

Missouri Department of dnr.mo.gov

NATURAL RESOURCES

Michael L. Parson, Governor

Carol S. Comer, Director

DEC 27 2018

Mr. Stanley Thessen
SER Manager
Lowry City Farmers Exchange
201 Ray Young Drive
Columbia, MO 65201

RE: New Source Review Permit – Project Number: 2018-07-021

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. Stanley Thessen
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If you have any questions regarding this permit, please do not hesitate to contact Ryan Schott, 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



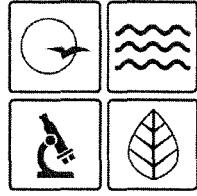
Susan Heckenkamp
New Source Review Unit Chief

SH:rsj

Enclosures

c: Southwest Regional Office
PAMS File: 2018-07-021

Permit Number: 122018 - 016



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: 122018-016

Project Number: 2018-07-021
Installation Number: 185-0020

Parent Company: Bolivar Farmers Exchange

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

Installation Name: Lowry City Farmers Exchange

Installation Address: 102 West 2nd Street, Lowry City, MO 64763

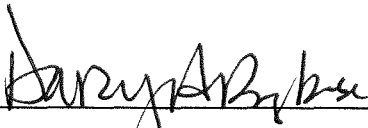
Location Information: St. Clair County (S13, T39N, R26W)

Application for Authority to Construct was made for:

The installation of a feed mill at an existing grain 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.



Director or Designee
Department of Natural Resources

DEC 27 2018

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 startup 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 startup 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 (12)(A)10. "Conditions required by permitting authority."

Lowry City Farmers Exchange
St. Clair County (S13, T39N, R26W)

1. PM₁₀ Emission Limitation
 - A. Lowry City Farmers Exchange shall emit less than 15.0 tons of PM₁₀ in any consecutive 12-month period from the following emission points:
 - 1) EP-1 Grain Receiving (Feed Mill)
 - 2) EP-2 Grain Handling (Feed Mill)
 - 3) EP-3 Roller Mill (Feed Mill)
 - 4) EP-4 Hammer Mill (Feed Mill)
 - 5) EP-5 Storage Bins (Feed Mill)
 - 6) EP-6 Loadout (Feed Mill)
 - 7) EP-7 Haul Roads
 - 8) EP-8 Grain Handling (Grain Facility)
 - 9) EP-9 Storage Bins (Grain Facility)
 - 10) EP-10 Grain Receiving (Grain Facility)
 - 11) EP-11 Loadout (Grain Facility)
 - B. Attachment A or an equivalent form, such as an electronic form, 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. Lowry City 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.
 - B. Lowry City Farmers Exchange shall report to the Air Pollution Control Program's Compliance/Enforcement Section 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 (6) REVIEW

Project Number: 2018-07-021
Installation ID Number: 185-0020
Permit Number: 122018-016

Installation Address:
Lowry City Farmers Exchange
102 West 2nd Street
Lowry City, MO 64763
St. Clair County (S13, T39N, R26W)

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

REVIEW SUMMARY

- Lowry City Farmers Exchange has applied for authority to install a feed mill at an existing grain facility.
- The application was deemed complete on July 23, 2018.
- HAP emissions are not expected from the proposed equipment.
- None of the NSPS, NESHAPs, or currently promulgated MACT regulations apply to the proposed equipment. 40 CFR 60, Subpart DD – *Standards of Performance for Grain Elevators* does not apply because the installation has a permanent storage capacity of less than 1 million bushels.
- No air pollution control equipment is being used 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 are above the de minimis level but below the major source level. Potential emissions of all other pollutants are conditioned below de minimis levels.
- This installation is located in St. Clair 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 as 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/PROJECT DESCRIPTION

Lowry City Farmers Exchange operates a grain storage and handling facility in St. Clair County, Missouri. It was constructed pre-1982, making it a “grandfathered” facility that has previously never required a construction permit. Lowry City Farmers Exchange is proposing to install a feed mill at the installation, with equipment including a receiving pit, a roller mill, a hammer mill, storage bins, and various grain conveying units. The maximum receiving rate of the feed mill will be 58 tons per hour. In 2014, Lowry City Farmers Exchange installed an unloading conveyor and constructed four grain storage bins without receiving a construction permit; therefore, this project will incorporate the unpermitted equipment, as well as the affected receiving, handling, and loadout operations at the existing grain facility. The maximum handling rate of the grain facility is 38 tons per hour. This permit will incorporate all non-grandfathered operations at the installation.

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 (AP-42).

PM, PM₁₀, and PM_{2.5} emissions from all grain handling and processing operations were calculated using emission factors taken from Tables 9.9.1-1 & 9.9.1-2 in AP-42 Section 9.9.1 *Grain Elevators and Processes* (May 2003). Only controlled emission factors for the roller mill and hammer mill were listed; therefore, the uncontrolled emission factors were back-calculated. Uncontrolled roller mill emission factors were calculated assuming the controlled factor applied an 80% cyclone control efficiency. Uncontrolled hammer mill emission factors were calculated as the average of the two controlled emission factors, assuming an 80% cyclone control efficiency and a 99% baghouse control efficiency were respectively applied. Back-calculation methodologies were taken from the Minnesota Pollution Control Agency document: *Grain Elevator Air Emissions Calculator (SBEAP)*, dated August 2017.

PM, PM₁₀, and PM_{2.5} emissions from haul roads were calculated using the predictive equation found in AP-42 Section 13.2.2 *Unpaved Roads* (November 2006). It was assumed that all grain is transported equally in both hopper trucks and straight trucks.

The following table provides an emissions summary for this project. The facility has not previously been permitted; therefore, existing potential emissions are unknown. The facility has not yet submitted an EIQ; therefore, existing actual emissions are unknown.

Potential emissions of the project represent the potential of the new equipment and affected existing equipment, assuming continuous operation (8,760 hours per year).

Table 1: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (2017 EIQ)	Potential Emissions of the Project	New Installation Conditioned Potential
PM	25.0	N/D	N/A	158.29	38.01
PM ₁₀	15.0	N/D	N/A	62.47	<15.0
PM _{2.5}	10.0	N/D	N/A	10.48	2.52
SO _x	40.0	N/D	N/A	N/A	N/A
NO _x	40.0	N/D	N/A	N/A	N/A
VOC	40.0	N/D	N/A	N/A	N/A
CO	100.0	N/D	N/A	N/A	N/A
Total HAPs	25.0	N/D	N/A	N/A	N/A

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 pollutants are conditioned below de minimis levels.

APPLICABLE REQUIREMENTS

Lowry City 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
- *Restriction of Emission of Odors*, 10 CSR 10-6.165

- *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

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*, 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 July 6, 2018, received July 11, 2018, designating Bolivar Farmers Exchange as the owner and operator of the installation.

Attachment A – PM₁₀ Compliance Worksheet

Lowry City Farmers Exchange
 St. Clair County (S13, T39N, R26W)
 Project Number: 2018-07-021
 Installation ID Number: 185-0020
 Permit Number: **122018 - 016**

This sheet covers the period from _____ to _____.
 (month, year) (month, year)

Month	Location	Amount of Grain Received ¹ (tons)	Composite Emission Factor (lb/ton)	Monthly Emissions ² (tons)	SSM Emissions ³ (tons)	12-Month Rolling Total Emissions ⁴ (tons)
	Grain Facility		0.111			
	Feed Mill		0.167			
	Grain Facility		0.111			
	Feed Mill		0.167			
	Grain Facility		0.111			
	Feed Mill		0.167			
	Grain Facility		0.111			
	Feed Mill		0.167			
	Grain Facility		0.111			
	Feed Mill		0.167			
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	Grain Facility		0.111			
	Feed Mill		0.167			
	Grain Facility		0.111			
	Feed Mill		0.167			
	Grain Facility		0.111			
	Feed Mill		0.167			

¹Enter the amount of grain received at each location in the given month

²Multiply the Amount of Grain Received by the Composite Emission Factor, divide by 2,000 then add both locations together

³Startup, shutdown, and malfunction emissions as reported to the Air Pollution Control Program's Compliance/Enforcement Section, according to the provisions of 10 CSR 10-6.050

⁴Add the current Monthly Emissions and SSM Emissions to the previous 11 months' Monthly Emissions and SSM Emissions
 A total of less than 15.0 tons of PM₁₀ is necessary for compliance with Special Condition 1

APPENDIX A

Abbreviations and Acronyms

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