

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: **022009 - 004** Project Number: 2008-09-033

Parent Company: Southern Concrete Products, Inc.

Parent Company Address: 860 Westover Rd., Jackson, TN 38302

Installation Name: Southern Concrete Products, Inc.

Installation Address: 2727 N. Main St., Sikeston, MO 63801

Location Information: Scott County, S2 T26N R13W

Application for Authority to Construct was made for:
The installation of a new portable concrete batch plant. 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.

FEB - 6 2009

EFFECTIVE DATE



DIRECTOR OR DESIGNEE
DEPARTMENT OF NATURAL RESOURCES

STANDARD CONDITIONS:

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

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

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

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

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

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GENERAL SPECIAL CONDITIONS:

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

The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."

1. **Portable Equipment Identification Requirement**
To assure that each component is properly identified as being a part of this portable concrete plant, Southern Concrete Products, Inc. shall provide and maintain suitable, easily read permanent markings on each component of the plant. These markings shall be the equipment's serial number or a company assigned identification number that uniquely identifies the individual component. These identification numbers must be submitted to the Air Pollution Control Program no later than 15 days after start-up of the portable concrete plant.
2. **Relocation of Portable Concrete Plant**
 - A. The portable concrete plant shall not be operated at any site location longer than 24 consecutive months without an intervening relocation.
 - B. A complete "Portable Source Relocation Request" application must be submitted to the Air Pollution Control Program prior to any relocation of this portable concrete plant.
 - 1.) If the portable concrete plant is moving to a site previously permitted, and if there are no other new plants at the site, then the application must be received by the Air Pollution Control Program at least seven (7) days prior to the relocation.
 - 2.) If the portable concrete plant is moving to a new site, or if there are other plants or equipment at the site that have not been evaluated for concurrent operation, then the application must be received by the Air Pollution Control Program at least twenty-one (21) days prior to the relocation. The application must include written notification of any concurrently operating plants.
3. **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.

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SITE SPECIFIC SPECIAL CONDITIONS:

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

Site ID No.:201-0124

Site Name:Sikeston Site

Site Address:2727 N. Main St., Sikeston, MO 63801

Site County:Scott County, S2 T26N R13W

1. Best Management Practices
Southern Concrete Products, Inc. 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.
2. Ambient Air Impact Limitation of PM₁₀
 - A. Southern Concrete Products, Inc. (PORT-0628) 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.
 - B. The total daily ambient impact of PM₁₀ at this site shall include the combined impact of the portable plant and any ambient background concentration from installations or equipment located on the same site as the portable plant.
 - C. To demonstrate compliance, Southern Concrete Products, Inc. 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.
3. Moisture Content Testing Requirement
 - A. Southern Concrete Products, Inc. shall verify that the moisture content of the stored rock is greater than or equal to 1.5 wt.% by testing.
 - B. 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. The initial test shall be conducted no later than 45 days after equipment startup.
 - C. The operator may obtain a copy of the test results of the inherent moisture content from the supplier(s) of the aggregate. Otherwise, the operator shall obtain test samples from each shipment of untested aggregate. The

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SITE SPECIFIC SPECIAL CONDITIONS:

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

written analytical report shall include the raw data and moisture content (wt.%) of each sample, the test date, and the original signature of the individual performing the test. Within 30 days of completion of the required tests, the report shall be filed on-site or at the Southern Concrete Products, Inc. main office.

- D. 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.%, Southern Concrete Products, Inc. shall apply for a new construction permit to account for the revised information or install wet spray devices on the affected units.
4. Baghouse(s) Control System Requirements
- A. Southern Concrete Products, Inc. shall install and operate baghouse(s) to restrict the emission of particulate matter from the following emission units:
 - 1.) Cement Silo
 - 2.) Supplement Silo
 - 3.) Weigh Hopper
 - 4.) Truck/Mixer Loading (shroud vented to baghouse)
 - B. Southern Concrete Products, Inc. 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. Southern Concrete Products, Inc. shall check and record the pressure drop across the baghouse filter once per operating day during dryer operation. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
 - C. Southern Concrete Products, Inc. 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. Restriction on Minimum Distance to Nearest Property Boundary
- The primary emission point of the portable plant, which is the stack of the drum

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SITE SPECIFIC SPECIAL CONDITIONS:

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

mix dryer, shall be located at least 120 feet from the nearest property boundary whenever it is operating at this site.

6. Record Keeping Requirement

Southern Concrete Products, Inc. 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.

7. Reporting Requirement

Southern Concrete Products, Inc. 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.

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

Project Number: 2008-09-033

Installation ID Number: PORT-0628

Permit Number:

Southern Concrete Products, Inc.
2727 N. Main St.
Sikeston, MO 63801

Complete: October 6, 2008

Parent Company:
Southern Concrete Products, Inc.
860 Westover Rd.
Jackson, TN 38302

Scott County, S2 T26N R13W

REVIEW SUMMARY

- Southern Concrete Products, Inc. has applied for authority to construct a portable concrete batch plant.
- Hazardous Air Pollutant (HAP) emissions are not expected from the proposed equipment.
- None of the New Source Performance Standards (NSPS) apply to the proposed equipment.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) or currently promulgated Maximum Achievable Control Technology (MACT) regulations apply to the proposed equipment.
- Fabric filters are being used to control the particulate matter less than ten (10) microns in aerodynamic diameter (PM₁₀) emissions from the equipment in this permit.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of PM₁₀ are above de minimis levels.
- This installation is located in Scott County, an attainment area for all criteria air pollutants.
- This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2].
- Ambient air quality modeling was performed to determine the ambient impact of pollutant.

- Emissions testing is not required for the source.
- No Operating Permit is required for this installation.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

Southern Concrete Products has constructed a portable concrete batch plant in Sikeston, Missouri. The plant was constructed without a permit. Concrete is produced by mixing sand, rock, cement, water and other additives. These materials are weighed in hoppers and dumped into a mixing truck. The portable plant is a Vince Hagan HT-10300B-65 with a production capacity of 360 tons per hour. The plant is equipped with silo top dust collectors, a dust collector for the weigh hopper and a shroud vented to a dust collector for the truck loadout. Southern Concrete Products will follow Best Management Practices to control dust from the haul roads and vehicular activity areas.

No permits have been issued to Southern Concrete Products, Inc. from the Air Pollution Control Program.

EMISSIONS/CONTROLS EVALUATION

The emission factors and control efficiencies used in this analysis were obtained from the Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, section 11.12 “Concrete Batching,” June 2006, section 13.2.2 “Unpaved Roads,” November 2006 and section 13.2.4 “Aggregate Handling and Storage Piles,” November 2006. Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year.) The following table provides an emissions summary for this project.

Table 1: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions	Potential Emissions of the Application	*New Installation Conditioned Potential	Emission Factor (lb/ton)
PM ₁₀	15.0	N/A	N/A	33.1	8.09	N/A
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

*New Installation Conditioned Potential based on daily limit from ambient impact analysis.

N/A = Not Applicable

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 PM₁₀ are above de minimis levels.

APPLICABLE REQUIREMENTS

Southern Concrete Products, Inc. shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved. For a complete list of applicable requirements for your installation, please consult your operating permit. – modify for sources not required to submit an operating permit.

GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
The emission fee is the amount established by the Missouri Air Conservation Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire (EIQ) is required June 1 for the previous year's emissions.
- *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

SPECIFIC REQUIREMENTS

- *Restriction of Emission of Particulate Matter from Industrial Processes*, 10 CSR 10-6.400

AMBIENT AIR QUALITY IMPACT ANALYSIS

Screening tools were used to evaluate the ambient air impact of PM₁₀, SO_x and NO_x, from this portable plant at the property boundary, which is 120 feet from the dryer. The ambient impact of these pollutants shall not exceed the National Ambient Air Quality Standards (NAAQS) listed in table 2. An ambient impact factor for PM₁₀ was developed for the portable plant, and it is included in the record keeping table, Attachment A.

For sources agreeing to use Best Management Practices (BMPs), as defined in Attachment AA, haul roads and stockpiles are not modeled with screening tools. Instead, they are addressed as a background level of 20 µg/m³ of PM₁₀. To ensure conformity with NAAQS, the remaining process emissions are limited to an impact of less than 130 µg/m³ of PM₁₀ at or beyond the nearest property boundary.

Table 2: Ambient Air Quality Impact Analysis

Pollutant	Ambient Impact Factor ($\mu\text{g}/\text{m}^3\text{ton}$)	Modeled Impact ($\mu\text{g}/\text{m}^3$)	*Background ($\mu\text{g}/\text{m}^3$)	NAAQS /RAL ($\mu\text{g}/\text{m}^3$)	Averaging Time	Daily Production Limit (tons)
PM ₁₀	0.0616	130	20	150	24-hour	2112

* Background PM₁₀ level of 20.00 $\mu\text{g}/\text{m}^3$ from haul roads and stockpiles.

The plant is prohibited from operating when other plants are located at this site.

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/without special conditions.

Michael Mittermeyer
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated September, 12 2008, received September, 15 2008, designating Southern Concrete Products, Inc. as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- Southeast Regional Office Site Survey, dated October, 17 2008.

Attachment AA: Best Management Practices (BMPs)- Construction Industry Fugitive Emissions

Construction Industry Sites covered by the Interim Relief Policy shall maintain Best Management Control Practices (BMPs) for fugitive emission areas at their installations when in operation. Options for BMPs are at least one of the following:

For Haul Roads:

1. Pavement of Road Surfaces –
 - A. The operator(s) may pave all or any portion of the haul roads with materials such as concrete, concrete, and/or other material(s) after receiving approval from the program. The pavement will be applied in accordance with industry standards for such pavement so as to achieve “Control of Fugitive Emissions¹” while the plant is operating.
 - B. Maintenance and/or repair of the road surface will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating.
 - C. The operator(s) shall periodically water, wash and/or otherwise clean all of the paved portions of the haul road(s) as necessary to achieve control of fugitive emissions from these areas while the plant is operating.

2. Usage of Chemical Dust Suppressants –
 - A. The operator(s) shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to all the unpaved portions of the haul roads. The suppressant will be applied in accordance with the manufacturer’s suggested application rate (if available) and re-applied as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
 - B. The quantities of the chemical dust suppressant shall be applied, re-applied and/or maintained sufficient to achieve control of fugitive emissions from these areas while the plant is operating.
 - C. The operator(s) shall record the time, date and the amount of material applied for each application of the chemical dust suppressant agent on the above areas. The operator(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.

3. Usage of Documented Watering –
 - A. The operator(s) shall control the fugitive emissions from all the unpaved portions of the haul roads at the installation by consistently and correctly using the application of a water spray. Documented watering will be applied in accordance with a recommended application rate of 100 gallons per day per 1,000 square feet of unpaved/untreated surface area of haul roads as necessary to achieve control of fugitive emissions from these areas while the plant is operating. For example, the operator(s) shall calculate the total square feet of unpaved vehicle activity area requiring control on any particular day, divide that product by 1,000, and multiply the quotient by 100 gallons for that day.
 - B. The operator(s) shall maintain a log that documents daily water applications. This log shall include, but is not limited to, date and volumes (e.g., number of tanker applications and/or total gallons used) of water application. The log shall also record rationale for not applying water on day(s) the plant is in operation (e.g., meteorological situations, precipitation events, freezing, etc.)
 - C. Meteorological precipitation of any kind, (e.g. a quarter inch or more rainfall, sleet, snow, and/or freeze thaw conditions) which is sufficient in the amount or condition to achieve control of fugitive emissions from these areas while the plant is operating.
 - D. Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads. The operator(s) shall record a brief description of such events in the same log as the documented watering.
 - E. The operator(s) shall record the date and the amount of water applied for each application on the above areas. The operator(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.

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

For Vehicle Activity Areas around Open Storage Piles:

1. Pavement of Stockpile Vehicle Activity Surfaces –
 - A. The operator(s) may pave all or any portion of the vehicle activity areas around the storage piles with materials such as concrete, concrete, and/or other material(s) after receiving approval from the program. The pavement will be applied in accordance with industry standards for such pavement so as to achieve control of fugitive emissions while the plant is operating.
 - B. Maintenance and/or repair of the road surface will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating.
 - C. The operator(s) shall periodically water, wash and/or otherwise clean all of the paved portions of the vehicle activity areas around the storage piles as necessary to achieve control of fugitive emissions from these areas while the plant is operating.

2. Usage of Chemical Dust Suppressants –
 - A. The operator(s) shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to all the vehicle activity areas around the open storage piles. The suppressant will be applied in accordance with the manufacturer's suggested application rate (if available) and re-applied as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
 - B. The quantities of the chemical dust suppressant shall be applied, re-applied and/or maintained sufficient to achieve control of fugitive emissions from these areas while the plant is operating.
 - C. The operator(s) shall record the time, date and the amount of material applied for each application of the chemical dust suppressant agent on the above areas. The operator(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.

3. Usage of Documented Watering –
 - A. The operator(s) shall control the fugitive emissions from all the vehicle activity areas around the storage piles at the installation by consistently and correctly using the application of a water spray. Documented watering will be applied in accordance with a recommended application rate of 100 gallons per day per 1,000 square feet of unpaved/untreated surface area of vehicle activity areas around the storage piles as necessary to achieve control of fugitive emissions from these areas while the plant is operating. (Refer to example for documented watering of haul roads.)
 - B. The operator(s) shall maintain a log that documents daily water applications. This log shall include, but is not limited to, date and volumes (e.g., number of tanker applications and/or total gallons used) of water application. The log shall also record rationale for not applying water on day(s) the plant is in operations (e.g., meteorological situations, precipitation events, freezing, etc.)
 - C. Meteorological precipitation of any kind, (e.g. a quarter inch or more rainfall, sleet, snow, and/or freeze thaw conditions) which is sufficient in the amount or condition to achieve control of fugitive emissions from these areas while the plant is operating.
 - D. Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads. The operator(s) shall record a brief description of such events in the same log as the documented watering.
 - E. The operator(s) shall record the date and the amount of water applied for each application on the above areas. The operator(s) shall keep these records with the plant for not less than five (5) years, and the operator(s) shall make these records available to Department of Natural Resources personnel upon request.

Mr. Rick Odle
Operations Manager
Southern Concrete Products, Inc.
860 Westover Rd.
Jackson, TN 38302

RE: New Source Review Permit - Project Number: 2008-09-033

Dear Mr. Odle:

Enclosed with this letter is your permit to construct. Please study it carefully. 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 Michael Mittermeyer, at the departments' 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 B. Hale
New Source Review Unit Chief

KBH:mml

Enclosures

c: Kansas City Regional Office
PAMS File: 2008-09-033

Permit Number: