

# 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: 102010-009 Project Number: 2010-06-057

Parent Company: Bartlett Grain Company, L.P.

Parent Company Address: 4800 Main St., Kansas City, MO 64112

Installation Name: Bartlett Grain Company, L.P.

Installation Number: 021-0056

Installation Address: 506 West Lake Blvd., St. Joseph, MO 64504

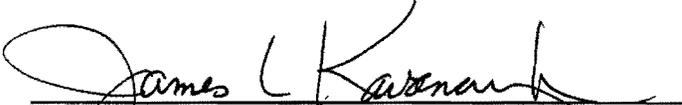
Location Information: Buchanan County, S30, T57N, R35W

Application for Authority to Construct was made for:  
Addition of a dryer and associated enclosed conveying equipment. This review was conducted in accordance with Section (6), 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.

OCT 22 2010

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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Permit No.	
Project No.	2010-06-057

**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."*

Bartlett Grain Company, L.P.  
Buchanan County, S30, T57N, R35W

1. Particulate Matter Less than 10 Microns (PM<sub>10</sub>) Emission Limitation
  - A. Bartlett Grain Company, L.P. shall emit less than 15.0 tons of particulate matter less than ten (10) microns in diameter (PM<sub>10</sub>) in any consecutive 12-month period from the dryer (E18) and associated enclosed conveying equipment.
  - 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. Record Keeping and Reporting Requirements
  - A. Bartlett Grain Company, L.P. 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.
  - B. Bartlett Grain Company, L.P. shall report to the Air Pollution Control Program's 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: 2010-06-057  
Installation ID Number: 021-0056  
Permit Number:

Bartlett Grain Company, L.P.  
506 West Lake Blvd.  
St. Joseph, MO 64504

Complete: June 18, 2010

Parent Company:  
Bartlett Grain Company, L.P.  
4800 Main St.  
Kansas City, MO 64112

Buchanan County, S30, T57N, R35W

REVIEW SUMMARY

- Bartlett Grain Company, L.P. has applied for authority to add a dryer and associated enclosed conveying equipment.
- A small amount of Hazardous Air Pollutant (HAP) emissions are expected from combustion of natural gas in the proposed dryer.
- Subpart DD of the New Source Performance Standards (NSPS), *Standards of Performance for Grain Elevators*, applies to this installation since the storage capacity of the installation is greater than 2.5 million bushels of grain.
- 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.
- 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 to de minimis levels. Indirect conditioned potential emissions of particulate matter (PM) are at minor source levels. All other criteria pollutants for the project are below de minimis levels.
- This installation is located in Buchanan County, an attainment area for all criteria pollutants.
- This installation is on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2, Category 27. The installation's major source level is 250 tons

per year and fugitive emissions are counted toward major source applicability.

- Ambient air quality modeling was not performed for this review. There is no National Ambient Air Quality Standard (NAAQS) standard for PM.
- Emissions testing is required for the new equipment as per NSPS, Subpart DD.
- Either a modification to your Intermediate Operating Permit is required for this installation within 90 days of equipment startup or a Part 70 Operating Permit application is required for this installation within 1 year of equipment startup.
- Approval of this permit is recommended with special conditions.

### INSTALLATION DESCRIPTION

Bartlett Grain Company, L. P. is a grain elevator that receives grain by truck and ships grain primarily by railcar. The elevators storage capacity is 3.95 million bushels of grain, which makes the installation subject to subpart DD of the NSPS. The installation, an existing minor source, holds an intermediate operating permit (OP2009-021 issued July 13, 2009), which limits the installation to minor source levels.

The installation is not one of the named source categories in 40 CFR 52.21 (b)(1)(i)(a), but is included in 40 CFR 52.21 (b)(1)(iii)(aa). As such, the installation is considered a major source if it has the potential to emit 250 tons per year or more of any regulated NSR pollutant. Fugitive emissions are included in the potential to emit total.

The following construction permits have been issued to Bartlett Grain Company, L. P. from the Air Pollution Control Program.

Table 1: Previously Issued Construction Permits

Permit Number	Description
0898-006	Increase capacity on conveyor belts
062003-003	Shuttle Train Loading
102007-009	The addition of a grain loading spout.

### PROJECT DESCRIPTION

Bartlett Grain Company, L. P. has applied for authority to construct a dryer (E18) and associated enclosed conveying equipment. Grain will be withdrawn from the existing concrete silo storage bins through new spouting on the west end of the silo bin complex. Enclosed spouting will discharge grain from nine silos directly into an enclosed conveyor for delivery to an enclosed bucket elevator that delivers grain to the inlet of the new dryer. Dried grain exits the bottom of the dryer into an enclosed conveyor and then to a second enclosed bucket elevator which discharges either into enclosed conveyors back to the storage silos or to an enclosed grain scalper. The scalper discharges through these same conveyors back into the storage silos. The dryer uses natural gas and has maximum design rate of 60.2 MMBtu/hr. The

conveying equipment and scalper all have a rated capacity of 10,000 bushels per hour (280 tons per hour) and the dryer has a capacity of 5,000 bushels per hour (140 tons per hour) when removing 5 points of moisture. However, when drying grain with a low moisture content of 2-3% moisture, throughput could increase by up to 20% which equates to a rate of 168 tons per hour. Exact moisture content to be removed depends on the particular crop year. Since the lower moisture content represents a worst case, potential emissions are based on 168 tons per hour. When drying grain, the dryer capacity is the effective bottleneck; therefore, emissions associated with the conveying equipment are also based on 168 tons per hour. Except for the dryer itself all new equipment for this project is totally enclosed construction. No other control equipment is being installed.

### EMISSIONS/CONTROLS EVALUATION

The emission factors used in this analysis for the dryer and internal handling 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* (April 2003) and Section 1.4 *Natural Gas Combustion* (July 1998).

The following table provides an emissions summary for this project. Existing potential emissions were taken from Permit Number 102007-009. Existing actual emissions were taken from the installation's 2009 Emission Inventory Questionnaire (EIQ). Potential emissions of the application represent the potential of the new dryer and internal handling, assuming continuous operation (8,760 hours per year).

Table 2: Emissions Summary (tons per year)

Pollutant	Regulatory De Minimis Levels	Existing Potential Emissions <sup>1</sup>	Existing Actual Emissions (2009 EIQ)	Unconditioned Potential Emissions of the Application	Project Conditioned Potential
PM <sub>2.5</sub>	10.0	N/D	N/D	11.18	<sup>2</sup> 2.96
PM <sub>10</sub>	15.0	<100	12.12	67.45	<15
PM	25.0	N/D	N/D	206.77	<sup>2</sup> 45.98
SO <sub>x</sub>	40.0	N/A	N/A	0.16	N/A
NO <sub>x</sub>	40.0	N/A	N/A	25.84	N/A
VOC	40.0	N/A	N/A	1.42	N/A
CO	100.0	N/A	N/A	21.71	N/A
HAPs	10.0/25.0	N/A	N/A	0.49	N/A

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

<sup>1</sup> Bartlett Grain took a 100 ton per year limit on PM<sub>10</sub> in their Intermediate Operating Permit, OP2009-021. The indirect potential emissions of PM and PM<sub>2.5</sub> for the facility has not been determined. The potential PM emissions could potentially be above major source levels installation-wide. Since its major status for PM does not affect the permit applicability of this project, the PM emissions were not further evaluated.

<sup>2</sup> The PM and PM<sub>2.5</sub> emissions for this project are indirectly limited by the 15.0 ton per year limit on PM<sub>10</sub>.

## 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 to below de minimis levels. Indirect conditioned potential emissions of PM and PM<sub>2.5</sub> are at minor source levels. All other criteria pollutants for the project are below de minimis levels.

## APPLICABLE REQUIREMENTS

Bartlett Grain Company, L.P. 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 June 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 10-2.070

### SPECIFIC REQUIREMENTS

- *Restriction of Emission of Particulate Matter From Industrial Processes*, 10 CSR 10-6.400
- *New Source Performance Regulations*, 10 CSR 10-6.070 – *New Source Performance Standards (NSPS) for Grain Elevators*, 40 CFR Part 60, Subpart DD

## 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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Susan Heckenkamp  
Environmental Engineer

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Date

### PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, received June 18, 2010, designating Bartlett Grain Company, L.P. 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 July 1, 2010.

