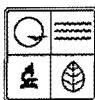


STATE OF MISSOURI

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: 102013-004

Project Number: 2013-08-008

Installation ID: PORT-0519

Parent Company: Capital Sand Company, Inc.

Parent Company Address: P.O. Box 104990, Jefferson City, MO 65110

Installation Name: Capital Sand Company, Inc. Crushing Plant

Installation Address: County Road 346, Millersville, MO 63766

Location Information: Cape Girardeau County, S1 and 36, T31and 32N, R11E

Application for Authority to Construct was made for:

The reactivation of generic portable rock crushing plant PORT-0519. Rock is processed through no more than 3 crushers, 4 screens, and 25 conveyors with an MHDR of 300 tph. 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.

OCT 24 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 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.	2013-08-008

GENERAL 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 of this permit supersede all conditions found in the previously issued construction permit 092005-006 and permit amendments 092005-006A and 092005-006B from the Air Pollution Control Program.

2. Generic Plant Designation and Maximum Combined Hourly Design Rate

Capital Sand Company, Inc. PORT-0519 has been designated a Generic Plant Operation. The combined MHDR each of the following generic equipment types shall not exceed the rates listed in Table 1. The number of units of each of the following generic equipment types shall not exceed the numbers listed in Table 1.

Table 1: Generic Equipment

Equipment Type	MHDR	Maximum Number of Units
Primary unit(s) (1 crusher and/or 1 screen)	300 tons per hour	2
Feeder/grizzly	300 tons per hour	1
Crusher(s), including primary crusher	900 tons per hour	3
Conveyor(s)	8,000 tons per hour	25
Screen(s), including primary screen	1,200 tons per hour	4

3. Generic Plant Equipment Identification Requirement

A. Capital Sand Company, Inc. PORT-0519 shall submit the following information to the Air Pollution Control Program's Permitting Section and the Southeast Regional Office within 15 days of actual startup.

- 1) A master list of all equipment that will be permitted for use with the generic plant. This master list shall include at minimum the following information for each piece of equipment:
 - a) Manufacturer's name
 - b) Model number
 - c) Serial number
 - d) Actual MHDR
 - e) Date of manufacture
 - f) Any other additional information that is necessary to uniquely identify the equipment.
- 2) The primary crusher and primary screen which control the rate of the process flow shall be marked as "core equipment" on the master list.

Page No.	4
Permit No.	
Project No.	2013-08-008

GENERAL SPECIAL CONDITIONS:

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

- 3) A determination of the applicability of 40 CFR Part 60, Subpart OOO, "Standards of Performance for Nonmetallic Mineral Processing Plants" for each piece of equipment indicating whether each piece of equipment is subject to Subpart OOO and justification for this determination.
- 4) Capital Sand Company, Inc. PORT-0519 shall notify the Air Pollution Control Program's Permitting Section and the Southeast Regional Office when new equipment is added to the master list and when core equipment is changed within 30 days of the change.
 - B. Capital Sand Company, Inc. PORT-0519 shall maintain a list of the specific equipment currently being utilized with the generic plant. Any arrangement of the generic plant's equipment must be such that the core equipment is not bypassed in the process flow.
4. Equipment Identification Requirement
Capital Sand Company, Inc. PORT-0519 shall maintain easily read permanent markings on each component of the plant. These markings shall be the equipment's serial number or a company assigned identification number that uniquely identifies the individual component.
5. Relocation of Portable Rock Crushing Plant
 - A. Capital Sand Company, Inc. PORT-0519 shall not be operated at any location longer than 24 consecutive months except if the Site Specific Special Conditions of this portable plant, PORT-0519, contain a nonroad engine requirement limiting the portable plant at the site specific location to 12 consecutive months.
 - B. A complete "Portable Source Relocation Request" application must be submitted to the Air Pollution Control Program prior to any relocation of this portable rock crushing plant.
 - 1) If the portable rock crushing plant is moving to a site previously permitted, and if the circumstances at the site have not changed, then the application must be received by the Air Pollution Control Program at least seven days prior to the relocation.
 - 2) If the portable rock crushing plant is moving to a new site, or if circumstances at the site have changed (e.g. the site was only permitted for solitary operation and now another plant is located at the site), then the application must be received by the Air Pollution Control Program at least 21 days prior to the relocation. The application must include written notification of any concurrently operating plants.

Page No.	5
Permit No.	
Project No.	2013-08-008

GENERAL SPECIAL CONDITIONS:

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

6. Record Keeping Requirement
Capital Sand Company, Inc. PORT-0519 shall maintain all records required by this permit for not less than five years and shall make them available to any Missouri Department of Natural Resources' personnel upon request.

7. Reporting Requirement
Capital Sand Company, Inc. PORT-0519 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.

Page No.	6
Permit No.	
Project No.	2013-08-008

SITE SPECIFIC 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."

PORT ID Number: PORT-0519

Site ID Number: 031-0133

Site Name: Capital Sand Company, Inc. Crushing Plant

Site Address: County Road 346, Millersville, MO 63766

Site County: Cape Girardeau County, S1 and 36, T31 and 32N, R11E

1. Best Management Practices Requirement
Capital Sand Company, Inc. PORT-0519 shall control fugitive emissions from all of the haul roads and vehicular activity areas at this site by performing BMPs as defined in Attachment AA.
2. Annual Emission Limit
 - A. Capital Sand Company, Inc. PORT-0519 shall emit less than 10.0 tons of PM_{2.5} in any 12-month period from the entire installation.
 - B. Capital Sand Company, Inc. PORT-0519 shall demonstrate compliance with Special Condition 2.A using Attachment A or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form.
3. Ambient Air Impact Limitation
 - A. Capital Sand Company, Inc. PORT-0519 shall not cause an exceedance of the NAAQS for PM₁₀ of 150.0 µg/m³ 24-hour average in ambient air.
 - B. Capital Sand Company, Inc. PORT-0519 shall demonstrate compliance with Special Condition 3.A using Attachment B and Attachment C or other equivalent forms that have been approved by the Air Pollution Control Program, including electronic forms. Capital Sand Company, Inc. PORT-0519 shall account for the impacts from other sources of PM₁₀ as instructed in the attachments.
4. Moisture Content Testing Requirement
 - A. Capital Sand Company, Inc. PORT-0519 shall verify that the moisture content of the processed rock is greater than or equal to 1.5 % by weight.
 - B. Testing shall be conducted according to the method prescribed by the American Society for Testing Materials (ASTM) D-2216, C-566 or another method approved by the Director.

Page No.	7
Permit No.	
Project No.	2013-08-008

SITE SPECIFIC SPECIAL CONDITIONS:

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

- C. The initial test shall be conducted no later than 45 days after the start of operation. A second test shall be performed the calendar year following the initial test during the months of July or August.
 - D. The test samples shall be taken from rock that has been processed by the plant or from each source of aggregate (e.g. quarry).
 - E. The written analytical report shall include the raw data and moisture content of each sample, the test date and the original signature of the individual performing the test. The report shall be filed on-site or at the Capital Sand Company, Inc. main office within 30 days of completion of the required test.
 - F. If the moisture content of either of the two tests is less than the moisture content in Special Condition 4.A, another test may be performed within 15 days of the noncompliant test. If the results of that test also exceed the limit, Capital Sand Company, Inc. PORT-0519 shall either:
 - 1) Apply for a new permit to account for the revised information, or
 - 2) Submit a plan for the installation of wet spray devices to the Compliance/Enforcement Section of the Air Pollution Control Program within 10 days of the second noncompliant test. The wet spray devices shall be installed and operational within 40 days of the second noncompliant test.
 - G. In lieu of testing, Capital Sand Company, Inc. PORT-0519 may obtain test results that demonstrate compliance with the moisture content in Special Condition 4.A from the supplier of the aggregate.
5. Minimum Distance to Property Boundary Requirement
The primary emission point(s), the primary crusher (EP3) and/or the primary screen (EP5) shall be located at least 300 feet from the nearest property boundary.
6. Primary Equipment Requirement
Capital Sand Company, Inc. PORT-0519 shall process all rock through the primary crusher (EP3) and/or the primary screen (EP5). Bypassing both the primary crusher and the primary screen is prohibited. If rock is processed through both the primary crusher and the primary screen, the two must be operated in line, so that the MHDR of 300 tons per hour is not exceeded.

Page No.	8
Permit No.	
Project No.	2013-08-008

SITE SPECIFIC SPECIAL CONDITIONS:

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

7. Nonroad Engine Requirement

A. To meet the definition of a nonroad engine as stated in 40 CFR 89.2, Capital Sand Company, Inc. PORT-0519's 950 horsepower engine cannot remain in one physical location for longer than 12 months. This 950 horsepower engine shall

be moved with its associated equipment at least once every 12 months while at this site.

B. Capital Sand Company, Inc. PORT-0519 shall keep records of the relocation within the site of the diesel engine listed in Special Condition 7.A using Attachment D or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form.

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

Project Number: 2013-08-008

Installation ID Number: PORT-0519

Permit Number:

Capital Sand Company, Inc. Crushing Plant
County Road 346
Millersville, MO 63766

Complete: August 8, 2013

Parent Company:
Capital Sand Company, Inc.
P.O. Box 104990
Jefferson City, MO 65110

Cape Girardeau County, S1 and 36, T31and 32N, R11E

PROJECT DESCRIPTION

This permit reactivates generic portable rock crushing plant PORT-0519, which was taken out of service in April of 2008. Rock is processed through no more than 3 crushers, 4 screens, and 25 conveyors with an MHDR of 300 tph. The primary (core) unit can be either a screen or a crusher or both, but if both are operated simultaneously they must be in-line so as not to exceed the 300 tph MHDR.

Initially, the plant will be located at a sandstone and limestone quarry in Cape Girardeau County for one to two years. Aggregate washing equipment (i.e. wash screen, attrition scrubbers, dewatering screens, cyclones, and ultrafine recovery unit) which are considered non-emissions sources, will also operate at this site in conjunction with this plant. Other rock crushing, concrete, and/or asphalt plants, either owned by Capital Sand Company, Inc. or under separate ownership, may be located at this site.

The plant is powered by a generator set with a 950 horsepower diesel engine. Even though the plant may be at this site for more than 12 months, the engine is considered nonroad because the plant and generator set will be moved to different physical locations as the quarry is developed. Power from the local electric utility is being considered for the quarry.

The applicant is using one of the methods described in Attachment AA, "Best Management Practices," to control emissions from haul roads and vehicular activity areas.

This installation is located in Cape Girardeau County, an attainment area for all criteria air pollutants.

This installation is not on the List of Named Installations [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.

Since this installation is a portable rock crushing plant, it is not required to obtain an operating permit per 10 CSR 10-6.065(1)(C)20.

TABLES

The following permits have been issued to Capital Sand Company, Inc. PORT-0519 from the Air Pollution Control Program.

Table 2: Permit History

Permit Number	Description
072000-014A	Plant relocated to new site. ¹
092005-006	New permit issued for generic portable plant.
092005-006A	Permit amended to make a crusher the primary unit instead of a screen
092005-006B	Permit amended to make either a crusher or a screen the primary unit
4/1/2008 letter	Plant taken out of service

¹This is the first APCP permit for this plant as PORT-0519. Prior to this, it had a history as PORT-0385.

No NOEE/NOV's have been issued to this portable in the last five years.

The table below summarizes the emissions of this project. The potential emissions of the process equipment, which exclude emissions from haul roads and wind erosion, are not site specific and should not vary from site to site. Existing actual emissions are not available because the plant has been out of operation for over five years. The potential emissions of the application represent the emissions of all equipment and activities assuming continuous operation (8,760 hours per year). The conditioned potential emissions account for a voluntary limit of 10.0 tpy on PM_{2.5} to avoid dispersion modeling requirements found in 10 CSR 10-6.060 Section (6) and for a NAAQS limit on PM₁₀.

Table 3: Emissions Summary (tons per year)

Air Pollutant	De Minimis Level/SMAL	^a Potential Emissions of the Equipment	Existing Actual Emissions	^b Potential Emissions of the Application	^c Conditioned Potential Emissions
PM	25.0	21.28	N/A	156.49	68.30
PM ₁₀	15.0	7.67	N/A	50.35	22.24
PM _{2.5}	10.0	1.13	N/A	23.16	<10.0
SO _x	40.0	N/A	N/A	N/A	N/A
NO _x	40.0	N/A	N/A	N/A	N/A
VOC	40.0	N/A	N/A	N/A	N/A
CO	100.0	N/A	N/A	N/A	N/A
GHG (CO ₂ e)	100,000	N/A	N/A	N/A	N/A
Total HAPs	25.0	N/A	N/A	N/A	N/A

N/A = Not Applicable

^aExcludes site-specific haul road and storage pile emissions.

^bIncludes site specific haul road and storage pile emissions.

^cAccounts for a voluntary limit of 10.0 tpy of PM_{2.5} and a NAAQS limit of 130 µg/m³.

Table 4: Ambient Air Quality Impact Analysis

Pollutant	NAAQS/RAL (µg/m ³)	Averaging Time	^a Maximum Modeled Impact (µg/m ³)	Limited Impact (µg/m ³)	Background (µg/m ³)	^b Daily Limit (tons/day)
^c PM ₁₀ (same)	150.0	24-hour	251.5	130.0	20.0	4,290
^c PM ₁₀ (separate)	150.0	24-hour	N/A	^e 90.0	^f 60.0	2,970

^aModeled impact at maximum capacity with controls

^bIndirect limit based on compliance with NAAQS.

^cSolitary operation or operation with other plants that are owned by Capital Sand Company, Inc.

^dOperation with other plants that are not owned by Capital Sand Company, Inc.

^eAll Capital Sand Company, Inc. plants are limited to 90.0 µg/m³ while operating with separate owner plants. All separate owner plants are limited to 40.0 µg/m³.

^fIncludes 40.0 µg/m³ for plant(s) not owned by Capital Sand Company, Inc. and 20.0 µg/m³ background

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 rock-crushing equipment were calculated using emission factors from AP-42 Section 11.19.2 “Crushed Stone Processing and Pulverized Mineral Processing,” August 2004. The controlled emission factors were used because the inherent moisture content of the crushed rock is greater than 1.5 % by weight.

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. 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 4. 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. In cases where the plant is providing material for a highway project, the ambient impact is evaluated in accordance with a memorandum issued by the Air Pollution Control Program titled "Permitting Asphalt/Concrete Plants for Temporary Highway Projects," dated April 10, 2000. This memorandum states that air quality should be analyzed at the nearest residence or location where the public could reasonably expected to be found instead of all ambient air. This practice generally allows for a less restrictive daily production level while protecting the public.

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 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 Capital Sand Company, Inc. shall demonstrate compliance with the NAAQS.

- When no other plants are located at the site, Capital Sand Company, Inc. PORT-0519 must calculate its impact to not exceed the NAAQS using Attachment B.
- When plants that are owned by Capital Sand Company, Inc., which are referred to as same owner plants, are located at the site, Capital Sand Company, Inc. must calculate the daily impact of each plant and limit the total impact of all plants to not exceed the NAAQS using Attachment B.

- When plants that are not owned by Capital Sand Company, Inc., which are referred to as separate owner plants, are located at the site, Capital Sand Company, Inc. must account for the impacts of these plants as a background concentration and add it to the total impact of all plants owned by Capital Sand Company, Inc. that are operating at the site. This total is limited to not exceed the NAAQS. Capital Sand Company, Inc. will limit the total impact of all plants they own and operate at the site to 90.0 $\mu\text{g}/\text{m}^3$ when any separate owner plants are located at the site. Capital Sand Company, Inc. is not permitted to operate with any separate owner plants that have a total PM_{10} ambient air impact greater than 40.0 $\mu\text{g}/\text{m}^3$ 24-hour average. During this scenario, Capital Sand Company, Inc. shall use Attachment C to demonstrate compliance with the NAAQS.

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 PM and PM_{10} are above de minimis levels.

APPLICABLE REQUIREMENTS

Capital Sand Company, Inc. PORT-0519 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 Emission of Odors*, 10 CSR 10-6.165
- *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

SPECIFIC REQUIREMENTS

- *Standards of Performance for Nonmetallic Mineral Processing Plants*, 40 CFR 60 Subpart OOO
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPS) or National Emission Standards for Hazardous Air Pollutants for Source Categories (MACTS) apply to the proposed equipment.
- *Restriction of Emission of Sulfur Compounds*, 10 CSR 10-6.260

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.

Cheryl Steffan
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 August 1, 2013, received August 2, 2013, designating Capital Sand Company, Inc. as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.

Attachment A: PM_{2.5} Annual Emissions Tracking Sheet
 Capital Sand Company, Inc. PORT-0519
 Project Number: 2013-08-008
 Permit Number:

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

Month	Production (tons)	Emission Factor (lb/ton)	Monthly Emissions ¹ (lbs)	Monthly Emissions ² (tons)	12-Month Total Emissions ³ (tons)
<i>Example</i>	<i>130,487</i>	<i>0.0176</i>	<i>2296.6</i>	<i>1.15</i>	<i>8.9</i>
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¹Multiply the monthly production by the emission factor.
²Divide the monthly emissions (lbs) by 2000.
³Add the monthly emissions (tons) to the sum of the monthly emissions from the previous eleven months. A total of less than 10.0 tons per year of PM_{2.5} is necessary for compliance.

Attachment B: Ambient Impact Tracking Sheet
 For Solitary and Same Owner Operations
 Capital Sand Company, Inc. PORT-0519
 Project Number: 2013-08-008

Site Name: Capital Sand Company, Inc. Crushing Plant
 Site Address: County Road 346, Millersville, MO 63766
 Site County: Cape Girardeau County, S1 and 36, T31and 32N, R11E

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

Date	Capital Sand Company, Inc. PORT-0519 Project: 2013-08-008			Same Owner Plant Plant Name: Plant ID: Permit #:	Same Owner Plant Plant Name: Plant ID: Permit #:	Same Owner Plant Plant Name: Plant ID: Permit #:	Back- ground (µg/m ³)	Total Impact ³ (µg/m ³)
	Daily Production (tons)	Impact Factor (µg/m ³ ton)	Impact ¹ (µg/m ³)	Impact ² (µg/m ³)	Impact ² (µg/m ³)	Impact ² (µg/m ³)		
<i>Example</i>	4,200	0.0303	127.3	N/A	N/A	N/A	20.0	147.3
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		0.0303					20.0	
		0.0303					20.0	
		0.0303					20.0	
		0.0303					20.0	

¹Calculate the impact for PORT-0519 by multiplying the daily production by the impact factor.
²Input the impact for any plants owned by Capital Sand Company, Inc. that are operating on the site.
³Calculate the total impact by adding the applicable impacts and background. A total of 150 µg/m³ or less of PM₁₀ is necessary for compliance.

Attachment C: Ambient Impact Tracking Sheet
 For Separate Owner Operations
 Capital Sand Company, Inc. PORT-0519
 Project Number: 2013-08-008

Site Name: Capital Sand Company, Inc. Crushing Plant
 Site Address: County Road 346, Millersville, MO 63766
 Site County: Cape Girardeau County, S1 and 36, T31and 32N, R11E

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

Date	Capital Sand Company, Inc. PORT-0519 Project: 2013-08-008			Same Owner Plant Plant Name: Plant ID: Permit #:	Same Owner Plant Plant Name: Plant ID: Permit #:	Separate Owner Plant Plant Name: Plant ID: Permit #:	Back- ground (µg/m ³)	Total Impact ³ (µg/m ³)
	Daily Production (tons)	Impact Factor (µg/m ³ /ton)	Impact ¹ (µg/m ³)	Impact ² (µg/m ³)	Impact ² (µg/m ³)	Impact (µg/m ³)		
Example	2,600	0.0303	78.8	10.2	N/A	40.0	20.0	149.0
		0.0303				40.0	20.0	
		0.0303				40.0	20.0	
		0.0303				40.0	20.0	
		0.0303				40.0	20.0	
		0.0303				40.0	20.0	
		0.0303				40.0	20.0	
		0.0303				40.0	20.0	
		0.0303				40.0	20.0	
		0.0303				40.0	20.0	
		0.0303				40.0	20.0	
		0.0303				40.0	20.0	
		0.0303				40.0	20.0	
		0.0303				40.0	20.0	
		0.0303				40.0	20.0	
		0.0303				40.0	20.0	
		0.0303				40.0	20.0	
		0.0303				40.0	20.0	
		0.0303				40.0	20.0	
		0.0303				40.0	20.0	
		0.0303				40.0	20.0	
		0.0303				40.0	20.0	
		0.0303				40.0	20.0	

¹Calculate the impact for PORT-0519 by multiplying the daily production by the impact factor.
²Input the impact for any plants owned by Capital Sand Company, Inc. that are operating on the site.
³Calculate the total impact by adding the applicable impacts and backgrounds. A total of 150 µg/m³ or less of PM₁₀ is necessary for compliance.

Attachment D: 950 Horsepower Diesel Engine Relocation Tracking Sheet
Capital Sand Company, Inc. PORT-0519
Project Number: 2013-08-008

Site Name: Capital Sand Company, Inc. Crushing Plant
Site Address: County Road 346, Millersville, MO 63766
Site County: Cape Girardeau County, S1 and 36, T31 and 32N, R11E

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

Date Arrived	Date Departed	GPS Coordinates for 950 Horsepower Engine	Purpose for Relocation

Note: Capital Sand Company, Inc. PORT-0519 shall record the dates, the GPS coordinates of the location, and the purpose of the relocation in the table above for their 900 horsepower engine, per Special Condition 10.

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 portable 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 emissions¹ 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
°F	degrees 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_x	nitrogen 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		

Mr. Jason Branstetter
Operations Manager
Capital Sand Company, Inc.
P.O. Box 104990
Jefferson City, MO 65110

RE: New Source Review Permit - Project Number: 2013-08-008

Dear Mr. Branstetter:

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 Cheryl Steffan, at the department's 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:csl

Enclosures

c: Southeast Regional Office
PAMS File: 2013-08-008

Permit Number: