

STATE OF MISSOURI



PERMIT BOOK

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: **092015-016**

Project Number: 2015-04-011
Installation Number: 113-0042

Parent Company: Farmer's Elevator & Supply Co.

Parent Company Address: P.O. Box 181, Hawk Point, Missouri 63349

Installation Name: Farmer's Elevator & Supply Co.

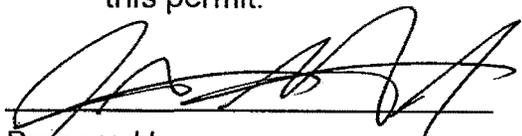
Installation Address: 520 Washington St., Hawk Point, Missouri 63349

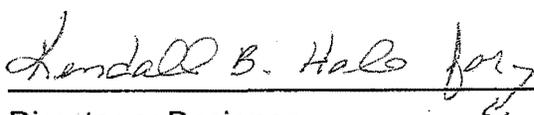
Location Information: Lincoln County, S33, T49N, R2W

Application for Authority to Construct was made for:
Installing a new storage bin and increasing the receiving capacity of one elevator leg and receiving pit area. This site has never had a construction permit issued and this application will not debottleneck existing equipment, but it will debottleneck the loadout capabilities. 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.


Prepared by
Jordan Hindman
New Source Review Unit


Director or Designee
Department of Natural Resources

SEP 30 2015

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 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 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.

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."

Farmer's Elevator & Supply Co.
Lincoln County, S33, T49N, R2W

1. PM₁₀ Emission Limitation
 - A. Farmer's Elevator & Supply Co. shall emit less than 15.0 tons of PM₁₀ in any consecutive 12-month period from this project as listed in Table 1.

Table 1: Affected Emission Units

| Emission Unit | Combined MHDR (tons per hour) |
|---|----------------------------------|
| Grain Receiving Pits (EP-1B) | 300 |
| Grain Elevator Legs/Handling (EP-2, EP-4, EP-7) | 300 |
| Grain Loadout from Storage (EP-5) | 300 |

- 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. Undocumented Haul Road Watering
 - A. Farmer's Elevator & Supply Co. shall water haul roads whenever conditions exist which would cause visible fugitive emissions to enter the ambient air beyond the property boundary.
 - B. Watering may be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads.

SPECIAL CONDITIONS:

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

3. Record Keeping and Reporting Requirements
 - A. Farmer's Elevator & Supply Co. 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. Farmer's Elevator & Supply Co. 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: 2015-04-011
Installation ID Number: 113-0042
Permit Number:

Installation Address:
Farmer's Elevator & Supply Co.
520 Washington St.
Hawk Point, Missouri 63349

Parent Company:
Farmer's Elevator & Supply Co.
P.O. Box 181
Hawk Point, Missouri 63349

Lincoln County, S33, T49N, R2W

REVIEW SUMMARY

- Farmer's Elevator & Supply Co. has applied for authority to install an additional storage bin and increase the receiving capacity of one elevator leg and receiving pit area. This site has never had a construction permit issued and this application will not debottleneck existing equipment, but it will debottleneck the loadout capabilities.
- The application was deemed complete on May 20, 2015 (upon site visitation and evaluation of equipment and operations).
- HAP emissions are not expected from the proposed equipment.
- None of the New Source Performance Standards (NSPS) apply to the installation. Specifically, NSPS DD does not apply to this installation because the total storage capacity 700,000 bushels, which is less than the threshold of 2.5 million bushels.
- 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 or modified 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 de minimis levels, but below the minor source threshold. Potential emissions of PM₁₀ are conditioned below de minimis levels. All remaining pollutants are below de minimis levels.
- This installation is located in Lincoln 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 was not performed since potential emissions of the application are below de minimis levels.
- An application for an amendment to the current Intermediate Operating Permit within 180 days of equipment start-up or a new Part 70 Operating Permit application with one year of equipment start-up is required for this installation.
- Emissions testing is not required for the equipment.
- Approval of this permit is recommended with special conditions special conditions.

INSTALLATION DESCRIPTION

Farmer's Elevator & Supply Co. (Farmer's) is a grain elevator and fertilizer mixing company that receives, stores, and ships both mixed grains and fertilizers. Farmer's also has a separate receiving pit for feed mill operations (EP-6, EP-7, EP-8, EP-9). A low-efficiency cyclone is used to reduce the emissions from the hammermill and cracker in the feed mill operation. There are no other control devices installed on any of the equipment at this installation. This installation is located in Hawk Point, Lincoln County, Missouri. No construction permits have been issued to Farmer's Elevator & Supply Co. from the Air Pollution Control Program. However, there is an intermediate operating permit associated with this installation, OP2010-076. This operating permit expires on July 11, 2015. Furthermore, this facility is now above the construction permit major source threshold for PM; this designation does not affect the emissions tracking for this project, but future construction permits will need to be limited below de minimis levels for PM and modeling may be necessary under some circumstances.

PROJECT DESCRIPTION

Farmer's is applying to modify the primary receiving pit (EP-1B) to increase the total receiving capacity from 5,000 bushels per hour (bu/hr) to 15,000 bu/hour. The total receiving capacity, which includes the primary receiving pit (EP-1B) and the secondary receiving pit (EP-1A), will be rated at 20,000 bu/hour after completion of this project. The modification to EP-1B will allow EP-1B to be able to receive 2 trucks at once; the new pit area (part of EP-1B) will be capable of receiving 10,000 bu/hour. There will also be a new grain elevator leg installed in the new area of the primary receiving pit. The new grain elevator leg (EP-2) will have maximum capacity of 10,000 bu/hour. There will also be a new 194,000 bushel storage silo installed near the primary receiving pit; this will bring the total storage capacity to 700,000 bushels. Storage silos are grouped together by the loadout augers (EP-4, EP-5) for emission reporting purposes.

The grain dryer (EP-3) runs only when moisture content of the received grain is too high for proper storage; however, it was assumed that the dryer would be continuously operating regardless of other operations. The main focus of this project is to debottleneck this facility's primary grain receiving and increase storage capabilities in order to allow for higher volumes of grains to be received during peak harvest seasons. Emissions are uncontrolled, but the site has volunteered to participate in undocumented haul road watering to reduce the fugitive emissions from haul roads under dry conditions.

The potential emissions calculations for this application only include the new grain receiving pit, one associated grain elevator leg, increased haul road traffic, and the addition of one new storage silo—the rest of the installation (fertilizer, feed mill, and existing receiving and storage operations) will not be debottlenecked.

EMISSIONS/CONTROLS EVALUATION

The emission factors and control efficiencies used in this analysis were obtained from the EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 9.9.1 *Grain Elevators and Processes*, May 2003. All other emissions calculations are based on the uncontrolled emission factors from AP-42.

PM, PM₁₀, and PM_{2.5} emissions from haul roads and vehicular activity areas were calculated using the predictive equation from AP-42, Section 13.2.2 "Unpaved Roads," November 2006. A 50% control efficiency for PM and PM₁₀ and a 10% control efficiency for PM_{2.5} are applied to the emission calculations for the use of undocumented haul road watering. Furthermore, it was assumed that all traffic through the facility was straight trucks rather than a mixture of straight and hopper trucks.

The following table provides an emissions summary for this project. The existing potential emissions (PTE) for this installation are taken from the operating permit OP2010-076. Existing actual emissions were taken from the installation's 2014 EIQ. Potential emissions of the application represent the potential of the new and modified equipment, assuming continuous operation (8760 hours per year). Conditioned potential emissions of the application represent the potential emissions of the new equipment and affected equipment of this project (#2015-04-011)—the sum of which was indirectly limited by the voluntary 15.0 ton annual potential emissions limit taken on PM₁₀. New installation conditioned potential emissions represents the current installation-wide potential emissions profile (according to the issued construction and operating permits). Site-wide PM emissions were estimated from PM₁₀ calculations in the OP2010-076 and found to be less than major source levels.

Table 2: Emissions Summary (tons per year)

| Pollutant | Regulatory <i>De Minimis</i> Levels | ¹ Existing Potential Emissions | Existing Actual Emissions (2014 EIQ) | Potential Emissions of the Application | ² Conditioned Potential Emissions of the Application | ³ New Installation Conditioned Potential Emissions |
|-------------------|-------------------------------------|---|--------------------------------------|--|---|---|
| PM | 25.0 | 231.95 ⁴ | N/A | 472.06 | 41.47 | 272.42 ⁶ |
| PM ₁₀ | 15.0 | 158.33 ⁵ | 1.47 | 170.72 | <15.00 | <173.33 |
| PM _{2.5} | 10.0 | N/D | 0.24 | 27.95 | 2.46 | 2.46 |
| SO _x | 40.0 | 0.03 | 0.0 | N/A | N/A | 0.03 |
| NO _x | 40.0 | 4.38 | 0.0 | N/A | N/A | 4.38 |
| VOC | 40.0 | 0.24 | 0.0003 | N/A | N/A | 0.24 |
| CO | 100.0 | 3.68 | 0.0046 | N/A | N/A | 3.68 |
| GHG (mass) | 0.0 / 100.0 / 250.0 | N/A | N/A | N/A | N/A | N/A |
| HAPs | 10.0/25.0 | N/A | 0.0 | N/A | N/A | N/A |

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

¹Existing potential emissions account for the fertilizer and feed mill operations.

²Includes conditioned potential emissions of grain receiving, storage, loadout, and unpaved haul roads with undocumented watering.

³Includes new application potential emissions, and the existing potential emissions from fertilizer and feed mill operations.

⁴Back-calculated with AP-42 emission factors using data from OP2010-076.

⁵OP2010-076 limited PM₁₀ to 100.0 tpy, but the uncontrolled PTE for construction permits was used here.

⁶Future construction permits must be limited to 25.0 tpy for PM or undergo PSD because this facility is now a major source for PM.

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 de minimis levels, but below the minor source threshold. Potential emissions of PM₁₀ are conditioned below de minimis levels. All remaining pollutants are below de minimis levels.

APPLICABLE REQUIREMENTS

Farmer's Elevator & Supply Co. 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
- *Operating Permits*, 10 CSR 10-6.065
- *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.

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated March 28, 2015, received April 3, 2015, designating Farmer's Elevator & Supply Co. as the owner and operator of the installation.

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. Anthony Schneider
Manager
Farmer's Elevator & Supply Co.
P.O. Box 181
Hawk Point, Missouri 63349

RE: New Source Review Permit - Project Number: 2015-04-011

Dear Mr. Schneider:

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, your new source review permit application and with your operating permit 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 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, Truman State Office Building, P.O. Box 1557, Jefferson City, Missouri 65102, website: www.ao.mo.gov/ahc. If you have any questions regarding this permit, please contact Jordan Hindman, at the Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Susan Heckenkamp
New Source Review Unit Chief

SH:jhl

Enclosures

c: St. Louis Regional Office
PAMS File: 2015-04-011
Permit Number: