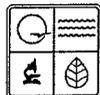


STATE OF MISSOURI

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: 082008-003 Project Number: 2008-03-065

Parent Company: Cargill, Inc.

Parent Company Address: P. O. Box 9300, Minneapolis, MN 55440-9300

Installation Name: Cargill, Inc. - Buffalo Island

Installation Address: 758 State Hwy N, Charleston, MO 63834-8251

Location Information: Scott County, S6, T27N, R16E

Application for Authority to Construct was made for:

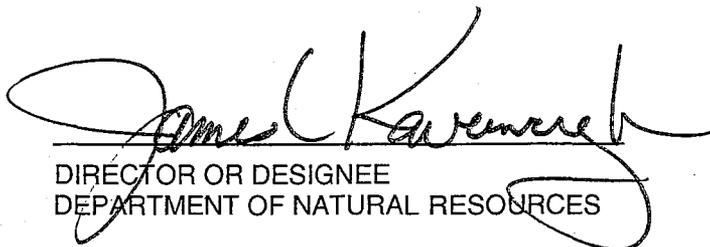
The installation of a grain storage pile and associated loading and unloading equipment. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

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

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

AUG - 4 2008

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 (change to 18 months for PSD permits) 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 (change to 18 months for PSD permits) 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 not more than 60 days but at least 30 days in advance of this date. 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.

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: Project Number: 2008-03-065

Parent Company: Cargill, Inc.

Parent Company Address: P. O. Box 9300, Minneapolis, MN 55440-9300

Installation Name: Cargill, Inc. – Buffalo Island

Installation Address: 758 State Hwy N, Charleston, MO 63834-8251

Location Information: Scott County, S6, T27N, R16E

Application for Authority to Construct was made for:
The installation of a grain storage pile and associated loading and unloading 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

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 (change to 18 months for PSD permits) 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 (change to 18 months for PSD permits) 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 not more than 60 days but at least 30 days in advance of this date. 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.

Page No.	3
Permit No.	
Project No.	2008-03-065

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, Inc. - Buffalo Island
 Scott County, S6, T27N, R16E

1. Emission Limitation
 - A. Cargill, Inc. - Buffalo Island shall emit less than 15 tons of particulate matter less than ten (10) microns in diameter (PM₁₀) in any consecutive twelve (12) month period from the equipment and activities of this permit, which is given below in Table 1.

Table 1: Emission Points and Activities from this Permit

Emission Points	Description
AEP-3	Truck Load out at Existing Elevators
AEP-10	Hauling from Existing Elevators to New Storage Pile
BEP-11	Unloading of Grain at New Storage Pile to Conveyor
BEP-12	Conveying of Grain to Top of Storage Pile
BEP-13	Front End Loader Loading Grain to Conveyor
BEP-13	Conveyor Loading to Haul Trucks
AEP-10	Hauling of Grain from New Storage Piles to Existing Elevator
AEP-3	Unloading of Grain From Trucks to Existing Pit
AEP-3	Grain Handling at Existing Elevators
AEP-9	Emissions from Vents of Existing Bins During Load In

- B. Cargill, Inc. - Buffalo Island shall maintain an accurate record of PM₁₀ emitted into the atmosphere from equipment and activities in Table 1 to ensure compliance with Special Condition 1.A. Attachment A or equivalent form(s) shall be used for this purpose. Cargill, Inc. - Buffalo Island shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.
 - C. Cargill, Inc. - Buffalo Island shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after the end of the month during which

Page No.	4
Permit No.	
Project No.	2008-03-065

SPECIAL CONDITIONS:

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

the records from Special Condition Number 1.B. indicate that the source exceeds the limitation of Special Condition Number 1.A.

2. Haul Road PM₁₀ Emissions Control Requirement
 - A. Cargill, Inc. - Buffalo Island shall control fugitive emissions from the haul roads and vehicular activity areas allowed in the permit by paving the haul roads. The following haul roads and vehicular activity areas shall be paved: Hauling from existing bins to storage pile, vehicular activity around the new storage pile and hauling from storage pile back to the existing bins.
 - B. The haul roads shall be paved with materials such as asphalt, concrete, and/or other material(s) approved by the Air pollution Control Program. The pavement shall be applied in accordance with industry standards for such pavement as to achieve "Control of Fugitive Emissions." while the plant is operating.
 - C. Maintenance and/or repair of the surfaces shall be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas.
 - D. Cargill, inc. – Buffalo Island shall pave the haul roads and vehicular activity areas listed in Special Condition 2.A. within thirty (30) days after the commencement of the plant's storage pile operations. This 30-day deadline to pave the haul roads and vehicular activity areas may be extended upon approval of the director.
3. Control Device Requirement – Mineral Oil Dust Suppression
 - A. Cargill, Inc. – Buffalo Island shall control PM₁₀ emissions from all equipment and activities listed in Table 1 by using mineral oil dust suppression as specified in the permit application.
 - B. The mineral oil shall be applied at a rate of 0.5 to 1.7 gallons of oil per 1,000 bushels of grain in accordance with Environmental Protection Agency (EPA) data in document AP-42, *Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources*, fifth edition.
4. Control Device Requirement – Storage Pile Tarp Covering

Cargill, Inc. – Buffalo Island shall control PM₁₀ emissions from wind erosion of the storage pile by covering the storage pile at all times, except while loading in and loading out, with a tarp as specified in the permit application.
5. Control Device Requirement – Baghouse
 - A. Cargill, Inc. shall control emissions from the truck loadout at elevators A and B and truck unloading at elevators A and B using baghouses as

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Permit No.	
Project No.	2008-03-065

SPECIAL CONDITIONS:

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

- specified in the permit application.
- B. The baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that the DNR employees may easily observe them. Replacement filters for the baghouse shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).
 - C. Cargill, Inc. – Buffalo Island shall monitor and record the operating pressure drop across the baghouse at least once every twenty-four (24) hours while the plant is in operation. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
 - D. Cargill, Inc. – Buffalo Island shall maintain an operating and maintenance log for the baghouses which shall include the following:
 - 1. Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
 - 2. Maintenance activities, with inspection schedule, repair actions, and replacements, etc.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (5) REVIEW

Project Number: 2008-03-065
Installation ID Number: 201-0022
Permit Number:

Cargill, Inc. - Buffalo Island
758 State Hwy N
Charleston, MO 63834-8251

Complete: March 17, 2008

Parent Company:
Cargill, Inc.
P. O. Box 9300
Minneapolis, MN 55440-9300

Scott County, S6, T27N, R16E

REVIEW SUMMARY

- Cargill, Inc. - Buffalo Island has applied for authority to construct a storage pile and associated loading and unloading equipment.
- Hazardous Air Pollutant (HAP) emissions are not expected from the proposed equipment.
- None of the New Source Performance Standards (NSPS) apply to the proposed equipment. Subpart DD, *Standards of Performance for Grain Elevators*, of the NSPS does not apply to this installation because the storage capacity of the installation is below the trigger level for this subpart.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) or currently promulgated Maximum Achievable Control Technology (MACT) regulations apply to the proposed equipment.
- Mineral oil suppression is being used to control the PM₁₀ from the equipment and activities in this permit. Baghouse(s) are being used to control emissions during grain loading at elevators A and B and during grain unloading at elevators A and B. A tarp covering is being used to control PM₁₀ emissions from wind erosion of the storage pile, except during load in and load out of grain from the storage pile.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of all pollutants are conditioned to below the de minimis levels.
- This installation is located in Scott County, an attainment area for all criteria air pollutants.

- This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2].
- Ambient air quality modeling was not performed since the conditioned potential emissions of the application are below de minimis levels.
- Emissions testing is not required for the equipment.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

Cargill, Inc. – Buffalo Island operates two grain elevators in Charleston, Missouri (Plant ID 201-0078, 201-0022). The two elevators receive, store, dry, and then distribute grain for direct use, process manufacturing or export. In the past, these two elevators have been considered separate installations, but in March, 2008, a decision was made by the Air Pollution Control Program to combine the plants into one installation for permitting purposes and that the emissions inventory questionnaire (EIQ) of the installation should now be submitted under the plant number 201-0022. Therefore, 201-0022 should now be the identification number for the entire installation.

Before the two plants were combined into one installation, plant 201-0022 was considered a basic installation for operating permits, and an operating permit was not required for plant 201-0078. Since the plants are now considered part of the same installation and there will be additional emissions from the issuance of this permit, the operating permit requirements for this installation may change. Cargill, Inc.- Buffalo Island has submitted a request to determine its operating permit status (Project #2008-06-001) and this project is currently being evaluated by the Air Pollution Control Program.

The following permits have been issued to Cargill, Inc. - Buffalo Island from the Air Pollution Control Program.

Table 1: Permits Issued for Plant 201-0022

Permit Number	Description
0381-005	Addition of 1,000,000 bushel tank
0995-022	Addition of 3,500 bushels per hour dryer
0996-008	New drag conveyor
0995-022A	Recalculate emission factors
0999-013	Replace dryer
0999-013A	Replacement of dryer and installation of associated equipment.
032003-023	Replacement of barge loadout system with a higher capacity system
032003-023A	Inserting correct county in permit #032003-023
112006-001	Temporary storage pile

Table 2: Permits Issued for Plant 201-0078

Permit Number	Description
1286-002	Grain Dryer
1196-001	Two 20,000 bushel corn bins
1196-001A	Addition of haul road emissions

No notices of violation (NOV) or notice of excess emissions (NOEE) have been issued to the installation within the last five (5) years.

PROJECT DESCRIPTION

The installation proposes to install a permanent grain storage pile and associated load in and load out equipment. The storage pile and equipment were previously permitted as a temporary operation through temporary permit #112006-001 (Project #2006-09-051), but the facility would now like to make this a permanent operation. The grain storage pile is approximately 245 feet by 150 feet and has a capacity of 1,200,000 bushels (33,600 tons) of grain. Grain is hauled to the pile from existing bins and loaded onto the pile by a conveyor. The maximum hourly design rate of the conveyor is 12,000 bushels per hour (336 tons per hour). A mixture of hopper and straight trucks is used for hauling. When needed, the grain will be removed from the pile by a front end loader to a conveyor that will load the grain into trucks for transport back to the existing bins. While not loading in or loading out, the grain storage pile will be covered by a tarp that will be held down by weights. The storage pile also has seven (7) fans that draw air from the bottom of the pile, which help to keep the tarp down.

Mineral oil will be sprayed onto the grain to help control PM₁₀ emissions. Baghouses will be used to control PM₁₀ emissions while loading and unloading grains at the existing elevators.

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 Elevator and Processes*, (5/2003). Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year.) The maximum hourly design rate (MHDR) of the operation is 336 tons per hour, which is the MHDR of the load in conveyor.

The following table provides an emissions summary for this project.

Table 1: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	*Existing Actual Emissions (2007EIQ)	Potential Emissions of the Application	New Project Conditioned Potential
PM ₁₀	15.0	98.40	23.23	104.46	<15.00
SO _x	40.0	0.42	N/D	N/A	N/A
NO _x	40.0	36.29	0.67	N/A	N/A
VOC	40.0	0.75	0.01	N/A	N/A
CO	100.0	8.83	0.11	N/A	N/A
HAPs	10.0/25.0	0.0	N/D	N/A	N/A

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

*PM₁₀ existing actual emissions are sum of the emissions from plants 201-0022 and 201-0078 taken from permits 032003-023 and 1196-001A, respectively. NO_x, VOC, and CO existing actual emissions are from plant 201-0022. No existing actual emissions from 201-0078 are available for NO_x, VOC, and CO because the grain dryer was removed in 1997.

Since the storage pile will be covered by a tarp (except during loading and unloading) and the grain will be coated with oil, the PM₁₀ emissions from wind erosion of the storage pile can be considered negligible. For other emission points where the PM₁₀ emissions are controlled only by the use of mineral oil dust suppression system, the PM₁₀ emissions were calculated by using the emission factors from AP-42 and giving a control efficiency of 70%. For truck unloading and unloading inside a building, where the PM₁₀ emissions are controlled by both mineral oil dust suppression and baghouses, it was assumed that 30% of the emissions calculated by using uncontrolled emission factors will actually be emitted to the atmosphere. It is also assumed that 50% of the actual emissions will be captured and vented to the baghouse while the remainder will be emitted as fugitive emissions. The baghouse is given a control efficiency of 99%.

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 all pollutants are conditioned to below de minimis levels.

APPLICABLE REQUIREMENTS

Cargill, Inc. - Buffalo Island 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. For a complete list of applicable requirements for your installation, please consult your operating permit.

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 April 1 for the previous year's emissions.
- *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 10-3.090

SPECIFIC REQUIREMENTS

- *Restriction of Emission of Particulate Matter From Industrial Processes*, 10 CSR 10-6.400

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.

Chia-Wei Young
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated 3/12/2008, received 3/1/2008, 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.
- Southeast Regional Office Site Survey, dated March 21, 2008.

Mr. Adam Thomas
758 State Highway N
Charleston, MO 63834-8251

RE: New Source Review Permit - Project Number: 2008-03-065

Dear Mr. Thomas:

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 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 Chia-Wei Young, at the departments' 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

Kendall B. Hale
New Source Review Unit Chief

KBH:cwyl

Enclosures

c: Mr. Chester Gunn, 425 South Woods Mill Road, Chesterfield, MO 63017-3441
Southeast Regional Office
PAMS File: 2008-03-065

Permit Number: