

STATE OF MISSOURI



DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT TO CONSTRUCT

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

Permit Number: **122013-004** Project Number: 2013-10-057
Installation Number: 071-0234

Parent Company: CERT Operations V, LLC

Parent Company Address: 4599 East Lake Boulevard, Birmingham, AL 35217

Installation Name: CERT Operations V, LLC

Installation Address: 226 Labadie Power Plant Road, Labadie, MO 63055

Location Information: Franklin County, S18, T44N, R02E

Application for Authority to Construct was made for:

The addition of two refined coal additive systems for Boilers 1, 2, 3 and 4. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

Standard Conditions (on reverse) are applicable to this permit.

Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

DEC 13 2013

EFFECTIVE DATE

Kyra L Moore

DIRECTOR OR DESIGNEE
DEPARTMENT OF NATURAL RESOURCES

STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Department's Air Pollution Control Program of the anticipated date of start up of these air contaminant sources. The information must be made available within 30 days of actual startup. Also, you must notify the Department of Natural Resources Regional office responsible for the area within which you are located within 15 days after the actual start up of these air contaminant sources.

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant sources(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.

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SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."

CERT Operations V, LLC
Franklin County, S18, T44N, R02E

1. Control Device Requirement - Integrated Filter Systems
 - A. CERT Operations V, LLC shall control emissions from each of the three Receiving Silos and each of the two Active Silos (EU-02, EU-07) using integrated filter systems as specified in the permit application.
 - B. The filter systems shall be operated and maintained in accordance with the manufacturer's specifications.
 - C. Replacement filters shall be kept on hand at all times. The filters shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).
 - D. CERT Operations V, LLC shall maintain a copy of the integrated filter systems' manufacturer's performance warranty on site.
 - E. CERT Operations V, LLC shall maintain an operating and maintenance log for the filter systems which shall include the following:
 - 1) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
 - 2) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
2. Record Keeping and Reporting Requirements

CERT Operations V, LLC shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (5) REVIEW

Project Number: 2013-10-057
Installation ID Number: 071-0234
Permit Number:

CERT Operations V, LLC
226 Labadie Power Plant Road
Labadie, MO 63055

Complete: October 23, 2013

Parent Company:
CERT Operations V, LLC
4599 East Lake Boulevard
Birmingham, AL 35217

Franklin County, S18, T44N, R02E

REVIEW SUMMARY

- CERT Operations V, LLC has applied for authority to construct two refined coal facilities for Unit 1, 2, 3 and 4.
- HAP emissions are not expected from the proposed equipment.
- 40 CFR 60 Subpart Y, *Standards of Performance for Coal Preparation Plants and Processing Plants*, does not apply to the project equipment because they do not meet the definition of coal preparation and processing plant. Coal will not be processed by breaking, crushing, screening, wet or dry cleaning, or thermal drying. No other NSPS subparts apply.
- None of the NESHAPs under 40 CFR 61 apply to this installation.
- None of the currently promulgated MACT regulations under 40 CFR 60 apply to the project equipment.
- The receiving and active silos are equipped with integrated filter systems to hold S-Sorb materials in the silos as pneumatic air and displacement air are vented during loading activities. The filter systems operate passively with no exhaust fans. Since the silos could not operate without the presence of the filter systems to hold in material, the filters are considered inherent components of the silos. Special Conditions are included to ensure proper maintenance of the silos' filter systems.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of PM₁₀ exceed the insignificant emission exemption level in 10 CSR 10-6.061(3)(A)3.A. Potential emissions of all pollutants are below respective de minimis levels.

- This installation is located in Franklin County, a nonattainment area for the 8-hour ozone standard and the PM_{2.5} standard and an attainment area for all other criteria pollutants.
- This installation is on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2. The installation is classified as item number 21. Fossil-fuel boilers (or combination thereof) totaling more than 250 million British thermal units per hour heat input. The installation's major source level is 100 tons per year and fugitive emissions are counted toward major source applicability.
- Ambient air quality modeling was not performed since potential emissions of the application are below de minimis levels.
- Emissions testing is not required for the new equipment.
- Submittal of an application for a Part 70 Operating Permit is required for this installation within 1 year of equipment startup.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

CERT Operations V, LLC (CERT) is serving as a third party vendor to Ameren Missouri to apply coal additives S-Sorb and Mersorb to the existing coal supply for Units 1 thru 4 at the Ameren Missouri Labadie Energy Center (Ameren-Labadie). Ameren-Labadie located in Franklin County is a power plant that converts the energy from coal and other fuels to produce steam that powers electrical generating equipment. There are four tangentially fired boilers on site, Units 1 through 4. The installation has coal unloading, conveying, stockpiles and pulverizing equipment to supply the coal fired boilers. The facility is a major source of CO, GHG, NO_x, PM₁₀, PM_{2.5}, SO_x, VOC, HAP, Hydrogen Flouride (7664-39-3), and Hydrogen Chloride (7647-01-0).

Ameren-Labadie received a modification to their Title V operating permit, OP2011-020B in July of 2013. The operating permit expires May 8, 2016. Since the CERT facility is considered one installation with Ameren-Labadie (Installation ID: 099-0016) for permitting purposes, CERT is considered a major source for construction permitting and will need to obtain a Part 70 Operating Permit.

No permits have been issued to CERT Operations V, LLC from the Air Pollution Control Program. The following New Source Review permits have been issued to Ameren-Labadie from the Air Pollution Control Program.

Table 1: Construction Permit History

Permit Number	Description
0792-006	Addition of a dry vacuum and pressure fly ash handling system
0992-016	Addition of an SO ₃ injection system
0992-016A	Amendment to Permit No. 0992-016
122009-009	Temporary permit for an experimental flue gas conditioning project on a single coal-fired unit
0992-016B	Amendment to Permit No. 0992-016A
112012-011	Temporary permit to test three different technologies on Boiler Unit 3: a coal additive, proprietary liquid mercury oxidation additive (DEN); injection of powdered activated carbon (PAC) into the flue gas; and an alternative liquid flue gas conditioning (LFGC) agent, ADA's proprietary ATI-2001
092013-006	Temporary permit for two-week test of two coal additives, M-Sorb and S-Sorb
092013-015	Temporary permit for powdered activated carbon (PAC) injection testing on Boiler 3

BACKGROUND

Ameren Missouri has contracted with a third party vendor CERT Operations V, LLC (CERT) to apply coal additives S-Sorb and Mersorb to the existing coal supply for Units 1 thru 4 at the Labadie Energy Center (Ameren-Labadie) for the main purpose of controlling mercury emissions from the boilers. Ameren Missouri applied for and received a temporary permit (Permit No. 092013-006) for its Labadie facility on September 10, 2013 to evaluate the S-Sorb and MerSorb coal additives.

Ameren Missouri had previously received a temporary permit (Construction Permit No. 102011-013) of the CERT additives at Ameren's Rush Island Energy Center (Ameren-Rush Island) and then went on to use the additives on a more permanent basis in Project No. 2012-05-113. In conjunction with the temporary permit for Rush Island, Ameren Missouri evaluated the level of emission reductions at Rush Island as well as impacts on plant operations and emission of other pollutants by conducting testing at the University of North Dakotas' Energy & Environmental Research Center (EERC) combustion test facility using the coal currently burned at Rush Island. Based on this testing, while using the refined coal, NO_x emissions were reduced by 21 percent (%), particulate matter (PM) emissions by 5% and mercury (Hg) emission by 53% from baseline conditions. Considering that the coal burned and the boiler design at Labadie and Rush Island are similar; Ameren expects the results at Labadie to be similar to Rush Island. Additional testing specific to Labadie will be conducted at EERC to substantiate the level of emission reduction required to qualify under the IRS tax code. This testing will be done in December 2013 using the coal currently burned at the Labadie facility.

PROJECT DESCRIPTION

On September 25, 2013, CERT submitted an applicability determination for the installation of a refined fuel facility at Labadie. CERT plans to install and operate two refined fuel facilities on the Ameren - Labadie grounds. The CERT facilities will receive, store and convey two sorbent materials onto Labadie's coal conveyor systems. The sorbents will then be mixed with the coal as the fuel is transported through the fuel conveying systems. One system will deliver the refined coal to Labadie's Unit 1 and 2 boilers and the other system to Labadie's Unit 3 and 4 boilers.

The two sorbents that will be handled by the CERT facility are referred to as MerSorb and S-Sorb. The first sorbent, termed MerSorb, is a halide salt solution that will be delivered to the CERT facility via trucks and be stored in two 11,100 gallon tanks. Metering pumps will be used to deliver the liquid to spray nozzles that will be situated over Ameren's 6A and 6B coal conveyors. The nozzles will spray the liquid sorbent onto 4 coal streams as the coal passes under the spray nozzles.

The second sorbent, termed S-Sorb, is a powder containing a proprietary mixture of calcium carbonate, calcium oxide, calcium sulfate, aluminum oxide and iron oxide. The S-Sorb material will be delivered to the facility in trucks. Each delivery truck will be equipped with a pneumatic blower system that has a maximum design flowrate of 650 actual cubic feet per minute (acfm) or less. The CERT facility that will deliver sorbent to Units 1 and 2 will convey the material from trucks into one 195-ton vertical storage silo termed the Receiving Silo. The CERT facility that will deliver sorbent to Units 3 and 4 will convey the material from trucks into one of two 150-ton Receiving Silos. Only one receiving silo can be operated at a time. Each delivery truck will hold approximately 25 tons of material and the loading cycle is anticipated to last 30-45 minutes.

The Receiving Silos will provide reserve holding capacity for the facilities. As needed, the material in these silos will be pneumatically conveyed to 30-ton silos (one for each facility), termed Active Silos, via 650 acfm blower systems. The Active Silos will be situated adjacent to Ameren's 6A and 6B coal conveyors. Rotary vane feeders/air locks, located on the bottom of the Active Silos, will be used to discharge the material onto a total of four small enclosed conveyors. The conveyors will transfer the sorbent material to the chutes that will pass through the covers of Ameren's 6A and 6B coal conveyors, where it will drop onto the coal streams passing under the chutes. The area around the discharge conveyor transfer points will be shrouded to minimize the potential for fugitive dust emissions. The emissions are further suppressed via the spray application of the liquid MerSorb sorbent immediately downstream of the S-Sorb transfer point.

With regards to PM emissions released from the vents, both the Receiving Silos and the Active Silos come equipped with an integrated filter systems to hold the S-Sorb material in the silos as the pneumatic air stream and displacement air are vented during loading events. Each filter system consists of seven cartridge elements operating in parallel with a non-woven pleated spun-bonded polyester filtering medium. A series of pulse jets located above the filter operate on a timed interval to discharge captured material off the filters and back into the silos. The silo filter systems operate passively as there

are no exhaust fans associated with them. Since the silos could not functionally operate without the presence of the filter systems to hold in material while the silos are being loaded, the filters are considered an inherent component of the silos and control provided by the filters is taken into account when calculating the potential emissions of the units. Both the Receiving and Active Silos will come equipped with air nozzles located on the bottom of the silo cones that will be able to periodically or continuously inject air at the bottom of the silos to help fluidize the sorbent in order to improve flow into the discharge valves. They are anticipated to operate for only a few minutes each day to loosen material.

The application rate for S-Sorb is 0.5% by weight of the coal treated (10 pounds per ton of coal). On an annual basis, no more than 12,518,650 tons of coal per year is expected to be consumed at Labadie; thus, this corresponds to a maximum sorbent usage of 62,590 tons of S-Sorb per year. The application rate for Mersorb is 0.02% by weight of the coal treated. This corresponds to a maximum usage of 2504 tons of MerSorb per year or 652,640 gallons per year.

Table 2: Project Emission Units

Emission Unit	Emission Point	Description	MHDR	MHDR Units	Maximum Annual Rate	Units
EU-01	EP-01	S-Sorb Receiving Silo 1	50	tph	31,295	tpy
EU-02	EP-02	S-Sorb Active Silo 1	50		31,295	
EU-03	EP-03	S-Sorb Transfer Point 1	3.57		31,295	
EU-04	EP-04	S-Sorb Transfer Point 3 onto Coal Conveyor 6A	3.57		31,295	
EU-05	EP-05	S-Sorb Receiving Silo 2	50		31,295	
EU-06	EP-06	S-Sorb Receiving Silo 3	50		31,295	
EU-07	EP-07	S-Sorb Active Silo 2	50		31,295	
EU-08	EP-08	S-Sorb Transfer Point 2	3.57		31,295	
EU-09	EP-09	S-Sorb Transfer Point 4 onto Coal Conveyor 6B	3.57		31,295	
EU-10	EP-10	Paved Receiving Haul Road	2.34	VMT/hr	2033	VMT/yr
EU-11	EP-11	Unpaved Receiving Haul Road	0.51		442	

APPLICABILITY OF PSD REVIEW

In separate correspondence, on October 4, 2013, Ameren Missouri submitted an analysis of potential impacts on emission from the boilers (Units 1, 2, 3 and 4) due to the use of the refined coal. With regards to the boilers operation, Ameren Missouri believes that the use of the S-Sorb and MerSorb additives to the coal will result in a reduction of PM and Hg emissions. However, Ameren does not believe that the full 21% NO_x reduction from current baseline NO_x levels will be achieved. Therefore, the emissions analysis that Ameren Missouri has completed assumes that the NO_x levels remain unchanged from baseline and represents normal operation of the boilers. Emissions of carbon monoxide (CO), carbon dioxide (CO₂), and sulfur dioxide (SO₂) are expected by Ameren Missouri to remain unchanged from typical boiler operation.

Since the boilers (Units 1, 2, 3 and 4) are major emitting units by themselves, any

physical modification or change in the method of operation of the units could be subject to PSD review. The step-by-step approach to determine if a project is subject to PSD review is outlined in 40 CFR 52.21. The first step is to determine if the proposed change is a physical change in or change in the method of operation that will result in a significant emissions increase. Since the use of fuel additives could be considered a change in the method of operation, the project may be considered a major modification.

The second step is to determine if the proposed change is a major modification as outlined in 40 CFR 52.21(a)(2)(iv)(f) *Hybrid test for projects that involve multiple types of emissions units*. This applicability test compares the future actual emissions to the baseline actual emissions to determine if PSD review is required.

In the correspondence received October 4, 2013, Ameren Missouri stated that they had performed a reasonable possibility analysis in accordance with 40 CFR 52.21(r)(6) and determined that post-change emissions from the boilers will not increase. Ameren described the analysis as a comparison between past actual emissions without the use of CERT materials and future projected actual emissions with the use of CERT materials. The results of their analysis indicate that there will not be a significant increase in the emission of any regulated pollutant from the boilers due to the use of CERT refined fuel. According to Ameren Missouri, the analysis accounted for emissions the boilers were capable of accommodating during the baseline period and also accounted for increases in utilization due to demand growth. Ameren also indicated that the use of the CERT refined fuel will not cause any increase in utilization over that which is currently achievable. As a result of the analysis, Ameren concluded that the use of the CERT materials does not require PSD review.

Although Ameren has stated that PSD review is not required for this project, Ameren has not submitted the applicability analysis for review or approval by the Air Pollution Control Program. Therefore, the Air Pollution Control Program has not made a determination regarding PSD applicability, and nothing in this permit should be construed as concurrence with the PSD applicability analysis performed by Ameren.

The recordkeeping and reporting requirements are outlined in 40 CFR 52.21 (r)(6). Ameren-Labadie has indicated that the project does not exceed 50% of the significant emission rates. In accordance with 40 CFR 52.21 (r)(6)(vi)(b), Ameren-Labadie shall keep records on hand documenting this pre-change review, but no additional post-change recordkeeping and reporting requirements are required. Ameren-Labadie shall make these records available to any Missouri Department of Natural Resources' personnel upon request.

EMISSIONS/CONTROLS EVALUATION

Neither sorbent material to be stored and handled at the new CERT facility contains any volatile organic compounds (VOCs) or hazardous air pollutants (HAPs). The only pollutant of concern from the material handling of the sorbents is particulate matter (PM). PM emissions associated with the fuel additive facility are expected from the following activities: 1) through the vents of the S-Sorb Receiving and Active Silos, 2)

from the transfer of the S-Sorb material onto the Labadie's coal conveyors and 3) from roadway fugitives due to the delivery of S-Sorb and MerSorb.

The potential emissions of PM from the silos are based on the maximum amount of air displaced through the vent during pneumatic loading of the S-Sorb material and the air from the fluidizing air nozzles. CERT calculates the combined maximum air flow through each Receiving Silo vent at any one time to be 724 actual cubic feet per minute (acfm). Based on the manufacturer's data, each filter system is designed to achieve an exit loading of 0.01 grains per standard cubic feet (gr/scf). This results in a maximum hourly emission rate of 0.062 lb/hr of PM from each Receiving Silo. On an annual basis using 62,590 tons of S-Sorb additive as the throughput for all of the receiving silos combined, annual emissions are estimated at 0.039 tons of PM per year. Based on similar methodology, the maximum air flow through each Active Silo was calculated at 724 acfm. The maximum hourly emission rate is equal to 0.062 lb/hr of PM through each Active Silo. On an annual basis, total emissions are estimated at 0.039 tons per year. All particulate escaping the vents are assumed to be PM₁₀; therefore, PM is assumed to equal PM₁₀. PM_{2.5} emissions are assumed to be 25% of the PM.

For transfer of the S-Sorb material to the coal conveyors, rotary vane feeders / air locks located on the bottom of the Active Silos discharges the S-Sorb onto four small transfer conveyors. These transfer conveyors will deliver the S-Sorb to the two main coal conveyors (6A and 6B). Thus, there are four transfer points associated with the Active Silo. The area around the discharge conveyor transfer points will be shrouded to minimize the potential for fugitive dust emissions. The PM, PM₁₀ and PM_{2.5} potential emissions of these transfer points are based on the drop point equation found in AP-42, Section 13.2.4, *Aggregate Handling and Storage Piles* (November 2006). A wind speed of 1 mile per hour is used due to all transfer points being enclosed. The minimum moisture content of the S-Sorb is assumed to equal 0.25%. Maximum total hourly emissions associated with transfer are 0.073 lb of PM₁₀/hr. Annual potential emissions assuming 62,590 tons of S-Sorb throughput are 0.16 tpy of PM₁₀. Note PM and PM_{2.5} emissions totals can be found in the accompanying calculation sheets.

As a side note, the PM emissions are further suppressed via the spray application of the liquid MerSorb sorbent immediately downstream of the S-Sorb transfer point. Any possible control from application of the spray were not included in potential emission totals.

Fugitive PM, PM₁₀ and PM_{2.5} potential emissions caused due to sorbent delivery trucks traveling on paved and unpaved roads are estimated using methodologies of AP-42 Section 13.2.1 *Paved Roads* (01/2011) and Section 13.2.2 *Unpaved Roads* (11/2006), respectively. For S-Sorb and MerSorb delivery, each truck is expected to handle 25 tons per load traveling 0.59 miles round-trip for Units 1 & 2 and 0.36 miles round-trip for Units 3 & 4 with 92% of the first haul road being paved and 34% of the second being paved. Haul road emissions were based on the annual maximum S-Sorb usage of 62,590 tons and annual maximum MerSorb usage of 352,640 gal. This resulted in 202 trips for MerSorb trucks and 5007 trips for S-Sorb trucks each year for both additive feed systems. Total haul roads PM₁₀ potential emissions were equal to 1.00 lb/hr or 0.44 tons per year. Note PM and PM_{2.5} emissions totals can be found in the accompanying calculation sheets.

The following table provides an emissions summary for this project. Existing potential emissions were taken from Ameren-Labadies current operating permit. Existing actual emissions were taken from the installation's 2012 EIQ. Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year).

Table 2: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (2012 EIQ)	Potential Emissions of the Application	New Installation Conditioned Potential
PM	25.0	Major	N/D	1.85	N/A
PM ₁₀	15.0	Major	2,162	0.68	N/A
PM _{2.5}	10.0	Major	1,391	0.09	N/A
SO _x	40.0	Major	42,237	N/A	N/A
NO _x	40.0	Major	7,305	N/A	N/A
VOC	40.0	Major	261	N/A	N/A
CO	100.0	Major	2,179	N/A	N/A
GHG (CO ₂ e)	75,000 / 100,000	Major	N/D	N/A	N/A
GHG (mass)	0.0 / 100.0 / 250.0	Major	N/D	N/A	N/A
HAPs	10.0/25.0	Major	194.63	N/A	N/A

N/A = Not Applicable; N/D = Not Determined

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Unconditioned potential emissions of PM₁₀ exceed the insignificant emission exemption level in 10 CSR 10-6.061(3)(A)3.A. Conditioned potential emissions of all pollutants are below respective de minimis levels.

APPLICABLE REQUIREMENTS

CERT Operations V, LLC shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved. For a complete list of applicable requirements for your installation, please consult your operating permit.

GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
- *Operating Permits*, 10 CSR 10-6.065
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170

- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220
- *Restriction of Emission of Odors*, 10 CSR 10-6.165

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

Susan Heckenkamp
New Source Review Unit

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated October 23, 2013, received October 23, 2013, designating CERT Operations V, LLC as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.

APPENDIX A

Abbreviations and Acronyms

%	percent	m/s	meters per second
°F	degrees Fahrenheit	Mgal	1,000 gallons
acfm	actual cubic feet per minute	MW	megawatt
BACT	Best Available Control Technology	MHDR	maximum hourly design rate
BMPs	Best Management Practices	MMBtu	Million British thermal units
Btu	British thermal unit	MMCF	million cubic feet
CAM	Compliance Assurance Monitoring	MSDS	Material Safety Data Sheet
CAS	Chemical Abstracts Service	NAAQS ...	National Ambient Air Quality Standards
CEMS	Continuous Emission Monitor System	NESHAPs	
CFR	Code of Federal Regulations	National Emissions Standards for Hazardous Air Pollutants
CO	carbon monoxide	NO_x	nitrogen oxides
CO₂	carbon dioxide	NSPS	New Source Performance Standards
CO_{2e}	carbon dioxide equivalent	NSR	New Source Review
COMS	Continuous Opacity Monitoring System	PM	particulate matter
CSR	Code of State Regulations	PM_{2.5}	particulate matter less than 2.5 microns in aerodynamic diameter
dscf	dry standard cubic feet	PM₁₀	particulate matter less than 10 microns in aerodynamic diameter
EQ	Emission Inventory Questionnaire	ppm	parts per million
EP	Emission Point	PSD	Prevention of Significant Deterioration
EPA	Environmental Protection Agency	PTE	potential to emit
EU	Emission Unit	RACT	Reasonable Available Control Technology
fps	feet per second	RAL	Risk Assessment Level
ft	feet	SCC	Source Classification Code
GACT	Generally Available Control Technology	scfm	standard cubic feet per minute
GHG	Greenhouse Gas	SIC	Standard Industrial Classification
gpm	gallons per minute	SIP	State Implementation Plan
gr	grains	SMAL	Screening Model Action Levels
GWP	Global Warming Potential	SO_x	sulfur oxides
HAP	Hazardous Air Pollutant	SO₂	sulfur dioxide
hr	hour	tph	tons per hour
hp	horsepower	tpy	tons per year
lb	pound	VMT	vehicle miles traveled
lbs/hr	pounds per hour	VOC	Volatile Organic Compound
MACT	Maximum Achievable Control Technology		
µg/m³	micrograms per cubic meter		

Mr. Jeff Green
Vice President Operations
CERT Operations V, LLC
4599 East Lake Boulevard
Birmingham, AL 35217

RE: New Source Review Permit - Project Number: 2013-10-057

Dear Mr. Green:

Enclosed with this letter is your permit to construct. Please study it carefully and refer to Appendix A for a list of common abbreviations and acronyms used in the permit. Also, note the special conditions on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files. Operation in accordance with these conditions, your new source review permit application and with your operating permit is necessary for continued compliance. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

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

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Susan Heckenkamp
New Source Review Unit Chief

SH:shl

Enclosures

c: St. Louis Regional Office
PAMS File: 2013-10-057

Permit Number: