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: 102013-014
Project Number: 2013-09-001
Installation Number: 173-0018

Parent Company: ADM Grain Company
Parent Company Address: 4666 Faries Parkway, Decatur, IL 62525
Installation Name: ADM Grain Company-Center
Installation Address: 200 W. Lamb Street, Center, MO 63436
Location Information: Ralls County, S35, T55N, R6W

Application for Authority to Construct was made for: Ground storage pile and associated equipment. 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.

EFFECTIVE DATE: OCT 18 2013
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.
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.”

ADM Grain Company-Center
Ralls County, S35, T55N, R6W

1. PM Emission Limitation
   A. ADM Grain Company-Center shall emit less than 25.0 tons of PM in any consecutive 12-month period from this project’s equipment and processed as listed in Table 2.

   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. ADM Grain Company-Center 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. ADM Grain Company-Center 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.
ADM Grain Company-Center has applied for authority to construct a ground storage pile and associated equipment.

HAP emissions are not expected from the proposed equipment.

None of the New Source Performance Standards (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 (5) of Missouri State Rule 10 CSR 10-6.060, Construction Permits Required. Potential emissions of PM are conditioned below de minimis levels.

This installation is located in Ralls 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 conditioned below de minimis levels. No modeling standard currently exists.
- Emissions testing are not required for the equipment.

- A Basic Operating Permit application needs to be updated for this installation within 30 days of equipment startup.

- Approval of this permit is recommended with special conditions.

### INSTALLATION DESCRIPTION

Archer Daniels Midland operates a grain elevator in Center, Missouri (herein ADM). The installation was previously owned by Quincy Soybean. Quincy Soybean received a construction permit in 1996. ADM purchased the elevator in the 1990’s from Quincy Soybean. ADM expanded the installation by adding a grain bin in 2010. Emission units at the existing installation consist of grain receiving via truck, handling/conveying, storage bin vents, grain shipping via truck, and unpaved haul roads. ADM is a minor source under construction permits and has a basic operating permit. The following New Source Review permits have been issued to ADM Grain Company-Center from the Air Pollution Control Program.

#### Table 1: Permit History

<table>
<thead>
<tr>
<th>Permit Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0396-016</td>
<td>Construction permit for hopper bottom loadout bin</td>
</tr>
<tr>
<td>0396-016A</td>
<td>Construction permit correction</td>
</tr>
<tr>
<td>062011-005</td>
<td>Add storage and shipping</td>
</tr>
</tbody>
</table>

### PROJECT DESCRIPTION

ADM proposes to construct a 280,000 bushel ground storage pile. The pile base will be lime and portable equipment will be used to fill and reclaim. There will be no walls, tarp or fans installed. This is needed due to the abundant harvest expected for the 2013 season. The MHDR for this project will be 7,000 bushels per hour/210 tons per hour. The storage pile will be located on a 6 acre plot of leased land approximately 1.5 miles from the main facility at the intersection of State Hwy P and Jug Run Road in Center, Missouri. The receiving and shipping haul road will be a total of 196 feet (98 feet each). The emissions from the road will be uncontrolled.

#### Table 2: Project Emission Units

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Description</th>
<th>Maximum Hourly Design Rate (MHDR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP-06</td>
<td>Grain Receiving</td>
<td>210 tph</td>
</tr>
<tr>
<td>EP-07</td>
<td>Grain Handling</td>
<td>210 tph</td>
</tr>
<tr>
<td>EP-08</td>
<td>Storage Pile</td>
<td>210 tph</td>
</tr>
<tr>
<td>EP-09</td>
<td>Truck Loadout</td>
<td>210 tph</td>
</tr>
<tr>
<td>EP-10</td>
<td>Haul Road</td>
<td>8.49 VMT/hr</td>
</tr>
</tbody>
</table>
EMISSIONS/CONTROLS EVALUATION

The emission factors used in this analysis were obtained from the Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 9.9.1 *Grain Elevators and Processes* May 2003 and Section 13.2.2 *Unpaved Roads* November 2006.

Even though the project will handle corn more than any other grain, the highest density for grains to be handled was used to convert processing rates in bushels to tons, 60 pounds per bushel. Therefore, no special condition is required for throughputs of corn, beans, wheat, or other grains.

Existing potential emissions were taken from Construction Permit 062011-005. Existing actual emissions were taken from the installation’s 2012 EIQ. Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8,760 hours per year). The following table provides an emissions summary for this project.

Table 3: Emissions Summary (tons per year)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>25.0</td>
<td>N/D</td>
<td>N/D</td>
<td>280.04</td>
<td>&lt;25.0</td>
<td>N/D</td>
</tr>
<tr>
<td>PM$_{10}$</td>
<td>15.0</td>
<td>115.0</td>
<td>1.91</td>
<td>100.72</td>
<td>8.99</td>
<td>&lt;123.99</td>
</tr>
<tr>
<td>PM$_{2.5}$</td>
<td>10.0</td>
<td>N/D</td>
<td>0.29</td>
<td>16.70</td>
<td>1.49</td>
<td>N/D</td>
</tr>
<tr>
<td>SOx</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>NOx</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>VOC</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>CO</td>
<td>100.0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>GHG (CO$_2$e)</td>
<td>75,000 /100,000</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>GHG (mass)</td>
<td>0.0 / 100.0 / 250.0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>HAPs</td>
<td>10.0/25.0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

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

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 PM are conditioned below de minimis levels.
APPLICABLE REQUIREMENTS

ADM Grain Company-Center 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
New Source Review Unit

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated August 21, 2013, received August 26, 2013, designating ADM Grain Company as the owner and operator of the installation.
Attachment A – PM Compliance Worksheet

ADM Grain Company-Center
Ralls County, S22,T40N, R31W
Project Number: 2013-09-001
Installation ID Number: 013-0006
Permit Number: ________

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

<table>
<thead>
<tr>
<th>Month/Year</th>
<th>Emission Units</th>
<th>1 Month Total PM$_{10}$ Emissions</th>
<th>1 Month Total PM$_{10}$ Emissions</th>
<th>Previous Month's 12 Month Total</th>
<th>Previous Year's 1 month Total</th>
<th>12 Month Total PM$_{10}$ Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>C2</td>
<td>C3</td>
<td>C4</td>
<td>C5</td>
<td>C6</td>
<td>C7</td>
</tr>
<tr>
<td></td>
<td>Amount of grain (tons) received</td>
<td>Composite Emission Factor (lbs. PM$_{10}$ per tons grain received)</td>
<td>Monthly PM$_{10}$ Emissions (lbs.)</td>
<td>Monthly PM$_{10}$ Emissions (tons)</td>
<td>12 month Rolling Total PM$_{10}$ Emissions (tons)</td>
<td>Monthly PM$_{10}$ Emissions (tons)</td>
</tr>
<tr>
<td>Example</td>
<td>25,000</td>
<td>0.3045</td>
<td>2,735</td>
<td>1.37</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>0.3045</td>
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<td>0.3045</td>
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</tr>
</tbody>
</table>

Instructions:
- C2 = the total tons of grain received during the month and year indicated in C1
- C3 = 0.3045 (lbs./ tons), the composite emission factor for emission units
- C4 = C2 × C3
- C5 = C4 ÷ 2000
- C6 = the 12 month rolling total PM emissions from the previous month (C8 from previous month)
- C7 = the monthly total PM emissions from the previous year
- C8 = C5 + C6 – C7  **Note: A value less than 25.0 tons is necessary for continued compliance**
APPENDIX A

Abbreviations and Acronyms

% ............ percent
°F ............ degrees Fahrenheit
acfm ........ actual cubic feet per minute
BACT ....... Best Available Control Technology
BMPs ....... Best Management Practices
Btu .......... British thermal unit
CAM ....... Compliance Assurance Monitoring
CAS ........ Chemical Abstracts Service
CEMS ....... Continuous Emission Monitor System
CFR ........ Code of Federal Regulations
CO ............ carbon monoxide
CO₂ .......... carbon dioxide
CO₂e ....... carbon dioxide equivalent
COMS ....... Continuous Opacity Monitoring System
CSR ........ Code of State Regulations
dscf ........ dry standard cubic feet
EIQ .......... Emission Inventory Questionnaire
EP ............ Emission Point
EPA ........ Environmental Protection Agency
EU ........... Emission Unit
fps ............ feet per second
ft ............. feet
GACT ....... Generally Available Control Technology
GHG ....... Greenhouse Gas
gpm ........ gallons per minute
gr ........... grains
GWP ....... Global Warming Potential
HAP ....... Hazardous Air Pollutant
hr ............ hour
hp ........... horsepower
lb ........... pound
lbs/hr ...... pounds per hour
MACT ....... Maximum Achievable Control Technology
µg/m³ .... micrograms per cubic meter
m/s ........ meters per second
Mgal ....... 1,000 gallons
MW .......... megawatt
MHDR ....... maximum hourly design rate
MMBtu .... Million British thermal units
MMCF ...... million cubic feet
MSDS ...... Material Safety Data Sheet
NAAQS .... National Ambient Air Quality Standards
NESHAPs ...... National Emissions Standards for Hazardous Air Pollutants
NOₓ .......... nitrogen oxides
NSPS ....... New Source Performance Standards
NSR ....... New Source Review
PM ........... particulate matter
PM₂.₅ ....... particulate matter less than 2.5 microns in aerodynamic diameter
PM₁₀ ...... particulate matter less than 10 microns in aerodynamic diameter
ppm ........ parts per million
PSD ....... Prevention of Significant Deterioration
PTE .... potential to emit
RACT .... Reasonable Available Control Technology
RAL .... Risk Assessment Level
SCC .... Source Classification Code
scfm .... standard cubic feet per minute
SIC ........ Standard Industrial Classification
SIP .... State Implementation Plan
SMAL .... Screening Model Action Levels
SOₓ .......... sulfur oxides
SO₂ ........ sulfur dioxide
tph .......... tons per hour
tpy .......... tons per year
VMT .... vehicle miles traveled
VOC .... Volatile Organic Compound

- 9 -
Ms. Karena Musgrave  
Environmental Specialist  
ADM Grain Company-Center  
PO Box 196  
Center, MO 63436  

RE: New Source Review Permit - Project Number: 2013-09-001  

Dear Ms. Musgrave:  

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 amended 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 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:kkl  

Enclosures  

c: Northeast Regional Office  
PAMS File: 2013-09-001  

Permit Number:  