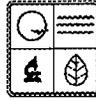


STATE OF MISSOURI

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: 07 2 0 1 4 - 0 0 7

Project Number: 2014-05-004
Installation ID: 099-0008

Parent Company: Mississippi Sand, LLC

Parent Company Address: 12209 Big Bend Road, St. Louis, MO 63122

Installation Name: Mississippi Sand, LLC

Installation Address: 838 VFW Drive, Festus, MO 63028

Location Information: Jefferson County, S16 T40N RE

Application for Authority to Construct was made for:
The installation of an additional screen, conveyor and feeder to the post-wash stage of Mississippi Sand, LLC's existing sand plant. 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.

JUL 1 5 2014

Nancy A. Moore
for Kyrle Moore

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 this (these) air contaminant source(s). 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 this (these) air contaminant source(s).

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 source(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.	2014-05-004

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."

1. **Superseding Condition**
The conditions and record keeping forms of this permit supersede Special Conditions 3 and 4 found in Construction Permit 052009-019B and replaces the record keeping form found in Construction Permit 052009-019C, which were issued by the Air Pollution Control Program.
2. **Ambient Air Impact Limitation**
 - A. Mississippi Sand, LLC shall not cause an exceedance of the NAAQS for PM₁₀ of 150.0 µg/m³ 24-hour average in ambient air.
 - B. Mississippi Sand, LLC shall demonstrate compliance with Special Condition 2.A using Attachment A and Attachment B or other equivalent forms that have been approved by the Air Pollution Control Program, including electronic forms, Mississippi Sand, LLC shall account for the impacts from other sources of PM₁₀ as instructed in the attachments.
 - C. Mississippi Sand, LLC is exempt from the requirements of Special Condition 2.B when no other plants are operating at this site.
3. **Annual Emission Limit**
 - A. Mississippi Sand, LLC shall emit less than 10.0 tons of PM_{2.5} in any 12-month period from the entire installation.
 - B. Mississippi Sand, LLC shall demonstrate compliance with Special Condition 3.A using Attachment C or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form.
4. **Control Device Requirement-Baghouse**
 - A. Mississippi Sand, LLC shall control emissions from the following emission units using baghouses:
 - 1) C-20 (conveyor)
 - 2) F-09 (Feeder)
 - 3) SCR-06 (Rotex Screen)
 - B. The baghouses shall be operated and maintained in accordance with the manufacturer's specifications. The baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These

Page No.	4
Permit No.	
Project No.	2014-05-004

SPECIAL CONDITIONS:

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

gauges or meters shall be located such that Department of Natural Resources employees may easily observe them.

C. Replacement filters for the baghouses shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).

D. Mississippi Sand, LLC shall monitor and record the operating pressure drop across the baghouses at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.

E. Mississippi Sand, LLC shall maintain an operating and maintenance log for the baghouses 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.

5. Record Keeping Requirement

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

6. Reporting Requirement

Mississippi Sand, LLC shall report to the Air Pollution Control Program Enforcement Section P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after any exceedances of the limitations imposed by this permit.

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

Project Number: 2014-05-004
Installation ID Number: 099-0008
Permit Number:

Mississippi Sand, LLC
838 VFW Drive
Festus, MO 63028

Complete: May 7, 2014

Parent Company:
Mississippi Sand, LLC
12209 Big Bend Road
St. Louis, MO 63122

Jefferson County, S16 T40N RE

PROJECT DESCRIPTION

Mississippi Sand, LLC has submitted an Application for Authority to Construct for the installation of an additional screen, conveyor and feeder to their existing sand plant. These sources have a maximum throughput of 80 tons per hour. This stationary sand plant has three stages: pre-wash, washing and post-wash stages. The screen, conveyor and feeder will be installed in parallel in the post-wash stage and will not increase the throughput of this stage, which is bottlenecked by the sand dryer. The maximum throughput of the sand dryer and the post-wash stage is 200 tons per hour. Emissions from the pre-wash stage will remain the same and negligible emissions are assumed from the washing stage.

As a result of the additional feeder and screen, the expected throughput of each existing feeder (F-05, F-06, F-07 and F-08) and each existing screen (SCR-02, SCR-03, SCR-04 and SCR-05) of the post-wash stage will decrease from 50 tons per hour to 30 tons per hour. All of the feeders and screens will still have a total throughput of 200 tons per hour.

Because this installation is an existing source with construction permits, its uncontrolled potential PM₁₀ emissions were compared to the one pound per hour insignificant emission exemption level of 10 CSR 10-6.061(3)(A)3.A. The uncontrolled potential PM₁₀ emissions of this project is 5.85 pounds of PM₁₀ per hour, therefore a construction permit is required. The controlled potential emissions of this project are as follows: 1.06 tons of PM, 0.256 tons of PM₁₀ and 0.007 tons per year of PM_{2.5}. Because the annual potential emissions of this project are below the respective de minimis level of each criteria pollutant, this permit is issued pursuant to Section (5) of 10 CSR 10-6.06 *Construction Permit Required*.

This installation is located in Jefferson County, a nonattainment area for ozone and an attainment area for all other criteria air pollutants. This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2].

TABLES

The following permits have been issued to Mississippi Sand, LLC from the Air Pollution Control Program.

Table 1: Permit History

Permit Number	Description
0690-011	New portable asphaltic plant
0690-011A	Modification to portable asphaltic plant
0697-022	Permit existing conveyors
0697-022	Replace crusher
052005-008	Added conveyor and separator to rock-crushing plant
052005-008A	Allow concurrent operation for rock-crushing plant
062008-011	Installation of a new sand processing plant
052009-019	Addition of equipment to sand processing plant
052009-019A	Update workbook parameters and establish an installation-wide de minimis limit
052009-019B	Update throughputs of emission units
052009-019C	Revise Attachment C of Permit 052009-019B

The table below summarizes the emissions of this project. The existing conditioned potential emissions were calculated during the review of Construction Permit 052009-019B. The existing actual emissions were taken from the previous year's EIQ. The potential emissions of the installation represent the emissions of all equipment and activities of the pre-wash and post-wash stages assuming continuous operation (8760 hours per year). The installation's conditioned potential emissions represent potential emissions of the pre-wash and post-wash stages with a voluntary 10.0 ton per year PM_{2.5} limit to avoid modeling requirements.

Table 2: Emissions Summary (tons per year)

Air Pollutant	De Minimis Level	^a Existing Conditioned Potential Emissions	Existing Actual Emissions (2013 EIQ)	^b Potential Emissions of the Installation	^c Installation's Conditioned Potential Emissions
PM	25.0	50.09	N/D	72.03	50.10
PM ₁₀	15.0	13.92	6.38	20.02	13.92
PM _{2.5}	10.0	< 10.00	4.56	14.38	< 10.00
SO _x	40.0	0.06	N/D	0.09	0.06
NO _x	40.0	18.89	N/D	27.16	18.89
VOC	40.0	0.54	N/D	0.78	0.54
CO	100.0	8.28	N/D	11.90	8.28
Total HAPs	25.0	0.19	N/D	0.27	0.19

N/D = Not Determined

^a Existing conditioned potential emissions were calculated during the review of Construction Permit 052009-019B.

^b The potential emissions of the installation represent the emissions of all equipment and activities of the pre-wash and post-wash stages assuming continuous operation (8760 hours per year).

^c Installation's conditioned potential emissions represent potential emissions of the entire installation (pre-wash and post-wash stage)

Table 3: Ambient Air Quality Impact Analysis

Pollutant	NAAQS ($\mu\text{g}/\text{m}^3$) ^a	Averaging Time	Maximum Modeled Impact of Pre-Wash Stage ($\mu\text{g}/\text{m}^3$) ^b	Maximum Modeled Impact of Post-Wash Stage ($\mu\text{g}/\text{m}^3$) ^b	Limited Impact ($\mu\text{g}/\text{m}^3$)	Back-ground ($\mu\text{g}/\text{m}^3$) ^c	Daily Production (tons/day) ^d
PM ₁₀ (same) ^e	150.0	24-hour	8.49	16.86	N/A	20.0	4,800
PM ₁₀ (separate) ^f	150.0	24-hour	N/A	N/A	25.35	124.65	4,800

N/A = Not Applicable

^a National Ambient Air Quality Standards (NAAQS)

^b Modeled impacts are based on the maximum capacity of the main stages of Mississippi Sand, LLC's stationary sand plant with controls

^c Background emissions include 20.0 $\mu\text{g}/\text{m}^3$ to address emissions from haul roads and vehicular activity areas and, when applicable, 104.65 $\mu\text{g}/\text{m}^3$ to address emissions from plants not owned by Mississippi Sand, LLC.

^d Daily Production is based on the sand dryer's throughput.

^e Solitary operation or operation with other plants that are owned by Mississippi Sand, LLC.

^f Operation with other plants that are not owned by Mississippi Sand, LLC.

EMISSIONS CALCULATIONS

Emissions for the project were calculated using emission factors found in the United States EPA document AP-42 *Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources*, Fifth Edition (AP-42).

Emissions from the conveyor, feeder and screen were calculated using emission factors from AP-42 Section 11.19.2 "Crushed Stone Processing and Pulverized Mineral Processing," August 2004. A 99% control efficiency for PM, PM₁₀ and PM_{2.5} was applied to the uncontrolled emission factors to these emission sources that will be controlled by a baghouse. During the review of Construction Permit 052009-019B, it was determined that these emission sources are enclosed, under negative pressure and their emissions are pneumatically vented to a baghouse. Based on engineering judgment, the capture efficiency was assumed to be approximately 100%. The emission sources of this project will be controlled in the same manner. The controlled emission factors were used for existing emission sources handling aggregate with an inherent moisture content equal to or greater than 1.5 % by weight or the equipment is control by water spray devices.

Particulate emissions from the sand dryer were calculated using emission factors from AP-42 Section 11.19.1 and combustion emissions from the sand dryer were calculated using emission factors from AP-42 Section 1.4.

Emissions from haul roads and vehicular activity areas were calculated using the predictive equation from AP-42 Section 13.2.2 "Unpaved Roads," November 2006. A

90% control efficiency for PM and PM₁₀ and a 40% control efficiency for PM_{2.5} were applied to the emission calculations for the use of BMPs. BMPs are discussed in Attachment AA and are required per Special Condition 2 of Construction Permit 052009-019B. Emissions from load-in and load-out of storage piles were calculated using the predictive equation from AP-42 Section 13.2.4. The moisture content of the aggregate is 1.5% by weight. Emissions from wind erosion of storage piles were calculated using an equation found in the Air Pollution Control Program's Emissions Inventory Questionnaire Form 2.8 "Storage Pile Worksheet."

AMBIENT AIR QUALITY IMPACT ANALYSIS

An ambient air quality impact analysis (AAQIA) was performed to determine the impact of the pollutants listed in Table 3. The Air Pollution Control Program requires an AAQIA of PM₁₀ for all asphalt, concrete and rock-crushing plants regardless of the level of PM₁₀ emissions if a permit is required. An AAQIA is required for other pollutants if their emissions exceed their respective de minimis or screening model action level (SMAL). The AAQIA was performed using the Air Pollution Control Program's generic nomographs and when appropriate the EPA modeling software AERSCREEN. For each pollutant that was modeled, the maximum concentration that occurs at or beyond the site boundary was compared to the NAAQS or RAL for the pollutant. If during continuous operation the modeled concentration of a pollutant is greater than the applicable NAAQS or RAL, the plant's production is limited to ensure compliance with the standard.

This plant uses BMPs to control emissions from haul roads and vehicular activity areas, so emissions from these sources were not included in the AAQIA. Instead they were addressed as a background concentration of 20.0 µg/m³ of PM₁₀ in accordance with the Air Pollution Control Program's BMPs interim policy.

OPERATING SCENARIOS

The plant is permitted to operate with other plants located at the site as long as the NAAQS is not exceeded. The following scenarios explain how Mississippi Sand, LLC shall demonstrate compliance with the NAAQS.

- When no other plants are located at this site, which is referred to as solitary operation, no record keeping is required to show compliance to the NAAQS for PM₁₀.
- When plants that are owned by Mississippi Sand, LLC, which are referred to as same owner plants, are located at the site, Mississippi Sand, LLC must calculate the daily impact of each plant and limit the total impact of all plants below the NAAQS using Attachment A or an equivalent form.

- When plants that are not owned by Mississippi Sand, LLC, which are referred to as separate owner plants, are located at the site, Mississippi Sand, LLC must account for the impacts of these plants as a background concentration and add it to the total impact of all plants owned by Mississippi Sand, LLC that are operating at the site. This total is limited below the NAAQS. Mississippi Sand, LLC will limit the total impact of all plants they own and operate at the site to $25.35 \mu\text{g}/\text{m}^3$ when any plants they do not own are located at the site. Mississippi Sand, LLC is not permitted to operate with any plant that is not owned by Mississippi Sand, LLC that has a separate owner background greater than $104.65 \mu\text{g}/\text{m}^3$. Emissions from haul roads and vehicular activity areas are addressed as a background concentration of $20.0 \mu\text{g}/\text{m}^3$. During this scenario, Mississippi Sand, LLC shall use Attachment B, or an equivalent form, to demonstrate compliance with the NAAQS.

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of $\text{PM}_{2.5}$ are conditioned below its de minimis level and potential emissions of PM are above its de minimis level, but below major source levels.

APPLICABLE REQUIREMENTS

Mississippi Sand, 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.

GENERAL REQUIREMENTS

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

- 40 CFR 60, New Source Performance Standards, Subpart OOO "Standards of Performance for Nonmetallic Mineral Processing Plants" apply to applicable emissions sources not involved in wet material processing.
- None of the NESHAPS or MACT regulations apply to the proposed equipment.

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.

Daronn A. Williams
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 May 1, 2014, received May 5, 2014, designating Mississippi Sand, LLC as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.

Attachment C: PM_{2.5} Annual Emissions Tracking Sheet
Mississippi Sand, LLC (099-0008)
Project Number: 2014-05-004
Permit Number:

Site Name: Mississippi Sand, LLC
Site Address: 838 VFW Drive, Festus, MO 63028
Site County: Jefferson County, S16 T40N RE

This sheet covers the period from _____ to _____ (Copy as needed)
(Month, Day Year) (Month, Day Year)

Step Description	(a) Monthly Throughput (tons)	(b) Composite Emission Factor (lb/ton)	(c) Monthly PM _{2.5} Emissions (lbs)
Jaw Crusher Throughput (Pre-Washing Stage)		0.0029	
Dryer Throughput (Post-Washing Stage)		0.0121	
(d) Total Monthly PM _{2.5} Emissions (lbs)			
(e) Total Monthly PM _{2.5} Emissions (tons)			
(f) 12-Month PM _{2.5} Emissions (h) from Previous Month's Attachment A (tons)			
(g) Total Monthly PM _{2.5} Emissions (e) from Previous Year's Attachment A (tons)			
(h) Current 12-Month PM _{2.5} Emissions (tons) (h) = [(e) + (f) - (g)]			

- (a) Record this month's throughput.
- (b) The Pre-Washing Stage emission factor was calculated during the review of Construction Permit 052009-019C. The Post-Washing Stage emission factor was calculated during the review of this permit.
- (c) Multiply the Monthly Throughput (a) by the respective Composite Emission Factor (b).
- (d) Sum each individual Monthly PM_{2.5} Emissions.
- (e) Divide the Total Monthly PM_{2.5} Emissions (d) by 2,000.
- (f) Record the 12-Month PM_{2.5} Emissions (h) from the Previous Month's Attachment C.
- (g) Record the Total Monthly PM_{2.5} Emissions (e) from the Previous Year's Attachment C.
- (h) Calculate the Current 12-Month PM_{2.5} Emissions. A total less than **10.0** tons indicates compliance.

Attachment AA: Best Management Practices

Haul roads and vehicular activity areas shall be maintained in accordance with at least one of the following options when the plant is operating.

1. Pavement
 - A. The operator shall pave the area with materials such as asphalt, concrete or other materials approved by the Air Pollution Control Program. The pavement will be applied in accordance with industry standards to achieve control of fugitive emissions while the plant is operating.
 - B. Maintenance and repair of the road surface will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating.
 - C. The operator shall periodically wash or otherwise clean all of the paved portions of the haul roads as necessary to achieve control of fugitive emissions from these areas while the plant is operating.

2. Application of Chemical Dust Suppressants
 - A. The operator shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to unpaved areas.
 - B. The quantities of the chemical dust suppressant shall be applied and maintained in accordance with the manufacturer's recommendation (if available) and in sufficient quantities to achieve control of fugitive emissions from these areas while the plant is operating.
 - C. The operator shall record the time, date and the amount of material applied for each application of the chemical dust suppressant agent on the above areas. The operator shall keep these records with the plant for not less than five (5) years and make these records available to Department of Natural Resources personnel upon request.

3. Application of Water-Documented Daily
 - A. The operator shall apply water to unpaved areas. Water shall be applied at a rate of 100 gallons per day per 1,000 square feet of unpaved or untreated surface area while the plant is operating.
 - B. Precipitation may be substituted for watering if the precipitation is greater than one quarter of one inch and is sufficient to control fugitive emissions.
 - C. Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads.
 - D. The operator shall record the date, volume of water application and total surface area of active haul roads or the amount of precipitation that day. The operators shall also record the rationale for not watering (e.g. freezing conditions or not operating).
 - E. The operator shall keep these records with the plant for not less than five (5) years, and the operator shall make these records available to Department of Natural Resources personnel upon request.

APPENDIX A

Abbreviations and Acronyms

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

Ms. Lina Klein
Environmental Director
Mississippi Sand, LLC
2320 Creve Coeur Mill Road
Maryland Heights, MO 63043

RE: New Source Review Permit - Project Number: 2014-05-004

Dear Ms. Klein:

The Missouri Air Pollution Control Program received your Application for Authority to Construct on May 5, 2014 for the installation of an additional screen, conveyor and feeder to your existing sand plant (099-0008). The application was determined complete May 7, 2014.

The screen, conveyor and feeder have a maximum throughput of 80 tons per hour. This stationary sand plant has three stages: pre-wash, washing and post-wash stages. The screen, conveyor and feeder will be installed in parallel in the post-wash stage and will not increase the throughput of this stage, which is bottlenecked by the sand dryer. The maximum throughput of the sand dryer and the post-wash stage is 200 tons per hour. Emissions from the pre-wash stage will remain the same and negligible emissions are assumed from the washing stage. As a result of the additional feeder and screen, the expected throughput of each existing feeder (F-05, F-06, F-07 and F-08) and each existing screen (SCR-02, SCR-03, SCR-04 and SCR-05) of the post-wash stage will decrease from 50 tons per hour to 30 tons per hour. This change has been taken into account during the review of this project. All of the feeders and screens will still have a total throughput of 200 tons per hour. Because this installation is an existing source with construction permits, its potential PM₁₀ emissions were compared to the one pound per hour insignificant emission exemption level of 10 CSR 10-6.061(3)(A)3.A. The uncontrolled potential PM₁₀ emissions of this project is 5.85 pounds of PM₁₀ per hour, therefore a construction permit is required.

Enclosed with this letter is your permit to construct. Please study it carefully. 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 and your new source review permit application 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 Daronn A. Williams, at the department's Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or (573) 751-4817.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Susan Heckenkamp
New Source Review Unit Chief

SH:dwl

Enclosures

c: St. Louis Regional Office
PAMS File: 2014-05-004

Permit Number:

*Celebrating 40 years of taking care of Missouri's natural resources.
To learn more about the Missouri Department of Natural Resources visit dnr.mo.gov.*