

## 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: **07 2 0 0 9 - 0 1 0** Project Number: 2009-05-034

Parent Company: Portageville Farmers Gin, Inc.

Parent Company Address: 105 East Cotton, Portageville MO, 63873

Installation Name: Portageville Farmers Gin, Inc.

Installation Address: 105 East Cotton, Portageville, MO 63873

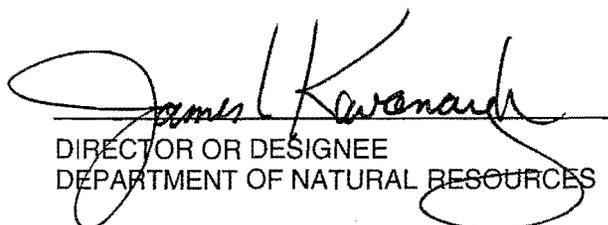
Location Information: New Madrid County, S31, T21N, R13E

Application for Authority to Construct was made for:  
Installation of three pneumatic jet lint cleaners. 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.

JUL 16 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 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."*

Portageville Farmers Gin, Inc.  
New Madrid County, S31, T21N, R13E

1. **Superseding Condition**  
The conditions of this permit supersede all special conditions found in the previously issued construction permits 0293-005 and 1097-014 from the Air Pollution Control Program.
2. **Particulate Matter Less Than Ten (10) Microns in Aerodynamic Diameter (PM<sub>10</sub>) Emissions Limitation**
  - A. Portageville Farmers Gin, Inc. shall emit less than 48.5 tons of PM<sub>10</sub> in any consecutive 12 month period from the entire installation (as listed in Table 1).
  - B. Portageville Farmers Gin, Inc. shall maintain an accurate record of PM<sub>10</sub> emitted into the atmosphere from the entire installation. Attachment A or an equivalent form shall be used for this purpose. Portageville Farmers Gin, 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.
  - C. Portageville Farmers Gin, Inc. shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the end of the month during which the records from Special Condition Number 2.B indicate that the source exceeds the limitation of Special Condition Number 2.A.
3. **Control Device Requirement-Cyclones**
  - A. Portageville Farmers Gin, Inc. 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. Portageville Farmers Gin, Inc. 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

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**SPECIAL CONDITIONS:**

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

- (2) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
  
4. Haul Road Watering  
Portageville Farmers Gin, Inc. Co. shall water haul roads whenever conditions exist which would cause visible fugitive emissions to enter the ambient air beyond the property boundary.

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

Project Number: 2009-05-034  
Installation ID Number: 143-0013  
Permit Number:

Portageville Farmers Gin, Inc.  
105 East Cotton  
Portageville, MO 63873

Complete: May 18, 2009

Parent Company:  
Portageville Farmers Gin, Inc.  
105 East Cotton  
Portageville MO, 63873

New Madrid County, S31, T21N, R13E

REVIEW SUMMARY

- Portageville Farmers Gin, Inc. has applied for authority to construct three pneumatic jet 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 equipment.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) apply to this installation. None of the currently promulgated Maximum Achievable Control Technology (MACT) regulations apply to the proposed equipment.
- Cyclones are being used to control the 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 de minimis levels.
- This installation is located in New Madrid 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.
- 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.
- An Intermediate Operating Permit application is required for this installation within 45 days of equipment startup.
- Approval of this permit is recommended with special conditions.

## INSTALLATION DESCRIPTION

Portageville Farmers Gin, Inc. is an existing cotton gin. 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 cotton seed is pneumatically conveyed to a seed house for storage. The lint is cleaned and condensed into uniform bales. Mote from the lint cleaners is sent to another lint cleaner and is then condensed into bales by the mote press. The dryers are fired with natural gas. Emissions are controlled by high efficiency cyclones. The following table list the existing equipment and equipment authorized by this permit.

**Table 1: Equipment List**

<b>Emission Point Number</b>	<b>Description</b>
EP-1	Unloading
EP-2	#1 Dryer
EP-3	#2 Dryer
EP-4	Overflow Fan
EP-5	Lint Cleaner
EP-12	New Lint Cleaner
EP-6	Battery Condenser
EP-7	Mote Fan
EP-8	Mote Trash Fan
EP-9	Master Trash Fan
EP-10	Dryer Heater
EP-11	Haul Road

The following construction permits have been issued to Portageville Farmers Gin, Inc. from the Air Pollution Control Program.

**Table 2: Permit History**

<b>Permit Number</b>	<b>Description</b>
0293-005	Installation of a mote press
0793-004	Upgrade dryer burner
1097-014	New trash handling system; increase production limit
0798-029	Add 10 MMBtu dryer burner
082000-007	Replace drying towers

Permit 0293-005 limited the installation to 14,100 bales per year, which equated to 14.96 tons of PM<sub>10</sub> per year. Later, permit 1097-014 limited the installation's emissions to less than 37.71 tons of PM<sub>10</sub> per year or approximately 60,000 bales per year based on the emission factors used in the permit. This permit also demonstrated compliance with the NAAQS for PM<sub>10</sub> using the TSCREEN screening model. The permit did not supersede the production limit in 0293-005. The project emissions of the other three permits were below de minimis levels, so no limits were necessary. The installation currently holds an intermediate operating permit that limits the installation's annual production to less than 75,000 bales per year. Using the current EPA emission factors, this production limit equates to 31.9 tons of PM<sub>10</sub> per year from the existing installation, which is more stringent than the limit in permit 1097-014.

## PROJECT DESCRIPTION

Portageville Farmers Gin, Inc. has applied for authority to construct three Pneumatic Jet Lint Cleaners manufactured by Cherokee Fabrication. The new lint cleaners will be installed behind each of the three existing gin stands. The cleaners will remove immature seed and heavier leaf trash from the lint and send it to the existing lint cleaners. The exhaust from the new cleaners will be duct to the existing precleaner trash lines, which are controlled by cyclones. The installation of the new lint cleaners does not change the installation's production capacity.

## 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, Section 1.4 "Natural Gas Combustion," July 1998 and Section 13.2.2 "Unpaved Roads," November 2006. Existing potential emissions were taken from the limit in permit 1097-014. Potential emissions of the application represent the potential of the new equipment, considering the annual emission limit found in permit 1097-014. The following table provides an emissions summary for this project.

**Table 3: Emissions Summary (tons per year)**

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (2008 EIQ)	Potential Emissions of the Application	New Installation Conditioned Potential
PM <sub>10</sub>	15.0	< 37.71	6.10	10.77	< 48.5
SO <sub>x</sub>	40.0	N/D	N/D	N/A	0.01
NO <sub>x</sub>	40.0	N/D	N/D	N/A	1.41
VOC	40.0	N/D	N/D	N/A	0.08
CO	100.0	N/D	N/D	N/A	1.18
HAPs	10.0/25.0	N/D	N/D	N/A	0.03

N/A = not applicable; N/D = not determined

Existing potential emissions were taken from permit 1097-014

The new installation conditioned potential emissions is the emission limit found in permit 1097-014 plus the project emissions. The emission limit in permit 1097-014 was superseded and re-established in this permit to account for the most recent emission factors.

#### 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

Portageville Farmers Gin, 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.

#### 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.
- *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 May 12, 2009, received May 18, 2009, designating Portageville Farmers Gin, 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 June 3, 2009.



Mr. Greg Portwood  
Gin Plant Manager  
Portageville Farmers Gin, Inc.  
105 East Cotton  
Portageville, MO 63873

RE: New Source Review Permit - Project Number: 2009-05-034

Dear Mr. Portwood:

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 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 B. Hale  
New Source Review Unit Chief

KBH:mml

Enclosures

c: Southeast Regional Office  
PAMS File: 2009-05-034

Permit Number: