



Missouri Department of dnr.mo.gov

NATURAL RESOURCES

Eric R. Greitens, Governor

Carol S. Comer, Director

MAY 30 2018

Mr. Nick Henderson
Health, Safety, and Environmental Manager
Heartland Pet Foods Manufacturing, Inc.
8101 East 32nd Street
Joplin, MO 64804

RE: New Source Review Permit Amendment - Permit Number: 052013-007C
Project Number: 2018-02-015; Installation Number: 097-0171

Dear Mr. Henderson:

On February 13, 2018 the Air Pollution Control Program received your request to amend permit 052013-007B in order to reflect the equipment onsite as it was actually constructed. During a recent site visit of the facility, several discrepancies were identified between as-built control devices at the facility and the descriptions in permit number 052013-007B. The following differences were noted:

- Pneumatic truck unloading (EP-1, EP-2, and EP-3) is not equipped with a baghouse control as required by Special Condition 2 in permit 052013-007B. Instead pneumatic unloading goes straight to the silos which are equipped with bin vent filters. The emission calculations in permit 052013-007B had no emissions from EP-1, EP-2, and EP-3; however Special Condition 2 required they be controlled by a baghouse. Special Condition 2 of this amendment does not require that either EP-1, EP-2 or EP-3 be controlled with a baghouse.
- The silo bin vents (EP-4) are equipped with bin vent fabric filters. In permit 052013-007B they were listed as requiring a baghouse control by Special Condition 2. As part of this project a control efficiency of 99% for PM, PM₁₀, and PM_{2.5} was applied to the emission calculations for bin vent filters. Special Condition 3 of this amendment requires operation of bin vent filters on EP-4.
- The super sack unloader (EP-7a) is controlled with a fabric filter instead of a baghouse. Loading totes from bags (EP-7b) is not equipped with a baghouse as required by Special Condition 2 in permit 052013-007B. The combined MHDR of EP-7a and EP-7b is 2.5 tons per hour. Emissions for this project were calculated such that only loading totes from bags occurred and no control efficiency was applied. This is the conservative worst case scenario. Special Condition 2 of this amendment does not require that either EP-7a or EP-7b be controlled with a baghouse.



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- The dryer fines for each production line (EP-18, EP-19 and EP-20) are controlled by two baghouses instead of one as required by Special Condition 2 of this permit. Special Condition 2 of this amendment clarifies that two baghouses are being used to control emissions.

Permit 052013-007B is being amended to reflect the control device changes and modify the composite emission factor for the PM_{2.5} emission tracking. Heartland Pet Foods Manufacturing, Inc. has requested to maintain the voluntary PM_{2.5} emission limitation below the de minimis level in order to avoid dispersion modeling requirements found in 10 CSR 10-6.060 Section (6). The composite PM_{2.5} emission factor is now 0.081 lb/ton.

An updated potential to emit from the installation can be found below in Table 1.

Table 1: Potential to Emit

Pollutant	Regulatory <i>De Minimis</i> Levels	Potential Emissions from Permit # 052013- 007B	Potential Emissions of the Application	*Conditioned Potential Emissions of the Application
PM	25.0	101.4	98.17	86.21
PM ₁₀	15.0	16.4	14.26	12.53
PM _{2.5}	10.0	12.9	11.39	<10.0
SO _x	40.0	0.184	0.184	0.184
NO _x	40.0	30.74	30.74	30.74
VOC	40.0	1.69	1.69	1.69
CO	100.0	25.82	25.82	25.82
GHG (CO ₂ e)	100,000	37,110	37,110	37,110
GHG (mass)	250.0	36,888	36,888	36,888
HAPs	10.0/25.0	0.580	0.580	0.580

*Potential particulate emissions of PM and PM₁₀ account for a voluntary PM_{2.5} emission limit below the de minimis level. However, all emissions of other pollutants are based on continuous operation (8,760 hour per year).

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,

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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.aa.mo.gov/ahc.

If you have any questions regarding this amendment/correction, please do not hesitate to contact Chad Stephenson, at the department's 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
Permits Section Chief

KBH:csj

Enclosures

c: Southwest Regional Office
PAMS File: 2018-02-015

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SPECIAL CONDITIONS:

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

The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."

Heartland Pet Foods Manufacturing, Inc.
Jasper County, S14, T27N, R32W

1. **Superseding Condition**
The conditions of this permit supersede Special Condition 2 and Special Condition 4 found in the previously issued construction permit 052013-007B issued by the Air Pollution Control Program.
2. **Control Device Requirement-Baghouse**
 - A. Heartland Pet Foods Manufacturing, Inc. shall control emissions from the equipment in Table 3 using baghouses as specified in the permit application.

Table 2: Equipment Requiring Baghouse Control

Emission Point	Emission Unit	Description
EP-06	EU-6	Pre-grind Hammer mill
EP-08	EU-8	Micro-ingredient Mixing
EP-09	EU-9	Hammer mill
EP-10	EU-10	Hammer mill
EP-11	EU-11	Hammer mill
EP-18	EU-18	Dryer Fines Collection 1 (2 baghouses)
EP-19	EU-19	Dryer Fines Collection 2 (2 baghouses)
EP-20	EU-20	Dryer Fines Collection 3 (2 baghouses)
EP-25	EU-25	Finish Product Fines Collection 1
EP-26	EU-26	Finish Product Fines Collection 2
EP-27	EU-27	Finish Product Fines Collection 3

- B. The baghouses 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 the Department of Natural Resources' employees may easily observe them.
- C. Replacement filters for the baghouses shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e.

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SPECIAL CONDITIONS:

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

temperature limits, acidic and alkali resistance, and abrasion resistance).

- D. Heartland Pet Foods Manufacturing, Inc. shall monitor and record the operating pressure drop across the baghouses at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
 - E. Heartland Pet Foods Manufacturing, Inc. 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.
3. Control Device Requirement – Bin Vent Filter
- A. Heartland Pet Foods Manufacturing, Inc. shall control emissions from pneumatic truck unloading and the silos (EP-4) using bin vent filter as specified in the permit application.
 - B. The bin vent filter shall be operated and maintained in accordance with the manufacturer's specifications.
 - C. Replacement filters shall be kept on hand at all times. The filters shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).
 - D. Heartland Pet Foods Manufacturing, Inc. shall maintain a copy of the bin vent filter manufacturer's performance warranty on site.
 - E. Heartland Pet Foods Manufacturing, Inc. shall maintain an operating and maintenance log for the bin vent filter 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. PM_{2.5} Emission Limitation
- A. Heartland Pet Foods Manufacturing, Inc. shall emit less than 10.0 tons of PM_{2.5} in any consecutive 12-month period from the equipment shown in Table 3. Start-up,

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shutdown, and malfunction emissions as reported to the Air Pollution Control Program's Compliance shall be included in the limit.

- 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.

Table 3: Project Emission Units

Emission Unit	Description
FS-1B	Truck Unloading
FS-1B	Truck Unloading
EU-01	Pneumatic Truck Unloading (goes straight to silos)
EU-02	Pneumatic Truck Unloading (goes straight to silos)
EU-03	Pneumatic Truck Unloading (goes straight to silos)
EU-04	Silo Bin Vents
EU-05	Grain Conveyance
EU-06	Pre-grind Baghouse
EU-07A	Super sack Unloader
EU-07B	Load Tote from Bags
EU-08	Micro-ingredient Mixing
EU-09	Hammer mill
EU-10	Hammer mill
EU-11	Hammer mill
EU-12	Wet pickup cyclone 1
EU-13	Wet pickup cyclone 2
EU-14	Wet pickup cyclone 3
EU-15	Dryer Dust Cyclone 1
EU-16	Dryer Dust Cyclone 2
EU-17	Dryer Dust Cyclone 3
EU-18	Dryer Fines Collection 1
EU-19	Dryer Fines Collection 2
EU-20	Dryer Fines Collection 3
EU-21	Coating cooler fines cyclone 1
EU-22	Coating cooler fines cyclone 2
EU-23	Coating cooler fines cyclone 3
EU-24	Finished Product Bins
EU-25	Finish Product Fines Collection 1
EU-26	Finish Product Fines Collection 2

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

Emission Unit	Description
EU-27	Finish Product Fines Collection 3
EU-28	Boiler 1
EU-29	Boiler 2
EU-30	Haul Roads
EU-151	Dryer Combustion 1
EU-161	Dryer Combustion 2
EU-171	Dryer Combustion 3