

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: 062013-004

Project Number: 2012-11-041  
Installation Number: 139-0051

Parent Company: Archer Daniels Midland - Bellflower

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

Installation Name: Archer Daniels Midland - Bellflower

Installation Address: 600 Highway E, Bellflower, MO 63333

Location Information: Montgomery County, S22, T49, R4

Application for Authority to Construct was made for:  
Purchased grain elevator that did not have a construction permit or an operating permit. ADM requested a construction permit for the entire installation. This project will be for a 2004 installation of a storage bin and associated conveying equipment. 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

A handwritten signature in black ink, appearing to read "Kyrna L. Moore".  
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.

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Permit No.	
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**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 - Bellflower  
Montgomery County, S22, T49, R4

1. PM<sub>10</sub> Emission Limitation
  - A. Archer Daniels Midland - Bellflower shall emit less than 15.0 tons of PM<sub>10</sub> 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 - Bellflower 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. Archer Daniels Midland - Bellflower 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: 2012-11-041  
Installation ID Number: 139-0051  
Permit Number:

Archer Daniels Midland - Bellflower  
600 Highway E  
Bellflower, MO 63333

Complete: November 16, 2012

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

Montgomery County, S22, T49, R4

REVIEW SUMMARY

- Archer Daniels Midland - Bellflower has applied for authority to obtain a construction permit. ADM purchased grain elevator, "September 4, 2012 that did not have a construction permit or an operating permit. ADM requested a construction permit for the entire installation.
- 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 PM<sub>10</sub> are conditioned below de minimis levels. Potential of PM remains at minor 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 the application are below de minimis levels. There are no modeling requirements 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) – Bellflower 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 2012-11-080. Archer Daniels Midland (ADM) – Bellflower is an agricultural business located in Montgomery County. Archer Daniels Midland (ADM) Grain Company took ownership of the Bellflower facility on September 4, 2012. Department of Natural Resources does not have any record of construction permits, operating permits, or Emission Inventory Questionnaires that have been submitted for this facility. The only information about changes to this facility since May 13, 1982 is the installation of a storage bin and associated conveyors in 2004. Therefore for this project, the construction of that bin and grain handling equipment was evaluated. ADM requested to obtain a facility wide de minimis permit in order to opt out of a Basic Operating Permit. This facility has two separate grain receiving, grain handling and grain shipping that operate independently of one another. The north operation consists of a receiving pit that is rated at █ tons per hour (tph). The conveyors and transfer equipment have a MHDR of █ tph. There are seven bins and a shipping area with a MHDR of █ tph. The north section is bottlenecked at █ tph. The south section consists of a receiving pit with a MHDR of █ tph, four bins, a flat storage building, associated conveyors and transfer equipment (MHDR █ tph), and truck loadout. The south section will be bottlenecked by the receiving pit with MHDR of █ tph. There is no grain dryer at this facility. The north and south sections have individual haul roads. The north section receiving haul road is 634 feet and the shipping haul road is 90 feet. The south section receiving haul road is 968 feet and the shipping haul road is 690 feet. Receiving and shipping will done with a 50% split between hopper and straight trucks.

Table 1: ADM - Bellflower

Emission Points	Equipment Description
EP-1	Grain Receiving - North
EP -2	Grain Handling - North
EP-3	Storage Bins – North
EP-4	Truck Loadout – North
EP-5	Grain Receiving – South
EP-6	Grain Handling – South
EP-7	Storage Bins - South
EP-8	Truck Loadout – South
EP-9	Haul Roads - North
EP-10	Haul Roads - South

No permits have been issued to Archer Daniels Midland - Bellflower from the Air Pollution Control Program.

The existing licensed grain storage capacity for ADM - Bellflower according to the Missouri Department of Agriculture licensed grain dealer/warehouse database was listed at [REDACTED] bushels. This is [REDACTED] than [REDACTED] 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.

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-1 and EP-5) 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-9 and EP-10) 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.

#### 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.

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. This facility has not submitted an EIQ, therefore there are no existing actuals are available. Potential emissions of the application represent the potential of the equipment added in 2004, 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 (not available)	Potential Emission of the Project <sup>a</sup>	Potential Emissions of the Facility	New Installation Conditioned Potential
PM	25.0	N/D	N/D	45.20	449.84	45.20
PM <sub>10</sub>	15.0	N/D	N/D	21.18	152.33	<15.0
PM <sub>2.5</sub>	10.0	N/D	N/D	3.63	22.78	3.63
SO <sub>x</sub>	40.0	N/D	N/D	N/A	N/A	N/A
NO <sub>x</sub>	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

<sup>a</sup>2004 construction of a storage bin and associated conveying equipment.

### 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<sub>10</sub> are conditioned below de minimis levels, and the indirectly conditioned PM remains above de minimis level, but below major source levels.

### APPLICABLE REQUIREMENTS

Archer Daniels Midland - Bellflower 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. The north storage bin vents' potential emission rate of ■ pounds per hour of PM is ■ lbs/hr (Process Rate Rule), and therefore complies with this regulation. The south storage bin vents' potential emission rate of ■ pounds per hour of PM is ■ 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.

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Kathy Kolb  
New Source Review Unit

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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 - Bellflower 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

<b>%</b> .....	percent	<b>m/s</b> .....	meters per second
<b>°F</b> .....	degrees Fahrenheit	<b>Mgal</b> .....	1,000 gallons
<b>acfm</b> .....	actual cubic feet per minute	<b>MW</b> .....	megawatt
<b>BACT</b> .....	Best Available Control Technology	<b>MHDR</b> .....	maximum hourly design rate
<b>BMPs</b> .....	Best Management Practices	<b>MMBtu</b> ....	Million British thermal units
<b>Btu</b> .....	British thermal unit	<b>MMCF</b> .....	million cubic feet
<b>CAM</b> .....	Compliance Assurance Monitoring	<b>MSDS</b> .....	Material Safety Data Sheet
<b>CAS</b> .....	Chemical Abstracts Service	<b>NAAQS</b> ...	National Ambient Air Quality Standards
<b>CEMS</b> .....	Continuous Emission Monitor System	<b>NESHAPs</b>	National Emissions Standards for Hazardous Air Pollutants
<b>CFR</b> .....	Code of Federal Regulations	<b>NO<sub>x</sub></b> .....	nitrogen oxides
<b>CO</b> .....	carbon monoxide	<b>NSPS</b> .....	New Source Performance Standards
<b>CO<sub>2</sub></b> .....	carbon dioxide	<b>NSR</b> .....	New Source Review
<b>CO<sub>2e</sub></b> .....	carbon dioxide equivalent	<b>PM</b> .....	particulate matter
<b>COMS</b> .....	Continuous Opacity Monitoring System	<b>PM<sub>2.5</sub></b> .....	particulate matter less than 2.5 microns in aerodynamic diameter
<b>CSR</b> .....	Code of State Regulations	<b>PM<sub>10</sub></b> .....	particulate matter less than 10 microns in aerodynamic diameter
<b>dscf</b> .....	dry standard cubic feet	<b>ppm</b> .....	parts per million
<b>EQ</b> .....	Emission Inventory Questionnaire	<b>PSD</b> .....	Prevention of Significant Deterioration
<b>EP</b> .....	Emission Point	<b>PTE</b> .....	potential to emit
<b>EPA</b> .....	Environmental Protection Agency	<b>RACT</b> .....	Reasonable Available Control Technology
<b>EU</b> .....	Emission Unit	<b>RAL</b> .....	Risk Assessment Level
<b>fps</b> .....	feet per second	<b>SCC</b> .....	Source Classification Code
<b>ft</b> .....	feet	<b>scfm</b> .....	standard cubic feet per minute
<b>GACT</b> .....	Generally Available Control Technology	<b>SIC</b> .....	Standard Industrial Classification
<b>GHG</b> .....	Greenhouse Gas	<b>SIP</b> .....	State Implementation Plan
<b>gpm</b> .....	gallons per minute	<b>SMAL</b> .....	Screening Model Action Levels
<b>gr</b> .....	grains	<b>SO<sub>x</sub></b> .....	sulfur oxides
<b>GWP</b> .....	Global Warming Potential	<b>SO<sub>2</sub></b> .....	sulfur dioxide
<b>HAP</b> .....	Hazardous Air Pollutant	<b>tph</b> .....	tons per hour
<b>hr</b> .....	hour	<b>tpy</b> .....	tons per year
<b>hp</b> .....	horsepower	<b>VMT</b> .....	vehicle miles traveled
<b>lb</b> .....	pound	<b>VOC</b> .....	Volatile Organic Compound
<b>lbs/hr</b> .....	pounds per hour		
<b>MACT</b> .....	Maximum Achievable Control Technology		
<b>µg/m<sup>3</sup></b> .....	micrograms per cubic meter		

Ms. Miranda Gerard  
Environmentalist  
Archer Daniels Midland - Bellflower  
4666 Faries Parkway  
Decatur, IL 62525

RE: New Source Review Permit - Project Number: 2012-11-041

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: 2012-11-041

Permit Number: