

Missouri Department of dnr.mo.gov

# NATURAL RESOURCES

Michael L. Parson, Governor

Carol S. Comer, Director

JAN 07 2019

Mr. Jim Valleroy  
Environmental Director  
Consolidated Grain & Barge Co.  
20314 South Highway 77  
East Prairie, MO 63845

RE: New Source Review Permit - Project Number: 2018-10-028

Dear Mr. Valleroy:

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 of 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. Jim Valleroy  
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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



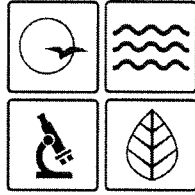
Susan Heckenkamp  
New Source Review Unit Chief

SH:kkj

Enclosures

c: Southeast Regional Office  
PAMS File: 2018-10-028

Permit Number: 012019-005



**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: 012019-005

Project Number: 2018-10-028  
Installation Number: 133-0016

Parent Company: Consolidated Grain & Barge Co.

Parent Company Address: 201 North Missouri Ave., Mound City, IL 62963

Installation Name: Consolidated Grain & Barge Co.

Installation Address: 20314 South Highway 77, East Prairie, MO 63845

Location Information: Mississippi County, S33, T23N, R17E

Application for Authority to Construct was made for:

Inclusion of truck loading operation and associated haul road traffic emission sources. This review was conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

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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

JAN 07 2019

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/>

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

Project Number: 2018-10-028  
Installation ID Number: 133-0016  
Permit Number: 012019-005

Installation Address:  
Consolidated Grain & Barge Co.  
20314 South Highway 77  
East Prairie, MO 63845

Parent Company:  
Consolidated Grain & Barge Co.  
201 North Missouri Ave.  
Mound City, IL 62963

Mississippi County, S33, T23N, R17E

REVIEW SUMMARY

- Consolidated Grain & Barge Co. has applied for authority to include truck loading at this site.
- The application was deemed complete on October 22, 2018.
- 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.
- No air pollution control equipment is being used in association with the new equipment.
- 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. Potential emissions of PM are above de minimis levels but remain below major levels.
- This installation is located in Mississippi County, an attainment/unclassified 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.

**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 (12)(A)10. "Conditions required by permitting authority."*

Consolidated Grain & Barge Co.  
Mississippi County, S33, T23N, R17E

1. PM<sub>10</sub> Emission Limitation
  - A. Consolidated Grain & Barge Co. shall emit less than 15.0 tons of PM<sub>10</sub> in any consecutive 12-month period from truck loading (EP-13) and associated haul roads (EP-10).
  - 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. Record Keeping and Reporting Requirements
  - A. Consolidated Grain & Barge Co. 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. These records shall include SDS for all materials used.
  - B. Consolidated Grain & Barge Co. 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](mailto: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.

- Ambient air quality modeling was not performed since potential emissions of the application except for PM are below de minimis levels and PM does not trigger modeling.
- Emissions testing is not required for the equipment as a part of this permit.
- *Emissions from this project qualify as an off-permit change to the existing Intermediate Operating Permit OP2016-037. Emissions from this project are fugitive and do not count toward the facility limit of 100 tons of PM<sub>10</sub>.*
- Approval of this permit is recommended with special conditions.

### INSTALLATION DESCRIPTION

Consolidated Grain & Barge's Dorena Facility operates a grain elevator that receives, dries, stores and ships whole grain such as corn, beans, wheat and milo from trucks. The grain is stored and dried at the installation prior to being loaded onto a barge and shipped on the Mississippi River. Emission sources include truck loading/unloading, dryers, propane combustion, storage bins, conveyors, barge loading and haul road traffic.

The plant operates in accordance with Intermediate Operating Permit No. OP2016-037. The plant has accepted a voluntary limit for PM<sub>10</sub> of 100 tons per year per consecutive 12-month period. The addition of the emission sources addressed by this application will not require a change in this voluntary limit.

The following New Source Review permits have been issued to Consolidated Grain & Barge Co. from the Air Pollution Control Program.

Table 1: Permit History

Permit Number	Description
1286-003	Grain Dryer
1096-001	Grain Dryer (Replacement)
0498-019	Addition of a Secondary Receiving Pit

### PROJECT DESCRIPTION

The Dorena Facility requires is adding truck loading operation and associated haul road traffic as emission sources for the facility operations. Truck loading will occur intermittently with a PM<sub>10</sub> de minimis limit resulting in approximately 422,480 tons of grain capable of being shipped annually by trucks. There will be 0.25 miles of unpaved haul roads (uncontrolled) and 0.37 miles of paved haul roads. Grain receiving and storage capacity will not increase at this site with this project.

Table 2: Truck Loading Equipment List

Emission Point	Description	MHDR
EP-10a	Haul Road (unpaved) 0.25 miles	3.0 VMT/hr
EP-10b	Haul Road (paved) 0.37 miles	4.44 VMT/hr
EP-13	Truck Loading	159 tons/hr

### EMISSIONS/CONTROLS EVALUATION

The emission factors for truck loading (EP-13) 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.

Emissions from haul roads were calculated using the predictive equation from AP-42 Section 13.2.1 *Paved Roads*, January 2011 and Section 13.2.2 "Unpaved Roads," November 2006.

The following table provides an emissions summary for this project. Existing potential emissions were taken from the Statement of Basis from the operating permit OP2016-037. Existing actual emissions were taken from the installation's 2017 EIQ. Potential emissions of the application represent the potential of the truck loading and haul roads, assuming continuous operation (8760 hours per year). Conditioned potential emissions account for a voluntary annual PM<sub>10</sub> emission limit of 15.0 tons per year in order to avoid refined modeling.

Table 3: Emissions Summary (tpy)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions <sup>1,2</sup>	Existing Actual Emissions (2017 EIQ)	Potential Emissions of the Project	Conditioned Potential Emissions
PM	25.0	N/D	N/D	167.55	50.82
PM <sub>10</sub>	15.0	<100.0	4.57	49.45	<15.0
PM <sub>2.5</sub>	10.0	24.80	0.46	6.81	2.06
SO <sub>x</sub>	40.0	2.88	0.0	N/A	N/A
NO <sub>x</sub>	40.0	15.86	0.0	N/A	N/A
VOC	40.0	0.85	0.0	N/A	N/A
CO	100.0	3.24	0.0	N/A	N/A
GHG (CO <sub>2e</sub> )	N/A	N/D	N/A	N/A	N/A
GHG (mass)	N/A	N/D	N/A	N/A	N/A
HAPs	10.0/25.0	N/D	0.0	N/A	N/A

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

<sup>1</sup>OP2016-037 Statement of Basis

<sup>2</sup>Non-Fugitive PM<sub>10</sub> emissions are counted towards the 100.0 ton installation limit. The emissions from this permit are all fugitive and are not counted towards this limit.



## 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. Potential emissions of PM are above de minimis levels but remain below major levels.

## APPLICABLE REQUIREMENTS

Consolidated Grain & Barge Co. 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

- *Operating Permits*, 10 CSR 10-6.065
  - *Emissions from this project qualify as an off-permit change to the existing Intermediate Operating Permit OP2016-037. Emissions from this project are fugitive and do not count toward the facility limit of 100 tons of PM<sub>10</sub> per 12-month rolling average.*
- *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 does not apply because shipping of whole grain into truck transportation is exempt according to 10 CSR 10-6.400 (1)(B)3.

## 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 10, 2018, received October 16, 2018, designating Consolidated Grain & Barge Co. as the owner and operator of the installation.



## 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>SSM</b> .....Startup, Shutdown & Malfunction
<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	
<b>m/s</b> .....meters per second	