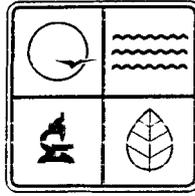


STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI AIR CONSERVATION COMMISSION



PERMIT BOOK

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: **102007-007** Project Number: **2006-11-089**
055-0031
Owner: **Breckenridge Material Company**
Owner's Address: **P.O. Box 19918, St. Louis, MO 63144**
Installation Name: **Breckenridge Materials**
Installation Address: **Route FF, North Service Road, Sullivan, MO 63080**
Location Information: **Crawford County, S24, T40N, R3W**

Application for Authority to Construct was made for:

The modification of an existing 120-ton-per-hour concrete batch plant to reduce several control efficiencies, modify instrumentation requirements, and add Best Management Practices. 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 (listed as attachments starting on page 2) are applicable to this permit.

OCT 10 2007

EFFECTIVE DATE


DIRECTOR OR DESIGNEE
DEPARTMENT OF NATURAL RESOURCES

STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. Also, you must notify the Department of Natural Resources Regional Office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

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

You may appeal this permit or any of the listed Special Conditions as provided in RSMo 643.075. If you choose to appeal, the Air Pollution Control Program must receive your written declaration within 30 days of receipt of this permit.

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

The Department of Natural Resources has established the Outreach and Assistance Center to help in completing future applications or fielding complaints about the permitting process. You are invited to contact them at 1-800-361-4827 or (573) 526-6627, or in writing addressed to Outreach and Assistance Center, P.O. Box 176, Jefferson City, MO 65102-0176.

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 Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention Construction Permit Unit.

2006-11-089
055-0031

Breckenridge Material Company

P.O. Box 19918, St. Louis, MO 63144

Breckenridge Materials

Route FF, North Service Road, Sullivan, MO 63080

Crawford County, S24, T40N, R3W

The modification of an existing 120-ton-per-hour concrete batch plant to reduce several control efficiencies, modify instrumentation requirements, and add Best Management Practices. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

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Permit No.	
Project No.	2006-11-089

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); by the Missouri Rules listed in Title 10, Division 10 of the Codes of State Regulations (specifically 10 CSR 10-6.060); by 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority"; by 10 CSR 10-6.010 "Ambient Air Quality Standards" and 10 CSR 10-6.060 subsections (5)(D) and (6)(A); and by control measures requested by the applicant, in their permit application, to reduce the amount of air pollutants being emitted, in accordance with 10 CSR 10-6.060 paragraph (6)(E)3.

1. National Ambient Air Quality Standards (NAAQS) Limitation for Particulate Matter Less Than Ten Microns in Diameter (PM₁₀)
 - A. The operator(s) for Breckenridge Materials's concrete plant (055-0031 in Sullivan) shall ensure, while operating at this site, that the ambient impact of PM₁₀ at or beyond the nearest property boundary does not exceed 150 µg/m³ in any 24-hour period, in accordance with the Federal NAAQS requirements (40 CFR 50.6).
 - B. To demonstrate compliance, the operator(s) shall maintain a daily record of material processed. Attachment A, *Daily Ambient PM₁₀ Impact Tracking Record*, or other equivalent form(s), will be used for this purpose.
2. Best Management Practices
Breckenridge Materials shall control fugitive emissions from all of the haul roads and stockpiles at this site by performing *Best Management Practices*, which include the usage of paving, chemical dust suppressants, or documented watering. These practices are defined in Attachment AA.
3. Moisture Content Testing and Record Keeping Requirements for Inherent Moisture Content
 - A. Breckenridge Materials shall obtain from the supplier(s) of the crushed rock or conduct their own analysis to verify that the inherent moisture of the crushed rock is at least 1.5 wt. % within 45 days after receiving the first rock shipment and then once annually between the months of June and September. If moisture content is above 1.5 wt. % for three consecutive years, then no further testing on the rock from that supplier is required.
 - B. If Breckenridge Materials receives rock from more than one quarry, then Breckenridge Materials must obtain test results of the moisture content for each quarry or conduct their own testing of the rock from each quarry.
 - C. Testing shall be conducted according to approved methods, such as those prescribed by the *American Society for Testing Materials (ASTM D-2216 or C-566)*, EPA AP-42 Appendix C.2, or other method(s) approved by the Director.
 - D. The testing documentation shall include the processing points from which the rock samples were taken, the weights of samples before and after drying, the calculated moisture content (wt.%) of each sample, the test date, and the original signature of the individual performing the test. If each supplier performs the testing, Breckenridge Materials shall obtain this documentation from them. If M & O performs the testing, the processing point from which the samples are taken shall be (one of) the aggregate storage pile(s).
 - E. If the moisture content result of the first test is less than 1.5 wt.%, a second test must be performed within 30 days. If the result of the second test is less than 1.5 wt %, Breckenridge Materials shall apply for a new construction permit to account for the revised information.
4. Baghouse System Requirements
 - A. Breckenridge Materials shall install and operate baghouse(s) to restrict the emission of particulate matter. The baghouse(s) must be used whenever these units are in operation. The baghouse(s) shall be installed on the following units: Truck Loading (EU 6).
 - B. Breckenridge Materials shall install instruments to monitor the operating pressure drop across the baghouse. All instruments and control equipment shall be calibrated, maintained and operated according to the manufacturer's preventive maintenance recommendations. The operator(s) shall check and record the pressure drop across the baghouse filter once per operating day during silo loading. The baghouse operating pressure drop shall be maintained according to manufacturers specifications.

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Permit No.	
Project No.	2006-11-089

SPECIAL CONDITIONS:

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

- C. The operator(s) shall conduct and document a quarterly inspection and maintenance of the baghouse for structural component failures, for leaks and wear, and for the cleaning sequence of the baghouse. Replacement bags shall be kept on hand at all times to replace defective bags (The bags shall be made of fibers appropriate for the operating conditions expected to occur). All inspections, corrective actions, and instrument calibrations shall be recorded.
5. Cartridge Filter System Requirements
 - A. Breckenridge Materials shall install and operate cartridge filter(s) on the Cement Silo Loading (EU 3) and Cement Supplement Silo Loading (EU 4) emission units to restrict the emission of particulate matter, and these cartridge filters must be used whenever these emission units are in the process of being loaded or unloaded.
 - B. The cartridge filters shall be cleaned, maintained and operated according to the manufacturer's preventive maintenance recommendations.
 - C. If the cartridge filters are bypassed, such as due to excessive pressure build up during the loading processes, these malfunctions must be reported to the Enforcement Section of the Air Pollution Control Program in Jefferson City, Missouri.
 - D. The operator(s) of Breckenridge Materials shall conduct and document a quarterly inspection and maintenance of the cartridge filters for structural component failures, for leaks and wear, and for the effectiveness of the cleaning methods. If the cartridge filters do become defective, the associated emission units shall not be operated until the filters are properly replaced as recommended by the manufacturer. All inspections, corrective actions, and malfunctions such as bypasses shall be recorded.
 6. Prohibition Against Concurrent Operations Without Further Review
The concrete plant (055-0031) is prohibited from operating whenever any other plant(s) are located at this site.
 7. Restriction on Minimum Distance to Nearest Property Boundary
The primary emission point of the concrete plant, which is the Truck Loading (EU 8), shall be located at least 300 feet from the nearest property boundary whenever it is operating at this site.
 8. Record Keeping Requirement
The operator(s) shall maintain all records required by this permit for not less than five (5) years and shall make them available to any Missouri Department of Natural Resources' personnel upon request.
 9. Reporting Requirement
The operator(s) shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after any exceedances of the limitations imposed by this permit.
 10. Superseding Condition
The conditions of this permit supersede all special conditions found in the previously issued construction permit(s) (0990-010, 0990-010A, 0990-010B) from the Air Pollution Control Program.
 11. Annual Emission Limit of Particulate Matter Less Than Ten Microns in Diameter (PM₁₀)
The operator(s) shall ensure that their plant emits less than 15 tons of PM₁₀ into the atmosphere in any 12-month period. To demonstrate compliance, the operator(s) shall maintain a monthly record of material processed and PM₁₀. Attachment B, *Monthly PM₁₀ Emissions Tracking Record*, or other equivalent form(s), will be used for this purpose.

TECHNICAL REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT

INSTALLATION DESCRIPTION

Breckenridge Material Company – Sullivan, is an existing installation that produces ready-mixed concrete that is shipped off-site as a sellable product in mixer trucks. Breckenridge Material Company purchased this plant from K. R. Wilson in 2005.

The emission points are listed in the attached spreadsheet summary. No generators are used, as all electrical power sources come from line power.

Other considerations:

- This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2].
- This installation is located in Crawford County, an attainment area for all criteria air pollutants.

PROJECT DESCRIPTION

The objectives of this project were as follows.

- Eliminate the requirement to have a dust suppression control device on the weigh hopper loading, which increased emissions.
- Change the dust suppression control device on the cement and cement supplement silo loading from a baghouse to cartridge filters, which increased emissions.
- Add Best Management Practices on all haul roads and stockpile vehicular activity areas, which did not change emissions.

The following table summarizes past permit projects for this installation.

Table 1. Other Permits Issued for Installation 055-0031

Permit Number	Completed	Description
0990-010	1990	Section 5/6: new concrete plant
0990-010A	2001	Corrections and Amendments: allow colocation
0990-010B	2002	Corrections and Amendments: allow colocation
062006-018	2006	Section 5/6: increase production

EMISSIONS EVALUATION

Criteria air pollutants will be emitted from this operation. The main air pollutant of concern is PM₁₀. The potential emissions were calculated from the maximum hourly design rate (MHDR) of the equipment, appropriate emission factors, control device efficiencies, and the limiting operating hours at MHDR. The sources of the emission factors and control efficiencies are listed in the section “Permit Documents”. Based on the conditioned potential emissions, the operation is considered a *de minimis* source under 10 CSR 10-6.060 section (5).

Table 2: Emissions Summary (tons per year)

Air Pollutant	Regulatory <i>De Minimis</i> Levels	*Existing Potential Emissions (Project 2006-02-024)	Existing Actual Emissions (2005 EIQ)	Potential Emissions of the Application	**New Installation Conditioned Potential	Emission Factor (lb/ton)
PM ₁₀	15.0	9.2	0.498	20.7	<15.0	0.0395
SO _x	40.0	N/A	N/A	N/A	N/A	N/A
NO _x	40.0	N/A	N/A	N/A	N/A	N/A
VOC	40.0	N/A	N/A	N/A	N/A	N/A
CO	100.0	N/A	N/A	N/A	N/A	N/A
HAPs	10.0/25.0	N/A	N/A	N/A	N/A	N/A

Note: N/A = Not Applicable

* Below *de minimis* due to haul road and stockpile area control measures. If these controls were not used, would be above *de minimis*.

** Conditioned potential based on daily production limit from ambient impact analysis. Other pollutants proportionately reduced.

AMBIENT AIR QUALITY IMPACT ANALYSIS

Screening tools were used to evaluate the ambient air impact of the hourly emissions from this operation. The ambient impact was evaluated at a distance of 300 feet to the nearest property boundary. The ambient impact at this site shall not exceed the National Ambient Air Quality Standard (NAAQS) of 150 µg/m³ of PM₁₀ at or beyond the nearest property boundary in any single 24-hour period. The screening tools were used to develop an ambient impact factor for the concrete plant. This ambient impact factor is incorporated into the daily record keeping table, Attachment A.

Table 3: Ambient Air Quality Impact Analysis of PM₁₀, 24-Hour Averaging Time

Operation	Ambient Impact Factor (µg/m ³ /ton)	Modeled Impact (µg/m ³)	*Background (µg/m ³)	NAAQS (µg/m ³)	Daily Production Limit (tons)
Solitary	0.0578	130.00	20.00	150.00	2249

* Background from Haul Roads and Stockpiles.

APPLICABLE REQUIREMENTS

The owner is subject to compliance with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements.

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
- *Operating Permits*, 10 CSR 10-6.065
- No Operating Permit is required for this concrete plant.
- *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 10-3.090
- *Restriction of Emission of Particulate Matter From Industrial Processes*, 10 CSR 10-6.400
- None of the New Source Performance Standards (NSPS) apply to the proposed equipment.
- The National Emission Standards for Hazardous Air Pollutants (NESHAPs) and the currently promulgated Maximum Achievable Control Technology (MACT) regulations do not apply to the proposed equipment.

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.

 Jeannie Kozak
 Environmental Engineer

 Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct, designating Breckenridge Material Company as the owner and operator of the installation.
- Environmental Protection Agency (EPA) AP-42, *Compilation of Air Pollutant Emission Factors; Volume I, Stationary Point and Area Sources, Fifth Edition*.
- Noyes Data Corporation, Orlemann, et al, 1983, *Fugitive Dust Control*.
- EPA Factor Information Retrieval (FIRE) Version 6.21.
- Spreadsheet calculations of potential-to-emit and ambient impact.
- Southeast Regional Office Site Survey.

Mr. Robert Kintz
Vice President
Breckenridge Material Company
P.O. Box 19918
St. Louis, MO 63144

RE: New Source Review Permit - Project Number: 2006-02-024

Dear Mr. Kintz:

Enclosed with this letter is your New Source Review permit. Please review your permit carefully and note the special conditions, if any, and the requirements in your permit.

Operation in accordance with the conditions and requirements in your permit and with the New Source Review application submitted for project 2006-02-024 is necessary for continued compliance.

The section of the permit entitled "Technical Review of Application for Authority to Construct" should not be separated from the main portion of your permit. The entire permit must be retained in your files. 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 Jeannie Kozak at the department's Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall Hale, P.E.
New Review Unit Chief

KBH:jkl

Enclosures

c: Southeast Regional Office
PAMS File: 2006-02-024
Permit Number: