

Missouri Department of dnr.mo.gov

NATURAL RESOURCES

Michael L. Parson, Governor

Carol S. Comer, Director

October 26, 2020

Amanda Wiley
People / Safety Manager
Weaver Popcorn Bulk
645 West Carmel Drive, Suite 180
Carmel, IN 46032

RE: New Source Review Permit - Project Number: 2020-02-042

Dear Amanda Wiley:

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,



Amanda Wiley

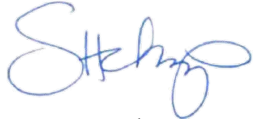
Page Two

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.ao.mo.gov/ahc.

If you have any questions regarding this permit, please do not hesitate to contact Jared Rhodes, 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

A handwritten signature in blue ink, appearing to read "S Heckenkamp".

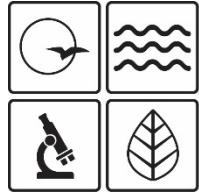
Susan Heckenkamp
New Source Review Unit Chief

SH:ja

Enclosures

c: Southeast Regional Office
PAMS File: 2020-02-042

Permit Number: 102020-010



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: 102020-010 Project Number: 2020-02-042
Installation Number: 069-0083

Parent Company: Weaver Popcorn Bulk, LLC

Parent Company Address: 645 West Carmel Drive, Suite 180, Carmel, IN 46032

Installation Name: Weaver Popcorn Bulk

Installation Address: 903 Falcon Drive, Malden, MO 63863


Location Information: Dunklin County, S28, T23N, R10E

Application for Authority to Construct was made for:

The installation of a new grain processing facility in Malden, MO that only handles corn.

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.



Director or Designee
Department of Natural Resources

October 26, 2020
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 to 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 (3)(E). "Conditions required by permitting authority."

Weaver Popcorn Bulk
 Dunklin County, S28, T23N, R10E

1. **Best Management Practices Requirement**
 Installation shall control fugitive emissions from all of the haul roads and vehicular activity areas at this site by performing BMPs as defined in Attachment AA.

2. **Capture Device Requirements-Hoods**
 - A. Weaver Popcorn Bulk shall use hoods to capture emissions from the Cimbria Delta 108 seed cleaner (EU-2), Cimbria TS4500 destoner (EU-3), Cimbria Sea Chromex color sorter (EU-4), and all grain conveying equipment (EU-5) and vent the hoods to the MAC/Schenck Process Dust Collector (DC-1).

 - B. Weaver Popcorn Bulk shall use hoods to capture emissions from the Rethceif form-fill-and-seal bagger (EU-6) and Magnum Systems bulk bagger IBC 3000 (EU-7) and vent the hoods to the Donaldson Torit Dust Collector (DC-2).

 - C. A hood is a shaped inlet to a pollution control system that does not totally surround emissions from an emission unit.

 - D. The maximum distance between the hood inlet and the emissions source shall not exceed 1.5 times the diameter of the exhaust duct.

3. **Control Device Requirement-Baghouses/Dust Collectors**
 - A. Weaver Popcorn Bulk shall control emissions captured from the emission sources listed in Table 1 using the specified baghouses/dust collectors.

Table 1: Emission Sources required to vent to Baghouses/Dust Collectors

Emission Source	Description	Control Device
EU-2	Cimbria Delta 108 seed cleaner	DC-1: MAC/Schenck Process Dust Collector
EU-3	Cimbria TS4500 destoner	
EU-4	Cimbria Sea Chromex color sorter	
EU-5	Grain conveyance equipment	
EU-6	Rethceif form-fill-and-seal bagger	DC-2: Donaldson Torit Dust Collector
EU-7	Magnum Systems bulk bagger IBC 3000	

SPECIAL CONDITIONS:

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

- B. The baghouses/dust collectors shall be operated and maintained in accordance with the manufacturer's specifications.
 - C. The baghouses/dust collectors 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.
 - D. Replacement filters for the baghouses/dust collectors 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).
 - E. Weaver Popcorn Bulk shall monitor and record the operating pressure drop across the baghouses/dust collectors at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
 - F. Weaver Popcorn Bulk shall maintain a copy of the baghouses/dust collectors manufacturer's performance warranty on site.
 - G. Weaver Popcorn Bulk shall maintain an operating and maintenance log for the baghouses/dust collectors 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. Annual Operational Limit-Grain Receiving
- A. Weaver Popcorn Bulk shall not receive more than 262,000 tons of grain in any consecutive 12-month rolling period.
 - B. Weaver Popcorn Bulk shall develop and use forms to demonstrate compliance with Special Condition 4.A. The forms shall contain at a minimum the following information,
 - 1) Installation name
 - 2) Installation ID
 - 3) Permit number
 - 4) Current month
 - 5) Current 12-month date range
 - 6) Amount of grain received during the current month
 - 7) Amount of grain received during the current month plus the previous 11 month grain totals
 - 8) Indication of compliance with Special Condition 4.A.

SPECIAL CONDITIONS:

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

5. Record Keeping and Reporting Requirements
 - A. Weaver Popcorn Bulk 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. Weaver Popcorn Bulk shall report to the Air Pollution Control Program's Compliance/Enforcement Section, by mail at P.O. Box 176, Jefferson City, MO 65102 or by email at AirComplianceReporting@dnr.mo.gov, 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 (5) REVIEW

Project Number: 2020-02-042
Installation ID Number: 069-0083
Permit Number: 102020-010

Installation Address:
Weaver Popcorn Bulk
903 Falcon Drive
Malden, MO 63863

Parent Company:
Weaver Popcorn Bulk, LLC
645 West Carmel Drive, Suite 180
Carmel, IN 46032

Dunklin County, S28, T23N, R10E

REVIEW SUMMARY

- Weaver Popcorn Bulk has applied for authority to construct a new corn processing facility in Malden, MO.
- The application was deemed complete on February 24, 2020.
- HAP emissions are expected from the combustion of propane. The PTE for HAPs are below their SMAL.
- None of the New Source Performance Standards (NSPS) apply to the installation.
- New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart DD, *Standards of Performance for Grain Elevators* does not apply to the installation because the storage capacity at this facility is below 2.5 million bushels of grain.
- None of the NESHAPs apply to this installation. None of the currently promulgated MACT regulations apply to the proposed equipment.
- Processing equipment has hoods vented to dust collectors to control PM, PM₁₀ and PM_{2.5} emissions from the equipment in this permit.
- 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 criteria pollutants are controlled below de minimis levels.
- This installation is located in Dunklin County, an attainment/unclassifiable 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.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

Weaver Popcorn Bulk’s Malden, MO facility is a grain processing operation that only handles corn. The facility receives grain from either rail car or hopper truck. The site has a grain storage capacity of 120 million pounds (2.14 million bushels assuming a bushel density of 56 pounds per bushel for corn). Weaver Popcorn Bulk’s grain processing equipment consists of a seed cleaner, destoner, and color sorter with a design capacity of 60,000 lb/hr. Following processing grain is prepared for shipment through one of two baggers. Since all grain is processed before packaging, the combined maximum packaging rate for the two packaging lines is limited to 60,000 lb/hr.

Weaver Popcorn Bulk uses hoods vented to dust collectors to capture and control particulate emissions from the grain processing and bagging equipment. Weaver Popcorn Bulk has requested a 262,000 ton per year limit on grain receiving to avoid ambient air quality modeling requirements. With these controls and this limit Weaver Popcorn Bulk’s Malden, MO facility has a potential to emit less than de minimis levels.

Weaver Popcorn Bulk is a new facility with no previous Air Pollution Control Program permits so they requested all emissions sources be included in this project. A list of the installation’s emission sources is provided in Table 2.

Table 2: Installation’s Emission Sources

Emission Source	Description	MHDR
EU-1	Grain receiving hopper truck (MHDR 400,000 lb/hr) (Limited to 262,000 tpy by Special Condition 4)	
EU-2	Cimbria Delta 108 seed cleaner	60,000 lb/hr
EU-3	Cimbria TS4500 destoner	60,000 lb/hr
EU-4	Cimbria Sea Chromex color sorter	60,000 lb/hr
EU-5	Grain conveyance equipment	60,000 lb/hr
EU-6	Rethceif form-fill-and-seal bagger	45,000 lb/hr
EU-7	Magnum Systems bulk bagger IBC 3000	60,000 lb/hr
EU-8	Grain receiving rail car (MHDR 160,000 lb/hr) (Limited to 262,000 tpy by Special Condition 4)	

Emission Source	Description	MHDR
EU-9	Storage Bins (Limited to 262,000 tpy by Special Condition 4)	
EU-10	Receiving haul roads in (loaded hopper truck)	673 ft
	Receiving haul roads out (empty hopper truck)	220 ft
	Shipping haul roads in (empty straight truck)	673 ft
	Shipping haul roads out (loaded straight truck)	220 ft
EU-11	Overhead propane heaters (7x)	80,000 BTU/hr

Uncontrolled potential emissions for the emission sources of this project exceed de minimis levels thus a permit is required to make the use of emission controls practicably enforceable.

EMISSIONS/CONTROLS EVALUATION

The emission factors 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 & Processes (May 2003)*. Weaver Popcorn Bulk indicated that the majority of the grain their Malden, MO facility receives by truck is received from hopper trucks, a 75% hopper and 25% straight truck split was used in PTE calculations without requiring tracking of truck type. A 50% control efficiency was applied to the grain receiving operations based on guidance found in the "Calculations Guidance Package: Grain Elevators" compiled, published, and distributed by the Air Permits Division Texas Commission on Environmental Quality. A 60% capture efficiency was applied to equipment that have hoods. Emissions from the haul roads and vehicular activity areas were calculated according to the procedures in AP-42, Section 13.2.2 "Unpaved Roads" (November, 2006). A 90% control efficiency for PM and PM₁₀ and a 74% control efficiency for PM_{2.5} were applied to the haul roads and vehicular activity areas emission calculations for the use of BMPs. The emissions from propane heaters were calculated using emission factors from AP-42, Section 1.5 "Liquefied Petroleum Gas Combustion" (July 2008). Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year.)

The following table provides an emissions summary for this project. Existing potential emissions are not applicable since this is a new installation. Existing actual emissions are not applicable since this is a new installation. Potential emissions without limits and controls represent the potential of the new equipment without practicably enforceable controls or limits, assuming continuous operation (8760 hours per year). Potential emissions with limits and controls represent the potential of the new equipment with practicably enforceable controls and limits, assuming continuous operation (8760 hours per year).

Table 3: Emissions Summary (tpy)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions	Potential Emissions w/o Limits and Controls	Potential Emissions with Limits and Controls
PM	25.0	N/A	N/A	277.2	42.8
PM ₁₀	15.0	N/A	N/A	84.9	15.0
PM _{2.5}	10.0	N/A	N/A	12.6	2.6
SO _x	40.0	N/A	N/A	0.006	0.006
NO _x	40.0	N/A	N/A	0.07	0.07
VOC	40.0	N/A	N/A	0.002	0.002
CO	100.0	N/A	N/A	0.03	0.03
HAPs	10.0/25.0	N/A	N/A	0.001	0.001

N/A = Not Applicable

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Conditioned potential emissions of PM are above de minimis but below major source levels. There are no modeling requirements for PM. Conditioned potential emissions of all other pollutants are controlled below de minimis levels and no refined modeling is required.

APPLICABLE REQUIREMENTS

Weaver Popcorn Bulk 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

- *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

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*, 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 January 16, 2020, received February 24, 2020, designating Weaver Popcorn Bulk, LLC as the owner and operator of the installation.

Attachment AA: Best Management Practices

Haul roads and vehicular activity areas shall be maintained in accordance with at least one of the following options when the plant is operating.

1. Pavement
 - A. The operator shall pave the area with materials such as asphalt, concrete or other materials approved by the Air Pollution Control Program. The pavement will be applied in accordance with industry standards to achieve control of fugitive emissions while the plant is operating.
 - B. Maintenance and repair of the road surface will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating.
 - C. The operator shall periodically wash or otherwise clean all of the paved portions of the haul roads as necessary to achieve control of fugitive emissions from these areas while the plant is operating.

2. Application of Chemical Dust Suppressants
 - A. The operator shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to unpaved areas.
 - B. The quantities of the chemical dust suppressant shall be applied and maintained in accordance with the manufacturer's recommendation (if available) and in sufficient quantities to achieve control of fugitive emissions from these areas while the plant is operating.
 - C. The operator shall record the time, date and the amount of material applied for each application of the chemical dust suppressant agent on the above areas. The operator shall keep these records with the plant for not less than five (5) years and make these records available to Department of Natural Resources' personnel upon request.

3. Application of Water-Documented Daily
 - A. The operator shall apply water to unpaved areas. Water shall be applied at a rate of 100 gallons per day per 1,000 square feet of unpaved or untreated surface area while the plant is operating.
 - B. Precipitation may be substituted for watering if the precipitation is greater than one quarter of one inch and is sufficient to control fugitive emissions.
 - C. Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads.
 - D. The operator shall record the date, volume of water application and total surface area of active haul roads or the amount of precipitation that day. The operators shall also record the rationale for not watering (e.g. freezing conditions or not operating).
 - E. The operator shall keep these records with the plant for not less than five (5) years, and the operator shall make these records available to Department of Natural Resources' personnel upon request.

APPENDIX A

Abbreviations and Acronyms

% percent	Mgal 1,000 gallons
°F degrees Fahrenheit	MW megawatt
acfm actual cubic feet per minute	MHDR maximum hourly design rate
BACT Best Available Control Technology	MMBtu Million British thermal units
BMPs Best Management Practices	MMCF million cubic feet
Btu British thermal unit	MSDS Material Safety Data Sheet
CAM Compliance Assurance Monitoring	NAAQS National Ambient Air Quality Standards
CAS Chemical Abstracts Service	NESHAPs National Emissions Standards for Hazardous Air Pollutants
CEMS Continuous Emission Monitor System	NO_xnitrogen oxides
CFR Code of Federal Regulations	NSPS New Source Performance Standards
CO carbon monoxide	NSR New Source Review
CO₂ carbon dioxide	PMparticulate matter
CO_{2e} carbon dioxide equivalent	PM_{2.5}particulate matter less than 2.5 microns in aerodynamic diameter
COMS Continuous Opacity Monitoring System	PM₁₀particulate matter less than 10 microns in aerodynamic diameter
CSR Code of State Regulations	ppmparts per million
dscf dry standard cubic feet	PSD Prevention of Significant Deterioration
EQ Emission Inventory Questionnaire	PTEpotential to emit
EP Emission Point	RACT Reasonable Available Control Technology
EPA Environmental Protection Agency	RAL Risk Assessment Level
EU Emission Unit	SCC Source Classification Code
fps feet per second	scfm standard cubic feet per minute
ft feet	SDS Safety Data Sheet
GACT Generally Available Control Technology	SIC Standard Industrial Classification
GHG Greenhouse Gas	SIP State Implementation Plan
gpm gallons per minute	SMAL Screening Model Action Levels
gr grains	SO_x sulfur oxides
GWP Global Warming Potential	SO₂ sulfur dioxide
HAP Hazardous Air Pollutant	SSM Startup, Shutdown & Malfunction
hr hour	tph tons per hour
hp horsepower	tpy tons per year
lb pound	VMT vehicle miles traveled
lbs/hr pounds per hour	VOC Volatile Organic Compound
MACT Maximum Achievable Control Technology	
µg/m³ micrograms per cubic meter	
m/s meters per second	