

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: 092016-004

Project Number: 2016-03-036  
Installation Number: 013-0023

Parent Company: Butler Milling & Sales

Parent Company Address: P.O. Box 100, Butler, MO 64730

Installation Name: Butler Milling & Sales

Installation Address: 707 Rice Road, Butler, MO 64730

Location Information: Bates County, S22, T40N/S, R31E/W

Application for Authority to Construct was made for:  
Addition of a pelletizing line, mixer and oat processing line. The pelletizing line was constructed prior to a receipt of a construction permit from the Missouri Department of Natural Resources. Obtaining this permit is a part of remedial action required by the Missouri Air Pollution Control Program. 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.

Handwritten signature of Daronn A. Williams in black ink.

Prepared by  
Daronn A. Williams  
New Source Review Unit

Handwritten signature of Kyna Moore in black ink.

Director or Designee  
Department of Natural Resources

SEP 07 2016

Effective Date

**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 Enforcement and Compliance Section of 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 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."*

Butler Milling & Sales

Bates County, S22, T40N/S, R31E/W

1. PM<sub>10</sub> Emission Limitation

- A. Butler Milling & Sales shall emit less than 15.0 tons of PM<sub>10</sub> in any consecutive 12-month period from emission points (EPs) listed in Table 1.

Table 1: Summary of Project Emission Sources

EP#	Description	MHDR
EP-9M	Mixer 2 for Elevator #4	24 tons per hour
EP-10	Cold Pellet Leg	10 tons per hour
EP-14	Pellet Mill	10 tons per hour
EP-15	Pellet Mill Cooler With Cyclone	10 tons per hour
EP-16	Hot Pellet Leg	10 tons per hour
EP-18	Loadout	10 tons per hour
EP-19	Oat Receiving Pit	25 tons per hour
EP-20	Oat Storage	25 tons per hour
EP-21	Oat Storage Bin Loadout	100 tons per hour
EP-22	Auger Fed Oat De-huller	1 ton per hour
EP-23	Oat Leg	25 tons per hour

- 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. Control Device Requirement-Cyclone

- A. Butler Milling & Sales shall control emissions from the pellet cooler (EP-15) using a cyclone as specified in the permit application.
- B. The cyclone shall be operated and maintained in accordance with the manufacturer's specifications. The cyclone 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.

**SPECIAL CONDITIONS:**

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

- C. Butler Milling & Sales shall monitor and record the operating pressure drop across the cyclone at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
  - D. Butler Milling & Sales shall maintain an operating and maintenance log for the cyclone 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.
3. Record Keeping and Reporting Requirements
- A. Butler Milling & Sales 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. Butler Milling & Sales 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: 2016-03-036

Installation ID Number: 013-0023

Permit Number: **092016-004**

Installation Address:

Butler Milling & Sales  
707 Rice Road  
Butler, MO 64730

Parent Company:

Butler Milling & Sales  
P.O. Box 100  
Butler, MO 64730

Bates County, S22, T40N/S, R31E/W

REVIEW SUMMARY

- Butler Milling & Sales has applied for authority to install a pelletizing line and oat processing line.
- The application was deemed complete on March 16, 2016.
- HAP emissions are not expected from the proposed equipment.
- None of the NESHAPs or currently promulgated MACT regulations apply to this installation.
- A cyclone is being used to control the particulate emissions from the pellet cooler (EP-15).
- 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 and potential emissions of PM are above the de minimis level, but below major source levels.
- This installation is located in Bates County, an attainment area for all other 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.
- 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.
- A Basic Operating Permit application is required for this installation within 30 days of commencement of operations.
- Approval of this permit is recommended with special conditions.

## INSTALLATION DESCRIPTION

Butler Milling, LLC purchased this site from Mars Petcare in 2009 and this site is now known as Butler Milling & Sales (Butler). Mars Petcare manufactured pet food at this site. Butler produces animal feed and pet food is no longer manufactured at this site. Most of the equipment Mars Petcare used at this site was transferred to Butler. The animal feed is transported out by bulk truck.

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

Table 2: Permit History

Permit Number	Description
0392-003	Pet food operation with MFA/Hubbard Pet Food Venture as owner.

## PROJECT DESCRIPTION

Butler has submitted an Application for Authority to Construct in response to a request by the Kansas City Regional Office because new equipment was constructed prior to a receipt of a construction permit from the Missouri Department of Natural Resources. This new equipment includes a pelletizing line, which is rated at 10 tons per hour, and a mixer (Mixer 2), which is rated at 24 tons per hour. The pelletizing line was constructed in the spring of 2014 and Mixer 2 (EP-9M) was constructed in January 2016. The pelletizing line includes the following emission sources: pellet mill (EP-14), hot pellet leg (EP-16), pellet cooler (EP-15), cold pellet leg (EP-10) and pellet loadout (EP-18). The pellet cooler is equipped with a cyclone. The cyclone control efficiency was not evaluated during the review of this project because a controlled emission factor that includes the use of a cyclone (SCC 3-02-008-16) was used to calculate its emissions. Obtaining this permit is a part of remedial action required by the Missouri Air Pollution Control Program.

Butler is also taking this opportunity to add an oat processing line and to have their equipment list updated because they have dismantled a number of emission units. The oat processing line includes the following emission sources: oat pit (EP-19), oat leg (EP-23), oat storage (EP-20), de-huller (EP-22) and the oat storage bins/loadout (EP-21). The oat processing line has a handling capacity of 25 tons per hour and a load out capacity of 100 tons per hour. The emission sources of this project include the pelletizing line, Mixer 2, and the oat processing line, which are listed in Table 1.

Butler has removed the following emission units that were listed on their EIQ: extruder #1 (EP-07), dryer (EP-8), and hamermill #2 (EP-12). The installation's existing emissions sources are described below.

Table 3: Summary of Installation's Existing Emission Sources

EP#	Description	MHDR
1	Pit	50 tons/hour
2	Receiving Leg 1	50 tons/hour
3	Mixing Leg 2	60 tons/hour
3M	Mixer 1	60 tons/hour
4	Hammer Mill	12 tons/hour
5	Rail Leg	10 tons/hour
5B	Bins	10 tons/hour
5T	Totes/bags	10 tons/hour
6	Boiler	5.25 MMBtu/hr
9	Elevator #4	48 tons/hour
11	Bins	60 tons/hour
13	Rail Pit	10 tons/hour

#### EMISSIONS/CONTROLS EVALUATION

The emission factors and control efficiencies used in this analysis were obtained from the EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, section 9.9.1, *Grain Elevators & Processes*, May 2003.

The following table provides an emissions summary for this project. Existing potential emissions were calculated during the review of this project. Butler has not submitted an EIQ to the Air Pollution Control Program since taking ownership of this site. As a result, the existing actual emissions of this site are unknown. Potential emissions of the application represent the potential of the equipment listed in Table 1, assuming continuous operation (8760 hours per year). Conditioned potential emissions of the project are based on a voluntary 15.0 ton per year PM<sub>10</sub> emissions limit to avoid modeling requirements. Installation potential emissions are the summation of potential emissions of all emission units at this site and include the voluntary PM<sub>10</sub> emissions limit of this project.

Table 4: Emissions Summary (tons per year)

Pollutant	Regulatory De Minimis Levels	Existing Potential Emissions	Existing Actual Emissions	Potential Emissions of the Project	Conditioned Potential Emissions of the Project	Installation Potential Emissions
PM	25.0	74.55	N/D	108.64	37.22	111.77
PM <sub>10</sub>	15.0	30.72	N/D	43.78	< 15.00	45.72
PM <sub>2.5</sub>	10.0	10.61	N/D	27.09	9.28	19.89
SO <sub>x</sub>	40.0	0.01	N/D	N/A	N/A	0.01
NO <sub>x</sub>	40.0	2.25	N/D	N/A	N/A	2.25

VOC	40.0	0.12	N/D	N/A	N/A	0.12
CO	100.0	1.89	N/D	N/A	N/A	1.89

Pollutant	Regulatory De Minimis Levels	Existing Potential Emissions	Existing Actual Emissions	Potential Emissions of the Project	Conditioned Potential Emissions of the Project	Installation Potential Emissions
GHG (CO <sub>2</sub> e)	75,000 / 100,000	2,721.37	N/D	N/A	N/A	2721.37
GHG (mass)	0.0 / 100.0 / 250.0	2705.40	N/D	N/A	N/A	2705.40
HAPs	10.0/25.0	0.043	N/D	N/A	N/A	0.04

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

#### 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 and potential emissions of PM are above the de minimis level, but below major source levels.

#### APPLICABLE REQUIREMENTS

Butler Milling & Sales 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
  - 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.
- *Operating Permits*, 10 CSR 10-6.065
  - A Basic Operating Permit application is required for this installation within 30 days of equipment startup.

- *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

#### 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 February 4, 2016, received March 16, 2016, designating Butler Milling & Sales as the owner and operator of the installation.

Attachment A: PM<sub>10</sub> Annual Emissions Tracking Sheet  
 Butler Milling & Sales (013-0023)  
 Project Number: 2016-03-036  
 Permit Number: **092016-004**

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

	(a)	(b)	(c)
Step Description	Monthly Throughput (tons)	Composite Emission Factor (lb/ton)	Monthly PM <sub>10</sub> Emissions (lbs)
Pelletizing Line		0.603	
Oat Processing Line		0.178	
<b>(d) Total Monthly PM<sub>10</sub> Emissions (lbs)</b>			
<b>(e) Total Monthly PM<sub>10</sub> Emissions (tons)</b>			
<b>(f) 12-Month PM<sub>10</sub> Emissions (h) from Previous Month's Attachment A (tons)</b>			
<b>(g) Total Monthly PM<sub>10</sub> Emissions (e) from Previous Year's Attachment A (tons)</b>			
<b>(h) Current 12-Month PM<sub>10</sub> Emissions (tons) (h) = [(e) + (f) - (g)]</b>			

- (a) Record this month's throughput from each line.
- (c) Multiply the Monthly Throughput (a) by the respective Composite Emission Factor (b).
- (d) Sum Monthly PM<sub>10</sub> Emissions together to get the Total Monthly PM<sub>10</sub> Emissions.
- (e) Divide the Total Monthly PM<sub>10</sub> Emissions (d) by 2,000.
- (f) Record the 12-Month PM<sub>10</sub> Emissions (h) from the Previous Month's Attachment A.
- (g) Record the Total Monthly PM<sub>10</sub> Emissions (e) from the Previous Year's Attachment A.
- (h) Calculate the Current 12-Month PM<sub>10</sub> Emissions. A total less than 15.0 tons of PM<sub>10</sub> indicates compliance.

## APPENDIX A

### Abbreviations and Acronyms

<b>%</b> .....	percent	<b>m/s</b> .....	meters per second
<b>°F</b> .....	degrees Fahrenheit	<b>Mgal</b> .....	1,000 gallons
<b>acfm</b> .....	actual cubic feet per minute	<b>MW</b> .....	megawatt
<b>BACT</b> .....	Best Available Control Technology	<b>MHDR</b> .....	maximum hourly design rate
<b>BMPs</b> .....	Best Management Practices	<b>MMBtu</b> .....	Million British thermal units
<b>Btu</b> .....	British thermal unit	<b>MMCF</b> .....	million cubic feet
<b>CAM</b> .....	Compliance Assurance Monitoring	<b>MSDS</b> .....	Material Safety Data Sheet
<b>CAS</b> .....	Chemical Abstracts Service	<b>NAAQS</b> .....	National Ambient Air Quality Standards
<b>CEMS</b> .....	Continuous Emission Monitor System	<b>NESHAPs</b> .....	National Emissions Standards for Hazardous Air Pollutants
<b>CFR</b> .....	Code of Federal Regulations	<b>NO<sub>x</sub></b> .....	nitrogen oxides
<b>CO</b> .....	carbon monoxide	<b>NSPS</b> .....	New Source Performance Standards
<b>CO<sub>2</sub></b> .....	carbon dioxide	<b>NSR</b> .....	New Source Review
<b>CO<sub>2e</sub></b> .....	carbon dioxide equivalent	<b>PM</b> .....	particulate matter
<b>COMS</b> .....	Continuous Opacity Monitoring System	<b>PM<sub>2.5</sub></b> .....	particulate matter less than 2.5 microns in aerodynamic diameter
<b>CSR</b> .....	Code of State Regulations	<b>PM<sub>10</sub></b> .....	particulate matter less than 10 microns in aerodynamic diameter
<b>dscf</b> .....	dry standard cubic feet	<b>ppm</b> .....	parts per million
<b>EIQ</b> .....	Emission Inventory Questionnaire	<b>PSD</b> .....	Prevention of Significant Deterioration
<b>EP</b> .....	Emission Point	<b>PTE</b> .....	potential to emit
<b>EPA</b> .....	Environmental Protection Agency	<b>RACT</b> .....	Reasonable Available Control Technology
<b>EU</b> .....	Emission Unit	<b>RAL</b> .....	Risk Assessment Level
<b>fps</b> .....	feet per second	<b>SCC</b> .....	Source Classification Code
<b>ft</b> .....	feet	<b>scfm</b> .....	standard cubic feet per minute
<b>GACT</b> .....	Generally Available Control Technology	<b>SDS</b> .....	Safety Data Sheet
<b>GHG</b> .....	Greenhouse Gas	<b>SIC</b> .....	Standard Industrial Classification
<b>gpm</b> .....	gallons per minute	<b>SIP</b> .....	State Implementation Plan
<b>gr</b> .....	grains	<b>SMAL</b> .....	Screening Model Action Levels
<b>GWP</b> .....	Global Warming Potential	<b>SO<sub>x</sub></b> .....	sulfur oxides
<b>HAP</b> .....	Hazardous Air Pollutant	<b>SO<sub>2</sub></b> .....	sulfur dioxide
<b>hr</b> .....	hour	<b>tph</b> .....	tons per hour
<b>hp</b> .....	horsepower	<b>tpy</b> .....	tons per year
<b>lb</b> .....	pound	<b>VMT</b> .....	vehicle miles traveled
<b>lbs/hr</b> .....	pounds per hour	<b>VOC</b> .....	Volatile Organic Compound
<b>MACT</b> .....	Maximum Achievable Control Technology		
<b>µg/m<sup>3</sup></b> .....	micrograms per cubic meter		



Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

## DEPARTMENT OF NATURAL RESOURCES

[www.dnr.mo.gov](http://www.dnr.mo.gov)

**SEP 07 2016**

Mr. Jose Velez  
General Manager  
Butler Milling & Sales  
P.O. Box 100  
Butler, MO 64730

RE: New Source Review Permit - Project Number: 2016-03-036

Dear Mr. Velez:

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 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.

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).



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Mr. Jose Velez  
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If you have any questions regarding this permit, please do not hesitate to contact Daronn A. Williams, 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:dwj

Enclosures

c: Kansas City Regional Office  
PAMS File: 2016-03-036

Permit Number: 092016-004