



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: OP2015-028
Expiration Date: JUL 01 2020
Installation ID: 019-0047
Project Number: 2013-01-038

Installation Name and Address

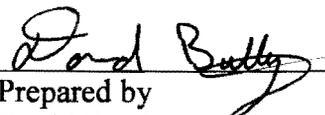
University of Missouri
8 Research Park Development Building
Columbia, MO 65211
Boone County

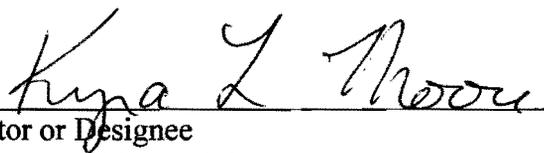
Parent Company's Name and Address

Curators of the University of Missouri
8 Research Park Development Building
Columbia MO, 65211

Installation Description:

University of Missouri - Columbia is a public university located in Boone County. The installation includes the Main Campus (excluding the Power Plant), University Hospital, Women's and Children's Hospital (formerly Columbia Regional Hospital), Mizzou North (formerly Ellis Fischel Cancer Center), and Quarterdeck facilities. The installation's emission sources include a waste incinerator, electrical generators, veterinary diagnostic incinerator, storage tanks, steam generation, paint booths, and parts washers. The University of Missouri - Columbia is a major source for Nitrogen Oxides (NO_x) emissions.


Prepared by
David Buttig
Operating Permit Unit


Director or Designee
Department of Natural Resources

JUL 02 2015

Effective Date

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I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

University of Missouri - Columbia is a public university located in Boone County. The installation includes the Main Campus (excluding the Power Plant), University Hospital, Women’s and Children’s Hospital (formerly Columbia Regional Hospital), Mizzou North (Formerly Ellis Fischel Cancer Center) and Quarterdeck facilities. The installation’s emission sources include a waste incinerator, electrical generators, veterinary diagnostic incinerator, storage tanks, steam generation, paint booths, and parts washers.

The University of Missouri – Columbia is a major source for Nitrogen Oxides (NO_x) emissions.

Reported Air Pollutant Emissions, tons per year					
Pollutants	2012	2011	2010	2009	2008
Particulate Matter ≤ Ten Microns (PM ₁₀)	--	0.03	0.02	--	--
Particulate Matter ≤ 2.5 Microns (PM _{2.5})	--	0.03	0.02	--	--
Sulfur Oxides (SO _x)	--	0.09	0.07	--	--
Nitrogen Oxides (NO _x)	--	1.37	1.03	--	--
Volatile Organic Compounds(VOC)	2.59	2.77	2.75	2.62	2.68
Carbon Monoxide (CO)	--	0.29	0.22	--	--
Lead (Pb)	--	--	--	--	--
Hazardous Air Pollutants (HAPs)	--	--	--	--	--
Ammonia (NH ₃)	--	--	--	--	--

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.

<u>EIQ EP#</u>	<u>Description of Emission Unit</u>
EP-01	Incinerator
EP-01CRH	Two (2) 12.6-MMBtu/hr Boilers
EP-01Q	Quarterdeck Paint Booth
EP-02CRH	Boiler #3 – Women’s and Children’s Hospital – Natural Gas
EP-02Qa	0.225 MMBtu/hr Natural Gas Furnace #1

<u>EIQ EP#</u>	<u>Description of Emission Unit</u>
EP-02Qb	0.225 MMBtu/hr Natural Gas Furnace #2
EP-03CRH	Boiler #4 – Women’s and Children’s Hospital – Natural Gas
EP-03E	Electrical Generator – Diesel
EP-04	Hospital Emergency Generator #1
EP-04E	Emergency Generator
EP-05	Hospital Emergency Generator #2
EP-05E	Two (2) 8.4-MMBtu/hr Natural Gas Fired Boilers
EP-06	Hospital Emergency Generator #3
EP-06CRH	Women’s and Children’s Hospital Emergency Generator, Diesel Fueled, 11.4 MMBtu/hr
EP-07	Hospital Emergency Generator #4
EP-12	Fine Arts Annex Hot Water Boiler, natural gas-fired
EP-14	Lefevre Hall Emergency Generator
EP-18	Animal Science Research Center Emergency Generator #1
EP-20	Animal Science Research Center Emergency Generator #2
EP-25	Clydesdale Hall Emergency Generator
EP-27	Dalton Research Center Emergency Generator
EP-29	Research Reactor Emergency Generator
EP-31	Katolight Portable Emergency Generator
EP-33	Kato Gen Set Portable Emergency Generator
EP-36	Clark Hall Emergency Generator, natural gas-fired
EP-55	Telecommunications North Emergency Generator
EP-58	Hospital Emergency Generator #6
EP-59	Hospital Emergency Generator #7
EP-60	Rock Quarry Center Emergency Generator
EP-65	Hitt Street Parking Garage Boiler, natural gas-fired
EP-66	Locust Street Building Boiler, natural gas-fired, 1-MMBtu/hr
EP-67	Poultry Nutrition Building Boiler, natural gas-fired
EP-68	Museum Support Building Boiler, natural gas-fired
EP-69	General Services Paint Booth
EP-73	Telecommunications Building East Side Emergency Generator
EP-75	Life Sciences Emergency Generator #1
EP-76	Life Sciences Emergency Generator #2
EP-77	ABNR/Tucker/Ag Emergency Generator
EP-79	Basketball Arena Emergency Generator
EP-81	Research Park Dev. Building Space Heating, natural gas-fired, 0.002-MMBtu/hr
EP-84	Swine Center Emergency Generator
EP-85	Emergency Generator – VAG – Diesel Fueled, 175 kW
EP-86	Emergency Generator – Hatch Hall – Diesel Fueled, 200 kW
EP-87	Emergency Generator – CSEB – Diesel Fueled, 350 kW

<u>EIQ EP#</u>	<u>Description of Emission Unit</u>
EP-88	Dalton Emergency Generator – Natural Gas, 1.3-MMBtu/hr
EP-89	Schweitzer Emergency Generator – Natural Gas
EP-90	Veterinary Diagnostic Incinerator
EP-93	LIDR Emergency Generator, 15.295-MMBtu/hr
EP-95	Boiler #1 – LIDR – Dual Fired, 3.360-MMBtu/hr (B-1)
EP-96	Boiler #2 – LIDR – Dual Fired, 3.360-MMBtu/hr (B-2)
EP-97	Boiler #3 – LIDR – Dual Fired, 5.000-MMBtu/hr (B-3)
EP-98	Telecom Emergency Generator, 22.75-MMBtu/hr
EP-99	Hearnes Emergency Generator, 1.4-MMBtu/hr
EP-100	GSB Emergency Generator, 5.5074-MMBtu/hr
EP-101	Missouri Psych Hospital Emergency Hospital Generator, 1.03-MMBtu/hr
EP-102	Ortho Emergency Generator, 7.946-MMBtu/hr
EP-103	Hudson/Gillette Emergency Generator, 3.86-MMBtu/hr
EP-104	1110 S. College Boiler – Natural Gas Fired, 1.19-MMBtu/hr
EP-105	Patient Care Tower Emergency Generator #1, 10.43-MMBtu/hr
EP-106	Patient Care Tower Emergency Generator #2, 10.43-MMBtu/hr
EP-108	Professional Building Natural Gas Boiler – 1.754 MMBtu/hr
EP-109	Mark Twain 100 kW Emergency Generator – 4.17 MMBtu/hr
EP-110	ARC Emergency Generator – Diesel, 300 kW, 8.876 MMBtu/hr
EP-111	Faurot Field Emergency Generator: Natural Gas Fired
EP-112	Mizzou North Boiler: Natural Gas Fired
EP-113	Memorial Stadium West Side Press Box Emergency Generator – 2.25 MMBtu/hr

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.

<u>Description of Emission Source</u>	<u>EIQ EP#</u>
Underground Fuel Storage Tank (North) (Distillate Oil #2)	EP-01E
Hospital 4,000-gallon Underground Fuel Tank (Distillate Fuel #2)	EP-02
Underground Fuel Storage Tank (South) (Distillate Oil #2)	EP-02E
12,000 Gallon Diesel Storage Tank – Women’s and Children’s Hospital	EP-07CRH
15 Gallon Parts Washer	EP-08CRH
5,000 Gallon Diesel Underground Storage Tank – Patient Care Tower	EP-107
ASRC 565-gallon Diesel Storage Tank	EP-19
General Services 12,250-gallon Unleaded Fuel Tank, installed 1994	EP-37
General Stores 12,500-gallon Ethanol 10% Tank, installed 1994	EP-38
Jet Copter Underground Storage Tank, installed 1998	EP-39
Research Reactor 1,600-gallon Sulfuric Acid Tank, installed 1998	EP-40

<u>Description of Emission Source</u>	<u>EIQ EP#</u>
Gustin Parts Washer	EP-43
Landscape Services Parts Washer	EP-44
Residential Life Parts Washer	EP-45
Sci. Instr. Shop Parts Washer	EP-46
University Ave Garage Parts Washer	EP-48
Hospital Parts Washer	EP-49
Engineering Parts Washer	EP-50
Hospital Critical Care 4,000-gallon Underground Diesel Tank, installed 1999	EP-53
Anagama Ceramics Kiln, wood-fired, 0.875-MMBtu/hr	EP-61
Catenary Arch Style Ceramics Kiln, wood-fired, 0.875-MMBtu/hr	EP-62
Sprung Arch Style Ceramics Kiln, natural gas-fired, 0.875-MMBtu/hr	EP-63
Box Style Ceramics Kiln, natural gas-fired, 1.0-MMBtu/hr	EP-64
Soil Vapor Evaporation System	EP-74
Ag Engineering Shop Parts Washer	EP-78
Basketball Arena 925-gallon Diesel Storage Tank	EP-80
Fine Arts, #1 Parts Washer	EP-82
Fine Arts, #2 Parts Washer	EP-83
6,000 Gallon Diesel Underground Storage Tank – LIDR	EP-94
Life Science Building 204-gallon Diesel Tank, associated with EP-75	NA
Life Science Building 450-gallon Diesel Tank, associated with EP-76	NA
ABNR/Tucker/Ag Building 300-gallon Diesel Tank, associated with EP-77	NA
MU Psychiatric Center Parts Washer (MUPC) – 30 gallons	NA

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.

PERMIT CONDITION 1		
10 CSR 10-6.060 Construction Permit Required		
Construction Permit #0990-004, Issued August 13, 1990, Amended April 1, 1991		
EIQ Reference #	Description	Manufacturer/Model #
EP-01	Solid waste disposal incinerator: burns low level radioactive waste; heat input 2.5-MMBtu/hr; rated at 350-lb/hr; installed in 1991	John Zink/A-35

Operational Specifications:

- 1) This incinerator shall be operated in accordance with the manufacturer’s instructions and guidelines, to include preheating all chambers to the proper operating temperatures and the proper use of all burners to maintain proper operating temperatures. [CP #0990-004, Special Condition 1]
- 2) This incinerator shall have affixed to it a plate inscribed with a set of instructions which clearly sets forth in proper sequence the steps necessary to effect the satisfactory operation of the incinerator and the manufacturer’s or designer’s recommended burning rate in pounds of refuse per hour and the heat input of the burners in Btu’s hour. The plate shall be conspicuously located so as to be readily visible to the incinerator operator. [CP #0990-004, Special Condition 2]
- 3) The secondary chamber of this incinerator must be operated at a minimum of 1800°F at all times that waste is being combusted in the primary chamber, and this temperature must be maintained at least two (2) seconds downstream from the entrance to the secondary chamber. [CP #0990-004, Special Condition 4]
- 4) The secondary chamber must be at least 1800°F before combustion of waste in the primary chamber can occur. A mechanical (not manual) system of combustion (primary and secondary chamber burner operation) must be installed to ensure this. [CP #0990-004, Special Condition 6]
- 5) There must be a lockout mechanism that prohibits charging of waste between the manufacturer’s recommended burn cycles. Only a key lock override will be acceptable with the key being maintained in the possession of the on-duty supervisor. [CP #0990-004, Special Condition 7]
- 6) Operating personnel must have adequate training and knowledge of the operation of this incinerator. A trained operator must be on-duty whenever the incinerator is operating and available to deal with problems or questions that might arise. Training should include the manufacturer’s standard operating procedures. [CP #0990-004, Special Condition 8]
- 7) Incinerator operation shall be automated to as great a degree as practicable to minimize operator interference with proper combustion control. [CP #0990-004, Special Condition 9]
- 8) Good engineering practice stack heights should be used being careful with emission stacks that are attached to the sides of the buildings. [CP #0990-004, Special Condition 10]

Monitoring:

The secondary chamber temperature shall be recorded continuously whenever the unit is operating at a point two (2) seconds downstream from the entrance to the secondary chamber. The method of recording will be subject to program review and approval. The recordings shall be kept for a running 36-

month period and made immediately available for review by Department of Natural Resources' personnel upon verbal request. [CP #0990-004, Special Condition 5]

Recordkeeping:

The manufacturer's instructions and guidelines of operation shall be available at the site at all times upon request along with a copy of construction permit #0990-004. [CP #0990-004, Special Condition 3]

Reporting:

The permittee shall report any deviations of this permit condition to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION 2		
10 CSR 10-6.200 Hospital, Medical, Infectious Waste Incinerators		
EIQ Reference #	Description	Manufacturer/Model #
EP-01	Solid waste disposal incinerator: burns low level radioactive waste; heat input 2.5-MMBtu/hr; rated at 350-lb/hr; installed in 1991	John Zink/A-35

Note: The permittee has elected to burn only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste; therefore, the permittee is exempt from this rule with the exception of the recordkeeping and reporting requirements.

Emission Limitation:

The permittee shall burn only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste in Incinerator (EP-01).

Recordkeeping/Reporting:

- 1) The permittee shall:
 - a) Notify the director of an exemption claim; and
 - b) Keeps records on a calendar-quarter basis of the periods of time when only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste is burned.
- 2) All records shall be maintained for five (5) years.
- 3) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 4) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after the end of the month during which records indicate any deviations/exceedances of this permit condition.

PERMIT CONDITION 4		
10 CSR 10-6.220 Restriction of Emissions of Visible Air Contaminants		
EIQ Reference #	Description	Manufacturer/Model #
EP-01	Solid waste disposal incinerator: burns low level radioactive waste; heat input 2.5-MMBtu/hr; rated at 350-lb/hr; installed in 1991	John Zink/A-35

EP-90	Veterinary Diagnostic Incinerator: capable of burning 0.4 tons of carcasses per hour; MHDR=5.6-MMBtu/hr; Fired by natural gas	ThermTec/ Model A-8-P-S
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Emission Limitation:

- 1) The permittee shall not cause or permit emissions to be discharged into the atmosphere from any **new** source any visible emissions with an opacity greater than 20%.
- 2) Exception: the permittee may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60%.

Monitoring:

- 1) The permittee shall conduct opacity readings on each emission unit using the procedures contained in U.S. EPA Test Method 22. The permittee is only required to take readings when the emission unit is operating and when the weather conditions allow. If the permittee observes no visible or other significant emissions using these procedures, then no further observations are 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 permittee must maintain the following monitoring schedule:
 - a) The permittee shall conduct weekly observations for a minimum of eight (8) consecutive weeks after permit issuance. If operation occurs less frequently than weekly, each operation will be monitored and count as meeting a “weekly” operation.
 - b) Should the permittee observe no violations of this regulation during this period then-
 - i) The permittee may observe once every two (2) weeks for a period of eight (8) weeks. If operation occurs less frequently than every two weeks, each operation will be monitored and count as meeting an “every two weeks” operation.
 - ii) If a violation is noted, monitoring reverts to weekly.
 - iii) Should no violation of this regulation be observed during this period then-
 - (1) The permittee may observe once per month. If operation occurs less frequently than monthly, each operation will be monitored and count as meeting a “monthly” operation.
 - (2) If a violation is noted, monitoring reverts to weekly.
- 3) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.
- 4) If at the time of this operating permit issuance the permittee has already progressed to conducting observations once every two weeks or once per month, the permittee may continue from that point forward in the established monitoring schedule; however, if a violation is noted the permittee shall revert back to weekly monitoring.

Recordkeeping:

- 1) The permittee shall maintain records of all observation results (see Attachment D1 or D2), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment B)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment E)

- 4) Attachments D1 or D2, B, and E contain logs including these record keeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available immediately for inspection to Department of Natural Resources personnel upon request.
- 6) All records shall be maintained for five years.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) The permittee shall report any deviations of this permit condition to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION 5		
10 CSR 10-6.060 Construction Permits Required		
Construction Permit #022007-011, Issued February 22, 2007		
EIQ Reference #	Description	Manufacturer/Model #
EP-90	Veterinary Diagnostic Incinerator: capable of burning 0.4 tons of carcasses per hour; MHDR=5.6-MMBtu/hr; Fired by natural gas	ThermTec/ Model A-8-P-S

Emission Limitation:

The Veterinary Diagnostic Incinerator (EP-90) shall have opacity of less than ten percent (10%) at all times. [CP #022007-011, Special Condition 6]

Operational Specifications:

- 1) The permittee will burn non-infectious animal bodies or body parts or no more than ten (10) percent (%) infectious animal bodies or body parts not in containers and non-infectious animal bodies or body parts or no more than 10% infectious animal bodies or body parts in containers not containing chlorine. [CP #022007-011, Special Condition 1]
- 2) The permittee shall not open the door to the primary chamber until the burn cycle is complete and shall not charge any material during the burn cycle. [CP #022007-011, Special Condition 2]
- 3) The incinerator shall have a minimum combustion efficiency of 99.9% determined from the carbon dioxide concentration divided by the sum of the carbon monoxide and carbon dioxide concentrations. [CP #022007-011, Special Condition 4]
- 4) All incinerator operators shall attend a training program equivalent to that developed by the American Society of Mechanical Engineers (ASME), by the incinerator manufacturer or by an individual with more than one (1) year experience in the operation of the incinerator. The training shall include basic combustion theory, operating procedures, monitoring of combustion control parameters and all emergency procedures to be followed if the incinerator should malfunction or exceed operating parameters. [CP #022007-011, Modified Special Condition 7]
- 5) The incinerator operator shall have the essential steps necessary for satisfactory operation of the incinerator readily available to him in an easy to read and follow manual. [CP #022007-011, Special Condition 8]

Monitoring/Recordkeeping:

- 1) The permittee shall keep records on a calendar-quarter basis of the weight of infectious waste combusted, and the weight of all other wastes combusted at the incinerator.
 [CP #022007-011, Special Condition 1]
- 2) The incinerator shall be equipped with a continuous chart recorder, which is able to monitor, display and record the temperature in the final combustion chamber to an accuracy of plus or minus two percent (2%). The operators shall maintain the final combustion chamber at a temperature of no less than the baseline temperature which will be established during performance testing as outlined in Special Condition 9. [CP #022007-011, Special Condition 3]
- 3) The permittee shall maintain an accurate record of the amount and type of waste combusted at this installation. The permittee shall record the monthly amount of waste combusted at this facility. The permittee shall use Attachment C, "Waste Tracking Sheet" or an equivalent form for this purpose. The permittee shall maintain records on-site for the most recent 60 months of all records required by construction permit #022007-011 and shall immediately make such records available to any Missouri Department of Natural Resources' personnel upon verbal request.
 [CP #022007-011, Special Condition 5]
- 4) The permittee shall maintain an accurate record of all employees trained to operate the incinerator and the date of their last training.

Reporting:

The permittee shall report any deviations of this permit condition to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION 6		
10 CSR 10-6.060 Construction Permits Required		
Construction Permit #112005-002, Issued November 3, 2005		
EQ Reference #	Description	Manufacturer/Model #
EP-01Q	Quarterdeck Paint Booth: MHDR=18.5-gal/hr; Equipped with filter; Installed 2005	Binks/Model #7
EP-69	General Services Paint Booth: MHDR=2.0-gal/hr; Equipped with filter; Installed 1997	Manufactured Onsite

Emission Limitation/Operational Limitation:

- 1) The permittee shall emit less than 40 tons of Volatile Organic Compounds (VOCs) from the MU Quarterdeck paint booth (EP-01Q) in any consecutive 12-month period. [CP #112005-002, Special Condition 1(A)]
- 2) The permittee shall control particulate matter emissions from the paint booth using filters as specified in the construction permit application. The filters shall be operated and maintained in accordance with the manufacturer's specifications. Replacement filters shall be kept on hand at all time. [CP #112005-002, Special Condition 2]

Monitoring/Recordkeeping:

Attachment A or equivalent form approved by the Air Pollution Control Program shall be used to demonstrate compliance with Emission Limitation 1. The permittee 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. These records shall include Material Safety Data Sheets (MSDS) for all materials used in this paint booth. [CP #112005-002, Special Condition 1(B)]

Reporting:

The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after the end of the month during which the records from Special Condition Number 1(B) indicate that the source exceeds the limitation of Special Condition Number 1(A). [CP #112005-002, Special Condition 1(C)]

PERMIT CONDITION 7		
10 CSR 10-6.400 Restriction of Emission of Particulate Matter from Industrial Processes		
EQ Reference #	Description	Manufacturer/Model #
EP-01Q	Quarterdeck Paint Booth: MHDR=18.5-gal/hr; Equipped with filter; Installed 2005	Binks/Model #7
EP-69	General Services Paint Booth: MHDR=2.0-gal/hr; Equipped with filter; Installed 1997	Manufactured Onsite

Emission Limitations:

- 1) Particulate matter shall not be emitted from Quarterdeck Painting Booth (EP-01Q) in excess of 0.93 lb/hr.
- 2) Particulate matter shall not be emitted from General Services Painting Booth (EP-69) in excess of 0.50 lb/hr.
- 3) The concentration of particulate matter in the exhaust gases shall not exceed 0.30 gr/scf.

Monitoring:

- 1) Booths equipped with mat/panel filters shall not be operated without a filter in place.
- 2) The filters shall be inspected for holes, imperfections, proper installation or other problems that could hinder the effectiveness of the filter.
- 3) The filters shall be inspected each shift before spraying begins in a booth and after installation of a new filter.
- 4) The manufacturer's recommendations shall be followed with regard to installation and frequency of replacement of the filters.

Recordkeeping:

- 1) The permittee shall maintain on the premises of the installation calculations demonstrating compliance with this rule.
- 2) The permittee shall maintain records of the inspections of the filter including when they occur. Attachment B contains a log including these recordkeeping requirements. This log, or an equivalent form created by the permittee, must be used to certify compliance with this requirement.
- 3) All records shall be maintained for five (5) years.
- 4) These records shall be made available immediately for inspection to the Department of Natural Resources personnel upon request.

Reporting:

The permittee shall report any deviations of this permit condition to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION 8		
10 CSR 10-6.260 Restriction of Emissions of Sulfur Dioxide		
EIQ Reference #	Description	Manufacturer/Model #
EP-95	Dual Fired Steam Boiler #1: MHDR = 3.36 MMBtu/hr; Installed May 01, 2008	Hurst Series 400-800 HP
EP-96	RBL Dual Fired Steam Boiler #2: MHDR = 3.36 MMBtu/hr; Installed January 01, 2008	Hurst Series 400-800 HP
EP-97	RBL Dual Fired Steam Boiler #3: MHDR = 5.0 MMBtu/hr; Installed May 05, 2008	Bryan Model RV500-W-FDGO-LX

Emission Limitations:

- 1) Emissions from any new source operation shall not contain more than five hundred parts per million by volume (500 ppmv) of sulfur dioxide.
- 2) Stack gasses shall not contain more than thirty-five milligrams (35 mg) per cubic meter of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three hour time period.

Operational Limitation/Equipment Specifications:

- 1) The emission units shall be limited to burning natural gas and diesel fuel oil.

Monitoring/Recordkeeping:

- 1) The permittee shall maintain an accurate record of the sulfur content of fuel used. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
- 2) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 3) All records shall be maintained for five (5) years.

Reporting:

The permittee shall report any deviations of this permit condition to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION 9		
40 CFR 63, Subpart JJJJJ – National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources		
EIQ Reference #	Description	Manufacturer/Model #
EP-95	Dual Fired Steam Boiler #1: MHDR = 3.36 MMBtu/hr; Installed May 01, 2008	Hurst Series 400-800 HP
EP-96	RBL Dual Fired Steam Boiler #2: MHDR = 3.36 MMBtu/hr; Installed January 01, 2008	Hurst Series 400-800 HP
EP-97	RBL Dual Fired Steam Boiler #3: MHDR = 5.0 MMBtu/hr; Installed May 05, 2008	Bryan Model RV500-W-FDGO-LX

- Classification: Existing gas fired boilers at an area source for HAP.
- *Gas-fired* boiler includes any boiler that burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year.
- *Fuel Switching*: Exceedance of the 48-hour annual fuel oil usage limitation is considered a ***fuel switch*** under MACT JJJJJ. At the time of exceedance, the unit would be then classified as an existing liquid fuel boiler subject to the emission limits and work practice standards of MACT JJJJJ per §63.11194(e).

Operational Limitations:

Fuel oil usage for periodic testing shall not exceed a combined total of 48 hours during any calendar year.

Recordkeeping:

The Permittee must keep records of the total hours per calendar year that fuel oil is burned and the total hours per calendar year that the unit operated during periods of gas curtailment or gas supply emergencies.

Reporting Requirements

- 1.) If records indicate that the annual 48 hour fuel oil usage limitation has been exceeded, the permittee must provide notice of the date upon which the unit you switched fuels, within 30 days of the change. The notification must identify:
 - a.) The name of the owner or operator of the affected source, the location of the source, the boiler(s) that have switched fuels and the date of the notice. [§63.11225(g)(1)]
 - b.) The date upon which the fuel switch occurred. [§63.11225(g)(2)]
- 2.) The permittee shall report any deviations of this permit condition 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.

PERMIT CONDITION 10		
10 CSR 10-6.075 <i>Maximum Achievable Control Technology Regulations</i>		
40 CFR 63 Subpart ZZZZ – <i>National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines</i>		
EIQ Reference #	Description	Manufacturer/Model #
EP-03E	Electrical Generator: Diesel Fueled, MHDR=3.8 MMBtu/hr. Constructed Pre-2006	NA
EP-04	Hospital Emergency Generator #1: Diesel Fired, MHDR=6.165 MMBtu/hr, Constructed 1986	Detroit Diesel/71637305
EP-04E	Emergency Generator: Diesel Fired, MHDR=4.5 MMBtu/hr, Constructed 1993	NA
EP-05	Hospital Emergency Generator #2: Diesel Fired, MHDR=5.083 MMBtu/hr, Constructed 1986	Cummins/NTTA855 CSI
EP-06	Hospital Emergency Generator #3: Diesel Fired, MHDR=5.206 MMBtu/hr, Constructed 1986	Cummins/VTA 28 G1
EP-06CRH	Women’s and Children’s Hospital Emergency Generator: Diesel Fueled, MHDR=11.4 MMBtu/hr, Constructed Pre-2006	NA

EP-07	Hospital Emergency Generator #4: Diesel Fired, MHDR=6.165 MMBtu/hr, Constructed 1986	Cummins/VTA 28 G1
EP-14	Lefevre Emergency Generator: Diesel Fired, MHDR=4 MMBtu/hr, Constructed 1986	NA
EP-18	Animal Science Research Center Emergency Generator: Diesel Fired, MHDR=2.541 MMBtu/hr, Constructed 1986	NA
EP-20	Animal Science Research Building Emergency Generator: Diesel Fired, MHDR=2.541 MMBtu/hr, Constructed 1986	NA
EP-25	Clydesdale Hall Emergency Generator: Diesel Fired, MHDR=1.096 MMBtu/hr, Constructed 1986	NA
EP-27	Dalton Research Emergency Generator: Diesel Fired, MHDR=1.096 MMBtu/hr, Constructed 1985	NA
EP-29	Research Reactor Emergency Generator: Diesel Fired, MHDR=1.233 MMBtu/hr, Constructed 1986	NA
EP-31	Katolight Portable Emergency Generator: Diesel Fired, MHDR=2.046 MMBtu/hr, Constructed 1986	NA
EP-33	Kato Gen Set Portable Emergency Generator: Diesel Fired, MHDR= 1.5345 MMBtu/hr, Constructed 2001	NA
EP-55	Telecommunications North Emergency Generator: Diesel Fired, MHDR=1.452 MMBtu/hr, Constructed 1997	NA
EP-58	Hospital Emergency Generator #6: Diesel Fired, MHDR=10.0815 MMBtu/hr, Constructed 2002	NA
EP-59	Hospital Emergency Generator #7: Diesel Fired, MHDR=10.0815 MMBtu/hr, Constructed 2002	NA
EP-60	Rock Quarry Center Emergency Generator: Diesel Fired, MHDR=2.8215 MMBtu/hr, Constructed 1999	Onan/250 DFAC
EP-73	Telecommunications Building East Side Emergency Generator: Diesel Fired, MHDR=0.068 MMBtu/hr, Constructed 2002	NA
EP-75	Life Sciences Emergency Generator #1: Diesel Fired, MHDR=3.597 MMBtu/hr, Constructed 2001	Kohler/300REOZD
EP-76	Life Sciences Emergency Generator #2: Diesel Fired, MHDR=9.0255 MMBtu/hr, Constructed 2003	Kohler/750ROZD4
EP-77	ABNR/Tucker/Ag Emergency Generator: Diesel Fired, MHDR=5.3 MMBtu/hr, Constructed 2003	NA
EP-79	Basketball Arena Emergency Generator: Diesel Fired, MHDR=11.8965 MMBtu/hr, Constructed 2004	NA
EP-84	Swine Center Emergency Generator; Diesel Fired, MHDR=4.785 MMBtu/hr, Constructed May 15, 2006	NA
EP-86	Hatch Hall Emergency Generator: Diesel Fueled, 200 kW, MHDR=2.014 MMBtu/hr, Constructed Pre-2006	NA
EP-99	Hearnes Emergency Generator: Diesel Fueled, MHDR=1.4 MMBtu/hr, Constructed Pre-2006	NA

EP-100	GSB Emergency Generator: Diesel Fueled, MHDR=5.5074 MMBtu/hr, Constructed Pre-2006		Kohler
EP-101	MO Psych Hospital Emergency Generator: Diesel Fueled, MHDR=1.03 MMBtu/hr, Constructed 1997		Cummins/DGDB
Engine Category	Existing Emergency	Monitoring, Installation, Collection, Operation and Maintenance Requirements	§63.6625(e), (f), (h), (i)
Date Constructed	<i>Before 6/12/2006</i>	Initial Compliance	No Requirements
Compliance Date	May 3, 2013	Continuous Compliance	§63.6605, §63.6640(a) & (f)
Work Practice Standards	§63.6640(f)	Notification Requirements	No Requirements <i>per §63.6645(a)(5)</i>
Maintenance Requirements	Table 2d of MACT ZZZZ Item #4	Recordkeeping Requirements	§63.6655(e) & (f)
Fuel Requirements	No Requirements	Reporting Requirements	§63.6640(b) Footnote 2 of Table 2d
Performance Tests	No Requirements	General Provisions (40 CFR part 63)	Yes, except per §63.6645(a)(5), the following do not apply: §63.7(b) and (c), §63.8(e), (f)(4) and (f)(6), and §63.9(b)-(e), (g) and (h).

Emergency stationary RICE means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary RICE must comply with the requirements specified in §63.6640(f) in order to be considered emergency stationary RICE. If the engine does not comply with the requirements specified in §63.6640(f), then it is not considered to be an emergency stationary RICE under this subpart.

- (1) The stationary RICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc.*
- (2) The stationary RICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in §63.6640(f).*
- (3) The stationary RICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in §63.6640(f)(2)(ii) or (iii) and §63.6640(f)(4)(i) or (ii).*

Operational Requirements:

At all times, the permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. [§63.6605(b)]

Work Practice Standards:

- 1) For each Emergency stationary CI RICE, the permittee must meet the following requirement, except during periods of startup.
 - a) Change oil and filter every 500 hours of operation or annually, whichever comes first;
 - b) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
 - c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [Table 2d To Subpart ZZZZ, item #4]

Operational Limitations:

- 1) The permittee shall operate the emergency stationary RICE according to the requirements in paragraphs §63.6640(f)(1) through (4). In order for the engine to be considered an emergency stationary RICE under 40 CFR 63 Subpart ZZZZ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs §63.6640(f)(1) through (4), is prohibited. If you do not operate the engine according to the requirements in paragraphs §63.6640(f)(1) through (4), the engine will not be considered an emergency engine under 40 CFR 63 Subpart ZZZZ and must meet all requirements for non-emergency engines. [§63.6640(f)]
 - a) There is no time limit on the use of emergency stationary RICE in emergency situations. [§63.6640(f)(1)]
 - b) The permittee may operate the emergency stationary RICE for any combination of the purposes specified in paragraphs §63.6640(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs §63.6640(f)(4) counts as part of the 100 hours per calendar year allowed by this paragraph §63.6640(f)(2). [§63.6640(f)(2)]
 - i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. [§63.6640(f)(2)(i)]
 - ii) Emergency stationary RICE which are not subject to MACT ZZZZ by §63.6582(f)(1) through (3) shall not operate for more than 15 hours per calendar year for the purposes specified in §63.6640(f)(2)(ii) and (iii). [§63.6585(f)(3)]
 - A.) Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see § 63.14), or other authorized entity as determined by the

- Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [§63.6640(f)(2)(ii)]
- B.) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [§63.6640(f)(2)(iii)]
- c) Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph §63.6640(f)(2). Except as provided in paragraphs §63.6640(f)(4)(i) and (ii), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [§63.6640(f)(4)]
- i) Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution system. [§63.6640(f)(4)(i)]

Recordkeeping Requirements:

- 1.) The Permittee must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to the facility’s own maintenance plan. [§63.6655(e)]
- 2.) The Permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in §63.6640(f)(2)(ii) or (iii) or §63.6640(f)(4)(ii), the permittee must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [§63.6655(f)]

Reporting:

- 1) The Permittee shall report each instance in which you did not meet each emission limitation or operating limitation in Table 2d to MACT ZZZZ that applies to you. These instances are deviations from the emission and operating limitations in MACT ZZZZ. These deviations must be reported according to the requirements in §63.6650. [§63.6640(b)].
- 2) The permittee shall report any deviations of this permit condition 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.

PERMIT CONDITION 11		
10 CSR 10-6.260 Restriction of Emissions of Sulfur Compounds		
EIQ Reference #	Description	Manufacturer/ Model #
EP-03E	Electrical Generator: Diesel Fueled, MHDR=3.8 MMBtu/hr. Constructed Pre-2006	NA
EP-04	Hospital Emergency Generator #1: Diesel Fired, MHDR=6.165, Constructed 1986	Detroit Diesel/71637305

PERMIT CONDITION 11		
10 CSR 10-6.260 Restriction of Emissions of Sulfur Compounds		
EIQ Reference #	Description	Manufacturer/ Model #
EP-04E	Emergency Generator: Diesel Fired, MHDR=4.5 MMBtu/hr, Constructed 1993	NA
EP-05	Hospital Emergency Generator #2: Diesel Fired, MHDR=5.083 MMBtu/hr, Constructed 1986	Cummins/NTTA855 CSI
EP-06	Hospital Emergency Generator #3: Diesel Fired, MHDR=5.206 MMBtu/hr, Constructed 1986	Cummins/VTA 28 G1
EP-06CRH	Women's and Children's Hospital Emergency Generator: Diesel Fueled, MHDR=11.4 MMBtu/hr, Constructed Pre-2006	NA
EP-07	Hospital Emergency Generator #4: Diesel Fired, MHDR=6.165 MMBtu/hr, Constructed 1986	Cummins/VTA 28 G1
EP-14	Lefevre Emergency Generator: Diesel Fired, MHDR=4 MMBtu/hr, Constructed 1986	NA
EP-18	Animal Science Research Center Emergency Generator: Diesel Fired, MHDR=2.541 MMBtu/hr, Constructed 1986	NA
EP-20	Animal Science Research Building Emergency Generator: Diesel Fired, MHDR=2.541 MMBtu/hr, Constructed 1986	NA
EP-25	Clydesdale Hall Emergency Generator: Diesel Fired, MHDR=1.096 MMBtu/hr, Constructed 1986	NA
EP-27	Dalton Research Emergency Generator: Diesel Fired, MHDR=1.096 MMBtu/hr, Constructed 1985	NA
EP-29	Research Reactor Emergency Generator: Diesel Fired, MHDR=1.233 MMBtu/hr, Constructed 1986	NA
EP-31	Katolight Portable Emergency Generator: Diesel Fired, MHDR=2.046 MMBtu/hr, Constructed 1986	NA
EP-33	Kato Gen Set Portable Emergency Generator: Diesel Fired, MHDR= 1.5345 MMBtu/hr, Constructed 2001	NA
EP-55	Telecommunications North Emergency Generator: Diesel Fired, MHDR=1.452 MMBtu/hr, Constructed 1997	NA
EP-58	Hospital Emergency Generator #6: Diesel Fired, MHDR=10.0815 MMBtu/hr, Constructed 2002	NA
EP-59	Hospital Emergency Generator #7: Diesel Fired, MHDR=10.0815 MMBtu/hr, Constructed 2002	NA
EP-60	Rock Quarry Center Emergency Generator: Diesel Fired, MHDR =2.8215 MMBtu/hr, Constructed 1999	Onan/250 DFAC
EP-73	Telecommunications Building East Side Emergency Generator: Diesel Fired, MHDR=0.068 MMBtu/hr, Constructed 2002	NA
EP-75	Life Sciences Emergency Generator #1: Diesel Fired, MHDR=3.597 MMBtu/hr, Constructed 2001	Kohler/300REOZD

PERMIT CONDITION 11		
10 CSR 10-6.260 Restriction of Emissions of Sulfur Compounds		
EIQ Reference #	Description	Manufacturer/ Model #
EP-76	Life Sciences Emergency Generator #2: Diesel Fired, MHDR=9.0255 MMBtu/hr, Constructed 2003	Kohler/750ROZD4
EP-77	ABNR/Tucker/Ag Emergency Generator: Diesel Fired, MHDR =5.3 MMBtu/hr, Constructed 2003	NA
EP-79	Basketball Arena Emergency Generator: Diesel Fired, MHDR=11.8965 MMBtu/hr, Constructed 2004	NA
EP-84	Swine Center Emergency Generator; Diesel Fired, MHDR=4.785 MMBtu/hr, Constructed May 15, 2006	NA
EP-85	VAG Emergency Generator: Diesel Fueled, 175 kW, MHDR=7.535 MMBtu/hr, Constructed 2007	NA
EP-86	Hatch Hall Emergency Generator: Diesel Fueled, 200 kW, MHDR=2.014 MMBtu/hr, Constructed Pre-2006	NA
EP-87	CSEB Emergency Generator: Diesel Fueled, 350 kW, MHDR=4.125 MMBtu/hr, Constructed 2008	NA
EP-93	LIDR Emergency Generator: Diesel Fueled, MHDR=15.295 MMBtu/hr, Constructed 2008	Cummins/QSK50
EP-98	Telecom Emergency Generator: Diesel Fueled, MHDR=22.75 MMBtu/hr, Constructed 2008	Cummins/2000DQKAB
EP-99	Hearnes Emergency Generator: Diesel Fueled, MHDR=1.4 MMBtu/hr, Constructed Pre-2006	NA
EP-100	GSB Emergency Generator: Diesel Fueled, MHDR=5.5074 MMBtu/hr, Constructed Pre-2006	Kohler
EP-101	MO Psych Hospital Emergency Generator: Diesel Fueled, MHDR=1.03 MMBtu/hr, Constructed 1997	Cummins/DGDB
EP-102	Ortho Emergency Generator: Diesel Fueled, MHDR=7.946 MMBtu/hr, Constructed 2010	Kohler/REOZDD
EP-103	Hudson/Gillette Emergency Generator: Diesel Fueled, MHDR=3.86 MMBtu/hr, Constructed 2010	Caterpillar/LC6124D
EP-105	Patient Care Tower Emergency Generator #1: Diesel Fueled, MHDR=10.43 MMBtu/hr, Constructed 2012	Caterpillar/DM9933
EP-106	Patient Care Tower Emergency Generator #2: Diesel Fueled, MHDR=10.43 MMBtu/hr, Constructed 2012	Caterpillar/DM9933
EP-109	Mark Twain 100 kW Emergency Generator: Diesel Fired; MHDR=4.17 MMBtu/hr, Construction Date 2012	Caterpillar/D100-6
EP-110	ARC Emergency Generator – Diesel, 300 kW, 8.876 MMBtu/hr, Construction Date 2012	Kohler/300REOZJ

Emission Limitation:

- 1) Emissions from Emergency Generators operation shall not contain 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/m³) of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three hour time period.

Operational Limitation:

The emergency generators shall be limited to burning fuel oil with a sulfur content of no more than 0.5% by weight sulfur. The fuel oils known to be less than 0.5% 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. However, the unit is not limited to the known fuel oils listed, above, but limited to fuel oils based solely on having a percent sulfur by weight content of 0.5% or less.

Monitoring/Recordkeeping:

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.

Reporting:

The permittee shall report any deviations of this permit condition to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION 12		
<i>10 CSR 10-6.075 Maximum Achievable Control Technology Regulations</i>		
<i>40 CFR 63 Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines</i>		
<i>40 CFR 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines</i>		
EIQ Reference #	Description	Manufacturer/Model #
EP-85	VAG Emergency Generator: Diesel Fueled, 175 kW, MHDR=7.535 MMBtu/hr, Constructed 2007	NA
EP-87	CSEB Emergency Generator: Diesel Fueled, 350 kW, MHDR=4.125 MMBtu/hr, Constructed 2008	NA
EP-93	LIDR Emergency Generator: Diesel Fueled, MHDR=15.295 MMBtu/hr, Constructed 2008	Cummins/QSK50
EP-98	Telecom Emergency Generator: Diesel Fueled, MHDR=22.75 MMBtu/hr, Constructed 2008	Cummins/2000DQKAB
EP-102	Ortho Emergency Generator: Diesel Fueled, MHDR=7.946 MMBtu/hr, Constructed 2010	Kohler/REOZDD
EP-103	Hudson/Gillette Emergency Generator: Diesel Fueled, MHDR=3.86 MMBtu/hr, Constructed 2010	Caterpillar/LC6124D
EP-105	Patient Care Tower Emergency Generator #1: Diesel Fueled, MHDR=10.43 MMBtu/hr, Constructed 2012	Caterpillar/DM9933
EP-106	Patient Care Tower Emergency Generator #2: Diesel Fueled, MHDR=10.43 MMBtu/hr, Constructed 2012	Caterpillar/DM9933
EP-109	Mark Twain 100 kW Emergency Generator: Diesel Fired; 4.17 MMBtu/hr; Construction Date 2012	Caterpillar/D100-6
EP-110	ARC Emergency Generator – Diesel, 300 kW, 8.876 MMBtu/hr, Construction Date 2012	Kohler/300REOZJ

Emergency stationary internal combustion engine means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All

emergency stationary ICE must comply with the requirements specified in §60.4211(f) in order to be considered emergency stationary ICE. If the engine does not comply with the requirements specified in §60.4211(f), then it is not considered to be an emergency stationary ICE under this subpart.

- (1) The stationary ICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc.*
- (2) The stationary ICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in §60.4211(f).*
- (3) The stationary ICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in §60.4211(f)(2)(ii) or (iii) and §60.4211(f)(3)(i).*

Emission Standards:

- 1) The permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 over the entire life of the engine. [§60.4206]

Emission Limitations:

- 1) The permittee shall use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, (Ultra Low Sulfur Diesel (ULSD) 15 ppm) [§60.4207(b)]
- 2) The permittee 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)]

Monitoring:

- 1) The permittee must install a non-resettable hour meter prior to startup of the engines. [§60.4209(a)]

Annual Usage Limitations:

- 1) The permittee must operate the emergency stationary ICE according to the requirements in §60.4211(f)(1) through (3). In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in §60.4211(f)(1) through (3), is prohibited. [§60.4211(f)]
 - a) There is no limit on the use of emergency stationary ICE in emergency situations. [§60.4211(f)(1)]
 - b) The permittee may operate the emergency stationary ICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2). [§60.4211(f)(2)]
 - i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee

- maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. [§60.4211(f)(2)(i)]
- ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see § 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [§60.4211(f)(2)(ii)]
 - iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [§60.4211(f)(2)(iii)]
- 2) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in §60.4211(f)(2). Except as provided in §60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [§60.4211(f)(3)]
- a) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: [§60.4211(f)(3)(i)]
 - i) The engine is dispatched by the local balancing authority or local transmission and distribution system operator; [§60.4211(f)(3)(i)(A)]
 - ii) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. [§60.4211(f)(3)(i)(B)]
 - iii) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. [§60.4211(f)(3)(i)(C)]
 - iv) The power is provided only to the facility itself or to support the local transmission and distribution system. [§60.4211(f)(3)(i)(D)]
 - v) The permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator. [§60.4211(f)(3)(i)(E)]
- 3) If the permittee does not operate the engine according to the requirements in §60.4211(f)(1) through (3), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. [§60.4211(f)]

Compliance/Recordkeeping Requirements:

- 1) The engines shall be installed and configured according to the manufacturer's emission-related specifications, except as permitted in §60.4211(g). [§60.4211(c)]
- 2) The permittee must: [§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. [§60.4211(a)(3)]
- 3) If the permittee does not install, configure, operate, and maintain the engines and control devices according to the manufacturer's emission-related written instructions, or changes emission-related settings in a way that is not permitted by the manufacturer, the permittee must demonstrate compliance as follows: [§60.4211(g)]
 - a) The permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. The permittee must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards. [§60.4211(g)(3)]
- 4) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the permittee is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the permittee must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The permittee must record the time of operation of the engine and the reason the engine was in operation during that time. [§60.4214(b)]

Reporting:

- 1) The permittee shall report any deviations of this permit condition 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.
- 2) If the permittee owns or operates an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §60.4211(f)(2)(ii) and (iii) or that operates for the purposes specified in § 60.4211(f)(3)(i), the permittee must submit an annual report according to the requirements in §60.4214(d)(1) through (3).

PERMIT CONDITION 13			
10 CSR 10-6.075, <i>Maximum Achievable Control Technology Regulations</i>			
40 CFR 63 Subpart ZZZZ – <i>National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines</i>			
EIQ Reference #	Description		Manufacturer/Model #
EP-36	Clark Hall Emergency Generator: Natural Gas Fired, MHDR=0.333 MMBtu/hr, Constructed 1986		NA
Engine Category	<i>Existing</i> Emergency SI < 500 HP	Monitoring, Installation, Collection, Operation and Maintenance Requirements	§63.6625(e), (f), (h), (j)

EQ Reference #	Description		Manufacturer/Model #
EP-36	Clark Hall Emergency Generator: Natural Gas Fired, MHDR=0.333 MMBtu/hr, Constructed 1986		NA
Date Constructed	<i>Before 6/12/2006</i>	Initial Compliance	No Requirements
Compliance Date	October 19, 2013	Continuous Compliance	§63.6605, §63.6640(f)
Work Practice Standards	§63.6603(a) Table 2d, Item 5	Notification Requirements	No Requirements
Operating Limitations	§63.6640(f)	Recordkeeping Requirements	§63.6655 (a)(5), (e), (f)
Fuel Requirements	No Requirements	Reporting Requirements	§63.6640(b), (e) Footnote 1 of Table 2d
Performance Tests	No Requirements	General Provisions (40 CFR part 63)	Yes, except per 63.6645(a)(5), the following do not apply: 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), and 63.9(b)-(e), (g) and (h).

Operational Requirements:

At all times the permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [§63.6605(b)]

Work Practice Standards:

- 1) For each RICE, the permittee must meet the following requirement (*except during periods of startup*):
 - a) Change oil and filter every 500 hours of operation or annually, whichever comes first; (The permittee has the option to utilize an oil analysis program as described in §63.6625(i) or (j) in order to extend the specified oil change requirement.)
 - b) Inspect spark plugs every 1000 hours of operation or annually, whichever comes first, and replace as necessary; and
 - c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
- 2) During periods of startup the permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [Items 6.a, 6.b and 6.c of Table 2c]

Annual Usage Limitations to Maintain Emergency-Only Status:

- 1) The permittee shall operate the emergency stationary RICE according to the requirements in paragraphs §63.6640(f)(1) through (4). In order for the engine to be considered an emergency

stationary RICE under 40 CFR 63 Subpart ZZZZ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs §63.6640(f)(1) through (4), is prohibited. If you do not operate the engine according to the requirements in paragraphs §63.6640(f)(1) through (4), the engine will not be considered an emergency engine under 40 CFR 63 Subpart ZZZZ and must meet all requirements for non-emergency engines. [§63.6640(f)]

- a) There is no time limit on the use of emergency stationary RICE in emergency situations. [§63.6640(f)(1)]
- b) The permittee may operate the emergency stationary RICE for any combination of the purposes specified in paragraphs §63.6640(f)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs §63.6640(f)(3) and (4) counts as part of the 100 hours per calendar year allowed by this paragraph §63.6640(f)(2). [§63.6640(f)(2)]
 - i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. [§63.6640(f)(2)(i)]
 - ii) Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see § 63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [§63.6640(f)(2)(ii)]
 - iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [§63.6640(f)(2)(iii)]
- c) Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph §63.6640(f)(2). Except as provided in paragraphs §63.6640(f)(4)(i) and (ii), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [§63.6640(f)(4)]
 - i) Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution system. [§63.6640(f)(4)(i)]
 - ii) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: [§63.6640(f)(4)(ii)(A) through (E)]

- (1) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
- (2) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
- (3) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
- (4) The power is provided only to the facility itself or to support the local transmission and distribution system.
- (5) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

Recordkeeping:

- 1) The permittee must keep records of all required maintenance performed on the air pollution control and monitoring equipment. [§63.6655(a)(4)]
- 2) The permittee must keep records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [§63.6655(a)(5)]
- 3) The permittee must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to the facility's own maintenance plan. [§63.6655(e)]
- 4) The permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee must document how many hours are spent for emergency operation; including what classified the operation as emergency and how many hours are spent for non-emergency operation. [§63.6655(f)]
- 5) If the engine is used for the purposes specified in §63.6640(f)(2)(ii) or (iii) or §63.6640(f)(4)(ii), the permittee must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [§63.6655(f)]

Reporting:

- 1) The Permittee shall report each instance in which an applicable emission limitation or operating limitation in Table 2c to MACT ZZZZ was not met. These instances are deviations from the emission and operating limitations in MACT ZZZZ, and must be reported according to the requirements in §63.6650. [§63.6640(b)]
- 2) The permittee shall report any deviations of this permit condition 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.

PERMIT CONDITION 14		
10 CSR 10-6.075 <i>Maximum Achievable Control Technology Regulations</i>		
40 CFR 63 Subpart ZZZZ – <i>National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines</i>		
40 CFR Part 60 Subpart JJJJ – <i>Standards of Performance for Stationary Spark Ignition Internal Combustion Engines</i>		
EIQ Reference #	Description	Manufacturer/Model #
EP-88	Dalton Emergency Generator – Natural Gas; MHDR=1.3-MMBtu/hr; Constructed 2007	NA
EP-89	Schweitzer Emergency Generator – Natural Gas Fired; MHDR=0.8-MMBtu/hr; Constructed 02/16/2007.	NA
EP-111	Faurot Field Emergency Generator: Natural Gas Fired, MHDR = 0.65 MMBtu/hr, Constructed 2014	Generac SG300
EP-113	Memorial Stadium West Side Press Box Emergency Generator – Natural Gas Fired; 175 kW; 2.25 MMBtu/hr; Construction Date 2014	Generac SG175

Emergency stationary internal combustion engine means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. All emergency stationary ICE must comply with the requirements specified in §60.4243(d) in order to be considered emergency stationary ICE. If the engine does not comply with the requirements specified in §60.4243(d), then it is not considered to be an emergency stationary ICE under this subpart.

- (1) The stationary ICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc.*
- (2) The stationary ICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in §60.4243(d).*
- (3) The stationary ICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in §60.4243(d)(2)(ii) or (iii) and §60.4243(d)(3)(i).*

Annual Usage Limitations:

- 1) Any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in §60.4243(d)(1) through (3), is prohibited. If the permittee does not operate the engine according to the requirements in §60.4243(d)(1) through (3), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. [§60.4243(d)]
 - a) There is no time limit on the use of emergency stationary ICE in emergency situations. [§60.4243(d)(1)]
 - b) The permittee may operate your emergency stationary ICE for any combination of the purposes specified in §60.4243(d)(2)(i) through (iii) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by §60.4243(d)(3) counts as part of the 100 hours per calendar year allowed by this paragraph. [§60.4243(d)(2)]
 - i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the

- manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. [§60.4243(d)(2)(i)]
- ii) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3. [§60.4243(d)(2)(ii)]
 - iii) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency. [§60.4243(d)(2)(iii)]
- 2) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in §60.4243(d)(2). Except as provided in §60.4243(d)(3)(i), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [§60.4243(d)(3)]
- a) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: [§60.4243(d)(3)(i)]
 - i) The engine is dispatched by the local balancing authority or local transmission and distribution system operator; [§60.4243(d)(3)(i)(A)]
 - ii) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. [§60.4243(d)(3)(i)(B)]
 - iii) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. [§60.4243(d)(3)(i)(C)]
 - iv) The power is provided only to the facility itself or to support the local transmission and distribution system. [§60.4243(d)(3)(i)(D)]
 - v) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator. [§60.4243(d)(3)(i)(E)]
- 3) If the permittee does not operate the engine according to the requirements in §60.4243(d)(1) through (3), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. [§60.4243(d)]
- 4) The permittee may operate the engine using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards

when using propane, the permittee is required to conduct a performance test to demonstrate compliance with the emission standards of §60.4233. [§60.4243(e)]

Monitoring:

The permittee must install a non-resettable hour meter prior to startup of the engines.

Recordkeeping:

- 1) The permittee must keep records of the following information: [§60.4245(a)]
 - a) All notifications submitted to comply with NSPS JJJJ and all documentation supporting any notification. [§60.4245(a)(1)]
 - b) Maintenance conducted on the engine. [§60.4245(a)(2)]
 - c) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable. [§60.4245(a)(3)]
 - d) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards. [§60.4245(a)(4)]

Reporting:

- 1) If the permittee operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in §60.4243(d)(2)(ii) and (iii) or that operate for the purposes specified in §60.4243(d)(3)(i), the permittee must submit an annual report according to the requirements in §60.4245(e)(1) through (3). [§60.4245(e)]
- 2) The permittee shall report any deviations of this permit condition 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.\

PERMIT CONDITION 15	
10 CSR 10-6.220 Restriction of Emissions of Visible Air Contaminants	
EIQ Reference ##	Description
EP-01CRH	Two (2) 12.6-MMBtu/hr Boilers
EP-02CRH	Boiler #3 – Women’s and Children’s Hospital – Natural Gas: MHDR = 3.4 MMBtu/hr; Installed January 01, 2008
EP-02Qa	0.225 MMBtu/hr Natural Gas Furnace #1
EP-02Qb	0.225 MMBtu/hr Natural Gas Furnace #2
EP-03CRH	Boiler #4 – Women’s and Children’s Hospital – Natural Gas: MHDR = 3.4 MMBtu/hr; Installed January 01, 2008
EP-12	Fine Arts Annex Hot Water Boiler, natural gas-fired: MHDR = 0.63 MMBtu/hr; Installed January 01, 1968
EP-65	Hitt Street Parking Garage Boiler, natural gas-fired: MHDR = 0.3 MMBtu/hr; Installed January 01, 2002
EP-66	Locust Street Building Boiler, natural gas-fired: MHDR = 1.0 MMBtu/hr; Installed January 01, 2002
EP-67	Poultry Nutrition Building Boiler, natural gas-fired: MHDR = 0.3 MMBtu/hr; Installed January 01, 2002
EP-68	Museum Support Building Boiler, natural gas-fired: MHDR = 0.75 MMBtu/hr; Installed January 01, 2002

EP-81	Research Park Dev. Building Space Heating, natural gas-fired, 0.002-MMBtu/hr
EP-104	1110 S. College Boiler – Natural Gas Fired: MHDR = 1.19 MMBtu/hr; Installed January 01, 2012
EP-108	Professional Building Natural Gas Boiler: MHDR = 1.754 MMBtu/hr; Installed October 09, 2012
EP-112	Mizzou North Boiler: Natural Gas Fired, MHDR = 1.5 MMBtu/hr, Installed 1975, Modified 2014
EP-05E	Two Boilers; MHDR=8.4-MMBtu/hr; Fired by natural gas; Constructed 1975, Modified 2014

Emission Limitation:

- 1) The permittee shall not cause or permit emissions to be discharged into the atmosphere from any **new** source any visible emissions with an opacity greater than 20%.
- 2) Exception: The permittee may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60%.

Monitoring/Recordkeeping:

None-See Statement of Basis – Other Regulatory Determinations

Reporting:

The permittee shall report any deviations of this permit condition to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION 16		
10 CSR 10-6.220 Restriction of Emissions of Visible Air Contaminants		
EIQ Reference ##	Description	
EP-95	Dual Fired Steam Boiler #1: MHDR = 3.36 MMBtu/hr; Installed May 01, 2008	Hurst Series 400-800 HP
EP-96	RBL Dual Fired Steam Boiler #2: MHDR = 3.36 MMBtu/hr; Installed January 01, 2008	Hurst Series 400-800 HP
EP-97	RBL Dual Fired Steam Boiler #3: MHDR = 5.0 MMBtu/hr; Installed May 05, 2008	Bryan Model RV500-W-FDGO-LX

Emission Limitation:

- 1) The permittee shall not cause or permit emissions to be discharged into the atmosphere from any **new** source any visible emissions with an opacity greater than 20%.
- 2) Exception: The permittee may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60%.

Monitoring:

Monitoring is only required when the emission units are burning diesel fuel.

- 1) The permittee shall conduct opacity readings on each emission unit using the procedures contained in U.S. EPA Test Method 22. The permittee is only required to take readings when the emission unit

is operating and when the weather conditions allow. If the permittee observes no visible or other significant emissions using these procedures, then no further observations are 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 permittee must maintain the following monitoring schedule:
 - a) The permittee shall conduct weekly observations for a minimum of eight (8) consecutive weeks after permit issuance.
 - b) Should the permittee observe no violations of this regulation during this period then-
 - i) The permittee may observe once every two (2) weeks for a period of eight (8) weeks.
 - ii) If a violation is noted, monitoring reverts to weekly.
 - iii) Should no violation of this regulation be observed during this period then-
 - (1) The permittee may observe once per month.
 - (2) If a violation is noted, monitoring reverts to weekly.
- 3) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.
- 4) If at the time of this operating permit issuance the permittee has already progressed to conducting observations once every two weeks or once per month, the permittee may continue from that point forward in the established monitoring schedule; however, if a violation is noted the permittee shall revert back to weekly monitoring.

Recordkeeping:

Recordkeeping is only required when the emission units are burning diesel fuel.

- 1) The permittee shall maintain records of all observation results (see Attachment D1 or D2), noting:
 - a) Whether any air emissions (except for water vapor) were visible from the emission units,
 - b) All emission units from which visible emissions occurred, and
 - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment B)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment E)
- 4) Attachments D1 or D2, B, and E contain logs including these record keeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available immediately for inspection to Department of Natural Resources personnel upon request.
- 6) All records shall be maintained for five years.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) The permittee shall report any deviations of this permit condition to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than the semi-annual monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

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), the Code of State Regulations (CSR), and local ordinances for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued. 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) Yard waste.
- (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) University of Missouri 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 University of Missouri 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 Record Keeping. 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 part 60, Appendix A–Test Methods, Method 9–Visual Determination of the Opacity of Emissions from Stationary Sources. The provisions of 40 CFR part 60, 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 Part 61 Subpart M National Emission Standard for Asbestos

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

10 CSR 10-6.110 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 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 10-6.165 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. This odor evaluation shall be taken at a location outside of the installation's property boundary.

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

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

Title VI – 40 CFR Part 82 Protection of Stratospheric Ozone

- 1) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
 - b) The placement of the required warning statement must comply with the requirements pursuant to §82.108.
 - c) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
 - d) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
- 2) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:
 - a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
 - b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. ("MVAC-like" appliance as defined at §82.152).
 - e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
 - f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.

- 3) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
- 4) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.
- 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 part 82, Subpart G, Significant New Alternatives Policy Program. *Federal Only - 40 CFR part 82*

10 CSR 10-6.280 Compliance Monitoring Usage

- 1) The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:
 - a) Monitoring methods outlined in 40 CFR Part 64;
 - b) Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - c) Any other monitoring methods approved by the director.
- 2) Any credible evidence may be used for the purpose of establishing whether a permittee has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred by a permittee:
 - a) Monitoring methods outlined in 40 CFR Part 64;
 - b) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - c) Compliance test methods specified in the rule cited as the authority for the emission limitations.
- 3) The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
 - a) Applicable monitoring or testing methods, cited in:
 - i) 10 CSR 10-6.030, "Sampling Methods for Air Pollution Sources";
 - ii) 10 CSR 10-6.040, "Reference Methods";
 - iii) 10 CSR 10-6.070, "New Source Performance Standards";
 - iv) 10 CSR 10-6.080, "Emission Standards for Hazardous Air Pollutants"; or
 - a) 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 Record Keeping and Reporting Requirements

- 1) Record Keeping
 - 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 semiannually 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, record keeping, 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 semiannual 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 Part 68, Accidental Release Prevention Requirements. If the permittee has more than a threshold quantity of a regulated substance in process, as determined by 40 CFR Section 68.115, the permittee shall submit a Risk Management Plan in accordance with 40 CFR Part 68 no later than the latest of the following dates:

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

10 CSR 10-6.065(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 semiannually (or more frequently if specified in the applicable requirement). These progress reports shall contain the following:
 - a) Dates for achieving the activities, milestones or compliance required in the schedule of compliance, and dates when these activities, milestones or compliance were achieved, and
 - b) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measures adopted.
- 4) The permittee shall submit an annual certification that it is in compliance with all of the federally enforceable terms and conditions contained in this permit, including emissions limitations, standards, or work practices. These certifications shall be submitted annually by April 1st, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to 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 applicable 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), record keeping, 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 APCP shall place a copy with the permit in the public file. Written notice shall be provided to the EPA and the APCP 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 APCP 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 contemporaneous 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. This notice shall not be required for changes that are insignificant activities under 10 CSR 10-6.065(6)(B)3 of this rule. 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)12 Responsible Official

The application utilized in the preparation of this permit was signed by Gary Ward, Vice Chancellor for Administrative Services. On March 25, 2014 the Air Pollution Control Program was informed that Gary Ward, Vice Chancellor Operations and COO, is now the responsible official for the University of Missouri – Columbia. 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) MDNR or EPA determines that the permit contains a material mistake or that inaccurate statements were made which resulted in establishing the emissions limitation standards or other terms of the permit,
- 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) MDNR 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 D2

This attachment may be used to help meet the record keeping requirements of 10 CSR 10-6.220

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

Attachment E

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 January 16, 2013;
- 2) 2011 Emissions Inventory Questionnaire, received March 23, 2012; and
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition.

Project ID	Start Date	Expired	Project Type	Status	Completion Date	Permit No.	Description
3800047005	10/13/1981		Sec 5 & 6: Deminimis and Minor	Permit Issued	11/1/1981	1181-003	Incinerator
3800047007	7/27/1990		Sec 5 & 6: Deminimis and Minor	Permit Issued	8/13/1990	0990-004	
3800079002	10/23/1995		Applicability Determination Request	No Permit Required	1/30/1996		Moving University Printing Plant
3800047008	1/27/1997		Applicability Determination Request	Permit Issued	6/26/1997	0697-025	Cold Solvent Parts Washer
380047020	3/13/1997	3/18/2004	Part 70 Operating Permit	Operating Permit Issued	3/18/1999	OP1999- 031	Medical Center
380047009	3/14/1997		Sec 5 & 6: Deminimis and Minor	Permit Issued	6/26/1997	0697-024	169 KVA Emergency Generator
190047010	8/1/1997		Sec 5 & 6: Deminimis and Minor	No Permit Required	12/2/1997		100 KW (125 KVA) Emergency Generator
199808015	8/5/1998		Sec 5 & 6: Deminimis and Minor	No Permit Required	8/28/1998	N/A	Add 10,000 gal Underground Storage Tank

Project ID	Start Date	Expired	Project Type	Status	Completion Date	Permit No.	Description
199812085	12/22/1998		Sec 5 & 6: Deminimis and Minor	Section 5 Permit Issued	2/16/1999	0299-013	UMC Hospital Generator, Tank
199910069	10/20/1999		Applicability Determination Request	No Permit Required	2/25/2000		Soil Vapor Extraction System
199912078	12/22/1999		Applicability Determination Request	Permit Issued	12/29/1999	1299-022	Emergency Generator
200001024	1/11/2000		Corrections & Amendments	No Permit Required	11/8/2000		Waste Stream Changes
200002062	2/18/2000		Sec 5 & 6: Deminimis and Minor	Section 5 Permit Issued	4/17/2000	042000- 009	Emergency Generator
200011027	11/9/2000		Applicability Determination Request	Application Withdrawn by Applicant	12/11/2000		Soil Vapor Extraction Modification
200111019	11/7/2001		Sec 5 & 6: Deminimis and Minor	Section 5 Permit Issued	3/7/2002	032002- 002	Kilns, Paint booth, Parts Washers
200203060	3/6/2002		Part 70 Operating Permit Administrative Amendment	OP Application Replaced by New Submittal	3/25/2004	OP	Remove Duplicate Points
200210182	10/31/2002		Sec 5 & 6: Deminimis and Minor	Section 5 Permit Issued	1/14/2003	012003- 005	Emergency Generator
200302098	2/18/2003		Sec 5 & 6: Deminimis and Minor	Section 5 Permit Issued	4/1/2003	032003- 028	Emergency Generator
200309055	9/17/2003	7/2/2013	Part 70 Operating Permit Renewal	Operating Permit Issued	7/3/2028	OP2008- 033	University

Project ID	Start Date	Expired	Project Type	Status	Completion Date	Permit No.	Description
200310080	10/10/2003		Applicability Determination Request	No Permit Required	11/21/2003		Additional Emission Points
200407021	7/12/2004		Sec 5 & 6: De minimis and Minor	No Permit Required	9/8/2004		Emergency Generator
200504056	4/15/2005		Applicability Determination Request	Permit Required	6/9/2005		Painting Operation
200506063	6/21/2005		Sec 5 & 6: De minimis and Minor	Section 5 Permit Issued	11/3/2005	112005-002	Quarterdeck Printing Press
200511063	11/15/2005		Part 70 Operating Permit Off-Permit Change	Closed Out, Per Policy	5/25/2006	OP	Remediation Closure
200610102	10/26/2006		Sec 5 & 6: De minimis and Minor	Section 5 Permit Issued	2/22/2007	022007-011	Incinerator
200611067	11/14/2006		Applicability Determination Request	Permit Required	2/23/2007		Printing Services
200704004	3/30/2007		Sec 5 & 6: De minimis and Minor	Section 5 Permit Issued	7/9/2007	072007-003	Boilers and Tank
200802019	2/6/2008		Applicability Determination Request	No Permit Required	5/2/2008		Ethylene oxide Sterilizer
200805038	5/14/2008		Applicability Determination Request	No Permit Required	6/10/2008		Spray Booth
201012055	9/20/2010		Part 70 Operating Permit Off-Permit Change	Closed Out, Per Policy	7/30/2013	OP2008-033	Emergency Generator

Project ID	Start Date	Expired	Project Type	Status	Completion Date	Permit No.	Description
201111011	11/8/2011		Applicability Determination Request	No Permit Required	1/3/2012		Storage Tanks

Historical Notes

The Following historical notes explain the differences between the emission units and limitations in this operating permit and the previous operating permit, OP2008-033.

- 1) The following emission units, which were included in OP2008-033, never existed and were a numbering error in previous permits:

Description	EIQ Reference #
Boiler #5 – Capital Region Hospital –Natural Gas 1.5 MMBtu/hr	EP-04CRH
Boiler #6 – Capital Region Hospital –Natural Gas 1.0 MMBtu/hr	EP-05CRH

- 2) The following emission units, which were included in OP2008-033, have been physically removed or dismantled from the installation and are not included in this operating permit:

Description	EIQ Reference #
One (1) Natural Gas Fired Boiler ¹	EP-05E
Fume Hood Exhaust	EP-06E
Professional Building Boiler	EP-10
Research Park Dev. Building Natural Gas Hot Water Boiler	EP-13
Telecommunications Emergency Generator	EP-21
Telecommunications Building Underground Tank	EP-22
Faurot Field Emergency Generator	EP-56
General Services Parts Washer	EP-71
Bowles Lab Ethylene Oxide Sterilizer	EP-91
Clydesdale Hall Ethylene Oxide Sterilizer	EP-92

- 3) The following emission units have been added since OP2008-033 was issued in this operating permit:

Description	EIQ Reference #
Landscape Services Cold Solvent Parts Washer	EP-44
Res Life Parts Washer	EP-45

¹ Two (2) of the Natural Gas fired boilers reporting under EP-05E remain in operation. EP-05E is still in use and remains within the permit.

Description	EIQ Reference #
Sci. Instr. Cold Solvent Parts Washer	EP-46
University Ave Garage Cold Solvent Parts Washer	EP-48
Telecom Bldg. East Side Diesel Emergency Generator (Portable)	EP-73
Swine Center Emergency Generator	EP-84
RBL Emergency Generator	EP-93
RBL 6000 Gal UST	EP-94
RBL Dual Fired Boiler #1	EP-95
RBL Dual Fired Boiler #2	EP-96
RBL Dual Fired Boiler #3	EP-97
Telecom Emergency Generator	EP-98
Hearnes Emergency Generator	EP-99
GSB Emergency Generator	EP-100
MO Psych Hospital Emergency Generator	EP-101
Ortho Emergency Generator	EP-102
Hudson/Gillette Emergency Generator	EP-103
1110 S College Boiler	EP-104
PCT Emergency Generator #1	EP-105
PCT Emergency Generator #2	EP-106
PCT UST	EP-107
Professional Building Boiler	EP-108
Mark Twain Emergency Generator	EP-109
ARC Emergency Generator	EP-110
Faurot Field Emergency Generator	EP-111
Mizzou North Boiler	EP-112
Memorial Stadium West Side Press Box Emergency Generator	EP-113
MU Psychiatric Center (MUPC) Parts Washer	NA

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

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

None

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 10-6.100, *Alternate Emission Limits*, is not applicable because the installation is in an ozone attainment area.

- 2) 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*
The two paint booths (EP-01Q and EP-69) are required to have fabric filters in place during operation by PERMIT CONDITION 7. It is highly unlikely that there will be any visible emissions from these units with controls in place; therefore, no periodic opacity monitoring is required for the spray booths.
- 3) 10 CSR 6.405, *Maximum Allowable Emissions of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating*, was marked as applicable in the permit application. Because these boilers combust only natural gas, the boilers are deemed to be in compliance with this regulation, per (1)(C).

Construction Permit Revisions

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

Construction Permit #0697-025

Special Condition #1 applies to the ten (10) cold solvent parts washers that were applied at this time. This special condition was removed from the operating permit because this permit condition is included in Section IV Core Permit Requirements of this permit.

Construction Permit #022007-011

Special Conditions ## 9, 10, 11 and 12 have been removed from the operating permit because these conditions were met during initial performance testing.

Special Condition #7 has been modified to require yearly training of all persons who operate the incinerator.

New Source Performance Standards (NSPS) Applicability

- 1) 40 CFR Part 60, Subpart Ce, *Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators*
 - a) This rule does not apply to Incinerator (EP-01) because the unit has an enforceable requirement limiting the unit to combusting only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste and according to §60.32e(b) when only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste is burned, the combustor is exempt provided the permittee: notifies the Administrator of an exemption claim; and keeps records on a calendar quarter basis of the periods of time when only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste is burned.
 - b) This rule does not apply to the Vet Diagnostic Incinerator (EP-90) because it was constructed after June 20, 1996.
- 2) 40 CFR Part 60, Subpart Ec, *Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996*
 - a) This rule does not apply to the Incinerator (EP-01) because it was constructed prior to June 20, 1996
 - b) This rule does not apply to the Veterinary Diagnostic Incinerator (EP-90) because the unit has an enforceable requirement limiting the unit to combusting 10% or less hospital or medical/infectious waste and according to §60.50c any co-fired combustor subject to an enforceable requirement limiting the unit to combusting a fuel feed stream, 10 percent or less of the weight of which is comprised, in aggregate, of hospital waste and medical/infectious waste as measured on a calendar quarter basis is exempt provided that the permittee: notifies the

Administrator of an exemption claim; provides an estimate of the relative amounts of hospital waste, medical/infectious waste, and other fuels and wastes to be combusted; and keeps records on a calendar quarter basis of the weight of hospital waste and medical/infectious waste combusted, and the weight of all other fuels and wastes combusted at the co-fired combustor.

- 3) 40 CFR Part 60, 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*
 - a) This rule does not apply to this installation because there are no storage vessels that were constructed, reconstructed or modified after July 23, 1984 with capacities greater than or equal to 75 cubic meters (20,000 gallons).
- 4) 40 CFR Part 60 Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*

This regulation applies to all stationary compression ignition internal combustion engines that construction dates are after June 12, 2006 located at the facility.
- 5) 40 CFR Part 60 Subpart JJJJ, *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*

This regulation applies to all stationary spark ignition internal combustion engines that construction dates are after June 12, 2006 located at the facility.

None of the other NSPS standards applies.

Maximum Achievable Control Technology (MACT) Applicability

- 1) 40 CFR Part 63, Subpart T, *National Emission Standards for Halogenated Solvent Cleaning*,
The University of Missouri – Columbia uses Crystal Clean 106⁺ Mineral Spirits, in all of its parts cleaners located at the installation. This solvent does not contain methyl chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, or chloroform. Since the solvent used does not contain any of these halogenated HAP solvents, this rule does not apply to the parts washers.
- 2) 40 CFR Part 63 Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*

All emergency generators located at the facility are subject to this regulation and must meet the definition of emergency stationary RICE.
- 3) 40 CFR Part 63 Subpart DDDDD, *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters*

This rule does not apply to any of the boilers because the installation is an area source for HAP emissions.
- 4) 40 CFR Part 63, Subpart JJJJJ, *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*

This rule does not apply to the following emission units because they are classified as gas-fired boilers as defined in Subpart JJJJJ:

Description	EIQ Reference #
Two (2) 12.6-MMBtu/hr Boilers	EP-01CRH
Boiler #3 – Women’s and Children’s Hospital – Natural Gas	EP-02CRH
0.225 MMBtu/hr Natural Gas Furnace #1	EP-02Qa
0.225 MMBtu/hr Natural Gas Furnace #2	EP-02Qb
Boiler #4 – Women’s and Children’s Hospital – Natural Gas	EP-03CRH
Two (2) 8.4-MMBtu/hr Natural Gas Fired Boilers	EP-05E
Fine Arts Annex Hot Water Boiler, natural gas-fired	EP-12
Hitt Street Parking Garage Boiler, natural gas-fired	EP-65
Locust Street Building Boiler, natural gas-fired, 1-MMBtu/hr	EP-66
Poultry Nutrition Building Boiler, natural gas-fired	EP-67
Museum Support Building Boiler, natural gas-fired	EP-68
Research Park Dev. Building Space Heating, natural gas-fired, 0.002-MMBtu/hr	EP-81
1110 S. College Boiler – Natural Gas Fired, 1.19-MMBtu/hr	EP-104
Professional Building Natural Gas Boiler – 1.754 MMBtu/hr	EP-108
Mizzou North Boiler: Natural Gas Fired, Constructed 1975, Modified 2014, MHDR=1.5 MMBtu/hr	EP-112

The following dual fired boilers have taken a 48-hour limitation on the combustion of fuel oil in order to be classified as a gas-fired boiler:

Description	EIQ Reference #
Boiler #1 – LIDR – Dual Fired, 3.360-MMBtu/hr (B-1)	EP-95
Boiler #2 – LIDR – Dual Fired, 3.360-MMBtu/hr (B-2)	EP-96
Boiler #3 – LIDR – Dual Fired, 5.000-MMBtu/hr (B-3)	EP-97

If records indicate that the annual 48-hour fuel oil usage limitation has been exceeded, the permittee must provide notice of the date upon which the unit you switched fuels, within 30 days of the change.

None of the other MACT standards applies.

National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

None of the other NESHAP standards applies.

Compliance Assurance Monitoring (CAM) Applicability

40 CFR Part 64, *Compliance Assurance Monitoring (CAM)*

The CAM rule applies to each pollutant specific emission unit that:

- Is subject to an emission limitation or standard, and

- Uses a control device to achieve compliance, and
 - Has pre-control emissions that exceed or are equivalent to the major source threshold.
- 40 CFR Part 64 is not applicable because none of the pollutant-specific emission units uses a control device to achieve compliance with a relevant standard.

Updated Potential to Emit for the Installation

Pollutant	Potential to Emit (tons/yr) ¹
CO	97.12
HAP	10.04
NO _x	282
PM ₁₀	24.3
PM ₂₅	13.0
SO _x	21.44
VOC	91.1
NH ₃	4.6

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

² Each emergency generator was evaluated at 500 hours of uncontrolled operation.

Other Regulatory Determinations

- 1) 10 CSR 10-6.200, *Hospital, Medical, Infectious Waste Incinerators*
 - a) This rule does not apply to Incinerator (EP-01) on condition that only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste are burned. Permit Condition 2 is included to establish that only these wastes are burned and to establish the mandatory recordkeeping requirements.
 - b) This rule does not apply to Veterinary Diagnostic Incinerator (EP-90) because according to §(1)(A), this rule only applies to combustors for which construction was commenced on or before June 29, 1996.
- 2) 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*
 - a) This rule does not apply to the following Internal Combustion Engines.

EIQ EP#	Emission Unit Description
EP-03E	Electrical Generator – Diesel
EP-04	Hospital Emergency Generator #1
EP-04E	Emergency Generator
EP-05	Hospital Emergency Generator #2
EP-06	Hospital Emergency Generator #3
EP-06CRH	Women’s and Children’s Hospital Emergency Generator
EP-07	Hospital Emergency Generator #4
EP-14	Lefevre Hall Emergency Generator
EP-18	Animal Science Research Center Emergency Generator #1
EP-20	Animal Science Research Center Emergency Generator #2
EP-25	Clydesdale Hall Emergency Generator

EP-27	Dalton Research Center Emergency Generator
EP-29	Research Reactor Emergency Generator
EP-31	Katolight Portable Emergency Generator
EP-33	Kato Gen Set Portable Emergency Generator
EP-36	Clark Hall Emergency Generator
EP-55	Telecommunications North Emergency Generator
EP-58	Hospital Emergency Generator #6
EP-59	Hospital Emergency Generator #7
EP-60	Rock Quarry Center Emergency Generator
EP-73	Telecommunications Building East Side Emergency Generator
EP-75	Life Sciences Emergency Generator #1
EP-76	Life Sciences Emergency Generator #2
EP-77	ABNR/Tucker/Ag Emergency Generator
EP-79	Basketball Arena Emergency Generator
EP-84	Swine Center Emergency Generator
EP-85	Emergency Generator – VAG – Diesel Fueled
EP-86	Emergency Generator – Hatch Hall
EP-87	Emergency Generator – CSEB – Diesel Fueled
EP-88	Dalton Emergency Generator
EP-89	Schweitzer Emergency Generator
EP-93	LIDR Emergency Generator
EP-98	Telecom Emergency Generator
EP-99	Hearnes Emergency Generator
EP-100	GSB Emergency Generator
EP-101	Missouri Psych Hospital Emergency Hospital Generator
EP-102	Ortho Emergency Generator
EP-103	Hudson/Gillette Emergency Generator
EP-105	Patient Care Tower Emergency Generator #1
EP-106	Patient Care Tower Emergency Generator #2
EP-109	Mark Twain 100 kW Emergency Generator
EP-110	ARC Emergency Generator
EP-111	Faurot Field Emergency Generator
EP-113	Memorial Stadium West Side Press Box Emergency Generator

This rule does not apply to these units because according to §(1)(A), internal combustion engines operated outside the Kansas City or St. Louis metropolitan areas are exempt.

b) Natural gas fired boilers

$$\begin{aligned}
 \text{Natural Gas PM Emission Factor} \left(\frac{\text{lbs}}{\text{MMBtu}} \right) &= \frac{\frac{8.7 \text{ lbs}}{10^6 \text{ scf}}}{\frac{1020 \text{ MMBtu}}{10^6 \text{ scf}}} = \frac{8.53 \times 10^{-03} \text{ lb}}{\text{MMBtu}} \\
 \frac{8.53 \times 10^{-03} \text{ lb}}{\text{MMBtu}} \times 12.6 \frac{\text{MMBtu}}{\text{hr}} &= 0.11 \frac{\text{lb PM}}{\text{hr}}
 \end{aligned}$$

Monitoring and recordkeeping requirements are not applied to the following natural gas fired boilers. The potential PM emissions for each of the boilers are less than 0.5 lbs/hr. When these units are maintained and operated properly, opacity emissions are not expected.

EIQ EP#	Emission Unit Description
EP02-CRH	Boiler #3 – Women’s and Children’s Hospital
EP03-CRH	Boiler #4 – Women’s and Children’s Hospital
EP-05E	Two (2) 8.4-MMBtu/hr Natural Gas Fired Boilers
EP-12	Fine Arts Annex Hot Water Boiler
EP-65	Natural Gas Boiler - Hitt Street Parking Garage
EP-66	Natural Gas Boiler - Locust Street Building
EP-67	Natural Gas Boiler - Poultry Nutrition Building
EP-68	Natural Gas Boiler - Museum Support Building
EP-81	Space Heating Boiler Research Park Development Building
EP-104	1110 S. College Boiler
EP-108	Professional Building
EP-112	Mizzou North Boiler

c) Dual Fired Boilers

Monitoring and recordkeeping requirements are not applied to the following dual fired boilers when natural gas is being burned. The potential PM emissions for each of the boilers are less than 0.5 lbs/hr. When these units are maintained and operated properly, opacity emissions are not expected.

EIQ EP#	Emission Unit Description
EP-95	RBL Dual Fired Boiler #1
EP-96	RBL Dual Fired Boiler #2
EP-97	RBL Dual Fired Boiler #3

3) 10 CSR 10-6.260 *Restriction of Emissions of Sulfur Compounds*

- a) This rule applies to Incinerator EP-01 and Veterinary Diagnostic Incinerator EP-90 According to U.S. EPA document, *Emission Factor Documentation for AP-42 Section 2.6 Medical Waste Incineration*, the uncontrolled SO₂ emissions from medical waste incinerators are estimated to be approximately 100 ppm or less. Therefore, it is assumed that these emission units are in compliance with the limit of 500 ppmv of sulfur dioxide.
- b) This rule does not apply to the following natural gas-fired boilers, kilns and generators because according to §(1)(A)2, combustion equipment that uses exclusively pipeline grade natural gas as defined in 40 CFR 72.2 or liquid petroleum gas as defined by American Society for Testing Materials (ASTM) are exempt.

EQ EP-##	Emission Unit Description
EP-01CRHa	12.3 MMBtu/hr Boiler #1
EP-01CRHb	12.6 MMBtu/hr Boiler #2
EP-02CRH	3.4 MMBtu/hr Boiler
EP-02Qa	0.225 MMBtu/hr Furnace #1
EP-02Qb	0.225 MMBtu/hr Furnace
EP-03CRH	3.4 MMBtu/hr Boiler #4
EP-05E	Two (2) Natural Gas Fired Boilers
EP-12	Fine Arts Annex Hot Water Boiler
EP-36	Clark Hall Emergency Generator
EP-63	Sprung Arch Style Ceramics Kiln
EP-64	Box Style Ceramics Kiln
EP-65	Hitt Street Parking Garage Boiler
EP-66	Locust Street Building Boiler
EP-67	Poultry Nutrition Building Boiler
EP-68	Museum Support Building Boiler
EP-81	Research Park Development Building Boiler
EP-88	Dalton Emergency Generator
EP-89	Schweitzer Hall Emergency Generator
EP-104	1110 S College Boiler
EP-108	Professional Building Boiler
EP-111	Faurot Field Emergency Generator
EP-112	Mizzou North Boiler
EP-113	Memorial Stadium West Side Press Box Emergency Generator

- c) This rule has not been applied to the two (2) wood-fired kilns, Anagama Ceramics Kiln (EP-61) or Catenary Arch Style Arch Kiln (EP-62) because it is highly unlikely that the minimal SO_x emissions from these wood-fired units would ever exceed the SO_x emission limitation.

$$ppmv SO_2 = \left(\frac{0.025 \text{ lb}}{\text{MMBtu}} \right) \times \left(\frac{\text{MMBtu}}{10,320 \text{ wscf}} \right) \times \left(\frac{\text{ppmw}}{\frac{1.667E^{-7} \text{ lb}}{\text{scf}}} \right) \times \left(\frac{0.45 \text{ ppmv}}{\text{ppmw}} \right) = 6.54 \text{ ppmv}$$

This value is significantly lower than the new source standard of 500 ppm found in 6.260(3)(A)(2). Based on this, it is highly unlikely that these kilns will exceed the emission limitations of the rule. Therefore, no provision for this rule was placed in this permit for these units.

- 4) 10 CSR 10-6.360, *Control of NO_x Emissions From Electric Generating Units and Non-Electric Generating Boilers*
 a) This rule does not apply to the Internal Combustion Engines, because according to §(1)(A), this rule does not apply to installations located in Boone County.
- 5) 10 CSR 10-6.390, *Control of NO_x Emissions from Large Stationary Internal Combustion Engines*

- a) This rule does not apply to the Internal Combustion Engines because according to §(1), this rule does not apply to installations located in Boone County.
- 6) 10 CSR 10-6.400, *Restriction of Emission of Particulate Matter from Industrial Processes*
 - a) This rule does not apply to Incinerator EP-01 and Veterinary Incinerator EP-90 because the burning of refuse is exempt by §(1)(B)9.
 - b) This rule does not apply to the diesel-fired generators, natural gas-fired generators, and natural gas-fired kilns because according to §(2)(A), liquids and gases used solely as fuels are excluded in defining weight process.
 - c) This rule applies to the spray booths EP-01Q and EP-69. The calculations below verify compliance with both the PM Emission Rate and the PM Concentration provided that the required control devices are in operation and working properly:

Emission Rate Limit

$$Emission\ Rate\ Limit\ \left(\frac{lb}{hr}\right) E = 4.1 (P)^{0.67}$$

Where: P = process weight rate

However, according to 10 CSR 10-6.400(1)(b)11, emission sources that at a minimum design capacity have a potential to emit less than 0.5 lb/hr of PM are exempt. Therefore, the PM emission limit has been listed as 0.5 lb/hr when the above equation calculates an emission rate of less than 0.5 lb/hr.

PM Emission Rate

$$Emission\ Rate\ \left(\frac{lb}{hr}\right) = (P)(Emission\ Factor) \left(1 - \left(\frac{TransferEff}{100}\right)\right) \left[1 - \left(\frac{OverallControlEff}{100}\right)\right]$$

$$Where: Emission\ Factor\ \left(\frac{lb}{hr}\right) = \left(\frac{\% solids}{100}\right) \times \left(\frac{200\ lb}{ton}\right)$$

EP-##	MHDR (gal/hr)	Density (lb/gal)	Process Weight (ton/hr)	% Solids	Emission Factor (lb/ton)	Transfer Eff. (%)	Overall Control Device Eff. (%)	Controlled Emission Rate (lb/hr)	Emission Rate Limit (lb/hr)
EP-01Q	18.5	11.85	0.11	44	880	75	97.14	0.69	0.93
EP-69	2.0	10.96	0.01	68	1390	75	90	0.37	0.5

Notes:

- 1) The MHDRs listed is that of the booths spray guns. The facility is using the booths to paint furniture. The furniture is moved into the booths, painted, allowed to dry, and then moved from the booths. Therefore, using the MHDR for the spray guns is an overestimation of the throughput rates for the booths.

PM Concentration

$$Emission\ Rate\ \left(\frac{gr}{dscf}\right) = Emission\ Rate\ \left(\frac{lb}{hr}\right) \times \frac{\left(700\frac{grains}{lb}\right)}{60\left(\frac{min}{hr}\right)} \times \frac{1}{Stack\ Flow\ Rate\ (SCFM)}$$

Flow rates converted from actual to standard conditions using the ideal gas law.

EP-##	Potential Controlled PM Emission Rate (lb/hr)	Stack Temp (°F)	Stack Flow Rate		Potential Concentration (gr/scf)	Allowable Concentration (gr/scf)
			ACFM	SCFM		
EP-01Q	0.69	77	9,100	8,947	0.009	0.3
EP-69	0.37	77	20,000	19,665	0.002	0.3

- d) This rule does not apply to the natural gas-fired boilers because according to §(1)(B)6, the burning of fuel for indirect heating is exempt.
- e) This rule does not apply to wood burning kilns (EP-61 and EP-62) because according to §(1)(B)(12), emission units that at a maximum design capacity have a potential to emit less than one-half (0.5) pounds per hour of particulate matter are exempt. The following table demonstrates that these units have the potential to emit less than 0.5 lb/hr. In addition, 10 CSR 10-6.220 was not applied to these units since it is highly unlikely that equipment that has the uncontrolled potential to emit less than 0.5 lbs/hr of particulate matter would ever exceed the 20% opacity threshold required by this rule.

EP-##	Description	Fuel	MHDR (MMBtu/hr)	EF (lb/MMBtu)	EF Source	PM Emissions (lb/hr)
61	Anagama Ceramics Kiln	Wood	0.875	0.417	AP-42 Table 1.6-1	0.36
62	Catenary Arch Style Ceramics Kiln	Wood	0.875	0.417	AP-42 Table 1.6-1	0.36

7) 10 CSR 6.405, *Restriction of Particulate Matter Emissions from Fuel Burning Equipment Used for Indirect Heating*

This rule does not apply to Incinerator (EP-01), Veterinary Diagnostic Incinerator (EP-90), all Internal Combustion Engines, or the kilns (EP-61 through EP-64) because these units are fueled only by landfill gas, propane, natural gas, fuel oils #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. [10 CSR 10-6.405(1)(E)]

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 APCP's satisfaction, the installation's compliance with that regulation(s). If the installation is not in compliance with a regulation which was not previously cited, the installation shall submit to the APCP a schedule for achieving compliance for that regulation(s).

MEMORANDUM

DATE: April 17, 2015

TO: 2013-01-038 University of Missouri – Columbia (019-0047)

FROM: David Buttig, Environmental Engineer

SUBJECT: Response to Public Comments

A draft of the University of Missouri's Part 70 Operating Permit was placed on public notice on March 06, 2015, by the Missouri Department of Natural Resources (MDNR). Comments were received on March 31, 2015 from Mark Smith, Air Permitting and Compliance Branch Chief of the Environmental Protection Agency Region 7. The thirteen (13) comments are presented below as submitted, with the response to each comment by the Air Pollution Control Program (APCP) directly following.

EPA Comment #1:

The customary practice of MDNR is to include and specify the regulated air pollutant(s) that make the source major and therefore subject to a Part 70 operating permit in the **Installation Description** on the permit cover sheet and the Installation Description and Equipment Listing section, Section I, of the permit. However, the installation description on the cover page of the University of Missouri -- Columbia draft permit and installation description on page 4 does not indicate the pollutant(s) which create the need for a Part 70/Title V operating permit. Therefore, EPA recommends MDNR consider listing the major air pollutant(s) in the installation description that makes the source subject to Title V.

Missouri Air Pollution Control Program Response to EPA Comment #1:

The pollutants that the facility is major for have been added to the installation descriptions on the Title Page and in Section I.

EPA Comment #2:

Each Part 70/Title V operating permit condition must be practically enforceable. EPA's primary guidance on practical enforceability is contained in "*Guidance on Limiting Potential to Emit in New Sources Permitting*," dated June 13, 1989. Practical enforceability answers "who," "what," "where," "when," "how," and "how often." The draft Part 70 permit for the University of Missouri – Columbia has several permit conditions that do not meet the practical enforceability test including requirements in Permit Conditions 1, 3, 5, 7, 8, 9, 11, 15, and 16. EPA recommends MDNR ensure that all permit condition requirements are practically enforceable.

Missouri Air Pollution Control Program Response to EPA Comment #2:

All permit condition requirements have been updated to be practically enforceable.

EPA Comment #3:

The customary practice of MDNR is to use the term "**permittee**" (emphasis added) to identify the individual(s) responsible for compliance with the requirements in the operating permit conditions. The draft Part 70 operating permit for the University of Missouri – Columbia identifies a variety of responsible individuals including: owner or other person; person; University of Missouri – Columbia; Curators of the University of Missouri; and permittee. EPA recommends MDNR adhere to their customary practice for consistency and use the term "permittee" as that individual with compliance responsibility.

Missouri Air Pollution Control Program Response to EPA Comment #3:

All instances where referring to the individual with compliance responsibility have been changed to read as "the permittee".

EPA Comment #4:

Permit Condition 1 includes ten (10) emission limitations deemed applicable to a solid waste disposal incinerator, emission unit EP-01. However, Permit Condition 1 does not include any monitoring and/or record keeping that the permittee is required to undertake to verify compliance with the ten (10) emission limitations. EPA believes that Permit Condition 1, to be practically enforceable, should include monitoring and/or recordkeeping to verify compliance and therefore recommends MDNR work with the permittee to develop, in accordance with the authority in 10 CSR 10-6.065(6)(C)1.C.(I)(b), and include periodic monitoring in Permit Condition 1.

Missouri Air Pollution Control Program Response to EPA Comment #4:

Permit Condition 1 has been rearranged to clarify which of the requirements are considered recordkeeping, monitoring, and reporting.

EPA Comment #5:

Emission limitation 1) in **Permit Condition 3** limits sulfur dioxide from any "**new**" (emphasis added) source operation. The term "new" is vague and undefined, so EPA suggests MDNR

include a notation as to the meaning of "new." Also, the monitoring and record keeping requirement in Permit Condition 3 says: "(D)ocumentation supporting the fuel used in pipeline grade natural gas." This requirement is too vague as to allow the permittee or the public to understand what monitoring/recordkeeping is required to verify compliance. Therefore, EPA recommends MDNR consider providing expanded detail.

Missouri Air Pollution Control Program Response to EPA Comment #5:

This Permit Condition has been removed since natural gas combustion sources are exempt per 10 CSR 10-6.260(1)(A)2.

EPA Comment #6:

The operational specifications in **Permit Condition 5** requires operator training, which appears to be a one-time requirement. Additionally, Permit Condition 5 includes no requirement(s) for the collection and retention of operator training records. EPA believes the University of Missouri - Columbia should conduct no less than annual refresher operator training on their veterinary diagnostic incinerator and should maintain training records to verify compliance with the operational specifications.

Missouri Air Pollution Control Program Response to EPA Comment #6:

Annual training will not be required for the operators of the veterinary incinerator. According to the applicant, only one person operates this incinerator. The original rule was originally included for new employees or operators who have not operated the incinerator for more than a year. And since an operator with more than one (1) years' experience operating the incinerator can conduct the training, no annual training is required for the incinerator operator.

EPA Comment #7:

The monitoring/recordkeeping requirement in **Permit Condition 6** directs Curators of the University of Missouri to use Attachment A, or approved equivalent, to demonstrate compliance with Special Condition 1A. Operating permits do not contain special conditions, therefore, EPA suggests MDNR modify the reference to Special Condition 1A to reflect the correct operating condition requirement Attachment A is used for the compliance demonstration.

Missouri Air Pollution Control Program Response to EPA Comment #7:

The reference to Special Condition 1A has been changed to reference Emission Limitation 1.

EPA Comment #8:

Permit Condition 7 includes three (3) separate numerical emission limitations, however, there is no monitoring and/or recordkeeping requirement(s) to demonstrate compliance. Permit conditions must contain sufficient detail to ensure that the facility and public clearly understand obligations in the permit and how compliance with these requirements will be evaluated. 10 CSR

10-6.065(6)(C)1.C.(I).(b) authorizes MDNR to include periodic monitoring where the applicable requirement fail to include monitoring and/or record keeping. EPA recommends MDNR exercise their authority to include periodic monitoring to demonstrate compliance with the emission limitations in Permit Condition 7.

Missouri Air Pollution Control Program Response to EPA Comment #8:

This permit condition requires the mat/panel filter to be installed correctly and to have no problems that would hinder the effectiveness of the filter. This permit condition also requires the filter to be in place any time the booths are in operation. Therefore, as the compliance demonstration in the Statement of Basis notes, “EP-01Q and EP-69 are in compliance provided that the required control devices are in operation and working properly”.

EPA Comment #9:

The reporting requirement in **Permit Condition 9** directs the permittee to submit a report, if records indicate the annual 48-hour fuel oil usage limitation has been exceeded. However, there are no instructions and/or directions as to who is to receive the report or where the report is to be sent. EPA suggests MDNR expand the reporting requirements for Permit Condition 9 to include to whom and where reports are to be sent.

Missouri Air Pollution Control Program Response to EPA Comment #9:

The Reporting for Permit Condition 9 has been updated to require reports be sent to both MDNR and EPA Region VII.

EPA Comment #10:

Permit Conditions 10, 12, 13, and 14 all contain applicable requirements associated with permittee compliance with 40 CFR part 63, Subpart ZZZZ; National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE MACT). The RICE MACT defines applicability and specifies requirements based on the horsepower (hp) of the stationary reciprocating internal combustion engine (RICE). Additionally, there are different requirements for ranges of horsepower and type of engine service. However, all of the emission units included in Permit Conditions 10 (29 emission units); Permit Condition 12 (10 emission units); Permit Condition 13 (1 emission units) and Permit Condition 14 (3 emission units) are identified in terms of maximum hourly design rate (MHDR) in MMBtu/hr. Without the horsepower being provided in the permit conditions, EPA is unable to review and determine the adequacy of the requirements MDNR has incorporated into these permit conditions. Additionally, based on data presented in the potential to emit table in the Statement of Basis, University of Missouri – Columbia is an area source of hazardous air pollutants (HAPs). Therefore, Permit Conditions 10, 12, 13, and 14, regarding the RICE MACT are for area sources. To date, MDNR has not accepted and taken over the compliance responsibilities of the area source RICE MACT and as such relies on the EPA to monitor and manage area source compliance. Therefore, EPA recommends MDNR add specific clarifying language into these

permit conditions to show EPA as the primary compliance information recipient related to HAPs and MDNR as secondary.

Missouri Air Pollution Control Program Response to EPA Comment #10:

The Reporting for Permit Conditions 10, 12, 13, and 14 have been updated to require reports be sent to both MDNR and EPA Region VII.

EPA Comment #11:

Permit Condition 12 says: "permittee must install a non-resettable hour meter prior to startup of the engine." Permit Condition 12 addresses applicable requirements of ten (10) engines, therefore, EPA recommends MDNR identify which one (1) of the ten (10) engines shall have the nonresettable hour meter. Also, annual usage limitation 1) in Permit Condition 12 requires the permittee to operate the emergency stationary ICE according to the requirements in §60.4211(f)(1) through (3). Again, Permit Condition 12 is written to address applicable requirements of ten (10) engines, therefore, EPA recommends MDNR identify which emergency stationary ICE must be operated per §60.4211(f)(1) through (3).

Missouri Air Pollution Control Program Response to EPA Comment #11:

The statement in Permit Condition 12 requiring a non-resettable meter has been updated to clarify that each emergency generator is required to have a non-resettable meter.

EPA Comment #12:

Operational requirement 1) in **Permit Condition 10** and **Permit Condition 13** requires the permittee to be in compliance with applicable requirements of MACT ZZZZ at all times. 10 CSR 10-6.065(6)(C)l. Requires every operating permit to contain all applicable requirements, however, these operational requirements are too vague and ambiguous. Permit conditions must contain sufficient detail to ensure the facility and the public clearly understand the obligations in the permit and how compliance with these requirements will be evaluated. Vague permit language undermines the purpose of the Title VI Part 70 program and therefore, EPA recommends MDNR specify the applicable requirements of MACT ZZZZ that apply at all times to the thirty (30) emission units associated with Permit Condition 10 and Permit Condition 13.

Missouri Air Pollution Control Program Response to EPA Comment #12:

§63.6605(a) has been removed from Permit Conditions 10 and 13 due to the statement being unnecessary.

EPA Comment #13:

The language regarding the written notification requirement for Off-Permit Changes in Section V used in operating permits has recently been modified to more closely match the wording in 10

CSR 10-6.065(6)(C)5. Therefore, EPA recommends MDNR use the newer Off-Permit Change wording in the AECI -- Holden operating permit.

Missouri Air Pollution Control Program Response to EPA Comment #13:

10 CSR 10-6.065(6)(C)9 Off-Permit Changes has been updated to the current language used by the Missouri APCP.