

STATE OF 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: 06 2016 - 012

Project Number: 2016-03-079
Installation Number: 099-0175

Parent Company: Riverview Commerce Park

Parent Company Address: 2320 Creve Coeur Mill Road, Maryland Heights, MO 63043

Installation Name: Riverview Commerce Park

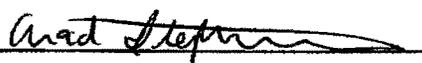
Installation Address: 1 School Street, Herculaneum, MO 63048

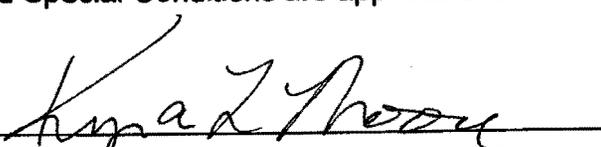
Location Information: Jefferson County, S20, T41N, R6E

Application for Authority to Construct was made for:
Unloading operation for soda ash from railcar to truck. 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
Chad Stephenson
New Source Review Unit


Director or Designee
Department of Natural Resources

JUN 20 2016

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 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."

Riverview Commerce Park
Jefferson County, S20, T41N, R6E

1. PM_{2.5} Emission Limitation
 - A. Riverview Commerce Park shall emit less than 10.0 tons of PM_{2.5} in any consecutive 12-month period from emission points listed below (see table 1).

Table 1: Project Emission Points

Emission Point	Description
EP-18	Drop point from railcar to conveyor
EP-19	Drop point from conveyor to truck
EP-13	Haul roads

- 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. Documented Haul Road Watering
 - A. Riverview Commerce Park shall control dust from all haul roads at this site using water or surfactant spray consistently and correctly at all times to prevent visible fugitive emissions from entering the ambient air beyond the property boundary. The following conditions apply to haul road watering:
 - 1) The water application rate shall be 100 gallons per 1000 square feet at least once every day.
 - 2) A quarter inch or more rainfall during the preceding 24 hours shall substitute for one daily water application
 - 3) Water/surfactant application shall not be required when the ground is frozen or when there will be no traffic on the roads.
 - B. Riverview Commerce Park shall keep the following records on file and available for inspection:
 - 1) A daily log initialed by the responsible facility operator of roads watered and quantity of water/chemical application used, or notation that there was a quarter inch or greater rainfall within the past 24 hours or that the facility was not in operation.
 - 2) Water tank size, total area of roads to be watered, and the resultant number of fills necessary to accomplish the required application rate.

SPECIAL CONDITIONS:

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

- 3) Records of watering equipment breakdowns and repairs.
3. Record Keeping and Reporting Requirements
 - A. Riverview Commerce Park 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. Riverview Commerce Park shall report to the Air Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, 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: 2016-03-079
Installation ID Number: 099-0175
Permit Number:

Installation Address:
Riverview Commerce Park
1 School Street
Herculaneum, MO 63048

Parent Company:
Riverview Commerce Park
2320 Creve Coeur Mill Road
Maryland Heights, MO 63043

Jefferson County, S20, T41N, R6E

REVIEW SUMMARY

- Riverview Commerce Park has applied for authority to operate a soda ash unloading operation.
- The application was deemed complete on April 19, 2016.
- 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. A dust collector controls emissions from conveying; however it was not considered in the calculations for this project. Documented haul road watering is being used to control the PM, PM₁₀, and PM_{2.5} emissions from the haul road.
- This review was conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of particulate matter less than 2.5 microns in aerodynamic diameter (PM_{2.5}) are conditioned below the de minimis level. Potential emissions PM are above de minimis levels but below the major source level.
- This installation is located in Jefferson County, a nonattainment area for the 8-hour ozone standard and the PM-2.5 standard and an attainment area for all other criteria pollutants. The installation is located in the Jefferson County lead nonattainment area.
- 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.
- No Operating Permit is required for this installation.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

Riverview Commerce Park is an existing barge and rail-loading facility located in Herculaneum, Missouri. Operations at the site can be broken down into 3 distinct parts:

- Dock 1 barge loading of sand,
- Railcar loading of sand, and
- Dock 2 barge loading of sand, copper concentrate, or zinc concentrate.

The Dock 1 barge loading and railcar loading parts of this air contaminant source were constructed prior to receipt of a permit from the Missouri Department of Natural Resources. The installation realized the oversight when calculating potential emissions for Dock 2, which has not yet been constructed, and submitted a permit application for all 3 parts of the operation in permit number 072014-006. No NOEE/NOV's have been issued to the installation. This project is to add a soda ash unloading operation to the facility.

The following New Source Review permits and amendments have been issued to Riverview Commerce Park from the Air Pollution Control Program.

Table 1: Permit History

Permit Number	Description
072014-006	Loading facility for sand, copper concentrate and zinc concentrate
072014-006A	Addition of unloading conveyor system
072014-006B	Update special conditions

PROJECT DESCRIPTION

This project is to add a soda ash unloading operation to the existing barge and rail-loading facility. Soda ash will be received by railcar (EP-18), directly loaded to conveyor and then discharged into trucks (EP-19). The trucks will use the existing rail haul road

at the facility (EP-13). The maximum hourly design rate for the new equipment is 100 tons per hour. A dust collector controls emissions from the conveying, however this permit does not require the use of the dust collector and the dust collector was not considered as a control device in the potential to emit calculations. The potential emissions from the additional traffic on the

haul road (EP-13) have been included in this project. Documented watering is being used to control fugitive dust emissions from the haul road and a control efficiency of 90% for PM and PM₁₀ was used and 40% for PM_{2.5}.

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, 8.12 “Sodium Carbonate” (July 1993) Table 8.12-3 and 13.2.2 “Unpaved Roads” (November 2006). The emission factor for soda ash handling from AP-42 was for total particulate matter from soda ash storage/loading and unloading. The soda ash particle size distribution used was 5.1 percent of the material is particulate matter less than 149 microns in aerodynamic diameter and 1.00 percent of the material is particulate matter less than 79 microns in aerodynamic diameter. This particle size distribution is considered conservative for soda ash. It was assumed that 5.1 percent of the material to be PM, 1.00 percent of the material to be PM₁₀ and 1.00 percent of the material to be PM_{2.5}. Using the AP-42 emission factor, the total particulate matter potential emissions were calculated. The particle size distribution was then applied to the total particulate matter potential emissions to calculate to total PM, PM₁₀, and PM_{2.5} potential emissions.

Missouri State Rule 10 CSR 10-6.400 *Restriction of Emission of Particulate Matter From Industrial Processes* applies to the rail car unloading and truck loading. The railcar loadout (EP-18) and truck load-in (EP-19) both have a potential to emit 26.52 pounds per hour. Using the process weight equation in 10 CSR 10-6.400(3)(A)1, EP-18 and EP-19 have allowable emission rates of 51.27 pounds per hour.

The following table provides an emissions summary for this project. The PM, PM₁₀, and PM_{2.5} potential project emissions represent the potential emissions while handling soda ash, assuming continuous operation (8760 hours per year). Existing installation potential emissions were taken from permit number 072014-006. Existing actual emissions were taken from the installation’s 2015 EIQ. Conditioned potential emissions account for an annual limit of PM_{2.5} below the de minimis level of 10.0 tons per year (to avoid modeling requirements).

Table 2: Emissions Summary (tpy)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Installation Potential Emissions	Existing Installation Actual Emissions (2015 EIQ)	Potential Emissions of the Project	Conditioned Potential Emissions of the Project
PM	25.0	N/A	N/A	241.84	51.26
PM ₁₀	15.0	<15.0	1.5825	48.26	10.23
PM _{2.5}	10.0	<10.0	0.9495	47.18	<10.0
SOx	40.0	N/A	N/A	N/A	N/A

NO _x	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
HAPs	10.0/25.0	N/A	N/A	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 emissions of all pollutants are below de minimis levels.

APPLICABLE REQUIREMENTS

Riverview Commerce Park 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

- *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.
Ash loading complies with this rule with emission ratio of 26.52 lbs/hr compared to the allowable 51.27 lbs/hr.

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 March 24, 2016, received March 28, 2016, designating Riverview Commerce Park as the owner and operator of the installation.

APPENDIX A

Abbreviations and Acronyms

%	percent	m/s	meters per second
°F	degrees Fahrenheit	Mgal	1,000 gallons
acfm	actual cubic feet per minute	MW	megawatt
BACT	Best Available Control Technology	MHDR	maximum hourly design rate
BMPs	Best Management Practices	MMBtu	Million British thermal units
Btu	British thermal unit	MMCF	million cubic feet
CAM	Compliance Assurance Monitoring	MSDS	Material Safety Data Sheet
CAS	Chemical Abstracts Service	NAAQS ...	National Ambient Air Quality Standards
CEMS	Continuous Emission Monitor System	NESHAPs	National Emissions Standards for Hazardous Air Pollutants
CFR	Code of Federal Regulations	NO_x	nitrogen oxides
CO	carbon monoxide	NSPS	New Source Performance Standards
CO₂	carbon dioxide	NSR	New Source Review
CO_{2e}	carbon dioxide equivalent	PM	particulate matter
COMS	Continuous Opacity Monitoring System	PM_{2.5}	particulate matter less than 2.5 microns in aerodynamic diameter
CSR	Code of State Regulations	PM₁₀	particulate matter less than 10 microns in aerodynamic diameter
dscf	dry standard cubic feet	ppm	parts per million
EQ	Emission Inventory Questionnaire	PSD	Prevention of Significant Deterioration
EP	Emission Point	PTE	potential to emit
EPA	Environmental Protection Agency	RACT	Reasonable Available Control Technology
EU	Emission Unit	RAL	Risk Assessment Level
fps	feet per second	SCC	Source Classification Code
ft	feet	scfm	standard cubic feet per minute
GACT	Generally Available Control Technology	SDS	Safety Data Sheet
GHG	Greenhouse Gas	SIC	Standard Industrial Classification
gpm	gallons per minute	SIP	State Implementation Plan
gr	grains	SMAL	Screening Model Action Levels
GWP	Global Warming Potential	SO_x	sulfur oxides
HAP	Hazardous Air Pollutant	SO₂	sulfur dioxide
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		

Ms. Lina Klein
Environmental Director
Riverview Commerce Park
2320 Creve Coeur Mill Road
Maryland Heights, MO 63043

RE: New Source Review Permit - Project Number: 2016-03-079

Dear Ms. Klein:

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

Ms. Lina Klein

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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.

If you have any questions regarding this permit, please do not hesitate to contact Chad Stephenson, 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:csj

Enclosures

c: St. Louis Regional Office
PAMS File: 2016-03-079

Permit Number: