

**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: 032017-003

Project Number: 2016-10-032  
Installation Number: 023-0040

Parent Company: Bunge Corporation

Parent Company Address: 11720 Borman Drive, St. Louis, MO 63143

Installation Name: Bunge Corporation

Installation Address: 3090 Hwy B, Poplar Bluff, MO 63901

Location Information: Butler County, S5, T24N, R7E

Application for Authority to Construct was made for:

Increase annual throughput to 120,000 tons per year. 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.

Prepared by  
Kathy Kolb  
New Source Review Unit

Director or Designee  
Department of Natural Resources

MAR 07 2017

Effective Date

## STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within !Cancel! from the effective date of this permit. Permittee should notify the Enforcement and Compliance Section of the Air Pollution Control Program if construction or modification is not started within !Cancel! 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 Enforcement and Compliance Section of the Department's 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's 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 the permit application and this permit and permit review shall be kept at the installation address and shall be made available to Department's 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 using the contact information below.

### Contact Information:

Missouri Department of Natural Resources  
Air Pollution Control Program  
P.O. Box 176  
Jefferson City, MO 65102-0176  
(573) 751-4817

The regional office information can be found at the following website:  
<http://dnr.mo.gov/regions/>

**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."*

Bunge Corporation  
Butler County, S5, T24N, R7E

1. Superseding Condition
  - A. The conditions of this permit supersede all special conditions found in the previously issued construction Permit Number 1191-009 issued by the Air Pollution Control Program.
  
2. PM<sub>10</sub> Emission Limitation
  - A. Bunge Corporation shall emit less than 15.0 tons of PM<sub>10</sub> in any consecutive 12-month period from the entire installation (see 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 2.A.
  
3. Control Device Requirement-Baghouse
  - A. Bunge Corporation shall control emissions from the Receiving Pit (EP-01) and Grain Handling (EP-05) using a single baghouse to control both emission units as specified in the permit application.
  
  - B. The baghouse shall be operated and maintained in accordance with the manufacturer's specifications. 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 Department of Natural Resources' employees may easily observe them.
  
  - C. 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).
  
  - D. Bunge Corporation shall monitor and record the operating pressure drop across the baghouse at least once every 24 hours when the facility is in operation. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.

**SPECIAL CONDITIONS:**

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

- E. Bunge Corporation shall maintain a copy of the baghouse manufacturer's performance warranty on site.
- F. Bunge Corporation shall maintain an operating and maintenance log for the baghouse 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.
- 4. **Operational Limitation**
  - A. Bunge Corporation shall receive no more than 10.0% by weight of grain received by truck via straight trucks in any consecutive 12-month period.
  - B. Attachment B or equivalent forms, such as electronic forms, approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Condition 4.A.
- 5. **Record Keeping and Reporting Requirements**
  - A. Bunge Corporation 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. Bunge Corporation 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 shows an exceedance of a limitation imposed by this permit.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE  
SECTION (6) REVIEW

Project Number: 2016-10-032  
Installation ID Number: 023-0040  
Permit Number: 032017-003

Installation Address:  
Bunge Corporation  
3090 Hwy B  
Poplar Bluff, MO 63901

Parent Company:  
Bunge Corporation  
11720 Borman Drive  
St. Louis, MO 63143

Butler County, S5, T24N, R7E

REVIEW SUMMARY

- Bunge Corporation has applied for authority to increase annual throughput to 120,000 tons per year.
- The application was deemed complete on December 19, 2016.
- 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.
- A baghouse is being used to control the PM, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions from the equipment (Grain receiving and handling) in this permit.
- 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.
- This installation is located in Butler 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 as a part of this permit. Testing may be required as part of other state, federal or applicable rules.
- No Operating Permit is required for this installation. All pollutants are below their respective de minimus levels except for PM, Conditioned potential emissions of PM are at minor source levels. PM emissions cannot trigger operating permit applicability.
- Approval of this permit is recommended with special conditions.

### INSTALLATION DESCRIPTION

Bunge Corporation is an existing grain storage facility located east of Poplar Bluff, Missouri in Butler County. The receiving pit has a MHDR of 600 tons/hr (20,000 bushels/hr). Storage capacity is a total of 375,000 bushels. There is a baghouse that controls particulate matter emissions from the receiving pit and grain handling. There is no dust control on the haul roads. The following Table 1 lists the equipment as stated in their Emission Inventory Questionnaire.

Table 1: Equipment List

Emission Point	Equipment Description	MHDR
EP-01	Grain Receiving	600 tons/hr
EP-03	Grain Shipping	600 tons/hr
EP-05	Headhouse & Internal Handling	600 tons/hr
EP-06	Haul Roads	Varies
EP-07	Bin Vents	600 tons/hr

The following New Source Review permits have been issued to Bunge Corporation from the Air Pollution Control Program.

Table 2: Permit History

Permit Number	Description
1191-009	Additional grain storage building, associated grain handling and baghouse

### PROJECT DESCRIPTION

The Bunge Corporation's grain elevator at Poplar Bluff was limited to throughput of 60,000 tons of grain in any 12-month period according to Construction Permit #1191-009. No new equipment or modifications to any existing equipment is occurring with this construction permit. Bunge Corporation requested to increase their throughput to 120,000 tons of grain. The entire facility's emissions were recalculated and conditioned below de minimis. This limit results in an indirect production limit of 303,643 tons per year.

## 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 and Processes," May 2003. The emission factors and control efficiencies for haul roads were obtained from the EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 13.2.1 "Paved Roads," January 2011.

At the receiving pit (EP-01), dust emissions will be controlled by a baghouse with an overall efficiency of 99.5%. A capture efficiency of 80% (receiving pit has baffles and the intake to the baghouse is on the sides of the pit) was applied to this area. A capture efficiency of 100% was applied to the headhouse & internal handling equipment (EP-05) which is also controlled by the same baghouse.

The following table provides an emissions summary for this project. Existing potential emissions were taken from Construction Permit 1191-009. Existing actual emissions were taken from the installation's 2016 EIQ. The potential emissions of the application represent the emissions of all equipment and activities assuming continuous operation (8760 hours per year). The conditioned potential emissions include emissions from sources that will limit their production to ensure compliance with the annual emission limit. Conditioned potential emissions account for a voluntary annual PM<sub>10</sub> emission limit of 15.0 tons per year for the entire facility in order to avoid refined modeling according to 10 CSR 10-6.060 (6)(B)3. Potential emissions of PM are above de minimis but below major source levels. There are no modeling requirements for PM.

**Table 3: Emissions Summary (tpy)**

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions <sup>a</sup>	Existing Actual Emissions (2016 EIQ)	Potential Emissions of the Project	New Installation Conditioned Potential
PM	25.0	60.2	N/D	883.16	51.03
PM <sub>10</sub>	15.0	29.4	0.79	259.61	<15.0
PM <sub>2.5</sub>	10.0	N/D	0.13	33.38	1.93
SO <sub>x</sub>	40.0	N/A	N/A	N/A	N/A
NO <sub>x</sub>	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
GHG (CO <sub>2</sub> e)	N/A	N/A	N/A	N/A	N/A
GHG (mass)	N/A	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; N/D = Not Determined

<sup>a</sup>As stated in Permit 1191-009

## 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.

## APPLICABLE REQUIREMENTS

Bunge Corporation 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

- *Operating Permits* are not required because the installation's emissions are conditioned below de minimis levels
- *Start-Up, Shutdown, and Malfunction Conditions*, 10 CSR 10-6.050
- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
  - Per 10 CSR 10-6.110(4)(B)2.B(II) and (4)(B)2.C(II) a full EIQ is required for the first full calendar year the equipment (or modifications) approved by this permit are in operation.
- *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 storage bin vents' potential emission rate of 15.0 pounds per hour of PM is less than 71.16 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*, it is recommended that this permit be granted with special conditions.

## PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated October 17, 2016, received October 21, 2016, designating Bunge Corporation as the owner and operator of the installation.

## Attachment A – PM<sub>10</sub> Compliance Worksheet

Bunge Corporation  
 Butler County, S5, T24N, R7E  
 Project Number: 2016-10-032  
 Installation ID Number: 023-0040  
 Permit Number: **032017-003**

This sheet covers the period from \_\_\_\_\_ to \_\_\_\_\_  
 (month, year) (month, year)

Month/Year	Emission Units		1 Month Total PM <sub>10</sub> Emissions	1 Month Total PM <sub>10</sub> Emissions	Previous Month's 12 Month Total	Previous Year's 1 month Total	12 month Total PM <sub>10</sub> Emissions
C1	C2	C3	C4	C5	C6	C7	C8
	Amount of grain (tons) received	Composite Emission Factor (lbs. PM <sub>10</sub> per tons grain received)	Monthly PM <sub>10</sub> Emissions (lbs.)	Monthly PM <sub>10</sub> Emissions (tons)	12 month Rolling Total PM <sub>10</sub> Emissions (tons)	Monthly PM <sub>10</sub> Emissions (tons)	12 month Rolling Total PM <sub>10</sub> Emissions (tons)
<i>Example</i>	25,000	0.0988	2,470	1,235			
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- Instructions:
- C2 = the total tons of grain received during the month and year indicated in C1
- C3 = 0.0988 (lbs./ tons), the composite emission factor for installation
- C4 = C2 × C3
- C5 = C4 ÷ 2000
- C6 = the 12 month rolling total PM<sub>10</sub> emissions from the previous month (C8 from previous month)
- C7 = the monthly total PM<sub>10</sub> emissions from the previous year
- C8 = C5 + C6 – C7 **Note: A value less than 15.0 tons is necessary for continued compliance**

## Attachment B - Truck Receiving Worksheet

Bunge Corporation  
 Butler County, S5, T24N, R7E  
 Project Number: 2016-10-032  
 Installation ID Number: 023-0040  
 Permit Number: **032017-003**

This sheet covers the month of \_\_\_\_\_  
 (month, year)

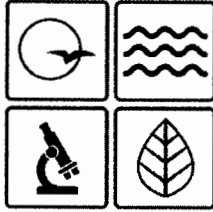
Grain Received by Truck (tons)	Grain Received by Straight Truck (tons)	
<sup>3</sup> Cumulative Grain Received by Truck (tons)		
<sup>4</sup> Cumulative Grain Received by Straight Truck (tons)		
<sup>5</sup> Cumulative Percent Grain Received by Straight Truck		

- <sup>1</sup> The current month's Grain Received by Truck (Hopper and Straight).
- <sup>2</sup> The current month's Grain Received by Straight Truck.
- <sup>3</sup> Cumulative Grain Received by Truck calculated by summing this month's Grain Received by Truck with the previous eleven month's.
- <sup>4</sup> Cumulative Grain Received by Straight Truck calculated by summing this month's Grain Received by Straight Truck with the previous eleven month's.
- <sup>5</sup> Cumulative Percent Grain Received by Straight Truck calculated by dividing the Cumulative Grain Received by Straight Truck by the Cumulative Grain Received by Truck and multiplying the quotient by 100. A total not exceeding 10.0% is necessary for compliance.

## APPENDIX A

### Abbreviations and Acronyms

<b>%</b> .....percent	<b>Mgal</b> .....1,000 gallons
<b>°F</b> .....degrees Fahrenheit	<b>MW</b> .....megawatt
<b>acfm</b> .....actual cubic feet per minute	<b>MHDR</b> .....maximum hourly design rate
<b>BACT</b> .....Best Available Control Technology	<b>MMBtu</b> ....Million British thermal units
<b>BMPs</b> .....Best Management Practices	<b>MMCF</b> .....million cubic feet
<b>Btu</b> .....British thermal unit	<b>MSDS</b> .....Material Safety Data Sheet
<b>CAM</b> .....Compliance Assurance Monitoring	<b>NAAQS</b> ....National Ambient Air Quality Standards
<b>CAS</b> .....Chemical Abstracts Service	<b>NESHAPs</b> National Emissions Standards for Hazardous Air Pollutants
<b>CEMS</b> .....Continuous Emission Monitor System	<b>NO<sub>x</sub></b> .....nitrogen oxides
<b>CFR</b> .....Code of Federal Regulations	<b>NSPS</b> .....New Source Performance Standards
<b>CO</b> .....carbon monoxide	<b>NSR</b> .....New Source Review
<b>CO<sub>2</sub></b> .....carbon dioxide	<b>PM</b> .....particulate matter
<b>CO<sub>2e</sub></b> .....carbon dioxide equivalent	<b>PM<sub>2.5</sub></b> .....particulate matter less than 2.5 microns in aerodynamic diameter
<b>COMS</b> .....Continuous Opacity Monitoring System	<b>PM<sub>10</sub></b> .....particulate matter less than 10 microns in aerodynamic diameter
<b>CSR</b> .....Code of State Regulations	<b>ppm</b> .....parts per million
<b>dscf</b> .....dry standard cubic feet	<b>PSD</b> .....Prevention of Significant Deterioration
<b>EIQ</b> .....Emission Inventory Questionnaire	<b>PTE</b> .....potential to emit
<b>EP</b> .....Emission Point	<b>RACT</b> .....Reasonable Available Control Technology
<b>EPA</b> .....Environmental Protection Agency	<b>RAL</b> .....Risk Assessment Level
<b>EU</b> .....Emission Unit	<b>SCC</b> .....Source Classification Code
<b>fps</b> .....feet per second	<b>scfm</b> .....standard cubic feet per minute
<b>ft</b> .....feet	<b>SDS</b> .....Safety Data Sheet
<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	
<b>m/s</b> .....meters per second	



Missouri Department of dnr.mo.gov

# NATURAL RESOURCES

Eric R. Greitens, Governor

Carol S. Comer, Director

**MAR 07 2017**

Mr. Billy Austin  
Facility Manager  
Bunge Corporation  
3090 Hwy B  
Poplar Bluff, MO 63901

RE: New Source Review Permit - Project Number: 2016-10-032

Dear Mr. Austin:

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 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.

This permit may include requirements with which you may not be familiar. If you would like the department to meet with you to discuss how to understand and satisfy the requirements contained in this permit, an appointment referred to as a Compliance Assistance Visit (CAV) can be set up with you. To request a CAV, please contact your local regional office or fill out an online request. The regional office contact information can be found at the following website: <http://dnr.mo.gov/regions/>. The online CAV request can be found at <http://dnr.mo.gov/cav/compliance.htm>.

If you were adversely affected by this permit decision, you may be entitled to pursue an appeal before the administrative hearing commission pursuant to Sections 621.250 and 643.075.6 RSMo. To appeal, you must file a petition with the administrative hearing commission within thirty 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 administrative hearing commission, whose contact information is: Administrative Hearing Commission, United States Post Office Building, 131 West High Street, Third Floor, P.O. Box 1557, Jefferson City, Missouri 65102, phone: 573-751-2422, fax: 573-751-5018, website: [www.oa.mo.gov/ahc](http://www.oa.mo.gov/ahc).



Mr. Billy Austin  
Page Two

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:kkj

Enclosures

c: Southeast Regional Office  
PAMS File: 2016-10-032

Permit Number: 032017-003