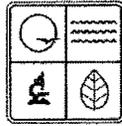


STATE OF MISSOURI

PERMIT BOOK

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:

06 2 0 1 5 - 0 1 1

Project Number: 2015-05-018

Installation Number: 229-0041

Parent Company: Black Oak Power Producers, LLC

Parent Company Address: 10600 Nations Ford Road Suite 150, Charlotte, NC 28273

Installation Name: Black Oak Power Producers, LLC

Installation Address: 5054 Highway HH, Hartville, MO 65667

Location Information: Wright County, S3, T29N, R14W

Application for Authority to Construct was made for:

Increasing CO emission limit from 3.0 g/bhp-hr to 4.0 g/bhp-hr. This review was conducted in accordance with Section (6), 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.

JUN 22 2015

EFFECTIVE DATE



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.

Page No.	3
Permit No.	
Project No.	2015-05-018

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.”

Black Oak Power Producers, LLC
 Wright County, S3, T29N, R14W

1. **Superseding Condition**
 The special conditions of this permit supersedes all special conditions in the previous permit (No. 062014-009) issued to the installation by the Missouri Air Pollution Control Program.
2. **Performance Testing Requirements**
 - A. Black Oak Power Producers, LLC (BOPP) shall perform initial and subsequent performance tests on both engines (EU-01 and EU-02) to ensure that the NO_x, VOC and CO emissions do not exceed the levels given below in Table 1.

Table 1: NO_x, VOC, and CO Emission Limits

Pollutant	Limit (in g/bhp-hr)
NO _x	0.75
VOC	1.0
CO	4.0

- 1) BOPP shall perform stack tests to ensure that the emission rates in Table 1 are not exceeded.
 - a) Each set of tests, which shall include three (3) 1-hour runs, shall be conducted for each engine with the emission units operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate given below in Table 2.
 - b) If it is impractical to test at the permitted capacity, the tests can be performed at less than the maximum permitted capacity, but subsequent engine operation shall be limited to 110 percent of the tested rate until new tests are performed. Once the engine is so limited, operation at higher capacities is allowed for no more than 15 total days for the purpose of additional compliance testing to regain the authority to

Page No.	4
Permit No.	
Project No.	2015-05-018

SPECIAL CONDITIONS:

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

operate at the permitted capacity.

Table 2: Maximum Operation Rate (Same for Both Engines)

Engine Power (in bhp)	Generator Power (in eKW)	LFG Firing Rate (scfm)
2,741	1966	607

- 2) The tests shall be completed in accordance with the procedures outlined in Special Condition 2 and 40 CFR 60 Subpart JJJJ, *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*.
 - B. The initial tests shall be performed within 60 days after achieving the maximum production rate of the engines, but not later than 180 days after permit issuance, or within a timeframe agreed to by the Compliance/Enforcement Unit of the Air Pollution Control Program. The subsequent tests shall be performed for each engine after every 8,760 hours of operation or every three years from the date of the previous test, whichever comes first, thereafter.
 - C. A completed proposed test plan form (enclosed) shall be submitted to the Air Pollution Control Program 30 days prior to the proposed test date so that the Air Pollution Control Program may arrange a pretest meeting, if necessary, and assure that the test date is acceptable for an observer to be present. The proposed test plan may serve the purpose of notification and shall be approved by the Director prior to conducting the required performance tests.
 - D. Two Copies of a written report of the performance test results shall be submitted to the Air Pollution Control Program within 60 days after completion of the tests. The report must include legible copies of the raw data sheet, analytical instrument laboratory data, and complete sample calculations from the required EPA method for at least one sample run.
 - E. The test report is to fully account for all operational and emission parameters addressed in the permit conditions as well as in any other applicable state or federal rules or regulations.
 - F. If the performance tests indicate that the emissions of NO_x, VOC or CO are greater than the limit in Special Condition 2.A., BOPP shall evaluate

Page No.	5
Permit No.	
Project No.	2015-05-018

SPECIAL CONDITIONS:

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

what effects the differences would have on the permit applicability of this project. BOPP shall submit the results of any such evaluation to the Air Pollution Control Program within 30 days of submitting the report required in Special Condition 2.D. of this permit.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (6) REVIEW

Project Number: 2015-05-018
Installation ID Number: 229-0041
Permit Number:

Black Oak Power Producers, LLC
5054 Highway HH
Hartville, MO 65667

Complete: May 5, 2015

Parent Company:
Black Oak Power Producers, LLC
10600 Nations Ford road Suite 150
Charlotte, NC 28273

Wright County, S3, T29N, R14W

REVIEW SUMMARY

- BOPP has applied to increase the emissions limit for CO from 3.0 g/bhp-hr to 4.0 g/bhp-hr.
- HAP emissions are expected from the incomplete combustion of LFG. Additionally, HAP emissions are generated by the landfill and reduced by varying efficiencies by the engines.
- 40 CFR 60 Subpart JJJJ, *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*, of the NSPS applies to the LFG engines.
- None of the NESHAPs apply to this installation.
- 40 CFR 63 Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, of the MACT applies to the LFG engines.
- The engines reduce VOC, NMOC, HAPs, and CH₄ collected from the landfill, but generate PM_{2.5}, PM₁₀, PM, SO_x, NO_x, VOC, CO, CO₂, HAPs and other products of combustion.
- This review was conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of CO are above the de minimis level but below the major source level.
- This installation is located in Wright County, an attainment area for all criteria pollutants.
- This installation is not on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2. The installation's major source level is 250 tons per year and fugitive emissions are not counted toward major source applicability.

- Ambient air quality modeling was performed to determine the ambient impact of CO.
- Emissions testing is required for the equipment.
- The Air Pollution Control Program allows different operations within a single source to obtain separate operating permits, as long as the operating permits are the same type (e.g. basic, intermediate, or Part 70). Therefore, the Air Pollution Control Program will issue a separate Part 70 Operating Permit, apart from the Part 70 Operating Permit already issued to the Black Oak Landfill (OP2013-018), to the LFG generators, if requested by Black Oak Power Producers, LLC. The Part 70 Operating Permit application must be submitted within one year of equipment startup.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

The Waste Corporation of Missouri, Inc. (WCM) owns and operates the Black Oak Landfill in Hartville. A separate company, BOPP received a permit (No. 062014-009) in June 2014 to construct two generators that use the LFG from the landfill as fuel. Although the generators are built, owned, and operated by a separate company, the two operations are considered part of the same installation. In Permit No. 062014-009, the engines were listed as having the same installation ID (229-0022) as the WCM Landfill. However, in the Missouri Emissions Inventory System (MOEIS) and the Permits Management System, the engines were listed as having the installation ID 229-0041 as to differentiate between the companies. To be consistent, this permit is now issued under the installation ID 229-0041.

In order to determine whether the BOPP and WCM should be considered the same installation, the relevant PSD regulations identify three criteria that must be met.

1. Whether the facilities are located on one or more contiguous or adjacent properties;
2. Whether the facilities are under common control; and
3. Whether the facilities share the same two-digit (major group) standard industrial classification code (SIC), or if one facility can be considered a support facility to the other.

Since BOPP will be located at the landfill, it is considered to be located on a contiguous property. Both operations are also under the same two-digit SIC code of 40, pertaining to electric, gas, and sanitary services. This leaves the remaining issue of common control. In assessing common control, the definition goes beyond whether the operations are owned by the same company. Common control can also be established if an entity has the power to direct or cause the direction of the management and policies of another entity. This direction can be the results of things such as ownership of stock, voting rights, by the existence of a contract, lease or other types of agreement between the facilities, or through other means. BOPP has a long term Gas Rights Agreement, as well as Site License Agreement from WCM.

Based on these agreements, as well as the dependency of BOPP on WCM for fuel, BOPP is considered to be under common control with WCM.

In its last Part 70 Operating Permit review, the installation-wide potential emissions were calculated and the Air Pollution Control Program determined that the potential emissions of CO are greater than the major source level of 250 tpy (at 307.5 tpy). However, the emissions were calculated assuming that all of the flares at the landfill are in operation and using the capacity of the flare as the LFG flow rate. During the review for Permit 062014-009, it was determined that when the landfill added a 3,000 scfm flare, permitted in 2008 through permit no. 112008-005, it shut off all other flares and diverted all the LFG to the 3,000 scfm flare. Furthermore, the 3,000 scfm has a 2,000 scfm blower that limits the amount of flow through the flare. Potential emissions from the landfill were re-calculated using the design rate of 2,000 scfm and all emissions were calculated to be less than major source levels, except for GHG-Mass and GHG-CO₂e. The GHG-mass emissions are greater than 250 tpy and the GHG-CO₂e emissions are greater than 100,000 tpy.

The following New Source Review permits have been issued to for the installation.

Table 3: Permit History

Permit Number	Description
1998-02-0224	Temporary permit for rock crushing plant
042006-013	Landfill Expansion
112008-005	Installation of a 3,000 scfm flare with a 2,000 scfm blower
062014-009	Installation of two (2) LFG generators.

PROJECT DESCRIPTION

In construction permit 062014-009, BOPP is permitted for two reciprocating internal combustion engines (EU-01 and EU-02) that use LFG from the Black Oak Landfill as fuel. The electricity generated by the engines will be sold to a local electric utility. The engines are identical 2,741 horsepower engines.

In the same permit, BOPP is limited to 3.0 g/bhp-hr of CO emissions from each engine, which was based on manufacturer's data. However, during the initial stack tests required by the same permit, BOPP realized that it will be difficult to maintain compliance with the 3.0 g/bhp-hr limit. The initial stack tests performed on engine 1 (EU-01), which occurred on March 17, 2015, indicated a CO emission of 2.92 g/bhp-hr. Although the results from the initial stack tests show compliance with the 3.0 g/bhp-hr limit, the facility would like more room for compliance in future testing, as the facility is still required to perform stack tests on Engine 2 as well as perform subsequent tests on both engines once every three years or every 8,760 operating hours, whichever comes first. Therefore, the facility proposes to increase the CO emissions limit from 3.0 g/bhp-hr to 4.0 g/bhp-hr. BOPP is not requesting to change any other emission limits.

As of the date of this permit, Engine 2 (EU-02) has not been tested. The facility tried, on March 17, 2015, to test Engine 2 at a level above 90% capacity, as required in Permit No. 062014-009, but the engine shutdown due to engine failure. Multiple efforts were made to try and restart Engine 2, but the unit would not operate at a level at or above 90% capacity. Therefore, a decision was made to cancel the test on Engine 2 and reschedule the test once the engine could be made to operate at maximum capacity (e.g. >90%). BOPP tried again, on April 17, 2015, to test Engine 2. However, Engine 2 responded as it had during the test on March 17, 2015. The test on Engine 2 was subsequently cancelled again. Currently, Engine 2 is running at approximately 75% capacity until the problems can be addressed. As a result, the facility has sent a request to the Compliance/Enforcement Unit of the Air Pollution Control Program to extend the testing deadline that is in Permit 062014-009. This request is currently undergoing review by the Compliance/Enforcement Unit.

As part of Permit No. 062014-009, BOPP installed a landfill gas treatment system that meets the requirements of the standards of performance for municipal solid waste landfills, 40 CFR 60.752(b)(s)(iii)(c), to treat the collected LFG prior to combustion in the engine generators. The treatment system is considered an inherent step within the waste to energy process and does not emit any air pollutants. Therefore, it is not required by a permit special condition.

Due to the short time since the issuance of Permit 062014-009, the current project is considered part of the same project as Permit 062014-009. As such, all of the emissions from the engines are taken into account in this permit and not just the CO emissions increase.

EMISSIONS/CONTROLS EVALUATION

Although the BOPP is only increasing the CO emission limit, all of the emissions from the engines, including PM_{2.5}, PM₁₀, PM, SO_x, NO_x, VOC, CO, HAPs, N₂O and CO₂, are included as part of this project. There will also be CO₂ from the LFG, residual CH₄ emissions from the fuel carbon that were not converted to CO₂, and NMOC emissions from the LFG that were reduced by the engines.

PM_{2.5}, PM₁₀ and PM emissions were calculated using the emission factors from WebFIRE, SCC Code 50100421, *Waste Gas Recovery: Internal Combustion Device*. SO_x emissions were calculated using mass balance assuming a 150 ppmv SO_x concentration from the LFG. The default value for SO_x concentration in EPA document AP-42, *Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources*, Fifth Edition, Chapter 2.4, *Municipal Solid Waste Landfills*, (11/98) is 46.9 ppmv. To be conservative, the company suggested using a value of 150 ppmv.

VOC emissions were calculated using the emissions limit in NSPS Subpart JJJJ (1.0 g/bhp-hr). CO and NO_x emissions were calculated using the emission factor of 4.0 g/bhp-hr and 0.75 g/bhp-hr, respectively, which was suggested by the company. These emission factors are lower than the limits in NSPS Subpart JJJJ. The facility suggested these values to avoid being a major source for CO and to avoid modeling requirements for NO_x. BOPP shall perform stack

testing, as required in Special Condition 2 of this permit, to ensure that the NO_x, VOC and CO emissions do not exceed these values. The tests shall be performed at the permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate given in Table 2. No other loading is required to be tested. The emission factors, on a per horsepower basis (e.g. g/bhp-hr), may be greater at lower loadings. However, at lower loadings, the horsepower would be lower, and the overall calculated emissions would not be greater than operating at full loading. NMOC emissions were calculated assuming that 85% of the VOC were NMOC, in accordance with an AP-42 value. HAPs emissions were calculated using emission factors from AP-42, Chapter 2.4.

CO₂ emissions include the portion from the combustion of the LFG and the portion already contained in the LFG. The portion already in the LFG were calculated assuming a 45% CO₂ content in the LFG. AP-42, Chapter 2.4, assumes a 55% CH₄ content in the LFG. It was assumed that the remainder would be CO₂. CO₂ emissions from the combustion of the LFG were calculated using both mass balance and the emission factor given in 40 CFR 98, Table C-1, and the higher value was used for this permit evaluation. CH₄ and N₂O emissions were calculated using the emission factor in 40 CFR 98, Table C-1. GHG-mass emissions were calculated by summing the CO₂, CH₄, and N₂O emissions. GHG-CO₂ emissions were calculated by multiplying the CO₂, CH₄, and N₂O emissions by their respective Global Warming Potential and summing the results.

The CO emissions were calculated to be greater than their respective *de minimis* levels and therefore, ambient impact analysis was performed for this pollutant. More information regarding the ambient impact analysis is included in the “Ambient Air Quality Impact Analysis” portion of this permit.

Table 4 below provides an emissions summary for this project. Existing potential emissions were recalculated as part of this permit review and includes equipment at the landfill. The haul roads were not included in this calculation. The Air Pollution control Program does not have any information on the haul roads at the landfill. However, since this is not a named installation, fugitive emissions are not counted toward major source applicability. Therefore, haul road emissions will not have an effect on this review. Existing actual emissions were taken from the landfill’s 2013 EIQ, and do include actual emissions from the haul roads, leading to a higher existing actual emissions for PM₁₀ than potential emissions. Potential emissions of the application represent the potential of the two LFG engines, assuming continuous operation (8760 hours per year).

Table 4: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (2013 EIQ)	Potential Emissions of the Application	New Installation Conditioned Potential
PM	25.0	1.22	N/D	8.42	N/A
PM ₁₀	15.0	4.91	13.98	8.42	N/A
PM _{2.5}	10.0	4.91	4.10	8.42	N/A
SO _x	40.0	12.92	2.47	7.84	N/A

NOx	40.0	11.56	7.07	39.7	N/A
VOC	40.0	60.86	21.76	52.94	N/A
CO	100.0	² 216.81	132.64	211.74	N/A
¹ GHG (CO ₂ e)	75,000	² 166,704.7	N/D	36,833.45	N/A
¹ GHG (mass)	0	² 105,516.6	N/D	36,527.96	N/A
HAPs	10.0/25.0	10.16	N/D	2.5	N/A
NMOC	50.0	71.6	N/D	62.28	N/A

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

Note 1: To trigger PDS for GHG, both GHG-CO₂e and GHG-mass must be greater than the regulatory significance levels. For this project, only the GHG-mass emissions are greater than the significance level.

Note 2: The existing PTE for CO and GHG were calculated based on the design rate of the blower for the flare and not the maximum LFG generation rate.

The existing potential emissions for CO, GHG-Mass, and GHG-CO₂e were calculated using the maximum design rate of the blower for the flare (i.e. 2,000 scfm). The fugitive portion of the GHG-Mass and GHG-CO₂e were also back-calculated from the 2,000 scfm, assuming a 75% capture efficiency, which is the recommended value used by the EPA. This method was used because the Air Pollution Control Program does not have information regarding the amount of waste hauled to the landfill and therefore, was not able to estimate emissions based on the maximum LFG generation rate. This was also the method recommended for use by the landfill when it permitted the flare (Permit No. 112008-005). With this calculation method, adding emissions from this project would cause the CO emissions to be greater than 250 tpy, making this installation a major source. The installation would also be a major source for GHG. However, this method overestimates emissions as it assumes that all of the 2,000 scfm are LFG, instead of using the maximum LFG generation rate based on the amount of waste placed at the landfill. This does not affect the type of permit that should be issued with this project and therefore, the facility's major source status was not investigated further. In future projects, the installation may request a re-evaluation of its existing potential emissions for major source applicability.

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of CO and VOCs are above its de minimis level but below the major source level.

APPLICABLE REQUIREMENTS

Black Oak Power Producers, 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

SPECIFIC REQUIREMENTS

- *Restriction of Emission of Particulate Matter From Industrial Processes*, 10 CSR 10-6.400, does not apply to the engines because they are fueled exclusively by a gaseous fuel and air introduced for purpose of combustion, and therefore, do not meet the definition of process weight according to 10 CSR 10-6.020(2)(P).
- *New Source Performance Regulations*, 10 CSR 10-6.070
 - *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*, 40 CFR Part 60, Subpart JJJJ
- *MACT Regulations*, 10 CSR 10-6.075
 - *National Emission Standards for Hazardous Air Pollutants for stationary Reciprocating Internal Combustion Engines*, 40 CFR Part 63, Subpart ZZZZ.
- *Restriction of Emission of Sulfur Compounds*, 10 CSR 10-6.260

AMBIENT AIR QUALITY IMPACT ANALYSIS

Ambient Air Quality Impact Analysis (AAQIA) was performed for CO because its emissions are greater than the *de minimis* level of 100 tpy. When modeling is performed, if the ambient impact from the stacks related to the project show compliance with the significance levels, then no further modeling is required. If the ambient impact from the stacks related to the project are modeled to be higher than the significance levels, then modeling must be performed for the entire installation. Results from the modeling analysis show that the ambient impacts of CO from the engines are less than the significance levels.

The AAQIA was performed using EPA program AERSCREEN. The distance from the engine to the nearest property boundary will be greater than 500 feet (152.4 Meters). Table 5 below gives a summary of the stack parameter entered into AERSCREEN while Table 6 gives a summary of the modeling results.

Table 5: Stack Parameters

Both LFG Engines			
Stack Height (ft)	Stack Diameter (ft)	Temperature (°F)	Exit Velocity (ft/s)
23.42	1.5	933	153.46

Table 6: AAQIA Results for CO

Modeled Impact	Insignificant Level ($\mu\text{g}/\text{m}^3$)	NAAQS ($\mu\text{g}/\text{m}^3$)	Time Period
305.46	2,000	40,000	1-hour
274.91	500	10,000	8-hour

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

Chia-Wei Young
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 April 30, 2015 received May 5, 2015, designating Black Oak Power Producers, LLC as the owner and operator of the installation.

APPENDIX A

Abbreviations and Acronyms

%percent	m/s meters per second
°Fdegrees Fahrenheit	Mgal 1,000 gallons
acfmactual cubic feet per minute	MW megawatt
BACTBest Available Control Technology	MHDR maximum hourly design rate
BMPsBest Management Practices	MMBtu Million British thermal units
BtuBritish 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 National Emissions Standards for Hazardous Air Pollutants
CFR Code of Federal Regulations	NO_x nitrogen oxides
COcarbon monoxide	NSPS New Source Performance Standards
CO₂ carbon dioxide	NSR New Source Review
CO_{2e} carbon dioxide equivalent	PM particulate matter
COMS Continuous Opacity Monitoring System	PM_{2.5} particulate matter less than 2.5 microns in aerodynamic diameter
CSR Code of State Regulations	PM₁₀ particulate matter less than 10 microns in aerodynamic diameter
dscfdry standard cubic feet	ppm parts per million
EIQ Emission Inventory Questionnaire	PSD Prevention of Significant Deterioration
EP Emission Point	PTE potential to emit
EPA Environmental Protection Agency	RACT Reasonable Available Control Technology
EU Emission Unit	RAL Risk Assessment Level
fpsfeet per second	SCC Source Classification Code
ft feet	scfm standard cubic feet per minute
GACT Generally Available Control Technology	SIC Standard Industrial Classification
GHG Greenhouse Gas	SIP State Implementation Plan
gpmgallons per minute	SMAL Screening Model Action Levels
grgrains	SO_x sulfur oxides
GWP Global Warming Potential	SO₂ sulfur dioxide
HAP Hazardous Air Pollutant	tph tons per hour
hrhour	tpy tons per year
hphorsepower	VMT vehicle miles traveled
lbpound	VOC Volatile Organic Compound
lbs/hrpounds per hour	
MACT Maximum Achievable Control Technology	
µg/m³ micrograms per cubic meter	

Mr. William Brinker
Manager of LLC
Black Oak Power Producers, LLC
10600 Nations Ford Road, Suite 150
Charlotte, NC 28273

RE: New Source Review Permit - Project Number: 2015-05-018

Dear Mr. Brinker:

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, if any, 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 Chia-Wei Young 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:cyl

Enclosures

c: Southwest Regional Office
PAMS File: 2015-05-018

Permit Number: