

MISSOURI
DEPARTMENT OF
NATURAL RESOURCES
Air Pollution Control Program

INTERMEDIATE STATE PERMIT TO OPERATE

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

Intermediate Operating Permit Number: OP2018-043
Expiration Date: MAY 21 2023
Installation ID: 189-0069
Project Number: 2015-05-047

Installation Name and Address

The Quikrete Companies, Inc.
701 Marshall Road
Valley Park, MO 63088
St. Louis County

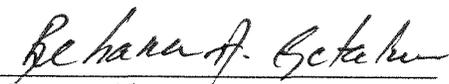
Parent Company's Name and Address

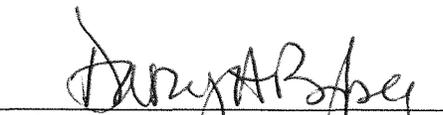
The Quikrete Companies, Inc.
701 Marshall Road
Valley Park, MO 63088

Installation Description:

The Quikrete Companies, Inc. operates a dry mineral products mixing and packaging plant located on Marshall Road in Saint Louis County. Products include quick-set concrete mix, mortar cement, sand, and other related products.

The installation has the potential to emit particulate matter with an aerodynamic diameter of less than or equal to ten microns (PM₁₀) and sulfur oxides (SO_x) above the major source thresholds; however, the installation has accepted voluntary, federally enforceable emission limitations limiting PM₁₀ and SO₂ to less than major source levels to qualify for this permit.


Prepared by:
Berhanu A. Getahun
Operating Permit Unit


Director or Designee
Department of Natural Resources

MAY 21 2018
Effective Date

Table of Contents

I. INSTALLATION EQUIPMENT LISTING	3
EMISSION UNITS WITH LIMITATIONS.....	3
EMISSION UNITS WITHOUT SPECIFIC LIMITATIONS	3
II. PLANT WIDE EMISSION LIMITATIONS.....	4
Permit Condition PW001	4
10 CSR 10-6.065 Operating Permits	4
10 CSR 10-6.020(2)(I)23. and 10 CSR 10-6.065(5)(C)2. Voluntary Limitation(s).....	4
Saint Louis County Construction Permit No. 7695, Issued April 4, 2012	4
III. EMISSION UNIT SPECIFIC EMISSION LIMITATIONS.....	5
EU001 – ROTARY SAND DRYER	5
Permit Condition EU001 - 001	5
10 CSR 10-6.400 Restriction of Emissions of Particulate Matter from Industrial Processes.....	5
10 CSR 10-6.060 Construction Permits Required	5
St. Louis County APCP Construction Permit Amendment No. 5021A	5
EU015 – LIME SILO	6
Permit Condition EU015 - 001	6
10 CSR 10-6.060 Construction Permits Required	6
St. Louis County APCP Construction Permit No. 7695	6
IV. CORE PERMIT REQUIREMENTS.....	8
V. GENERAL PERMIT REQUIREMENTS	15
VI. ATTACHMENTS	19
ATTACHMENT A - PLANT-WIDE PM10 EMISSIONS TRACKING RECORD	20
ATTACHMENT B - VISIBLE EMISSION OBSERVATIONS	21
ATTACHMENT C - FUGITIVE EMISSION OBSERVATIONS.....	22
ATTACHMENT D - METHOD 9 OPACITY EMISSIONS OBSERVATIONS	23
ATTACHMENT E - INSPECTION/MAINTENANCE/REPAIR/MALFUNCTION LOG	24

I. Installation Equipment Listing

EMISSION UNITS WITH LIMITATIONS

The following list provides a description of the equipment at this installation which emits air pollutants and identified as having unit-specific emission limitations.

<u>Emission Unit #</u>	<u>Description of Emission Unit</u>
EU001	Rotary Sand Dryer
EU015	Lime Silo

EMISSION UNITS WITHOUT SPECIFIC LIMITATIONS

The following list provides a description of the equipment, which does not have unit specific limitations at the time of permit issuance.

<u>Description of Emission Source</u>	
EU002	Cement Line
EU003	Sand Line
EU004	Fly Ash Silo
EU005	Cement Line (Main Line)
EU006	Masonry Silo
EU007	Main Sand/Gravel Line
EU008	Sand/Gravel Packer
EU009	Cement Line (Related Line)
EU010	Cement Silo B1
EU011	Masonry Silo B2
EU013	Sand/Gravel Transfer, Bins to Dryer
EU014	Sand/Gravel Transfer, Dryer to Bagging Lines
EU016	Cement Blender
EU017	Silo for Blended Materials

II. Plant Wide Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect on the date of permit issuance. The plant wide conditions apply to all emission units at this installation. All emission units are listed in Section I under Emission Units with Limitations and Emission Units without Limitations.

Permit Condition PW001

10 CSR 10-6.065 Operating Permits
10 CSR 10-6.020(2)(I)23. and 10 CSR 10-6.065(5)(C)2. Voluntary Limitation(s)
Saint Louis County Construction Permit No. 7695, Issued April 4, 2012

Emission Limitation:

The permittee shall discharge into the atmosphere from the entire installation less than 100 tons of particulate matter with an aerodynamic diameter of less than or equal to ten microns (PM₁₀) in any consecutive 12-month period.

Monitoring/Record Keeping:

The permittee shall maintain an accurate record of emissions of PM₁₀ emitted into the atmosphere from this installation. The permittee shall record the monthly and running 12-month totals of the PM₁₀ emissions from this installation. Example form is attached as Attachment A (Plant-wide Emissions Tracking Record). The permittee may use this form, or forms of its own, so long as the forms used will accurately demonstrate compliance with the PM₁₀ emission limitation (less than 100 tons per consecutive 12-month period of PM₁₀).

Reporting:

- 1) The permittee shall report to the SLCDH Air Pollution Control Program, 6121 North Hanley Road, Berkeley, Missouri 63134 and the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or AirComplianceReporting@dnr.mo.gov, no later than ten (10) days after records show that emissions limitations established in this permit condition were exceeded.
- 2) Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted annually in the annual compliance certification and monitoring report, as required by Section V of this permit.

III. Emission Unit Specific Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect on the date of permit issuance.

EU001 – Rotary Sand Dryer	
Emission Unit	Description
EU001	132 tons per hour rotary sand dryer – 90 MMBtu/hr natural gas fired drum dryer, Shopmade in 1967. Particulate Matter Control Device: Two baghouses (Kinetic -Air Model 256-RW-120 baghouses)

Permit Condition EU001 - 001
10 CSR 10-6.400 Restriction of Emissions of Particulate Matter from Industrial Processes 10 CSR 10-6.060 Construction Permits Required St. Louis County ACP Construction Permit Amendment No. 5021A

Emission Limitation:

- 1) The permittee shall not cause, suffer, allow or permit the emissions of particulate matter (PM) in any one (1) hour from the Rotary Sand Dryer in excess of the amount calculated using the equation, $PM\ lb/hr = 55.0P^{0.11} - 40$ of 10 CSR 10-6.400, where P is the process weight in tons per hour. The limit is 54.11 pounds per hour. [10 CSR 10-6.400(3)(A)1.]
- 2) The permittee shall not cause, allow or permit the emission of particulate matter from the Rotary Sand Dryer in a concentration in excess of 0.30 grain per standard cubic foot of exhaust gases. [10 CSR 10-6.400(3)(A)4.]

Operational Limitation/Equipment Specification:

Control Device Requirement – Baghouses [Construction Permit 5021A, Special Condition 1]

- 1) The permittee shall control emissions from the Rotary Sand Dryer (EU001) using baghouse control devices as specified in the construction permit application.
- 2) The permittee shall operate and maintain the baghouses in accordance with the manufacturers specifications. A copy of the manufacturer's specifications shall be retained onsite and shall be used to verify that the control devices are being operated within the parameters set forth by the manufacturer.
- 3) The permittee shall equip each baghouse with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that St. Louis County Department of Public Health personnel may easily observe them.
- 4) The permittee shall keep replacement filters for the baghouses on hand at all times. The filters shall be made of fibers appropriate for the operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance)
- 5) The permittee shall monitor and record the pressure drop across each baghouse at least once each day. The operating pressure drop shall be maintained within the range specified by the manufacturer.

- 6) The permittee shall maintain an operating and maintenance log for the baghouses which shall include the following:
 - a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
 - b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.

Monitoring/Recordkeeping:

- 1) The permittee monitor and record the pressure drop across each baghouse at least once each day. The operating pressure drop shall be maintained within the range specified by the manufacturer.
- 2) The permittee shall retain the potential to emit calculations which demonstrate that the above emission limitation will never be exceeded. The calculation shall be made available immediately for inspection to the Department of Natural Resources personnel and St. Louis Department of Health (SLCDH) Air Pollution Control Program upon request.
- 3) The permittee shall maintain all records required by this permit condition for not less than five years and shall make them available immediately to any Saint Louis County Department of Health (SCDH) or Missouri Department of Natural Resources' Personnel upon request.

Reporting:

- 1) The permittee shall report to the SLCDH Air Pollution Control Program(or designated agency), 6121 N. Hanley Rd. Berkeley MO 63134 (or current address) and the Missouri Department of Natural Resources Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or AirComplianceReporting@dnr.mo.gov, no later than ten days after the end of the month during which any record required by this permit condition shows an exceedance of a limitation imposed by this permit condition.
- 2) Reports of any deviations from monitoring, record keeping and reporting requirements of this permit condition shall be submitted annually in the annual compliance certification and monitoring report, as required by Section V of this permit.

EU015 – Lime Silo	
Emission Unit	Description
EU015	Lime Silo - Located at Blended Material Packaging Line Control Device: Baghouse Manufacturer: MAC Equipment, Model 72AVS16 Installation Date: 2011

Permit Condition EU015 - 001
10 CSR 10-6.060 Construction Permits Required St. Louis County APCP Construction Permit No. 7695

Control Device Requirement-Baghouse:

- 1) The permittee shall control emissions from the Lime Silo located at Blended Material Packaging Line using a 98% efficient baghouse as specified in the construction permit application.
- 2) The permittee shall operate and maintain the baghouse in accordance with the manufacturer's specifications.

IV. Core Permit Requirements

The installation shall comply with each of the following requirements. Consult the appropriate sections in the Code of Federal Regulations (CFR), Code of State Regulations (CSR), and local ordinances for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect on the date of permit issuance. The following are only excerpts from the regulation or code, and are provided for summary purposes only.

10 CSR 10-6.045 Open Burning Requirements

- 1) General Provisions. The open burning of tires, petroleum-based products, asbestos containing materials, and trade waste is prohibited, except as allowed below. Nothing in this rule may be construed as to allow open burning which causes or constitutes a public health hazard, nuisance, a hazard to vehicular or air traffic, nor which violates any other rule or statute.
- 2) Certain types of materials may be open burned provided an open burning permit is obtained from the director. The permit will specify the conditions and provisions of all open burning. The permit may be revoked if the owner or operator fails to comply with the conditions or any provisions of the permit.

10 CSR 10-6.050 Start-up, Shutdown and Malfunction Conditions

- 1) In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the director within two business days, in writing, the following information:
 - a) Name and location of installation;
 - b) Name and telephone number of person responsible for the installation;
 - c) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
 - d) Identity of the equipment causing the excess emissions;
 - e) Time and duration of the period of excess emissions;
 - f) Cause of the excess emissions;
 - g) Air pollutants involved;
 - h) Estimate of the magnitude of the excess emissions expressed in the units of the applicable requirement and the operating data and calculations used in estimating the magnitude;
 - i) Measures taken to mitigate the extent and duration of the excess emissions; and
 - j) Measures taken to remedy the situation that caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations.
- 2) The permittee shall submit the paragraph 1 information to the director in writing at least ten days prior to any maintenance, start-up or shutdown activity which is expected to cause an excessive release of emissions that exceed one hour. If notice of the event cannot be given ten days prior to the planned occurrence, notice shall be given as soon as practicable prior to the activity.
- 3) Upon receipt of a notice of excess emissions issued by an agency holding a certificate of authority under section 643.140, RSMo, the permittee may provide information showing that the excess emissions were the consequence of a malfunction, start-up or shutdown. The information, at a minimum, should be the paragraph 1 list and shall be submitted not later than 15 days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other pertinent information available, the director or the commission shall make a determination whether the excess emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under section 643.080 or 643.151, RSMo.

- 3) The permittee shall have replacement filters for the baghouse 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).

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the annual compliance certification to the SLCDH Air Pollution Control Program, 6121 North Hanley Road, Berkeley, Missouri 63134, and the Missouri Department of Natural Resources Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, or AirComplianceReporting@dnr.mo.gov, as required by Section V of this permit.

- 4) Nothing in this rule shall be construed to limit the authority of the director or commission to take appropriate action, under sections 643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding rule.
- 5) Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported.

10 CSR 10-6.060 Construction Permits Required

The permittee shall not commence construction, modification, or major modification of any installation subject to this rule, begin operation after that construction, modification, or major modification, or begin operation of any installation which has been shut down longer than five years without first obtaining a permit from the permitting authority.

10 CSR 10-6.065 Operating Permits

The permittee shall file a complete application for renewal of this operating permit at least six months before the date of permit expiration. In no event shall this time be greater than eighteen months. The permittee shall retain the most current operating permit issued to this installation on-site. The permittee shall immediately make such permit available to any Missouri Department of Natural Resources personnel upon request.

10 CSR 10-6.080 Emission Standards for Hazardous Air Pollutants and 40 CFR Part 61 Subpart M National Emission Standard for Asbestos

The permittee shall follow the procedures and requirements of 40 CFR Part 61, Subpart M for any activities occurring at this installation which would be subject to provisions for 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos.

10 CSR 10-6.100 Alternate Emission Limits

Proposals for alternate emission limitations shall be submitted on Alternate Emission Limits Permit forms provided by the department. An installation owner or operator must obtain an Alternate Emission Limits Permit in accordance with 10 CSR 10-6.100 before alternate emission limits may become effective.

10 CSR 10-6.110 Reporting of Emission Data, Emission Fees and Process Information

- 1) The permittee shall submit a Full Emissions Report either electronically via MoEIS, which requires Form 1.0 signed by an authorized company representative, or on Emission Inventory Questionnaire (EIQ) paper forms on the frequency specified in this rule and in accordance with the requirements outlined in this rule. Alternate methods of reporting the emissions, such as spreadsheet file, can be submitted for approval by the director.
- 2) Public Availability of Emission Data and Process Information. Any information obtained pursuant to the rule(s) of the Missouri Air Conservation Commission that would not be entitled to confidential treatment under 10 CSR 10-6.210 shall be made available to any member of the public upon request.
- 3) The permittee shall submit a full EIQ for the 2017 and 2020 reporting years. In the interim years the installation may submit a Reduced Reporting Form; however, if the installation's emissions increase or decrease by more than five tons when compared to their last submitted full EIQ, the installation shall submit a full EIQ rather than a Reduced Reporting Form.
- 4) In addition to the EIQ submittal schedule outlined above, any permit issued under 10 CSR 10-6.060 section (5) or (6) triggers a requirement that a full EIQ be submitted in the first full calendar year after the permitted equipment initially operates.

10 CSR 10-6.130 Controlling Emissions During Episodes of High Air Pollution Potential

This rule specifies the conditions that establish an air pollution alert (yellow/orange/red/purple), or emergency (maroon) and the associated procedures and emission reduction objectives for dealing with each. The permittee shall submit an appropriate emergency plan if required by the Director.

10 CSR 10-6.150 Circumvention

The permittee shall not cause or permit the installation or use of any device or any other means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission or air contaminant which violates a rule of the Missouri Air Conservation Commission.

10 CSR 10-6.165 Restriction of Emission of Odors

This is a State Only permit requirement.

No person may cause, permit or allow the emission of odorous matter in concentrations and frequencies or for durations that odor can be perceived when one volume of odorous air is diluted with seven volumes of odor-free air for two separate trials not less than 15 minutes apart within the period of one hour.

10 CSR 10-6.170 Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin

Emission Limitation:

- 1) The permittee shall not cause or allow to occur any handling, transporting or storing of any material; construction, repair, cleaning or demolition of a building or its appurtenances; construction or use of a road, driveway or open area; or operation of a commercial or industrial installation without applying reasonable measures as may be required to prevent, or in a manner which allows or may allow, fugitive particulate matter emissions to go beyond the premises of origin in quantities that the particulate matter may be found on surfaces beyond the property line of origin. The nature or origin of the particulate matter shall be determined to a reasonable degree of certainty by a technique proven to be accurate and approved by the director.
- 2) The permittee shall not cause nor allow to occur any fugitive particulate matter emissions to remain visible in the ambient air beyond the property line of origin.
- 3) Should it be determined that noncompliance has occurred, the director may require reasonable control measures as may be necessary. These measures may include, but are not limited to, the following:
 - a) Revision of procedures involving construction, repair, cleaning and demolition of buildings and their appurtenances that produce particulate matter emissions;
 - b) Paving or frequent cleaning of roads, driveways and parking lots;
 - c) Application of dust-free surfaces;
 - d) Application of water; and
 - e) Planting and maintenance of vegetative ground cover.

Monitoring:

The permittee shall conduct inspections of its facilities sufficient to determine compliance with this regulation. If the permittee discovers a violation, the permittee shall undertake corrective action to eliminate the violation.

The permittee shall maintain the following monitoring schedule:

- 1) The permittee shall conduct weekly observations for a minimum of eight (8) consecutive weeks after permit issuance.
- 2) Should no violation of this regulation be observed during this period then-
 - a) The permittee may observe once every two (2) weeks for a period of eight (8) weeks.
 - b) If a violation is noted, monitoring reverts to weekly.
 - c) Should no violation of this regulation be observed during this period then-
 - i) The permittee may observe once per month.
 - ii) If a violation is noted, monitoring reverts to weekly.
- 3) If the permittee reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner to the initial monitoring frequency.

Recordkeeping:

The permittee shall document all readings on Attachment C, or its equivalent, noting the following:

- 1) Whether air emissions (except water vapor) remain visible in the ambient air beyond the property line of origin.
- 2) Whether equipment malfunctions contributed to an exceedance.
- 3) Any violations and any corrective actions undertaken to correct the violation.

10 CSR 10-6.180 Measurement of Emissions of Air Contaminants

- 1) The director may require any person responsible for the source of emission of air contaminants to make or have made tests to determine the quantity or nature, or both, of emission of air contaminants from the source. The director may specify testing methods to be used in accordance with good professional practice. The director may observe the testing. All tests shall be performed by qualified personnel.
- 2) The director may conduct tests of emissions of air contaminants from any source. Upon request of the director, the person responsible for the source to be tested shall provide necessary ports in stacks or ducts and other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices as may be necessary for proper determination of the emission of air contaminants.
- 3) The director shall be given a copy of the test results in writing and signed by the person responsible for the tests.

10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Limitation:

- 1) The permittee shall not cause or permit to be discharged into the atmosphere from any source, not exempted under 10 CSR 10-6.220, any visible emissions with an opacity greater than 20%.
[10 CSR 10-6.220(3)(A)]
- 2) Exception: The permittee may discharge into the atmosphere visible emissions of up to 40% for a period not aggregating more than one (1) six (6) minutes period in any 60 minutes.
[10 CSR 10-6.220(3)(B)]

Monitoring:

- 1) The permittee shall conduct visible emissions observations on each emission unit using the procedures contained in USEPA Test Method 22. The permittee is only required to take readings when the emission unit is operating and when the weather conditions allow. If the permittee observes no visible or other significant emissions using these procedures, then no further observations are required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.

- 2) The permittee must maintain the following monitoring schedule:
 - a) The permittee shall conduct weekly observations for a minimum of eight (8) consecutive weeks after permit issuance.
 - b) Should the permittee observe no violations of this regulation during this period then-
 - i) The permittee may observe once every two (2) weeks for a period of eight (8) weeks.
 - ii) If a violation is noted, monitoring reverts to weekly.
 - iii) Should no violation of this regulation be observed during this period then-
 - (1) The permittee may observe once per month.
 - (2) If a violation is noted, monitoring reverts to weekly.
- 3) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.
- 4) The renewal of an operating permit does not require the installation to revert to weekly monitoring; instead, it should continue with the monitoring regime it is under at the time of issuance of the renewal permit.

Recordkeeping:

The permittee shall maintain records of all observation results using Attachment B (or its equivalent), noting:

- 1) Whether any air emissions (except for water vapor) were visible from the emission units;
- 2) All emission units from which visible emissions occurred;
- 3) Whether the visible emissions were normal for the process;
- 4) The permittee shall maintain records of any equipment malfunctions, which may contribute to visible emissions; and,
- 5) The permittee shall maintain records of all USEPA Method 9 opacity tests performed.

10 CSR 10-6.250 Asbestos Abatement Projects – Certification, Accreditation, and Business Exemption Requirements

This is a State Only permit requirement.

The permittee shall conduct all asbestos abatement projects within the procedures established for certification and accreditation by 10 CSR 10-6.250. This rule requires individuals who work in asbestos abatement projects to be certified by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires training providers who offer training for asbestos abatement occupations to be accredited by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires persons who hold exemption status from certain requirements of this rule to allow the department to monitor training provided to employees.

10 CSR 10-6.280 Compliance Monitoring Usage

- 1) The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:
 - a) Monitoring methods outlined in 40 CFR Part 64;
 - b) Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, “Operating Permits”, and incorporated into an operating permit; and
 - c) Any other monitoring methods approved by the director.
- 2) Any credible evidence may be used for the purpose of establishing whether a permittee has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at an installation:
 - a) Monitoring methods outlined in 40 CFR Part 64;

- b) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - c) Compliance test methods specified in the rule cited as the authority for the emission limitations.
- 3) The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
- a) Applicable monitoring or testing methods, cited in:
 - i) 10 CSR 10-6.030, "Sampling Methods for Air Pollution Sources";
 - ii) 10 CSR 10-6.040, "Reference Methods";
 - iii) 10 CSR 10-6.070, "New Source Performance Standards";
 - iv) 10 CSR 10-6.080, "Emission Standards for Hazardous Air Pollutants"; or
 - b) Other testing, monitoring, or information gathering methods, if approved by the director, that produce information comparable to that produced by any method listed above.

10 CSR 10-5.040 Use of Fuel in Hand-Fired Equipment Prohibited

No owner or operator shall operate applicable hand-fired fuel burning equipment unless the owner or operator meets the conditions set forth in 10 CSR 10-5.040. This regulation shall apply to all hand-fired fuel-burning equipment at commercial facilities including, but not limited to, furnaces, heating and cooking stoves and hot water furnaces. It shall not apply to wood-burning fireplaces and wood-burning stoves in dwellings, nor to fires used for recreational purpose, nor to fires used solely for the preparation of food by barbecuing or to other equipment exempted under 10 CSR 10-5.040. Hand-fired fuel-burning equipment is any stove, furnace, or other fuel-burning device in which fuel is manually introduced directly into the combustion chamber.

10 CSR 10-5.060 Refuse Not to be Burned in Fuel Burning Installations (Rescinded on February 11, 1979, Contained in State Implementation Plan)

No person shall burn or cause or permit the burning of refuse in any installation which is designed for the primary purpose of burning fuel.

10 CSR 10-5.120 Information on Sales of Fuels to be Provided and Maintained

Every delivery of coal or residual fuel oil when first delivered to a consumer or wholesaler in the St. Louis metropolitan area must be accompanied by a ticket prepared in triplicate and containing at least the name and address of the seller and the buyer; the grade of fuel; ash content of coal, the source of the fuel, which must be an approved source, and such other information as the Air Conservation Commission may require. One copy of each ticket shall be kept by the person delivering the fuel and be retained for one year; one copy is to be given to the recipient of the fuel to be retained for one year; and, upon request, within 30 days after delivery of the fuel, the delivering party shall mail one copy to the Air Conservation Commission.

40 CFR Part 82 Protection of Stratospheric Ozone (Title VI)

- 1) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to 40 CFR §82.106.
 - b) The placement of the required warning statement must comply with the requirements of 40 CFR §82.108.

- c) The form of the label bearing the required warning statement must comply with the requirements of 40 CFR §82.110.
 - d) No person may modify, remove, or interfere with the required warning statement except as described in 40 CFR §82.112.
- 2) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B of 40 CFR Part 82:
- a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices described in 40 CFR §82.156.
 - b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment described in 40 CFR §82.158.
 - c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR §82.161.
 - d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with the record keeping requirements of 40 CFR §82.166. ("MVAC-like" appliance as defined at 40 CFR §82.152).
 - e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to 40 CFR §82.156.
 - f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR §82.166.
- 3) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
- 4) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements contained in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.
- 5) The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *Federal Only - 40 CFR Part 82.*

V. General Permit Requirements

The installation shall comply with each of the following requirements. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

10 CSR 10-6.065, §(5)(C)1, §(6)(C)1.B, §(5)(E)2.C Permit Duration

This permit is issued for a term of five years, commencing on the date of issuance. This permit will expire at the end of this period unless renewed. If a timely and complete application for a permit renewal is submitted, but the Air Pollution Control Program fails to take final action to issue or deny the renewal permit before the end of the term of this permit, this permit shall not expire until the renewal permit is issued or denied.

10 CSR 10-6.065, §(5)(C)1 and §(6)(C)1.C General Record Keeping and Reporting Requirements

1) Record Keeping

- a) All required monitoring data and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application.
- b) Copies of all current operating and construction permits issued to this installation shall be kept on-site for as long as the permits are in effect. Copies of these permits shall be made immediately available to any Missouri Department of Natural Resources' personnel upon request.

2) Reporting

- a) All reports shall be submitted to the Air Pollution Control Program, Compliance and Enforcement Section, P. O. Box 176, Jefferson City, MO 65102.
- b) The permittee shall submit a report of all required monitoring by:
 - i) April 1st for monitoring which covers the January through December time period.
 - ii) Exception. Monitoring requirements which require reporting more frequently than annually shall report no later than 30 days after the end of the calendar quarter in which the measurements were taken.
- c) Each report shall identify any deviations from emission limitations, monitoring, record keeping, reporting, or any other requirements of the permit.
- d) Submit supplemental reports as required or as needed. All reports of deviations shall identify the cause or probable cause of the deviations and any corrective actions or preventative measures taken.
 - i) Notice of any deviation resulting from an emergency (or upset) condition as defined in paragraph (6)(C)7 of 10 CSR 10-6.065 (Emergency Provisions) shall be submitted to the permitting authority either verbally or in writing within two working days after the date on which the emission limitation is exceeded due to the emergency, if the permittee wishes to assert an affirmative defense. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that indicate an emergency occurred and the permittee can identify the cause(s) of the emergency. The permitted installation must show that it was operated properly at the time and that during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or requirements in the permit. The notice must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken.
 - ii) Any deviation that poses an imminent and substantial danger to public health, safety or the environment shall be reported as soon as practicable.

- iii) Any other deviations identified in the permit as requiring more frequent reporting than the permittee's annual report shall be reported on the schedule specified in this permit.
- e) Every report submitted shall be certified by the responsible official, except that, if a report of a deviation must be submitted within ten days after the deviation, the report may be submitted without a certification if the report is resubmitted with an appropriate certification within ten days after that, together with any corrected or supplemental information required concerning the deviation.
- f) The permittee may request confidential treatment of information submitted in any report of deviation.

10 CSR 10-6.065 §(5)(C)1 and §(6)(C)1.D Risk Management Plan Under Section 112(r)

If the installation is required to develop and register a risk management plan pursuant to Section 112(R) of the Act, the permittee will verify that it has complied with the requirement to register the plan.

10 CSR 10-6.065(5)(C)1.A General Requirements

- 1) The permittee must comply with all of the terms and conditions of this permit. Any noncompliance with a permit condition constitutes a violation and is grounds for enforcement action, permit termination, permit revocation and re-issuance, permit modification or denial of a permit renewal application.
- 2) The permittee may not use as a defense in an enforcement action that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit
- 3) The permit may be modified, revoked, reopened, reissued or terminated for cause. Except as provided for minor permit modifications, the filing of an application or request for a permit modification, revocation and reissuance, or termination, or the filing of a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- 4) This permit does not convey any property rights of any sort, nor grant any exclusive privilege.
- 5) The permittee shall furnish to the Air Pollution Control Program, upon receipt of a written request and within a reasonable time, any information that the Air Pollution Control Program reasonably may require to determine whether cause exists for modifying, reopening, reissuing or revoking the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the Air Pollution Control Program copies of records required to be kept by the permittee. The permittee may make a claim of confidentiality for any information or records submitted under this rule.
- 6) Failure to comply with the limitations and conditions that qualify the installation for an Intermediate permit make the installation subject to the provisions of 10 CSR 10-6.065(6) and enforcement action for operating without a valid part 70 operating permit.

10 CSR 10-6.065(5)(C)1.C Reasonably Anticipated Operating Scenarios

None.

10 CSR 10-6.065, §(5)(B)4; §(5)(C)1, §(6)(C)3.B; and §(6)(C)3.D; and §(5)(C)3 and §(6)(C)3.E.(I) – (III) and (V) – (VI) Compliance Requirements

- 1) Any document (including reports) required to be submitted under this permit shall contain a certification signed by the responsible official.
- 2) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized officials of the Missouri Department of Natural Resources, or their authorized agents, to perform the following (subject to the installation's right to seek confidential treatment of information submitted to, or obtained by, the Air Pollution Control Program):
 - a) Enter upon the premises where a permitted installation is located or an emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
 - b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c) Inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - d) As authorized by the Missouri Air Conservation Law, Chapter 643, RSMo or the Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the terms of this permit, and all applicable requirements as outlined in this permit.
- 3) All progress reports required under an applicable schedule of compliance shall be submitted semiannually (or more frequently if specified in the applicable requirement). These progress reports shall contain the following:
 - a) Dates for achieving the activities, milestones or compliance required in the schedule of compliance, and dates when these activities, milestones or compliance were achieved, and
 - b) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measures adopted.
- 4) The permittee shall submit an annual certification that it is in compliance with all of the federally enforceable terms and conditions contained in this permit, including emissions limitations, standards, or work practices. These certifications shall be submitted annually by April 1st, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. All deviations and exceedances must be included in the compliance certifications. The compliance certification shall include the following:
 - a) The identification of each term or condition of the permit that is the basis of the certification;
 - b) The current compliance status, as shown by monitoring data and other information reasonably available to the installation;
 - c) Whether compliance was continuous or intermittent;
 - d) The method(s) used for determining the compliance status of the installation, both currently and over the reporting period; and
 - e) Such other facts as the Air Pollution Control Program will require in order to determine the compliance status of this installation.

10 CSR 10-6.065, §(5)(C)1 and §(6)(C)7 Emergency Provisions

- 1) An emergency or upset as defined in 10 CSR 10-6.065(6)(C)7.A shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emissions

limitations. To establish an emergency- or upset-based defense, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, the following:

- a) That an emergency or upset occurred and that the permittee can identify the source of the emergency or upset,
 - b) That the installation was being operated properly,
 - c) That the permittee took all reasonable steps to minimize emissions that exceeded technology-based emissions limitations or requirements in this permit, and
 - d) That the permittee submitted notice of the emergency to the Air Pollution Control Program within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.
- 2) Be aware that an emergency or upset shall not include noncompliance caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

10 CSR 10-6.065(5)(C)5 Off-Permit Changes

- 1) Except as noted below, the permittee may make any change in its permitted installation's operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a permit revision. Off-permit changes shall be subject to the following requirements and restrictions:
 - a) The change must meet all applicable requirements of the Act and may not violate any existing permit term or condition; the permittee may not change a permitted installation without a permit revision if this change is a Title I modification; Please Note: Changes at the installation which affect the emission limitation(s) classifying the installation as an intermediate source (add additional equipment to the record keeping requirements, increase the emissions above major source level) do not qualify for off-permit changes.
 - b) The permittee must provide contemporaneous written notice of the change to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219. This written notice shall describe each change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply as a result of the change; and
 - c) The permittee shall keep a record describing all changes made at the installation that result in emissions of a regulated air pollutant subject to an applicable requirement and the emissions resulting from these changes.

10 CSR 10-6.020(2)(R)34 Responsible Official

The application utilized in the preparation of this permit was signed by Kevin Doss, Plant Manager. On March 28, 2018, the Air Pollution Control Program was informed that James Gosche, Jr. is now the responsible official. If this person terminates employment, or is reassigned different duties such that a different person becomes the responsible person to represent and bind the installation in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Director of the Air Pollution Control Program of the change. Said notification shall be in writing and shall be submitted within 30 days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this

permit will continue to be binding on the installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

10 CSR 10-6.065 §(5)(E)4 and §(6)(E)6.A(III)(a)-(c) Reopening-Permit for Cause

This permit may be reopened for cause if:

- 1) The Missouri Department of Natural Resources (MoDNR) or EPA determines that the permit contains a material mistake or that inaccurate statements were made which resulted in establishing the emissions limitation standards or other terms of the permit,
- 2) Additional applicable requirements under the Act become applicable to the installation; however, reopening on this ground is not required if—:
 - a) The permit has a remaining term of less than three years;
 - b) The effective date of the requirement is later than the date on which the permit is due to expire;
or
 - c) The additional applicable requirements are implemented in a general permit that is applicable to the installation and the installation receives authorization for coverage under that general permit,
- 3) MoDNR or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

10 CSR 10-6.065 §(5)(E)1.A and §(6)(E)1.C Statement of Basis

This permit is accompanied by a statement setting forth the legal and factual basis for the permit conditions (including references to applicable statutory or regulatory provisions). This Statement of Basis, while referenced by the permit, is not an actual part of the permit.

VI. Attachments

Attachments follow.

Attachment A - Plant-Wide PM10 Emissions Tracking Record

This is an example of a form that may be used to record data required by Permit Conditions PW001.

This worksheet covers the month of _____ in the Year _____

Column 1 (a)	Column 2 (a)	Column 3 (b)	Column 4	Column 5	Column 6 (c)
Emission Unit #	Emission Unit Description	Monthly Throughput (tons)	Emission Factor (lbs PM ₁₀ /ton)	Emission Factor Source	Monthly PM ₁₀ Emissions (tons/month)
EU001	Rotary Sand Dryer with wet Scrubber		0.235848	Stack Test	
EU002	Cement Line with Fabric Filter		0.08	Engineering Calculation	
EU003	Sand Line with Fabric Filter		0.05	Engineering Calculation	
EU004	Fly Ash Silo (Main) with Fabric Filter		0.46	AP-42, §11.12-2	
EU005	Cement Line (Main Line) with Fabric Filter		0.08	Engineering Calculation	
EU006	Masonry Silo with Fabric Filter		0.46	AP-42, §11.12-2	
EU007	Sand/Gravel Line (Main Line) with Fabric Filter		0.02	WebFire: SCC30501111	
EU008	Sand/Gravel Packer with Fabric Filter		0.02	WebFire: SCC30501111	
EU009	Cement Silo (Related Line) with Fabric Filter		0.46	AP-42, §11.12-2	
EU010	Cement Silos B1, A1 & A2 with Fabric Filter		0.46	AP-42, §11.12-2	
EU011	Masonry Silo B2 with Fabric Filter		0.0064	WebFire: SCC30502503	
EU013	Sand/Gravel Transfer, Bins to Dryer		0.0064	WebFire: SCC30502503	
EU014	Sand/Gravel Transfer, Dryer to Bagging Bins with Scrubber		0.0013	WebFire: SCC30502760	
EU015	Lime Silo (lime silo A1 and blended material lime silo)		0.0049	AP-42, §11.12-2	
EU016	Cement Blender with Baghouse		0.46	AP-42, §11.12-2	
(d) Total PM ₁₀ Emissions Calculated for this Month in tons:					
(e) 12-Month PM ₁₀ Emissions Total from Previous Month Attachment A, in tons:					
(f) Monthly PM ₁₀ Emissions Total (d) from Previous Year's Attachment A, in tons					
(g) Current 12-Month PM ₁₀ Emissions in tons: {(d) + (e) - (f)}					

Note:

- (a) Emission units listed in Section I. Installation Equipment Listing (both with and without limitations).
 - (b) Enter total amount of material (Column C) used in month..
 - (c) Monthly PM₁₀ Emissions in tons, Column 6 = [Column 3] x [Column 4] x [0.0005]
 - (d) Summation of [Column 6] in tons.
 - (e) 12-Month PM₁₀ emissions total (i) from last month's worksheet, Attachment A, in tons.
 - (f) Monthly PM₁₀ Emissions Total (f) from Previous Year's Attachment A, in tons.
- Calculate the new 12-month PM₁₀ emissions total. A 12-Month PM10 emissions total (i) of less than 100 tons indicates compliance

Attachment D - Method 9 Opacity Emissions Observations

Method 9 Opacity Emissions Observations								
Company					Observer			
Location					Observer Certification Date			
Date					Emission Unit			
Time					Control Device			
Hour	Minute	Seconds				Steam Plume (check if applicable)		Comments
		0	15	30	45	Attached	Detached	
	0							
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
SUMMARY OF AVERAGE OPACITY								
Set Number	Time				Opacity			
	Start	End	Sum	Average				

Readings ranged from _____ to _____ % opacity.

Was the emission unit in compliance at the time of evaluation? _____
 YES NO Signature of Observer _____

STATEMENT OF BASIS

Voluntary Limitations

In order to qualify for this Intermediate State Operating Permit, the permittee has accepted voluntary, federally enforceable emission limitations. Per 10 CSR 10-6.065(5)(C)1.A.(VI), if these limitations are exceeded, the installation immediately becomes subject to 10 CSR 10-6.065(6) and enforcement action for operating without a valid part 70 operating permit. It is the permittee's responsibility to monitor emission levels and apply for a part 70 operating permit far enough in advance to avoid this situation. This may mean applying more than eighteen months in advance of the exceedance, since it can take that long or longer to obtain a part 70 operating permit.

INSTALLATION DESCRIPTION

The Quikrete Companies, Inc. operates a dry mineral products mixing and packaging plant located on Marshall Road in Saint Louis County. Products include quick-set concrete mix, mortar cement, sand, and other related products.

Bulk materials are brought into the facility and stored in various silos or bins. Wet sand and gravel are dried in the rotary dryer, sized through a series of screens, and placed in bins; emissions from both processes are sent to two wet scrubbers. The dried materials are sent via conveyors to the different mixing rooms and packaging lines. Various combinations of raw materials are mixed together and packaged into paper sacks for distribution. There are five packing lines and seven storage silos at the plant.

Updated Potential to Emit for the Installation and Reported Air Pollutant Emissions, in tons per year

Pollutants	Potential Emissions ¹	Reported Emissions				
		2017	2016	2015	2014	2013
Particulate Matter ≤ Ten Microns (PM ₁₀)	<100	5.94	18.34	14.67	9.50	11.60
Particulate Matter ≤ 2.5 Microns (PM _{2.5})	<100	1.73	5.35	14.28	9.50	1.39
Sulfur Oxides (SO _x)	0.23	0.00	0.01	0.00	0.01	0.01
Nitrogen Oxides (NO _x)	38.63	1.60	1.89	1.56	1.52	11.61
Volatile Organic Compounds (VOC)	2.12	0.08	0.10	0.08	0.08	0.07
Carbon Monoxide (CO)	32.45	1.35	1.59	1.31	1.28	1.17
Hazardous Air Pollutants (HAPs)	0.73	0.00	0.00	0.00	0.00	0.00

¹ Each emission unit was evaluated at 8,760 hours of uncontrolled annual operation unless otherwise noted.

- PM₁₀ and PM_{2.5} PTE - Represents the potential emissions based on federally enforceable emission limitations of PM₁₀ of Permit Condition PW001.

Permit Reference Documents

These documents were relied upon in the preparation of the operating permit. Because they are not incorporated by reference, they are not an official part of the operating permit.

- 1) Intermediate Operating Permit Renewal Application, received May 15, 2015; revised September 28, 2016;
- 2) 2016 Emissions Inventory Questionnaire, received March 20, 2017;
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition;
- 4) SLCDH Air Pollution Control Program Construction Permits:

Permit Number	Description
5021	Rotary Dryer two Baghouses
5089	Portland Cement Silo B1
5090	Sand Screening
5147	Lime Silo A1
5148	Portland Cement Silo A2
5176	Mainline Packer
5177	Packer #1, Portland Cement B1
5178	Silo – Masonary B2
5238	Mixer/Packer
5651	Mainline Flyash Silo
5652	Mainline Cement STG Silo – A1
5653	Masonary Silo
7689	Griffin Baghouse, Dry Filters, Controls EU007 - main line
7690	Cameo Baghouse, Dry Filters, Controls EU003 - sand line
7695	Lime Silo Located on Blended Material
5021A	Amendment to Permit #5021, Project No. 2016-07-030
8034	Sand Transfer to Bagging Lines

Applicable Requirements Included in the Operating Permit but Not in the Application or Previous Operating Permits

In the operating permit application, the installation indicated they were not subject to the following regulation(s). However, in the review of the application, the agency has determined that the installation is subject to the following regulation(s) for the reasons stated.

None

Other Air Regulations Determined Not to Apply to the Operating Permit

The Air Pollution Control Program (APCP) has determined that the following requirements are not applicable to this installation at this time for the reasons stated.

1. 10 CSR 10-6.260, *Restriction of Emission of Sulfur Compounds* and 10 CSR 10-6.261, *Control of Sulfur Dioxide Emissions*.

Quikrete operates a direct fired Rotary Sand Dryer fueled exclusively with natural gas. Combustion equipment that uses exclusively pipeline grade natural gas as defined in 40 CFR 72.2 or liquefied petroleum gas as defined by American Society for Testing and Materials (ASTM), or any combination of these fuels is exempt from the requirements of these rules.

Construction Permit History

The following revisions were made to construction permits for this installation:

None

New Source Performance Standards (NSPS) Applicability

There are no NSPS standards that are currently applicable to this installation.

Maximum Achievable Control Technology (MACT) Applicability

There are no MACT standards that are currently applicable to this installation.

National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability

40 CFR Part 61 Subpart M – *National Emission Standard for Asbestos*.

The installation is not subject to any NESHAP standard with the exception of Subpart M - National Emission Standard for Asbestos. The installation is potentially subject to Subpart M. If the installation conducts any demolition or renovation projects to a building(s) containing asbestos, they must determine applicability with the following NESHAP regulations:

- Demolition and Renovation - 40 CFR 61.145
- Waste Disposal for Manufacturing, Fabricating, Demolition, Renovation, and Spraying - 40 CFR 61.150

Other Regulatory Determinations

- 1) 10 CSR 10-6.400, Restriction of Emission of Particulate Matter From Industrial Processes
10 CSR 10-6.400 limits the amount of particulate matter that is allowed from an emission unit, and is dependent on the process weight rate material processed. The emission units to which this rule applies are listed below. The following calculations provide the allowable particulate emission rate based on 10 CSR 10-6.400 and the potential (maximum) emission rate including particulate emission control equipment. Process information and data used in these calculations are from the P70 Operating Permit Renewal Application, 2016 EIQ, AP-42, FIRE factors and particulate emission stack testing conducted on September 17, 2008. Also, one of the following equations from 10 CSR 10-6.400 is used to calculate the PM allowable limit:

$E = 4.10P^{0.67}$ for process weight rates up to 30 tons (60,000 lbs) per hour, and

$E = 55.0P^{0.11} - 40$ for process weight rates greater than 30 tons (60,000 lbs) per hour

Where: E = rate of emission in lb/hr; and

P = process weight rate in tons/hr (maximum hourly design rate)

Emission Unit #	PM Control Device & Efficiency	Maximum Design Rate	PM Emission Factor	PM Uncontrolled Emissions	Fugitive Emissions	PM Controlled Emissions	PM Allowable Emission Rate
EU001	Two Baghouses with 100% capture efficiency and 99.5% control efficiency	132 tons/hr	2.00 lb/ton AP-42§11.19.1	264.00 lb/hr	—	1.32 lb/hr	54.11 lb/hr
EU002	Fabric Filter with 100% capture efficiency and 95.0% control efficiency	20 tons/hr	0.01 lb/ton WebFire SCC:30502501	2.00 lb/hr	—	0.10 lb/hr	30.51 lb/hr
EU003	Fabric Filter with 90% capture efficiency and 98.0% control efficiency	20 tons/hr	0.01 lb/ton WebFire SCC:30502501	2.00 lb/hr	0.20 lb/hr	0.04 lb/hr	30.51 lb/hr
EU004	Fabric Filter with 100% capture efficiency and 95.0% control efficiency	2 tons/hr	0.72 lb/ton AP-42§11.12-2	1.44 lb/hr	—	0.07 lb/hr	6.52 lb/hr
EU005	Fabric Filter with 90% capture efficiency and 98.0% control efficiency	14 tons/hr	0.72 lb/ton AP-42§11.12-2	10.08 lb/hr	0.14—	0.18 lb/hr	24.03 lb/hr
EU006	Fabric Filter with 100% capture efficiency and 95.0% control efficiency	10 tons/hr	0.72 lb/ton AP-42§11.12-2	7.20 lb/hr	—	0.36 lb/hr	19.18 lb/hr
EU007	Fabric Filter with 90% capture efficiency and 98.0% control efficiency	100 tons/hr	0.04 lb/ton WebFire SCC:3051111	4.00 lb/hr	1.00—	3.60 lb/hr	51.28 lb/hr
EP008	Fabric Filter with 100% capture efficiency and 95.0% control efficiency	25 tons/hr	0.04 lb/ton WebFire SCC:3051111	1.00 lb/hr	—	0.05 lb/hr	35.43 lb/hr
EU009	Fabric Filter with 100% capture efficiency and 95.0% control efficiency	2.00 tons/hr	0.72 lb/ton AP-42§11.12-2	1.44 lb/hr	—	0.07 lb/hr	6.52 lb/hr
EU010	Fabric Filter with 100% capture efficiency and 95.0% control efficiency	5.00 tons/hr	0.72 lb/ton AP-42§11.12-2	3.60 lb/hr	—	0.18 lb/hr	12.05 lb/hr

Emission Unit #	PM Control Device & Efficiency	Maximum Design Rate	PM Emission Factor	PM Uncontrolled Emissions	Fugitive Emissions	PM Controlled Emissions	PM Allowable Emission Rate
EU013	None Fugitive Source	50.00 tons/hr	0.029 lb/ton WebFire SCC:30502503		1.45 lb/hr	—	Not Applicable
EU014	None Fugitive Source	50.00 tons/hr	0.0013 lb/ton WebFire SCC:30502760		0.07 lb/hr	—	Not Applicable
EU0150	Fabric Filter with 100% capture efficiency and 95% control efficiency	14.00 tons/hr	0.0089 lb/ton AP-42§11.12-2	2.49	—	0.125 lb/hr	24.03 lb/hr
EU0160	Fabric Filter with 100% capture efficiency and 95% control efficiency	14.00 tons/hr	0.72 lb/ton AP-42§11.12-2	10.08	—	0.50 lb/hr	24.03 lb/hr

- a) At maximum design rates, the uncontrolled potential PM emission rates for EU002 through EU009; EU015 and EU016 are less than their corresponding allowable PM emission limits. No monitoring, recordkeeping or reporting is required for these units.
- b) The PM emissions from EU001 are controlled by baghouses. The permittee is required to monitor the corresponding emission control equipment and adhere to recordkeeping and reporting requirements because the uncontrolled potential emissions are much larger than the corresponding limit. In case of the control equipment failing the installation would very likely emit far in excess of the limit. Periodic monitoring of the equipment will assure its proper working conditions.

Other Regulations Not Cited in the Operating Permit or the Above Statement of Basis

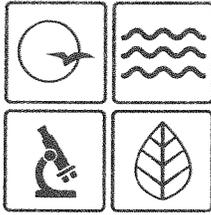
Any regulation which is not specifically listed in either the Operating Permit or in the above Statement of Basis does not appear, based on this review, to be an applicable requirement for this installation for one or more of the following reasons.

- 1) The specific pollutant regulated by that rule is not emitted by the installation.
- 2) The installation is not in the source category regulated by that rule.
- 3) The installation is not in the county or specific area that is regulated under the authority of that rule.
- 4) The installation does not contain the type of emission unit which is regulated by that rule.
- 5) The rule is only for administrative purposes.

Should a later determination conclude that the installation is subject to one or more of the regulations cited in this Statement of Basis or other regulations which were not cited, the installation shall determine and demonstrate, to the Air Pollution Control Program's satisfaction, the installation's compliance with that regulation(s). If the installation is not in compliance with a regulation which was not previously cited, the installation shall submit to the APCP a schedule for achieving compliance for that regulation(s).

Response to Public Comments

The draft Intermediate Operating Permit for The Quikrete Companies, Inc. was placed on public notice as of April 6, 2018 for a 30-day comment period. The public notice was published on the Department of Natural Resources' Air Pollution Control Program's web page at: <http://dnr.mo.gov/env/apcp/permit-public-notices.htm> on Friday, April 6, 2018. The Air Pollution Control Program did not receive any public comments during the 30-day comment period.



Missouri Department of

dnr.mo.gov

NATURAL RESOURCES

Eric R. Greitens, Governor

Carol S. Comer, Director

MAY 21 2018

Mr. James Gosche, Jr.
The Quikrete Companies, Inc.
701 Marshall Road
Valley Park, MO 63088

Re: Intermediate Operating Permit Renewal
Installation ID: 189-0069, Permit Number: OP2018-043

Dear Mr. Gosche:

Enclosed with this letter is your intermediate operating permit. Please review this document carefully. Operation of your installation in accordance with the rules and regulations cited in this document is necessary for continued compliance. It is very important that you read and understand the requirements contained in your permit.

This permit may include requirements with which you may not be familiar. If you would like the department to meet with you to discuss how to understand and satisfy the requirements contained in this permit, an appointment referred to as a Compliance Assistance Visit (CAV) can be set up with you. To request a CAV, please contact your local regional office or fill out an online request. The regional office contact information can be found at <http://dnr.mo.gov/regions/>. The online CAV request can be found at <http://dnr.mo.gov/cav/compliance.htm>.

You may appeal this permit to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.078.16 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within thirty (30) days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If you send your appeal by registered or certified mail, we will deem it filed on the date you mailed it. If you send your appeal by a method other than registered or certified mail, we will deem it filed on the date the AHC receives it.

If you have any questions or need additional information regarding this permit, please do not hesitate to contact Berhanu Getahun at the St. Louis Regional Office, 7545 S. Lindbergh, Suite 210, St. Louis, MO 63125, or by telephone at (314) 416-2451. You may also contact me with the Department's Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102, or by telephone at (573) 751-4817. Thank you for your time and attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Michael J. Stansfield, P.E.
Operating Permit Unit Chief

MJS/bgj

Enclosures

c: PAMS File: 2015-05-047



Recycled paper