



## 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: 062009-002 Project Number: 2008-02-056

Parent Company: Sandy Ridge Cotton Co., LLC

Parent Company Address: P.O. Box 543, Malden, MO 63863

Installation Name: Sandy Ridge Cotton Co.

Installation Address: 22355 County Road 102, Malden, MO 63863


Location Information: Dunklin County, S21, T23N, R10E

Application for Authority to Construct was made for:  
The addition of three second stage lint cleaners. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

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

JUN - 1 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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Permit No.	
Project No.	2008-02-056

**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."*

Sandy Ridge Cotton Co.  
Dunklin County, S21, T23N, R10E

1. Control Device Requirement
  - A. Sandy Ridge Cotton Co. shall control emissions from all exhausts using high efficiency cyclones as specified in the permit application. The cyclones shall be operated and maintained in accordance with the manufacturer's specifications.
  - B. Sandy Ridge Cotton Co. shall maintain an operating and maintenance log for the cyclones which shall include the following:
    - (1) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
    - (2) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.

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

Project Number: 2008-02-056  
Installation ID Number: 069-0072  
Permit Number:

Sandy Ridge Cotton Co.  
22355 County Road 102  
Malden, MO 63863

Complete: 2/26/2008

Parent Company:  
Sandy Ridge Cotton Co., LLC  
P.O. Box 543  
Malden, MO 63863

Dunklin County, S21, T23N, R10E

REVIEW SUMMARY

- Sandy Ridge Cotton Co. has applied for authority to construction three second stage lint cleaners.
- 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.
- Cyclones are being used to control the particulate matter less than ten (10) microns in aerodynamic diameter (PM<sub>10</sub>) 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 PM<sub>10</sub> are below the de minimis level.
- This installation is located in Dunklin 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 not performed since potential emissions of the application are below de minimis levels.

- Emissions testing is not required for the equipment.
- A Basic Operating Permit revision is required for this installation within 30 days of equipment startup.
- Approval of this permit is recommended with special conditions.

## INSTALLATION DESCRIPTION

Sandy Ridge is an existing minor source for PM<sub>10</sub> and holds a basic operating permit. Seed cotton is brought to the gin in large modules. A module feeder removes some large debris and separates these modules. From the module feeder, the seed cotton is pneumatically conveyed to cleaners and dryers and is then sent to a gin stand. An overhead screw auger feeds the gin stands at a controlled rate. The gin stands separate the seeds from the lint using rotation saws. The cottonseed is pneumatically conveyed to a seed house for storage. The lint is cleaned and condensed into uniform bales. Sandy Ridge processes 50 bales per hour. Emissions are controlled by high efficiency cyclones.

The following permits have been issued to Sandy Ridge from the Air Pollution Control Program.

Table 1: Previously Issued Construction Permits

Permit Number	Description
042005-027	New cotton gin
012006-018	Gin expansion
012006-018A	Amend production limit

## PROJECT DESCRIPTION

Sandy Ridge has applied for authority to construct three secondary lint cleaners in their cotton gin. The three lint cleaners will be located in the B position and will be used to improve the grade of the cotton. Sandy Ridge will also install additional fans, motors and cyclones to support the new lint cleaners as stated in the application. The addition of the lint cleaners will not increase the cotton gin's maximum hourly design rate. The new lint cleaners will be controlled by high efficiency cyclones.

## 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 9.7 "Cotton Ginning," June 1996. Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year.)

The application conditioned potential is based on the installation wide limit in permit 012006-018A. The new lint cleaners process the same cotton as the existing equipment, so limiting the projects emissions below de minimis levels is not necessary. Compliance with the limit in permit 012006-018A insures that the potential emission of this project are below de minimis. If the limit in permit 012006-018A is ever increased, the emissions from the new lint cleaners will also increase, and should be accounted for in the new permit. The following table provides an emissions summary for this project.

Table 1: Emissions Summary (tons per year)

Pollutant	Regulatory De Minimis Levels	Existing Potential Emissions	Existing Actual Emissions (2006 EIQ)	Potential Emissions of the Application	Application Conditioned Potential
PM <sub>10</sub>	15.0	< 30	15.76	52.56	8.03
SO <sub>x</sub>	40.0	N/A	N/A	N/A	N/A
NO <sub>x</sub>	40.0	N/A	N/A	N/A	N/A
VOC	40.0	N/A	N/A	N/A	N/A
CO	100.0	N/A	N/A	N/A	N/A
HAPs	10.0/25.0	N/A	N/A	N/A	N/A

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 PM<sub>10</sub> are below de minimis levels.

#### APPLICABLE REQUIREMENTS

Sandy Ridge Cotton Co. 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.

#### 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 April 1 for the previous year's emissions.
- *Operating Permits*, 10 CSR 10-6.065

- *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

#### 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.

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Michael Mittermeyer  
Environmental Engineer

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Date

#### PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated 2/8/2008, received 2/19/2008, designating Sandy Ridge Cotton Co., LLC as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.

Mr. Chris Lacey  
Gin Manager  
Sandy Ridge Cotton Co.  
P.O. Box 543  
Malden, MO 63863

RE: New Source Review Permit - Project Number: 2008-02-056

Dear Mr. Lacey:

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: Southeast Regional Office  
PAMS File: 2008-02-056

Permit Number: