

Missouri Department of dnr.mo.gov

# NATURAL RESOURCES

Michael L. Parson, Governor

Carol S. Comer, Director

April 30, 2020

Stephen Stallons  
President  
Mid-America River & Rail Terminal  
431 Nursery Road, Suite B 500  
The Woodlands, TX 77380

RE: New Source Review Permit - Project Number: 2019-08-002

Dear Stephen Stallons:

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, if any, 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](http://www.oa.mo.gov/ahc).

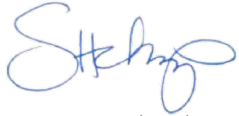


Stephen Stallons  
Page Two

If you have any questions regarding this permit, please do not hesitate to contact Chia-Wei Young, 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



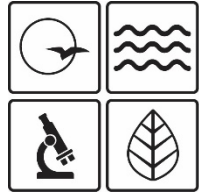
Susan Heckenkamp  
New Source Review Unit Chief

SH:cya

Enclosures

c: Northeast Regional Office  
PAMS File: 2019-08-002

Permit Number: 042020-013



**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: 042020-013      Project Number: 2019-08-002  
Installation Number: 045-0031

Parent Company: Mid-America River & Rail Terminal LLC

Parent Company Address: 431 Nursery Road, Suite B 500, The Woodlands, TX 77380

Installation Name: Mid-America River & Rail Terminal

Installation Address: 100 Pearl Street, Alexandria, MO 63430

Location Information: Clark County, T64N, R5W

Application for Authority to Construct was made for:

A new fertilizer unloading and storage facility. 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

\_\_\_\_\_  
April 30, 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."*

Mid-America River & Rail Terminal  
Clark County, T64N, R5W

1. PM<sub>10</sub> Emission Limitation
  - A. Mid-America River & Rail Terminal shall emit less than 15.0 tons of PM<sub>10</sub> in any consecutive rolling 12-month period from the entire installation. The SSM emissions as reported to the Air Pollution Control Program's Compliance/Enforcement Section in accordance with the requirements of 10 CSR 10-6.050 *Start-Up, Shutdown, and Malfunction Conditions* shall be included in the limit.
  - B. Attachment A or equivalent forms, such as electronic forms, shall be used to demonstrate compliance with Special Conditions 1.A. The equivalent forms shall use the same emission factor and calculation method as given in Attachment A.
2. Haul Road Control
  - A. Mid-America River & Rail Terminal shall control dust from all unpaved haul roads by limiting its average truck speed to no more than 15 miles per hour.
  - B. Mid-America River & Rail Terminal shall demonstrate compliance with Special Condition 2.A. by doing the following:
    - 1) Installing speed limit signs of 15 miles per hour on each haul road.
    - 2) Implementing a documented training program for the truck drivers on the truck speed. A copy of the training program shall be kept onsite and be made available to Department of Natural Resources personnel upon request.
  - C. Mid-America River & Rail Terminal shall maintain a log for the training program that includes, at a minimum, the following:
    - 1) Date of the training
    - 2) Signature of the drivers
3. Enclosure Requirements
  - A. Mid-America River & Rail Terminal shall limit emissions from the outdoor conveyor drop points (EP2, 3, 4, and 5) by enclosing them and leaving only openings for material entry and exit. The rest of the conveyors shall be equipped with wind covers. The drop point enclosures shall be constructed and maintained such that no visible emissions are emitted

**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:  
from these sources.

- B. Mid-America River & Rail Terminal shall visually inspect the enclosures required in Special Condition 3.A. once every quarter for any visible emissions to ensure compliance with Special Condition 3.A. If any visible emissions are observed, repairs shall be made.
  - C. Mid-America River & Rail shall maintain a log that includes, at a minimum, the date of the visual inspections, results of the inspections, and any repair actions taken.
4. **Operating Restrictions**  
The door on the specific fertilizer bin being filled by the tripper conveyor shall be in the down position during the barge unloading process.
5. **Record Keeping and Reporting Requirements**
- A. Mid-America River & Rail Terminal 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. Mid-America River & Rail Terminal 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.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE  
SECTION (5) REVIEW

Project Number: 2019-08-002  
Installation ID Number: 045-0031  
Permit Number: 042020-013

Installation Address:

Mid-America River & Rail Terminal  
100 Pearl Street  
Alexandria, MO 63430

Parent Company:

Mid-America River & Rail Terminal  
431 Nursery Road, Suite B 500  
The Woodlands, TX 77380

Clark County, T64N, R5W

REVIEW SUMMARY

- Mid-America River & Rail Terminal has applied for authority to construct a new fertilizer unloading and storage installation.
- The application was deemed complete on August 28, 2019.
- 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 control devices are being used to control the particulate emissions from the equipment in this permit. However, the conveyor transfer points and the storage building are totally enclosed, which should limit emissions.
- 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 pollutants are conditioned below de minimis levels.
- This installation is located in Clark 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 conditioned below de minimis levels.
- Emissions testing is not required for the equipment as a part of this permit.

- No Operating Permit is required for this installation. The installation's PTE are limited to less than the de minimis levels.
- Approval of this permit is recommended with special conditions.

## INSTALLATION/PROJECT DESCRIPTION

Mid-America River & Rail proposes to construct a new fertilizer storage building, including a barge unloading conveyor and truck loading area. Barges will be unloaded and fertilizer will be transported via approximately 350 feet of covered conveyors to a building for storage. The conveyors will be covered with wind covers and transitions between the conveyors will be enclosed. Fertilizer will be stored in a building that has four (4) bins with a total capacity of 20,000 tons and has the capability of being expanded to six (6) bins with a total capacity of 30,000 tons in the future. This permit allows for the expansion to six (6) bins. Fertilizer will be loaded out from the building on a concrete floor with covered roof using a loader. The loader will transport fertilizer out of the building bins to a hopper equipped with an auger and conveyor to be loaded into trucks. Trucks will access the site via an approximately 850 feet gravel haul road. It is anticipated that the facility will operate year round during daylight hours.

The maximum hourly design rate of the conveyors is 400 tph. However, the conveyors are bottlenecked by truck loading, which can only be performed at a maximum rate of 200 tph.

## EMISSIONS/CONTROLS EVALUATION

PM<sub>10</sub> emissions from the transfer of fertilizers were calculated using an emission factor for ammonium nitrate bulk loading (SCC code 3-01-027-09) from the Environmental Protection Agency (EPA) online database WebFire. PM<sub>2.5</sub> were calculated assuming that 30% of the PM<sub>10</sub> is PM<sub>2.5</sub> while PM emissions were calculated assuming that 85% of PM is PM<sub>10</sub>. These values were taken from EPA document AP-42, *Compilation of Air Pollutant Emissions Factors, Volume 1: Stationary Point and Area Sources*, Fifth Edition, Appendix B.2., *Generalized Particle Size Distributions*, 9/1996.

A 50% control efficiency was given for the outdoor conveyor enclosure and emission points inside the building. These values were estimated based on the design of the conveyors and building. The drop points for the outdoor conveyors are completely enclosed except for openings for material entry and exit. The enclosure will control dust by preventing the wind from reaching the drop point. During operations, the doors to the storage building will be closed except during loader entry and exit. There will be openings at the seams of the buildings and the door of the bins do not go all the way down so some of the particulate emissions may exit through those openings.

Particulate emissions from the haul roads and vehicular activities were calculated using emission factors calculated from the equation in AP-42, Section 13.2.2, *Unpaved*



Roads, 11/2006. The installation will limit the dust from the haul roads by restricting the vehicular speed of the haul trucks to less than 15 miles per hour (mph). The installation is required to install speed limit signs on the haul roads. A 44% control efficiency was given for limiting truck speed. This value was determined after reviewing multiple documents, including the following.

- *Fugitive Dust Handbook*, Western Regional Air Partnership (WRAP), September 7, 2006.
- *Effect of Soil Type and Momentum on Unpaved Road Particulate Matter Emissions from Wheeled and Tracked Vehicles*, Aerosol Science and Technology, 2010.
- *AP-42, Compilation of Air Pollutant Emissions Factors, Volume 1: Stationary Point and Area Sources, Section 13.2.2, Unpaved Roads*, 2006, and background documents.

Wind erosion from storage were deemed negligible since the fertilizers are stored in a building. The following table provides an emissions summary for this project. There are no existing potential emissions or actual emissions because this installation is new. Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year). The installation accepted a PM<sub>10</sub> limit of 15.0 tons per year to avoid modeling requirements. The PM<sub>10</sub> limit indirectly limits the PM<sub>2.5</sub> to less than its de minimis level of 10.0 tons per year.

Table 2: Emissions Summary (tpy)

Pollutant	Regulatory De Minimis Levels	Existing Potential Emissions	Existing Actual Emissions	Potential Emissions of the Project	New Installation Conditioned Potential
PM	25.0	N/A	N/A	148.86	20.42
PM <sub>10</sub>	15.0	N/A	N/A	109.33	<15.0
PM <sub>2.5</sub>	10.0	N/A	N/A	30.21	4.14
SO <sub>x</sub>	40.0	N/A	N/A	N/A	N/A
NO <sub>x</sub>	40.0	N/A	N/A	N/A	N/A
VOC	40.0	N/A	N/A	N/A	N/A
CO	100.0	N/A	N/A	N/A	N/A
GHG (CO <sub>2e</sub> )	N/A	N/A	N/A	N/A	N/A
GHG (mass)	N/A	N/A	N/A	N/A	N/A
HAPs	10.0/25.0	N/A	N/A	N/A	N/A

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*. Potential emissions of all pollutants are conditioned below de minimis levels.

## APPLICABLE REQUIREMENTS

Mid-America River & Rail Terminal 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 July 22, 2019, received August 1, 2019, designating Mid-America River & Rail Terminal as the owner and operator of the installation

## Attachment A – PM<sub>10</sub> Compliance Worksheet

Mid-America River & Rail Terminal  
 Clark County, T64N, R5W  
 Project Number: 2019-08-002  
 Installation ID Number: 045-0031  
 Permit Number: 042020-013

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

Month	Process	Monthly Amount Processed (tons)	Emission Factor (lb/ton)	<sup>1</sup> Monthly Emissions (tons)	<sup>2</sup> SSM Emissions (tons)	<sup>3</sup> Total Monthly Emissions (tons)	<sup>4</sup> 12-Month Rolling Total Emissions (ton)
	Barge Load into Building		0.0700				
	Building Loadout		0.0548				
	Barge Load into Building		0.0700				
	Building Loadout		0.0548				
	Barge Load into Building		0.0700				
	Building Loadout		0.0548				
	Barge Load into Building		0.0700				
	Building Loadout		0.0548				
	Barge Load into Building		0.0700				
	Building Loadout		0.0548				
	Barge Load into Building		0.0700				
	Building Loadout		0.0548				
	Barge Load into Building		0.0700				
	Building Loadout		0.0548				
	Barge Load into Building		0.0700				
	Building Loadout		0.0548				

Note 1: Monthly Emissions (tons) calculated by multiplying the Monthly Amount Processed (tons) for each process by the appropriate Emission Factor (lb/ton) and divide by 2,000 lb/ton.  
 Note 2: Startup, Shutdown, and Malfunction (SSM) emissions as reported to the Air Pollution Control Program's Compliance/Enforcement Section according to the provisions of 10 CSR 10-6.050  
 Note 3: Total Monthly Emissions (tons) calculated by summing the Monthly Emissions (ton) of both processes and the SSM Emissions (tons)  
 Note 4: 12-Month Rolling Total Emissions calculated by adding the Total Monthly Emissions (ton) to the emissions of the previous eleven (11) months. A total less than **15.0 tons** indicate compliance.

## 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>EQ</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	