

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: 122017-001 Project Number: 2017-07-066
Installation Number: 033-0013

Parent Company: AGRIServices of Brunswick, LLC

Parent Company Address: 15000 Highway 24 West, Brunswick, MO 65236

Installation Name: AGRIServices of Brunswick, LLC

Installation Address: 15000 Highway 24 West, Brunswick, MO 65236

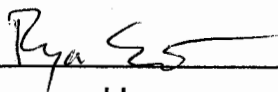
Location Information: Carroll County (S18, T53N, R20W)

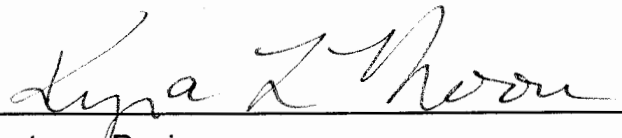
Application for Authority to Construct was made for:

The installation of additional grain handling equipment to allow for barge loading operations. 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
Ryan Schott
New Source Review Unit


Director or Designee
Department of Natural Resources

DEC 01 2017

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 startup 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 startup 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."

AGRIServices of Brunswick, LLC
Carroll County (S18, T53N, R20W)

1. PM₁₀ Emission Limitation

A. AGRIServices of Brunswick, LLC shall emit less than 15.0 tons of PM₁₀ in any consecutive 12-month period from the following emission points:

- 1) EP-28 Grain Handling
- 2) EP-29 Storage Bins (3)
- 3) EP-30 Grain Receiving
- 4) EP-31 Barge Loadout
- 5) EP-5 Haul Road (to EP-30)

B. AGRIServices of Brunswick, LLC shall develop and use forms to demonstrate compliance with Special Condition 1.A. The forms shall contain at a minimum the following information:

- 1) Installation name & ID number
- 2) Permit number
- 3) Current month & 12-month date range
- 4) Monthly throughput of grain handled by project emission points
- 5) Composite project emission factor (0.0301 lb PM₁₀/ton)
- 6) Total monthly PM₁₀ emissions
 - a) Calculated by multiplying the monthly throughput of grain by the composite project emission factor
- 7) 12 month rolling total for PM₁₀, including the sum of all startup, shutdown, and malfunction emissions, as reported to the Air Pollution Control Program's Compliance/Enforcement Section
- 8) Indication of compliance with Special Condition 1.A

2. Haul Road Watering

A. AGRIServices of Brunswick, LLC shall water haul roads whenever conditions exist which would cause visible fugitive emissions to enter the ambient air beyond the property boundary.

B. Watering may 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.

3. Haul Truck Requirement

AGRIServices of Brunswick, LLC shall receive all grain into EP-30 using hopper trucks.

SPECIAL CONDITIONS:

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

4. **Record Keeping and Reporting Requirements**
 - A. AGRIServices of Brunswick, LLC 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. AGRIServices of Brunswick, LLC 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 (6) REVIEW

Project Number: 2017-07-066
Installation ID Number: 033-0013
Permit Number: 122017 - 001

Installation Address:

AGRIServices of Brunswick, LLC
15000 Highway 24 West
Brunswick, MO 65236

Parent Company:

AGRIServices of Brunswick, LLC
15000 Highway 24 West
Brunswick, MO 65236

Carroll County (S18, T53N, R20W)

REVIEW SUMMARY

- AGRIServices of Brunswick, LLC has applied for authority to install additional grain handling equipment to allow for barge loading operations.
- The application was deemed complete on August 18, 2017.
- HAP emissions are not expected from the proposed equipment.
- None of the New Source Performance Standards (NSPS) apply to the installation. 40 CFR 60 Subpart DD *Standards of Performance for Grain Elevators* does not apply to the installation because its permanent storage capacity is less than 2.5 million bushels.
- None of the NESHAPs apply to this installation. None of the currently promulgated MACT regulations apply to the proposed equipment.
- Mineral oil is currently being applied to the grain which will control particulate emissions from the grain handling equipment in this permit. Undocumented watering will be used to control particulate emissions from haul roads.
- This review was conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential PM emissions are above the de minimis level but below the major source level. Potential PM₁₀ emissions are conditioned below de minimis levels. Potential emissions of all other pollutants are below their respective de minimis levels.
- This installation is located in Carroll 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.

- 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.
- Submittal of an update to your Intermediate Operating Permit renewal application is required within 90 days of equipment startup.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

AGRIServices of Brunswick, LLC (formerly Brunswick River Terminal, Inc.) operates a grain and fertilizer processing plant located four miles west of Brunswick, Missouri on Highway 24. The facility is a minor source for construction permits and currently has an Intermediate Operating Permit renewal application being reviewed under Project No. 2017-01-016.

The following New Source Review permits have been issued to AGRIServices of Brunswick, LLC from the Air Pollution Control Program.

Table 1: Permit History

Permit Number	Description
1086-002	Addition of a 430,000 bushel capacity grain storage bin with loading and unloading conveyors and a column-type dryer
1086-003	Installation of a 1,900,000 bushel capacity grain storage building and a 10,000 bushel/hr loading conveyor
082002-008	Installation of an additional storage structure for corn at the existing grain and fertilizer plant
052007-012	Replacement of the existing grain drying system with a new one

PROJECT DESCRIPTION

AGRIServices of Brunswick, LLC has received a grant from the State of Missouri to upgrade the equipment at their facility to allow for barge loading (EP-31), which will better utilize waterways as a means of transportation of agricultural commodities. New equipment for the project will include several conveyors (EP-28), three storage bins totaling 76,000 bushels (EP-29), and a receiving pit (EP-30) which will all have a maximum design capacity of 30,000 bushels per hour (870 tons per hour). The new process will handle all of the grain received by the new pit; therefore, no other processes will be affected by the increase in grain, and the maximum design rates of existing facility processes will not increase. In addition, most of the grain handled using the equipment in this project will come from other grain receiving points. The new receiving pit will be used as a dedicated pit for barge loading when needed.

EMISSIONS/CONTROLS EVALUATION

The emission factors and control efficiencies used in this analysis were obtained from Table 9.9.1-1 of the EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 9.9.1 *Grain Elevators & Processes* (May 2003). Potential emissions of all equipment were calculated using their maximum design rates (870 tons per hour).

Mineral oil is currently applied to grain at the facility (at the reclaim drag) to control particulate emissions. All grain processed in the new project equipment will have previously had oil applied to it; therefore, an overall control efficiency of 70% for PM & PM₁₀, and 40% for PM_{2.5} was applied to the calculations for grain handling (EP-28), the storage bins (EP-29), and barge loadout (EP-31).

Emissions from haul roads were calculated using Equation (1) from AP-42 Section 13.2.2 *Unpaved Roads* (November 2006). All grain received in the pit (EP-30) will be transported by hopper trucks. Due to the small relative capacities of the new grain bins, a maximum of 20% of the total grain handled in this project is processed through EP-29, with the remainder coming from existing grain bins and temporary storage piles. A 50% control efficiency for PM & PM₁₀ and a 41% control efficiency for PM_{2.5} were applied to the calculations for the use of undocumented watering.

The following table provides an emissions summary for this project. Existing potential emissions were taken from the installation's previous operating permit (OP2012-008). Existing actual emissions were taken from the installation's 2016 EIQ. Potential emissions of the project represent the potential of the new equipment and processes, assuming continuous operation (8,760 hours per year). Conditioned potential emissions account for a voluntary PM₁₀ de minimis limit.

Table 2: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (2016 EIQ)	Potential Emissions of the Project	Conditioned Potential Emissions of the Project
PM	25.0	N/D	N/D	371.17	48.49
PM ₁₀	15.0	96.24	26.66	114.83	<15.0
PM _{2.5}	10.0	8.50	6.35	26.05	3.40
SO _x	40.0	0.06	N/D	N/A	N/A
NO _x	40.0	27.69	0.18	N/A	N/A
VOC	40.0	0.84	N/D	N/A	N/A
CO	100.0	6.81	0.03	N/A	N/A
Total HAPs	25.0	N/D	N/D	N/A	N/A

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 PM emissions are above the de minimis level but below the major source level. Potential PM₁₀ emissions are conditioned below de minimis levels. Potential emissions of all other pollutants are below their respective de minimis levels.

APPLICABLE REQUIREMENTS

AGRI Services of Brunswick, LLC 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

- *Start-Up, Shutdown, and Malfunction Conditions*, 10 CSR 10-6.050
- *Operating Permits*, 10 CSR 10-6.065
- *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 Emission of Odors*, 10 CSR 10-6.165
- *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

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

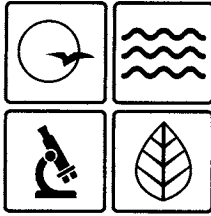
The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated July 26, 2017, received July 28, 2017, designating AGRIServices of Brunswick, LLC as the owner and operator of the installation.

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_x	nitrogen oxides
CFR	Code of Federal Regulations	NSPS	New Source Performance Standards
CO	carbon monoxide	NSR	New Source Review
CO₂	carbon dioxide	PM	particulate matter
CO_{2e}	carbon dioxide equivalent	PM_{2.5}	particulate matter less than 2.5 microns in aerodynamic diameter
COMS	Continuous Opacity Monitoring System	PM₁₀	particulate matter less than 10 microns in aerodynamic diameter
CSR	Code of State Regulations	ppm	parts per million
dscf	dry standard cubic feet	PSD	Prevention of Significant Deterioration
EIQ	Emission Inventory Questionnaire	PTE	potential 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	tph	tons per hour
hr	hour	tpy	tons per year
hp	horsepower	VMT	vehicle miles traveled
lb	pound	VOC	Volatile Organic Compound
lbs/hr	pounds per hour		
MACT	Maximum Achievable Control Technology		
µg/m³	micrograms per cubic meter		
m/s	meters per second		



Missouri Department of

dnr.mo.gov

NATURAL RESOURCES

Eric R. Greitens, Governor

Carol S. Comer, Director

DEC 01 2017

Mr. Stanley Thessen
SER Manager
AGRIServices of Brunswick, LLC
P.O. Box 38
Brunswick, MO 65236

RE: New Source Review Permit - Project Number: 2017-07-066

Dear Mr. Thessen:

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 amended 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.



Recycled paper

Mr. Stanley Thessen
Page Two

If you have any questions regarding this permit, please do not hesitate to contact Ryan Schott, 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:rsj

Enclosures

c: Northeast Regional Office
PAMS File: 2017-07-066

Permit Number: 122017-001