

STATE OF MISSOURI

PERMIT BOOK



DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT TO CONSTRUCT

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

Permit Number: 052013-008

Project Number: 2013-04-038
Installation ID: 201-0126

Parent Company: Seminole Ag Lime, Inc.

Parent Company Address: 2413 Nashville Rd, Box C-8, Suite 206
Bowling Green, KY 42101

Installation Name: Seminole Ag Lime, Inc.

Installation Address: County Road 304 and Rock Levee Road
Scott City, MO 63780

Location Information: Scott County, S31 T30N R14E

Application for Authority to Construct was made for:
a rock quarrying operation, mainly limestone. This review was conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

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

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

MAY 14 2013

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 Department's Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available within 30 days of actual startup. Also, you must notify the Department of Natural Resources Regional office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

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

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

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

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

SITE SPECIFIC SPECIAL CONDITIONS:

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

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

1. **Superseding Condition**
The conditions of this permit supersede all special conditions found in the previously issued construction permit 022010-002 from the Air Pollution Control Program.
2. **Best Management Practices Requirement**
Seminole Ag Lime, Inc. shall control fugitive emissions from all of the haul roads and vehicular activity areas at this site by performing Best Management Practices as defined in Attachment AA.
3. **Annual Emission Limit**
 - A. Seminole Ag Lime, Inc. shall emit less than 15.0 tons of PM₁₀ in any 12-month period from the entire installation. The installation consists of all the equipment listed in the table below.

Table 1: Installation Equipment

Emission Unit	Description (Source Code Classification)
EU-04	Haul Road #1 (30502011)
EU-06a	Truck Unloading - Fragmented Stone (30502031)
EU-06c	Vehicular Activity, Storage Pile #1 (30502007)
EU-06d	Load Out, Storage Pile #1 (30502007)

- B. Seminole Ag Lime, Inc. shall demonstrate compliance with Special Condition 3.A using Attachment A or other equivalent form that has been approved by the Air Pollution Control Program, including an electronic form.
4. **Ambient Air Impact Limitation**
 - A. Seminole Ag Lime, Inc. shall not cause an exceedance of the National Ambient Air Quality Standard (NAAQS) for particulate matter less than ten microns in aerodynamic diameter (PM₁₀) of 150.0 µg/m³ 24-hour average in ambient air.
 - B. Seminole Ag Lime, Inc. shall demonstrate compliance with Special Condition 4.A using Attachment B and Attachment C or other equivalent forms that have been approved by the Air Pollution Control Program, including an electronic forms. Seminole Ag Lime, Inc. shall account for the impacts from other sources of PM₁₀ as instructed in the attachments.

Page No.	4
Permit No.	
Project No.	2013-04-038

SITE SPECIFIC SPECIAL CONDITIONS:

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

5. **Minimum Distance to Property Boundary Requirement**
The primary emission point shall be located at least 400 feet from the nearest property boundary.

6. **Record Keeping Requirement**
Seminole Ag Lime, Inc. shall maintain all records required by this permit for not less than five years and make them available to any Missouri Department of Natural Resources personnel upon request.

7. **Reporting Requirement**
Seminole Ag Lime, Inc. shall report to the Air Pollution Control Program Enforcement Section P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedances of the limitations imposed by this permit.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (6) REVIEW

Project Number: 2013-04-038
Installation ID Number: 201-0126
Permit Number:

Seminole Ag Lime, Inc.
County Road 304 and Rock Levee Road
Scott City, MO 63780

Complete: April 29, 2013

Parent Company:
Seminole Ag Lime, Inc.
2413 Nashville Rd, Box C-8, Suite 206
Bowling Green, KY 42101

Scott County, S31 T30N R14E

PROJECT DESCRIPTION

Seminole Ag Lime, Inc. is starting an operation for the purpose of quarrying rock, mainly limestone. They are contracting out the rock crushing and screening to a portable plant owned by Surmeier & Surmeier, Inc. (FIPS/Plant 201 0129). Under this permit, Seminole Ag Lime, Inc. has responsibility for the wet drilling and blasting of the rock; the unloading of fragmented rock into the grizzly feeder; the maintenance of haul roads and vehicular activity areas, using best management practices; and the load out of rock from the storage piles at their site. Under their permit, Surmeier & Surmeier, Inc. has responsibility for the rock crushing, screening and conveying; the load in of rock to the storage piles; and wind erosion on the storage piles. Since the MHDR of the contracted portable crusher is 350 tons per hour, this figure was used for throughput. Solitary operation is not possible, and was not considered in this review

The applicant is using one of the methods described in Attachment AA, "Best Management Practices," to control emissions from haul roads and vehicular activity areas.

This installation is located in Scott County, an attainment area for all criteria pollutants.

This installation is not on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2. The installation's major source level is 250 tons per year and fugitive emissions are not counted toward major source applicability.

Construction Permit 022010-002 is the only permit which has been issued to Seminole Ag Lime, Inc. from the Air Pollution Control Program. The quarry was closed for several years. It has changed ownership, and the new owner wants to increase the throughput.

No Notices of Excessive Emissions (NOEEs) or Notices of Violation (NOVs) have been issued to this installation in the last five years.

The following table summarizes the emissions of this project. The existing potential emissions were taken from Permit 022010-002. The potential emissions of the application represent the emissions of all equipment and activities assuming continuous operation (8760 hours per year). The conditioned potential emissions of particulate matter less than 10 microns in diameter (PM₁₀) are based on a voluntary limit of 15.0 tons per year.

Table 1: Emissions Summary (tons per year)

Air Pollutant	De Minimis Level	Existing Potential Emissions	¹ Existing Actual Emissions	Potential Emissions of the Application	Conditioned Potential Emissions
PM	25.0	N/D	N/D	63.34	37.35
PM ₁₀	15.0	33.88	N/D	25.44	15.00
PM _{2.5}	10.0	N/D	N/D	7.00	4.13
SO _x	40.0	2.12	N/D	N/A	N/A
NO _x	40.0	6.95	N/D	N/A	N/A
VOC	40.0	2.64	N/D	N/A	N/A
CO	100.0	6.03	N/D	N/A	N/A
HAPs	10.0/25.0	0.03	N/D	N/A	N/A

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

¹The installation has changed owners and is currently closed. No existing actual emissions are available.

Table 2: Ambient Air Quality Impact Analysis

Pollutant	¹ NAAQS (µg/m ³)	Averaging Time	² Maximum Modeled Impact (µg/m ³)	Limited Impact (µg/m ³)	³ Background (µg/m ³)	⁴ Daily Limit (tons/day)
⁵ PM ₁₀ (same)	150.0	24-hour	0.66	130.00	20.00	8,400
⁶ PM ₁₀ (separate)	150.0	24-hour	0.66	10.00	140.00	8,400

¹National Ambient Air Quality Standards (NAAQS)

²Modeled impact of Seminole Ag Lime, Inc. at maximum capacity with controls

³Includes other plant(s), if any, at 120.00 µg/m³ and background of 20 µg/m³ for haul roads and vehicular activity with BMPs

⁴Maximum throughput is 350 tons/hour X 24 hour/day

⁵Operation with other plant(s) that is(are) owned by Seminole Ag Lime, Inc.

⁶Operation with other plant(s) that is(are) under separate ownership.

EMISSIONS CALCULATIONS

Emissions for the project were calculated using emission factors found in the United States Environmental Protection Agency (EPA) document AP-42 *Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources*, Fifth Edition (AP-42).

Emissions from haul roads and vehicular activity areas were calculated using the predictive equation from AP-42 Section 13.2.2 "Unpaved Roads," November 2006. A

90% control efficiency for PM and PM₁₀ and a 40% control efficiency for PM_{2.5} are applied to the emission calculations for the use of BMPs. Emissions from load-out of storage piles were calculated using the predictive equation from AP-42 Section 13.2.4 "Aggregate Handling and Storage Piles," November 2006. The moisture content of the aggregate is 0.7% weight.

AMBIENT AIR QUALITY IMPACT ANALYSIS

An ambient air quality impact analysis (AAQIA) was performed to determine the impact of the pollutants listed in Table 1. The Air Pollution Control Program requires an AAQIA of PM₁₀ for all asphalt, concrete and rock-crushing plants regardless of the level of PM₁₀ emissions if a permit is required. An AAQIA is required for other pollutants if their emissions exceed their respective de minimis or screening model action level (SMAL). The AAQIA was performed using the Air Pollution Control Program's generic nomographs and when appropriate the EPA modeling software AERSCREEN. For each pollutant that was modeled, the maximum concentration that occurs at or beyond the site boundary was compared to the National Ambient Air Quality Standard (NAAQS) or Risk Assessment Level (RAL) for the pollutant. If during continuous operation the modeled concentration of a pollutant is greater than the applicable NAAQS or RAL, the plant's production is limited to ensure compliance with the standard.

This plant uses BMPs to control emissions from haul roads and vehicular activity areas, so emissions from these sources were not included in the AAQIA. Instead they were addressed as a background concentration of 20 µg/m³ of PM₁₀ in accordance with the Air Pollution Control Program's BMPs interim policy.

OPERATING SCENARIOS

The plant is permitted to operate with other plants located at the site as long as the NAAQS is not exceeded. The following scenarios explain how Seminole Ag Lime, Inc. shall demonstrate compliance with the NAAQS.

- When only plants that are owned by Seminole Ag Lime, Inc., which are referred to as same owner plants, are located at the site, Seminole Ag Lime, Inc. must calculate the daily impact of each plant and limit the total impact of all plants to not exceed the NAAQS. During this scenario, Seminole Ag Lime, Inc. shall use Attachment B to demonstrate compliance with the NAAQS.
- When plants that are not owned by Seminole Ag Lime, Inc., which are referred to as separate owner plants, are located at the site, Seminole Ag Lime, Inc. must account for the impacts of these plants as a background concentration and add it to the total impact of all plants owned by Seminole Ag Lime, Inc. that are operating at the site. This total is limited to not exceed the NAAQS. Seminole Ag Lime, Inc. will limit the total impact of all plants they own and operate at the site to 10.00 µg/m³ when any plants they do not own are located at the site. Seminole Ag Lime, Inc. is not permitted to operate with any plant that is not owned by Seminole Ag Lime, Inc. that

has a separate owner background greater than 120.00 $\mu\text{g}/\text{m}^3$. Seminole Ag Lime, Inc. is not permitted to operate with any combination of plants that are not owned by Seminole Ag Lime, Inc. that have a combined separate owner background greater than 120.00 $\mu\text{g}/\text{m}^3$. During this scenario, Seminole Ag Lime, Inc. shall use Attachment C to demonstrate compliance with the NAAQS.

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of PM_{10} are conditioned below de minimis levels. Potential emissions of PM are above de minimis levels, but below major levels.

APPLICABLE REQUIREMENTS

Seminole Ag Lime, Inc. shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved.

GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110.
- No Operating Permit is required for this installation.
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170
- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220
- *Restriction of Emission of Odors*, 10 CSR 10-6.165

SPECIFIC REQUIREMENTS

- *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 installation.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPS) or National Emission Standards for Hazardous Air Pollutants for Source Categories (MACTS) apply to the proposed equipment.

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

Cheryl Steffan
New Source Review Unit

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated April 8, 2013, received April 12, 2013, designating Seminole Ag Lime, Inc. as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.

Attachment AA: Best Management Practices

Haul roads and vehicular activity areas shall be maintained in accordance with at least one of the following options when the portable plant is operating.

1. Pavement
 - A. The operator shall pave the area with materials such as asphalt, concrete or other materials approved by the Air Pollution Control Program. The pavement will be applied in accordance with industry standards to achieve control of fugitive emissions¹ while the plant is operating.
 - B. Maintenance and repair of the road surface will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating.
 - C. The operator shall periodically wash or otherwise clean all of the paved portions of the haul roads as necessary to achieve control of fugitive emissions from these areas while the plant is operating.

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

3. Application of Water-Documented Daily
 - A. The operator shall apply water to unpaved areas. Water shall be applied at a rate of 100 gallons per day per 1,000 square feet of unpaved or untreated surface area while the plant is operating.
 - B. Precipitation may be substituted for watering if the precipitation is greater than one quarter of one inch and is sufficient to control fugitive emissions.
 - C. Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads.
 - D. The operator shall record the date, volume of water application and total surface area of active haul roads or the amount of precipitation that day. The operators shall also record the rationale for not watering (e.g. freezing conditions or not operating).
 - E. The operator shall keep these records with the plant for not less than five (5) years, and the operator shall make these records available to Department of Natural Resources personnel upon request.

¹For 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.)

Mr. William R. Florman
Managing Principal
Seminole Ag Lime, Inc.
2413 Nashville Rd, Box C-8, Suite 206
Bowling Green, KY 42101

RE: New Source Review Permit - Project Number: 2013-04-038

Dear Mr. Florman:

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

If you have any questions regarding this air pollution permit, please do not hesitate to contact Cheryl Steffan, at the department's Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Susan Heckenkamp
New Source Review Unit Chief

SH:csl

Enclosures

c: Southeast Regional Office
PAMS File: 2013-04-038

Permit Number: