EQ Reference #
EU0010	Combustion Boiler #1: primary fuel: natural gas; secondary fuel: No. 2 fuel oil; MHDR: 26.56 MMBtu/hr; installed 1981	Cleaver Brooks /Model D34	EP01
EU0020	Combustion Boiler #2: primary fuel: natural gas; secondary fuel: No. 2 fuel oil; MHDR: 26.56 MMBtu/hr; installed 1981	Cleaver Brooks/ Model D34	EP02

PERMIT CONDITION (EU0010 and EU0020)-001
10 CSR 10-2.040 Maximum Allowable Emissions of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating

Emission Limitation:

The permittee shall not emit from Combustion Boilers #1 and #2 (EU0010 and EU0020) particulate matter in excess of 0.20 pounds per million BTU of heat input.

Operational/Equipment Limitation:

Combustion Boilers #1 and #2 (EU0010 and EU0020) shall be limited to burning pipeline grade natural gas and No. 2 fuel oil.

Monitoring/Recordkeeping:

The permittee will be in compliance with this regulation as long as the Combustion Boilers #1 and #2 (EU0010 and EU0020) burn natural gas and No. 2 fuel oil exclusively. Calculations demonstrating compliance are in Attachment C. The permittee shall keep this attachment with this permit. No additional monitoring or recordkeeping is required for this permit condition.

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by Section V of this permit.

PERMIT CONDITION (EU0010 and EU0020)-002
10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any source any visible emissions with an opacity greater than 20%.

- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60%.

Monitoring:

- 1) The permittee shall conduct opacity readings on these emission units (EU0010 and EU0020) using the procedures contained in USEPA Test Method 22. *Opacity readings are required only during periods when the combustion boilers are combusting No. 2 fuel oil.* At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission units are operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2) The following monitoring schedule must be maintained:
 - a) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.
- 3) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results (see Attachments D-1 or D-2), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment E)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment F)
- 4) Attachments D-1, D-2, E and F contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available to the Missouri Department of Natural Resources' personnel upon request.
- 6) All records shall be maintained for five years.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

PERMIT CONDITION (EU0010 and EU0020)-003
 10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds

Emission Limitation:

- 1) No person shall cause or permit emissions of sulfur dioxide into the atmosphere from any indirect heating source in excess of eight pounds of sulfur dioxide per million BTUs actual heat input averaged on any consecutive three hour time period.
- 2) No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010 Ambient Air Quality Standards.

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO ₂)	0.03 parts per million (ppm) (80 micrograms per cubic meter (µg/m ³))	Annual arithmetic mean
	0.14 ppm (365 µg/m ³)	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 µg/m ³)	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H ₂ S)	0.05 ppm (70 µg/m ³)	½-hour average not to be exceeded over 2 times per year
	0.03 ppm (42 µg/m ³)	½-hour average not to be exceeded over 2 times in any 5 consecutive days
Sulfuric Acid (H ₂ SO ₄)	10 µg/m ³	24-hour average not to be exceeded more than once in any 90 consecutive days
	30 µg/m ³	1-hour average not to be exceeded more than once in any 2 consecutive days

Operational Limitation:

Combustion Boilers #1 and #2 (EU0010 and EU0020) shall be limited to burning pipeline grade natural gas and No. 2 fuel oil with a sulfur content of no more than 0.5 % sulfur by weight.

Monitoring/Recordkeeping:

- 1) The permittee shall maintain records of the fuel burned (natural gas or No. 2 fuel oil) and verify the sulfur content. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
- 2) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 3) All records shall be maintained for five years.

Reporting:

Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

EU0030 AND EU0040 – COMBUSTION BOILERS #3 AND #4			
Emission Unit	Description	Manufacturer/Model #	2005 EIQ Reference #
EU0030	Combustion Boiler #3: primary fuel: natural gas; secondary fuel: No. 2 fuel oil; MHDR: 12.55 MMBtu/hr; installed 1994	Cleaver Brooks/ Model CB200-300	EP03
EU0040	Combustion Boiler #4: primary fuel: natural gas; secondary fuel: No. 2 fuel oil; MHDR: 21 MMBtu/hr; installed 2001; start-up 2003	Superior/ Model 4-5-2506-S150- GP-GA2	EP08

PERMIT CONDITION EU0030-001
10 CSR 10-6.060 Construction Permits Required
Construction Permit #0498-003, Issued March 13, 1998

Operational Limitation:

The sulfur content of the distillate oil combusted in Combustion Boiler #3 (EU0030) shall not exceed 0.50 percent by weight. The sulfur content of the fuel oil will be determined from the first delivery made in to the unit. [Special Condition 1]

Monitoring/Recordkeeping:

Heartland Regional Medical Center East shall maintain monthly and 12-month rolling average records to demonstrate compliance with Condition 1. These records shall be maintained on-site for five years and shall be made available for inspection to the Department of Natural Resources' personnel upon request. [Special Condition 2]

Reporting:

Heartland Regional Medical Center East shall report to the Air Pollution Control Program (APCP) Enforcement Section, P. O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month, during which the source exceeds the limitation of Special Condition 1. [Special Condition 3]

PERMIT CONDITION (EU0030 and EU0040)-002
10 CSR 10-6.070 New Source Performance Regulations
40 CFR Part 60 Subpart Dc Standards of Performance for Small Industrial-Commercial-Institutional
Steam Generating Units

Emission Limitation:

- 1) The permittee shall not combust oil in Combustion Boilers #3 and #4 (EU0030 and EU0040) that contains greater than 0.5 weight percent sulfur. [§60.42c(d)]
- 2) The permittee has elected to demonstrate compliance with the fuel oil sulfur limits based on a certification from the fuel supplier. [§60.42c(h)(1)]
- 3) The fuel oil sulfur limit applies at all times, including periods of startup, shutdown, and malfunction. [§60.42c(i)]

Monitoring:

The monitoring requirements of §60.46c do not apply to facilities where the owner or operator demonstrates compliance with the SO₂ standards based on fuel supplier certification. Therefore, there are no further monitoring requirements. [§60.46c(e)]

Recordkeeping/Reporting:

- 1) The permittee shall keep records and submit reports as required including the following information, as applicable: [§60.48c(e)]
 - a) Calendar dates covered in the reporting period. [§60.48c(e)(1)]
 - b) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under §60.48c(f)(1). [§60.48c(e)(11)]
 - i) Fuel supplier certification for distillate oil shall include the following information: [§60.48c(f)(1)]
 1. The name of the oil supplier; and [§60.48c(f)(1)(i)]
 2. A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in §60.41c. [§60.48c(f)(1)(ii)]
 - c) In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the responsible official that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period. [§60.48c(e)(11)]
 - 2) The permittee shall record and maintain records of the amounts of each fuel combusted during each month. [§60.48c(g)]
 - 3) All records shall be maintained for five years and shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
 - 4) The reporting period for the reports required under Subpart Dc is each six-month period. All reports shall be submitted to the MDNR and shall be postmarked by the 30th day following the end of the reporting period. [§60.48c(i)]
 - 5) The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by Section V of this permit.

EU0050 THROUGH EU0070 – GENERATORS			
Emission Unit	Description	Manufacturer/Model #	2005 EIO Reference #
EU0050	1100 HP Emergency Generator; internal combustion engine; No. 2 fuel oil-fired; MHDR: 7.7 MMBtu/hr; installed 1981	Caterpillar/Model D349	EP04
EU0060	1106 HP Emergency Generator; internal combustion engine; No. 2 fuel oil-fired; MHDR: 7.7 MMBtu/hr; installed 1994	Caterpillar/Model 3508	EP04/05
EU0070	Cummins Onan Emergency Generator; internal combustion engine; No. 2 fuel oil-fired; MHDR: 0.526 MMBtu/hr; installed 2005	Cummins Engine Onan Generator	EP04

PERMIT CONDITION (EU0050 through EU0070)-001
 10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds

Emission Limitation:

- 1) Emissions from any new source operation shall not contain more than five hundred parts per million by volume (500 ppmv) of sulfur dioxide.
- 2) Stack gasses shall not contain more than thirty-five milligrams (35 mg) per cubic meter of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three hour time period.
- 3) No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010 Ambient Air Quality Standards.

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO ₂)	0.03 parts per million (ppm) (80 micrograms per cubic meter (µg/m ³))	Annual arithmetic mean
	0.14 ppm (365 µg/m ³)	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 µg/m ³)	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H ₂ S)	0.05 ppm (70 µg/m ³)	½-hour average not to be exceeded over 2 times per year
	0.03 ppm (42 µg/m ³)	½-hour average not to be exceeded over 2 times in any 5 consecutive days
Sulfuric Acid (H ₂ SO ₄)	10 µg/m ³	24-hour average not to be exceeded more than once in any 90 consecutive days
	30 µg/m ³	1-hour average not to be exceeded more than once in any 2 consecutive days

Operational Limitation/Equipment Specification:

These emission units shall be limited to burning No. 2 fuel oil.

Monitoring/Recordkeeping:

- 1) The permittee shall maintain an accurate record of the sulfur content of fuel used. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
- 2) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 3) All records shall be maintained for five years.

Reporting:

Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

IV. Core Permit Requirements

The installation shall comply with each of the following requirements. Consult the appropriate sections in the Code of Federal Regulations (CFR), Code of State Regulations (CSR), and local ordinances for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

10 CSR 10-6.050 Start-up, Shutdown and Malfunction Conditions

- 1) In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the director within two business days, in writing, the following information:
 - a) Name and location of installation;
 - b) Name and telephone number of person responsible for the installation;
 - c) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
 - d) Identity of the equipment causing the excess emissions;
 - e) Time and duration of the period of excess emissions;
 - f) Cause of the excess emissions;
 - g) Air pollutants involved;
 - h) Best estimate of the magnitude of the excess emissions expressed in the units of the applicable requirement and the operating data and calculations used in estimating the magnitude;
 - i) Measures taken to mitigate the extent and duration of the excess emissions; and
 - j) Measures taken to remedy the situation that caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations.
- 2) The permittee shall submit the paragraph 1 information list to the director in writing at least ten days prior to any maintenance, start-up or shutdown, which is expected to cause an excessive release of emissions that exceed one hour. If notice of the event cannot be given ten days prior to the planned occurrence, it shall be given as soon as practicable prior to the release. If an unplanned excess release of emissions exceeding one hour occurs during maintenance, start-up or shutdown, the director shall be notified verbally as soon as practical during normal working hours and no later than the close of business of the following working day. A written notice shall follow within ten working days.
- 3) Upon receipt of a notice of excess emissions issued by an agency holding a certificate of authority under section 643.140, RSMo, the permittee may provide information showing that the excess emissions were the consequence of a malfunction, start-up or shutdown. The information, at a minimum, should be the paragraph 1 list and shall be submitted not later than 15 days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other pertinent information available, the director or the commission shall make a determination whether the excess emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under section 643.080 or 643.151, RSMo.
- 4) Nothing in this rule shall be construed to limit the authority of the director or commission to take appropriate action, under sections 643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding rule.
- 5) Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported.

10 CSR 10-6.060 Construction Permits Required

The permittee shall not commence construction, modification, or major modification of any installation subject to this rule, begin operation after that construction, modification, or major modification, or begin operation of any installation which has been shut down longer than five years without first obtaining a permit from the permitting authority.

10 CSR 10-6.065 Operating Permits

The permittee shall file a complete application for renewal of this operating permit at least six months before the date of permit expiration. In no event shall this time be greater than eighteen months. [10 CSR 10-6.065(5)(B)1.A(III)] The permittee shall retain the most current operating permit issued to this installation on-site. [10 CSR 10-6.065, §(5)(C)(1) and §(6)(C)1.C(II)] The permittee shall immediately make such permit available to any Missouri Department of Natural Resources personnel upon request. [10 CSR 10-6.065, §(5)(C)(1) and §(6)(C)3.B]

10 CSR 10-6.110 Submission of Emission Data, Emission Fees and Process Information

- 1) The permittee shall complete and submit an Emission Inventory Questionnaire (EIQ) in accordance with the requirements outlined in this rule.
- 2) The permittee shall pay an annual emission fee per ton of regulated air pollutant emitted according to the schedule in the rule. This fee is an emission fee assessed under authority of RSMo. 643.079.
- 3) The fees shall be due April 1 each year for emissions produced during the previous calendar year. The fees shall be payable to the Department of Natural Resources and shall be accompanied by the Emissions Inventory Questionnaire (EIQ) form or equivalent approved by the director.

10 CSR 10-6.130 Controlling Emissions During Episodes of High Air Pollution Potential

This rule specifies the conditions that establish an air pollution alert (yellow/orange/red/purple), or emergency (maroon) and the associated procedures and emission reduction objectives for dealing with each. The permittee shall submit an appropriate emergency plan if required by the Director.

10 CSR 10-6.150 Circumvention

The permittee shall not cause or permit the installation or use of any device or any other means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission or air contaminant which violates a rule of the Missouri Air Conservation Commission.

10 CSR 10-6.170 Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin

- 1) The permittee shall not cause or allow to occur any handling, transporting or storing of any material; construction, repair, cleaning or demolition of a building or its appurtenances; construction or use of a road, driveway or open area; or operation of a commercial or industrial installation without applying reasonable measures as may be required to prevent, or in a manner which allows or may allow, fugitive particulate matter emissions to go beyond the premises of origin in quantities that the particulate matter may be found on surfaces beyond the property line of origin. The nature or origin of the particulate matter shall be determined to a reasonable degree of certainty by a technique proven to be accurate and approved by the director.
- 2) The permittee shall not cause nor allow to occur any fugitive particulate matter emissions to remain visible in the ambient air beyond the property line of origin.

- 3) Should it be determined that noncompliance has occurred, the director may require reasonable control measures as may be necessary. These measures may include, but are not limited to, the following:
 - a) Revision of procedures involving construction, repair, cleaning and demolition of buildings and their appurtenances that produce particulate matter emissions;
 - b) Paving or frequent cleaning of roads, driveways and parking lots;
 - c) Application of dust-free surfaces;
 - d) Application of water; and
 - e) Planting and maintenance of vegetative ground cover.

10 CSR 10-6.180 Measurement of Emissions of Air Contaminants

- 1) The director may require any person responsible for the source of emission of air contaminants to make or have made tests to determine the quantity or nature, or both, of emission of air contaminants from the source. The director may specify testing methods to be used in accordance with good professional practice. The director may observe the testing. Qualified personnel shall perform all tests.
- 2) The director may conduct tests of emissions of air contaminants from any source. Upon request of the director, the person responsible for the source to be tested shall provide necessary ports in stacks or ducts and other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices as may be necessary for proper determination of the emission of air contaminants.
- 3) The director shall be given a copy of the test results in writing and signed by the person responsible for the tests.

10 CSR 10-2.100 Open Burning Restrictions

- 1) The permittee shall not conduct, cause, permit or allow a salvage operation, the disposal of trade wastes or burning of refuse by open burning.
- 2) Exception - Open burning of trade waste or vegetation may be permitted only when it can be shown that open burning is the only feasible method of disposal or an emergency exists which requires open burning.
- 3) Any person intending to engage in open burning shall file a request to do so with the director. The request shall include the following:
 - a) The name, address and telephone number of the person submitting the application; The type of business or activity involved; A description of the proposed equipment and operating practices, the type, quantity and composition of trade wastes and expected composition and amount of air contaminants to be released to the atmosphere where known;
 - b) The schedule of burning operations;
 - c) The exact location where open burning will be used to dispose of the trade wastes;
 - d) Reasons why no method other than open burning is feasible; and
 - e) Evidence that the proposed open burning has been approved by the fire control authority which has jurisdiction.
- 4) Upon approval of the open burning permit application by the director, the person may proceed with the operation under the terms of the open burning permit. Be aware that such approval shall not exempt Heartland Regional Medical Center East from the provisions of any other law, ordinance or regulation.
- 5) The permittee shall maintain files with letters from the director approving the open burning operation and previous DNR inspection reports.

10 CSR 10-2.070 Restriction of Emission of Odors

No person may cause, permit or allow the emission of odorous matter in concentrations and frequencies or for durations that odor can be perceived when one volume of odorous air is diluted with seven volumes of odor-free air for two separate trials not less than 15 minutes apart within the period of one hour. **This requirement is not federally enforceable.**

10 CSR 10-6.100 Alternate Emission Limits

Proposals for alternate emission limitations shall be submitted on Alternate Emission Limits Permit forms provided by the department. An installation owner or operator must obtain an Alternate Emission Limits Permit in accordance with 10 CSR 10-6.100 before alternate emission limits may become effective.

**10 CSR 10-6.080 Emission Standards for Hazardous Air Pollutants and 40 CFR Part 61
Subpart M National Emission Standard for Asbestos**

- 1) The permittee shall follow the procedures and requirements of 40 CFR Part 61, Subpart M for any activities occurring at this installation which would be subject to provisions for 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos.
- 2) The permittee shall conduct monitoring to demonstrate compliance with registration, certification, notification, and Abatement Procedures and Practices standards as specified in 40 CFR Part 61, Subpart M.

**10 CSR 10-6.250 Asbestos Abatement Projects – Certification, Accreditation, and Business
Exemption Requirements**

The permittee shall conduct all asbestos abatement projects within the procedures established for certification and accreditation by 10 CSR 10-6.250. This rule requires individuals who work in asbestos abatement projects to be certified by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires training providers who offer training for asbestos abatement occupations to be accredited by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires persons who hold exemption status from certain requirements of this rule to allow the department to monitor training provided to employees. Each individual who works in asbestos abatement projects must first obtain certification for the appropriate occupation from the department. Each person who offers training for asbestos abatement occupations must first obtain accreditation from the department. Certain business entities that meet the requirements for state-approved exemption status must allow the department to monitor training classes provided to employees who perform asbestos abatement.

Title VI – 40 CFR Part 82 Protection of Stratospheric Ozone

- 1) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
 - b) The placement of the required warning statement must comply with the requirements pursuant to §82.108.

- c) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
- d) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
- 2) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:
 - a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
 - b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to §82.166. ("MVAC-like" appliance as defined at §82.152).
 - e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
 - f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
- 3) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
- 4) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.

The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *Federal Only - 40 CFR part 82*

10 CSR 10-6.280 Compliance Monitoring Usage

- 1) The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:
 - a) Monitoring methods outlined in 40 CFR Part 64;
 - b) Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - c) Any other monitoring methods approved by the director.
- 2) Any credible evidence may be used for the purpose of establishing whether a permittee has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred by a permittee:
 - a) Monitoring methods outlined in 40 CFR Part 64;

- b) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, "*Operating Permits*", and incorporated into an operating permit; and
 - c) Compliance test methods specified in the rule cited as the authority for the emission limitations.
- 3) The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
- a) Applicable monitoring or testing methods, cited in:
 - i) 10 CSR 10-6.030, "*Sampling Methods for Air Pollution Sources*";
 - ii) 10 CSR 10-6.040, "*Reference Methods*";
 - iii) 10 CSR 10-6.070, "*New Source Performance Standards*";
 - iv) 10 CSR 10-6.080, "*Emission Standards for Hazardous Air Pollutants*"; or
 - b) Other testing, monitoring, or information gathering methods, if approved by the director, that produce information comparable to that produced by any method listed above.

V. General Permit Requirements

The installation shall comply with each of the following requirements. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

10 CSR 10-6.065, §(5)(C)1 and §(6)(C)1.B Permit Duration

This permit is issued for a term of five years, commencing on the date of issuance. This permit will expire at the end of this period unless renewed.

10 CSR 10-6.065, §(5)(C)1 and §(6)(C)1.C General Recordkeeping and Reporting Requirements

- 1) Recordkeeping
 - a) All required monitoring data and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application.
 - b) Copies of all current operating and construction permits issued to this installation shall be kept on-site for as long as the permits are in effect. Copies of these permits shall be made immediately available to any Missouri Department of Natural Resources' personnel upon request.
- 2) Reporting
 - a) All reports shall be submitted to the Air Pollution Control Program, Enforcement Section, P. O. Box 176, Jefferson City, MO 65102.
 - b) The permittee shall submit a report of all required monitoring by:
 - i) April 1st for monitoring which covers the January through December time period.
 - ii) Exception. Monitoring requirements which require reporting more frequently than annually shall report no later than 30 days after the end of the calendar quarter in which the measurements were taken.
 - c) Each report shall identify any deviations from emission limitations, monitoring, recordkeeping, reporting, or any other requirements of the permit.
 - d) Submit supplemental reports as required or as needed. Supplemental reports are required no later than ten days after any exceedance of any applicable rule, regulation or other restriction. All reports of deviations shall identify the cause or probable cause of the deviations and any corrective actions or preventative measures taken.
 - i) Notice of any deviation resulting from an emergency (or upset) condition as defined in paragraph (6)(C)7 of 10 CSR 10-6.065 (Emergency Provisions) shall be submitted to the permitting authority either verbally or in writing within two working days after the date on which the emission limitation is exceeded due to the emergency, if the permittee wishes to assert an affirmative defense. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that indicate an emergency occurred and the permittee can identify the cause(s) of the emergency. The permitted installation must show that it was operated properly at the time and that during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or requirements in the permit. The notice must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken.
 - ii) Any deviation that poses an imminent and substantial danger to public health, safety or the environment shall be reported as soon as practicable.

- iii) Any other deviations identified in the permit as requiring more frequent reporting than the permittee's annual report shall be reported on the schedule specified in this permit, and no later than ten days after any exceedance of any applicable rule, regulation, or other restriction.
- e) Every report submitted shall be certified by the responsible official, except that, if a report of a deviation must be submitted within ten days after the deviation, the report may be submitted without a certification if the report is resubmitted with an appropriate certification within ten days after that, together with any corrected or supplemental information required concerning the deviation.
- f) The permittee may request confidential treatment of information submitted in any report of deviation.

10 CSR 10-6.065 §(5)(C)1 and §(6)(C)1.D Risk Management Plan Under Section 112(r)

The permittee shall comply with the requirements of 40 CFR Part 68, Accidental Release Prevention Requirements. If the permittee has more than a threshold quantity of a regulated substance in process, as determined by 40 CFR Section 68.115, the permittee shall submit a Risk Management Plan in accordance with 40 CFR Part 68 no later than the latest of the following dates:

- 1) June 21, 1999;
- 2) Three years after the date on which a regulated substance is first listed under 40 CFR Section 68.130; or
- 3) The date on which a regulated substance is first present above a threshold quantity in a process.

10 CSR 10-6.065(5)(C)1.A General Requirements

- 1) The permittee must comply with all of the terms and conditions of this permit. Any noncompliance with a permit condition constitutes a violation and is grounds for enforcement action, permit termination, permit revocation and re-issuance, permit modification or denial of a permit renewal application.
- 2) The permittee may not use as a defense in an enforcement action that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit
- 3) The permit may be modified, revoked, reopened, reissued or terminated for cause. Except as provided for minor permit modifications, the filing of an application or request for a permit modification, revocation and reissuance, or termination, or the filing of a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- 4) This permit does not convey any property rights of any sort, nor grant any exclusive privilege.
- 5) The permittee shall furnish to the Air Pollution Control Program, upon receipt of a written request and within a reasonable time, any information that the Air Pollution Control Program reasonably may require to determine whether cause exists for modifying, reopening, reissuing or revoking the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the Air Pollution Control Program copies of records required to be kept by the permittee. The permittee may make a claim of confidentiality for any information or records submitted under this rule.
- 6) Failure to comply with the limitations and conditions that qualify the installation for an Intermediate permit make the installation subject to the provisions of 10 CSR 10-6.065(6) and enforcement action for operating without a valid part 70 operating permit.

10 CSR 10-6.065(5)(C)1.C Reasonably Anticipated Operating Scenarios

None.

10 CSR 10-6.065, §(5)(B)4; §(5)(C)1, §(6)(C)3.B; and §(6)(C)3.D; and §(5)(C)3 and §(6)(C)3.E.(I) – (III) and (V) – (VI) Compliance Requirements

- 1) Any document (including reports) required to be submitted under this permit shall contain a certification signed by the responsible official.
- 2) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized officials of the Missouri Department of Natural Resources, or their authorized agents, to perform the following (subject to the installation's right to seek confidential treatment of information submitted to, or obtained by, the Air Pollution Control Program):
 - a) Enter upon the premises where a permitted installation is located or an emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
 - b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c) Inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - d) As authorized by the Missouri Air Conservation Law, Chapter 643, RSMo or the Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the terms of this permit, and all applicable requirements as outlined in this permit.
- 3) All progress reports required under an applicable schedule of compliance shall be submitted semiannually (or more frequently if specified in the applicable requirement). These progress reports shall contain the following:
 - a) Dates for achieving the activities, milestones or compliance required in the schedule of compliance, and dates when these activities, milestones or compliance were achieved, and
 - b) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measures adopted.
- 4) The permittee shall submit an annual certification that it is in compliance with all of the federally enforceable terms and conditions contained in this permit, including emissions limitations, standards, or work practices. These certifications shall be submitted annually by April 1st, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. All deviations and exceedances must be included in the compliance certifications. The compliance certification shall include the following:
 - a) The identification of each term or condition of the permit that is the basis of the certification;
 - b) The current compliance status, as shown by monitoring data and other information reasonably available to the installation;
 - c) Whether compliance was continuous or intermittent;
 - d) The method(s) used for determining the compliance status of the installation, both currently and over the reporting period; and
 - e) Such other facts as the Air Pollution Control Program will require in order to determine the compliance status of this installation.

10 CSR 10-6.065, §(5)(C)1 and §(6)(C)7 Emergency Provisions

- 1) An emergency or upset as defined in 10 CSR 10-6.065(6)(C)7.A shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emissions

limitations. To establish an emergency- or upset-based defense, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, the following:

- a) That an emergency or upset occurred and that the permittee can identify the source of the emergency or upset,
 - b) That the installation was being operated properly,
 - c) That the permittee took all reasonable steps to minimize emissions that exceeded technology-based emissions limitations or requirements in this permit, and
 - d) That the permittee submitted notice of the emergency to the Air Pollution Control Program within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.
- 2) Be aware that an emergency or upset shall not include noncompliance caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

10 CSR 10-6.065(5)(C)5 Off-Permit Changes

- 1) Except as noted below, the permittee may make any change in its permitted installation's operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a permit revision. Off-permit changes shall be subject to the following requirements and restrictions:
 - a) The change must meet all applicable requirements of the Act and may not violate any existing permit term or condition; the permittee may not change a permitted installation without a permit revision if this change is a Title I modification; Please Note: Changes at the installation which affect the emission limitation(s) classifying the installation as an intermediate source (add additional equipment to the recordkeeping requirements, increase the emissions above major source level) do not qualify for off-permit changes.
 - b) The permittee must provide written notice of the change to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, Kansas 66101, no later than the next annual emissions report. This written notice shall describe each change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply as a result of the change; and
 - c) The permittee shall keep a record describing all changes made at the installation that result in emissions of a regulated air pollutant subject to an applicable requirement and the emissions resulting from these changes.

10 CSR 10-6.020(2)(R)12 Responsible Official

The application utilized in the preparation of this permit was signed by Don Campbell, Manager Plant Services. If this person terminates employment, or is reassigned different duties such that a different person becomes the responsible person to represent and bind the installation in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Director of the Air Pollution Control Program of the change. Said notification shall be in writing and shall be submitted within 30 days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

10 CSR 10-6.065 §(5)(E)4 and §(6)(E)6.A(III)(a)-(c) Reopening-Permit for Cause

This permit may be reopened for cause if:

- 1) The Missouri Department of Natural Resources (MDNR) or EPA determines that the permit contains a material mistake or that inaccurate statements were made which resulted in establishing the emissions limitation standards or other terms of the permit,
- 2) Additional applicable requirements under the Act become applicable to the installation; however, reopening on this ground is not required if—:
 - a) The permit has a remaining term of less than three years;
 - b) The effective date of the requirement is later than the date on which the permit is due to expire;
or
 - c) The additional applicable requirements are implemented in a general permit that is applicable to the installation and the installation receives authorization for coverage under that general permit,
- 3) MDNR or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

10 CSR 10-6.065 §(5)(E)1.A and §(6)(E)1.C Statement of Basis

This permit is accompanied by a statement setting forth the legal and factual basis for the draft permit conditions (including references to applicable statutory or regulatory provisions). This Statement of Basis, while referenced by the permit, is not an actual part of the permit.

VI. Attachments

Attachments follow.

ATTACHMENT B
SO₂ Plant-wide Emissions Compliance Worksheet

This attachment presents calculations that demonstrate that the fuel oil throughput limitation in Permit Condition PW001 will insure that Heartland Regional Medical Center East's emissions will not exceed 100 tons per year of sulfur dioxide.

General Assumptions:

- Conversion of all sulfur in the fuel to SO₂.
- No. 2 fuel oil has a maximum of 0.5 % sulfur by weight. *NOTE: No. 2 fuel oil or diesel with a sulfur content greater than 0.5 weight percent are no longer sold in Missouri as stipulated under Chapter 414 RSMo (Revised Missouri Statutes) section 414.032.*

Demonstration that PTE SO₂ from installation is greater than 100 ton/yr

- Assume that combustion boilers burn fuel oil continuously, year around.
- Heating value of No. 2 fuel oil is 140 MMBtu/1000 gallons. [EPA Document AP-42, Chapter 1.3]

EU ID #	Description	MHDR (MMBtu/hr)
EU0010	Combustion Boiler #1	26.56
EU0020	Combustion Boiler #2	26.56
EU0030	Combustion Boiler #3	12.55
EU0040	Combustion Boiler #4	21
	Total heat capacity	86.67

SO₂ Emission Factor = 142(S) lb/1000 gal where S is 0.5%. [EPA Document AP-42, Table 1.3-1]

$$PTE\ SO_2 = \frac{86.67\ MMBtu}{hr} \times \frac{1000\ gal}{140\ MMBtu} \times \frac{142(0.5)\ lb}{1000\ gal} \times \frac{8760\ hr}{yr} \times \frac{ton}{2000\ lb} = 192.52\ tons$$

Note: This estimate of the combustion boilers SO₂ PTE from fuel oil combustion demonstrates that a voluntary limit is required to permit the installation as an intermediate source.

Calculation of PTE SO₂ from all natural gas-fired combustion units

- Assume that all natural gas-fired combustion units burn natural gas continuously, year around.
- Heating value of natural gas is 1020 MMBtu/MMcf. [EPA Document AP-42, Table 1.4-2]

EU ID #	Description	MHDR (MMBtu/hr)
EU0010	Combustion Boiler #1	26.56
EU0020	Combustion Boiler #2	26.56
EU0030	Combustion Boiler #3	12.55
EU0040	Combustion Boiler #4	21
EP07	Three natural gas-fired combustion dryers	4.2
EP07	Two natural gas-fired McQuay rooftop units	3.75
	Total heat capacity	94.62

SO₂ Emission Factor = 0.6 lb/MMcf [EPA Document AP-42, Table 1.4-2]

$$PTE\ SO_2 = \frac{94.62\ MMBtu}{hr} \times \frac{MMcf}{1020\ MMBtu} \times \frac{0.6\ lb}{MMcf} \times \frac{8760\ hr}{yr} \times \frac{ton}{2000\ lb} = 0.24\ tons$$

ATTACHMENT B (continued)
SO₂ Plant-wide Emissions Compliance Worksheet

Demonstration that Permit Condition PW001 will insure that SO₂ emissions from installation are less than 99.5 tons per year

- Assume that all natural gas-fired combustion units burn natural gas continuously, year around. In addition, the combustion boilers and generators also burn 2,750,000 gallons of No. 2 fuel oil in the same 12-month period. This assumption will overestimate the SO₂ emissions.

If the plant-wide permit limit for SO₂ is set at 99.5 tpy, fuel oil use in the combustion boilers and generators must be limited to assure that the units do not exceed this limit. The amount of SO₂ allowed from fuel oil combustion in the combustion boilers and generators can be estimated by subtracting the PTE SO₂ from natural gas combustion (0.24 tpy) from the emission limit of 99.5 tpy.

Allowable SO₂ emissions from fuel oil combustion = 99.5 tpy - 0.24 tpy = 99.26 tpy

If fuel oil combustion is limited to 2,750,000 gallons per year, SO₂ emissions are:

$$= 2,750,000 \text{ gallons} \times \frac{1.42(0.5) \text{ lb}}{1000 \text{ gal}} \times \frac{\text{ton}}{2000 \text{ lb}} = 97.63 \text{ tons}$$

Summing all SO₂ potential emission rates

$$\begin{aligned} &= \text{PTE boilers and generators fired with fuel oil} + \text{PTE combustion units fired with natural gas} \\ &= 97.63 \text{ tpy} + 0.24 \text{ tpy} = 97.87 \text{ tpy} (< 99.5 \text{ tpy}) \end{aligned}$$

This demonstrates that if the combustion boilers and generators together burn no more than 2,750,000 gallons of fuel oil with a sulfur content of 0.5 % or less in any consecutive 12-month period, than the installation will be in compliance with the emission limitation of PW001.

ATTACHMENT C
10 CSR 10-2.040 Compliance Demonstration

This attachment may be used to demonstrate that Combustion Boilers #1 and #2 (EU0010 and EU0020) are in compliance with 10 CSR 10-2.040, *Restriction of Emission of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating*.

Installation's Total Heat Input (Q) in MMBtu/hr:

Emission Unit ID #		MHDR (MMBtu/hr)
EU0010	Combustion Boiler #1	26.56
EU0020	Combustion Boiler #2	26.56
EU0030	Combustion Boiler #3	12.55
EU0040	Combustion Boiler #4	21
EP-7	Three combustion dryers	4.2
EP-7	Two McQuay rooftop units	3.75
Total Q		94.62

Allowable PM emission limitation for new indirect heating source having an intermediate capacity between 10 MMBtu and 2,000 MMBtu: $E = 0.80(Q)^{-0.301}$

$$E = 0.80(94.62)^{-0.301} = 0.20 \text{ lb/MMBtu}$$

Emission Unit ID #	Fuel	Emission Factor	Source	Conversion Factors	Emission Factor (lb/MMBtu)	Emission Limit (lb/MMBtu)	Is EU in compliance?
EU0010	natural gas	7.6 lb /10 ⁶ scf	AP-42 Table 1.4-2	1020 MMBtu /10 ⁶ scf	0.007	0.20	YES
	fuel oil #2	2 lb /10 ³ gal	AP-42 Table 1.3-1	140 MMBtu /10 ³ gal	0.014	0.20	YES
EU0020	natural gas	7.6 lb/10 ⁶ scf	AP-42 Table 1.4-2	1020 MMBtu /10 ⁶ scf	0.007	0.20	YES
	fuel oil #2	2 lb /10 ³ gal	AP-42 Table 1.3-1	140 MMBtu /10 ³ gal	0.014	0.20	YES

The calculations show that no further monitoring or recordkeeping is necessary because the emission unit's worst-case emissions are substantially lower than the applicable limit.

**ATTACHMENT D-2
 Method 22 (Outdoor) Observation Log**

This recordkeeping sheet or an equivalent form may be used for the recordkeeping requirements of 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*.

Method 22 (Outdoor) Observation Log		
Emission Unit		
Observer		Date
Sky Conditions		
Precipitation		
Wind Direction		Wind Speed
Sketch process unit: Indicate the position relative to the source and sun; mark the potential emission points and/or the observing emission points.		
Observation Clock Time	Observation Period Duration (minute: second)	Accumulative Emission Time (minute: second)
Begin Observation		
End Observation		

STATEMENT OF BASIS

Voluntary Limitations

In order to qualify for this Intermediate State Operating Permit, the permittee has accepted voluntary, federally enforceable emission limitations. Per 10 CSR 10-6.065(5)(C)1.A.(VI), if these limitations are exceeded, the installation immediately becomes subject to 10 CSR 10-6.065(6) and enforcement action for operating without a valid part 70 operating permit. It is the permittee's responsibility to monitor emission levels and apply for a part 70 operating permit far enough in advance to avoid this situation. This may mean applying more than eighteen months in advance of the exceedance, since it can take that long or longer to obtain a part 70 operating permit.

Permit Reference Documents

These documents were relied upon in the preparation of the operating permit. Because they are not incorporated by reference, they are not an official part of the operating permit.

- 1) Intermediate Operating Permit Application, received April 11, 2003; revised July 25, 2003;
- 2) 2005 Emissions Inventory Questionnaire, received February 28, 2006; and
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition.

Applicable Requirements Included in the Operating Permit but Not in the Application or Previous Operating Permits

In the operating permit application, the installation indicated they were not subject to the following regulation(s). However, in the review of the application, the agency has determined that the installation is subject to the following regulation(s) for the reasons stated.

- 1) 10 CSR 10-6.280, *Compliance Monitoring Usage* is included as a core permit requirement for all installations in Missouri.

Other Air Regulations Determined Not to Apply to the Operating Permit

The Air Pollution Control Program (APCP) has determined that the following requirements are not applicable to this installation at this time for the reasons stated.

- 1) 10 CSR 10-6.070, *New Source Performance Regulations*, 40 CFR Part 60 Subpart Kb, *Standards of Performance for Volatile Organic Liquid Vessels (including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984* was listed as applicable to two underground fuel oil storage vessels (EP06) in the permit application. On October 15, 2003, the US EPA amended subpart Kb and exempted storage vessels with a capacity between 75 and 151 m³ storing liquid with a vapor pressure less than 15 kPa. The two underground fuel oil storage vessels (EP06) are exempt because each vessel has a capacity of 20,000 gallons (76 m³) and stores No. 2 fuel oil, which has a vapor pressure significantly less than 15 kPa.
- 2) 10 CSR 10-6.100, *Alternate Emission Limits* is not applicable because the installation is in an ozone attainment area.

Construction Permit Revisions

The following revisions were made to construction permits for this installation:

- 1) APCP Construction Permit #0498-003 authorized the construction of Combustion Boiler #3 (EU0030) and Emergency Generator #2 (EU0060).
 - a) This permit listed 10 CSR 10-2.060, *Restriction of Emission of Visible Air Contaminants*, as an applicable requirement for Combustion Boiler #3 (EU0030). This rule was rescinded on May 30, 2000 and replaced by 10 CSR 10-6.220. 10 CSR 10-6.220 does not apply to Combustion Boiler #3 (EU0030) because according to §(1)(H), emission sources subject to an applicable sulfur compound emission limit under 10 CSR 10-6.070 are exempt.
- 2) APCP Construction Permit #062003-018 authorized the construction of Combustion Boiler #4 (EU0040).
 - a) This permit listed 10 CSR 10-6.260, *Restriction of Emission of Sulfur Compounds*, as an applicable requirement for Combustion Boiler #4 (EU0040). This rule does not apply because according to §(1)(A)1, emission sources subject to an applicable sulfur compound emission limit under 10 CSR 10-6.070 are exempt.
 - b) This permit listed 10 CSR 10-2.040, *Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating*, as an applicable requirement for Combustion Boiler #4 (EU0040). This rule does not apply because according to §(1)(F), this rule does not apply to indirect heating sources subject to the provisions of 10 CSR 10-6.070.

New Source Performance Standards (NSPS) Applicability

- 1) 40 CFR Part 60 Subpart K, *Standards of Performance for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978* applies to storage vessels which have a storage capacity greater than 40,000 gallons.
 - a) Each storage vessel at the installation has a capacity of less than 40,000 gallons and is not subject to this rule.
- 2) 40 CFR Part 60 Subpart Ka, *Standards of Performance for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 19, 1978, and Prior to July 23, 1984* applies to storage vessels which have a storage capacity greater than 40,000 gallons.
 - a) Each storage vessel at the installation has a capacity of less than 40,000 gallons and is not subject to this rule.
- 3) 40 CFR Part 60 Subpart Kb, *Standards of Performance for Volatile Organic Liquid Vessels (including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984* applies to storage vessels with a capacity greater than or equal to 40,000 gallons storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kilopascals (kPa) or with a capacity greater than or equal to 20,000 gallons but less than 40,000 gallons storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa.
 - a) The storage vessels at the installation either have a capacity of less than 20,000 gallons and/or store a liquid with a maximum true vapor pressure less than 15.0 kPa and, therefore, are not subject to this rule.

- 4) 40 CFR Part 60 Subpart D, *Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971* applies to each fossil-fuel-fired steam generating unit or fossil-fuel and wood-residue-fired steam generating unit of more than 250 MMBtu/hour.
 - a) Combustion Boilers #1 through #4 (EU0010 through EU0040) each have heat capacities less than 250 MMBtu/hr and are not subject to this rule.
- 5) 40 CFR Part 60 Subpart Da, *Standards of Performance for Electrical Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978* applies to each steam generating unit that has a heat input capacity from fossil fuels combusted in the steam generating unit of greater than 250 MMBtu/hour.
 - a) Combustion Boilers #1 through #4 (EU0010 through EU0040) each have heat capacities less than 250 MMBtu/hr and are not subject to this rule.
- 6) 40 CFR Part 60 Subpart Db, *Standards of Performance for Industrial, Commercial, Institutional Steam Generating Units for Which Construction is Commenced After June 19, 1984* applies to each steam generating unit that has a heat input capacity from fuels combusted in the steam generating unit of greater than 100 million Btu/hour.
 - a) Combustion Boilers #1 through #4 (EU0010 through EU0040) each have heat capacities less than 100 MMBtu/hr and are not subject to this rule.
- 7) 40 CFR Part 60 Subpart Dc, *Standards of Performance for Small Industrial, Commercial, Institutional Steam Generating Units* applies to each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 100 MMBtu per hour or less, but greater than or equal to 10 MMBtu/hr.
 - a) Combustion Boilers #1 and #2 (EU0010 and EU0020) were constructed prior to 1989 are not subject to this rule.
 - b) Combustion Boilers #3 and #4 were constructed after 1989 and have heat input capacities between 10 and 100 MMBtu/hr. Therefore, EU0030 and EU0040 are subject to this rule

Maximum Available Control Technology (MACT) Applicability

- 1) 40 CFR Part 63 Subpart O, *Ethylene Oxide Emissions Standards for Sterilization Facilities* does not apply to the sterilizers at the installation because according to §63.360(e), this subpart does not apply to ethylene oxide sterilization operations at stationary sources such as hospitals, doctors offices, clinics, or other facilities whose primary purpose is to provide medical services to humans or animals.

There are no other MACT standards that apply to this installation.

National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

None.

Other Regulatory Determinations

- 1) 10 CSR 10-2.040, *Maximum Allowable Emission of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating*

- a) This rule does not apply to Combustion Boilers #3 and #4 (EU0030 and EU0040) because according to §(1)(F), this rule does not apply to indirect heating sources subject to the provisions of 10 CSR 10-6.070.
- 2) 10 CSR 10-2.210, *Control of Emissions From Solvent Metal Cleaning*
- a) This rule does not apply to the two parts washers because according to §(1)(A), this rule only applies in Clay, Jackson and Platte Counties. The installation is in Buchanan County.
- 3) 10 CSR 10-2.215, *Control of Emissions from Solvent Cleanup Operations*
- a) This rule does not apply to the two parts washers because according to §(1)(A), this rule only applies in Clay, Jackson and Platte Counties. The installation is in Buchanan County.
- 4) 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*
- a) This rule applies to Combustion Boilers #1 and #2 (EU0010 and EU0020). However, these units are assumed to be in compliance when the units burn natural gas because, as shown in the following calculations, natural gas combustion produces only a small amount of particulate matter. Therefore, this rule is included as a permit condition for the EU0010 and EU0020 only during periods when fuel oil is burned.
PM Emission Factor is 7.6 lb/MMCf. [EPA document AP-42, Table 1.4-2]
Heating value of natural gas is 1020 MMBtu/MMcf. [EPA document AP-42, Table 1.4-2]
- $$PTE_{PM} = \frac{26.56 \text{ MMBtu}}{\text{hr}} \times \frac{7.6 \text{ lb}}{\text{MMcf}} \times \frac{\text{MMcf}}{1020 \text{ MMBtu}} = 0.198 \text{ lb PM / hr}$$
- b) This rule does not apply to Combustion Boilers #3 and #4 (EU0030 and EU0040) because according to §(1)(H), emission sources regulated by 40 CFR part 60 and 10 CSR 10-6.070 are exempt.
- c) This rule does not apply to Generators (EU0050 through EU0070) because according to §(1)(A), stationary internal combustion engines operated in the Kansas City metropolitan area, which includes Buchanan County, are exempt.
- 5) 10 CSR 10-6.260, *Restriction of Emission of Sulfur Compounds*
- a) This rule applies to Combustion Boilers #1 and #2 (EU0010 and EU0020) when burning No. 2 fuel oil. The rule establishes a sulfur dioxide emission limit of 8 lb/MMBtu actual heat input average on any consecutive three-hour time period. The calculations below demonstrate that these units will be in compliance with this rule.
SO₂ Emission Factor for distillate oil is 142S lb/1000 gal. [EPA document AP-42, Table 1.3-1]
Heating value of No. 2 fuel oil is 140 MMBtu/1000 gal. [EPA document AP-42, Chapter 1.3-1]
- $$\text{lb / MMBtu} = \frac{142(0.5) \text{ lb}}{1000 \text{ gal}} \times \frac{1000 \text{ gal}}{140 \text{ MMBtu}} = 0.51 \text{ lb / MMBtu}$$
- b) This rule does not apply to Combustion Boilers #3 and #4 (EU0030 and EU0040) because according to §(1)(A)1, emission sources subject to an applicable sulfur compound emission limit under 10 CSR 10-6.070 are exempt.
- c) This rule applies to Generators (EU0050 through EU0070). The calculations below demonstrate that these units will be in compliance with this rule.

General Equation

$$\text{ppmv SO}_2 = \text{SO}_2 \text{ Emission Factor (lb/MMBtu)} \div \text{F factor (wscf/MMBtu)} \div \text{Conversion Factor (lb/scf)} \times \text{Conversion Factor (ppmv/ppmw)}$$

Where:

- All of the sulfur in the fuel is converted to SO₂ emissions.
- SO₂ emission factor is 1.01S lb/MMBtu. [EPA document AP-42, Table 3.4-1].
- The F factor is the ratio of gas volume of products of combustion to the heat content of the fuel. For fuel oil, the F factor is 10,320 wscf/MMBtu. [40 CFR Part 60 Appendix A Method 19 Table 19-2]
- The conversion factor is 1.660E-7 lb/scf per ppm. [40 CFR Part 60 Appendix A Method 19, Table 19-1]
- Conversion factor for ppm weight to ppmv = 28.8/MW = 28.8/64 = 0.45 [EPA document AP-42, Appendix A]

$$ppmv\ SO_2 = \frac{1.01(0.5)\ lb}{MMBtu} \times \frac{MMbtu}{10,320\ ft^3} \times \frac{scf}{1.660E^{-7}\ lb} \times \frac{0.45\ ppmv}{ppmw} = 133\ ppmv\ SO_2$$

133 ppmv < 500 ppmv, therefore, in compliance

- 6) 10 CSR 10-6.360, *Control of NOx Emissions From Electric Generating Units and Non-Electric Generating Boilers*
 - a) This rule does not apply to Combustion Boilers or Generators (EU0010 through EU0070) because according to §(1)(A), this rule does not apply to installations located in Buchanan County.
- 7) 10 CSR 10-6.390, *Control of NOx Emissions From Large Stationary Internal Combustion Engines*
 - a) This rule does not apply to Generators (EU0050 through EU0070) because according to §(1)(A), this rule does not apply to installations located in Buchanan County.
- 8) 10 CSR 10-6.400, *Restriction of Emission of Particulate Matter From Industrial Processes*
 - a) This rule does not apply to Combustion Boilers (EU0010 through EU0040) because according to §(1)(B)6, the burning of fuel for indirect heating is exempt.
 - b) This rule does not apply to Generators (EU0050 through EU0070) because according to §(2)(A), liquids and gases that are used solely as fuels and are introduced for purposes of combustion are excluded from the definition of process weight.
- 9) Emission Units Without Limitations
 - a) Sterilizers: The installation maintains two sterilizers that operate with a sterilant containing 10% by weight of ethylene oxide. Per the permit application, the sterilizers have a MHDR of 14 lb sterilant per day, which translates to a potential emission rate of 1.4 lb/day of ethylene oxide or 0.26 ton/yr. There are no emission unit specific limitations that apply to these units.
 - b) Parts Washers: The installation maintains two parts washers each having a capacity of 20 gallons. Per permit application, assuming 6.8 lb VOC/gal of solvent and that 90% of solvent by weight is recovered for recycling and 10% is emitted to the air, the worse case VOC emissions to the air is 13.6 lb/year or 0.007 ton/yr. There are no emission unit specific limitations that apply to these units.

Potential to Emit

The following table shows that the installation qualifies for an Intermediate State Operating Permit with the voluntary permit condition PW001.

Pollutant	Column A	Column B	Total PTE (tpy)
	PTE from natural gas combustion (tpy)	PTE from No. 2 fuel oil combustion (tpy)	
PM ₁₀	3.09	4.54	7.63
SOx	0.24	97.63	97.87
NOx	40.65	27.50	68.15
VOC	2.24	0.35	2.58
CO	34.14	6.88	41.02

Notes:

- 1) Column A includes the potential emissions from Combustion Boilers #1 through #4 (EU0010 through EU0040), combustion dryers, and McQuay rooftop units based on the emission factors listed in EPA document AP-42, Tables 1.4-1 and 1.4-2.
- 2) Column B includes the potential emissions from the combustion of 2,750,000 gallons of No. 2 fuel oil based on emission factors listed in EPA document AP-42, Tables 1.3-1, 1.3-2, and 1.3-3.

Other Regulations Not Cited in the Operating Permit or the Above Statement of Basis

Any regulation which is not specifically listed in either the Operating Permit or in the above Statement of Basis does not appear, based on this review, to be an applicable requirement for this installation for one or more of the following reasons.

- 1) The specific pollutant regulated by that rule is not emitted by the installation.
- 2) The installation is not in the source category regulated by that rule.
- 3) The installation is not in the county or specific area that is regulated under the authority of that rule.
- 4) The installation does not contain the type of emission unit which is regulated by that rule.
- 5) The rule is only for administrative purposes.

Should a later determination conclude that the installation is subject to one or more of the regulations cited in this Statement of Basis or other regulations which were not cited, the installation shall determine and demonstrate, to the Air Pollution Control Program's satisfaction, the installation's compliance with that regulation(s). If the installation is not in compliance with a regulation which was not previously cited, the installation shall submit to the APCP a schedule for achieving compliance for that regulation(s).

Prepared by:



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