



PART 70 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 herein.

Operating Permit Number: OP2012-057A
Expiration Date: January 7, 2018
Installation ID: 510-0040
Project Number: 2013-03-038

Installation Name and Address

Washington University School of Medicine
500 South Euclid
St. Louis, MO 63110
City of St. Louis

Parent Company's Name and Address

Same as Above

Installation Description:

Washington University School of Medicine is a large medical school complex located within the City of St. Louis, Missouri. Air pollutant sources at this installation include heating boilers, emergency generators, fuel oil tanks, and parts washers.

The installation has the potential to emit Greenhouse Gases (CO₂e), nitrogen oxides (NO_x), Sulfur Oxides (SO_x) and carbon monoxide (CO) above the major source thresholds.

This modification includes the removal of regulations not enforced by state or federal authorities and any unsupported regulations in order to update the current operating permit.

MAY 14 2014

Effective Date

Director or Designee
Department of Natural Resources

Table of Contents

I. INSTALLATION DESCRIPTION AND EQUIPMENT LISTING	4
INSTALLATION DESCRIPTION	4
EMISSION UNITS WITH LIMITATIONS	4
EMISSION UNITS WITHOUT LIMITATIONS	6
II. PLANT WIDE EMISSION LIMITATIONS.....	7
III. EMISSION UNIT SPECIFIC EMISSION LIMITATIONS	8
EU0020, EU0030, EU0050 and EU0320 – Boilers	8
Permit Condition EU0020-001 and EU0030-001	8
10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants	8
Permit Condition EU0020-002 and EU0030-002	9
10 CSR 10-6.070 New Source Performance Regulations	9
40 CFR Part60 Subpart Dc Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	9
Permit Condition EU0020-003 and EU0030-003	10
10 CSR 10-6.060 Construction Permits Required.....	10
Construction Permit No. 062007-010	10
Permit Condition EU0050-001, and.....	11
Permit Condition EU0320-001	11
10 CSR 10-6.070 New Source Performance Regulations	11
40 CFR Part60 Subpart Dc Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units ..	11
Permit Condition EU0050-002	15
10 CSR 10-6.060 Construction Permits Required.....	15
St. Louis City Air Program Construction Permit No. 95-05-056PM	15
Permit Condition EU0320-002	16
10 CSR 10-6.060 Construction Permits Required.....	16
St. Louis City Air Program Construction Permit No. 01-05-013	16
EU0040 – Pathological Incinerator (Crematory)	16
Permit Condition EU0040-001	16
10 CSR 10-6.060 Construction Permits Required.....	16
St. Louis City Air Program Construction Permit No. 96-10-083	16
EU0060 – Machine Shop Parts Washer	18
Permit Condition EU0060-001	18
10 CSR 10-5.300 Control of Emissions from Solvent Cleaning	18
EU0140 through EU0260, EU0280 through EU0310 and EU0330 through EU0490 – Emergency Diesel Generators	20
Permit Condition EU0140-001 through EU0260-001,	21
Permit Condition EU0280-001 through EU0310-001, and.....	21
Permit Condition EU0330-001 through EU0420-001	21
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds	21
Permit Condition EU0180-002 through EU0260-002, and.....	21
Permit Condition EU0280-002 through EU0300-002	21
10 CSR 10-6.060 Construction Permits Required.....	21
St Louis City Construction Permit No. 98-10-060.....	21
Permit Condition EU0310-002	22
10 CSR 10-6.060 Construction Permits Required.....	22
St Louis City Construction Permit No. 01-05-014.....	22
Permit Condition EU0430-001 through EU0490-001	23
10 CSR 10-6.070 New Source Performance Regulations	23
40 CFR Part60, Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.....	23
EU00500 – Ethylene Oxide Sterilizer	24
Permit Condition EU0500-001	24

10 CSR 10-6.075, Maximum Achievable Control Technology	24
40 CFR Part63, Subpart WWWW, National Emission Standards for	24
Hospital Ethylene Oxide Sterilizers	24
IV. CORE PERMIT REQUIREMENTS	27
V. GENERAL PERMIT REQUIREMENTS	34
VI. ATTACHMENTS	39
Attachment A – Opacity Emission Observations	40
Attachment B – Method 9 Opacity Emissions Observation	41
Attachment C – Construction Permit 062007-010 NO _x Compliance Worksheet	42
Attachment D – Construction Permit 062007-010 SO _x Compliance Worksheet	43
Attachment E – Construction Permit 95-05-056 Fuel Usage Compliance Worksheet	44
Attachment F – Construction Permit 96-10-083 Incinerator Compliance Worksheet	45
Attachment G – Solvent Containing Waste Transfer Log	46
Attachment H – Inspection/Maintenance/Repair/Malfunction Log	47
Attachment I – Purchase Records for Cold Cleaning Solvent	48
Attachment J – Employee Solvent Metal Cleaning Training Log	49
Attachment K – Inspection/Maintenance/Repair/Malfunction Log	50
Attachment L – Ethylene Oxide Sterilizer Usage	51

I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

Washington University School of Medicine (WUSM) is a large medical school complex located within the City of St. Louis, Missouri. Air pollutant sources at this installation include heating boilers, emergency generators, fuel oil tanks, a pathological incinerator and parts washers.

The installation has the potential to emit Greenhouse Gases (CO₂e), nitrogen oxides (NO_x), Sulfur Oxides (SO_x) and carbon monoxide (CO) above the major source thresholds.

This modification includes the removal of the City Ordinances and the City Source Registration requirements for the City of St. Louis, which are not enforceable by state and federal authorities. Regulations that are no longer applicable to Washington University School of Medicine have also been removed in order to update the operating permit. This modification to the permit does not change the potential emission of the facility.

The actual emissions for the past five years for the installation are listed below:

Reported Air Pollutant Emissions, tons per year					
Pollutants	2012	2011	2010	2009	2008
Particulate Matter ≤ Ten Microns (PM ₁₀)	32.84	31.96	32.12	32.08	35.71
Particulate Matter ≤ 2.5 Microns (PM _{2.5})	3.71	2.82	2.98	2.79	2.86
Sulfur Oxides (SO _x)	1.65	1.01	2.93	0.39	1.58
Nitrogen Oxides (NO _x)	50.69	37.79	39.73	37.26	38.06
Volatile Organic Compounds (VOC)	3.26	2.07	2.11	1.98	2.00
Carbon Monoxide (CO)	26.50	27.02	28.71	28.23	28.23
Lead (Pb)	0.0001	0.00	0.00	0.00	0.00
Hazardous Air Pollutants (HAPs)	0.00	0.00	0.00	0.00	0.00
Ammonia (NH ₃)	0.13	0.15	0.19	0.16	0.18

EMISSION UNITS WITH LIMITATIONS

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

Emission Unit #	EQ Reference #	Description of Emission Unit
EU0020	EP-04	Boiler #5, 85 MMBtu/hr
EU0030	EP-05	Boiler #6, 85 MMBtu/hr
EU0040	EP-07	Pathological Incinerator
EU0050	EP-25A	Boiler #1, 88 MMBtu/hr
EU0060	EP-26	Machine Shop Parts Washer
EU0100	EP-27	Mir Emergency Generator (MIREMG1)
EU0140	EP-29	200 KW Diesel Emergency Generator (ROBEMG1)
EU0150	EP-29	105 KW Diesel Emergency Generator (SHREMG1)
EU0160	EP-29	100 KW Emergency Diesel Generator (PGCEMG1)
EU0170	EP-29	500 KW Diesel Emergency Generator (ECBEMG1)
EU0180	EP-29	350 KW Emergency Diesel Generator (BTCEMG1)
EU0200	EP-29	250 KW Diesel Emergency Generator (MCMEMG1)
EU0210	EP-29	350 KW Diesel Emergency Generator (RENEMG1)
EU0220	EP-29	400 KW Diesel Emergency Generator (MCDEMG1)
EU0230	EP-29	250 KW Diesel Emergency Generator (WESEMG1)
EU0240	EP-29	520 KW Emergency Diesel Generator (CSREMG1)
EU0250	EP-29	520 KW Emergency Diesel Generator (CSREMG2)
EU0260	EP-29	250 KW Diesel Emergency Generator (EIREMG1)
EU0280	EP-29	500 KW Diesel Emergency Generator (SIREMG)
EU0290	EP-29	1000 KW Diesel Emergency Generator (EMDEMG1)
EU0300	EP-29	1500 KW Emergency Diesel Generator (NTAEMG1)
EU0310	EP-29	800 KW Diesel Emergency Generator (EPPEMG1)
EU0320	EP-25B	Boiler #4, 85 MMBtu/hr
EU0330	EP-29	810 KW Emergency Diesel Generator (CIREMG1)
EU0340	EP-29	1000 KW Emergency Diesel Generator (NOREMG1)
EU0350	EP-29	150 KW Emergency Diesel Generator (FPEEMG1)
EU0360	EP-29	1800 KW Emergency Diesel Generator (SREEMG1)
EU0370	EP-29	55 KW Emergency Diesel Generator (STZEMG1)
EU0380	EP-29	450 KW Emergency Diesel Generator (WOCEMG1)
EU0390	EP-29	180 KW Emergency Diesel Generator (FP4EMG1)
EU0400	EP-29	230 KW Emergency Diesel Generator (CTXEMG1)
EU0410	EP-29	125 KW Emergency Diesel Generator (PGMEMG1)
EU0420	EP-29	200 KW Emergency Diesel Generator (NWTEMG1)
EU0430	EP-29	2000 KW Emergency Diesel Generator (GDCEMG2)
EU0440	EP-29	1500 KW Emergency Diesel Generator (NTAEMG2)
EU0450	EP-29	2000 KW Emergency Diesel Generator (GDCEMG1)
EU0460	EP-29	300 KW Emergency Diesel Generator (MATEMG1)
EU0470	EP-29	2250 KW Emergency Diesel Generator (BRBEMG1)
EU0480	EP-29	1500 KW Emergency Diesel Generator (EMDEMG2)
EU0490	EP-29	500 KW Emergency Diesel Generator (WOHEMG1)
EU0500	N/A	New Ethylene Oxide Sterilizer

EMISSION UNITS WITHOUT LIMITATIONS

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

Reference #	Description of Emission Unit
EP-08	Natural Gas-Fired Space Heaters and Miscellaneous Combustion Units Four 125,000 Btu/hr each Two 120,00 Btu/hr each One 110,00 Btu/hr One 242,000 Btu/hr One 3.15 MMBtu/hr Two 1.25 MMBtu/hr each One 1.26 MMBtu/hr each One 2.154 MMBtu/hr Three 2.657 MMBtu/hr each One 650,000 Btu/hr Eight 200,000 Btu/hr each One 1.2 MMBtu/hr One water heater (TAB Bldg.) 0.125 MMBtu/hr Two water heater (TAB Bldg.) 0.1999 MMBtu/hr each Two dock heaters (TAB Bldg.) 0.075 MMBtu/hr each Three roof-top units (TAB Bldg.) 0.5 MMBtu/hr each Three roof-top units (TAB Bldg.) 0.35 MMBtu/hr each
EP-11	Wet Cooling Towers (Power Plant)
EP-27	26 Above-Ground Diesel Storage Tanks (Sizes Range from 100 gallon to 4,000 gallon)
EP-28	Wet Cooling Towers (Satellite Buildings)
EP-30	Three Gasoline Powered Portable Generators (two 5kW each and one 5.5kW)
N/A ¹	Acid Neutralization Tank with Fume Hood
N/A	Carpentry Shop
N/A	Routine Maintenance Activities including Welding
N/A	Machine Shop Fume Hood
N/A	Laboratory Hoods – Medical and Research

¹ NA = Not Applicable

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.

None

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.

EU0020, EU0030, EU0050 and EU0320 – Boilers			
Emission Unit	Description	Manufacturer/ Model #	2009 EIQ Reference #
EU0020	Boiler #5 – 85 MMBtu/hr natural gas-fired boiler with diesel #2 as a back-up fuel; Installed – 2007	English Boiler & Tube, Inc/ 70DR300	EP-04
EU0030	Boiler #6 – 85 MMBtu/hr natural gas-fired boiler with diesel #2 as a back-up fuel; Installed – 2007		EP-05
EU0050	Boiler #1 – 88 MMBtu/hr natural gas-fired boiler with diesel #2 as a back-up fuel; Installed – 1995	Cleaver Brooks/ DL-76E	EP-25A
EU0320	Boiler #4 – 85 MMBtu/hr natural gas-fired boiler with diesel #2 as a back-up fuel; Installed – 2001		EP-25B

<p>Permit Condition EU0020-001 and EU0030-001</p> <p>10 CSR 10-6.220</p> <p>Restriction of Emission of Visible Air Contaminants</p>
--

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any source in the St. Louis metropolitan area any visible emissions with an opacity greater than 20 percent.
- 2) Exception:
 - a) Existing sources in the St. Louis metropolitan area that are not incinerators and emit less than twenty-five (25) pounds per hour (lbs/hr) of particulate matter shall be limited to 40 percent opacity.
 - b) 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 40 percent.

Monitoring:

- 1) The permittee shall conduct visible emissions checks on the emission unit(s) using the procedures contained in U.S. EPA Test Method 22. Readings are only required when the emission unit(s) is 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) Observations must be made once per month. If a violation is noted, then
 - b) Weekly observations shall be conducted for a minimum of eight (8) consecutive weeks. Should no violation of this regulation be observed during this period then monitoring reverts to monthly monitoring.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results (see Attachment A), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission unit, and
 - b) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (See Attachment B)
- 3) Recordkeeping shall be accomplished in accordance with the requirements of 10 CSR 10-6.065(6)(C)1.C General Recordkeeping and Reporting Requirements, as stated in Section V of this permit.

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 semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

Permit Condition EU0020-002 and EU0030-002

10 CSR 10-6.070 New Source Performance Regulations

40 CFR Part60 Subpart Dc

Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

Emission Limitation:

- 1) Standard for sulfur dioxide:
 - a) On and after the date on which the initial performance test is completed or required to be completed under §60.8 of 40 CFR Part60, whichever date comes first, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. [§60.42c (d)]
 - b) For distillate oil-fired boilers, compliance with the emission limits or fuel oil sulfur limits may be determined based on a certification from the fuel supplier, as described under §60.48c(f)(1). [§60.42c (h) & (h)(1)]
 - c) The fuel oil sulfur limits apply at all times, including periods of startup, shutdown, and malfunction. [§60.42c (i)]
- 2) Standard for particulate matter (not applicable):

On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, an owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that contains no more than 0.50 weight percent sulfur or a mixture of 0.50 weight percent sulfur oil with other fuels not subject to a PM standard under §60.43c and not using a post-combustion technology (except a wet scrubber) to reduce PM or SO₂ emissions is not subject to the PM limit in this section. [§60.43c (e)(4)]

Monitoring:

For affected facilities subject to §60.42c (h)(1) where the owner or operator seeks to demonstrate compliance with the SO₂ standards based on fuel supplier certification, the performance test shall consist of the certification from the fuel supplier, as described in §60.48c(f), as applicable. [§60.46c (e)]

Recordkeeping:

- 1) For distillate oil: Records of fuel supplier certification.
The Fuel Supplier Certification shall include the name of the oil supplier; and a statement from the oil supplier that the oil complies with the specifications for distillate oil (Distillate oil means fuel oil that complies with the specifications for Fuel Oil Nos. 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-78, 89, 90, 92, 96, or 98 ``Standard Specification for Fuel Oils"). [§60.48c(f)(1) & §60.41c – Definition]
- 2) The permittee shall record and maintain records of the amounts of each fuel combusted during each day. As an alternative to maintaining records of the amounts of each fuel combusted during each day, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in § 60.48c(f) to demonstrate compliance with the SO₂ standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month. [§60.48c(g)]
- 3) Recordkeeping shall be accomplished in accordance with the requirements of 10 CSR 10-6.065(6)(C)1.C General Recordkeeping and Reporting Requirements, as stated in Section V of this permit.

Reporting:

- 1) The owner or operator of each affected facility subject to fuel oil sulfur limits under §60.42c shall keep records and submit reports as required under Paragraph (d) of §60.48c, including the following information, as applicable. [§60.48c(e)]
 - a) Calendar dates covered in the reporting period. [§60.48c(e)(1)]
 - b) Each 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of corrective actions taken. [§60.48c(e)(2)]
 - c) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under Paragraph (f)(1) of §60.48c, as applicable. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period. [§60.48c(e)(11)]
- 2) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period. [§60.48c(j)]

Permit Condition EU0020-003 and EU0030-003

**10 CSR 10-6.060 Construction Permits Required
Construction Permit No. 062007-010**

Emission Limitation:

- 1) Washington University School of Medicine shall emit less than forty (40) tons of Nitrogen Oxides (NO_x) from Boiler #5 (EU0020) and Boiler #6 (EU0030) in any consecutive 12-month period. [Construction Permit 062007-010, Special Condition 1(A)]

- 2) Washington University School of Medicine shall emit less than forty (40) tons Sulfur Oxides (SO_x) from Boiler #5 (EU0020) and Boiler #6 (EU0030) in any consecutive 12-month period.
[Construction Permit 062007-010, Special Condition 1(B)]

Note: WUSM renumbered the boilers in 2007; hence in the construction permit, Boiler #5 is listed as Boiler #4, and Boiler #6 is listed as Boiler #5.

Monitoring/Recordkeeping:

Attachment C and Attachment D or equivalent forms approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Conditions 1(A) and 1(B). Washington University School of Medicine shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. [Construction Permit 062007-010, Special Condition 1(C)]

Reporting:

Washington University School of Medicine shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the end of the month during which the records from Special Condition Number 1(C) indicate that the source exceeds the limitation of Special Conditions Number 1(A) and/or 1(B).
[Construction Permit 062007-010, Special Condition 1(D)]

**Permit Condition EU0050-001, and
Permit Condition EU0320-001**

**10 CSR 10-6.070 New Source Performance Regulations
40 CFR Part60 Subpart Dc**

**Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating
Units**

Emission Limitation:

- 1) Standard for sulfur dioxide:
- On and after the date on which the initial performance test is completed or required to be completed under §60.8 of 40 CFR Part60, whichever date comes first, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. [§60.42c (d)]
 - For distillate oil-fired boilers, compliance with the emission limits or fuel oil sulfur limits may be determined based on a certification from the fuel supplier, as described under §60.48c(f)(1). [§60.42c (h) & (h)(1)]
 - The fuel oil sulfur limits apply at all times, including periods of startup, shutdown, and malfunction. [§60.42c (i)]
- 2) Standard for particulate matter:
The PM standard under §60.43c applies to Boiler #1 (EU0050) and Boiler #4 (EU0320) that were constructed before February 28, 2005 and after June 9, 1989.
- On and after the date on which the initial performance test is completed or required to be completed under §60.8 of 40 CFR Part60, whichever date comes first, no owner or operator of an affected facility that combusts oil and has a heat input capacity of 8.7 MW (30 million Btu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that

exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. [§60.43c (c)]

- b) The opacity standards apply at all times, except during periods of startup, shutdown, or malfunction. [§60.43c (d)]

Monitoring:

- 1) Sulfur dioxide:

For affected facilities subject to §60.42c (h)(1) where the owner or operator seeks to demonstrate compliance with the SO₂ standards based on fuel supplier certification, the performance test shall consist of the certification from the fuel supplier, as described in §60.48c(f), as applicable. [§60.46c (e)]

- 2) Particulate Matter (Opacity): PM monitoring only applies to Boiler #1 (EU0050) and Boiler #4 (EU0320).

When the emission unit(s) is burning distillate oil, the following conditions shall apply:

- a) The owner or operator of an affected facility subject to the opacity standard under §60.43c shall conduct an initial performance test as required under §60.8, and shall conduct subsequent performance tests as requested by the Administrator, to determine compliance with the opacity standard using Method 9 of Appendix A–4 of 40 CFR Part60. [§60.45c (a)(8)]
- b) The owner or operator of an affected facility subject to an opacity standard in §60.43c(c) and that is not required to install a COMS due to Paragraphs (c), (d), (e), or (f) of §60.47c that elects not to install a continuous opacity monitoring system (COMS) shall conduct a performance test using Method 9 of Appendix A–4 of 40 CFR Part60 and the procedures in §60.11 to demonstrate compliance with the applicable limit in §60.43c and shall comply with either Paragraphs (a)(1), (a)(2), or (a)(3) of §60.47c. If during the initial 60 minutes of observation all six-minute averages are less than ten percent and all individual 15-second observations are less than or equal to 20 percent, the observation period may be reduced from three hours to 60 minutes. [§60.47c (a)]
 - i) Except as provided in Paragraph (a)(2) and (a)(3) of §60.47c, the owner or operator shall conduct subsequent Method 9 of Appendix A–4 of 40 CFR Part60 performance tests using the procedures in Paragraph (a) of §60.47c according to the applicable schedule in Paragraphs (a)(1)(i) through (a)(1)(iv) of §60.47c, as determined by the most recent Method 9 of Appendix A–4 of 40 CFR Part60 performance test results. [§60.47c (a)(1)]
 - (1) If no visible emissions are observed, a subsequent Method 9 of Appendix A–4 of 40 CFR Part60 performance test must be completed within 12 calendar months from the date that the most recent performance test was conducted; [§60.47c (a)(1)(i)]
 - (2) If visible emissions are observed but the maximum six-minute average opacity is less than or equal to five percent, a subsequent Method 9 of Appendix A–4 of 40 CFR Part60 performance test must be completed within six calendar months from the date that the most recent performance test was conducted; [§60.47c (a)(1)(ii)]
 - (3) If the maximum six-minute average opacity is greater than five percent but less than or equal to ten percent, a subsequent Method 9 of Appendix A–4 of 40 CFR Part60 performance test must be completed within three calendar months from the date that the most recent performance test was conducted; or [§60.47c (a)(1)(iii)]
 - (4) If the maximum six-minute average opacity is greater than ten percent, a subsequent Method 9 of Appendix A–4 of 40 CFR Part60 performance test must be completed within 30 calendar days from the date that the most recent performance test was conducted. [§60.47c (a)(1)(iv)]

- ii) If the maximum six-minute opacity is less than ten percent during the most recent Method 9 of Appendix A–4 of 40 CFR Part60 performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of Appendix A–4 of 40 CFR Part60 performance tests, elect to perform subsequent monitoring using Method 22 of Appendix A–7 of 40 CFR Part60 according to the procedures specified in Paragraphs (a)(2)(i) and (ii) of §60.47c.
[§60.47c (a)(2)]
- (1) The owner or operator shall conduct ten minute observations (during normal operation) each operating day the affected facility fires fuel for which an opacity standard is applicable using Method 22 of Appendix A–7 of 40 CFR Part60 and demonstrate that the sum of the occurrences of any visible emissions is not in excess of five percent of the observation period (i.e., 30 seconds per ten minute period). If the sum of the occurrence of any visible emissions is greater than 30 seconds during the initial ten minute observation, immediately conduct a 30 minute observation. If the sum of the occurrence of visible emissions is greater than five percent of the observation period (i.e., 90 seconds per 30 minute period) the owner or operator shall either document and adjust the operation of the facility and demonstrate within 24 hours that the sum of the occurrence of visible emissions is equal to or less than five percent during a 30 minute observation (i.e., 90 seconds) or conduct a new Method 9 of Appendix A–4 of 40 CFR Part60 performance test using the procedures in Paragraph (a) of this section within 30 calendar days according to the requirements in §60.45c(a)(8). [§60.47c (a)(2)(i)]
- (2) If no visible emissions are observed for 30 operating days during which an opacity standard is applicable, observations can be reduced to once every seven operating days during which an opacity standard is applicable. If any visible emissions are observed, daily observations shall be resumed. [§60.47c (a)(2)(iii)]
- iii) If the maximum six-minute opacity is less than ten percent during the most recent Method 9 of Appendix A–4 of 40 CFR Part60 performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of Appendix A–4 performance tests, elect to perform subsequent monitoring using a digital opacity compliance system according to a site-specific monitoring plan approved by the Administrator. The observations shall be similar, but not necessarily identical, to the requirements in Paragraph (a)(2) of §60.47c. For reference purposes in preparing the monitoring plan, see OAQPS “Determination of Visible Emission Opacity from Stationary Sources Using Computer-Based Photographic Analysis Systems.” This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality and Planning Standards; Sector Policies and Programs Division; Measurement Policy Group (D243–02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods. [§60.47c (a)(3)]

Recordkeeping:

- 1) The owner or operator of each affected facility subject to the SO₂ emission limits of §60.42c, or the PM or opacity limits of §60.43c, shall submit to the Administrator the performance test data from the initial and any subsequent performance tests. [§60.48c(b)]
- 2) In addition to the applicable requirements in §60.7, the owner or operator of an affected facility subject to the opacity limits in §60.43c(c) shall maintain records according to the requirements specified in Paragraphs (c)(1) through (3) of §60.48c, as applicable to the visible emissions monitoring method used. [§60.48c(c)]

- a) For each performance test conducted using Method 9 of Appendix A–4 of 40 CFR Part60, the owner or operator shall keep the records including the information specified in Paragraphs (c)(1)(i) through (iii) of this section. [§60.48c(c)(1)]
 - i) Dates and time intervals of all opacity observation periods; [§60.48c(c)(1)(i)]
 - ii) Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and [§60.48c(c)(1)(ii)]
 - iii) Copies of all visible emission observer opacity field data sheets; [§60.48c(c)(1)(iii)]
 - b) For each performance test conducted using Method 22 of Appendix A–4 of 40 CFR Part60, the owner or operator shall keep the records including the information specified in Paragraphs (c)(2)(i) through (iv) of §60.48c. [§60.48c(c)(2)]
 - i) Dates and time intervals of all visible emissions observation periods; [§60.48c(c)(2)(i)]
 - ii) Name and affiliation for each visible emission observer participating in the performance test; [§60.48c(c)(2)(ii)]
 - iii) Copies of all visible emission observer opacity field data sheets; and [§60.48c(c)(2)(iii)]
 - iv) Documentation of any adjustments made and the time the adjustments were completed to the affected facility operation by the owner or operator to demonstrate compliance with the applicable monitoring requirements. [§60.48c(c)(2)(iv)]
 - c) For each digital opacity compliance system, the owner or operator shall maintain records and submit reports according to the requirements specified in the site-specific monitoring plan approved by the Administrator. [§60.48c(c)(3)]
- 3) For distillate oil: Records of fuel supplier certification.
The Fuel Supplier Certification shall include the name of the oil supplier; and a statement from the oil supplier that the oil complies with the specifications for distillate oil (Distillate oil means fuel oil that complies with the specifications for Fuel Oil Nos. 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-78, 89, 90, 92, 96, or 98 ``Standard Specification for Fuel Oils"). [§60.48c(f)(1) & §60.41c – Definition]
- 4) The permittee shall record and maintain records of the amounts of each fuel combusted during each day. As an alternative to maintaining records of the amounts of each fuel combusted during each day, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in § 60.48c(f) to demonstrate compliance with the SO₂ standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month. [§60.48c(g)]
- 5) Recordkeeping shall be accomplished in accordance with the requirements of 10 CSR 10-6.065(6)(C)1.C General Recordkeeping and Reporting Requirements, as stated in Section V of this permit.

Reporting:

- 1) In addition to the applicable requirements in §60.7, the owner or operator of an affected facility subject to the opacity limits in §60.43c(c) shall submit excess emission reports for any excess emissions from the affected facility that occur during the reporting period. [§60.48c(c)]
- 2) The owner or operator of each affected facility subject to fuel oil sulfur limits under §60.42c shall keep records and submit reports as required under Paragraph (d) of §60.48c, including the following information, as applicable. [§60.48c(e)]
 - a) Calendar dates covered in the reporting period. [§60.48c(e)(1)]
 - b) Each 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of corrective actions taken. [§60.48c(e)(2)]

- c) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under Paragraph (f)(1) of §60.48c, as applicable. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period. [§60.48c(e)(11)]
- 3) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period. [§60.48c(j)]

Permit Condition EU0050-002

**10 CSR 10-6.060 Construction Permits Required
St. Louis City Air Program Construction Permit No. 95-05-056PM**

Emission Limitation:

- 1) Natural gas throughput shall be limited to 770 million cubic feet in any consecutive twelve-month period and 88,000 cubic feet per hour.
- 2) Fuel Oil No. 2 throughput shall be limited to 2,080,000 gallons in any consecutive twelve-month period.

Operational Limitation:

- 1) The permittee shall only burn pipeline grade natural gas or Fuel Oil No. 2.
- 2) The boiler shall be equipped with a low NO_x burner, which is designed to reduce NO_x emission levels to a maximum of 0.10 lbs/MMBtu for natural gas firing and 0.27 lbs/MMBtu for Fuel Oil No. 2.

Monitoring/Recordkeeping:

- 1) A monthly natural gas throughput total shall be calculated and recorded by the 10th day of the following month. A consecutive twelve-month total shall also be calculated at this time.
(See Attachment E)
- 2) A monthly Fuel Oil No. 2 throughput total shall be calculated and recorded by the 10th day of the following month. A consecutive twelve month total shall also be calculated at this time.
(See Attachment E)
- 3) Recordkeeping shall be accomplished in accordance with the requirements of 10 CSR 10-6.065(6)(C)1.C General Recordkeeping and Reporting Requirements, as stated in Section V of this permit.

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 end of each month, if the records show that permittee exceeded the 12-month or hourly fuel throughput limitation.
- 2) Semi-annually the permittee shall submit records of fuel supplier certification with a certified statement that the records of fuel supplier certification submitted represent all of the fuel combusted during the reporting period.

Permit Condition EU0320-002
10 CSR 10-6.060 Construction Permits Required
St. Louis City Air Program Construction Permit No. 01-05-013

Operational Limitation/Equipment Specification:

- 1) The permittee shall only fire this boiler (EU0320) with natural gas or distillate oil.
- 2) The boiler shall be equipped with a low NO_x burner, which is designed to reduce NO_x emission levels to a maximum of 0.10 lbs/MMBtu for natural gas firing and 0.27 lbs/MMBtu for Fuel Oil No. 2.

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.

EU0040 – Pathological Incinerator (Crematory)			
Emission Unit	Description	Manufacturer/ Model #	2009 EIQ Reference #
EU0040	1.65 MMBtu/hr Natural Gas Fired Pathological Incinerator located at 4566 Scott, Installed in 1989	B&L Cremation Systems/N20A	EP-07

Permit Condition EU0040-001
10 CSR 10-6.060 Construction Permits Required
St. Louis City Air Program Construction Permit No. 96-10-083

Emission/Operational Limitation:

- 1) This incinerator shall only be charged with human remains. This limitation excludes the incineration of fiberglass or chlorine-containing plastic. Plastic that does not contain chlorine may be incinerated.
- 2) The incinerator operation shall be limited to twelve (12) hours a day, five (5) days/week and fifty-two (52) weeks/year.
- 3) Incinerator shall be equipped with an operable charging lock-out mechanism which prohibits charging during the manufacturer’s burn cycle.
- 4) Incinerator shall have a plate affixed to the incinerator inscribed with the essential steps necessary for satisfactory operation of the incinerator. It shall state the Burn Capacity (BC) in pounds of waste burned per hour or per batch.
- 5) A trained operator shall be on duty and immediately available during all periods of incinerator operation. The manufacturer’s operating instructions and guidelines shall be available on-site at all times.
- 6) Human remains charges shall not exceed three hundred twelve (312) tons per year.
- 7) Human charges shall not exceed a limit of two hundred (200) pounds per hour.
- 8) The particulate emission shall not exceed more than 0.03 grains per dry standard cubic foot of exhaust gas corrected to seven (7%) percent oxygen.
- 9) The system shall be operated in such a manner that the emission from the stack will not exceed ten (10%) percent opacity for a period in excess of six (6) minutes in any consecutive sixty (60) minute period.

- 10) The secondary combustion chamber gases shall be pre-heated to and maintained at or above one thousand four hundred (1400 °F) degrees Fahrenheit prior to charging and throughout the incineration process.
- 11) Residence time of the gases within the secondary chamber shall be at least one (1) second.

Monitoring:

- 1) The temperature in the secondary combustion chamber shall be determined and recorded a minimum of one (1) second downstream from the entrance of the secondary chamber using a continuous chart recorder.
- 2) The permittee shall conduct visible emission checks on the emission unit(s) using the procedures contained in U.S. EPA Test Method 22. Readings are only required when the emission unit(s) is 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 unit(s) with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
 - a) The following monitoring schedule must be maintained:
 - i) Observations must be made once per month. If a violation is noted, then
 - ii) Weekly observations shall be conducted for a minimum of eight (8) consecutive weeks. Should no violation of this regulation be observed during this period then monitoring reverts to monthly monitoring.

Recordkeeping:

- 1) Continuous record of the secondary combustion chamber temperatures.
- 2) Record of the quantity and type of charge incinerated. In addition, if the material incinerated did not originate within the Medical Center Complex, a record of any containers, bodies or body parts incinerated shall be kept (see Attachment F).
- 3) Record of all maintenance performed (see Attachment K).
- 4) Record of any performance or other emission test performed on this unit or similar unit.
- 5) Record of incineration operational hours (see Attachment F).
- 6) Record or written certification of the appropriate training received by the operator, with the dates of training that includes a listing of the instructor's qualifications or applicable certification school, shall be available for viewing at the Medical Center Complex during normal working hours.
- 7) The permittee shall maintain records of all observation results (see Attachment A), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission unit, and
 - b) Whether the visible emissions were normal for the process.
- 8) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (See Attachment B)
- 9) Recordkeeping shall be accomplished in accordance with the requirements of 10 CSR 10-6.065(6)(C)1.C General Recordkeeping and Reporting Requirements, as stated in Section V of this permit.

Reporting:

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 any deviation from or exceedance of any of the terms imposed by this permit condition.

EU0060 – Machine Shop Parts Washer			
Emission Unit	Description	Manufacturer/ Model #	2009 EIQ Reference #
EU0060	20 gallon parts washer	Graymills	EP-26

Permit Condition EU0060-001
10 CSR 10-5.300
Control of Emissions from Solvent Cleaning

Emission Limitation:

- 1) The permittee shall not use cold cleaning solvent with a vapor pressure greater than 1.0 millimeters of Mercury (mmHg) (0.019 psi) at 20 degrees Celsius (20°C) (68 degrees Fahrenheit (68°F)).
- 2) Exception: The permittee may use an alternative method for reducing cold cleaning emissions if the level of emission control is equivalent to or greater than the requirements listed above. The director and the U.S Environmental Protection Agency (EPA) must approve the alternative method.

Operational Limitation/Equipment Specification:

- 1) Each cold cleaner shall have a cover which will prevent the escape of solvent vapors from the solvent bath while in the closed position, or an enclosed reservoir which limits the escape of solvent vapors from the solvent bath whenever parts are not being processed in the cleaner.
- 2) When one or more of the following conditions exist, the cover shall be designed to operate easily such that minimal disturbing of the solvent vapors in the tank occurs. (For covers larger than ten square feet, this shall be accomplished by either mechanical assistance such as spring loading or counter weighing or by power systems):
 - a) The solvent vapor pressure is greater than 0.3 psi measured at 37.8 degrees Celsius (37.8°C) (100 degrees Fahrenheit (100°F));
 - b) The solvent is agitated; or
 - c) The solvent is heated.
- 3) Each cold cleaner shall have an internal drainage facility so that parts are enclosed under the cover while draining.
- 4) If an internal drainage facility cannot fit into the cleaning system and the solvent vapor pressure is less than 0.6 psi measured at 37.8°C (100°F), then the cold cleaner shall have an external drainage facility which provides for the solvent to drain back into the solvent bath.
- 5) Solvent sprays, if used, shall be a solid fluid stream (not a fine, atomized or shower-type spray) and at a pressure which does not cause splashing above or beyond the freeboard.
- 6) A permanent conspicuous label summarizing the operating procedures shall be affixed to the equipment or in a location readily visible during operation of the equipment.
- 7) Any cold cleaner which uses a solvent that has a solvent vapor pressure greater than 0.6 psi measured at 37.8°C (100°F) or is heated above 48.9°C (120°F), must use one of the following control devices:
 - a) A freeboard ratio of at least 0.75;
 - b) Water cover (solvent must be insoluble in and heavier than water); or
 - c) Other control systems with a mass balance demonstrated overall VOC emissions reduction efficiency greater than or equal to 65 percent. These control systems must receive approval from the director and EPA prior to their use.

- 8) Each cold cleaner shall be operated as follows:
 - a) Cold cleaner covers shall be closed whenever parts are not being handled in the cleaners or the solvent must drain into an enclosed reservoir except when performing maintenance or collecting solvent samples.
 - b) Cleaned parts shall be drained in the freeboard area for at least 15 seconds or until dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining, the parts shall be positioned so that the solvent drains directly back to the cold cleaner.
 - c) Whenever a cold cleaner fails to perform within the rule operating requirements, the unit shall be shut down immediately and shall remain shut down until operation is restored to meet the rule operating requirements.
 - d) Solvent leaks shall be repaired immediately or the cleaner shall be shut down until the leaks are repaired.
 - e) Any waste material removed from a cold cleaner shall be disposed of by one of the following methods or an equivalent method approved by the director and EPA:
 - i) Reduction of the waste material to less than 20 percent VOC solvent by distillation and proper disposal of the still bottom waste; or
 - ii) Stored in closed containers for transfer to a contract reclamation service or disposal facility approved by the director and EPA.
 - f) Waste solvent shall be stored in covered containers only.
- 9) Operators must be trained as follows:
 - a) Only persons trained in at least the operation and equipment requirements specified in this rule for their particular solvent metal cleaning process shall be permitted to operate this equipment;
 - b) The person who supervises any person who operates solvent cleaning equipment regulated by this rule shall receive equal or greater operational training than the operators; and
 - c) A procedural review shall be given to all solvent metal cleaning equipment operators at least once each 12 months.

Monitoring/Recordkeeping:

- 1) The permittee shall maintain the following records for each purchase of cold cleaner solvent (Attachment I):
 - a) Name and address of the solvent supplier.
 - b) Date of purchase.
 - c) Type of solvent purchased.
 - d) Vapor pressure of solvent in mm Hg at 20°C or 68°F.
- 2) The permittee shall keep records of all types and amounts of solvents containing waste material from cleaning or degreasing operations transferred either to a contract reclamation service or to a disposal facility and all amounts distilled on the premises. (see Attachment G). The record also shall include maintenance and repair logs that occurred on the degreaser (Attachments H). These records shall be kept current and made available for review on a monthly basis. The director may require additional recordkeeping if necessary to adequately demonstrate compliance with this rule.
- 3) The permittee shall keep training records of solvent metal cleaning for each employee on an annual basis (Attachment J).
- 4) Recordkeeping shall be accomplished in accordance with the requirements of 10 CSR 10-6.065(6)(C)1.C General Recordkeeping and Reporting Requirements, as stated in Section V of this permit.

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.

EU0140 through EU0260, EU0280 through EU0310 and EU0330 through EU0490 – Emergency Diesel Generators			
Emission Unit	Description	Date Installed	2009 EIQ Reference #
EU0140	200 KW Diesel Emergency Generator (ROBEMG1)	1998	EP-29
EU0150	105 KW Diesel Emergency Generator (SHREMG1)	1998	EP-29
EU0160	100 KW Emergency Diesel Generator (PGCEMG1)	1992	EP-29
EU0170	500 KW Diesel Emergency Generator (ECBEMG1)	2004	EP-29
EU0180	350 KW Emergency Diesel Generator (BTCCEMG1)	1994	EP-29
EU0200	250 KW Diesel Emergency Generator (MCMEMG1)	1996	EP-29
EU0210	350 KW Diesel Emergency Generator (RENEMG1)	1996	EP-29
EU0220	400 KW Diesel Emergency Generator (MCDEMAG1)	1996	EP-29
EU0230	250 KW Diesel Emergency Generator (WESEMG1)	1996	EP-29
EU0240	520 KW Emergency Diesel Generator (CSREMG1)	1982	EP-29
EU0250	520 KW Emergency Diesel Generator (CSREMG2)	1982	EP-29
EU0260	250 KW Diesel Emergency Generator (EIREMG1)	1994	EP-29
EU0280	500 KW Diesel Emergency Generator (SIREMG)	1993	EP-29
EU0290	1000 KW Diesel Emergency Generator (EMDEMAG1)	1995	EP-29
EU0300	1500 KW Emergency Diesel Generator (NTAEMAG1)	1996	EP-29
EU0310	800 KW Diesel Emergency Generator (EPPEMG1)	2003	EP-29
EU0330	810 KW Emergency Diesel Generator (CIREMG1)	2000	EP-29
EU0340	1000 KW Emergency Diesel Generator (NOREMG1)	2005	EP-29
EU0350	150 KW Emergency Diesel Generator (FPEEMAG1)	2006	EP-29
EU0360	1800 KW Emergency Diesel Generator (SREEMAG1)	2005	EP-29
EU0370	55 KW Emergency Diesel Generator (STZEMAG1)	2005	EP-29
EU0380	450 KW Emergency Diesel Generator (WOCEMG1)	1989	EP-29
EU0390	180 KW Emergency Diesel Generator (FP4EMAG1)	2006	EP-29
EU0400	230 KW Emergency Diesel Generator (CTXEMAG1)	2007	EP-29
EU0410	125 KW Emergency Diesel Generator (PGMEMAG1)	2007	EP-29
EU0420	200 KW Emergency Diesel Generator (NWTEMG1)	2007	EP-29
EU0430	2000 KW Emergency Diesel Generator (GDCEMG2)	2008	EP-29
EU0440	1500 KW Emergency Diesel Generator (NTAEMAG2)	2008	EP-29
EU0450	2000 KW Emergency Diesel Generator (GDCEMG1)	2009	EP-29
EU0460	300 KW Emergency Diesel Generator (MATEMG1)	2009	EP-29
EU0470	2250 KW Emergency Diesel Generator (BRBEMAG1)	2009	EP-29
EU0480	1500 KW Emergency Diesel Generator (EMDEMAG2)	2009	EP-29
EU0490	500 KW Emergency Diesel Generator (WOHEMG1)	2011	EP-29

**Permit Condition EU0140-001 through EU0260-001,
Permit Condition EU0280-001 through EU0310-001, and
Permit Condition EU0330-001 through EU0420-001
10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds**

Emission Limitation:

- 1) New sources: - No person shall cause or permit the emission into the atmosphere gases containing more than five hundred parts per million by volume (500 ppmv) of sulfur dioxide or more than thirty-five milligrams per cubic meter (35 mg/cubic meter) of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three (3)-hour time period. [10 CSR 10-6.260(3)(A)2.]
- 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. [10 CSR 10-6.260(3)(B) & 10 CSR 10-6.010 Ambient Air Quality Standards] ²

Operational Limitation/Equipment Specifications:

The emission units shall be limited to burning fuel oil with a sulfur content of no more than 0.5 percent by weight sulfur. The fuel oils known to be less than 0.5 percent by weight sulfur per Chapter 414 RSMo, Section 414.032, ASTM D396 - Table 1 and ASTM D975 - Table 1, are Fuel Oil No. 1 and No. 2 and diesel fuel oil Grade Low Sulfur No. 1-D, Grade Low Sulfur No. 2-D.

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) Recordkeeping shall be accomplished in accordance with the requirements of 10 CSR 10-6.065(6)(C)1.C General Recordkeeping and Reporting Requirements, as stated in Section V of this permit.

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 EU0180-002 through EU0260-002, and
Permit Condition EU0280-002 through EU0300-002**

**10 CSR 10-6.060 Construction Permits Required
St Louis City Construction Permit No. 98-10-060**

² 10 CSR 10-6.260(3)(B) is state-only requirement.

Emission Limitation:

- 1) EU0180 through EU0260, and EU0280
Operation of the emergency generators EU0180 through EU0260, and EU0280 shall not exceed 240 hours per generator in any consecutive twelve month period.
- 2) EU0290 and EU0300:
Operation of the emergency generators EU0290 and EU0300 shall not exceed 300 hours per generator in any consecutive twelve month period.
- 3) The emergency generators shall be operated during periods of testing and maintenance.
- 4) The emergency generators shall be operated during periods when electrical service to the installation is interrupted.
- 5) The emergency generators shall be operated with Fuel Oil No. 2 only.
- 6) The permittee shall not switch to a fuel oil with a sulfur content higher than 0.5 percent by weight without the permission from the Air Pollution Control Program.

Recordkeeping:

- 1) Records of the hours of operation, for each generator, shall be kept monthly, including a calculated total for every consecutive twelve-month period of time.
- 2) The permittee shall maintain fuel purchase receipts or certifications that verify the fuel type and sulfur content.
- 3) Recordkeeping shall be accomplished in accordance with the requirements of 10 CSR 10-6.065(6)(C)1.C General Recordkeeping and Reporting Requirements, as stated in Section V of this permit.

Reporting:

- 1) The permittee shall report to Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 no later than ten days after the end of each month, if the 12-month cumulative total records show that the permittee exceeded the hours of operation limitation for each generator.
- 2) Semi-annually, using the semi-annual monitoring report and annual compliance certification, the permittee shall submit records of fuel supplier certification with a certified statement that the records of fuel supplier certification submitted represent all of the fuel combusted during the reporting period.

Permit Condition EU0310-002

**10 CSR 10-6.060 Construction Permits Required
St Louis City Construction Permit No. 01-05-014**

Emission Limitation:

- 1) The permittee shall not operate the emergency generator in excess of 500 hours in any consecutive twelve month period.
- 2) The emergency generator shall only burn Fuel Oil No. 2 with a sulfur content not to exceed 0.5 percent by weight.

Monitoring:

- 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.

Recordkeeping:

- 1) Monthly records of hours of operation shall be kept, including a calculated total for every consecutive twelve-month period of time.
- 2) 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.
- 3) Recordkeeping shall be accomplished in accordance with the requirements of 10 CSR 10-6.065(6)(C)1.C General Recordkeeping and Reporting Requirements, as stated in Section V of this permit.

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 end of each month, if the 12-month cumulative total records show that the permittee exceeded the hours of operation limitation for the generator.
- 2) Semi-annually, using the semi-annual monitoring report and annual compliance certification, the permittee shall submit records of fuel supplier certification with a certified statement that the records of fuel supplier certification submitted represent all of the fuel combusted during the reporting period.

Permit Condition EU0430-001 through EU0490-001

10 CSR 10-6.070 New Source Performance Regulations

**40 CFR Part60, Subpart IIII Standards of Performance for Stationary Compression Ignition
Internal Combustion Engines**

Emission Limitation/Standards:

- 1) Owners and operators of 2007 model year and later emergency stationary compression ignition (CI) internal combustion engines (ICE) with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. [§60.4205(b)]
- 2) For engines with a maximum engine power greater than or equal to 37 kilowatt (KW) (50 horsepower (HP)), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 for all pollutants beginning in model year 2007. [§60.4202(a)(2)]
 - a) Exhaust emissions shall not exceed the following: [Table 1 §89.112]
 - i) 6.4 grams per kilowatt-hour (g/KW-hr) of nonmethane hydrocarbon NMHC) and oxides of nitrogen (NO_x);
 - ii) 3.5 g/KW-hr of CO; and
 - iii) 0.20 g/KW-hr of PM.
- 3) The General provisions of 40 CFR 60.1 through 19 apply as indicated in Table 8 of 40 CFR 60, Subpart IIII except that the permittee is not required to submit initial notification. [§60.4218 & §60.4214(b)]
- 4) The permittee must operate and maintain the emergency stationary CI ICE that achieve the emission standards as required in §60.4205(b) over the entire life of the engines. [§60.4206]

Operational Limitation:

Fuel Requirements : Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b), as stated below: [§60.4207(b)]

- 1) Sulfur content. 15 parts per million (ppm) maximum. [§80.510(b)(1)]
- 2) Cetane index or aromatic content, as follows: [§80.510(b)(2)]
 - a) A minimum cetane index of 40; or [§80.510(b)(2)(i)]
 - b) A maximum aromatic content of 35 volume percent. [§80.510(b)(2)(ii)]

Monitoring:

- 1) The permittee must install a non-resettable hour meter on each engine prior to startup of the each engine. [§60.4209(a)]
- 2) The permittee must do all of the following, except as permitted under §60.4211(g): [§60.4211(a)]
 - a) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; [§60.4211(a)(1)]
 - b) Change only those emission-related settings that are permitted by the manufacturer; and [§60.4211(a)(2)]
 - c) Meet the requirements of 40 CFR Parts 89, 94 and/or 1068, as they apply to you. [§60.4211(a)(3)]
- 3) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4205(b), you must comply by purchasing an engine certified to the emission standards in §60.4205(b), for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in §60.4211(g). [§60.4211(c)]

Recordkeeping/Reporting:

Notification, Reports, and Records for Owners and Operators: [§60.4214]

According to §60.4214(b), owners or operators of emergency stationary internal combustion engines are not required to submit an initial notification.

EU00500 – Ethylene Oxide Sterilizer			
Emission Unit	Description	Manufacturer/Model #	EIQ Reference #
EU0500	New ethylene Oxide Sterilizer	3M	N/A

<p>Permit Condition EU0500-001 10 CSR 10-6.075, Maximum Achievable Control Technology 40 CFR Part63, Subpart WWWW, National Emission Standards for Hospital Ethylene Oxide Sterilizers</p>
--

Management Practice Standard:

The owners or operators must sterilize full loads of items having a common aeration time, except under medically necessary circumstances³. [[§63.10390](#)]

Initial Compliance

- 1) Except as provided in paragraphs (b) and (c) of this section, you must demonstrate initial compliance with the management practice standard in § 63.10390 by submitting an Initial Notification of Compliance Status certifying that you are sterilizing full loads of items having a common aeration time except under medically necessary circumstances. [[§63.10400\(a\)](#)]
- 2) If you operate your sterilization unit(s) with an air pollution control device pursuant to a State or local regulation, you may demonstrate initial compliance with § 63.10390 by submitting an Initial Notification of Compliance Status certifying that you are operating the sterilization unit in accordance with your State or local regulation and following control device manufacturer's recommended procedures. [[§63.10400\(b\)](#)]
- 3) If you operate your sterilization unit(s) with an air pollution control device but are not subject to any State or local regulation, you may demonstrate initial compliance with § 63.10390 by submitting an Initial Notification of Compliance Status certifying that you are venting the ethylene oxide emissions from each sterilization unit to an add-on air pollution control device. You must certify that you are operating the control device during all sterilization processes and in accordance with manufacturer's recommended procedures. [[§63.10400\(c\)](#)]
- 4) You must submit an Initial Notification of Compliance Status that includes the information required in paragraphs (a)(1) through (5) of this section and the applicable certification in § 63.10400. [[§63.10430\(a\)](#)]
 - a) The name and address of the owner or operator. [[§63.10430\(a\)\(1\)](#)]
 - b) The address (i.e., physical location) of the affected source. [[§63.10430\(a\)\(2\)](#)]
 - c) An identification of the standard and other applicable requirements in this subpart that serve as the basis of the notification and the source's compliance date. [[§63.10430\(a\)\(3\)](#)]
 - d) A brief description of the sterilization facility, including the number of ethylene oxide sterilizers, the size (volume) of each, the number of aeration units, if any, the amount of annual ethylene oxide usage at the facility, the control technique used for each sterilizer, and typical number of sterilization cycles per year. [[§63.10430\(a\)\(4\)](#)]
 - e) A statement that the affected source is an area source. [[§63.10430\(a\)\(5\)](#)]
- 5) You must submit the Initial Notification of Compliance Status to the appropriate authority(ies) specified in § 63.9(a)(4). In addition, you must submit a copy of the Initial Notification of Compliance Status to EPA's Office of Air Quality Planning and Standards. Send your notification via e-mail to CCG-ONG@EPA.GOV or via U.S. mail or other mail delivery service to U.S. EPA, Sector Policies and Programs Division, Coatings and Chemicals Group (E143-01), Attn: Hospital Sterilizers Project Leader, Research Triangle Park, NC 27711. [[§63.10430\(b\)](#)]
- 6) You must submit the Initial Notification of Compliance Status no later than 180 calendar days after your compliance date, consistent with § 63.10402. [[§63.10430\(c\)](#)]

³ *Medically necessary* means circumstances that a hospital central services staff, a hospital administrator, or a physician concludes, based on generally accepted medical practices, necessitate sterilizing without a full load in order to protect human health.

Monitoring:

For each sterilization unit not equipped with an air pollution control device, you must demonstrate continuous compliance with the management practice standard in § 63.10390 by recording the date and time of each sterilization cycle, whether each sterilization cycle contains a full load of items, and if not, a statement from a hospital central services staff, a hospital administrator, or a physician that it was medically necessary. (See Attachment L) [[§63.10420](#)]

Recordkeeping:

- 1) A copy of the Initial Notification of Compliance Status that you submitted to comply with this subpart. [[§63.10432\(a\)](#)]
- 2) Records required by § 63.10420 for each sterilization unit not equipped with an air pollution control device. [[§63.10432\(b\)](#)]
- 3) Your records must be in a form suitable and readily available for expeditious review. [[§63.10434\(a\)](#)]
- 4) You must keep each record for five years following the date of each record. [[§63.10434\(b\)](#)]
- 5) You must keep each record onsite for at least two years after the date of each record. You may keep the records offsite for the remaining three years. [[§63.10434\(c\)](#)]

IV. Core Permit Requirements

The installation shall comply with each of the following regulations or codes. Consult the appropriate sections in the Code of Federal Regulations (CFR) and the Code of State Regulations (CSR). All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued. The following is only an excerpt from the regulation or code, and is provided for summary purposes only.

10 CSR 10-6.045 Open Burning Requirements

- 1) General Provisions. The open burning of tires, petroleum-based products, asbestos containing materials, and trade waste is prohibited, except as allowed below. Nothing in this rule may be construed as to allow open burning which causes or constitutes a public health hazard, nuisance, a hazard to vehicular or air traffic, nor which violates any other rule or statute.
- 2) Refer to the regulation for a complete list of allowances. The following is a listing of exceptions to the allowances:
 - a) Burning of household or domestic refuse. Burning of household or domestic refuse is limited to open burning on a residential premises having not more than four dwelling units, provided that the refuse originates on the same premises, with the following exceptions:
 1. St. Louis metropolitan area. The open burning of household refuse is prohibited;
 - b) Yard waste, with the following exceptions:
 1. St. Louis metropolitan area. The open burning of trees, tree leaves, brush or any other type of vegetation is limited to the period beginning September 16 and ending April 14 of each calendar year and limited to a total base area not to exceed sixteen (16) square feet. Any open burning shall be conducted only between the hours of 10:00 a.m. and 4:00 p.m. and is limited to areas outside of incorporated municipalities;
- 3) Certain types of materials may be open burned provided an open burning permit is obtained from the director. The permit will specify the conditions and provisions of all open burning. The permit may be revoked if the owner or operator fails to comply with the conditions or any provisions of the permit.
- 4) Washington University School of Medicine may be issued an annually renewable open burning permit for open burning provided that an air curtain destructor or incinerator is utilized and only tree trunks, tree limbs, vegetation or untreated wood waste are burned. Open burning shall occur at least two hundred (200) yards from the nearest occupied structure unless the owner or operator of the occupied structure provides a written waiver of this requirement. Any waiver shall accompany the open burning permit application. The permit may be revoked if Washington University School of Medicine fails to comply with the provisions or any condition of the open burning permit.
 - a) In a nonattainment area, as defined in 10 CSR 10-6.020, paragraph (2)(N)5., the director shall not issue a permit under this section unless the owner or operator can demonstrate to the satisfaction of the director that the emissions from the open burning of the specified material would be less than the emissions from any other waste management or disposal method.
- 5) Reporting and Recordkeeping. New Source Performance Standard (NSPS) 40 CFR Part 60 Subpart CCCC establishes certain requirements for air curtain destructors or incinerators that burn wood trade waste. These requirements are established in 40 CFR 60.2245-60.2260. The provisions of 40 CFR Part 60 Subpart CCCC promulgated as of September 22, 2005 shall apply and are hereby incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N Capitol Street NW, Washington, DC 20401. To comply with NSPS 40 CFR 60.2245-60.2260,

sources must conduct an annual Method 9 test. A copy of the annual Method 9 test results shall be submitted to the director.

- 6) Test Methods. The visible emissions from air pollution sources shall be evaluated as specified by 40 CFR Part60, Appendix A–Test Methods, Method 9–Visual Determination of the Opacity of Emissions from Stationary Sources. The provisions of 40 CFR Part60, Appendix A, Method 9 promulgated as of December 23, 1971 is incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N Capitol Street NW, Washington, DC 20401.

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(6)(B)1.A(V)] The permittee shall retain the most current operating permit issued to this installation on-site. [10 CSR 10-6.065(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(6)(C)3.B]

10 CSR 10-6.080 Emission Standards for Hazardous Air Pollutants and 40 CFR Part61 Subpart M National Emission Standard for Asbestos

- 1) The permittee shall follow the procedures and requirements of 40 CFR Part61, Subpart M for any activities occurring at this installation which would be subject to provisions for 40 CFR Part61, 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 Part61, Subpart M.

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

- 1) The permittee shall submit full emissions report either electronically via MoEIS, which requires Form 1.0 signed by an authorized company representative, or on Emission Inventory Questionnaire (EIQ) paper forms on the frequency specified in this rule and in accordance with the requirements outlined in this rule. Alternate methods of reporting the emissions, such as spreadsheet file, can be submitted for approval by the director.
- 2) The permittee may be required by the director to file additional reports.
- 3) Public Availability of Emission Data and Process Information. Any information obtained pursuant to the rule(s) of the Missouri Air Conservation Commission that would not be entitled to confidential treatment under 10 CSR 10-6.210 shall be made available to any member of the public upon request.
- 4) 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.
- 5) The fees shall be payable to the Department of Natural Resources and shall be accompanied by the an emissions report.
- 6) The permittee shall complete required reports on state supplied EIQ forms or electronically via MoEIS. Alternate methods of reporting the emissions can be submitted for approval by the director. The reports shall be submitted to the director by April 1 after the end of each reporting year. If the full emissions report is filed electronically via MoEIS, this due date is extended to May 1.

- 7) The reporting period shall end on December 31 of each calendar year. Each report shall contain the required information for each emission unit for the twelve (12)-month period immediately preceding the end of the reporting period.
- 8) The permittee shall collect, record and maintain the information necessary to complete the required forms during each year of operation of the installation.

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. All tests shall be performed by qualified personnel.
- 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 10-5.040 Use of Fuel in Hand-Fired Equipment Prohibited

It shall be unlawful to operate any hand-fired fuel-burning equipment in the St. Louis, Missouri metropolitan area. This regulation shall apply to all fuel-burning equipment including, but not limited to, furnaces, heating and cooking stoves and hot water furnaces. It shall not apply to wood-burning fireplaces and wood-burning stoves in dwellings, nor to fires used for recreational purpose, nor to fires used solely for the preparation of food by barbecuing. Hand-fired fuel-burning equipment is any stove, furnace, or other fuel-burning device in which fuel is manually introduced directly into the combustion chamber.

10 CSR 10-5.060 Refuse Not to be Burned in Fuel Burning Installations (Contained in State Implementation Plan)

No person shall burn or cause or permit the burning of refuse in any installation which is designed for the primary purpose of burning fuel.

10 CSR 10-6.165 Restriction of Emission of Odors

This requirement is not federally enforceable.

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.

10 CSR 10-5.240 Additional Air Quality Control Measures May be Required When Sources Are Clustered in a Small Land Area

The Air Conservation Commission may prescribe more restrictive air quality control requirements that are more restrictive and more extensive than provided in regulations of general application for:

- 1) Areas in which there are one or more existing sources and/or proposed new sources of particulate matter in any circular area with a diameter of two miles (including sources outside metropolitan area) from which the sum of particulate emissions allowed from these sources by regulations of general application are or would be greater than 2000 tons per year or 500 pounds per hour.
- 2) Areas in which there are one or more existing sources and/or proposed new sources of sulfur dioxide in any circular area with a diameter of two miles from which the sum of sulfur dioxide emissions from these sources allowed by regulations of general application are or would be greater than 1000 tons for any consecutive three months or 1000 pounds per hour.

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 Part82 Protection of Stratospheric Ozone

- 1) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part82, 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 Part82, 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 Part82, 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 Part82, 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.

- 5) 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 Part82, Subpart G, Significant New Alternatives Policy Program. *Federal Only - 40 CFR Part82*

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 Part64;
 - 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 Part64;
 - 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”;
 - 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(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(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) October 1st for monitoring which covers the January through June time period, and
 - ii) April 1st for monitoring which covers the July through December time period.
 - iii) Exception. Monitoring requirements which require reporting more frequently than semi-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, this includes deviations or Part 64 exceedances.
 - 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.A 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 semi-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(6)(C)1.D Risk Management Plan Under Section 112(r)

The permittee shall comply with the requirements of 40 CFR Part68, 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 Part68 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(6)(C)1.F Severability Clause

In the event of a successful challenge to any part of this permit, all uncontested permit conditions shall continue to be in force. All terms and conditions of this permit remain in effect pending any administrative or judicial challenge to any portion of the permit. If any provision of this permit is invalidated, the permittee shall comply with all other provisions of the permit.

10 CSR 10-6.065(6)(C)1.G 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 pursuant to 10 CSR 10-6.065(6)(C)1.

10 CSR 10-6.065(6)(C)1.H Incentive Programs Not Requiring Permit Revisions

No permit revision will be required for any installation changes made under any approved economic incentive, marketable permit, emissions trading, or other similar programs or processes provided for in this permit.

10 CSR 10-6.065(6)(C)1.I Reasonably Anticipated Operating Scenarios

None.

10 CSR 10-6.065(6)(C)3 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 semi-annually (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 EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, as well as the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. All deviations and Part 64 exceedances and excursions 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(6)(C)6 Permit Shield

- 1) Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements as of the date that this permit is issued, provided that:
 - a) The application requirements are included and specifically identified in this permit, or
 - b) The permitting authority, in acting on the permit revision or permit application, determines in writing that other requirements, as specifically identified in the permit, are not applicable to the installation, and this permit expressly includes that determination or a concise summary of it.
- 2) Be aware that there are exceptions to this permit protection. The permit shield does not affect the following:
 - a) The provisions of Section 303 of the Act or Section 643.090, RSMo concerning emergency orders,
 - b) Liability for any violation of an applicable requirement which occurred prior to, or was existing at, the time of permit issuance,
 - c) The applicable requirements of the acid rain program,
 - d) The authority of the Environmental Protection Agency and the Air Pollution Control Program of the Missouri Department of Natural Resources to obtain information, or
 - e) Any other permit or extra-permit provisions, terms or conditions expressly excluded from the permit shield provisions.

10 CSR 10-6.065(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(6)(C)8 Operational Flexibility

An installation that has been issued a Part 70 operating permit is not required to apply for or obtain a permit revision in order to make any of the changes to the permitted installation described below if the changes are not Title I modifications, the changes do not cause emissions to exceed emissions allowable

under the permit, and the changes do not result in the emission of any air contaminant not previously emitted. The permittee shall notify the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, at least seven days in advance of these changes, except as allowed for emergency or upset conditions. Emissions allowable under the permit means a federally enforceable permit term or condition determined at issuance to be required by an applicable requirement that establishes an emissions limit (including a work practice standard) or a federally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.

- 1) Section 502(b)(10) changes. Changes that, under Section 502(b)(10) of the Act, contravene an express permit term may be made without a permit revision, except for changes that would violate applicable requirements of the Act or contravene federally enforceable monitoring (including test methods), recordkeeping, reporting or compliance requirements of the permit.
 - a) Before making a change under this provision, The permittee shall provide advance written notice to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, describing the changes to be made, the date on which the change will occur, and any changes in emission and any permit terms and conditions that are affected. The permittee shall maintain a copy of the notice with the permit, and the Air Pollution Control Program shall place a copy with the permit in the public file. Written notice shall be provided to the EPA and the Air Pollution Control Program as above at least seven days before the change is to be made. If less than seven days' notice is provided because of a need to respond more quickly to these unanticipated conditions, the permittee shall provide notice to the EPA and the Air Pollution Control Program as soon as possible after learning of the need to make the change.
 - b) The permit shield shall not apply to these changes.

10 CSR 10-6.065(6)(C)9 Off-Permit Changes

- 1) Except as noted below, the permittee may make any change in its permitted operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a permit revision. Insignificant activities listed in the application, but not otherwise addressed in or prohibited by this permit, shall not be considered to be constrained by this permit for purposes of the off-permit provisions of this section. 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 subject to any requirements under Title IV of the Act or is a Title I modification;
 - 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, 11201 Renner Blvd., Lenexa, KS 66219, no later than the next annual emissions report. This notice shall not be required for changes that are insignificant activities under 10 CSR 10-6.065(6)(B)3. 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.
 - 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; and
 - d) The permit shield shall not apply to these changes.

10 CSR 10-6.020(2)(R)39 Responsible Official

The application utilized in the preparation of this permit was signed by James T. Steuber, Director of Facility Engineering. 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(6)(E)6 Reopening-Permit for Cause

This permit may be reopened for cause if:

- 1) The Missouri Department of Natural Resources (MDNR) receives notice from the Environmental Protection Agency (EPA) that a petition for disapproval of a permit pursuant to 40 CFR § 70.8(d) has been granted, provided that the reopening may be stayed pending judicial review of that determination,
- 2) The Missouri Department of Natural Resources 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,
- 3) 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,
- 4) The installation is an affected source under the acid rain program and additional requirements (including excess emissions requirements), become applicable to that source, provided that, upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the permit;
or
- 5) The Missouri Department of Natural Resources or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

10 CSR 10-6.065(6)(E)1.C Statement of Basis

This permit is accompanied by a statement setting forth the legal and factual basis for the 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 – Method 9 Opacity Emissions Observation
 10 CSR 10-6.220 Compliance Demonstration**

Method 9 Opacity Emissions Observations	
Company	Observer
Location	Observer Certification Date
Date	Emission Unit
Time	Control Device

Hour	Minute	Seconds				Steam Plume (check if applicable)		Comments
		0	15	30	45	Attached	Detached	
	0							
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							

SUMMARY OF AVERAGE OPACITY				
Set Number	Time		Opacity	
	Start	End	Sum	Average

Readings ranged from _____ to _____ % opacity.

Was the emission unit in compliance at the time of evaluation? _____
 YES NO Signature of Observer _____

STATEMENT OF BASIS

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) Part 70 Operating Permit Application, received December 18, 2008;
- 2) 2010 Emissions Inventory Questionnaire, received March 3, 2011;
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition;
- 4) St. Louis City Air Program Construction Permit No. 95-05-056PM;
- 5) St. Louis City Air Program Construction Permit No. 96-10-083F;
- 6) St. Louis City Air Program Construction Permit No. 98-10-060;
- 7) St. Louis City Air Program Construction Permit No. 01-05-013;
- 8) St. Louis City Air Program Construction Permit No. 01-05-014; and
- 9) St. Louis City Air Program Permit Matter No. 08-10-019 to amend Construction Permit No. 98-10-060.

Amendments made to Previous Operating Permit

City Ordinances and City Source Registration Requirements

These have been removed from the Part 70 Operating Permit in order to simplify the operating permit since these regulations are not enforced by federal or state authorities.

Emergency Generators

10 CSR 10-6.220 does not apply to stationary internal combustion engines in the St. Louis Metropolitan Area; therefore, the opacity limits placed on the emergency generators in the earlier permit have been removed.

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

In the original operating permit application, the installation indicated they were not subject to the following regulation(s). However, based on installation of a new emission unit in 2013, the agency has determined that the installation is subject to the following regulation(s) for the reasons stated.

- 1) 40 CFR Part 63, Subpart WWWW, *National Emission Standards for Hospital Ethylene Oxide Sterilizers*.

The term hospital, according to 40 CFR Part 63, Subpart WWWW, is defined as, "a facility that provides medical care and treatment for patients acutely ill or chronically ill on an inpatient basis... [§63.10448] It was originally determined Washington University School of Medicine does not provide inpatient medical care or treatment, therefore Subpart WWWW does not apply to the existing two (2) Ethylene Oxide sterilizers, which were part of the medical school and thus exempt. The units included inherent Ethylene oxide emission control using water for the Ethylene Oxide emissions and were exempt from permitting requirements when originally installed. One (1) existing unit was removed from service August 26, 2013 upon installation of the new EO unit (see below) and the other existing ethylene oxide sterilizer was removed in October of 2013.

- 2) A new Ethylene Oxide Sterilizer unit for the WUSM Department of Comparative Medicine (DCM) was installed August 26, 2013 and is not subject to construction permitting due to maximum emissions. However, the unit is subject to Subpart WWWW based on discussion with USEPA and the Missouri Department of natural Resources. WUSM complies with the recordkeeping provisions and notifications as required by this regulation.

Other Air Regulations Determined Not to Apply to the Operating Permit

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

- 1) 10 CSR 10-6.260, *Restriction of Emission of Sulfur Compounds*
10 CSR 10-6.220, *Restriction of Visible Air Contaminants*
These rules do not apply to Boiler #1 (EU0050) and Boiler #4 (EU0320). These boilers are subject to 40 CFR Part60, subpart Dc (NSPS). Per 10 CSR 10-6.260(1)(A)1. and 10 CSR 10-6.220(1)(E), these rules do not apply to sources subject to the provisions of NSPS.
- 2) 10 CSR 10-6.405, *Maximum Allowable Emission of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating*
According to 10 CSR 10-6.405(1)(C) and (E), an installation is exempt from this rule if all of the installation's applicable units are fueled only by landfill gas, propane, natural gas. Fuel Oil Nos. 2 through 6 (with less than one and two-tenths percent (1.2 %) sulfur), or other gases (with hydrogen sulfide levels less than or equal to four (4) parts per million volume as measured using ASTM D4084, or equivalent and mercury concentrations less than forty (40) micrograms per cubic meter as measured using ASTM D5954, or ASTM D6350, or equivalent or any combination of these fuels.

All the indirect heating sources operated at this installation exclusively combust natural gas/ propane and Fuel Oil No. 2, therefore the installation is not subject to this rule.

- 3) 10 CSR 10-6.200, *Hospital, Medical, Infectious Waste Incinerators.*
The pathological incinerator, referenced in the St. Louis City Construction Permit #96-10-083F and Permit Determination #SR08.027, is used to burn human bodies. The definitions, as stated in the rule, for hospital, medical/infectious waste exclude human pathological waste. Therefore, this rule was not included in the operating permit.

The EPA has also determined that the human body should not be labeled or considered "solid waste." Therefore, human crematories are not solid waste combustion units, and are not a subcategory of 40 CFR Part60, Subpart IV a.9, Other Solid Waste Incinerators (OSWI) for regulation.

- 4) 10 CSR 10-5.510, *Control of Emissions of Nitrogen Oxides.*
The boilers each emit less than 30 tons of NO_x annually and are exempt from the requirements of this rule under 10 CSR 10-5.510 (1)(B)9 of the rule, which states the following:
Any unit that would otherwise be required to comply with this rule with actual annual NO_x emissions of thirty tons per year or less. This exemption shall cease to apply to a unit if the unit ever exceeds thirty tons per year of actual NO_x emissions for any calendar year.

5) 10 CSR 10-5.570, *Control of Sulfur Emissions from Stationary Boilers*.

This rule applies to installations located in the counties of Franklin, Jefferson, St. Charles, St. Louis, and St. Louis City that own or operate an industrial, commercial, or institutional boiler or process heater that has a name plate capacity greater than 50 MMBtu/hr. Boilers that exclusively burn natural gas, liquefied petroleum gas (LPG), and/or Fuel Oil No. 2 with less than 0.5 percent sulfur are not subject to this rule. Since the boilers at this installation burn natural gas as a primary fuel and Fuel Oil No. 2 with a sulfur content of less than 0.5 percent as back-up fuel, the boilers are not subject to this rule.

Construction Permit Revisions

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

1) City of St. Louis Construction Permit #96-10-083F.

Section IV of the Construction Permit #96-10-083F originally required records to be retained for a minimum of two years. Recordkeeping specified in Paragraph (6)(C)1.C.(II)(b)I of 10 CSR 10-6.065, *Operating Permits*, requires Title V sources to retain all records of all required monitoring data and support information for five years. To be in compliance with the construction permit and the Title V record retention period, the installation will keep the records for five years.

2) City of St. Louis Construction Permit #95-05-056PM.

Section II(C) states:

“The boiler shall not discharge into the atmosphere any gases that exhibit greater than 20 percent opacity for a period or periods aggregating more than six minutes in any 60 minute period. No emissions shall exceed 40 percent opacity regardless of duration.”

This rule was applied in the Construction Permit in accordance with City Ordinance 65645, but the opacity limitation included in 40 CFR Part60 Subpart Dc is more stringent. Therefore, the limitation was not included in the Title V permit.

3) City of St. Louis Construction Permit #01-05-013.

Section II(A) states:

“Visible opacity shall not exceed twenty (20%) percent for a period or periods in excess of six (6) minutes in any consecutive sixty (60) minute period.”

This rule was applied in the Construction Permit in accordance with City Ordinance 65108 (replaced by City Ordinance 65645), but the opacity limitation included in 40 CFR Part60 Subpart Dc is more stringent. Therefore, the limitation was not included in the Title V permit.

New Source Performance Standards (NSPS) Applicability

1) 40 CFR Part60, Subpart D, *Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971*.

The provisions of this subpart apply to each fossil-fuel-fired steam generating unit of more than 73 megawatts heat input rate (250 million Btu per hour) constructed or modified after August 17, 1971 and not covered under Subpart Da.

None of the boilers are rated at greater than 73 megawatts heat input rate (250 million Btu per hour), therefore this subpart does not apply to this installation.

- 2) 40 CFR Part60, Subpart Da, *Standards of Performance for Electric Utility Steam Generating Units for Which Construction is commenced After September 18, 1978.*

The provisions of this subpart apply to each electric utility fossil-fuel-(either alone or in combination with any other fuel) fired steam generating unit of more than 73 megawatts heat input rate (250 million Btu per hour) constructed or modified after September 18, 1978.

None of the boilers are electric utility steam generating units as defined in this subpart nor are rated at greater than 73 megawatts heat input rate (250 million Btu per hour), therefore this subpart does not apply to this installation.

- 3) 40 CFR Part60, Subpart Db, *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.*

The provisions of this subpart apply to each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 29 MW (100 million Btu/hour).

None of the boilers are electric utility steam generating units as defined in this subpart nor are rated at greater than 73 megawatts heat input rate (250 million Btu per hour), therefore this subpart does not apply to this installation.

- 4) 40 CFR Part60, Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.*

Subpart Dc 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 29 megawatts (MW) (100 million Btu/hr) or less, but greater than or equal to 2.9 MW (10 million Btu/hr).

Boiler #5 (EU0020), Boiler #6 (EU0030), Boiler #1 (EU0050) and Boiler #4 (EU0320), with a maximum design heat input capacity less than 100 MMBtu/hr, but greater than 10 MMBtu/hr, are the boilers constructed after the applicability date of this subpart that are subject to this subpart.

- 5) 40 CFR Part60, Subparts K, *Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction Or Modification Commenced After June 11, 1973, and Prior to May 19, 1978 and*

40 CFR Part60, Subpart Ka, Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction Or Modification Commenced After May 19, 1978, and Prior to July 23, 1984.

The installation does not have any petroleum storage vessels as defined in these subparts that are subject to this regulation.

- 6) 40 CFR Part60, Subpart Kb, *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction Or Modification Commenced After July 23, 1984.*

The diesel fuel storage tanks are not large enough for these regulations to apply.

7) 40 CFR Part60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.*

This rule applies to the following emergency generator engines because the generator engines were manufactured after the applicability date of April 1, 2006:

- a) EU0430 2000 KW Emergency Diesel Generator (GDCEMG1);
- b) EU0440 1500 KW Emergency Diesel Generator (NTAEMG2);
- c) EU0450 2000 KW Emergency Diesel Generator (GDCEMG1);
- d) EU0460 300 KW Emergency Diesel Generator (MATEMG1);
- e) EU0470 2250 KW Emergency Diesel Generator (BRBEMG1);
- f) EU0480 1500 KW Emergency Diesel Generator (EMDEMG2); and
- g) EU0490 500 KW Emergency Diesel Generator (WOHEMG1).

To comply with this subpart, the installation uses diesel fuel that meets the requirements of the 40 CFR 60.4207(b) as referenced 40 CFR 80.510(a) and other requirements put in Permit Condition EU0430-001 through EU0490-001.

Maximum Achievable Control Technology (MACT) Applicability

1) 40 CFR Part63, Subpart Q, *National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers*

The provisions of this subpart apply to all new and existing industrial process cooling towers that are operated with chromium-based water treatment chemicals on or after September 8, 1994, and are either major sources or are integral parts of facilities that are major sources as defined in 40 CFR 63.401.

The cooling towers located at this facility do not use chromium-based water treatment chemicals; therefore, this rule was not included in the operating permit.

2) 40 CFR Part63, Subpart T, *National Emission Standards for Halogenated Solvent Cleaning.*

The provisions of this subpart apply to each individual batch vapor, in-line vapor, in-line cold, and batch cold solvent cleaning machine that uses any solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride or chloroform, or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent. Wipe cleaning activities, such as using a rag containing halogenated solvent are not covered under the provisions of this subpart.

The cold cleaners at this installation do not use the following solvents: methylene chloride, perchlorethylene, triclorethylene, 1,1,1-triclorethylene, carbon tetrachloride, or any chloroform. Therefore, this rule was not included in the operating permit.

3) 40 CFR Part63, Subpart DDDDD, *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters.*

This rule applies to boiler or process heater located at, or part of, a major source of hazardous air pollutants (HAP). A major source of HAP emissions is any stationary source or group of stationary

sources located within a contiguous area and under common control that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (10 tons) or more per year or any combination of HAP at a rate of 22.68 megagrams (25 tons) or more per year or as defined in §63.760 (40 CFR Part63, subpart HH) (§63.7485).

The installation has ceased using coal as a fuel source for its various indirect heating sources and incinerator. As a result, the installation no longer maintains the potential to exceed major levels of hazardous air pollutants (HAPs).

- 4) 40 CFR Part63, Subpart JJJJJ, *National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers*.
This rule applies to boilers that burn coal, oil, biomass, or other solid and liquid non-waste materials and located at an area source.

The boilers use natural gas except during gas curtailment and supply emergencies when Fuel Oil No. 2 is used. Gas-fired boilers are not affected by this rule. According to this rule, gas-fired boiler includes any boiler that burns gaseous fuels not combined with any solid fuels, burns liquid fuel only during periods of gas curtailment, gas supply emergencies, or periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year. Therefore the boilers are not subject to this rule.

- 5) 40 CFR Part63, Subpart ZZZZ, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*.
Washington University Medical School (WUSM) is an actual university/higher education institution with two digit SIC codes 82 (university) and 87 (medical research center) and NAICS Code 622110. Using the guidance document referenced below, the facility SIC Code/NAICS code is listed as “institutional”:

http://www.epa.gov/ttn/atw/rice/guidance_emergency_engine_def.pdf

The following definition in the guidance document defines WUSM’s emergency generators:

“Institutional emergency stationary RICE means an emergency stationary *reciprocating internal combustion engine* (RICE) used in institutional establishments such as medical centers, nursing homes, research centers, institutions of higher education, correctional facilities, elementary and secondary schools, libraries, religious establishments, police stations, and fire stations.”

According to 40 CFR 63.6590(b)(3)(viii), institutional RICE is exempt from the RICE MACT regulations pursuant to 40 CFR Part63, Subpart ZZZZ. Therefore, based on the updated applicability determination above; WUSM is not subject to the RICE MACT regulations.

National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

40 CFR Part61 Subpart M, *National Emission Standard for Asbestos*, §61.145(a), Standard for demolition and renovation, applies to the installation.

This regulation has been included in the operating permit because it applies to any demolition or renovation (as outlined in 40 CFR 61.145) of buildings containing asbestos at the installation.

Compliance Assurance Monitoring (CAM) Applicability

40 CFR Part64, *Compliance Assurance Monitoring (CAM)*

The CAM rule applies to each Pollutant Specific Emission (PSEU) that meets a three-part test. The PSEU must:

- 1) Be subject to an emission limitation or standard, and
- 2) Use a control device to achieve compliance, and
- 3) Have pre-control emissions that exceed or are equivalent to the major source threshold.

The installation operates all different emission units with no control devices, which does not fulfill Part 2); therefore the installation is not subject to the requirements of CAM.

Greenhouse Gas Emissions

This installation is a major source for greenhouse gases. Major stationary sources are required by the Clean Air Act (CAA) to obtain Part 70 operating permits. While Part 70 permits generally do not establish new emissions limits, they consolidate applicable requirements, as defined in Missouri State Regulations 10 CSR 10-6.020(2)(A)23, into a comprehensive air permit. At the time of permit issuance, there were no applicable GHG requirements for this source.

Note that this source is subject to the Greenhouse Gas Reporting Rule. However, the preamble of the GHG Reporting Rule clarifies that Part 98 requirements do not have to be incorporated in Part 70 permits at this time. In addition, Missouri regulations do not require the installation to report carbon dioxide (CO₂) emissions in their Missouri Emissions Inventory Questionnaire; therefore, the installation’s CO₂ emissions were not included within this permit. An estimate of CO₂ emissions are included below.

Updated Potential to Emit for the Installation

An updated Potential to Emit (PTE) for the installation is shown in the table below:

Pollutant	Potential to Emit (tons/yr) ¹
CO	121.22
CO ₂ e	172,565.51
NH ₃	0.91
HAPs	2.43
NO _x	220.36
PM ₁₀	46.18
PM ₂₅	16.56
SO _x	119.21
VOC	21.69

¹Each emission unit was evaluated at 8,760 hours of uncontrolled annual operation unless otherwise noted.

- PTE from EU0020 (Boiler #5) and EU0030 (Boiler #6) is calculated based on construction permit limit of 40 tons per year of NO_x and 40 tons per year of SO_x [Construction Permit No. 062007-010].
- PTE from Pathological Incinerator (EP-07) is based on the unit’s operational limitation of 200 pounds per hour and operation period of 12 hours per day, 5 days per week and 52 weeks per year by St. Louis City Air Program Construction Permit No. 96-10-083.
- PTE from Boiler #1 (EU0060) is based on 770 million cubic feet of natural gas and 2,080,000 gallons of fuel usage limit set by St. Louis City Air Program Construction Permit No. 96-05-056PM.

- PTE from MIR Emergency Generator (EU0100) is based on the unit's operational limitation of 500 hours per year by St. Louis City Air Program Source Registration Permit SR07-023.
- PTE from emergency generators EU0140 through EU0160, EU0180 through EU0260, and EU0280 are based on each generators operational hours of 240 per year limit of St. Louis City Air Program Construction Permit No. 98-10-060.
- PTE from emergency generators EU0290 and EU0300 are based on 300 hours of operation limit of St. Louis City Air Program Construction Permit No. 98-10-060.
- PTE from emergency generator EU0310 is based on the unit's operational limitation of 500 hours per year by St. Louis City Air Program Construction Permit No. 01-05-014.
- PTE from emergency generators EU0330 through EU0390 are based on each generators operational hour of 500 per year limit of St. Louis City Air Program Source Registration Permit SR07-011.
- PTE from emergency generators EU0400 through EU0420 are based on each generators operational hour of 500 per year limit of St. Louis City Air Program Source Registration Permit SR07-001.
- PTE from emergency generators EU0430 and EU0440 are based on each generators operational hour of 500 per year limit of St. Louis City Air Program Source Registration Permit SR08-045.
- PTE from emergency generators EU0450 through EU0490 are based on each generators operational hour of 500 per year limit of St. Louis City Air Program Source Registration Permit SR08-045, SR08-038, SR10-006 and SR11-021.

Other Regulatory Determinations

1) 10 CSR 10-6.405, *Maximum Allowable Emission of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating*

According to 10 CSR 10-6.405(1)(C), an installation is exempt from this rule if all of the installation's applicable units are fueled only by landfill gas, propane, natural gas, Fuel Oil Nos. 2 through #6 (with less than one and two-tenths percent (1.2 %) sulfur), or other gases (with hydrogen sulfide levels less than or equal to four (4) parts per million volume as measured using ASTM D4084, or equivalent and mercury concentrations less than forty (40) micrograms per cubic meter as measured using ASTM D5954, or ASTM D6350, or equivalent or any combination of these fuels.

All the indirect heating sources operated at this installation exclusively combust natural gas/ propane and Fuel Oil No. 2, therefore the installation is not subject to this rule.

2) 10 CSR 10-6.065(3)(D), *Operating Permits*

The installation operates natural gas fired combustion units (emission units without limitation) of varying size. All of the combustion units listed as emission units without limitation emit only combustion products, produce less than one hundred fifty (150) pounds per day of any air contaminant and have a maximum rated capacity of less than ten (10) million British thermal units (Btu) per hour heat input by using exclusively natural gas and/or propane. The Air Pollution Control Program has determined that units such as these are not necessary to include in the operating permit.

3) 10 CSR 10-5.080, *Incinerators*

This regulation was rescinded on December 9, 1991, but it remains in the State Implementation Plan. The pathological incinerator was deemed not applicable to this rule because the definition of refuse, as stated in 10 CSR 10-6.020(R)4, does not include pathological waste.

4) 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*

At the time of issuance of this permit, the installation had already completed its weekly and bi-weekly observations, as required by the initial operating condition. The installation currently conducting monthly observations as required by the previously mentioned permit condition.

Visible emissions observations will be performed in frequencies as stated in the permit and logged according to the monitoring and recordkeeping requirements. As stated in the Region 7 Policy on Periodic Monitoring for Opacity, a Method 22 like observation will consist of a quick survey of the entire plant. In most cases, this “qualitative” assessment should take more than 10-15 minutes, even for complex sources. Detecting visible emissions is an indicator of operating problems and gives the permittee a chance to take corrective actions before exceeding the opacity limit. Conducting Method 9 observations after the observation of visible emissions determines whether the emissions exceed the opacity limit, or confirm that corrective action has restored proper operation. Therefore, the tiered monitoring frequency of visible/no visible emissions observations using Method 22 like procedures is considered sufficient.

5) 10 CSR 10-6.260, *Restriction of Emission of Sulfur Compounds*

a) This rule applies to Boiler #1(EU0050) and diesel fuel-fired emergency generators except the emergency generators that are subject to NSPS Subpart IIII. The boiler uses both Fuel Oil No. 2 and natural gas as fuel. Compliance with this rule is to be shown either from stack testing or by proving the sulfur content is less than 0.5 percent. This rule also applies to the miscellaneous indirect heating sources (listed as emission units without limitations). The miscellaneous indirect heating sources listed as emission units without limitations only burn natural gas for fuel. Compliance with the emission limitations is shown by the following calculations:

For Fuel Oil No. 2 (0.5% sulfur):

SO₂

SO₂ emission factor = 142 (lb SO₂ x %S)/1000 gal fuel (AP-42, Section 1.3)

F factor for fuel oil = 10,320 wscf/MMBtu (40 CFR Part60, Method 19) (F factor is ratio of gas volume of products of combustion to heat content of fuel)

$$(142)(0.5) \frac{\text{lb SO}_2}{1000 \text{ gal}} \div 137 \frac{\text{MMBtu}}{1000 \text{ gal}} \div 10320 \frac{\text{ft}^3}{\text{MMBtu}} = 5.02 \times 10^{-5} \frac{\text{lb SO}_2}{\text{ft}^3}$$

Using 0.5% sulfur

To convert lb SO₂/ft³ to ppm SO₂ divide by 1.66 x 10⁻⁷ (40 CFR Part60, Method 19)
(5.02 x 10⁻⁵) ÷ (1.66 x 10⁻⁷) = 302 ppm

To convert from ppm to ppmv, multiply by 0.4496 (AP-42 Appendix A)
303 ppm x 0.4496 = **136 ppmv** (emission limit is 500 ppmv)

SO₃

SO₃ emission factor = 2 (lb SO₃ x %S)/1000 gal fuel (AP-42, Section 1.3)

F factor for fuel oil = 10,320 wscf/MMBtu (40 CFR Part60, Method 19)

Using 0.5% sulfur

$$(2)(0.5) \frac{\text{lb SO}_3}{1000 \text{ gal}} \div 137 \frac{\text{MMBtu}}{1000 \text{ gal}} \div 10320 \frac{\text{ft}^3}{\text{MMBtu}} \times 35.3 \frac{\text{ft}^3}{\text{m}^3} \times 454000 \frac{\text{mg}}{\text{lb}} = 11.3 \frac{\text{mg SO}_3}{\text{m}^3}$$

(The emission limit is 35 mg/m³)

- 6) St Louis City Construction Permit No. 96-10-083F
Section 2,A of Construction Permit #96-10-083F States: “The particulate emission shall not exceed 0.03 grains per dry standard cubic foot of exhaust gas corrected to seven percent (7%) oxygen.” The installation provided stack test performed on April 22, 1998 showing an average emission rate of 0.029 grains per dry standard cubic foot corrected to 7 percent oxygen
- 7) 10 CSR 10-6.400, *Restriction of particulate matter from industrial processes*
The installation operates 24 cooling towers that are used for comfort air conditioning. The potential to emit from each cooling tower is less than 0.5 pounds per hour of particulate matter. Per 10 CSR 10-6.400(1)(B)11. Emission units with potential to emit less than 0.5 pounds per hour of particulate matter are exempt from the requirements of this rule. Therefore, these cooling towers are not subject to the requirements of this rule.
- 8) Boiler #2 (EU0010) - 93 MMBtu/hr boiler manufactured by B/W (Installed – Prior to February 15, 1979) has not been used in four years and according to WUSM’s letter of January 23, 2012, WUSM has disconnected the draft fan and the natural gas line and will never run it again.
- 9) Clarification to General Permit Requirements
Recordkeeping specified in the Title V requires the source to retain all records of all required monitoring data and support information for five years. Record retention requirement of 40 CFR Part60 Subpart Dc allows for a minimum of two years of records. To be in compliance with the 40 CFR Part60 Subpart Dc and Title V record retention period, the source will keep the records for five years from the date of the monitoring sample, measurement, report, or application.

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 Air Pollution Control Program a schedule for achieving compliance for that regulation(s).

Prepared by:

David Buttig
Environmental Engineer I

Mr. James T. Steuber
Washington University School of Medicine
660 South Euclid
St. Louis, MO 63110

Re: Washington University School of Medicine, 510-0040
Permit Number: **OP2012-057A**

Dear Mr. Steuber:

Enclosed with this letter is your Part 70 operating permit. Please review this document carefully.

This modification includes the removal of the City Ordinances and the City Source Registration requirements for the city of St. Louis, which are not enforceable by State and Federal authorities. Regulations that are no longer applicable to Washington University School of Medicine have also been removed in order to update the operating permit. This modification to the permit does not change the potential emission of the facility.

Operation of your installation in accordance with the rules and regulations cited in this document is necessary for continued compliance. It is very important that you read and understand the requirements contained in your permit.

You may appeal this permit to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.078.16 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you have any questions or need additional information regarding this permit, please do not hesitate to contact David Buttig at the Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102, or by telephone at (573) 751-4817. Thank you for your time and attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

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

MJS:dbk

Enclosures

c: St. Louis Regional Office
PAMS File: 2013-03-038