



Missouri Department of dnr.mo.gov

# NATURAL RESOURCES

Michael L. Parson, Governor

Carol S. Comer, Director

April 30, 2020

Stanley Thessen  
Director  
West Central AGRI Services  
438 NW City Rd 11002  
Adrian, MO 64720

RE: New Source Review Permit - Project Number: 2020-01-032

Dear Stanley Thessen:

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 are 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.

This permit may include requirements with which you may not be familiar. If you would like the department to meet with you to discuss how to understand and satisfy the requirements contained in this permit, an appointment referred to as a Compliance Assistance Visit (CAV) can be set up with you. To request a CAV, please contact your local regional office or fill out an online request. The regional office contact information can be found at the following website: <http://dnr.mo.gov/regions/>. The online CAV request can be found at <http://dnr.mo.gov/cav/compliance.htm>.

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 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, whose contact information is: Administrative Hearing Commission, United States Post Office Building, 131 West High Street, Third Floor, P.O. Box 1557, Jefferson City, Missouri 65102, phone: 573-751-2422, fax: 573-751-5018, website: [www.oa.mo.gov/ahc](http://www.oa.mo.gov/ahc).



Stanley Thessen  
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If you have any questions regarding this permit, please do not hesitate to contact Dakota Fox, at the Department of Natural Resources' 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



Susan Heckenkamp  
New Source Review Unit Chief

SH:sha

Enclosures

c: Kansas City Regional Office  
PAMS File: 2020-01-032

Permit Number: 042020-011



**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: 042020-011      Project Number: 2020-01-032  
Installation Number: 013-0017

Parent Company: MFA Enterprises, Inc.

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

Installation Name: West Central AGRI Services

Installation Address: 438 NW City Rd 11002, Adrian, MO 64720

Location Information: Bates County, S4, T41N, R31W

Application for Authority to Construct was made for:  
Installation of a new 10 ton fertilizer mixer. 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.

  
\_\_\_\_\_  
Director or Designee  
Department of Natural Resources

\_\_\_\_\_  
April 30, 2020  
Effective Date

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 Enforcement and Compliance Section of 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 Enforcement and Compliance Section of the Department's 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's 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 the permit application and this permit and permit review shall be kept at the installation address and shall be made available to Department's 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 using the contact information below.

Contact Information:  
Missouri Department of Natural Resources  
Air Pollution Control Program  
P.O. Box 176  
Jefferson City, MO 65102-0176  
(573) 751-4817

The regional office information can be found at the following website:  
<http://dnr.mo.gov/regions/>

**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 to 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 (3)(E). "Conditions required by permitting authority."*

West Central AGRI Services  
Bates County, S4, T41N, R31W

1. PM<sub>10</sub> Emission Limitation
  - A. West Central AGRI Services shall emit less than 15.0 tons of PM<sub>10</sub> in any consecutive 12-month period from the fertilizer plant (see table 2 listed in the Project Description). The SSM emissions as reported to the Air Pollution Control Program's Compliance/Enforcement Section in accordance with the requirements of 10 CSR 10-6.050 *Start-Up, Shutdown, and Malfunction Conditions* shall be included in the limit.
  - 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 1.A.
  
2. Record Keeping and Reporting Requirements
  - A. West Central AGRI Services 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.
  - B. West Central AGRI Services shall report to the Air Pollution Control Program's Compliance/Enforcement Section, by mail at P.O. Box 176, Jefferson City, MO 65102 or by e-mail at [AirComplianceReporting@dnr.mo.gov](mailto:AirComplianceReporting@dnr.mo.gov), no later than 10 days after the end of the month during which any record required by this permit shows an exceedance of a limitation imposed by this permit.

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

Project Number: 2020-01-032  
Installation ID Number: 013-0017  
Permit Number: 042020-011

Installation Address:  
West Central AGRI Services  
438 NW City Rd 11002  
Adrian, MO 64720

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

Bates County, S4, T41N, R31W

REVIEW SUMMARY

- West Central AGRI Services has applied for authority to replace an 8 ton fertilizer mixer with a new 10 ton fertilizer mixer.
- The application was deemed complete on February 13, 2020.
- HAP emissions are not expected from the proposed equipment.
- 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 equipment is being used in association with the new equipment.
- 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 Bates County, an attainment/unclassifiable 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 conditioned below de minimis levels.
- Emissions testing is not required for the equipment as a part of this permit. Testing may be required as part of other state, federal or applicable rules.

- No Operating Permit is required for this installation.
- Approval of this permit is recommended with special conditions.

## INSTALLATION DESCRIPTION

West Central AGRIServices – Adrian, a division of MFA Enterprises, Inc. operates a combination grain elevator, fertilizer plant, and agriculture chemical distribution facility near Old US Highway 71 and Manor Road in Adrian. The packed grain storage capacity is 2,099,000 bushels. The installation stores fertilizer, but does not store fresh granular triple superphosphate. Therefore, NSPS Subpart X does not apply. West Central AGRIServices currently has three separate 15 ton PM<sub>10</sub> limits for various grain operations (permitted in permits 122011-009, 0998-014, and 042005-026A) and one 40 ton VOC limit (permitted in permit 122011-009) at this facility.

The following NSR permits have been issued to West Central AGRI Services from the Air Pollution Control Program.

Table 1: NSR Permit History

Permit Number	Description
122011-009	Seed handling and 1 million bushel grain storage pile
042005-026A	Amendment for two storage bunkers
042005-026	Addition of two storage bunkers
0998-014	Conveying addition

## PROJECT DESCRIPTION

West Central Agri Services is replacing an old 8 ton mixer with a new 10 ton mixer (EP-10a) on their fertilizer line that can run simultaneously with the other pre-existing 8 ton mixer (EP-10b). The fertilizer line was originally grandfathered in, but will now be permitted under this new source review permit.

The fertilizer line includes a truck unloading area, storage bay leg and conveyor, skid-steer, 10 ton mixer with conveyor, 8 ton mixer with conveyor, truck and cart unloading area, and a haul road. The 8 ton fertilizer mixer (EP-10b) can hold 8 tons and takes 10 minutes to drop into the mixer, mix, and unload from the mixer. This gives the 8 ton fertilizer mixer a MHDR of 48 tph. The 10 ton mixer operates similarly and has an MHDR of 60 tons. Both mixers can be run at the same time, therefore the preceding equipment has a bottlenecked MHDR of 108 tons.

The fertilizer is received by truck (EP-06) and unloaded onto the receiving conveyor (EP-07) at the receiving pit. The fertilizer then drops into fertilizer bins from an overhead conveyor (EP-08). A skid-steer (EP-09) then transfers the fertilizer for the fertilizer blend into either the 10 ton or 8 ton fertilizer mixer (EP-010a & EP-10b). After the fertilizer is successfully mixed, it leaves the blender on a conveyor (EP-11a & EP-11b) and is loaded out onto a spreader cart or truck (EP-12a & EP-12b).

Table 2: Project Emission Units

Emission Unit	Description	MHDR (tons)	Status
EP-06	Truck unloading	108	Modified
EP-07	Leg to Storage Bay Conveyor	108	Modified
EP-08	Storage Bay Conveyor	108	Modified
EP-09	Fertilizer loaded into mixer (skid-steer)	60	New
EP-10a	Fertilizer Mixer 10 Ton	60	New
EP-11a	Fertilizer unloaded on conveyor	60	New
EP-12a	Fertilizer unloaded to truck or cart	60	New
EP-10b	Fertilizer Mixer 8 Ton	48	Unchanged
EP-11b	Fertilizer unloaded on conveyor	48	Unchanged
EP-12b	Fertilizer unloaded to truck or cart	48	Unchanged
EP-13	Fertilizer Haul Road	3.22 VMT	Modified

## EMISSIONS/CONTROLS EVALUATION

The emission factors used in this analysis were obtained from the EPA's WebFIRE database (SCC 3-01-027-09, Ammonium Nitrate Production Bulk Loading), (SCC 3-01040-07, Urea Production Bulk Loading). The PM<sub>2.5</sub> distribution was calculated from AP42 Appendix B.2, Category 4. All emission were considered uncontrolled.

Haul road and vehicular activity emissions were calculated using the predictive equation found in AP-42 Section 13.2.2 Unpaved Roads (November 2006). Truck Receiving and load out will both occur on a haul road with a length of 590 feet to and from the fertilizer plant. All trucks will be straight trucks and will weigh approximately 14 tons loaded and 8 tons empty. The skid-steer will be operated solely within the fertilizer building on concrete, thus no haul road calculations were required.

The following table provides an emissions summary for this project. Existing potential emissions were taken from previous permit #122011-009. Existing actual emissions were taken from the installation's 2019 EIQ. Potential emissions of the application represent the potential of all of the fertilizer line emission sources, including the new equipment and assuming continuous operation (8760 hours per year).

The potential emissions increase of the project was determined by taking the pre-project potential emissions of all modified emission units and subtracting it from the post-project potential emissions of all new and modified emission units.

Table 3: Emissions Summary (tpy)

Pollutant	Regulatory <i>De Minimis</i> Levels	Facility Existing Potential Emissions	Existing Actual Emissions (2019 EIQ)	Potential Emissions of the Project	Conditioned Project Emissions
PM	25.0	Minor <sup>a</sup>	N/D	259.99	41.81
PM <sub>10</sub>	15.0	< 45.00 <sup>b</sup>	14.94	92.36	< 15.00
PM <sub>2.5</sub>	10.0	N/D	2.23	16.24	2.68
SO <sub>x</sub>	40.0	N/D	N/A	N/A	N/A
NO <sub>x</sub>	40.0	N/D	N/A	N/A	N/A
VOC	40.0	< 40.00	N/A	N/A	N/A
CO	100.0	N/D	N/A	N/A	N/A
GHG (CO <sub>2e</sub> )	N/A	N/D	N/D	N/A	N/A
GHG (mass)	N/A	N/D	N/D	N/A	N/A
HAPs	10.0/25.0	N/D	N/A	N/A	N/A

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

<sup>a</sup>PM emissions, though not fully calculated, are estimated to be limited below the major source level of 250 tpy due to the three existing 15 tpy PM<sub>10</sub> limits.

<sup>b</sup>Existing potential emissions from permits 122011-009, 0998-014, and 042005-026A, excluding grandfathered units. Grandfathered units include the grain storage equipment installed prior to June, 1998, which is the date of issuance of permit 0889-014.

### 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

West Central AGRI Services 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

- *Start-Up, Shutdown, and Malfunction Conditions*, 10 CSR 10-6.050
- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
  - Per 10 CSR 10-6.110(4)(B)2.B(II) and (4)(B)2.C(II) a full EIQ is required for the first full calendar year the equipment (or modifications) approved by this permit are in operation.

- *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

#### SPECIFIC REQUIREMENTS

- No NSPS (New Source Performance Regulations), MACT, or NESHAPs (Emission Standards for Hazardous Air Pollutants) apply to the proposed equipment.

#### 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*, it is recommended that this permit be granted with special conditions.

#### PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated January 16, 2020, received January 23, 2020, designating MFA Enterprises, Inc. as the owner and operator of the installation.



## APPENDIX A

### Abbreviations and Acronyms

<b>%</b> ..... percent	<b>m/s</b> .....meters per second
<b>°F</b> ..... degrees Fahrenheit	<b>Mgal</b> .....1,000 gallons
<b>acfm</b> ..... actual cubic feet per minute	<b>MW</b> .....megawatt
<b>BACT</b> ..... Best Available Control Technology	<b>MHDR</b> .....maximum hourly design rate
<b>BMPs</b> ..... Best Management Practices	<b>MMBtu</b> ....Million British thermal units
<b>Btu</b> ..... British thermal unit	<b>MMCF</b> .....million cubic feet
<b>CAM</b> ..... Compliance Assurance Monitoring	<b>MSDS</b> .....Material Safety Data Sheet
<b>CAS</b> ..... Chemical Abstracts Service	<b>NAAQS</b> ....National Ambient Air Quality Standards
<b>CEMS</b> ..... Continuous Emission Monitor System	<b>NESHAPs</b> National Emissions Standards for Hazardous Air Pollutants
<b>CFR</b> ..... Code of Federal Regulations	<b>NO<sub>x</sub></b> .....nitrogen oxides
<b>CO</b> ..... carbon monoxide	<b>NSPS</b> .....New Source Performance Standards
<b>CO<sub>2</sub></b> ..... carbon dioxide	<b>NSR</b> .....New Source Review
<b>CO<sub>2</sub>e</b> ..... carbon dioxide equivalent	<b>PM</b> .....particulate matter
<b>COMS</b> ..... Continuous Opacity Monitoring System	<b>PM<sub>2.5</sub></b> .....particulate matter less than 2.5 microns in aerodynamic diameter
<b>CSR</b> ..... Code of State Regulations	<b>PM<sub>10</sub></b> .....particulate matter less than 10 microns in aerodynamic diameter
<b>dscf</b> ..... dry standard cubic feet	<b>ppm</b> .....parts per million
<b>EIQ</b> ..... Emission Inventory Questionnaire	<b>PSD</b> .....Prevention of Significant Deterioration
<b>EP</b> ..... Emission Point	<b>PTE</b> .....potential to emit
<b>EPA</b> ..... Environmental Protection Agency	<b>RACT</b> .....Reasonable Available Control Technology
<b>EU</b> ..... Emission Unit	<b>RAL</b> .....Risk Assessment Level
<b>fps</b> ..... feet per second	<b>SCC</b> .....Source Classification Code
<b>ft</b> ..... feet	<b>scfm</b> .....standard cubic feet per minute
<b>GACT</b> ..... Generally Available Control Technology	<b>SDS</b> ..... Safety Data Sheet
<b>GHG</b> ..... Greenhouse Gas	<b>SIC</b> .....Standard Industrial Classification
<b>gpm</b> ..... gallons per minute	<b>SIP</b> .....State Implementation Plan
<b>gr</b> ..... grains	<b>SMAL</b> ..... Screening Model Action Levels
<b>GWP</b> ..... Global Warming Potential	<b>SO<sub>x</sub></b> .....sulfur oxides
<b>HAP</b> ..... Hazardous Air Pollutant	<b>SO<sub>2</sub></b> .....sulfur dioxide
<b>hr</b> ..... hour	<b>SSM</b> ..... Startup, Shutdown & Malfunction
<b>hp</b> ..... horsepower	<b>tph</b> ..... tons per hour
<b>lb</b> ..... pound	<b>tpy</b> ..... tons per year
<b>lbs/hr</b> ..... pounds per hour	<b>VMT</b> ..... vehicle miles traveled
<b>MACT</b> ..... Maximum Achievable Control Technology	<b>VOC</b> ..... Volatile Organic Compound
<b>µg/m<sup>3</sup></b> ..... micrograms per cubic meter	