

PERMIT BOOK

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: 022010 - 002

Project Number: 2009-11-023

Parent Company: Seminole Ag Lime, Inc.

Parent Company Address: c/o First Commercial Bank, P.O. Box 574, Dexter, MO 63841

Installation Name: Seminole Ag Lime, Inc.

Installation ID: 201-0126

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

Location Information: Scott County, S31, T30N, R14E

Application for Authority to Construct was made for:

The installation of a new rock crushing, mainly limestone, 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 - 5 2010

EFFECTIVE DATE

A handwritten signature in black ink, appearing to read "James L. Kawonch".

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 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.

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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."

Site ID No.: 201-0126
 Site Name: Seminole Ag Lime, Inc.
 Site Address: County Road 304, Rock Levee Road, Scott City, MO 63780
 Site County: Scott County, S31, T30N, R14E

1. 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 (SCC Code)
EU-01	Blasting
EU-02	Drilling, Wet - Controlled
EU-03	Diesel - Industrial Engine (20200102)
EU-04	Haul Road #1 (30502011)
EU-05	Crusher-Primary, Diameter 3-12" (30502001)
EU-06a	Load In, Storage Pile #1 (30502007)
EU-06b	Wind Erosion, Storage Pile #1 (30502507)
EU-06c	Vehicular Activity, Storage Pile #1 (30502007)
EU-06d	Load Out, Storage Pile #1 (30502007)
EU-07	Grizzly Feeder (30502031)
EU-08	Conveyor (30502006)

- B. Seminole Ag Lime, Inc. shall demonstrate compliance with special condition 1.A using Attachment A or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form.
2. 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.

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SPECIAL CONDITIONS:

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

- B. Seminole Ag Lime, Inc. shall demonstrate compliance with special condition 2.A using Attachment B or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form. Seminole Ag Lime, Inc. shall account for the impacts from other sources of PM₁₀ as instructed in Attachment B.
3. Wet Suppression Control System Requirement
 - A. Seminole Ag Lime, Inc. shall install and operate wet spray devices on the crusher and grizzly screen.
 - B. Watering may be suspended during periods of freezing condition, when use of the wet spray devices may damage the equipment. During these conditions, Seminole Ag Lime, Inc. shall adjust the production rate to control emissions from these units. Seminole Ag Lime, Inc. shall record a brief description of such events.
 4. Minimum Distance to Property Boundary Requirement
The primary emission point shall be located at least 900 feet from the nearest property boundary.
 5. Record Keeping Requirement
Seminole Ag Lime, Inc. shall maintain all records required by this permit for five years and make them available to any Missouri Department of Natural Resources personnel upon request.
 6. 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 (5) REVIEW

Project Number: 2009-11-023
Installation ID Number: 201-0126
Permit Number:

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

Complete: November 12, 2009

Parent Company:
Seminole Ag Lime, Inc.
c/o First Commercial Bank
P.O. Box 574
Dexter, MO 63841

Scott County, S31, T30N, R14E

PROJECT DESCRIPTION

Seminole Ag Lime, Inc. is installing a new rock crushing plant for the purpose of crushing limestone. The rock crushing plant has a Maximum Hourly Design Rate (MHDR) of 125 tons per hour and has wet spray devices on the crusher and grizzly screen to control emissions. The plant is powered by a 230 horsepower Caterpillar C-9 diesel engine. Best Management Practices will not be implemented at this site. There are no other plants located at this site but concurrent operation will be allowed by this permit. Because a New Source Performance Standards applies to this installation a basic operating permit will be necessary. If additional plants owned by Seminole Ag Lime, Inc are added to this site an operating permit may be necessary.

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.

No other permits have been issued to Seminole Ag Lime, Inc. from the Air Pollution Control Program.

The table below summarizes the emissions of this project. The potential emissions of the application represent the emissions of all equipment and activities assuming continuous operation (8760 hours per year). This conditioned potential emissions are based on a voluntary limit of 15.0 tons per year to avoid dispersion modeling requirements found in 10 CSR 10-6.060 Section (6).

Table 1: Emissions Summary (tons per year)

Air Pollutant	De Minimis Level/ SMAL	Existing Potential Emissions	Existing Actual Emissions	Potential Emissions of the Application	Conditioned Potential Emissions
PM ₁₀	15.0	N/A	N/A	33.88	<15.0
SO _x	40.0	N/A	N/A	2.12	0.93
NO _x	40.0	N/A	N/A	6.95	3.06
VOC	40.0	N/A	N/A	2.64	1.16
CO	100.0	N/A	N/A	6.03	2.65
Total HAPs	10/25.0	N/A	N/A	0.03	0.01

N/A = Not Applicable

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)	Background (µg/m ³)	³ Daily Limit (tons/day)
⁴ PM ₁₀ (same)	150.0	24-hour	228.08	150.0	0.0	2,192
⁵ PM ₁₀ (separate)	150.0	24-hour	N/A	100.0	50.0	1,462

¹National Ambient Air Quality Standards (NAAQS)

²Modeled impact at maximum capacity with controls

³Indirect limit based on compliance with NAAQS.

⁴Solitary operation or operation with other plants that are owned by Seminole Ag Lime, Inc.

⁵Operation with other plants that are not owned by Seminole Ag Lime, Inc.

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 the rock-crushing equipment were calculated using emission factors from AP-42 Section 11.19.2 "Crushed Stone Processing and Pulverized Mineral Processing," August 2004. The controlled emission factors were used because the equipment is controlled by water spray devices.

Emissions from the diesel engines/generators were calculated using emission factors from AP-42 Section 3.3 "*Gasoline and Diesel Industrial Engines*," October 1996.

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. Emissions from load-in and 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. Emissions from wind erosion of storage piles were calculated using an equation found in the Air Pollution Control Program's Emissions Inventory Questionnaire Form 2.8 "Storage Pile Worksheet."

AMBIENT AIR QUALITY IMPACT ANALYSIS

An ambient air quality impact analysis (AAQIA) was performed to determine the impact of PM₁₀. 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. The AAQIA was performed using the Air Pollution Control Program's generic nomographs. The distance from the plant to the nearest site boundary is 900 feet. The maximum concentration of PM₁₀ that occurs at or beyond the site boundary was compared to the National Ambient Air Quality Standard (NAAQS) for PM₁₀. When the plant operates continuously, the modeled concentration of PM₁₀ is greater than the NAAQS, so the plant's production was limited to ensure compliance with the NAAQS.

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 plants that are owned by Seminole Ag Lime, Inc. 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 below the NAAQS.
- When plants that are not owned by Seminole Ag Lime, Inc. 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 below the NAAQS. Seminole Ag Lime, Inc. shall limit the total impact of all plants they own and operate at the site to 100 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 limited impact greater than 50.0 µg/m³.

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 conditioned below de minimis 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. 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.
- A Basic 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 10-3.090

SPECIFIC REQUIREMENTS

- *Restriction of Emission of Particulate Matter From Industrial Processes*, 10 CSR 10-6.400
- 40 CFR 60 Subpart OOO, "Standards of Performance for Nonmetallic Mineral Processing Plants" applies to the equipment. 40 CFR 60 Subpart IIII, "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines" applies to the equipment.
- 40 CFR 63 Subpart ZZZZ, "National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines", applies to the proposed equipment.
- *Restriction of Emission of Sulfur Compounds*, 10 CSR 10-6.260

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.

Gerad Fox
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated November 6, 2009, received November 12, 2009, 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.
- Southeast Regional Office Site Survey, dated November 23, 2009.

Mr. Norman Harty
Owner
Seminole Ag Lime, Inc.
c/o First Community Bank
P.O. Box 574
Dexter, MO 63841

RE: New Source Review Permit - Project Number: 2009-11-023

Dear Mr. Harty:

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 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 permit, please do not hesitate to contact Gerad Fox at 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

Kendall B. Hale
New Source Review Unit Chief

KBH:gfk

Enclosures

c: Southeast Regional Office
PAMS File: 2009-11-023

Permit Number: