

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: **022011-008** Project Number: 2010-05-041

Parent Company: **Cargill, Inc.**

Parent Company Address: **15407 McGinty Rd, Wayzata, MN 55391**

Installation Name: **Cargill AgHorizons**

Installation Number: **087-0013**

Installation Address: **26949 County Road 290, Forest City, MO 64451**

Location Information: **Holt County, S30, T60N, R38W**

Application for Authority to Construct was made for:
Construction of a truck-receiving pit, three grain bins, and two temporary storage piles. These emission units were constructed prior to receipt of a permit from the Missouri Department of Natural Resources. Obtaining a permit is part of a remedial action required by the Air Pollution Control Program. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

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

FEB 23 2011

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 this (these) air contaminant source(s). 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 this (these) air contaminant source(s).

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 source(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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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."

Cargill AgHorizons
Holt County, S30, T60N, R38W

1. Emission Limitation
 - A. Cargill AgHorizons shall emit less than 15.0 tons of particulate matter less than ten (10) microns in diameter (PM₁₀) in any consecutive 12-month period from the entire installation as described in the Table 1 of the Project Description Section of this permit.
 - 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 Condition 1.A.
2. Haul Road Watering
Cargill AgHorizons shall water haul roads whenever conditions exist which would cause visible fugitive emissions to enter the ambient air beyond the property boundary.
3. Restriction of Emission of Odors
 - A. Cargill AgHorizons shall adhere to the applicable requirements of 10 CSR 10-3.090 *Restriction of Emission of Odors*.
 - B. If a continuing situation of demonstrated nuisance odors exists in violation of 10-3.090, the Director may require Cargill AgHorizons to submit a corrective action plan within ten days adequate to timely and significantly mitigate the odors. Cargill AgHorizons shall implement any such plan immediately upon its approval by the Director. Failure to either submit or implement such a plan shall be a violation of the permit.
4. Record Keeping and Reporting Requirements
 - A. Cargill AgHorizons 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.

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SPECIAL CONDITIONS:

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

- B. Cargill AgHorizons 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: 2010-05-041
Installation ID Number: 087-0013
Permit Number:

Cargill AgHorizons
26949 County Road 290
Forest City, MO 64451

Complete: May 25, 2010

Parent Company:
Cargill, Inc.
15407 McGinty Rd
Wayzata, MN 55391

Holt County, S30, T60N, R38W

REVIEW SUMMARY

- Cargill AgHorizons has applied for authority to construct a truck-receiving pit, three grain bins, and two temporary storage piles. These emission units were constructed prior to receipt of a permit from the Missouri Department of Natural Resources. Obtaining a permit is part of a remedial action required by the Department.
- Hazardous Air Pollutant (HAP) emissions are not expected from the proposed equipment.
- None of the New Source Performance Standards (NSPS) apply to the installation. Specifically NSPS Subpart DD does not apply because the installations permanent storage capacity is less than 2.5 million bushels.
- 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.
- An enclosure and baghouse are being used to control the PM₁₀ emissions from one receiving pit in this permit.
- 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 conditioned below de minimis levels.
- This installation is located in Holt 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.
- 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 DESCRIPTION

Cargill AgHorizons is an existing installation located in Forest City, Missouri. The installation consists of a grain elevator and two grain piles. The elevator has two receiving pits (EU-2 and EU-3) that can each receive 14,000 bushels per hour. One pit (EU-2) is enclosed and vented to a baghouse and was constructed in 1990, without receiving a permit. The elevator has nine storage bins (EU-5 through EU-13). Three of these bins were constructed in 1990, without receiving a permit. The elevator can ship 5,000 bushels per hour (EU-4). The north grain pile (EU-14) was constructed in 2007, without a permit. Grain is loaded into and out of the pile via a portable auger at a rate of 12,000 bushels per hour. The pile is 3.58 acres. The south grain pile (EU-15) was constructed in 2004, without a permit. Grain is loaded into and out of the pile via a portable auger at a rate of 10,000 bushels per hour. The pile is 2.91 acres.

In 2009, Cargill AgHorizons replaced four bins and the truck receiving pit #2. These replacements are like-kind and excluded from permitting under 10 CSR 10-6.061 *Construction Permit Exemptions* paragraph (3)(B)3.

No permits have been issued to Cargill AgHorizons from the Air Pollution Control Program. The limits in this permit will make the installation a de minimis source and no operating permit will be required.

A Notice of Violation (#KCR12284488) was issued on July 29, 1998, for a violation of 10 CSR 10-3.090 Restriction of Emission of Odors. A second Notice of Violation was issued on May 4, 2010, for a violation of the same rule.

Table 1: Emission Units

Emission Unit	Description
1	Haul road #1
2	Receiving pit #1
3	Receiving pit #2
4	Shipping
5	Internal handling
6-13	Storage bin vents
14a	Storage pile #1 receiving
14b	Storage pile #1 handling
14c	Storage pile #1 shipping
14d	Storage pile #1 haul road
15a	Storage pile #2 receiving
15b	Storage pile #2 handling
15c	Storage pile #2 shipping
15d	Storage pile #2 haul road

EMISSIONS/CONTROLS EVALUATION

The emission factors and control efficiencies 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," April 2003, and Section 13.2.2 "Unpaved Roads," November 2006. Potential emissions of the application represent the emissions associated with the equipment installed in 1990, and the two grain piles, assuming continuous operation (8,760 hours per year). The following table provides an emissions summary for this project. The most recent Emissions Inventory Questionnaire (EIQ) was submitted in 1996. The installation has accepted a limit of less than 15.0 tons of PM₁₀ per year to avoid the modeling requirements found in 10 CSR 10-6.060 Section (6). The PM₁₀ limit reduces PM_{2.5} emissions below their de minimis level.

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	New Installation Conditioned Potential
PM _{2.5}	10.0	N/D	N/D	91.55	2.8
PM ₁₀	15.0	576.72	27.30	616.18	< 15.0
SO _x	40.0	N/A	N/A	N/A	N/A
NO _x	40.0	N/A	N/A	N/A	N/A
VOC	40.0	N/A	N/A	N/A	N/A
CO	100.0	N/A	N/A	N/A	N/A
HAPs	10.0/25.0	N/A	N/A	N/A	N/A

N/A = Not Applicable

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 conditioned below de minimis levels.

APPLICABLE REQUIREMENTS

Cargill AgHorizons 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*
The emission fee is the amount established by the Missouri Air Conservation Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire (EIQ) is required June 1 for the previous year's emissions.
- *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 10-3.090*

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.

Michael Mittermeyer
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated May14, 2010, received May 17, 2010, designating Cargill, Inc. as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- Kansas City Regional Office Site Survey, dated June 1, 2010.

**Attachment A
PM₁₀ Compliance Worksheet**

Cargill AgHorizons
Holt County, S30, T60N, R38W
Project Number: 2010-05-041
Installation ID Number: 087-0013
Permit Number: _____

This sheet covers the period from _____
(month, year)

Activity Description		¹ Monthly Throughput (tons)	Composite PM ₁₀ Emissions Factor (lb/tons)	² PM ₁₀ Emissions (pounds)	³ PM ₁₀ Emissions (tons)
⁴ Grain Received	Pit #1	Hopper Truck	0.0406		
		Straight Truck	0.0665		
	Pit #2	Hopper Truck	0.0727		
		Straight Truck	0.1239		
	North Pile			0.1134	
	South Pile			0.1245	
Grain Shipped	Pit #1			0.0333	
	Pit #2			0.0536	
	North Pile			0.0494	
	South Pile			0.0605	
⁵ Total Monthly PM ₁₀ Emissions (tons)					
⁶ 12-Month Total PM ₁₀ Emissions (tons)					

¹Enter the Monthly Throughput for each activity in the units specified.

²Multiply the Monthly Throughput by the Composite PM₁₀ Emissions Factor.

³Divide the PM₁₀ Emissions (pounds) by 2000

⁴Grain transferred from the ground storage piles into the elevator should be recorded as grain received at the receiving pit and noted on this form.

⁵Add the PM₁₀ Emissions (tons)

⁶Add the Total Monthly PM₁₀ Emissions to the sum of the Total Monthly PM₁₀ Emissions from the previous 11 months. A 12-Month Total PM₁₀ Emissions (tons) less than 15.0 tons is necessary for compliance.

Mr. David Jones
FSC Operations Leader
Cargill AgHorizons
P.O. Box 158
Forest City, MO 64451

RE: New Source Review Permit - Project Number: 2010-05-041

Dear Mr. Jones:

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 and 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 Michael Mittermeyer at the Department's Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102, or by telephone at (573) 751-4817. Thank you for your time attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale
New Source Review Unit Chief

KBH:mmk

Enclosures

c: Kansas City Regional Office
PAMS File: 2010-05-041

Permit Number: