

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: 072013-011

Project Number: 2013-03-066
Installation ID: PORT-0648

Parent Company: Millstone Bangert, Inc.

Parent Company Address: 601 Fountain Lakes Blvd, St. Charles, MO 63301

Installation Name: Millstone Bangert, Inc.

Installation Address: 2000 Arena Parkway, St. Charles, MO 63301

Location Information: St. Charles County, LG 2982

Application for Authority to Construct was made for:

The installation of a generic portable concrete waste crushing plant. 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 18 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.

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. **Generic Plant Designation and Maximum Combined Hourly Design Rate**
 Millstone Bangert, Inc. has been designated to be a Generic Plant Operation. The combined MHDR of each of the following generic equipment types shall not exceed the rates and numbers listed in Table 1.

Table 1: Generic Equipment

Equipment Type	MHDR	Maximum Number of Units
Primary Unit: Jaw Crusher	250 tons per hour	1
Secondary Crusher	N/A	1
Discharge Conveyors	N/A	5
Screens	N/A	1

2. **Generic Plant Equipment Identification Requirement**
 - A. Millstone Bangert, Inc. shall submit the following information to the Air Pollution Control Program's Permitting Section and the St. Louis 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) A list of the core equipment that will always be utilized with the generic plant. The core equipment associated with the generic plant shall include at least one primary unit that controls the rate of the process flow (e.g., a primary crusher or primary screen).
 - 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) Millstone Bangert, Inc. shall notify the Air Pollution Control Program's Permitting Section and the St. Louis Regional Office when new equipment

Page No.	4
Permit No.	
Project No.	2013-03-066

GENERAL SPECIAL CONDITIONS:

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

is added to the master list and when core equipment is changed within 30 days of the change.

- B. Millstone Bangert, Inc. 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 primary crusher is not bypassed in the process flow.

3. Equipment Identification Requirement

Millstone Bangert, Inc. 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.

4. Relocation of Portable Plant

- A. Millstone Bangert, Inc. shall not be operated at any location longer than 24 consecutive months except if the Site Specific Special Conditions of this portable plant, PORT-0648, 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.

5. Annual Emission Limit

- A. Millstone Bangert, Inc. shall emit less than 100.0 tons of PM in any 12-month period from the entire installation.

- B. Millstone Bangert, Inc. shall demonstrate compliance with General Special Condition 5.A using Attachment A or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form.

Page No.	5
Permit No.	
Project No.	2013-03-066

GENERAL SPECIAL CONDITIONS:

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

6. **Record Keeping Requirement**
Millstone Bangert, Inc. 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**
Millstone Bangert, Inc. 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.

8. **Superseding Condition**
The conditions of this permit supersede all special conditions found in Construction Permits 11-05-009 (issued by the City of St. Louis Air Pollution Control Program) and 6983A (issued by the Air Pollution Control Program).

Page No.	6
Permit No.	
Project No.	2013-03-066

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-0648

Site ID Number: 183-0254

Site Name: Lafarge - St. Charles Quarry

Site Address: 2000 Arena Parkway, St. Charles, MO 63301

Site County: St. Charles County, LG 2982

1. **Best Management Practices (BMPs) Requirement**
Millstone Bangert, Inc. 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. **Ambient Air Impact Limitation**
 - A. Millstone Bangert, Inc. shall not cause an exceedance of the NAAQS for PM₁₀ of 150.0 µg/m³ 24-hour average in ambient air.
 - B. Millstone Bangert, Inc. shall demonstrate compliance with Special Condition 2.A using Attachment B or other equivalent forms that have been approved by the Air Pollution Control Program, including an electronic forms.
3. **Wet Suppression Control System Requirement**
 - A. Millstone Bangert, Inc. shall install and operate wet spray devices on all crushers.
 - B. Watering may be suspended during periods of freezing condition, when use of the wet spray devices may damage the equipment. During these conditions, Millstone Bangert, Inc. shall adjust the production rate to control emissions from these units. Millstone Bangert, Inc. shall record a brief description of such events.
4. **Minimum Distance to Property Boundary Requirement**
The primary jaw crusher (EU-2) shall be located at least 480 feet from the nearest property boundary.
5. **Concurrent Operation Restriction**
Millstone Bangert, Inc. is prohibited from operating whenever other plants are located at the site.
6. **Material Restriction**
Millstone Bangert, Inc.'s PORT-0648 shall only crush concrete waste. Concrete waste is defined as either street pavement waste or concrete construction demolition waste

Page No.	7
Permit No.	
Project No.	2013-03-066

SITE SPECIFIC SPECIAL CONDITIONS:

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

with reinforcing steel bars within the concrete. Street pavement waste may include a mix of concrete and asphalt paving. PORT-0648 is prohibited from crushing aggregate in its natural state. If Millstone Bangert, Inc. wishes to crush aggregate in its natural state, then Millstone Bangert, Inc. shall submit an Application For Authority to Construct to the Missouri Department of Natural Resource's Air Pollution Control Program.

7. Primary Equipment Requirement

- A. Millstone Bangert, Inc. shall process all concrete waste through the plant's primary crusher (EU-2). Bypassing the primary crusher is prohibited.
- B. Millstone Bangert, Inc. is prohibited from crushing more than 250 tons of concrete waste per hour through the primary jaw crusher.
- C. Millstone Bangert, Inc. shall demonstrate compliance with Special Condition 7.B by obtaining documentation from the manufacture or dealership of the maximum hourly throughput for the primary crusher when crushing concrete waste.

8. Record Keeping Requirement

Millstone Bangert, Inc. 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.

9. Reporting Requirement

Millstone Bangert, Inc. 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 (6) REVIEW

Project Number: 2013-03-066

Installation ID Number: PORT-0648

Permit Number:

Millstone Bangert, Inc.
2000 Arena Parkway
St. Charles, MO 63301

Complete: April 12, 2013

Parent Company:
Millstone Bangert, Inc.
601 Fountain Lakes Blvd
St. Charles, MO 63301

St. Charles County, LG 2982

PROJECT DESCRIPTION

Millstone Bangert, Inc. (herein referred to as Millstone) has submitted an Application For Authority to Construct to redefine PORT-0648 to consist of one primary crusher (primary emission unit), one secondary crusher, one screen and five discharge conveyors. These discharge conveyors consist of one discharge conveyor from the primary crusher, one discharge conveyor from the secondary crusher, and up to three discharge conveyors from the screen. This permit evaluates emissions of PORT-0648 at Lafarge's St. Charles Quarry, located at 2000 Arena Parkway in St. Charles, Missouri. Lafarge has historically operated at this site, but Millstone will only operate at this site when no other plants operate at this site.

PORT-0648 will only crush concrete waste. Concrete waste is defined as either street pavement waste or concrete construction demolition waste with reinforcing steel bars within the concrete. Street pavement waste may include a mix of concrete and asphalt paving. If Millstone wishes to crush aggregate in its natural state or process a different material, then Millstone would need to submit an Application For Authority to Construct to the Missouri Department of Natural Resource's Air Pollution Control Program.

Millstone will rent a variety of crushers and screens before purchasing them. As a result, Millstone has the flexibility to change their crushers and screens, but this plant shall not exceed one primary crusher, one secondary crusher, one screen and five discharge conveyors. Millstone is considering the following primary crushers, and as a result, they were evaluated during the review of this project: KPI-JCI Astec Companies Model FT2650, Powerscreen X400S, and Kleeman Mobicat 110Z. The MHDR of the KPI-JCI Astec Companies Model FT2650 is 500 tons per hour, but its maximum hourly throughput when crushing concrete waste is 250 tons per hour. The MHDR of the Powerscreen X400S is 400 tons per hour, but its maximum hourly throughput when crushing concrete waste is 250 tons per hour. The MHDR of the Kleeman Mobicat

110Z is 300 tons per hour, but its maximum hourly throughput when crushing concrete waste is 225 tons per hour. The primary crusher will be the bottleneck of this plant and as a result, the plant will be limited to handle up to 250 tons of concrete waste per hour. Therefore, the emissions of this project were evaluated with a throughput of 250 tons per hour.

One of the definitions of a nonroad engine, as found in 40 CFR 89.2, are engines “that, by itself or in or on a piece of equipment, is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another.” The crushers and screens are all track-mounted, and therefore portable, so combustion emissions were not calculated because the engines that power the crushers and screens were determined to be nonroad engines.

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 St. Charles County, a nonattainment area for the 8-hour ozone standard and the PM_{2.5} standard and an attainment area for all other criteria pollutants. This installation is 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 relocation permits have been issued to Millstone from the Air Pollution Control Program.

Table 1: Permit History

Permit Number	Permit Origin
6983A	Missouri Department of Natural Resource’s Air Pollution Control Program
6983	St. Louis County Department of Health
11-05-009	City of St. Louis Air Pollution Control Program

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 not site specific and should not vary from site to site. The existing actual emissions were taken from the previous year’s EIQ. This EIQ is based on the use of crushing and conveying emission units and a diesel engine. 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 are based on a voluntary 100.0 ton per year PM emission limit to comply with 10 CSR 10-6.060 *Construction Permits Required* (4)(A). All portable plants shall emit less than 100.0 tons per year of any pollutant.

Table 2: Emissions Summary (tons per year)

Air Pollutant	De Minimis Level	^a Potential Emissions of Process Equipment	Existing Actual Emissions (2012 EIQ)	^b Potential Emissions of the Application	Conditioned Potential Emissions
PM	25.0	36.91	N/D	492.74	< 100.00
PM ₁₀	15.0	13.24	0.48	121.17	24.81
PM _{2.5}	10.0	1.58	0.31	28.25	5.75
SO _x	40.0	N/A	0.29	N/A	N/A
NO _x	40.0	N/A	4.49	N/A	N/A
VOC	40.0	N/A	0.36	N/A	N/A
CO	100.0	N/A	0.96	N/A	N/A
Total HAPs	25.0	N/A	N/D	N/A	N/A

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

^aPotential Emissions of Process Equipment excludes haul road and storage pile emissions. The process equipment of this project includes only one primary crusher, one secondary crusher, one screen and discharge conveyors.

^bIncludes site specific haul road and storage pile emissions

Table 3: Ambient Air Quality Impact Analysis

Pollutant	NAAQS (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 (Solitary)	150.0	24-hour	250.67	130.0	20.0	3,609

^aModeled impact of PORT-0648 at maximum capacity with controls

^bIndirect limit based on compliance with NAAQS

^cOperation without other plants on site

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 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 for the primary and secondary crushers because the equipment is control by water spray devices. The uncontrolled emission factors were used for the screen because the inherent moisture content of the concrete waste is less than 1.5% by weight and the screen is not controlled by water spray devices.

This site has unpaved and paved haul roads. Emissions from the unpaved 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 the paved haul roads and vehicular activity areas were calculated using the predictive equation from AP-42 Section 13.2.1 “Paved

Roads,” January 2011.

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 concrete waste was assumed to be 0.7% by weight. A silt content of 3.9% was assumed because the concrete waste is considered “various limestone products” per Table 13.2.4-1. 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.” This project includes three storage piles. One storage pile is an existing storage pile of concrete waste so load-in emissions were not considered for this storage pile. The other two storage piles will consist of crushed concrete waste. The crushed material will go to either storage pile for crushed concrete waste, therefore, an hourly throughput of 125 tons per hour was used to calculate the emissions from these storage piles. This is half of the plant’s MHDR.

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 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 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 may be 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 20.0 µg/m³ of PM₁₀ in accordance with the Air Pollution Control Program’s BMPs interim policy.

APPLICABLE REQUIREMENTS

Millstone Bangert, Inc. 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.
- No Operating Permit is required for this installation because this plant is portable.
- *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

- NSPS (40 CFR 60) Subpart OOO, "Standards of Performance for Nonmetallic Mineral Processing Plants" apply because the aggregate in concrete waste will be reduced in size.
- 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 (6), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions. Potential emissions of PM and PM₁₀ are above the de minimis level, but below major source levels.

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 April 9, 2013, received April 12, 2013, designating Millstone Bangert, Inc. as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.

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. Hyatt J. Bangert
Executive Vice President
Millstone Bangert, Inc.
601 Fountain Lakes Blvd
St. Charles, MO 63301

RE: New Source Review Permit - Project Number: 2013-03-066

Dear Mr. Bangert:

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 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:dwl

Enclosures

c: St. Louis Regional Office
PAMS File: 2013-03-066

Permit Number: