

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 2 0 1 8 - 0 0 3

Project Number: 2018-05-030
Installation ID: PORT-0780

Parent Company: Brandenburg Industrial Service Company

Parent Company Address: 2625 South Loomis Street, Chicago, IL 60608

Installation Name: Brandenburg Industrial Service Company - PORT-0780


Installation Address: 1500 East Bannister Road, Kansas City, MO 64131

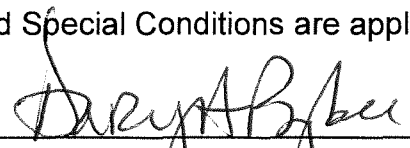
Location Information: Jackson County, S28 T48N R33W

Application for Authority to Construct was made for:
Portable rock crusher. 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
Kathy Kolb
New Source Review Unit


Director or Designee
Department of Natural Resources

JUN 05 2018

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/>

GENERAL 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."

1. **Equipment Identification Requirement**
Brandenburg Industrial Service Company - PORT-0780 shall maintain easily read permanent markings on each component of the plant. These markings shall be the equipment's serial number or a company assigned identification number that uniquely identifies the individual component.
2. **Relocation of Portable Rock Crushing Plant**
 - A. Brandenburg Industrial Service Company - PORT-0780 shall not be operated at any location longer than 24 consecutive months.
 - B. A complete "Portable Source Relocation Request" application must be submitted to the Air Pollution Control Program prior to any relocation of this portable rock crushing plant.
 - 1) If the portable rock crushing plant is moving to a site previously permitted, and if the circumstances at the site have not changed, then the application must be received by the Air Pollution Control Program at least seven days prior to the relocation.
 - 2) If the portable rock crushing plant is moving to a new site, or if circumstances at the site have changed, then the application must be received by the Air Pollution Control Program at least 21 days prior to the relocation. The application must include written notification of any concurrently operating plants.
3. **Record Keeping Requirement**
Brandenburg Industrial Service Company - PORT-0780 shall maintain all records required by this permit for not less than five years and shall make them available to any Missouri Department of Natural Resources' personnel upon request.
4. **Reporting Requirement**
Brandenburg Industrial Service Company - PORT-0780 shall report to the Air Pollution Control Program Enforcement Section P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after any exceedances of the limitations imposed by this permit.

SITE SPECIFIC 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."

PORT ID Number: PORT-0780

Site Name: Bannister Mall

Site Address: 1500 East Bannister Road, Kansas City, MO 64131

Site County: Jackson S28 T48N R33W

1. Annual Emission Limit
 - A. Brandenburg Industrial Service Company - PORT-0780 shall emit less than 15.0 tons of PM₁₀ in any 12-month period from the entire installation which consists of the equipment listed in Table 1. 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. Brandenburg Industrial Service Company - PORT-0780 shall demonstrate compliance with Special Condition 1.A using Attachment A or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form.
2. Wet Suppression Control System Requirement
 - A. Brandenburg Industrial Service Company - PORT-0780 shall install and operate wet spray devices on the grizzly (EP-01), crusher (EP-02), underconveyor (EP-03) and end stacker (EP-04).
 - B. Watering may be suspended during periods of freezing condition, when use of the wet spray devices may damage the equipment. During these conditions, Brandenburg Industrial Service Company - PORT-0780 shall adjust the production rate to control emissions from these units. Brandenburg Industrial Service Company - PORT-0780 shall record a brief description of such events.
3. Primary Equipment Requirement
Brandenburg Industrial Service Company - PORT-0780 shall process all rock through the primary crusher (EP-02). Bypassing the primary crusher is prohibited.
4. Record Keeping Requirement
Brandenburg Industrial Service Company - PORT-0780 shall maintain all records required by this permit for not less than five years and make them available to any Missouri Department of Natural Resources' personnel upon request.

SITE SPECIFIC SPECIAL CONDITIONS:

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

5. **Reporting Requirement**
Brandenburg Industrial Service Company - PORT-0780 shall report to the Air Pollution Control Program, Compliance / Enforcement Section by mail to P.O. Box 176, Jefferson City, MO 65102 or by email at AirComplianceReporting@dnr.mo.gov, no later than 10 days after any exceedances of the limitations imposed by this permit.

6. **Undocumented Watering Requirement**
Brandenburg Industrial Service Company - PORT-0780 shall apply a water spray on all haul roads and vehicular activity areas whenever conditions exist that would allow visible emissions from these sources to leave the property.

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

Project Number: 2018-05-030
Installation ID Number: PORT-0780

Permit Number: 062018-003

Brandenburg Industrial Service Company - PORT-0780: Complete: May 21, 2018
1500 East Bannister Road
Kansas City, MO 64131

Parent Company:
Brandenburg Industrial Service Company
2625 South Loomis Street
Chicago, IL 60608

Jackson County, S28 T48N R33W

PROJECT DESCRIPTION

Brandenburg Industrial Service Company is locating their portable rock crushing plant (PORT-0768) to the former Bannister Federal Complex with the intent to crush concrete generated during building demolition for onsite reuse of crushed materials. The portable plant is anticipated to remain onsite for less than two years. The portable crushing plant is a Telsmith Model TJ3258 jaw crusher. The plant is a track mounted unit. Water misting nozzles are installed and will be in use at the top of the jaw crusher, at the intermediate conveyor below the engine, and at the tip of the end conveyor to control particulate emissions. The MHDR is 400 tph. There will be 400 feet of haul roads with undocumented watering and five acres of storage piles.

The Caterpillar C-9 350 HP 6 cylinder non-road EPA Tier 4- certified engine is used to provide power to the track mounted Komatsu crusher and serves a dual purpose by both propelling itself and providing power to the crusher, screen, and conveyors. Therefore it meets the definition of a nonroad engine as stated in 40 CFR 89.2 (1)(i) and the engine emissions were not included in the calculations.

PORT-0780 will be operating in conjunction with PORT-0768 (PERMIT #042018-003/042018-003A).

Brandenburg Industrial Service Company has stated that the property located at 1500 East Bannister Road in Kansas City, Missouri has gone through extensive historical documentation review and current surveys and analyses to fully characterize the building materials in order to verify contents of contamination. Areas or potential areas of contamination concern will not forgo crushing, and will be disposed of or (area of responsibility) decontaminated appropriately; details of this contamination and resulting

material handling techniques have been previously vetted through Missouri Department of Natural Resources [Hazardous Waste Program] and United States EPA representatives as part of the due-diligence phase for this project which has elapsed over the past 7-8 years.

This installation is located in Jackson County, an attainment/unclassified area for all criteria pollutants but is not located in the nonattainment area for 2010 Sulfur Dioxide standard. This installation is located south of the southern border of I-670/I-70 for the 2010 Sulfur Dioxide standard.

This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2].

No permits have been issued to Brandenburg Industrial Service Company - PORT-0780 from the Air Pollution Control Program.

TABLES

Table 1: Equipment List

Emission Point	Equipment List	MHDR
EP-01	Loading into Grizzly	400 tph
EP-02	Primary Crusher	400 tph
EP-03	Under Conveyor	400 tph
EP-04	End Stacker Conveyor	400 tph
EP-05a	Load-In Stockpile	400 tph
EP-05b	Load-out Stockpile	400 tph
EP-05c	Vehicular Activity (100 feet)	3.03 VMT
EP-5d	Wind Erosion	5.0 acres
EP-6	Haul Roads (400 feet)	2.75 VMT

Table 2 below summarizes the emissions of this project. The potential emissions of the process equipment, which excluded emissions from haul roads, vehicular activity and wind erosion, are not site specific and should not vary from site to site. This is a new portable plant and there are no existing actual emissions. The potential emissions of the application represent the emissions of all equipment and activities assuming continuous operation (8760 hours per year). Conditioned potential emissions account for the voluntary PM₁₀ annual emission limit to avoid dispersion modeling requirements found in 10 CSR-6.060 Section (6).

Table 2: Emissions Summary (tons per year)

Air Pollutant	De Minimis Level/SMAL	^a Potential Emissions from Process Equipment	Existing Actual Emissions	^b Potential Emissions of the Application	Conditioned Potential Emissions
PM	25.0	2.59	N/A	247.75	41.66
PM ₁₀	15.0	1.11	N/A	89.21	<15.0
PM _{2.5}	10.0	0.22	N/A	12.09	2.03
SO _x	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
GHG (CO ₂ e)	N/A	N/A	N/A	N/A	N/A
GHG (mass)	N/A	N/A	N/A	N/A	N/A
Total HAPs	25.0	N/A	N/A	N/A	N/A

N/A = Not Applicable

^aExcludes storage pile emissions and haul roads

^bIncludes storage pile emissions and haul roads

EMISSIONS CALCULATIONS

Emissions for the project were calculated as described below and using emission factors found in the United States EPA document AP-42 *Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources*, Fifth Edition (AP-42).

Emissions from the rock-crushing equipment:

- Calculated using emission factors from AP-42 Section 11.19.2 “Crushed Stone Processing and Pulverized Mineral Processing,” August 2004.
- The controlled emission factors were used because the equipment is control by water spray devices.

Emissions from aggregate handling:

- Calculated using emission factors from AP-42 Section 11.19.2 “Crushed Stone Processing and Pulverized Mineral Processing,” August 2004.
- The uncontrolled emission factors were used because the inherent moisture content of the crushed rock is less than 1.5% by weight.

Emissions from haul roads and vehicular activity areas:

- Calculated using the predictive equation from AP-42 Section 13.2.2 “Unpaved Roads,” November 2006.
- A 50% control efficiency for PM and PM₁₀ and a 41% control efficiency for PM_{2.5} were applied to the emission calculations for the use of undocumented watering.

Emissions from storage piles:

- Load-in and load-out of storage piles were calculated using the predictive equation from AP-42 Section 13.2.4.
- The moisture content of the aggregate of 0.7% percent by weight was used in calculating emissions.
- Emissions from wind erosion of storage piles were calculated using an equation found in the Air Pollution Control Program's Emissions Inventory Questionnaire Form 2.8 "Storage Pile Worksheet."

OPERATING SCENARIOS

Brandenburg Industrial Service Company - PORT-0780 cannot operate with any other plants that have ambient impact limits based on the Air Pollution Control Program's nomographs. When another plant/portable plant is locating to these sites, please refer to that plant's permit's special conditions to see if they contain ambient impact limits.

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 PM₁₀ are conditioned below de minimis levels. Potential emissions of PM are above de minimis levels but remain below major levels.

APPLICABLE REQUIREMENTS

Brandenburg Industrial Service Company - PORT-0780 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.
- An Operating Permit is not required because this is a portable plant.
- *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

- 40 CFR 60 Subpart OOO, "Standards of Performance for Nonmetallic Mineral Processing Plants" applies to the equipment.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPS) or National Emission Standards for Hazardous Air Pollutants for Source Categories (MACTS) apply to the proposed equipment.

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 May 10, 2018, received May 15, 2018, designating Brandenburg Industrial Service Company as the owner and operator of the installation.

APPENDIX A

Abbreviations and Acronyms

%	percent	MMBtu	Million British thermal units
°F	degrees Fahrenheit	MMCF	million cubic feet
acfm	actual cubic feet per minute	MSDS	Material Safety Data Sheet
BACT	Best Available Control Technology	NAAQS	National Ambient Air Quality Standards
BMPs	Best Management Practices	NESHAPs ..	National Emissions Standards for Hazardous Air Pollutants
Btu	British thermal unit	NO_x	nitrogen oxides
CAM	Compliance Assurance Monitoring	NSPS	New Source Performance Standards
CAS	Chemical Abstracts Service	NSR	New Source Review
CEMS	Continuous Emission Monitor System	PM	particulate matter
CFR	Code of Federal Regulations	PM_{2.5}	particulate matter less than 2.5 microns in aerodynamic diameter
CO	carbon monoxide	PM₁₀	particulate matter less than 10 microns in aerodynamic diameter
CO₂	carbon dioxide	ppm	parts per million
CO₂e	carbon dioxide equivalent	PSD	Prevention of Significant Deterioration
COMS	Continuous Opacity Monitoring System	PTE	potential to emit
CSR	Code of State Regulations	RACT	Reasonable Available Control Technology
dscf	dry standard cubic feet	RAL	Risk Assessment Level
EQ	Emission Inventory Questionnaire	SCC	Source Classification Code
EP	Emission Point	scfm	standard cubic feet per minute
EPA	Environmental Protection Agency	SDS	Safety Data Sheet
EU	Emission Unit	SIC	Standard Industrial Classification
fps	feet per second	SIP	State Implementation Plan
ft	feet	SMAL	Screening Model Action Levels
GACT	Generally Available Control Technology	SO_x	sulfur oxides
GHG	Greenhouse Gas	SO₂	sulfur dioxide
gpm	gallons per minute	SSM	startup, shutdown, & malfunction
gr	grains	tph	tons per hour
GWP	Global Warming Potential	tpy	tons per year
HAP	Hazardous Air Pollutant	VMT	vehicle miles traveled
hr	hour	VOC	Volatile Organic Compound
hp	horsepower		
lb	pound		
lbs/hr	pounds per hour		
MACT	Maximum Achievable Control Technology		
µg/m³	micrograms per cubic meter		
m/s	meters per second		
Mgal	1,000 gallons		
MW	megawatt		
MHDR	maximum hourly design rate		

NOTICE: This spreadsheet is for your use only and should be used with caution. MoDNR does not guarantee the accuracy of the information it contains. This spreadsheet is subject to continual revision and updating. It is your responsibility to be aware of the most current, accurate and complete information available. MoDNR is not responsible for errors or omissions in this spreadsheet. Submittal of the information contained in this spreadsheet (workbook) does not relieve the responsible official of the certification statement signed on the first page of the application.

For Single Plant Operation

Hours per day	24.0
Days per year	61.4
Hours per year	1472.9

For Multiple Plant Operation

Hours per day	24.0
Days per year	61.4
Hours per year	1472.9

Pollutant	Justification for Limit
PM10	De Minimis

Pollutant	Potential Emissions of Process Equipment (tons/yr)	Potential Emissions including fugitives (tons/yr)	Allowable Emissions for 1473 hours per year (tons/yr)	De minimis Thresholds	Plant-wide Composite Emission Factor (lb/ton)
PM	2.59	247.75	41.66	25	0.1414
PM ₁₀	1.11	89.21	15.00	15	0.0509
PM _{2.5}	0.22	12.09	2.03	10	0.0069
SO ₂	-	-	-	40	0.0000
NO ₂	-	-	-	40	0.0000
VOC	-	-	-	40	0.0000
CO	-	-	-	100	0.0000
CH ₂ O	-	-	-	2.00	0.0000
Pb	-	-	-	0.01	0.0000
HAPs	-	-	-	10	0.0000
CO ₂	-	-	-	100	0.0000
N ₂ O	-	-	-	100	0.0000
CH ₄	-	-	-	100	0.0000
GHG _{mass}	-	-	-	100	0.0000
CO _{2eq}	-	-	-	100,000	0.0000
Maximum hourly design rate (tons/hr)			400		

Limit Hours per Year

Limit Hours per Year w/ 24 hr day

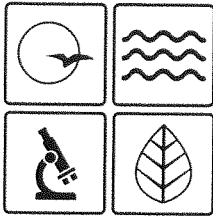
Tons of product per day	9,600.0
Tons of product per year	589,171.0

Emission Point Number	Emission Unit Number	Description	SDC	Maximum Hourly	Units of Measure	Control Number	Control Type	Capture Efficiency (%)	Control Efficiency (%)	Pollutant	Emission Factor	Emission Factor (lbs/LUM)	Emission Potential (tons/yr)	Potential Emissions (tons/yr)	Allowable Emissions (tons/yr)	
Eng Set #1	Model Year				tph			N/A	N/A	PM ₁₀	0.0254 ton	1.01E+01	44.42	7.47		
										PM _{2.5}	0.0018 ton	7.29E-01	21.01	3.53		
										SO ₂	0.0018 ton	7.29E-01	3.16	0.53		
										NO _x	0.0208 ton	4.82E+00	21.01	3.52		
										VOC	0.0018 ton	7.29E-01	3.16	0.53		
										CH ₄ O	12.0100 VMT	1.82E+01	80.12	13.47		
										HAPs	0.1131 VMT	1.51E+01	7.68	1.28		
										NO	0.1310 acres-hr	8.92E+01	3.91	0.66		
										CO	0.0892 acres-hr	4.48E+01	1.96	0.33		
										CH ₄	0.0134 acres-hr	6.69E+01	2.85	0.45		
Eng Set #2	Model Year				tph			N/A	N/A	PM ₁₀	ton					
										PM _{2.5}	ton					
										SO ₂	ton					
										NO _x	ton					
										VOC	ton					
										CH ₄ O	VMT					
										HAPs	acres					
										NO	acres					
										CO	acres					
										CH ₄	acres-hr					
Eng Set #3	Model Year				tph			N/A	N/A	PM ₁₀	ton					
										PM _{2.5}	ton					
										SO ₂	ton					
										NO _x	ton					
										VOC	ton					
										CH ₄ O	VMT					
										HAPs	acres					
										NO	acres					
										CO	acres					
										CH ₄	acres-hr					
Eng Set #4	Model Year				tph			N/A	N/A	PM ₁₀	ton					
										PM _{2.5}	ton					
										SO ₂	ton					
										NO _x	ton					
										VOC	ton					
										CH ₄ O	VMT					
										HAPs	acres					
										NO	acres					
										CO	acres					
										CH ₄	acres-hr					
Road #1					VMT per hour		Unpaired Watering	N/A	N/A	PM ₁₀	11.914 VMT	1.85E+01	32.22	12.14		
										PM _{2.5}	3.555 VMT	4.37E+00	13.52	3.89		
										SO ₂	0.252 VMT	3.72E-01	2.91	0.42		
										NO _x						
										VOC						
										CH ₄ O						
										HAPs						
										NO						
										CO						
										CH ₄						

Emission Point Number	Emission Unit Number	Description	SCC	Maximum Hourly	Units of Measure	Control Device Number	Control Type	Capture Efficiency (%)	Control Efficiency (%)	Pollutant	Emission Factor	Emission Factor (lbs/LiQM)	Emission Rate (t/hr)	Potential Emissions (tons/yr)	Allowable Emissions (tons/yr)
		Road #2			VMT per hour			N/A	N/A	PM ₁₀		VMT			
								N/A	N/A	PM _{2.5}		VMT			
		Road #3			VMT per hour			N/A	N/A	PM ₁₀		VMT			
								N/A	N/A	PM _{2.5}		VMT			
		Road #4			VMT per hour			N/A	N/A	PM ₁₀		VMT			
								N/A	N/A	PM _{2.5}		VMT			
		Road #5			VMT per hour			N/A	N/A	PM ₁₀		VMT			
								N/A	N/A	PM _{2.5}		VMT			
		Road #6			VMT per hour			N/A	N/A	PM ₁₀		VMT			
								N/A	N/A	PM _{2.5}		VMT			

Equipment	Unit ID	Description of Unit	Equipment Description/SCC	Heat Rate	LiQM per hour	Emission Factor (lbs/LiQM)	Potential Emissions (tons/yr)	Allowable Emissions (tons/yr)	
		Combustion #1		mmBtu	100%	PM	mgal		
				mgal	100%	PM ₁₀	mgal		
				mmacf	100%	PM _{2.5}	mgal		
					100%	SO ₂	mgal		
					100%	NO ₂	mgal		
					100%	VOC	mgal		
					100%	CO	mgal		
					100%	CH ₄	mgal		
					100%	Pb	mgal		
					100%	HAPs	mgal		
					100%	CO ₂	mgal		
					100%	N ₂ O	mgal		
					100%	GHG _{total}	mgal		
		Combustion #2		mmBtu	100%	PM	mgal		
				mgal	100%	PM ₁₀	mgal		
				mmacf	100%	PM _{2.5}	mgal		
					100%	SO ₂	mgal		
					100%	NO ₂	mgal		
					100%	VOC	mgal		
					100%	CO	mgal		
					100%	CH ₄	mgal		
					100%	Pb	mgal		
					100%	HAPs	mgal		
					100%	CO ₂	mgal		
					100%	N ₂ O	mgal		
					100%	GHG _{total}	mgal		
		Combustion #3		mmBtu	100%	PM	mgal		
				mgal	100%	PM ₁₀	mgal		
				mmacf	100%	PM _{2.5}	mgal		
					100%	SO ₂	mgal		
					100%	NO ₂	mgal		
					100%	VOC	mgal		
					100%	CO	mgal		
					100%	CH ₄	mgal		
					100%	Pb	mgal		
					100%	HAPs	mgal		
					100%	CO ₂	mgal		
					100%	N ₂ O	mgal		
					100%	GHG _{total}	mgal		

Equipment Operational Status	Emission Unit Number	Description of Unit	Equipment/SCC Description	M/HTP	Units	Equip Type	Control Type	Capture Efficiency (%)	Control Efficiency (%)	Pollutant	Emission Factor (lbs/LiQM)	Emission Rate (t/hr)	Potential Emissions (tons/yr)	Allowable Emissions (tons/yr)	
E	EP-01	Loading into crusher/grizzly	Grizzly Feeder 30502031	400.00	Tons	Fugitive Fugitive	Wet Spray Devices	100%	0.00%	PM	0.000032	Tons	1.28E-02	5.81E-02	9.43E-03
								100%	0.00%	PM ₁₀	0.000016	Tons	6.40E-03	2.80E-02	4.71E-03
								100%	0.00%	PM _{2.5}	0.000008	Tons	3.20E-03	1.40E-02	2.36E-03
E	EP-02	Primary crusher	Crusher-Primary, (Diameter 3-12') 30502001	400.00	Tons	Process Process	Wet Spray Devices	100%	77.78%	PM	0.0054	Tons	4.80E-01	2.10E+00	3.54E-01
								100%	77.50%	PM ₁₀	0.0024	Tons	2.16E-01	9.46E-01	1.59E-01
								100%	77.50%	PM _{2.5}	0.000444444	Tons	4.00E-02	1.75E-01	2.95E-02
E	EP-03	Under conveyor	Conveyor 30502006	400.00	Tons	Process Process	Wet Spray Devices	100%	95.33%	PM	0.003	Tons	5.60E-02	2.45E-01	4.12E-02
								100%	95.82%	PM ₁₀	0.0011	Tons	1.84E-02	8.06E-02	1.36E-02
								100%	95.82%	PM _{2.5}	0.00021667	Tons	5.20E-03	2.28E-02	3.83E-03
E	EP-04	End stacker conveyor	Stacker 30502006	400.00	Tons	Process Process	Wet Spray Devices	100%	95.33%	PM	0.003	Tons	5.60E-02	2.45E-01	4.12E-02
								100%	95.82%	PM ₁₀	0.0011	Tons	1.84E-02	8.06E-02	1.36E-02
								100%	95.82%	PM _{2.5}	0.00031667	Tons	5.20E-03	2.28E-02	3.83E-03



Missouri Department of dnr.mo.gov

NATURAL RESOURCES

Michael L. Parson, Governor

Carol S. Comer, Director

JUN 05 2018

Mr. Nick Rojas
Environmental Engineer
Brandenburg Industrial Service Company - PORT-0780
2625 South Loomis Street
Chicago, IL 60608

RE: New Source Review Permit - Project Number: 2018-05-030
Installation Number: PORT-0780

Dear Mr. Rojas:

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 is necessary for continued compliance. In addition, please note that Brandenburg Industrial Service Company - PORT-0780 cannot operate with any other plants that have ambient impact limits based on the Air Pollution Control Program's nomographs. Please refer to the permits of any plant that you are operating with to see if their respective permits contain an ambient impact limit. 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



Recycled paper

Mr. Nick Rojas
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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.ao.mo.gov/ahc.

If you have any questions, please do not hesitate to contact Kathy Kolb, at the department's 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

Permit Number: 06 2018 - 003