

STATE OF MISSOURI



DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT TO CONSTRUCT

PERMIT BOOK

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: **03 2015 - 019** Project Number: 2014-12-016
Installation Number: 111-0009

Parent Company: MFA, Inc.

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

Installation Name: MFA Bulk Plant - Heetco

Installation Address: 12461 State Highway 6, LaBelle, MO 63447

Location Information: Lewis County, S4, T61N, R9W

Application for Authority to Construct was made for:

The construction of a bulk seed storage and treatment facility. 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.

MAR 24 2015

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 Department's Air Pollution Control Program of the anticipated date of startup 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 startup 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.

Page No.	3
Permit No.	
Project No.	2014-12-016

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 Bulk Plant - Heetco
Lewis County, S4, T61N, R9W

1. PM₁₀ Emission Limitation
 - A. MFA Bulk Plant - Heetco shall emit less than 15.0 tons of PM₁₀ in any consecutive 12-month period from the emission points listed below.
 - 1) EP-1 Haul Road
 - 2) EP-S1 Bulk Seed Receiving
 - 3) EP-S2 Bulk Seed Filling
 - 4) EP-S3 Exterior Conveyors
 - 5) EP-S4 Seed Weigh Hopper
 - 6) EP-S5 Seed Treater
 - 7) EP-S6 Interior Conveyors
 - 8) EP-S7 Bulk Seed Loadout
 - 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 Bulk Plant - Heetco 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 SDS for all materials used.
 - B. MFA Bulk Plant - Heetco shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 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: 2014-12-016
Installation ID Number: 111-0009
Permit Number:

MFA Bulk Plant - Heetco
12461 State Highway 6
LaBelle, MO 63447
Lewis County, S4, T61N, R9W

Complete: January 8, 2015

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

REVIEW SUMMARY

- MFA Bulk Plant - Heetco has applied for authority to construct a bulk seed storage and treatment facility.
- The only expected HAP emissions are from toluene during seed coating, but the potential to emit toluene is significantly less than the de minimis level and the SMAL.
- None of the New Source Performance Standards (NSPS) apply to the installation.
- None of the NESHAPs apply to this installation. None of the currently promulgated MACT regulations apply to the proposed equipment.
- No air pollution control devices are being used in association with the 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 are above the de minimis level but below the major source level. Potential emissions of all other criteria pollutants are below their respective de minimis levels and SMALs.
- This installation is located in Lewis 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.
- Emissions testing is not required for the equipment.
- A Basic Operating Permit application is required for this installation within 30 days of commencement of operations.

- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

The new equipment is being installed at a facility that MFA purchased approximately two years ago, which previously operated as a bulk fertilizer plant. The installation has never previously been permitted by the Air Pollution Control Program.

PROJECT DESCRIPTION

MFA, Inc. plans to construct a bulk seed storage and treatment facility. The project will consist of four 3,000 bushel hopper bottom storage bins, a fill conveyor, reclaim conveyors, a weigh hopper, a seed treater, and a loadout conveyor. A complete list of new emission points is listed in Special Condition 1.A. The rated capacity for the seed treater is 60 tons per hour, but due to batch weighing, product mixing before application, and other necessary stages, the actual maximum treatment rate is 36 tons per hour. This rate of 36 tons per hour becomes the bottleneck for the entire operation. MFA currently plans to use three products for seed treatment which include Cruiser Maxx, Acceleron F/I, and Clariva PN.

EMISSIONS/CONTROLS EVALUATION

The emission factors used in this analysis were obtained from the EPA document AP-42, *Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources*, Fifth Edition.

Particulate emission factors for the receiving, handling, and loadout of seed were obtained from AP-42 Section 9.9.1 *Grain Elevators & Processes*, May 2003. Because no emission factors for the seed coating process exists, emission factors for general grain handling were used. Emissions from haul roads were calculated using the predictive equation from AP-42 Section 13.2.2 *Unpaved Roads*, November 2006. It was assumed that the seed is hauled 50% of the time in straight trucks and 50% of the time in hopper trucks.

VOC and HAP emissions (toluene) from the seed coating operation were calculated using a mass balance approach, assuming that only Acceleron F/I is used to coat seeds, the maximum weight percent of toluene is used in the coating mixture, the seeds are coated continuously at the maximum design rate, and that 100% of the toluene is emitted during the process.

The following table provides an emissions summary for this project. Existing potential and actual emissions do not exist, because the facility has never previously been permitted. Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8,760 hours per year) at the maximum design rate. Conditioned emissions represent the subsequent potential of the new equipment after voluntarily limiting PM₁₀ emissions below the de minimis level.

Table 1: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions	Potential Emissions of the Application	Conditioned Emissions of the Application
PM	25.0	N/A	N/A	59.11	39.97
PM ₁₀	15.0	N/A	N/A	22.18	<15.0
PM _{2.5}	10.0	N/A	N/A	3.52	2.38
SO _x	40.0	N/A	N/A	N/A	N/A
NO _x	40.0	N/A	N/A	N/A	N/A
VOC	40.0	N/A	N/A	0.15	0.098
CO	100.0	N/A	N/A	N/A	N/A
Total HAPs	25.0	N/A	N/A	0.15	0.098

N/A = Not Applicable; N/D = Not Determined

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 are above the de minimis level but below the major source level. Potential emissions of all other criteria pollutants are below their respective de minimis levels and SMALs.

APPLICABLE REQUIREMENTS

MFA Bulk Plant - Heetco 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
- *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.

Ryan Schott
New Source Review Unit

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated December 8, 2014, received December 9, 2014, 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.

APPENDIX A

Abbreviations and Acronyms

%	percent	m/s	meters per second
°F	degrees Fahrenheit	Mgal	1,000 gallons
acfm	actual cubic feet per minute	MW	megawatt
BACT	Best Available Control Technology	MHDR	maximum hourly design rate
BMPs	Best Management Practices	MMBtu	Million British thermal units
Btu	British thermal unit	MMCF	million cubic feet
CAM	Compliance Assurance Monitoring	MSDS	Material Safety Data Sheet
CAS	Chemical Abstracts Service	NAAQS ...	National Ambient Air Quality Standards
CEMS	Continuous Emission Monitor System	NESHAPs	National Emissions Standards for Hazardous Air Pollutants
CFR	Code of Federal Regulations	NO_x	nitrogen oxides
CO	carbon monoxide	NSPS	New Source Performance Standards
CO₂	carbon dioxide	NSR	New Source Review
CO_{2e}	carbon dioxide equivalent	PM	particulate matter
COMS	Continuous Opacity Monitoring System	PM_{2.5}	particulate matter less than 2.5 microns in aerodynamic diameter
CSR	Code of State Regulations	PM₁₀	particulate matter less than 10 microns in aerodynamic diameter
dscf	dry standard cubic feet	ppm	parts per million
EQ	Emission Inventory Questionnaire	PSD	Prevention of Significant Deterioration
EP	Emission Point	PTE	potential to emit
EPA	Environmental Protection Agency	RACT	Reasonable Available Control Technology
EU	Emission Unit	RAL	Risk Assessment Level
fps	feet per second	SCC	Source Classification Code
ft	feet	scfm	standard cubic feet per minute
GACT	Generally Available Control Technology	SDS	Safety Data Sheet
GHG	Greenhouse Gas	SIC	Standard Industrial Classification
gpm	gallons per minute	SIP	State Implementation Plan
gr	grains	SMAL	Screening Model Action Levels
GWP	Global Warming Potential	SO_x	sulfur oxides
HAP	Hazardous Air Pollutant	SO₂	sulfur dioxide
hr	hour	tph	tons per hour
hp	horsepower	tpy	tons per year
lb	pound	VMT	vehicle miles traveled
lbs/hr	pounds per hour	VOC	Volatile Organic Compound
MACT	Maximum Achievable Control Technology		
µg/m³	micrograms per cubic meter		

Mr. Alan Mahoney
Safety, Environmental, & Regulatory Manager
MFA, Inc.
201 Ray Young Drive
Columbia, MO 65201

RE: New Source Review Permit - Project Number: 2014-12-016

Dear Mr. Mahoney:

Enclosed with this letter is your permit to construct. Please study it carefully and refer to Appendix A for a list of common abbreviations and acronyms used in the permit. Also, note the special conditions 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 were adversely affected by this permit decision, you may be entitled to pursue an appeal before the administrative hearing commission pursuant to Sections 621.250 and 643.075.6 of RSMo. To appeal, you must file a petition with the administrative hearing commission within thirty 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 administrative hearing commission, Administrative Hearing Commission, Truman State Office Building, P.O. Box 1557, Jefferson City, MO 65102, 573-751-2422, www.oa.mo.gov/ahc.

If you have any questions regarding this permit, please contact Ryan Schott, Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102, (573) 751-4817.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Susan Heckenkamp
New Source Review Unit Chief

SH:rs1

Enclosures

c: Northeast Regional Office
PAMS File: 2014-12-016
Permit Number: