



Missouri Department of dnr.mo.gov

NATURAL RESOURCES

Michael L. Parson, Governor

Carol S. Comer, Director

FEB 05 2020

Mr. Stan Thessen
Director - SER
Bolivar Farmers Exchange
201 Ray Young Dr.
Columbia, MO 65201

RE: New Source Review Permit - Project Number: 2019-12-008

Dear Mr. 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 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.

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.



Recycled paper

Mr. Stan Thessen
Page Two

If you have any questions regarding this permit, please do not hesitate to contact Chad Stephenson, 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



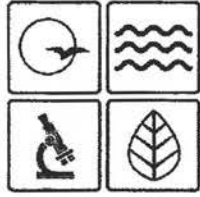
Susan Heckenkamp
New Source Review Unit Chief

SH:sca

Enclosures

c: Southwest Regional Office
PAMS File: 2019-12-008

Permit Number: **022020-002**



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: **022020-002**

Project Number: 2019-12-008
Installation Number: 167-0003

Parent Company: Bolivar Farmers Exchange

Parent Company Address: P.O. Box 27, Bolivar, MO 65613

Installation Name: Bolivar Farmers Exchange

Installation Address: 214 N Oakland, Bolivar, MO 65613

Location Information: Polk County, S2, T33N, R23W

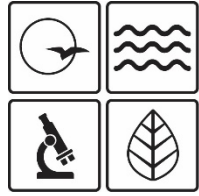
Application for Authority to Construct was made for:
Construction of an 8 ton fertilizer mixer. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

-
- 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

FEB 05 2020

Effective Date



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:

Project Number: 2019-12-008
Installation Number: 167-0003

Parent Company: Bolivar Farmers Exchange

Parent Company Address: P.O. Box 27, Bolivar, MO 65613

Installation Name: Bolivar Farmers Exchange

Installation Address: 214 N Oakland, Bolivar, MO 65613

Location Information: Polk County, S2, T33N, R23W

Application for Authority to Construct was made for:
Construction of an 8 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

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."

Bolivar Farmers Exchange
Polk County, S2, T33N, R23W

1. **Superseding Condition**
The conditions of this permit supersede all special conditions found in the previously issued construction permit 1295-012 issued by the Air Pollution Control Program.
2. **PM₁₀ Emission Limitation**
 - A. Bolivar Farmers Exchange shall emit less than 15.0 tons of PM₁₀ in any consecutive 12-month period from the entire installation (see Table 2 in 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 2.A.
3. **Record Keeping and Reporting Requirements**
 - B. Bolivar Farmers Exchange 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.
 - C. Bolivar Farmers Exchange 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 email at 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: 2019-12-008
Installation ID Number: 167-0003
Permit Number:

Installation Address:

Bolivar Farmers Exchange
214 N Oakland
Bolivar, MO 65613

Parent Company:

Bolivar Farmers Exchange
P.O. Box 27
Bolivar, MO 65613

Polk County, S2, T33N, R23W

REVIEW SUMMARY

- Bolivar Farmers Exchange has applied for authority to construct an 8 ton fertilizer mixer.
- The application was deemed complete on December 11, 2019
- 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 PM₁₀ and subsequently all other pollutants are conditioned below de minimis levels.
- This installation is located in Polk 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 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

Bolivar Farmers Exchange is an existing facility located in Bolivar, Missouri. The facility has an existing 8 ton fertilizer mixer.

The following NSR permits have been issued to Name from the Air Pollution Control Program.

Table 1: NSR Permit History

Permit Number	Description
1295-012	A dry fertilizer warehouse

PROJECT DESCRIPTION

Bolivar Farmers Exchange is installing an additional 8 ton vertical mixer. The facility already has an existing 8 ton horizontal mixer and associated support equipment as described in permit 1295-012. For simplicity in tracking and recordkeeping purposes Bolivar Farmers Exchange requested that the conditions of permit 1295-012 be superseded and that all of the existing equipment be included in the new installation wide PM₁₀ Emission Limitation established in Special Condition 2 of this permit.

After completion of this project, the facility will include a storage bay, a receiving conveyor, a transport conveyor, an 8 ton horizontal fertilizer mixer, an 8 ton vertical fertilizer mixer and load out conveyors for both mixers. The receiving conveyor's MHDR is rated at 150 tph. The fertilizer mixers (EP-05 and EP-05a) can hold 8 tons and takes 10 minutes to drop into the mixer, mix, and unload from the mixer. This gives the fertilizer blenders an MHDR of 48 tph each. The fertilizer blenders are considered to be the bottleneck in the process. The emissions are uncontrolled in this process.

The fertilizer mixes are received by truck (EP-01) and unloaded onto the receiving conveyor (EP-02) at the receiving pit. The fertilizer then drops into fertilizer bins from an overhead conveyor (EP-03). A skid-steer then transfers the fertilizer for the fertilizer blend to a scale hopper (EP-04) that drops the required amount of fertilizer into one of the two fertilizer blenders (EP-05 and EP-05a). After the fertilizer is successfully mixed, it leaves the blender on a conveyor (EP-06 or EP-06a) and is loaded out onto a spreader cart or truck (EP-07 or EP-07a).

Table 2: Summarized Installation Emission Points and MHDRs.

Emission Point	Description	True MHDR (tons/hr)	Bottlenecked MHDR (tons/hr)
EP-01	Truck Receiving	150	96
EP-02	Leg to Storage Bay Conveyor	96	96
EP-03	Storage Bay Conveyor	96	96
EP-04	Fertilizer loaded onto 8 ton scale hopper from bay (skid-steer)	48	96
EP-05	Horizontal Fertilizer Mixer 8 Ton	48	48
EP-05a	Vertical Fertilizer Mixer 8 Ton	48	48
EP-06	Fertilizer unloaded on conveyor from horizontal mixer	48	48
EP-06a	Fertilizer unloaded on conveyor from vertical mixer	48	48
EP-07	Fertilizer unloaded to truck or cart from horizontal mixer	48	48
EP-07	Fertilizer unloaded to truck or cart from vertical mixer	48	48
EP-08a	Haul Road – Truck Receiving Full	0.21 VMT/hr	0.21 VMT/hr
EP-08b	Haul Road – Truck Receiving Empty	0.16 VMT/hr	0.16 VMT/hr
EP-08c	Haul Road – Truck Shipping	0.44 VTM/hr	0.44 VMT/hr
EP-08d	Vehicular Activity – Skid-steer	8.73 VMT/hr	8.73 VMT/hr

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 and SCC 3-01-040-07, Urea Production Bulk Loading). The PM_{2.5} distribution was calculated from AP-42 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 13.2.1 *Paved Roads* (January 2011) and 13.2.2 *Unpaved Roads* (November 2006). Truck receiving has a haul road length of 914 feet when full (40 tons hopper/25 tons straight truck) and 1,125 feet when empty (15 tons hopper/10 tons straight truck). Truck shipping has a haul road length of 730 feet. The skid-steer was estimated to travel approximately 120 feet with weights of 4.7 tons loaded and 4.2 empty. Haul roads are unpaved. A silt percentage of 8.3 was used with 105 days of precipitation. The vehicular activity area for the skid-steer is concrete.

The following table provides an emissions summary for this project. The unconditioned potential emissions of the installation represent the potential of all equipment, assuming continuous operation (8760 hours per year). The installation conditioned potential represents the installation-wide emissions taking into account the new installation wide

PM₁₀ Emission Limitation established in Special Condition 2 of this permit. The reported existing actual emissions are less than 0.50 tons per year.

Table 3: Emissions Summary (tpy)

Pollutant	Regulatory <i>De Minimis</i> Levels	Unconditioned Potential Emissions of the Installation	Installation Conditioned Potential
PM	25.0	85.68	22.40
PM ₁₀	15.0	57.38	<15.0
PM _{2.5}	10.0	18.49	4.83
SOx	40.0	N/A	N/A
NOx	40.0	N/A	N/A
VOC	40.0	N/A	N/A
CO	100.0	N/A	N/A
GHG (CO _{2e})	N/A	N/A	N/A
GHG (mass)	N/A	N/A	N/A
HAPs	10.0/25.0	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 PM₁₀ and subsequently all other pollutants are conditioned below de minimis levels.

APPLICABLE REQUIREMENTS

Bolivar Farmers Exchange 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

- *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*, 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 December 11, 2019, received December 9, 2019, designating Bolivar Farmers Exchange as the owner and operator of the installation.

APPENDIX A

Abbreviations and Acronyms

% percent	Mgal 1,000 gallons
°F degrees Fahrenheit	MWmegawatt
acfm actual cubic feet per minute	MHDRmaximum hourly design rate
BACT Best Available Control Technology	MMBtuMillion British thermal units
BMPs Best Management Practices	MMCFmillion cubic feet
Btu British thermal unit	MSDSMaterial Safety Data Sheet
CAM Compliance Assurance Monitoring	NAAQSNational Ambient Air Quality Standards
CAS Chemical Abstracts Service	NESHAPs National Emissions Standards for Hazardous Air Pollutants
CEMS Continuous Emission Monitor System	NO_xnitrogen oxides
CFR Code of Federal Regulations	NSPSNew Source Performance Standards
CO carbon monoxide	NSRNew Source Review
CO₂ carbon dioxide	PMparticulate matter
CO_{2e} carbon dioxide equivalent	PM_{2.5}particulate matter less than 2.5 microns in aerodynamic diameter
COMS Continuous Opacity Monitoring System	PM₁₀particulate matter less than 10 microns in aerodynamic diameter
CSR Code of State Regulations	ppmparts per million
dscf dry standard cubic feet	PSDPrevention of Significant Deterioration
EQ Emission Inventory Questionnaire	PTEpotential to emit
EP Emission Point	RACTReasonable Available Control Technology
EPA Environmental Protection Agency	RAL Risk Assessment Level
EU Emission Unit	SCCSource Classification Code
fps feet per second	scfmstandard cubic feet per minute
ft feet	SDS Safety Data Sheet
GACT Generally Available Control Technology	SICStandard Industrial Classification
GHG Greenhouse Gas	SIPState Implementation Plan
gpm gallons per minute	SMAL Screening Model Action Levels
gr grains	SO_xsulfur oxides
GWP Global Warming Potential	SO₂sulfur dioxide
HAP Hazardous Air Pollutant	SSM Startup, Shutdown & Malfunction
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	
m/s meters per second	