

PERMIT BOOK

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: **06 2 0 1 3 - 0 0 3**

Project Number: 2012-11-042
Installation Number: 139-0006

Parent Company: Archer Daniels Midland

Parent Company Address: 4666 Faries Parkway, Decatur, IL 62525

Installation Name: Archer Daniels Midland-Montgomery City

Installation Address: 320 Short Street, Montgomery City, MO 63361

Location Information: Montgomery County, S5, T48N/S, R5E/W

Application for Authority to Construct was made for:

Purchased grain elevator that did not have a construction permit or an operating permit. Modifications have occurred after May 13, 1982 and requested a construction permit for the entire installation. 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.

JUN 10 2013

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 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.

Page No.	3
Permit No.	
Project No.	2012-11-042

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."

Archer Daniels Midland-Montgomery City
Montgomery County, S5, T48N/S, R5E/W

1. PM₁₀ Emission Limitation
 - A. Archer Daniels Midland-Montgomery City shall emit less than 15.0 tons of PM₁₀ in any consecutive 12-month period from the entire installation as defined in Table 1.
 - 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. Archer Daniels Midland-Montgomery City 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. These records shall include MSDS for all materials used
 - B. Archer Daniels Midland-Montgomery City 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 (6) REVIEW

Project Number: 2012-11-042
Installation ID Number: 139-0006
Permit Number:

Archer Daniels Midland-Montgomery City
320 Short Street
Montgomery City, MO 63361

Complete: November 16, 2012

Parent Company:
Archer Daniels Midland
4666 Faries Parkway
Decatur, IL 62525

Montgomery County, S5, T48N/S, R5E/W

REVIEW SUMMARY

- Archer Daniels Midland-Montgomery City has applied for authority to obtain a construction permit. ADM purchased a grain elevator on September 4, 2012, that did not have a construction permit or an operating permit. Modifications have occurred after May 13, 1982 and ADM requested a construction permit for these modifications.
- HAP emissions are not expected from the proposed equipment.
- None of the 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 (6) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of PM₁₀ are conditioned below de minimis levels. Potential emissions of PM are above de minimis levels, but below major source levels.
- This installation is located in Montgomery 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 PM_{2.5} PM₁₀ are below de minimis levels, and there are no modeling standards for PM.
- Emissions testing is not required for the equipment.
- No Operating Permit is required for this installation.
- Approval of this permit is recommended with special conditions.

INSTALLATION/PROJECT DESCRIPTION

Archer Daniels Midland (ADM) – Montgomery City has requested confidentiality for process rates and storage capacities. This is the public version of the permit. A confidential version is available under Project Number 2012-11-081. Archer Daniel Midland (ADM)-Montgomery City is an agricultural business located in Montgomery County. Archer Daniels Midland (ADM) Grain Company took ownership of the Montgomery City facility on September 4, 2012. According to the inspection report of September 13, 2005 from Patrick Dwyer of SLRO, the Prairie Milling Company became Martinsburg Farmers Elevator which became Montgomery City Grain on September 3, 2004. Montgomery City Grain is a division of Rhineland Grain, Inc. There have been modifications to the facility that occurred after May 13, 1982. A second receiving pit/leg conveyor was added in 2009, but there was not a construction permit for this project. ADM requested to obtain a facility wide de minimis permit in order to opt out of a Basic Operating Permit. Therefore, for this project, the 2009 equipment addition is being permitted and a de minimis limit for PM₁₀ will be issued for the facility. The facility consists of two receiving pits; one is rated at █ bu/hr (█ tons per hour) (South), and the other is rated at █ bu/hr (█ tph) (North). There are five load-out spouts (four of them are side draw spouts) that are rated at █ bu/hr (█ tph). There is one load-out auger rated at █ bu/hr (█ tph), █ bins, and associated conveyors and transfer equipment. The facility will be bottlenecked by the MHDR of the conveyors which is █ tph. There is no grain dryer at this facility. The length of the haul road is 600 feet.

Table 1: ADM-Montgomery City

Emission Points	Equipment Description
EP1a	North Grain Receiving
EP1b	South Grain Receiving
EP2	Grain Handling
EP3	Storage Bin
EP4	Truck Load-out
EP5	Haul Road

No permits have been issued to Archer Daniels Midland-Montgomery City or any other company for this site from the Air Pollution Control Program.

The existing licensed grain storage capacity for ADM-Montgomery City according to the Missouri Department of Agriculture licensed grain dealer/warehouse database was listed at █ bushels. This is █ million bushels, therefore the installation is not defined as

a grain terminal elevator under 10 CFR 60, Subpart DD, *Standards of Performance for Grain Elevators*. The installation does not include a wheat flour mill, wet corn mill, dry corn mill (human consumption), rice mill, or soybean oil extraction plant. Therefore the installation is not defined as a grain storage elevator under NSPS Subpart DD.

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. Haul road emissions were calculated using AP-42, Section 13.2.2, *Unpaved Roads*, November 2006.

Grain will be received and shipped by straight and hopper trucks. It is expected that the majority of the trucks used will be hopper trucks. The grain receiving (EP-01) emissions were calculated using the scenario of 50% hopper trucks and 50% straight trucks because the grain received from straight trucks have a higher emission rate. Likewise, the receiving/shipping haul roads (EP-5) emissions were calculated using the same 50/50 split because straight trucks typically haul less than hopper trucks requiring more trips, thus greater VMTs. This conservative method avoids a special condition and record keeping for amount of grain that was received by straight/hopper trucks.

The following table provides an emissions summary for this project. Existing potential emissions were not available because there are no previous construction or operating permits. The last Emissions Inventory Questionnaire (EIQ) was submitted for the 1996 year. Therefore, the existing actual emissions from the 1996 EIQ are not reflective of the recent years' operation at this installation. Potential emissions of the application represent the potential of the equipment added in 2009, assuming continuous operation (8760 hours per year).

Table 2: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (1996 EIQ)	Potential Emissions of the Application ^a	Potential Emissions of the Installation	New Installation Conditioned Potential
PM	25.0	N/D	N/D	154.99	350.26	43.39
PM ₁₀	15.0	N/D	1.4	61.99	121.09	<15.0
PM _{2.5}	10.0	N/D	N/D	10.53	18.71	2.32
SOx	40.0	N/D	N/D	N/A	N/A	N/A
NOx	40.0	N/D	N/D	N/A	N/A	N/A
VOC	40.0	N/D	N/D	N/A	N/A	N/A
CO	100.0	N/D	N/D	N/A	N/A	N/A
HAPs	10.0/25.0	N/D	N/D	N/A	N/A	N/A

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

^aInstallation of the north receiving pit and leg/conveyor in 2009

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 PM₁₀ are conditioned below de minimis levels, and indirectly conditioned particulate matter (PM) remains above de minimis level, but below major source levels.

APPLICABLE REQUIREMENTS

Archer Daniels Midland-Montgomery City 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
- *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. Storage bin vents' potential emission rate of █ pounds per hour of PM is less than █ lbs/hr (Process Rate Rule), and therefore complies with this regulation.

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.

Kathy Kolb
New Source Review Unit

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated November 14, 2012, received November 16, 2012, designating Archer Daniels Midland as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.

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	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	tph	tons per hour
hr	hour	tpy	tons per year
hp	horsepower	VMT	vehicle miles traveled
lb	pound	VOC	Volatile Organic Compound
lbs/hr	pounds per hour		
MACT	Maximum Achievable Control Technology		
µg/m³	micrograms per cubic meter		

Ms. Miranda Gerard
Environmental Specialist
Archer Daniels Midland-Montgomery City
4666 Faries Parkway
Decatur, IL 62525

RE: New Source Review Permit - Project Number: 2012-11-042

Dear Ms. Gerard:

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 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 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:kk1

Enclosures

c: St. Louis Regional Office
PAMS File: 2012-11-042

Permit Number: