

## 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: **102014-001**

Project Number: 2014-05-016  
Installation Number: 099-0002

Parent Company: Buzzi Unicem USA

Parent Company Address: 100 Brodhead Road, Bethlehem, PA 18017

Installation Name: River Cement Company dba Buzzi Unicem USA

Installation Address: 1000 River Cement Road, Festus, MO 63028

Location Information: Jefferson County, S23, T40N, R6E

Application for Authority to Construct was made for:

Addition of screens and conveyors to the existing secondary crushing and screening system to increase the maximum hourly design rate. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

Standard Conditions (on reverse) are applicable to this permit.

Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

**OCT - 2 2014**

EFFECTIVE DATE

A handwritten signature in black ink, appearing to read "Lynn 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 these air contaminant sources. The information must be made available within 30 days of actual startup. Also, you must notify the Department of Natural Resources Regional office responsible for the area within which you are located within 15 days after the actual start up of these air contaminant sources.

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant sources(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.

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Project No.	2014-05-016

**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."*

River Cement Company dba Buzzi Unicem USA  
Jefferson County, S23, T40N, R6E

1. **Superseding Condition**  
The conditions of this permit supersede Special Condition No. 4 found in the previously issued Construction Permit No. 052012-012 (Project 2011-11-017) issued by the Air Pollution Control Program.
2. **Control Device Requirement - Baghouse**
  - A. River Cement Company dba Buzzi Unicem shall control emissions from the following equipment using baghouses as specified in the permit application.
    - 1) TP-Belt 202215 (EP 2-R-03D)
    - 2) Transfer Belt 202260 (EP 2-R-03E)
    - 3) Belts 508003 and 508004 (EP 2-R-04A)
    - 4) Syntron Vibrating Feeder (EP 2-R-03A, -03B, -03C)
    - 5) Hazemag Roller Screen (EP 2-R-03A, -03B, -03C)
  - 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 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).

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**SPECIAL CONDITIONS:**

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

- D. River Cement Company dba Buzzi Unicem USA 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. River Cement Company dba Buzzi Unicem USA shall maintain a copy of the baghouse manufacturer's performance warranty on site.
- E. River Cement Company dba Buzzi Unicem USA 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.
- 3. Capture Device Requirement
  - A. River Cement Company dba Buzzi Unicem USA shall capture emissions from the equipment below using hoods. A hood is a shaped inlet to a pollution control system that does not totally surround emissions from an emission unit. The hood shall be designed in accordance with the most current version of the "Industrial Ventilation – A Manual of Recommended Practice, American Conference of Governmental Industrial Hygienists."

**Table 1: Equipment with Hood Capture**

<b>Emission Point No.</b>	<b>Description</b>
2-R-01	Primary Surge Bin Discharge
2-R-02	Belts 201040.5 and 202070 into surge bin
2-R-03D	TP-Belt 202215
2-R-03E	Transfer Belt 202260
2-R-04A	Belts 508003 and 508004

- B. The maximum distance between the hood inlet and the emission source shall not exceed 1.5 times the diameter of the exhaust duct in accordance with "The American Conference of Governmental Industrial Hygienists (ACGIH). Industrial Ventilation – A Manual of Recommended Practice, 23<sup>rd</sup> Edition"
- C. River Cement Company dba Buzzi Unicem USA shall capture emissions from the following equipment using a permanent total enclosure.

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**SPECIAL CONDITIONS:**

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

**Table 2: Equipment with Permanent Total Enclosure**

*Emission Point No.	Description
2-R-03A	Surge Bin Feeder
2-R-03B	Secondary Crusher
2-R-03C	Secondary Crusher Discharge
2-R-03A, -03B, -03C	Vibrating Feeder 202205
2-R-03A, -3B. -03C	Hazemag Roller Screen 202210

\*Emission points are repeated because multiple equipment is vented through the same emission point.

- D. River Cement Company dba Buzzi Unicem USA shall verify within 30 days of the startup of each individual emission units in Special Condition 3.C. that each respective permanent total enclosure has 100% capture efficiency according to the procedures of EPA Test Method 204, *Criteria for and Verification of a Permanent or Temporary Total Enclosure*, set forth in 40 CFR Part 51, Appendix M.
- E. River Cement Company dba Buzzi Unicem USA shall maintain an operating and maintenance log for the total enclosure and hoods 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.
4. Record Keeping and Reporting Requirements  
River Cement Company dba Buzzi Unicem USA shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. These records shall include MSDS for all materials used.

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

Project Number: 2014-05-016  
Installation ID Number: 099-0002  
Permit Number:

River Cement Company dba Buzzi Unicem USA      Complete: May 9, 2014  
1000 River Cement Road  
Festus, MO 63028

Parent Company:  
Buzzi Unicem USA  
100 Brodhead Road  
Bethlehem, PA 18017

Jefferson County, S23, T40N, R6E

REVIEW SUMMARY

- River Cement Company dba Buzzi Unicem has applied for authority to modify its secondary crusher system by replacing the SMICO screen with a vibrating feeder and a roller screen, replacing the single deck screen at the south building with a two deck screen, and adding or modifying various conveyors.
- HAP emissions are not expected from the proposed equipment.
- Subpart F, *Standards of Performance for Portland Cement Plants*, of the NSPS applies to the screens. Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Plants*, of the NSPS applies to the conveyors.
- 40 CFR 63, Subpart LLL, *National Emissions Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry*, of the MACT applies to the conveyor transfer points.
- None of the NESHAPs apply to this installation.
- Baghouses are being used to control emissions from the proposed/modified equipment.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of all pollutants are below their respective de minimis levels.
- This installation is located in Jefferson County, a nonattainment area for the 8-hour ozone standard and the PM<sub>2.5</sub> standard and an attainment area for all other criteria pollutants. Part of Jefferson County is a nonattainment area for lead. This installation is not located in the Jefferson County lead nonattainment area.

- This installation is on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2. The installation is classified as item number 3, *Portland Cement Plants*. The installation's major source level is 100 tons per year and fugitive emissions are counted toward major source applicability.
- Ambient air quality modeling was not performed since potential emissions of the application are below de minimis levels.
- Emissions testing is not required for the equipment as a condition of this permit.
- A modification to the facility's Part 70 Operating Permit is required for this installation within 1 year of commencement of operations.
- Approval of this permit is recommended with special conditions.

### INSTALLATION DESCRIPTION

River Cement Company dba Buzzi Unicem USA operates a Portland cement manufacturing installation in Festus, MO. The facility is considered a major source of air pollutants for construction permits and a Part 70 source for operating permits. The following construction permits have been issued to the installation.

**Table 3: Issued Construction Permits**

Permit Number	Description
032013-003A	Change PM <sub>10</sub> testing requirements and sulfur content limit of the alternative fuels.
032013-003	Use of alternate fuels in the preheater/precalciner cement kiln.
052012-012	Modification of existing raw material crushing system and existing clinker handling system.
012010-011A	Extension of temporary permit.
012010-011	Temporary heater.
012010-010	Installation of new fly ash system.
022010-005	Use of alternative fuel for the cement kiln.
122005-005A	Amendment of permit 122005-005 to account for different installation design than permitted.
122005-005	Replacement of kiln system.
122003-008	A Section (5) permit issued for the replacement of the direct-fired solid fuel systems used on the existing cement kilns with an indirect-fired solid fuel mill/feed system.
052002-013	A Section (5) permit issued for the replacement of four (4) existing air separators at Finish Mill Number 1 and Finish Mill Number 2 with two (2) air separators of a slightly larger capacity.
1299-018	A temporary permit issued to conduct a test program of oxygen enrichment to the combustion zone of the cement kiln.
0693-008	A Section (5) permit issued for the modifications of fuel storage permit 0687-13A and fuel utilization permit 1288-004A. This permit was issued in order to allow for a change in the total number and volume of tanks, for an increase in the annual fuel storage and utilization quantity, for the addition of a vacuum operated truck, railcar, and on site container cleaning facility and for the addition of another burner system to each kiln for the direct burning of a high viscosity liquid (HVL) waste fuel.

0293-006	A Section (5) permit issued to increase the cement storage capacity by one (1) silo with the addition of a reclaim conveyor and five (5) dust collectors.
0687-013B	An amendment to Permit No. 0687-013A issued for the modification of a waste fuel storage permit.
1288-004A	An amendment issued to modify the hazardous waste combustion Permit No. 1288-004.
0687-013A	An amendment issued to modify Permit No. 0687-013 to allow the installation and operation of three (3) 22,000 gallon and six (6) 39,000 gallon storage tanks in place of the ten (10) 30,000 gallon storage tanks originally permitted.
1288-004	A Section (5) permit issued on December 9, 1988, to allow River Cement Company to burn hazardous waste fuel D001 [ignitable, nonlisted hazardous waste]. This submittal covers the physical burning of the fuel. (Ref. J.Pintor, RC, letter to M.Stansfield, MDNR, 1/29/87) "Peripherals necessary to allow a cement kiln to burn hazardous waste fuel. These include a fuel supply system and an oxygen monitor in the kiln stack."
0687-013	A Section (5) permit issued on June 29, 1987 for construction of storage tanks associated with the burning of hazardous waste fuel D001 [ignitable, nonlisted hazardous waste], (Ref. J.Pintor, RC, letter to M.Stansfield, MDNR, 1/22/87). Construction of ten (10) 30,000 gallon tanks for storage of hazardous waste fuel.

## PROJECT DESCRIPTION

River Cement Company dba Buzzi Unicem USA proposes to modify its existing secondary crushing and screening system. The objective is to provide a secondary crushing and screening system capable of processing product from the primary crusher at a rate of 1200 tph and producing a product with a 100% passing size of 4.5 inches. Of the secondary product, approximately 200,000 tpy of minus 2 inches will be diverted for use as supplementary feed for the finish mill or road surfacing stone. However, the quarry production would still be bottlenecked on an annual basis based on the clinker production and there should be no additional throughput.

For this project, the existing SMICO screen in the South section of the secondary crushing building will be removed. A vibrating feeder and a roller screen will be added to separate out the 4.5 inch and lower size material and send it to the limestone dome as raw mill feed. Material greater than 4.5 inch will be fed to the South secondary crusher and the product will be then conveyed to the South screen building. The existing South single deck screen will be replaced with a double deck screen which will split the feed into three fractions. The oversized fraction (greater than 4.5 inches) will be returned to the secondary crusher. The middle fraction (between 2 and 4.5 inches) will be discharged and sent to the limestone dome as raw mill feed. Most of the fines fraction (between 0 and 2 inches) will also be sent to the limestone dome as raw mill feed, but a small portion will be diverted to the finish mill feed silos or to a road-stone storage pile.

The proposed modification would allow the installation to reduce truck traffic and run less crushing shifts. The modification would allow for continuous feeding of the primary crusher as opposed to stopping and starting due to waiting for material to clear the

secondary crusher. By continually feeding the primary, less trucks will be traveling and the storage will fill quicker, thus reducing crushing time.

Furthermore, the additional equipment allows for more flexibility to use crushed limestone on-site. Currently, the limestone crushed by the primary and secondary crushers cannot be separated to be used for road work. Therefore, limestone that is used for road work must be crushed by an outside contractor with a mobile crusher. This project would allow the installation to separate the limestone and use part of the limestone for road work. There will be no additional hauling because the installation will be using the existing hauling capacity for the road rocks. Table 2 lists equipment involved in this project.

**Table 4: Equipment Involved in this Project**

<b>Equipment to be Modified</b>	
<b>Emission Point</b>	<b>Description</b>
2-R-03A	Surge bin feeders
2-R-03C	Secondary crusher discharge onto belts 202040 and 202240
5-L-14	Clinker and cement additive to belt 330070
5-L-15	Belt 330070 to belt conveyor and trip (330090)
5-L-16	Trippers discharge into converted clinker silos
<b>Equipment to be Added</b>	
2-R-04	Screen 202250 and Discharge to Belts 20260/220010/508003
2-R-03D	Belt 202215
2-R-03E	Transfer belt 202260 to secondary crusher 202230
2-R-04A	Belts 508003 and 308004
2-R-03A, -03B, -03C	Syntron vibrating feeder 202031
2-R-03A, -03B, -03C	Hazemag roller screen 202231

The installation is also planning to add a conveyor belt (5-L-15A) to allow clinker transport to the existing clinker silos. However, the facility does not currently know when the belt would be needed. Therefore, this conveyor is not included in this permit. Once the installation determines that the conveyor is needed, a new permit application should be submitted to the Air Pollution Control Program to include the conveyor belt as part of this project.

When Permit No. 052012-012 was issued, the surge bin feeder (2-R-03A), the secondary crusher (2-R-03B) and the secondary crusher discharge (2-R-03C) were listed as having hoods to capture emissions in Special Condition 4. After this project, these units would be using permanent enclosure as a capture method. Therefore, this permit supersedes Special Condition No. 4 in Permit No. 052012-012.

Emissions from the surge bin feeder (2-R-03A), secondary crusher discharge (2-R-03C), the clinker and cement additive to belt (5-L-14), conveyor belt (5-L-15) and tripper discharge (5-L-16) are controlled by baghouses. However, previous permits issued to

the installation (No. 122005-005 and No. 052012-012) already require these units to use baghouses. Therefore, baghouse conditions for these equipment are not included in this permit. The clinker and cement additive to belt (5-L-14), conveyor belt (5-L-15) and tripper discharge (5-L-16) are also required by the previous permit (No. 122005-005) to capture emissions using an enclosure so a special condition requiring the installation to capture emissions from these units using an enclosure is not included.

## EMISSIONS/CONTROLS EVALUATION

The emission factors used in this analysis were obtained from the EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, chapter 11.19, *Crushed Stone Processing and Pulverized Mineral Processing*, (8/2004). Emissions from all the equipment are controlled using baghouses and a default device control efficiency of 99% was used in the calculations. Some of the emissions are captured by complete enclosure to be vented to baghouses while others are captured by hoods. Table 3 below lists the equipment and the capture methods used for each.

**Table 5: Capture Methods**

<b>Emission Points</b>	<b>Description</b>	<b>Capture Method</b>
2-R-03A	Surge bin feeders	Complete Enclosure
2-R-03C	Secondary crusher discharge onto belts 202040 and 202240	Complete Enclosure
2-R-04	Screen 202520 and discharge to belts 202260/202210/508003	Complete Enclosure
5-L-14	Clinker and cement additives transfer to belt 330070	Hood
5-L-15	Belt 330070 to belt conveyer and tripper	Hood
5-L-16	Trippers discharge into converted clinker silos	Complete Enclosure
2-R-03D	Belt 202215 (From 202210 to 202040)	Hood
2-R-03E	Transfer Belt 202260 to Secondary Crusher 202230	Hood
2-R-04A	Belts 508003 and 508004	Hood
2-R-03A, -03B, -03C	Vibrating Feeder	Complete Enclosure
2-R-03A, -03B, -03C	Hazmag Roller Screen	Complete Enclosure

Complete Enclosures were given 100% capture efficiency. The facility is required to verify the efficiency for the Hazmag roller screen and vibrating feeder using EPA Test Method 204, *Criteria for and Verification of a Permanent or Temporary Total Enclosure*. The facility is not required to verify the 100% capture efficiency for the other complete enclosures because they have already been permitted in previous permits. Hoods were given 60% capture efficiency, which is the highest efficiency used by the Air Pollution Control Program that does not require installations to verify the efficiency.

The following table provides an emissions summary for this project. Existing potential emissions are not determined but known to be major. Existing actual emissions were taken from the installation's 2013 EIQ. Potential emissions of the application represent the potential of the new and modified equipment, assuming continuous operation (8760 hours per year).

**Table 6: Emissions Summary (tons per year)**

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (2013 EIQ)	Potential Emissions of the Application	New Installation Conditioned Potential
PM	25.0	Major	N/D	15.50	N/A
PM <sub>10</sub>	15.0	Major	527.0	5.65	N/A
PM <sub>2.5</sub>	10.0	Major	266.2	1.46	N/A
SO <sub>x</sub>	40.0	Major	502.8	N/A	N/A
NO <sub>x</sub>	40.0	Major	3,142.9	N/A	N/A
VOC	40.0	Major	242.5	N/A	N/A
CO	100.0	Major	1,877.0	N/A	N/A
GHG (CO <sub>2</sub> e)	100,000	Major	N/D	N/A	N/A
GHG (mass)	250.0	Major	N/D	N/A	N/A
HAPs	10.0/25.0	Major	146.7	N/A	N/A

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

### PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of all pollutants are below de minimis levels.

### APPLICABLE REQUIREMENTS

Reiver Cement Company dba Buzzi Unicem USA shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved. For a complete list of applicable requirements for your installation, please consult your operating permit.

## GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
- *Operating Permits*, 10 CSR 10-6.065
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170
- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220
- *Restriction of Emission of Odors*, 10 CSR 10-6.165

## SPECIFIC REQUIREMENTS

- *New Source Performance Regulations*, 10 CSR 10-6.070
  - *Standards of Performance for Portland Cement Plants*, 40 CFR Part 60, Subpart F
  - *Standards of Performance for Nonmetallic Mineral Processing Plants*, 40 CFR Part 60, Subpart OOO
- *MACT Regulations*, 10 CSR 10-6.075
  - *National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry*, 40 CFR Part 63, Subpart LLL

## STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

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Chia-Wei Young  
New Source Review Unit

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Date

## PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated May 5, 2014, received May 9, 2014, designating Buzzi Unicem USA as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.

## APPENDIX A

### Abbreviations and Acronyms

<b>%</b> .....percent	<b>m/s</b> ..... meters per second
<b>°F</b> .....degrees Fahrenheit	<b>Mgal</b> ..... 1,000 gallons
<b>acfm</b> .....actual cubic feet per minute	<b>MW</b> ..... megawatt
<b>BACT</b> ..... Best Available Control Technology	<b>MHDR</b> ..... maximum hourly design rate
<b>BMPs</b> ..... Best Management Practices	<b>MMBtu</b> .... Million British thermal units
<b>Btu</b> ..... British thermal unit	<b>MMCF</b> ..... million cubic feet
<b>CAM</b> ..... Compliance Assurance Monitoring	<b>MSDS</b> ..... Material Safety Data Sheet
<b>CAS</b> ..... Chemical Abstracts Service	<b>NAAQS</b> ... National Ambient Air Quality Standards
<b>CEMS</b> ..... Continuous Emission Monitor System	<b>NESHAPs</b> ..... National Emissions Standards for Hazardous Air Pollutants
<b>CFR</b> ..... Code of Federal Regulations	<b>NO<sub>x</sub></b> ..... nitrogen oxides
<b>CO</b> .....carbon monoxide	<b>NSPS</b> ..... New Source Performance Standards
<b>CO<sub>2</sub></b> .....carbon dioxide	<b>NSR</b> ..... New Source Review
<b>CO<sub>2e</sub></b> .....carbon dioxide equivalent	<b>PM</b> ..... particulate matter
<b>COMS</b> ..... Continuous Opacity Monitoring System	<b>PM<sub>2.5</sub></b> ..... particulate matter less than 2.5 microns in aerodynamic diameter
<b>CSR</b> ..... Code of State Regulations	<b>PM<sub>10</sub></b> ..... particulate matter less than 10 microns in aerodynamic diameter
<b>dscf</b> .....dry standard cubic feet	<b>ppm</b> ..... parts per million
<b>EQ</b> ..... Emission Inventory Questionnaire	<b>PSD</b> ..... Prevention of Significant Deterioration
<b>EP</b> ..... Emission Point	<b>PTE</b> ..... potential to emit
<b>EPA</b> ..... Environmental Protection Agency	<b>RACT</b> ..... Reasonable Available Control Technology
<b>EU</b> ..... Emission Unit	<b>RAL</b> ..... Risk Assessment Level
<b>fps</b> .....feet per second	<b>SCC</b> ..... Source Classification Code
<b>ft</b> ..... feet	<b>scfm</b> ..... standard cubic feet per minute
<b>GACT</b> ..... Generally Available Control Technology	<b>SIC</b> ..... Standard Industrial Classification
<b>GHG</b> ..... Greenhouse Gas	<b>SIP</b> ..... State Implementation Plan
<b>gpm</b> ..... gallons per minute	<b>SMAL</b> ..... Screening Model Action Levels
<b>gr</b> ..... grains	<b>SO<sub>x</sub></b> ..... sulfur oxides
<b>GWP</b> ..... Global Warming Potential	<b>SO<sub>2</sub></b> ..... sulfur dioxide
<b>HAP</b> ..... Hazardous Air Pollutant	<b>tph</b> ..... tons per hour
<b>hr</b> ..... hour	<b>tpy</b> ..... tons per year
<b>hp</b> ..... horsepower	<b>VMT</b> ..... vehicle miles traveled
<b>lb</b> ..... pound	<b>VOC</b> ..... Volatile Organic Compound
<b>lbs/hr</b> ..... pounds per hour	
<b>MACT</b> ..... Maximum Achievable Control Technology	
<b>µg/m<sup>3</sup></b> .....micrograms per cubic meter	

Mr. Bard Williams  
Plant Manager  
River Cement Co dba Buzzi Unicem USA  
1000 River Cement Road  
Festus, MO 63028

RE: New Source Review Permit - Project Number: 2014-05-016

Dear Mr. Williams:

Enclosed with this letter is your permit to construct. Please study it carefully and refer to Appendix A for a list of common abbreviations and acronyms used in the permit. Also, note the special conditions, if any, on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files. Operation in accordance with these conditions, your new source review permit application and with your amended operating permit is necessary for continued compliance. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

If you have any questions regarding this permit, please do not hesitate to contact Chia-Wei Young, at the Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Susan Heckenkamp  
New Source Review Unit Chief

SH:cyl

Enclosures

c: St. Louis Regional Office  
PAMS File: 2014-05-016

Permit Number: