

STATE OF 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: **032012-009**

Project Number: 2011-12-042
Installation Number: 137-0029

Parent Company: Farmers Elevator & Exchange Co.

Parent Company Address: 107 South Chestnut Street, Monroe City, MO 63456

Installation Name: Farmers Elevator & Exchange Co.

Installation Address: 107 South Chestnut Street, Monroe City, MO 63456

Location Information: Monroe County, S13, T56N, R8W

Application for Authority to Construct was made for:

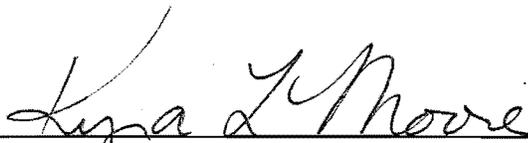
The installation of a dry fertilizer facility in Monroe City. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

Standard Conditions (on reverse) are applicable to this permit.

Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

MAR 21 2012

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 Departments' 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.

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Permit No.	
Project No.	2011-12-042

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."

Farmers Elevator & Exchange Co.
Monroe County, S13, T56N, R8W

1. Haul Road Dust Suppression Requirement
Farmers Elevator & Exchange Co. shall control fugitive emissions from all unpaved haul roads at this site by performing the haul road dust suppressions as defined in Attachment AA.
2. Haul Road Paving Requirement
Farmers Elevator & Exchange Co. shall maintain paved roads exiting the fertilizer building on the west side. The paved haul roads at this site shall be maintained in accordance with Attachment AA.
3. Record Keeping and Reporting Requirements
 - A. Farmers Elevator & Exchange 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. Farmers Elevator & Exchange Co. shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten 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 (5) REVIEW

Project Number: 2011-12-042
Installation ID Number: 137-0029
Permit Number:

Farmers Elevator & Exchange Co.
107 South Chestnut Street
Monroe City, MO 63456

Complete: December 20, 2011

Parent Company:
Farmers Elevator & Exchange Co.
107 South Chestnut Street
Monroe City, MO 63456

Monroe County, S13, T56N, R8W

REVIEW SUMMARY

- Farmers Elevator & Exchange Co. has applied for authority to construct a dry fertilizer facility in Monroe City.
- Hazardous Air Pollutant (HAP) emissions are not expected from the proposed equipment.
- None of the New Source Performance Standards (NSPS) apply to the installation.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) apply to this installation. None of the currently promulgated Maximum Achievable Control Technology (MACT) regulations apply to the proposed equipment.
- No air pollution control equipment is being used in association with the new equipment. Application of surfactant to the unpaved haul roads are being used to control particulate emissions.
- 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 are below de minimis levels.
- This installation is located in Monroe 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 controlled emissions of the

application are below de minimis levels.

- Emissions testing is not required for the equipment.
- The installation currently has a Basic Operating Permit. A revision to your Basic Operating Permit is required for this installation within 30 days of equipment startup. The equipment from this application must be included in the next basic operating permit renewal application.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

The Farmers Elevator & Exchange Company (Farmers) is a locally owned farm cooperative that serves the needs of its patrons in a four county area in Northeast Missouri. In addition to operating a country grain elevator that handles corn, soybeans, wheat and sorghum (milo), Farmers also: supports animal nutrition and crop production; provides a full line of livestock and dairy feeds as well as feeds for the farm flock, pet, horse, goat, sheep and show feeds; offers grain bank services as well as feed processing (rolling & mixing); provides bulk and bag feed delivery services; and provides products and services related to crop production including seeds, dry fertilizer, ammonia, and crop protection.

No construction permits have been issued to Farmers Elevator & Exchange Co. from the Air Pollution Control Program, however they do have a Basic Operating Permit which expires September 27, 2013.

PROJECT DESCRIPTION

Farmers Elevator and Exchange Company has constructed a new dry bulk plant at their facility located at 107 S. Chestnut in Monroe City, Missouri. The new plant replaces the previous plant. The new plant consists of a receiving area, with a chain paddle conveyor, which is located outside of the building, and a weigh hopper, blender and fertilizer loadout that are enclosed.

The estimated throughput of the plant is 3,500 tons per year. This includes approximately 25 tons per year of manually added fertilizer supplement or micro-nutrients. The maximum hourly design rate is 40 tons per hour. This fertilizer facility is bottlenecked by the blender and weigh hopper. The process is physically limited to 40 tons per hour. The table below lists the equipment associated with the fertilizer facility.

Table 1: Farmers Elevator and Exchange – Monroe City

Emission Point	Description
EP-08	Receiving – Fertilizer
EP-09	Transfer/Conveying Fertilizer
EP-10	Loadout – Fertilizer
EP-13	Weigh Hopper and Mixing
EP-14a	Haul Road Receiving Full Truck (unpaved)

EP-14b	Haul Road Receiving Empty Truck (unpaved)
EP-14c	Haul Road to Loadout Empty Truck (unpaved)
EP-14d	Haul Road from Loadout Full Truck (paved)
EP-14e	Vehicle Activity inside of building

Fertilizer trucks will enter the property and travel to the dump pit for unloading. The pit will unload directly into a chain paddle conveyor. The conveyor will transfer the material to one of six storage bays. The material, as needed, will then be manually transferred by a skid steer loader to the blender and weigh hopper then finally transferred by conveyor to a truck for shipping.

Haul roads on the eastside of the building will be unpaved and a surfactant spray will be applied according to manufacturer's instructions. The haul road on the westside of the building is currently paved and shall remain paved.

These air contaminant sources were constructed prior to receipt of a permit from the department's Air Pollution Control Program.

EMISSIONS/CONTROLS EVALUATION

The fertilizer processes were evaluated for PM, PM₁₀, and PM_{2.5} emissions. PM_{2.5} emission factors do not exist for fertilizer handling, therefore the PM_{2.5} emission factor (0.005 pounds per ton of fertilizer) was estimated as being 25 percent of the PM₁₀ emission factor (0.02 pounds per ton of fertilizer, Source Classification Code (SCC) 3-01-027-09). This emission factor was obtained from WebFIRE (Factor Information Retrieval System), EPA's online emission factor repository. The control efficiency for the building enclosure was obtained from the EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, and Appendix B.2. for AIRS Code 054 process enclosed 3.7 percent. Potential emissions from the unpaved haul roads were calculated using AP-42 Section 13.2.2 *Unpaved Roads*, November 2006. A 90% control efficiency was given for the use of surfactant spray on the unpaved haul roads.

Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year.) The following Table 2 provides an emissions summary for this project.

Table 2: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (2011 EIQ)	Potential Emissions of the Application	New Installation Controlled Potential ¹
PM _{2.5}	10.0	N/D	N/D	3.600	3.486
PM ₁₀	15.0	N/D	0.105	15.205	14.061
PM	40.0	N/D	N/D	19.540	15.571

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

¹The controlled potential emissions are based on the application of dust suppressants on unpaved haul roads.

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 are below de minimis levels.

APPLICABLE REQUIREMENTS

Farmers Elevator & Exchange 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.

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 (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

Kathy Kolb
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated December 14, 2012, received December 15, 2012, designating Farmers Elevator & Exchange Co. as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- WebFIRE, Factor Information Retrieval (FIRE) Data System.
- Northeast Regional Office Site Survey, dated December 23, 2012.

Attachment AA: Best Management Practices

Haul roads shall be maintained in accordance with at least one of the following options when the portable plant is operating.

1. Pavement
 - A. The operator shall pave the area with materials such as asphalt, concrete or other materials approved by the Air Pollution Control Program. The pavement will be applied in accordance with industry standards to achieve control of fugitive emissions¹ while the plant is operating.
 - B. Maintenance and repair of the road surface will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating.
 - C. The operator shall periodically wash or otherwise clean all of the paved portions of the haul roads as necessary to achieve control of fugitive emissions from these areas while the plant is operating.

2. Application of Chemical Dust Suppressants
 - A. The operator shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to unpaved areas.
 - B. The quantities of the chemical dust suppressant shall be applied and maintained in accordance with the manufacturer's recommendation (if available) and in sufficient quantities to achieve control of fugitive emissions from these areas while the plant is operating.
 - C. The operator shall record the time, date and the amount of material applied for each application of the chemical dust suppressant agent on the above areas. The operator shall keep these records with the plant for not less than five (5) years and make these records available to Department of Natural Resources personnel upon request.

3. Application of Water-Documented Daily
 - A. The operator shall apply water to unpaved areas. Water shall be applied at a rate of 100 gallons per day per 1,000 square feet of unpaved or untreated surface area while the plant is operating.
 - B. Precipitation may be substituted for watering if the precipitation is greater than one quarter of one inch and is sufficient to control fugitive emissions.
 - C. Watering may also 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.
 - D. The operator shall record the date, volume of water application and total surface area of active haul roads or the amount of precipitation that day. The operators shall also record the rationale for not watering (e.g. freezing conditions or not operating).
 - E. The operator shall keep these records with the plant for not less than five (5) years, and the operator shall make these records available to Department of Natural Resources personnel upon request.

¹For purposes of this document, Control of Fugitive Emissions means to control particulate matter that is not collected by a capture system and visible emissions to the extent necessary to prevent violations of the air pollution law or regulation. (Note: control of visible emission is not the only factor to consider in protection of ambient air quality.)

Mr. Marlin McCormick
General Manager
Farmers Elevator & Exchange Co.
107 South Chestnut Street
Monroe City, MO 63456

RE: New Source Review Permit - Project Number: 2011-12-042

Dear Mr. McCormick:

Enclosed with this letter is your permit to construct. Please study it carefully. Also, note the special conditions, if any, 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 amended basic 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 have any questions regarding this permit, please do not hesitate to contact Kathy Kolb, at the Department's 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:kk

Enclosures

c: Northeast Regional Office
PAMS File: 2011-12-042

Permit Number: