



Missouri Department of Natural Resources
Air Pollution Control Program

INTERMEDIATE STATE PERMIT TO OPERATE

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

Intermediate Operating Permit Number: OP2012-016
Expiration Date: APR 23 2017
Installation ID: 510-2711
Project Number: 2009-05-009

Installation Name and Address

St. Louis University
3500 Lindell Boulevard
St. Louis, MO 63103
City of St. Louis County

Parent Company's Name and Address

Same As Above

Installation Description:

St. Louis University (SLU) is a higher education institution located within the City of St. Louis, Missouri. Air pollutant sources at this installation include natural gas-fired boilers and diesel emergency generators.

St. Louis University is a major source of nitrogen oxides (NO_x). The installation has accepted voluntary, federally enforceable emission limitations limiting NO_x emissions to less than major source level to qualify for this permit.

APR 24 2012

Effective Date


Director or Designee
Department of Natural Resources

Table of Contents

INSTALLATION DESCRIPTION AND EQUIPMENT LISTING.....	3
INSTALLATION DESCRIPTION	3
EMISSION UNITS WITH LIMITATIONS	4
EMISSION UNITS WITHOUT LIMITATIONS.....	4
PLANT WIDE EMISSION LIMITATIONS.....	5
Permit Condition PW001	5
10 CSR 10-6.065 Operating Permits.....	5
10 CSR 10-6.065(2)(C) and 10 CSR 10-6.065(5)(A) Voluntary Limitation(s)	5
EMISSION UNIT SPECIFIC EMISSION LIMITATIONS.....	6
EU0010 AND EU0080 – DIESEL EMERGENCY GENERATORS	6
Permit Condition EU0010-001 and EU0080-001	6
10 CSR 10-6.260 Restriction of Emissions of Sulfur Compounds	6
Permit Condition EU0010-002 through EU0060-002.....	7
City of St. Louis Source Registration Permit No. SR03.025	7
Permit Condition EU0070-002.....	7
City of St. Louis Source Registration Permit No. SR07.066	7
Permit Condition EU0080-002.....	8
City of St. Louis Source Registration Permit No. SR08.019	8
CORE PERMIT REQUIREMENTS.....	9
GENERAL PERMIT REQUIREMENTS	15
ATTACHMENTS	19
Attachment A - Plant-Wide Voluntary Emissions Limit	20
Appendix A - Natural Gas Fired Combustion Units	4

I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

St. Louis University (SLU) is a higher education institution located within the City of St. Louis, Missouri. Air pollutant sources at this installation include twenty two (22) natural gas-fired boilers and eight (8) diesel emergency generators.

St. Louis University is a major source of nitrogen oxides (NO_x). The installation has accepted voluntary, federally enforceable emission limitations limiting NO_x emissions to less than major source level to qualify for this permit.

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

Reported Air Pollutant Emissions, tons per year					
Pollutants	2010	2009	2008	2007	2006
Particulate Matter ≤ Ten Microns (PM ₁₀)	0.58	0.58	0.88	0.62	0.61
Particulate Matter ≤ 2.5 Microns (PM _{2.5})	0.58	0.58	0.88	0.62	0.61
Sulfur Oxides (SO _x)	0.05	0.05	0.07	0.05	0.06
Nitrogen Oxides (NO _x)	7.57	7.57	11.57	8.14	8.07
Volatile Organic Compounds (VOC)	0.42	0.42	0.64	0.45	0.45
Carbon Monoxide (CO)	6.36	6.36	9.70	6.84	6.66
Lead (Pb)	—	—	—	—	—
Hazardous Air Pollutants (HAPs)	—	—	—	—	—
Ammonia (NH ₃)	0.04	0.04	0.06	0.04	0.04

EMISSION UNITS WITH LIMITATIONS

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

Emission Unit #	EIQ Reference #	Description of Emission Unit	Make/Model
<u>Eight (8) Diesel-Fired Emergency Generators</u>			
EU0010		Pious XII Memorial Library Generator	Kohler-125ROZJ71
EU0020		Fusz Hall Generator	Marathon-2040BF
EU0030		Des Peres Hall Generator	Olympian - 94A02242-S
EU0040	EP-01	Des Peres Hall Generator	Olympian - D200pI200KW
EU0050		DuBourg Hall Generator	Generac - 98A059/55
EU0060		Cook Hall Generator	Onan - DGFC-3381522
EU0070		Des Peres Hall Generator	Olympian - D200P3
EU0080		Chaifez Arena Generator	Caterpillar 1000kw Model #32

EMISSION UNITS WITHOUT LIMITATIONS

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

Description of Emission Source

Natural Gas-Fired Combustion Units (boilers, one emergency generator, miscellaneous space heaters, hot water heaters and furnaces each with less than ten million British thermal units (MMBtu) per hour heat input)

Five (5) Chillers (located in the Monsanto and Arena buildings)

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 on the date of permit issuance.

Permit Condition PW001

10 CSR 10-6.065 Operating Permits

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

Emission Limitation:

The permittee shall discharge into the atmosphere from the entire installation less than 100 tons of nitrogen oxides (NO_x) in any consecutive 12-month period.

Monitoring/Recordkeeping:

The permittee shall maintain an accurate record of emissions of NO_x emitted into the atmosphere from this installation. The permittee shall record the monthly and running 12-month totals of the NO_x emissions from this installation. Example form is attached as Attachment A (Plant-wide Emissions Tracking Record). The permittee may use this form, or forms of its own, so long as the forms used will accurately demonstrate compliance with the NO_x emission limitation (less than 100 tons per consecutive 12-month period of NO_x).

Reporting:

The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than fifteen days after any exceedance or deviation from this permit condition.

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 on the date of permit issuance.

EU0010 and EU0080 – Diesel Emergency Generators		
Emission Unit	Description	2010 EIQ Reference #
EU0010	Pious XII Memorial Library Generator, Kohler-125ROZJ71	EP-01
EU0020	Fusz Hall Generator, Marathon-2040BF	
EU0030	Des Peres Hall Generator, Olympian - 94A02242-S	
EU0040	Des Peres Hall Generator, Olympian - D200pI200KW	
EU0050	DuBourg Hall Generator, Generac - 98A059/55	
EU0060	Cook Hall Generator, Onan - DGFC-3381522	
EU0070	Des Peres Hall Generator, Olympian - D200P3	
EU0080	Chaifez Arena Generator, Caterpillar 1000kw Model #32	

Permit Condition EU0010-001 and EU0080-001
10 CSR 10-6.260
Restriction of Emissions of Sulfur Compounds

Emission Limitation:

- 1) Emissions from the emergency generators shall not contain more than 500 parts per million by volume (ppmv) of sulfur dioxide or more that 35 milligrams per cubic meter (mg/m³) of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three (3) hour time period.
- 2) No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010 Ambient Air Quality Standards. [10 CSR 10-6.260(3)(B) & 10 CSR 10-6.010 Ambient Air Quality Standards] ¹

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.

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

Reporting:

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

Permit Condition EU0010-002 through EU0060-002

City of St. Louis Source Registration Permit No. SR03.025

This permit condition is not federally or state enforceable.

Operational Limitation:

- 1) Each emergency generator shall be limited to 500 operating hours during any consecutive 12-month period. The generators shall be equipped with a non-resettable meter to record operational hours.
- 2) The generators shall only burn No. 2 fuel oil with a sulfur content of no more than 0.5% by weight sulfur.
- 3) The facility shall only operate these generators for emergency and maintenance use.
- 4) Visible emissions from the emergency generators shall not exceed twenty percent (20%) opacity for a period in excess of six (6) minutes in any sixty (60) minute period and shall never exceed forty percent (40%) opacity regardless of duration.

Recordkeeping/Reporting:

- 1) The permittee shall keep monthly records of hours of operation for each generator and documentation of the No. 2 fuel oil sulfur content.
- 2) The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than fifteen days after any exceedance or deviation from this permit condition.

Permit Condition EU0070-002

City of St. Louis Source Registration Permit No. SR07.066

This permit condition is not federally or state enforceable.

Operational Limitation:

- 1) The emergency generator shall be limited to 500 operating hours during any consecutive 12-month period. The generator shall be equipped with a non-resettable meter to record operational hours.
- 2) The generator shall only burn No. 2 fuel oil with a sulfur content of no more than 0.5% by weight sulfur.
- 3) The generator shall only be operated when power from the utility is interrupted, during emergency situations, and for short periods of time to perform maintenance and operational readiness testing.
- 4) Visible emissions from the emergency generator shall not exceed twenty percent (20%) opacity for a period in excess of six (6) minutes in any sixty (60) minute period and shall never exceed forty percent (40%) opacity regardless of duration.

Recordkeeping/Reporting:

- 1) The permittee shall keep monthly records of hours of operation for the generator and documentation of the No. 2 fuel oil sulfur content.

- 2) The permittee shall report to the City of St. Louis Air Pollution Control Program, Enforcement Section, 1520 Market Street, Room 4058, St. Louis, MO 63103, and to the Missouri Department of Natural Resources Air Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after any exceedance of the terms imposed by this permit condition.
- 3) The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than fifteen days after any exceedance or deviation from this permit condition.

Permit Condition EU0080-002

City of St. Louis Source Registration Permit No. SR08.019

This permit condition is not federally or state enforceable.

Operational Limitation:

- 1) The emergency generator shall be limited to 500 operating hours during any consecutive 12-month period. The generators shall be equipped with a non-resettable meter to record operational hours.
- 2) The generator shall only burn No. 2 fuel oil with a sulfur content of no more than 0.5% by weight sulfur.
- 3) The generator shall only be operated when power from the utility is interrupted, during emergency situations, and for short periods of time to perform maintenance and operational readiness testing.
- 4) Visible emissions from the emergency generator shall not exceed twenty percent (20%) opacity for a period in excess of six (6) minutes in any sixty (60) minute period and shall never exceed forty percent (40%) opacity regardless of duration.

Recordkeeping/Reporting:

- 1) The permittee shall keep monthly records of hours of operation for each generator and documentation of the No. 2 fuel oil sulfur content.
- 2) The permittee shall record any instances of exceedance of the Construction Permit 02-12-027 limitations and conditions and report them to the City of St. Louis Air Pollution Control Program in writing within two business days.

IV. Core Permit Requirements

The installation shall comply with each of the following requirements. Consult the appropriate sections in the Code of Federal Regulations (CFR), Code of State Regulations (CSR), and local ordinances for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect on the date of permit issuance. The following is only an excerpt from the regulation or code, and is provided for summary purposes only

City of St. Louis Ordinance 68657, §16 Open Burning Restrictions

- 1) No person shall cause, suffer, allow or permit the open burning of refuse.
- 2) No person shall conduct, cause or permit the conduct of a salvage operation by open burning.
- 3) No person shall conduct, cause or permit the disposal of trade waste by open burning.
- 4) No person shall cause or permit the open burning of leaves, trees or the byproducts therefrom, grass, or other vegetation.
- 5) It shall be prima-facie evidence that the person who owns or controls property on which open burning occurs, has caused or permitted said open burning.

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

- 1) In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the Director within two business days, in writing, the following information:
 - a) Name and location of installation;
 - b) Name and telephone number of person responsible for the installation;
 - c) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
 - d) Identity of the equipment causing the excess emissions;
 - e) Time and duration of the period of excess emissions;
 - f) Cause of the excess emissions;
 - g) Air pollutants involved;
 - h) Best estimate of the magnitude of the excess emissions expressed in the units of the applicable requirement and the operating data and calculations used in estimating the magnitude;
 - i) Measures taken to mitigate the extent and duration of the excess emissions; and
 - j) Measures taken to remedy the situation that caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations.
- 2) The permittee shall submit the paragraph 1 information list to the Director in writing at least ten days prior to any maintenance, start-up or shutdown, which is expected to cause an excessive release of emissions that exceed one hour. If notice of the event cannot be given ten days prior to the planned occurrence, it shall be given as soon as practicable prior to the release. If an unplanned excess release of emissions exceeding one hour occurs during maintenance, start-up or shutdown, the Director shall be notified verbally as soon as practical during normal working hours and no later than the close of business of the following working day. A written notice shall follow within ten working days.
- 3) Upon receipt of a notice of excess emissions issued by an agency holding a certificate of authority under section 643.140, RSMo, the permittee may provide information showing that the excess emissions were the consequence of a malfunction, start-up or shutdown. The information, at a minimum, should be the paragraph 1 list and shall be submitted not later than 15 days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other pertinent information available, the Director or the commission shall make a determination whether

the excess emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under section 643.080 or 643.151, RSMo.

- 4) Nothing in this rule shall be construed to limit the authority of the Director or commission to take appropriate action, under sections 643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding rule.
- 5) Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported.

10 CSR 10-6.060 Construction Permits Required

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

10 CSR 10-6.065 Operating Permits

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

10 CSR 10-6.080 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 10-6.100 Alternate Emission Limits

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

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

- 1) The permittee shall submit full emissions report either electronically via MoEIS, which requires Form 1.0 signed by an authorized company representative, or on Emission Inventory Questionnaire (EIQ) paper forms on the frequency specified in this rule and in accordance with the requirements outlined in this rule. Alternate methods of reporting the emissions, such as spreadsheet file, can be submitted for approval by the Director.
- 2) The permittee may be required by the Director to file additional reports.

- 3) Public Availability of Emission Data and Process Information. Any information obtained pursuant to the rule(s) of the Missouri Air Conservation Commission that would not be entitled to confidential treatment under 10 CSR 10-6.210 shall be made available to any member of the public upon request.
- 4) The permittee shall submit a full EIQ for the 2011, 2014, 2017, and 2020 reporting years. In the interim years the installation may submit a Reduced Reporting Form; however, if the installation's emissions increase or decrease by more than five tons when compared to their last submitted full EIQ, the installation shall submit a full EIQ rather than a Reduced Reporting Form.
- 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 10-5.040 Use of Fuel in Hand-Fired Equipment Prohibited

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

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

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

10 CSR 10-6.165 Restriction of Emission of Odors

This requirement is not federally enforceable.

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

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

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

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

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

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

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

Title VI – 40 CFR Part 82 Protection of Stratospheric Ozone

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

- f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
- 3) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR Part 82, Subpart A, Production and Consumption Controls.
- 4) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.
- 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
 - b) Other testing, monitoring, or information gathering methods, if approved by the Director, that produce information comparable to that produced by any method listed above.

V. General Permit Requirements

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

10 CSR 10-6.065, §(5)(E)2 and §(6)(C)1.B Permit Duration

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

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

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

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

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

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

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

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

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

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

None.

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

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

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

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

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

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

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

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

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

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

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

This permit may be reopened for cause if:

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

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

This permit is accompanied by a statement setting forth the legal and factual basis for the 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.

STATEMENT OF BASIS

Voluntary Limitations

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

Permit Reference Documents

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

- 1) Intermediate Operating Permit Application, received June 11, 2009;
- 2) 2010 Emissions Inventory Questionnaire, received March 7, 2011 date;
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition;
- 4) City of St Louis Source Registration Permit SR03-025 issued November 25, 2003 for the installation of six diesel-fired emergency generators;
- 5) City of St Louis Source Registration Permit SR07-066 issued December 28, 2007 for the installation of one diesel-fired emergency generator; and
- 6) City of St Louis Source Registration Permit SR07-066 issued April 15, 2008 for the installation of one diesel-fired emergency generator.

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

None

Construction Permit Revisions

None

New Source Performance Standards (NSPS) Applicability

There are no NSPS standards that are currently applicable to this installation.

Maximum Achievable Control Technology (MACT) Applicability

40 CFR Part 63, Subpart ZZZZ, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*.

St. Louis University (SLU) is an actual university/higher education institution with two digit SIC code 82 (university) and NAICS Code 611310. Using the guidance document referenced below, the facility SIC Code/NAICS code is listed as "institutional":

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

The following definition in the guidance document defines SLU's emergency generators:

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

According to 40 CFR 63.6590(b)(3)(viii), institutional RICE is exempt from the RICE MACT regulations pursuant to 40 CFR Part 63, Subpart ZZZZ. Therefore, based on the updated applicability determination above; SLU is not subject to the RICE MACT regulations.

National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

40 CFR Part 61 Subpart M - *National Emission Standard for Asbestos*, §61.145(a), Standard for demolition and renovation, applies to the installation.

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

Other Regulatory Determinations

- 1) St. Louis City Ordinances Nos. 64749, 65108, 65488, 65442 and 65645
These ordinances were reviewed and considered at the time the application for this permit was submitted. Since that time, these ordinances have been repealed and replaced with St. Louis City Ordinance No. 68657. The only section of Ordinance 65645 that corresponds to a rescinded ordinance included in the State SIP and therefore federally enforceable is Section 16 - Open Burning Restrictions. This section of the new ordinance is the only section included in the operating permit at this time.
- 2) 10 CSR 10-6.260, Restriction of Emission of Sulfur Compounds
 - a) The Air Pollution Control Program has determined that fuel oils with a sulfur content of 0.5% or less by weight will not exceed the federally enforceable emission limits set forth in this regulation. The IC engines are small and the sulfur concentration in the fuel limitation is such that the Ambient Air Quality Standards in 10 CSR 10-6.260(4) will not be exceeded.
 - b) The installation operates natural gas-fired combustion units. Combustion equipment that uses exclusively pipeline grade natural gas as defined in 40 CFR 72.2 or liquefied petroleum gas as defined by American Society for Testing and Materials (ASTM), or any combination of these fuels is exempt from the requirements of this rule.
- 3) 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*
This regulation specifies in 10 CSR 10-6.220(1)(A) that this rule does not apply to internal combustion engines (ICEs). The remaining sources are source(s) such as natural gas-fired combustion units each with less than 10 MMBtu per hour and would not be expected to exceed the visible emission standard (20% or 40% opacity) specified in this regulation. Therefore, this rule was not cited in the applicable requirement section of the operating permit.
- 4) 10 CSR 10-6.400, *Restriction of Emission of Particulate Matter From Industrial Processes*
This regulation defines process weight to "exclude liquids and gases used solely as fuels and excluding air introduced for purposes of combustion" under 10 CSR 6.400(2)(A). For the combustion equipment that the installation operates, the throughput only consists of liquid and

gaseous fuel and combustion air. Therefore, there is no applicable throughput for the emergency generators and other combustion equipment.

- 5) The units listed in the "Emission Units Without Limitations" section in the front of this permit either have no unit specific applicable regulations associated with them or are considered insignificant activities.
 - a) The installation operates natural gas-fired combustion units (boilers, one emergency generator, miscellaneous space heaters, hot water heaters and furnaces) of varying sizes listed in Appendix A. All of these combustion units emit only combustion products, produce less than one hundred fifty (150) pounds per day of any air contaminant and each has a maximum rated capacity of less than ten (10) million British thermal units (Btus) per hour heat input by using exclusively natural gas. These sources are not subject to any specific rule except the Plant Wide Permit Condition PW001.
 - b) Five (5) chillers (located in the Monsanto and Arena buildings)
The Monsanto building chiller, rated 800 ton capacity with 1,600 pounds of 123 type refrigerant, the second chiller is 700 ton capacity with 1,600 pounds of 123 refrigerant. The arena building has three chillers with 615 pounds of 134 type refrigerant. The chillers are not subject to any specific rule except the core permit requirement of Title VI – 40 CFR Part 82 Protection of Stratospheric Ozone and must comply with this requirement.

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

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

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

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

Prepared by:

Berhanu A. Getahun
Environmental Engineer

Appendix A - Natural Gas Fired Combustion Units

Unit	Building	BTU in	BTU out	date installed
Boiler #1	Bio-Medical Engineering	1,805,000	1,500,000	1999
Boiler #2	Bio-Medical Engineering	175,000		1999
Boiler #3	Bio-Medical Engineering	175,000		1999
Boiler #4	Bio-Medical Engineering	175,000		1999
RTU #1	Bio-Medical Engineering	1,300,000		1999
RTU #2	Bio-Medical Engineering	800,000	648,000	1999
Hot water heater #1	Bio-Medical Engineering	75,000		1999
Hot water heater #2	Bio-Medical Engineering	75,100		1999
Boiler #1	McDonnell Douglas Hall	3,753,000		1996
Boiler #2	McDonnell Douglas Hall	3,753,000		1996
Boiler	O'Donnell Hall	2,310,000		removed
Boiler #1	O'Donnell Hall	1,745,000		2001
Boiler #2	O'Donnell Hall	1,745,000		2001
Furnace	Oliver Hall	100,000		1999
RTU #1	Oliver Hall	600,000	486,000	1999
RTU #2	Oliver Hall	800,000	640,000	1999
Boiler (Front House)	Manresa	290,000	231,000	city tag 2112, Dept of Public Safety tag 10646
Hot water heater	Manresa			40 gal
Hot water heater	Manresa	275,000		1996
Boiler	Manresa	HS 447 sq ft	inoperable	Dept of Public Safety tag 96045
Space heater	Manresa	50,000		1975
Furnace (LL)	Manresa	100,000		1992
Furnace #1(East Chapel)	Manresa	100,000		1992
Furnace #2(East Chapel)	Manresa	100,000		1992
Furnace #1(West Chapel)	Manresa	100,000		1992
Furnace #2(West Chapel)	Manresa	100,000		1992
RTU #1	Manresa	160,000	128,000	1992
RTU #2	Manresa	160,000	128,000	1992
RTU #3	Manresa	160,000	128,000	1992
RTU #4	Manresa	160,000	128,000	1992
RTU #5	Manresa	160,000	128,000	1992
RTU #6	Manresa	160,000	128,000	1992
RTU #7	Manresa	270,000	216,000	1992
RTU #8	Manresa	270,000	216,000	1992
Furnace	Spanish House	117,500	93,000	

Water Heater(Basement)	Spanish House	34,000		
Furnace(2nd Floor)	Spanish House	100,000	80,000	
Furnace	French	94,000	75,000	
Furnace	French	94,000	75,000	
Water Heater(Basement)	French	40,000		
Water Heater(Basement)	French	60,000		
Furnace	German House	190,000	152,000	
Water Heater(Basement)	German House	40,000		
Water Heater(Basement)	German House	40,000		
Boiler	Griesedieck	8,370,000		
Boiler	Griesedieck	1,548,000	920,000	Jan-06
Boiler	Griesedieck	1,548,000	920,000	Jan-06
Boiler	Griesedieck	1,500,000	1,435,000	Jan-07
Boiler	Griesedieck	1,500,000	1,435,000	Jan-07
Boiler	Griesedieck	3,220,000	2,680,000	2002
Boiler	DuBourg	4,025,000	3,300,000	1998
Boiler	DuBourg	4,025,000	3,300,000	1998
Boiler	DuBourg	4,025,000	3,300,000	1998
Boiler	DuBourg	4,025,000	3,300,000	1998
Boiler	DuBourg	4,025,000	3,300,000	1998
Boiler(East)	West Pine	5,485,000	4,370,000	
Boiler(West)	West Pine	5,485,000	4,370,000	2006
Water Heater(Basement)	Des Peres	65,000		2002
Boiler	Wolf	83,000		
Water Heater(Basement)	Wolf	34,000		
Boiler #1	DeMattias	6,275,000		
Boiler #2	DeMattias	6,275,000		
Water Heater	DeMattias	180,000	The are fourteen water heaters.	
Boiler	ARC	500,000	410,000	
RTU	ARC	90,000	72,900	There are three RTUs.
RTU	ARC	48,000	32,000	There are three RTUs.
Furnace	Bannister	500,000		There are three Furnaces.
Furnace(3rd Floor)	Bannister	500,000		
Water Heater(Basement)	Bannister	34,000		
Water Heater(Basement)	Bannister	199,000		
RTU	Hummanties	500,000	375,000	There are two RTUs.
Boiler	Hummanties	1,314,000		

Water Heater	Hummanties	40,000		
Boiler	Margurite	6,570,000		There are two Boilers.
Boiler	Margurite	1,200,000	972,000	
Water Heater	Norte Dame	40,000		
Boiler	Norte Dame	1,700,000	1,360,000	
Water Heater	Norte Dame	500,000		
Boiler	O'Brien	350,000		
Water Heater	O'Brien	40,000		Nov-07
Boiler	Xaiver Annex	3,630,000	3,000,000	There are two Boilers.
Water Heater	Xaiver	75,100		
Water Heater	Family Development	32,000		
Boiler	Family Development	575,000	466,000	2004
Boiler	McGannon	1,200,000	1,000,000	Sep-02
Water Heater	McGannon	120,000		Sep-02
Boiler	Fusz	4,180,000		There are two Boilers.
Boiler	Fusz	1,200,000		Sep-05
Boiler(10th Floor)	Reinert	1,800,000	1,440,000	
Boiler(10th Floor)	Reinert	1,800,000	1,440,000	
Boiler(2nd Floor)	Reinert	1,200,000	960,000	
DHW Boiler(10th Floor)	Reinert	840,000	684,600	1994
DHW Boiler(10th Floor)	Reinert	840,000	693,000	1994
DHW Water Heater(2nd Floor)	Reinert	305,000		1996
DHW Water Heater(2nd Floor)	Reinert	300,000		
Make Up Water Heater(2nd Floor)	Reinert	400,000	308,000	1996
Furnace Kitchen	Reinert	100,000		Dec-07
Boiler	Busch	3,170,000	2,600,000	Nov-95
Boiler	Busch	3,170,000	2,600,000	Nov-95
Boiler	Busch	3,170,000	2,600,000	Nov-95
Boiler (DHW)	Busch	630,000		Oct-07
RTU	Earhart	400,000	320,000	Jul-07
RTU #2	Earhart	120,000		
RTU #1	Earhart	240,000		
RTU	Earhart	400,000		Jul-07
RTU	Earhart	400,000		Jul-07
RTU	Earhart	400,000		Jul-07
RTU	Earhart	400,000		Jul-07
Furnace	Earhart	120,000		

Heater	Earhart	250,000		
Furnace	Earhart	115,000	92,000	Jul-07
Water Heater	Earhart	38,000		
Furnace	Earhart	175,000		
Boiler #1	SPS	695,000	580,000	2004
Boiler #2	SPS	695,000	580,000	2004
Water Heater	SPS	40,000		
Boiler	Fitzgerald	864,000		1964
Boiler	Fitzgerald	864,000		1964
Water Heater	Fitzgerald	50,000		1996
Rooftop	Fitzgerald	135,000	109,350	2001
Rooftop	Fitzgerald	135,000	109,350	2001
Rooftop	Fitzgerald	135,000	109,350	2001
Rooftop	Fitzgerald	120,000	97,200	2001
	Tegeler	1,740,000	1,425,000	1995
	Tegeler	1,740,000	1,425,000	1995
Boiler	Ritter	3,170,000	2,600,000	1995
Boiler	Ritter	3,170,000	2,600,000	1995
Boiler	Catier House	187,500	153,750	
Boiler	Catier House	150,000	123,000	
Water Heater	Catier House	53,000		
Water Heater	Catier House	75,000		2005
Furnace	Catier House	125,000		
Rooftop	Wuller	120,000		1990
Rooftop	Wuller	255,000	201,000	1990
Rooftop	Wuller	255,000	201,000	1990
Rooftop	Wuller	350,000	287,000	2005
Heater	Wuller	75,000	60,000	1990
Heater	Wuller	25,000	20,000	1990
Furnace(1st Floor)	Boileau	140,000		2006
Furnace(1st Floor)	Boileau	140,000		2006
Furnace(1st Floor)	Boileau	140,000		2006
Furnace(2nd Floor)	Boileau	80,000		2006
Furnace(2nd Floor)	Boileau	80,000		2006
Furnace(2nd Floor)	Boileau	80,000		2006
Furnace(2nd Floor)	Boileau	80,000		2006
RTU	Carrige House	150,000	120,000	2007

Water Heater	Carrige House	34,000		
RTU	Queen's Daughter	800,000	648,000	1998
Water Heater	Queen's Daughter	65,000		1998
Boiler	Morrissey(West)	1,155,000		1998
Boiler	Morrissey(West)	1,155,000		1998
Water Heater	Morrissey(West)	52,500		1998
RTU	Morrissey	120,000	94,800	1997
RTU	Morrissey	120,000	94,800	1997
Furnace	ROTC	152,000	122,000	1995
Furnace	ROTC	152,000	122,000	1995
Furnace	ROTC	152,000	122,000	1995
Heater	ROTC	75,000	60,000	1999
Water Heater	Marchetti Towers East	1,010,000	818,100	2003
Boiler	Marchetti Towers East	6,500,000		1965
Boiler	Marchetti Towers East	6,500,000		1965
Water Heater	Marchetti Towers West	1,010,000	818,100	1995
Boiler	Marchetti Towers West	6,500,000		1965
Boiler	Marchetti Towers West	6,500,000		1965
Water Heater	MidTown State Bldg.	76,000		2002
Water Heater	MidTown State Bldg.	76,000		2002
Boiler	MidTown State Bldg.		1,674,000	1981
Boiler	MidTown State Bldg.		1,674,000	1981
Water Heater	Monsanto	1,000,000		1996
Water Heater	Monsanto	1,000,000		1996
Water Heater	Monsanto	1,000,000		1996
Boiler	Monsanto		2,600,000	1996
Boiler	Monsanto		2,600,000	1996
Boiler	Monsanto		2,600,000	1996
Boiler	Monsanto		2,600,000	1996
Boiler	Monsanto		2,600,000	1996
Boiler	Monsanto		2,600,000	1996
Boiler	Monsanto		2,600,000	1996
Boiler	Monsanto		2,600,000	1996
Boiler	Monsanto		2,600,000	1996
Boiler	Monsanto		2,600,000	1996
RTU	Monsanto	200,000		1996
RTU	Monsanto	200,000		1996
Boiler	GreenHouse	299,000		1991

Water Heater	GreenHouse	52,500		1991
Water Heater	GreenHouse	175,000	140,000	1992
Boiler	Simon Rec.	4,184,000		1981
Boiler	Simon Rec.	4,184,000		1981
Furnace	Grand Forest(3411-A)	75,000		2004
Water Heater	Grand Forest	30,000		
Furnace	Grand Forest(3411-B)	75,000		2007
Water Heater	Grand Forest	30,000		
Furnace	Grand Forest(3411-C)	75,000		1998
Water Heater	Grand Forest	30,000		
Furnace	Grand Forest(3411-D)	75,000		2007
Water Heater	Grand Forest	40,000		
Furnace	Grand Forest(3413-A)	75,000		2007
Water Heater	Grand Forest	30,000		
Furnace	Grand Forest(3413-B)	75,000		2007
Water Heater	Grand Forest	30,000		
Furnace	Grand Forest(3413-C)	75,000		2007
Water Heater	Grand Forest	30,000		
Furnace	Grand Forest(3413-D)	75,000		2007
Water Heater	Grand Forest	40,000		
Furnace	Grand Forest(3415-A)	75,000		2007
Water Heater	Grand Forest	30,000		
Furnace	Grand Forest(3415-B)	75,000		2007
Water Heater	Grand Forest	30,000		
Furnace	Grand Forest(3415-C)	75,000		2004
Water Heater	Grand Forest	30,000		
Furnace	Grand Forest(3415-D)	75,000		2004
Water Heater	Grand Forest	40,000		
Furnace	Grand Forest(3417-A)	75,000		2007
Water Heater	Grand Forest	30,000		
Furnace	Grand Forest(3417-B)	75,000		2007
Water Heater	Grand Forest	30,000		
Furnace	Grand Forest(3417-C)	75,000		2006
Water Heater	Grand Forest	30,000		
Furnace	Grand Forest(3417-D)	75,000		2007
Water Heater	Grand Forest	40,000		
Furnace	Grand Forest(3419-A)	75,000		2004

Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3419-B)	75,000	2007
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3419-C)	75,000	2007
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3419-D)	75,000	1980
Water Heater	Grand Forest	40,000	
Furnace	Grand Forest(3421-A)	75,000	2004
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3421-B)	75,000	1986
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3421-C)	75,000	2007
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3421-D)	75,000	2007
Water Heater	Grand Forest	40,000	
Furnace	Grand Forest(3423-A)	75,000	2004
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3423-B)	75,000	2007
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3423-C)	75,000	2006
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3423-D)	75,000	2007
Water Heater	Grand Forest	40,000	
Furnace	Grand Forest(3414-A)	75,000	2007
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3414-B)	75,000	1978
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3414-C)	75,000	2007
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3414-D)	75,000	2007
Water Heater	Grand Forest	40,000	
Furnace	Grand Forest(3416-A)	75,000	2004
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3416-B)	75,000	2007
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3416-C)	75,000	2007
Water Heater	Grand Forest	30,000	

Furnace	Grand Forest(3416-D)	75,000	2007
Water Heater	Grand Forest	40,000	
Furnace	Grand Forest(3418-A)	75,000	2006
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3418-B)	75,000	1986
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3418-C)	75,000	2005
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3418-D)	75,000	1998
Water Heater	Grand Forest	40,000	
Furnace	Grand Forest(3420-A)	75,000	2007
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3420-B)	75,000	2007
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3420-C)	75,000	2007
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3420-D)	75,000	2005
Water Heater	Grand Forest	40,000	
Furnace	Grand Forest(3422-A)	75,000	2007
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3422-B)	75,000	2006
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3422-C)	75,000	2005
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3422-D)	75,000	2007
Water Heater	Grand Forest	40,000	
Furnace	Grand Forest(3424-A)	75,000	1994
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3424-B)	75,000	2007
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3424-C)	75,000	2007
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3424-D)	75,000	2007
Water Heater	Grand Forest	40,000	
Furnace	Grand Forest(3426-A)	46,000	2007
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3426-B)	75,000	1999

Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3426-C)	75,000	2005
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3426-D)	75,000	2007
Water Heater	Grand Forest	40,000	
Furnace	Grand Forest(3428-A)	75,000	2007
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3428-B)	75,000	2007
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3428-c)	75,000	2005
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3428-D)	75,000	1991
Water Heater	Grand Forest	40,000	
Furnace	Grand Forest(3430-A)	75,000	2005
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3430-B)	75,000	2007
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3430-C)	75,000	2007
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3430-D)	75,000	2005
Water Heater	Grand Forest	40,000	
Furnace	Grand Forest(3432-A)	75,000	2004
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3432-B)	75,000	2007
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3432-C)	75,000	2007
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3432-D)	75,000	2007
Water Heater	Grand Forest	40,000	
Furnace	Grand Forest(3434-A)	75,000	2007
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3434-B)	75,000	2005
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3434-C)	75,000	2007
Water Heater	Grand Forest	30,000	
Furnace	Grand Forest(3434-D)	75,000	2007
Water Heater	Grand Forest	40,000	

Furnace	Grand Forest(3436-A)	75,000		2007
Water Heater	Grand Forest	30,000		
Furnace	Grand Forest(3436-B)	75,000		2003
Water Heater	Grand Forest	30,000		
Furnace	Grand Forest(3436-C)	75,000		2003
Water Heater	Grand Forest	30,000		
Furnace	Grand Forest(3436-D)	75,000		2007
Water Heater	Grand Forest	40,000		
Furnace	Grand Forest(3438-A)	75,000		2004
Water Heater	Grand Forest	30,000		
Furnace	Grand Forest(3438-B)	75,000		2004
Water Heater	Grand Forest	30,000		
Furnace	Grand Forest(3438-C)	75,000		2007
Water Heater	Grand Forest	30,000		
Furnace	Grand Forest(3438-D)	75,000		2005
Water Heater	Grand Forest	40,000		
Furnace	Grand Forest(3440-A)	80,000		1986
Water Heater	Grand Forest	30,000		
Furnace	Grand Forest(3440-B)	75,000		2007
Water Heater	Grand Forest	30,000		
Furnace	Grand Forest(3440-C)	75,000		2007
Water Heater	Grand Forest	30,000		
Furnace	Grand Forest(3440-D)	75,000		2005
Water Heater	Grand Forest	40,000		
Boiler #1	Cook(Davis-Shaughnessy)	1,150,000	1,385,000	1999
Boiler #2	Cook(Davis-Shaughnessy)	1,150,000	1,385,000	1999
Boiler	Davis-Shaughnessy	7,840,000	7,000,000	1958
Boiler	Davis-Shaughnessy	4,025,000	3,300,000	
Water Heater	Davis-Shaughnessy	398,000		

Attachment A

Boiler	3208 Olive Blvd	550,000		
Water Heater	3208 Olive Blvd	50,000		
Boiler(west)	Bauman Eberhardt(West Pine)	6,570,000		Removed
Boiler	FE-13-2	75,000		?????
Boiler	McGannon	2,100,000		?????
Boiler	Griesedleck	8,370,000		Removed

Boiler	Busch Student Center	8,034,246		?????
Boiler	Hummanities	1,860,000		?????
Boiler	Marguerite	4,180,000		?????
Boiler	Cartier	187,000		?????
Boiler	Ritter	4,308,219		?????
Boiler	Tegeler	2,445,205		?????
Boiler	Wolf	105,000		?????
Generator	Macelwane	270,000		
RTU	Earhardt	5,653,000		?????
Furnace	Hana	616,000		Removed
Furnace	SPS	540,000		
Water Heater	Hummanities	75,100		?????
Water Heater	Marchetti Towers-East	961,700		
Water Heater	Marguerite	528,000		
RTU	McGannon	250,000		
RTU	Oliver	731,000		?????
Water Heater	Spanish	370,000		?????

CERTIFIED MAIL: 70093410000193528361
RETURN RECEIPT REQUESTED

Ms. Kathleen Brady
St. Louis University
3500 Lindell Boulevard
St. Louis, MO 63103

Re: St. Louis University, 510-2711
Permit Number: **OP2012-016**

Dear Ms. Brady:

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

You may appeal this permit to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.078.16 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within thirty (30) days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If you send your appeal by registered or certified mail, we will deem it filed on the date you mailed it. If you send your appeal by a method other than registered or certified mail, we will deem it filed on the date the AHC receives it.

If you have any questions or need additional information regarding this permit, please do not hesitate to contact Berhanu Getahun at the St. Louis Regional Office, 7545 S. Lindbergh, Suite 210, St. Louis, MO 63125, or by telephone at (314) 416-2960. You may also contact me with the Department's Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102, or by telephone at (573) 751-4817. Thank you for your time and attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

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

MJS/bgk

Enclosures

c: St. Louis Regional Office
PAMS File: 2009-05-009

MEMORANDUM

DATE: April 6, 2012

TO: 2009-05-009, St. Louis University

FROM: Berhanu A. Getahun, Environmental Engineer

SUBJECT: Response to Public Comments

The draft Intermediate Operating Permit for St. Louis University was public noticed on the Department's web page at: <http://www.dnr.mo.gov/env/apcp/PermitPublicNotices.htm> on March 1, 2012 for a 30-day comment period. The Air Pollution Control Program did not receive any comments from either the public or the applicant during the 30-day comment period.

BAG/kjc