

# 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: **07 2 0 0 8 - 0 0 2**      Project Number: 2008-03-043

Parent Company:            D. G. & G., Inc.

Parent Company Address: 7055 St. Hwy 153, Parma, MO 63870

Installation Name:        D. G. & G., Inc.

Installation Address:     7055 St. Hwy 153, Parma, MO 63870

Location Information:     Stoddard County, S13, T24N, R11E

Application for Authority to Construct was made for:  
The modification of the cotton gin to increase its capacity to 35 bales per hour.  
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 11 2008**

EFFECTIVE DATE

  
DIRECTOR OR DESIGNEE  
DEPARTMENT OF NATURAL RESOURCES

STANDARD CONDITIONS:

PERMIT BOOK

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.

STATE OF MISSOURI



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Permit No.	
Project No.	2008-03-043

**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."*

D. G. & G., Inc.  
Stoddard County, S13, T24N, R11E

1. Emission Limitation
  - A. D. G. & G., Inc. shall emit less than 36.5 tons of particulate matter less than ten (10) microns in diameter (PM<sub>10</sub>) in any consecutive 12 month period from the entire installation (emission points listed in table 1).
  - B. D. G. & G., 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. D. G. & G., Inc. shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.
  - C. D. G. & G., Inc. shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after the end of the month during which the records from Special Condition Number 1.B indicate that the source exceeds the limitation of Special Condition Number 1.A.
2. Control Device Requirement – Cyclones
  - A. The cyclones must be in use at all times on all exhausts when this plant is in operation and shall be operated and maintained in accordance with the manufacturer's specifications.
  - B. D. G. & G., Inc. shall maintain an operating and maintenance log for the cyclones that shall include the following:
    - 1) Incidents of malfunction: with impact on emissions, duration of event, probable cause and corrective actions.
    - 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: 2008-03-043  
Installation ID Number: 207-0048  
Permit Number:

D. G. & G., Inc.  
7055 St. Hwy 153  
Parma, MO 63870

Complete: March 19, 2008

Parent Company:  
D. G. & G., Inc.  
7055 St. Hwy 153  
Parma, MO 63870

Stoddard County, S13, T24N, R11E

REVIEW SUMMARY

- D. G. & G., Inc. has applied for authority to modify the cotton gin to increase its capacity to 35 bales per hour.
- 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 conditioned below de minimis levels.
- This installation is located in Stoddard 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 application is required for this installation within 30 days of equipment startup.
- Approval of this permit is recommended with special conditions.

### INSTALLATION DESCRIPTION

D. G. & G., Inc. is an existing source, which holds an intermediate operating permit. The operating permit limits D. G. & G., Inc. to less than 60,000 bales of cotton per year and 100 tons of PM<sub>10</sub>. The limit in this permit will change the cotton gin's operating permit classification to a basic source. 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.

Table 1: Emission Points

Emission Point ID	Emission Point Description	Emission Factor	Units
EP-1	Unloading	0.12	lb/bale
EP-2	#1 Dryer	0.12	lb/bale
EP-3	#2 Dryer	0.093	lb/bale
EP-4	Overflow Fan	0.026	lb/bale
EP-5	Lint Cleaner	0.24	lb/bale
EP-6	Battery Condenser	0.014	lb/bale
EP-7	Mote Fan	0.13	lb/bale
EP-8	Mote Trash Fan	0.021	lb/bale
EP-9	Master Trash Fan	0.074	lb/bale

The following construction permits have been issued to D. G. & G., Inc. from the Air Pollution Control Program.

Table 2: Construction Permits Issued

Permit Number	Description
0897-016	Install module feeder
0398-009	Install mote press and incline cleaner

## PROJECT DESCRIPTION

D. G. & G., Inc. has applied for authority to modify their cotton gin to increase its capacity from 30 bales per hour to 35 bales per hour. D. G. & G., Inc. will replace two of the lines used to convey the cotton with larger lines. Increasing the line size will reduce static pressure and allow D. G. & G., Inc. to operate the existing equipment at a faster rate. D. G. & G. will also replace the Super 86" lint cleaner with a 66" lint cleaner and replace the 88 Lummus gin stand with a 178 Hardwicketter gin stand. The existing equipment was oversized and replacing it will increase the gin's efficiency.

## EMISSIONS/CONTROLS EVALUATION

The emission factors 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. Combustion emissions are released by the cotton gins dryers, which are natural gas fired. These emissions will not increase as a result of this project and were not considered.

The potential emissions for the application were calculated using potential to actual test. In this test, the baseline emissions of the cotton gin, which were calculated by finding the 24-month average annual emissions using the emissions reported in the 2005 and 2006 Emissions Inventory Questionnaire (EIQs), were subtracted from the cotton gins potential emissions. The potential emissions were calculated by multiplying the gins annual capacity assuming continuous operation (8760 hours per year) by the appropriate emission factors. The resulting emissions increase from the potential to actual test was greater than the *de minimis* level for PM<sub>10</sub> (15 tons per year), so the installation wide PM<sub>10</sub> emissions were conditioned to less than the baseline emissions plus 15 tons year (36.5 tons per year). This limit was requested by the applicant to avoid Section 6 requirements for PM<sub>10</sub>.

Table 3: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Potential Emissions	Base Line Actual Emissions (2005 and 2006 EIQ)	Potential Emissions of the Application	New Installation Conditioned Potential
PM <sub>10</sub>	15.0	128.5	21.5	107.0	< 36.5
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 conditioned below de minimis levels.

## APPLICABLE REQUIREMENTS

D. G. & G., 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 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

### SPECIFIC REQUIREMENTS

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

## 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 3/7/2008, received 3/12/2008, designating D. G. & G., 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 date.



Mr. Tim Woods  
Manager  
D. G. & G., Inc.  
7055 St. Hwy 153  
Parma, MO 63870

RE: New Source Review Permit - Project Number: 2008-03-043

Dear Mr. Tim Woods:

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: 2008-03-043

Permit Number: