

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:

012012-007

Project Number: 2011-07-073

Installation Number: 061-0012

Parent Company: MFA, Inc.

Parent Company Address: 201 Ray Young Drive, Columbia, MO 65201-3599

Installation Name: MFA Agri Service - Pattonsburg

Installation Address: 204 West 1st Street, Pattonsburg, MO 64670

Location Information: Daviess County, S26, T61N, R29W

Application for Authority to Construct was made for:

The installation of a new 300 tons of grain per hour bucket elevator and grain receiving pit replacing the existing bucket elevator and grain receiving pit. 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.

JAN 17 2012

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 these air contaminant sources. 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 these air contaminant sources.

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 sources(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."*

MFA Agri Service - Pattonsburg  
 Daviess County, S26, T61N, R29W

1. Emission Limitation
  - A. MFA Agri Service - Pattonsburg shall emit less than 15.0 tons of particulate matter less than ten microns in diameter (PM<sub>10</sub>) in any consecutive 12-month period from the entire installation (see Table 1).

Table 1: MFA Agri Service – Pattonsburg

Emission Point	Description
EP-1	Grain Receiving
EP-2	Internal Handling
EP-4	Grain Loadout
EP-7	Fertilizer Receiving
EP-8	Fertilizer Storage Bays
EP-9	Fertilizer Shipping
EP-13	Grain Bin Vents
EP-14	Fertilizer Weigh Hopper
EP-15	Fertilizer Mixing
HRS1-12	Total Haul Road Emissions

- B. Attachment A or equivalent forms, such as electronic forms, approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Condition 1.A.
2. Record Keeping and Reporting Requirements
  - A. MFA Agri Service - Pattonsburg shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. These records shall include Material Safety Data Sheets (MSDS) for all materials used

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**SPECIAL CONDITIONS:**

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

- B. MFA Agri Service - Pattonsburg shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which any record required by this permit show an exceedance of a limitation imposed by this permit.

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

Project Number: 2011-07-073  
Installation ID Number: 061-0012  
Permit Number:

MFA Agri Service - Pattonsburg  
204 West 1st Street  
Pattonsburg, MO 64670

Complete: August 2, 2011

Parent Company:  
MFA, Inc.  
201 Ray Young Drive  
Columbia, MO 65201-3599

Daviess County, S26, T61N, R29W

REVIEW SUMMARY

- MFA Agri Service - Pattonsburg has applied for authority to install a new 300 tons of grain per hour bucket elevator and grain receiving pit replacing the existing bucket elevator and grain receiving pit.
- Hazardous Air Pollutant (HAP) emissions are not expected from the proposed equipment.
- None of the New Source Performance Standards (NSPS) apply to the installation.
- 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.
- No air pollution control equipment is being used in association with the new equipment.
- 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<sub>10</sub> are conditioned below de minimis levels. Potential emissions of particulate matter (PM) remain at minor source levels. Other pollutants are proportionately reduced to de minimis levels.
- This installation is located in Daviess County, a nonattainment area for the eight-hour ozone standard and the particulate matter less than 2.5 microns in diameter (PM<sub>2.5</sub>) standard and an attainment area for all other 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 for PM<sub>10</sub> and PM<sub>2.5</sub> was not performed since potential emissions of the application for these pollutants are below de minimis levels. Modeling is not required for PM.
- Emissions testing is not required for the equipment.
- No Operating Permit is required for this installation.
- Approval of this permit is recommended with special conditions.

### INSTALLATION DESCRIPTION

MFA Agri Service –Pattonsburg (MFA) is an existing grandfathered installation in Pattonsburg, Missouri. MFA processes both grain and dry fertilizer at this location. No permits have been issued to MFA Agri Service - Pattonsburg from the Air Pollution Control Program.

### PROJECT DESCRIPTION

MFA is installing a new bucket elevator and a new receiving pit. Each new piece of equipment is rated at 300 tons of grain receiving per hour. The new bucket elevator and receiving pit will be replacing the existing bucket elevator and receiving pit. The new equipment increases the grain receiving capabilities of the grain handling facility. There is no control equipment associated with any of the equipment at this facility. The MFA facility also produces dry fertilizer but no increase production is expected from this project. As a part of this project MFA has also indicated that they will be removing an existing grain dryer. The potential emissions of this project only include the emissions associated with the grain receiving facility. However, MFA has requested an installation wide PM<sub>10</sub> emission limit that will include all emission points at this facility.

### 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 9.9.1, *Grain Elevators & Processes*. Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8,760 hours per year.) The following table provides an emissions summary for this project.

Table 2: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	<sup>a</sup> Potential Emissions of the Entire Installation	<sup>b</sup> Potential Emissions of the Application	<sup>c</sup> New Installation Conditioned Potential
PM	25.0	N/A	488.81	462.53	38.61
PM <sub>2.5</sub>	10.0	N/A	33.63	28.65	2.66
PM <sub>10</sub>	15.0	N/A	189.89	168.59	<15.0
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

<sup>a</sup>Potential Emission of the Entire Installation include the potential emissions from all emissions points at the MFA Agri Service – Pattonsburg facility.

<sup>b</sup>Potential Emissions of the Application include all potential emissions associated with the grain processing

<sup>c</sup>New Installation Conditioned Potential is based on voluntary installation wide 15.0 ton per year PM<sub>10</sub> limit. All other pollutants are proportionally reduced.

### 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<sub>10</sub> are conditioned below de minimis levels.

### APPLICABLE REQUIREMENTS

MFA Agri Service - Pattonsburg 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
- *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

## 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.

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Gerad Fox  
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 July 22, 2011, received August 1, 2011, designating MFA, Inc. as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- Kansas City Regional Office Site Survey, dated August 10, 2011.

## Attachment A – Installation Wide PM<sub>10</sub> Compliance Worksheet

MFA Agri Service - Pattonsburg  
 Daviess County, S26, T61N, R29W  
 Project Number: 2011-07-073  
 Installation ID Number: 061-0012  
 Permit Number: \_\_\_\_\_

This sheet covers the period from \_\_\_\_\_ to \_\_\_\_\_. (Copy sheet as needed.)  
 (month, year) (month, year)

	(a)	(b)	(c)
Step Description	Monthly Throughput (tons)	Composite Emission Factor (lb/ton)	Monthly PM <sub>10</sub> Emissions (lbs)
Grain Received		0.155	
Fertilizer Received		0.123	
(d) Total Monthly PM <sub>10</sub> Emissions (lbs)			
(e) Total Monthly PM <sub>10</sub> Emissions (tons)			
(f) 12-Month PM <sub>10</sub> Emissions (h) from Previous Month's Attachment A (tons)			
(g) Total Monthly PM <sub>10</sub> Emissions (e) from Previous Year's Attachment A (tons)			
(h) Current 12-Month PM <sub>10</sub> Emissions (tons) (h) = [(e) + (f) – (g)]			

- (a) Record this month's throughput.
- (c) Multiply the Monthly Throughput (a) by the respective Composite Emission Factor (b).
- (d) Sum each individual Monthly PM<sub>10</sub> Emissions.
- (e) Divide the Total Monthly PM<sub>10</sub> Emissions (d) by 2,000.
- (f) Record the 12-Month PM<sub>10</sub> Emissions (h) from the Previous Month's Attachment A.
- (g) Record the Total Monthly PM<sub>10</sub> Emissions (e) from the Previous Year's Attachment A.
- (h) Calculate the Current 12-Month PM<sub>10</sub> Emissions. A total less than 15.0 tons of PM<sub>10</sub> indicates compliance.

Mr. Alan Mahoney  
SER Manager  
MFA Agri Service - Pattonsburg  
201 Ray Young Drive  
Columbia, MO 65201-3599

RE: New Source Review Permit - Project Number: 2011-07-073

Dear Mr. Mahoney:

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 attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale  
New Source Review Unit Chief

KBH:gfk

Enclosures

c: Kansas City Regional Office  
PAMS File: 2011-07-073

Permit Number: