

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:

012012-006

Project Number: 2011-07-077

Installation Number: 107-0001

Parent Company:

MFA, Inc.

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

Installation Name:

MFA Agri Service - Odessa West

Installation Address:

County Road 419, Odessa, MO 64076

Location Information:

Lafayette County, S2, T48N, R28W

Application for Authority to Construct was made for:

The installation of a new bucket elevator that will allow MFA Agri Service - Odessa West to receive and dry grain independently. 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

Handwritten signature of Kyla L Moore in black ink.

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 - Odessa West  
Lafayette County, S2, T48N, R28W

**1. Superseding Condition**

The conditions of this permit supersede all special conditions found in the previously issued Construction Permits 032001-001 and 042005-005 issued by the Air Pollution Control Program.

**2. Emission Limitation**

A. MFA Agri Service - Odessa West 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 – Odessa West

Emission Point	Description
EP-1 Grain	Receiving
EP-2 Internal	Handling
EP-3	Column Grain Dryer
EP-4 Grain	Loadout
EP-10 Fertilizer	Receiving
EP-11 Fertilizer	Mixing
EP-12 Fertilizer	Shipping
EP-14	Grain Bin Vents
EP-15	Fertilizer Storage Bays
EP-16	Grain Storage Bunker
EP-17	Grain Storage Bunker Loadout
EP-18	Fertilizer Weigh Hopper
HRS1-13	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 Conditions 2.A.

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**SPECIAL CONDITIONS:**

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

3. **Record Keeping and Reporting Requirements**
  - A. MFA Agri Service - Odessa West 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
  - B. MFA Agri Service - Odessa West 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: 2011-07-077  
Installation ID Number: 107-0001  
Permit Number:

MFA Agri Service - Odessa West  
County Road 419  
Odessa, MO 64076

Complete: August 2, 2011

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

Lafayette County, S2, T48N, R28W

REVIEW SUMMARY

- MFA Agri Service - Odessa West has applied for authority install a new bucket elevator that will allow MFA Agri Service - Odessa West to receive and dry grain independently.
- 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 PM10 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 Lafayette 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 for PM<sub>10</sub> and particulate matter less than 2.5 microns in diameter (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 –Odessa West (MFA) is an existing installation in Odessa, Missouri. MFA processes both grain and dry fertilizer at this location. MFA has been issued a basic operating permit (Permit Number OP1999-118) from the Air Pollution Control Program. The following construction permit has been issued to MFA Agri Service - Odessa from the Air Pollution Control Program.

Table 1: Permit History

Permit Number	Description
032001-001	Installation of a dry fertilizer mixer and loadout conveyor
042005-005	Installation of a Grain Storage Bunker

### PROJECT DESCRIPTION

MFA currently has one bucket elevator that transfers the grain from the receiving area to storage bins and also transfers grain from the storage bins to the grain column dryer (EP-3). The current bucket elevator cannot perform both functions at the same time therefore the grain column dryer must be shut down while MFA is receiving grain. MFA is installing a second bucket elevator that will allow MFA to receive and dry grain independently. Due to the debottlenecking of the grain drying process the potential emissions from this project will include all emissions associated with the grain drying process. The new bucket elevator has a maximum hourly design rate (MHDR) of 120 ton of grain per hour. The grain column dryer has a MHDR of 30 tons of grain dried per hour. This creates a bottleneck of the new bucket elevator. MFA will not be implementing any control devices to control emissions from the new bucket elevator. MFA has requested a installation wide 15.0 ton per year PM<sub>10</sub> limit which will eliminate the need for an operating permit for 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 and those associated with the grain drying process, 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	<sup>a</sup> Existing Potential Emissions	Existing Actual Emissions (2010 EIQ)	<sup>b</sup> Potential Emissions of the Application	Potential Emissions of the Entire Installation	<sup>c</sup> New Installation Conditioned Potential
PM <sub>2.5</sub>	10.0	N/D	0.23	2.14 24.34	2.46	
PM <sub>10</sub>	15.0	83.84 2.01	12.52		148.67	<15.0
SO <sub>x</sub> 40.0		0.00	0.00	0.18 0.18		0.018
NO <sub>x</sub> 40.0		17.70	0.00	1.57 1.57	0.16	
VOC 40.0		0.20	0.00	0.12 0.12		0.012
CO	100.0	3.00	0.00	0.90 0.90	0.09	
HAPs 10.0/25.0		0.00	0.00	0.02 0.02		0.0020

<sup>a</sup>Existing Potential Emissions were taken from Permit # 042005-005

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

<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 - Odessa West 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.

\_\_\_\_\_  
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 July 27, 2011, received July 28, 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 - Odessa West  
 Lafayette County, S2, T48N, R28W  
 Project Number: 2011-07-077  
 Installation ID Number: 107-0001  
 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		0.212	
Fertilizer Received		0.152	
Grain Dried		0.056	
(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 - Odessa West  
201 Ray Young Drive  
Columbia, MO 65201-3599

RE: New Source Review Permit - Project Number: 2011-07-077

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. 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: 2011-07-077

Permit Number: