PERMIT BOOK

STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT TO CONSTRUCT

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

Permit Number: 072012-004

Project Number: 2012-03-069
Installation ID: 097-0166

Parent Company: Jasper Stone, LLC

Parent Company Address: 17389 Redbud, Jasper, MO 64755

Installation Name: Jasper Stone, LLC

Installation Address: NE of Hwy 71 and Route K, Jasper, MO 64755

Location Information: Jasper County, S13, T30N, R31W

Application for Authority to Construct was made for:
Modification to the existing (changing out) rock crushing facility and converting to municipal power. 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.

JUL 12 2012

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 startup of this (these) air contaminant sources(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 startup 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 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.

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."

1. Superseding Condition
   The conditions of this permit supersede all special conditions found in the previously issued construction permit 052010-001 from the Air Pollution Control Program.

2. Best Management Practices Requirement
   Jasper Stone, LLC shall control fugitive emissions from all of the haul roads and vehicular activity areas at this site by performing Best Management Practices as defined in Attachment AA.

3. Ambient Air Impact Limitation
   A. Jasper Stone, LLC shall not cause an exceedance of the National Ambient Air Quality Standard (NAAQS) for particulate matter less than ten microns in aerodynamic diameter (PM_{10}) of 150.0 $\mu g/m^3$ 24-hour average in ambient air.

   B. Jasper Stone, LLC 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 an electronic forms. Jasper Stone, LLC shall account for the impacts from other sources of PM_{10} as instructed in the attachments.

   C. Jasper Stone, LLC is exempt from the requirements of Special Condition 3.B when no other plants are operating at this site.

4. Annual Emission Limit
   A. Jasper Stone, LLC shall emit less than 15.0 tons of PM_{10} in any 12-month period from the entire installation.

   B. Jasper Stone, LLC shall demonstrate compliance with special condition 4.A using Attachment A or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form.

5. Moisture Content Testing Requirement
   A. Jasper Stone, LLC shall verify that the moisture content of the processed rock is greater than or equal to 1.5 percent (%) weight.

SITE SPECIFIC SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

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.

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 Jasper Stone, LLC 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 5.A, another test may be performed within 15 days of the noncompliant test. If the results of that test also exceed the limit, Jasper Stone, LLC 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 Air Pollution Control Program Compliance Assistance section 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, Jasper Stone, LLC may obtain test results that demonstrate compliance with the moisture content in Special Condition 5.A from the supplier of the aggregate.

6. Control Device Requirement-Baghouse

A. Jasper Stone, LLC shall control emissions from the Chip Dryer (EP21) using the baghouse as specified in the permit application.

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 gauges or meters shall be located such that the 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).

SITE SPECIFIC SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

D. Jasper Stone, 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. If during the 24-hour period the emission unit EP123 in Table 3 does not operate, then Japser Stone, LLC can simply record no operation. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.

E. Jasper Stone, 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.

7. Minimum Distance to Property Boundary Requirement
The primary emission point EP105 (Primary Crusher) shall be located at least 1200 feet from the nearest property boundary.

8. Primary Equipment Requirement
Jasper Stone, LLC shall process all rock through the primary crusher (EP05). Bypassing the primary crusher is prohibited.

9. Record Keeping Requirement
Jasper Stone, 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.

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

11. Shut Down of Existing Equipment at Installation
The new equipment will be installed in phases in order to allow production to continue while new equipment is added. As the new equipment is installed, Jasper Stone, LLC shall render the replaced units inoperable. The equipment listed in Table 2 will be replaced and may not be operated after the completion of the new equipment installation. Jasper Stone will then be required to send to Department of Natural Resources several start–up notices as construction is completed for each phase. Jasper Stone, LLC must notify Department of Natural Resources (Southwest Regional Office) once the replacement construction begins and upon completion of the entire project.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (6) REVIEW
Project Number: 2012-03-069
Installation ID Number: 097-0166
Permit Number:

Jasper Stone, LLC
NE of Hwy 71 and Route K
Jasper, MO 64755

Complete: March 23, 2012

Parent Company:
Jasper Stone, LLC
17389 Redbud
Jasper, MO 64755

Jasper County, S13, T30N, R31W

PROJECT DESCRIPTION

Jasper Stone, LLC has applied for authority to modify an existing rock crushing plant located in Jasper, Missouri, Northeast of Hwy 71 and Route K. The existing equipment with a maximum hourly design rate (MHDR) of 395 tons per hour (see Table 2) was originally powered by diesel engines/generators. It will be replaced with the new equipment with a MHDR of 600 tons per hour (see Table 3) that will use municipal power to operate. A new chip dryer with a baghouse will also be added in this project. The chip dryer (EP21) (40 mmBTU/hr drum dryer) along with a feeder (EP19), two conveyors (EP20 and EP22), and a screen (EP23) will be enclosed in a building.

Jasper Stone, LLC will use one of the methods described in Attachment AA, “Best Management Practices,” to control emissions from haul roads and vehicular activity areas. There are not any other plants located at this site and Jasper Stone, LLC is prohibited from operating whenever other plants are located at the site.

This installation is located in Jasper 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.

40 CFR 60 Subpart OOO, "Standards of Performance for Nonmetallic Mineral Processing Plants" applies to the equipment. Compliance to 40 CFR 60 Subpart OOO requires equipment testing and these results were submitted to the Air Pollution Control Program by electronic mail. Compliance to 40 CFR 60 Subpart OOO also requires a Basic Operating Permit.

This installation is located in Jasper 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.

TABLES

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

Table 1: Permit History

Permit Number	Description
052010-001	Rock Crushing

Table 2: Existing Equipment to be Replaced

Unit ID	Description of Unit	MHDR	MHDR Units
EP05	Primary Crusher: 2006 Cedarapids 1300 Cobra	395	Tons per hour
EP06	2 Belts – Primary Crusher 18” & 48”	395	Tons per hour
EP07	Diesel Engine 400 HP Cummins	0.0212	Mgal per hour
EP08	Primary Crusher: 2007 DSB	395	Tons per hour
EP09	2 Belts – Primary Crusher 18” & 48”	395	Tons per hour
EP10	Diesel Engine 400 HP Catepillar	0.0212	Mgal per hour
EP11	Screen: 1962 Cedarapids 4-Deck Screen 4 x 12	395	Tons per hour
EP12	Belt: 36” under Belt	395	Tons per hour
EP13	Belt:30” Metso	395	Tons per hour
EP14	Belt:30” Metso	395	Tons per hour
EP15	Belt 18” Finley	395	Tons per hour
EP16	Belt 18” Finley	395	Tons per hour
EP17	Belt 18” Finley	395	Tons per hour
EP18	Belt 18” Finley	395	Tons per hour
EP19	Diesel Engine 300 HP John Deere	0.0159	Mgal per hour
EP20	Screen: 2004 Finley	395	Tons per hour
EP21	2 Belts: 2004 Finley 18”	395	Tons per hour
EP22	Belt:36”	395	Tons per hour
EP23	Diesel Engine 150 HP Deutz	0.0080	Mgal per hour

Table 3: New Equipment to be installed with existing haul roads/storage piles/loading

Unit ID	Description of Unit	MHDR	MHDR Units
EP01	Drilling (Not included in calculations)	600	Tons per hour
EP02	Loading of Shot Rock	600	Tons per hour
EP03	Hauling Pit-2-Plant (Haul Road #1)	4.55	VMT per hour
EP04	Unloading to Primary Crusher	600	Tons per hour
EP105	Primary Crusher: 1950 Allis Chalmer	600	Tons per hour
EP106	Belt – Primary Crusher	600	Tons per hour
EP107	Vibrating Pan Feeder	600	Tons per hour
EP108	Belt – 36”	600	Tons per hour
EP109	Screen – Scalper: 1995 Simplicity 6’ x 10’	600	Tons per hour
EP110	2 Belts – Primary Crusher 36” x 24”	600	Tons per hour
EP111	Secondary Crusher: 1986 El-Jay Cone	600	Tons per hour
EP112	Belt: 36”	600	Tons per hour
EP113	Belt: 24”	600	Tons per hour
EP114	Screen: 195 Simplicity – 6’ x 16’	600	Tons per hour
EP115	3 Belt: 24”	600	Tons per hour
EP116	Tertiary Crusher – 1987 VSI	600	Tons per hour
EP117	Belt: 24”	600	Tons per hour
EP118	Belt: 24”	600	Tons per hour
EP119	Screen: 1995 Simplicity – 6’ x 16’	600	Tons per hour
EP120	3 Belt: 24”	600	Tons per hour
EP121	Enclosed BLDG – Vib Feeder	50	Tons per hour
EP122	Enclosed BLDG – Belt: 24”	50	Tons per hour
EP123	Enclosed BLDG – Chip Dryer w/ baghouse	50	Tons per hour
EP124	Enclosed BLDG – Belt: 24”	50	Tons per hour
EP125	Enclosed BLDG – Screen (Homemade) 20’ x 7’	50	Tons per hour
EP126	Enclosed BLDG – Five 100-Ton Silos	50	Tons per hour
EP127	Enclosed BLDG – 40 mmBTU Drum Burner	0.0400	MMCF per hour
EP24	Storage Pile – Load in	600	Tons per hour
EP25	Storage Pile - Wind Erosion	2.0	Acres
EP26	Storage Pile – Vehicular Activity	600	Tons per hour
EP27	Storage Pile – Load out	600	Tons per hour
EP28	Hauling Stock Piles (Haul Road #2)	10.91	VMT per hour
EP29	Hauling Sales (Haul Road #3)	1.75	VMT per hour

The table below summarizes the emissions of this project. The potential emissions of the process equipment, which excluded emissions from haul roads and wind erosion, are site specific should not vary from site to site. The existing actual emissions were taken from the 2010 EIQ. The potential emissions of the application represent the emissions of all equipment and activities assuming continuous operation (8760 hours per year). The conditioned potential emissions is based on compliance with the annual PM_{10} emission limit.

Table 4: Emissions Summary (tons per year)

Air Pollutant	De Minimis Level	[a]Existing Conditioned Installation Emissions	[b]Existing Actual Emissions (2010 EIQ)	[c]Potential Emissions of the Application	Conditioned Installation Potential Emissions
PM	25.0	N/D	N/D	301.20	45.20
PM_{10}	15.0	<15.0	4.67	99.96	<15.0
$PM_{2.5}$	10.0	N/D	N/D	23.63	2.02
SO_X	40.0	0.94	0.21	0.11	0.02
NO_X	40.0	14.32	3.3	17.52	2.63
VOC	40.0	1.17	0.27	0.96	0.14
CO	100.0	3.08	0.71	14.72	2.21
Total HAPs	10.0/25.0	0.01	N/A	0.33	0.05

N/A = Not Applicable; N/D = Not Determined
[a]Conditioned Emissions as stated in Permit #052010-001
[b]In 2011, Jasper Stone, LLC submitted a reduced EIQ based on 2010 emissions
[c]Includes site specific haul road and storage pile emissions

Table 5: Ambient Air Quality Impact Analysis

Pollutant	[a]NAAQS ($\mu g/m^3$)	Averaging Time	[b]Maximum Modeled Impact ($\mu g/m^3$)	Limited Impact ($\mu g/m^3$)	Background ($\mu g/m^3$)	[c]Daily Limit (tons/day)
[d]PM_{10} (same)	150.0	24-hour	57.87	N/A	20.0	N/A
[e]PM_{10} (separate)	150.0	24-hour	N/A	65.0	85.0	N/A

[a]National Ambient Air Quality Standards (NAAQS) and Risk Assessment Level (RAL)
[b]Modeled impact at maximum capacity with controls
[c]The daily limit is an indirect limit based on solitary operation of the stationary plant and compliance with the NAAQS.
[d]Solitary operation or operation with other plants that are owned by Jasper Stone, LLC
[e]Operation with other plants that are not owned by Jasper Stone, LLC

EMISSIONS CALCULATIONS

Emissions for the project were calculated using emission factors found in the United States Environmental Protection Agency (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 percent (%) by weight.

Emissions from the chip dryer (SCC 3-05-025-08 referencing SCC 3-05-027-20) were calculated using emission factors from AP-42, Section 11.19.1 “Industrial Sand and Gravel Processing,” November, 1995. The emission factor of 2.0 pounds/ton (lbs/ton) of PM filterable was used and was conservatively applied to PM_{10} and $PM_{2.5}$ with no particle size distribution.

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 is 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 by 1.5% 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 5. The Air Pollution Control Program requires an AAQIA of PM_{10} for all asphalt, concrete and rock-crushing plants regardless of the level of PM_{10} 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 SCREEN3. For each pollutant that was modeled, the maximum concentration that occurs at or beyond the site boundary was compared to the National Ambient Air Quality Standard (NAAQS) or Risk Assessment Level (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 $\mu g/m^3$ of PM_{10} 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 Jasper Stone, LLC shall demonstrate compliance with the NAAQS.

- When no other plants are located at this site Jasper Stone, LLC does not have to calculate the daily impact of their stationary rock crushing plant.

- When plants that are owned by Jasper Stone, LLC, which are referred to as same owner plants, are located at the site, Jasper Stone, LLC must calculate the daily impact of each plant and limit the total impact of all plants below the NAAQS using Attachment A.

- When plants that are not owned by Jasper Stone, LLC, which are referred to as separate owner plants, are located at the site, Jasper Stone, 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 Jasper Stone, LLC that are operating at the site. This total is limited below the NAAQS. Jasper Stone, LLC will limit the total impact of all plants they own and operate at the site to 65.0 $\mu g/m^3$ when any plants they do not own are located at the site. Jasper Stone, LLC is not permitted to operate with any plant that is not owned by Jasper Stone, LLC that has a separate owner background greater than 65.0 $\mu g/m^3$. During this scenario, Jasper Stone, LLC -shall use Attachment B 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_{10} are conditioned below de minimis levels but the conditioned potential emissions of PM are at a minor level.

APPLICABLE REQUIREMENTS

Jasper Stone, 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.

- A Basic Operating Permit application is required for this installation within 30 days of equipment startup.

- *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 Subpart OOO, "Standards of Performance for Nonmetallic Mineral Processing Plants" applies to the equipment.

- 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.

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.

_____ _____

Kathy Kolb Date
Environmental Engineer

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated March 20, 2012, received March 23, 2012, designating Jasper Stone, LLC 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_{10} Compliance Worksheet

Jasper Stone, LLC
Jasper County, S13, T30N, R31W
Project Number: 2012-03-069
Installation ID Number: 097-0166
Permit Number: _____

This sheet covers the period from _____ to _____.
(month, year) (month, year)

Month/Year	Emission Units		1 Month Total PM_{10} Emissions	1 Month Total PM_{10} Emissions	Previous Month's 12 Month Total	Previous Year's 1 month Total	12 month Total PM_{10} Emissions
C1	C2	C3	C4	C5	C6	C7	C8
	Amount of Rock Crushed (tons)	Composite Emission Factor (lbs. PM_{10} per tons crushed rock)	Monthly PM_{10} Emissions (lbs.)	Monthly PM_{10} Emissions (tons)	12 month Rolling Total PM_{10} Emissions (tons)	Monthly PM_{10} Emissions (tons)	12 month Rolling Total PM_{10} Emissions (tons)
Example	60,000	0.0380	2,280	1.1			
		0.0380					
		0.0380					
		0.0380					
		0.0380					
		0.0380					
		0.0380					
		0.0380					
		0.0380					
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		0.0380					
		0.0380					
		0.0380					
		0.0380					

Instructions:
C2 = the total tons of rock crushed during the month and year indicated in C1
C3 = 0.0380 (lbs./ tons), the composite emission factor for emission units
C4 = C2 × C3
C5 = C4 ÷ 2000
C6 = the 12 month rolling total PM_{10} emissions from the previous month (C8 from previous month)
C7 = the monthly total PM_{10} emissions from the previous year
C8 = C5 + C6 – C7 **Note: A value less than 15.0 tons is necessary for continued compliance**

Attachment B: Ambient Impact Tracking Sheet
For Same Owner Operations
Jasper Stone, LLC 097-0166
Project Number: 2012-03-069

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

	Jasper Stone, LLC 097-0166 Project #: 2012-03-069			Same Owner Plant Plant Name: Plant ID: Permit #:	Same Owner Plant Plant Name: Plant ID: Permit #:	Same Owner Plant Plant Name: Plant ID: Permit #:		
Date	Daily Production (tons)	Impact Factor ($\mu g/m^3 ton$)	Impact[1] ($\mu g/m^3$)	Impact[2] ($\mu g/m^3$)	Impact[2] ($\mu g/m^3$)	Impact ($\mu g/m^3$)	Back-ground ($\mu g/m^3$)	Total Impact[3] ($\mu g/m^3$)
Example	*5,400*	*0.0400*	*21.4*	*10.2*	*N/A*	*N/A*	*20.0*	*51.6*
		0.0400					20.0	
		0.0400					20.0	
		0.0400					20.0	
		0.0400					20.0	
		0.0400					20.0	
		0.0400					20.0	
		0.0400					20.0	
		0.0400					20.0	
		0.0400					20.0	
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		0.0400					20.0	
		0.0400					20.0	
		0.0400					20.0	
		0.0400					20.0	

[1]Calculate the impact for 097-0166 by multiplying the daily production by the impact factor.
[2]Input the impact for any plants owned by Jasper Stone, LLC that are operating on the site.
[3]Calculate the total impact by adding the applicable impacts and background. A total of 150.0 $\mu g/m^3$ or less is necessary for compliance.

Attachment B: Ambient Impact Tracking Sheet
For Same Owner Operations
Jasper Stone, LLC 097-0166
Project Number: 2012-03-069

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

Date	Jasper Stone, LLC 211-0023 Project #: 2012-03-069			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/m³)	Total Impact[3] (μg/m³)
	Daily Production (tons)	Impact Factor (μg/m³ton)	Impact[1] (μg/m³)	Impact[2] (μg/m³)	Impact[2] (μg/m³)	Impact (μg/m³)		
Example	*5,400*	*0.0040*	*21.4*	*10.2*	*N/A*	*65.0*	*20.0*	*116.8*
		0.0040				65.0	20.0	
		0.0040				65.0	20.0	
		0.0040				65.0	20.0	
		0.0040				65.0	20.0	
		0.0040				65.0	20.0	
		0.0040				65.0	20.0	
		0.0040				65.0	20.0	
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		0.0040				65.0	20.0	
		0.0040				65.0	20.0	
		0.0040				65.0	20.0	

[1]Calculate the impact for 211-0023 by multiplying the daily production by the impact factor.
[2]Input the impact for any plants owned by Jasper Stone, LLC that are operating on the site.
[3]Calculate the total impact by adding the applicable impacts and backgrounds. A total of 150.0 μg/m³ or less is necessary for 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 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 emissions[1] 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 rational 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

[1]For purposes of this document, Control of Fugitive Emissions means to control particulate matter that is not collected by a capture system and visible emissions to the extent necessary to prevent violations of the air pollution law or regulation. (Note: control of visible emission is not the only factor to consider in protection of ambient air quality.)

Mr. Larry North
Managing Partner
Jasper Stone, LLC
17389 Redbud
Jasper, MO 64755

RE: New Source Review Permit - Project Number: 2012-03-069

Dear Mr. North:

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, 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, please do not hesitate to contact Kathy Kolb, 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:kkl

Enclosures

c: Southwest Regional Office
PAMS File: 2012-03-069

Permit Number: