

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: 092017-005

Project Number: 2017-06-048
Installation ID: PORT-0753

Parent Company: C. J. Moyna & Sons, Inc.

Parent Company Address: 24412 Hwy B, Elkader, MO 52043

Installation Name: C. J. Moyna & Sons, Inc.

Installation Address: 3 Miles North of Wayland, MO on Hwy Pass Junction C,
Wayland, MO

Location Information: Clark County, S9 T65N R06W

Application for Authority to Construct was made for:
Portable rock crushing plant. 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.

Rendall B. Hale for

Prepared by
Kathy Kolb
New Source Review Unit

Kyra L Moore

Director or Designee
Department of Natural Resources

SEP 19 2017

Effective Date

STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Enforcement and Compliance Section of the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Enforcement and Compliance Section of the Department's Air Pollution Control Program of the anticipated date of 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**
C. J. Moyna & Sons, Inc. 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. C. J. Moyna & Sons, Inc. shall not be operated at any location longer than 24 consecutive months except if the Site Specific Special Conditions of this portable plant, PORT-0753, contain a nonroad engine requirement limiting the portable plant at the site specific location to 12 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 (e.g. the site was only permitted for solitary operation and now another plant is located at the site), 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**
C. J. Moyna & Sons, Inc. 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**
C. J. Moyna & Sons, Inc. 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."

1. **Best Management Practices Requirement**
C. J. Moyna & Sons, Inc. shall control fugitive emissions from all of the haul roads and vehicular activity areas at this site by performing BMPs as defined in Attachment AA.
2. **Annual Emission Limit**
 - A. C. J. Moyna & Sons, Inc. shall emit less than 15.0 tons of PM₁₀ in any 12-month period from the entire installation as defined in Table 1 in the Project Description.
 - B. C. J. Moyna & Sons, Inc. shall demonstrate compliance with Special Condition 2.A using Attachment A or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form.
3. **Moisture Content Testing Requirement**
 - A. C. J. Moyna & Sons, Inc. shall verify that the moisture content of the processed rock is greater than or equal to 1.5 percent by weight.
 - B. Testing shall be conducted according to the method prescribed by the American Society for Testing Materials (ASTM) D-2216, C-566 or another method approved by the Director. Testing of the moisture content should be done without the wet spray devices on
 - C. The initial test shall be conducted no later than 45 days after the start of operation. A second test shall be performed the calendar year following the initial test during the months of July or August.
 - D. The test samples shall be taken from rock that has been processed by the plant or from each source of aggregate (e.g. quarry).
 - E. The written analytical report shall include the raw data and moisture content of each sample, the test date and the original signature of the individual performing the test. The report shall be filed on-site or at the C. J. Moyna & Sons, Inc. main office within 30 days of completion of the required test.
 - F. If the moisture content of either of the two tests is less than the moisture content in Special Condition 3.A, another test may be performed within 15 days of the noncompliant test. If the results of that test is less than the moisture content in Special Condition 3.A, C. J. Moyna & Sons, Inc. shall either:

SITE SPECIFIC SPECIAL CONDITIONS:

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

- 1) Apply for a new permit to account for the revised information, or
 - 2) Submit a plan for the installation of wet spray devices to the Compliance/Enforcement Section of the Air Pollution Control Program within 10 days of the second noncompliant test. Plans may be sent by mail to P.O. Box 176, Jefferson City, MO 65102 or by email at aircompliancereporting@dnr.mo.gov. The wet spray devices shall be installed and operational within 40 days of the second noncompliant test.
4. **Primary Equipment Requirement**
C. J. Moyna & Sons, Inc. shall process all rock through the primary crusher (EP-03). Bypassing the primary crusher is prohibited.
 5. **Nonroad Engine Requirement**
C. J. Moyna & Sons, Inc.'s engines (CAT Diesel Engines #37-05-19 and #37-08-01) shall not remain at one location within this site longer than 12 consecutive months in order for the engines to meet the definition of a nonroad engine as stated in 40 CFR 89.2. These engines shall be moved with its associated equipment at least once every 12 consecutive months at this site.
 6. C. J. Moyna & Sons, Inc. PORT-0753 cannot operate with any other plants that have ambient impact limits based on the Air Pollution Control Program's nomographs.
 7. **Record Keeping Requirement**
C. J. Moyna & Sons, Inc. 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.
 8. **Reporting Requirement**
C. J. Moyna & Sons, Inc. shall report to the Air Pollution Control Program, Enforcement 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.

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

Project Number: 2017-06-048

Installation ID Number: PORT-0753

Permit Number: 092017-005

C. J. Moyna & Sons, Inc.: Complete: June 20, 2017
3 Miles North of Wayland, MO on Hwy Pass Junction C
Wayland, MO

Parent Company:
C. J. Moyna & Sons, Inc.
24412 Hwy B
Elkader, MO 52043

Clark County, S9 T65N R06W

PROJECT DESCRIPTION

C. J. Moyna & Sons, Inc. is moving their Portable Plant #2 (PORT-0753) from Iowa to Clark County to produce crushed limestone for Wayland Stone, LLC Quarry near Alexandria, Missouri. PORT-0753 will have a MHDR of 500 tons per hour and will consist of the equipment in Table 1.

Conveyors EP-13 through EP-17 are transfer conveyors directly off of the screen. Although capable of transferring screened aggregate at 500 tons per hour, they were calculated with a zero MHDR because emissions were calculated as if all screened aggregate was further processed through the Sandvik Cone Crusher (EP-07) and conveyed by EP-08 through EP-11.

There are spray devices on various equipment but they are not required by a Special Condition at this site because a 1.5% moisture content for the portable plant is in Site-Special Condition 3. Testing of the moisture content should be done without the wet spray devices on.

The applicant is using one of the methods described in Attachment AA, "Best Management Practices," to control emissions from haul roads and vehicular activity areas.

This installation is located in Clark County, an attainment area for all criteria pollutants.

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 C. J. Moyna & Sons, Inc. from the Air Pollution Control Program.

TABLES

Table 1: PORT-0753 Equipment List

Emission Point	Equipment Description	ID #	MHDR
EP-01	Truck unloading from the pit	N/A	500
EP-02	Feed Hopper	N/A	500
EP-03	Universal Primary Impactor Model 5160	16-05-99	500
EP-04	Eject Conveyor	49-05-02	500
EP-05	Swift K3660 60" Conveyor	49-05-16	500
EP-06	KPI Dual Screening Plant Model 7203/7203LPPM	29-15-42	500
EP-07	Sandvik Cone Crusher	16-15-02	400
EP-08	Superior 36" x 60' Conveyor	49-04-19	500
EP-09	Superior 36" x 60' Conveyor	49-08-69	500
EP-10	Superior 36" x 70' Conveyor	49-08-96	500
EP-11	Kolberg 36" x 80' Conveyor	49-07-01	500
EP-12	KPI 42" x 125" Stacking Conveyor	49-16-16	500
EP-13	Swift K3660 60' Conveyor	49-05-16	500
EP-14	KPI 36" x 100' Conveyor	49-16-16	500
EP-15	30" x 50' Transfer Conveyor	49-09-69	500
EP-16	Superior 36" x 70' Transfer Conveyor	49-08-97	500
EP-17	Swift K3680 80' Conveyor	49-05-15	500
Nonroad	CAT 3412 Diesel Engine (Generator)	37-05-19	896 HP 575 KW
Nonroad	CAT 3306 Diesel Engine (Generator)	37-08-01	211 HP 265KW
EP-18a	Storage Pile Load-in	N/A	500
EP-18b	Storage Pile Load-out	N/A	500
EP-18c	Storage Pile Vehicular Activity	N/A	10.82 VMT/hr
EP-18d	Storage Pile Wind Erosion	N/A	4 acres
EP-19	Haul Roads	N/A	2.5 VMT/hr

The table below summarizes the emissions of this project. The potential emissions of the process equipment, which excluded emissions from haul roads and wind erosion, are not site specific and should not vary from site to site. There are no existing actual emissions because this is a new portable plant locating in Missouri. 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 emissions limit to avoid dispersion modeling requirements.

Table 2: Emissions Summary (tons per year)

Air Pollutant	De Minimis Level/SMAL	Potential Emissions of Process Equipment	Existing Actual Emissions	^a Potential Emissions of the Application	Conditioned Potential Emissions
PM	25.0	11.69	N/A	101.41	40.02
PM ₁₀	15.0	4.45	N/A	38.01	<15.0
PM _{2.5}	10.0	0.70	N/A	7.31	2.89
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

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

^aIncludes site specific haul road and storage pile emissions

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 inherent moisture content of the crushed rock is greater 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 90% control efficiency for PM and PM₁₀ and a 74% control efficiency for PM_{2.5} were applied to the emission calculations for the use of BMPs.

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 is 1.5% by weight.
- 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."

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.

OPERATING SCENARIOS

C. J. Moyna & Sons, Inc. PORT-0753 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.

APPLICABLE REQUIREMENTS

C. J. Moyna & Sons, Inc. 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.
- 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 (NESHAP) 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 June 6, 2017, received June 15, 2017, designating C. J. Moyna & Sons, Inc. as the owner and operator of the installation.

Attachment AA: Best Management Practices

Haul roads and vehicular activity areas shall be maintained in accordance with at least one of the following options when the plant is operating.

1. **Pavement**
 - A. The operator shall pave the area with materials such as asphalt, concrete or other materials approved by the Air Pollution Control Program. The pavement will be applied in accordance with industry standards to achieve control of fugitive emissions while the plant is operating.
 - B. Maintenance and repair of the road surface will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating.
 - C. The operator shall periodically wash or otherwise clean all of the paved portions of the haul roads as necessary to achieve control of fugitive emissions from these areas while the plant is operating.

2. **Application of Chemical Dust Suppressants**
 - A. The operator shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to unpaved areas.
 - B. The quantities of the chemical dust suppressant shall be applied and maintained in accordance with the manufacturer's recommendation (if available) and in sufficient quantities to achieve control of fugitive emissions from these areas while the plant is operating.
 - C. The operator shall record the time, date and the amount of material applied for each application of the chemical dust suppressant agent on the above areas. The operator shall keep these records with the plant for not less than five (5) years and make these records available to Department of Natural Resources' personnel upon request.

3. **Application of Water-Documented Daily**
 - A. The operator shall apply water to unpaved areas. Water shall be applied at a rate of 100 gallons per day per 1,000 square feet of unpaved or untreated surface area while the plant is operating.
 - B. Precipitation may be substituted for watering if the precipitation is greater than one quarter of one inch and is sufficient to control fugitive emissions.
 - C. Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads.
 - D. The operator shall record the date, volume of water application and total surface area of active haul roads or the amount of precipitation that day. The operators shall also record the rationale for not watering (e.g. freezing conditions or not operating).
 - E. The operator shall keep these records with the plant for not less than five (5) years, and the operator shall make these records available to Department of Natural Resources' personnel upon request.

APPENDIX A

Abbreviations and Acronyms

%percent	MMBtuMillion British thermal units
°Fdegrees Fahrenheit	MMCFmillion cubic feet
acfmactual cubic feet per minute	MSDSMaterial Safety Data Sheet
BACTBest Available Control Technology	NAAQSNational Ambient Air Quality Standards
BMPsBest Management Practices	NESHAPs ..National Emissions Standards for Hazardous Air Pollutants
BtuBritish thermal unit	NO_xnitrogen oxides
CAMCompliance Assurance Monitoring	NSPSNew Source Performance Standards
CASChemical Abstracts Service	NSRNew Source Review
CEMSContinuous Emission Monitor System	PMparticulate matter
CFRCode of Federal Regulations	PM_{2.5}particulate matter less than 2.5 microns in aerodynamic diameter
COcarbon monoxide	PM₁₀particulate matter less than 10 microns in aerodynamic diameter
CO₂carbon dioxide	ppmparts per million
CO_{2e}carbon dioxide equivalent	PSD Prevention of Significant Deterioration
COMSContinuous Opacity Monitoring System	PTEpotential to emit
CSRCode of State Regulations	RACTReasonable Available Control Technology
dscfdry standard cubic feet	RALRisk Assessment Level
EIQEmission Inventory Questionnaire	SCCSource Classification Code
EPEmission Point	scfmstandard cubic feet per minute
EPAEnvironmental Protection Agency	SDSSafety Data Sheet
EUEmission Unit	SICStandard Industrial Classification
fpsfeet per second	SIPState Implementation Plan
ftfeet	SMALScreening Model Action Levels
GACTGenerally Available Control Technology	SO_xsulfur oxides
GHGGreenhouse Gas	SO₂sulfur dioxide
gpmgallons per minute	SSMstartup, shutdown, & malfunction
grgrains	tphtons per hour
GWPGlobal Warming Potential	tpytons per year
HAPHazardous Air Pollutant	VMTvehicle miles traveled
hrhour	VOCVolatile Organic Compound
hphorsepower	
lbpound	
lbs/hrpounds per hour	
MACTMaximum Achievable Control Technology	
µg/m³micrograms per cubic meter	
m/smeters per second	
Mgal1,000 gallons	
MWmegawatt	
MHDRmaximum hourly design rate	

Equipment Operational Status	Emission Unit Number	Description of Unit	Equipment/BOC Description	Equip Type	Max Hourly Throughput (MHTP)	MHTP Units	Control Type	COOP Applicable
N	EP-01	Truck unloading from pit	Truck Unloading - Fragmented Stone EF 30502031	Fugitive	500.0000	Tons	Moisture => 1.5%	
N	EP-02	Feed hopper	Grizzly Feeder 30502031	Fugitive	500.0000	Tons	Moisture => 1.5%	
N	EP-03	Universal Primary Impactor Model 5160	Crusher-Primary, (Diameter 3'-12") 30502001	Process	500.0000	Tons	Moisture => 1.5%	
N	EP-04	Eject Conveyor	Conveyor 30502006	Process	500.0000	Tons	Moisture => 1.5%	
N	EP-05	Swift 80' conveyor	Conveyor 30502006	Process	500.0000	Tons	Moisture => 1.5%	
	EP-06	KPI dual screening plant	Screens, (3/16" or Greater) 30502002	Process	500.0000	Tons	Moisture => 1.5%	
	EP-07	Bandvik cone crusher	Crusher-Secondary, (Diameter 1-4') 30502002	Process	400.0000	Tons	Moisture => 1.5%	
	EP-08	Superior 36" x 80' conveyor	Conveyor 30502006	Process	500.0000	Tons	Moisture => 1.5%	
	EP-09	Superior 36" x 60' conveyor	Conveyor 30502006	Process	500.0000	Tons	Moisture => 1.5%	
	EP-10	Superior 36" x 70' conveyor	Conveyor 30502006	Process	500.0000	Tons	Moisture => 1.5%	
	EP-11	Kolberg 38" x 60' conveyor	Conveyor 30502006	Process	500.0000	Tons	Moisture => 1.5%	
	EP-12	KPI 42" x 125' Stacking Conveyor	Conveyor 30502006	Process	500.0000	Tons	Moisture => 1.5%	
	EP-13	Swift K2680 Conveyor	Conveyor 30502006	Process	0.0000	Tons	Moisture => 1.5%	
	EP-14	KPI 30" x 100' Conveyor	Conveyor 30502006	Process	0.0000	Tons	Moisture => 1.5%	
	EP-15	3" x 50' Transfer Conveyor	Conveyor 30502006	Process	0.0000	Tons	Moisture => 1.5%	
	EP-16	Superior 36" x 70' Transfer Conveyor	Conveyor 30502006	Process	0.0000	Tons	Moisture => 1.5%	
	EP-17	Swift K2680 Conveyor	Conveyor 30502006	Process	0.0000	Tons	Moisture => 1.5%	
		CAT Diesel Engine (generator nonroad) #37-05-19						
		CAT Diesel Engine (generator nonroad) #37-08-01						

Cell: A3

Comment: One cubic yard of concrete weighs approximately two tons

Cell: C24

Comment: Storage Pile ID No.:
The storage pile No. is not used on the emission factor pages, but rather labeled "Storage Pile"

Cell: C25

Comment: Maximum Surface Area of Storage Pile (Acres):
Enter the total surface area of all storage piles.

Cell: C28

Comment: Type of Material Stored:
Do NOT use Various limestone products for aggregate, rock or crushed limestone.

Cell: C27

Comment: Storage Pile Materials - Moisture Content Information

Material Stored	Moisture Content %	
	Range	Mean
Crushed Limestone *	0.2 to 1.1	0.7
Various Limestone Products	0.48 to 5.0	2.1
Sand	--	7.4
Clay/Dirt Mix	--	14.0
Clay	8.9 to 11.0	10.0

* Additional documentation (i.e. test data, ASTM-C-136 method) should be provided if using a different value for the moisture contents in place of the default (mean) value.

Cell: C28

Comment: Storage Pile Materials - Silt Content Information

Material Stored	Silt Content %	
	Range	Mean
Crushed Limestone *	1.3 to 1.8	1.6
Various Limestone Products	0.8 to 14	14.0
Sand	--	2.8
Clay/Dirt Mix	--	9.2
Clay	4.5 to 7.4	6.0

* Additional documentation (i.e. test data, ASTM-C-136 method) should be provided if using a different value for the silt contents in place of the default (mean) value.

Cell: C32

Comment: Unloaded Loader Weight:
This data will be used by Paved & Unpaved worksheets to calculate storage pile traffic emissions

Cell: C34

Comment: Rate:
For Pile #1, the default is the primary crusher size.

Cell: C35

Comment: max VMT per hour:
 $MHDR = 2 * D * R / (U - L)$ where:
MHDR = maximum hourly design rate (VMT/hr)
D = one way length of haul road (miles)
R = rate of material hauled (tons/hr)
U = unloaded truck weight (tons)
L = loaded truck weight (tons)

Cell: C40

Comment: Haul Road ID No.: Enter a value or number to uniquely identify this emission unit/point at this installation. The value entered for the Haul Road ID No. must be consistent with those in your Emission Inventory Questionnaire (EIQ) and your Operating Permit/Application.

Cell: C42

Comment: Unloaded Truck Weight (Tons): Enter the unloaded weight of the haul trucks. Note: If using haul trucks of varying unloaded weights, then a "fleet" weighted average value should be used and documentation of the analysis should included with your submittal.
Example: 75% of rock is hauled in a 50 ton truck and 25% is hauled in a 30 ton truck. The "fleet" average unloaded weight would be calculated as follows:
"Fleet" Avg. Wt. = [(0.75 x 50 tons) + (0.25 x 30 tons)]
= [(37.5 tons) + (7.5 tons)]
= 45 tons

Cell: C43

Comment: Average Loaded Truck Weight (Tons): Enter the average loaded weight of the haul trucks. Note: If using haul trucks of varying loaded weights, then a "fleet" weighted average value should be used and documentation of the analysis should included with your submittal.
Example: 75% of rock is hauled in a 50 ton truck and 25% is hauled in a 30 ton truck. The "fleet" average unloaded weight would be calculated as follows:
"Fleet" Avg. Wt. = [(0.75 x 50 tons) + (0.25 x 30 tons)]
= [(37.5 tons) + (7.5 tons)]
= 45 tons

Cell: C44

Comment: Pile Hauled:
For Road #1, the default is the primary crusher size.

Cell: C45

Comment: max VMT per hour:
 $MHDR = 2 * D * R / (U - L)$ where:
MHDR = maximum hourly design rate (VMT/hr)
D = one way length of haul road (miles)
R = rate of material hauled (tons/hr)
U = unloaded truck weight (tons)
L = loaded truck weight (tons)

Cell: D51

Comment: Because BHP and gallons per hour are linked through code, if you want to erase them, you have to highlight both cells and then hit the delete key.

Cell: E51

Comment: Because BHP and gallons per hour are linked through code, if you want to erase them, you have to highlight both cells and then hit the delete key.

Cell: F51

Comment: Because BHP and gallons per hour are linked through code, if you want to erase them, you have to highlight both cells and then hit the delete key.

Cell: D53

Comment: Because BHP and gallons per hour are linked through code, if you want to erase them, you have to highlight both cells and then hit the delete key.

Cell: E53

Comment: Because BHP and gallons per hour are linked through code, if you want to erase them, you have to highlight both cells and then hit the delete key.

Cell: F53

Comment: Because BHP and gallons per hour are linked through code, if you want to erase them, you have to highlight both cells and then hit the delete key.

Cell: C55

Comment: Generator-set engine:
means an engine used primarily to operate an electrical generator or alternator to produce electric power for other applications.

Cell: C57

Comment: Fuel Sulfur Content:
From: Randolph, Bob
Sent: Monday, December 22, 2014 12:05 PM
To: Little, David
Cc: Hackenkamp, Susan
Subject: FW: no permit required concurrence

The Air Quality Planning Section agrees with the 'no construction permit required' determination per the requirements of 10 CSR 10-6.061.

Additional Comment:
Please note that as part of the development of the 1-hour SO₂ NAAQS State Implementation Plan, Missouri may in the next few years codify a state regulatory requirement that all diesel powered engines and boilers throughout Missouri (or near large SO₂ sources) shall be required to use diesel fuel compliant with federal Ultra Low Sulfur Diesel (ULSD) requirements [15 ppm Sulfur content]. Though the Air Program has been informed by diesel purchasers and users that ULSD is their only option when purchasing diesel fuel in Missouri and throughout the Midwest, the USEPA does not consider the federal requirements to be binding. As a result, Missouri may be required by USEPA to include such a binding ULSD requirement in a future state rulemaking and/or as part of another permanent and enforceable mechanism(s). Thank you.

From: Wilbur, Emily
Sent: Monday, December 15, 2014 1:52 PM
To: Randolph, Bob
Subject: FW: no permit required concurrence

From: Little, David
Sent: Monday, December 15, 2014 1:49 PM
To: Blyden, Darcy; O'Neil, Nathan; Stevens, Jeffrey; Stansfeld, Michael; Wilbur, Emily
Cc: Hackenkamp, Susan
Subject: no permit required concurrence

The Permits Section is requesting concurrence on a permit determination. A draft no permit required letter is attached. The Permits Section is sending this email to request each section to review the draft letter and provide input and approval.

Please respond to this email by December 22.

Thank you,

David Little, PE
Missouri Department of Natural Resources
Air Pollution Control Program
P.O. Box 178, Jefferson City, MO 65102
david.little@dnr.mo.gov 573-751-4917

Cell: E00

Comment: Desc:
Enter your own description of combustion source 1.

Cell: D64

Comment: Fuel Type:
You should fill in a choice for both Chap 11 & Part 88 and these choices must coincide.

Cell: D66

Comment: Default Fuel Sulfur Content:
= 15 grains/100 cubic feet [default for Propane]
= 0.0015 %S [default for Fuel Oil]

Cell: F88

Comment: Default Fuel Sulfur Content:
= 15 grains/100 cubic feet [default for Propane]
= 0.0015 %S [default for Fuel Oil]

Cell: H86

Comment: Default Fuel Sulfur Content:
= 15 grains/100 cubic feet [default for Propane]
= 0.0015 %S [default for Fuel Oil]

Cell: C88

Comment: Annual VOC (pounds):
This is the total VOC emissions per year from the EPA Tank 4.09v program, or some other source.

Cell: A78

Comment: Below Equipment List:
DO NOT include combustion sources, storage piles, haul roads or generator sets in the equipment list below. The below list is for all the equipment not listed above.

Cell: 78

Comment: Maximum Hourly ThroughPut (MHTP): The maximum hourly throughput of the specific process or piece of equipment. The MHTP for storage piles and haul roads should automatically be filled in when the "Equipment/SOC Description" value is selected, assuming the required storage pile and haul road entries at the top of this page are completed first.
On most processes and equipment, the worksheet will default this MHTP value to the "Primary Unit Size" in tons per hour. If the individual maximum hourly design rate (MHDR) for a piece of equipment is different, then the appropriate MHTP cell in this column should be revised. The process flow diagram should document and support the usage of any alternative value(s) entered.
Some emission units may be physically limited or bottlenecked by operations that precede the unit. In such a situation, the actual MHDR of the individual unit should be reported as a Comment to the MHTP cell for the equipment. The default value for this field is 100% of the MHDR of the unit passing through the unit.
Example: Two (2) 100 tph conveyors immediately follow a 150 tph screen. The MHTP of the conveyors should be entered as 100 tph and this field should be adjusted so the emissions and ambient impacts from the conveyors total to only the 150 tph allowed by the preceding screen.

Cell: J79

Comment: MHTP Units: The MHTP Units should automatically be entered when the appropriate "Equipment/SOC Description" code is selected. If a non-standard emission unit is to be entered, then the MHTP Units may have to be entered. In addition, the Emission Factor and Nomograph Value for Unit on the appropriate worksheets will probably also have to be revised.

Cell: A80

Comment: Equipment Operational Status:
Indicate the status of equipment regarding construction in this project.

Cell: B80

Comment: Unit ID: Enter a value or number to uniquely identify this emission unit/pot at this installation. This Unit ID number must be consistent with those in your Emission Inventory Questionnaire (EIQ) and your Operating Permit/Application.

Cell: C80

Comment: Description of Unit: Enter a description of the emission unit that uniquely describes the activity associated with that emission unit at the installation. This Unit Description should be consistent with those in your Emission Inventory Questionnaire (EIQ) and your Operating Permit/Application.

Cell: F80

Comment: Equipment/SOC Description: Using the pull-down menus in the cells below, select the appropriate equipment description/code that describes the activity associated with the specific emission unit.

Cell: H80

Comment: Equip. Type:
This is used to determine the fugitive vs non-fugitive status.

Cell: K50

Comment: Control Type: Using the pulldown menus in the cells below, select the appropriate control type for each specific emission unit. Leave the cell blank or chose "No Control" if there are no control measures associated with the emission unit.
Control Efficiency %: The Control Efficiency % is found on 11.18.2 Control Table worksheet for PM pollutant. If a Control Efficiency % is different from the Control Table or for a non-PM pollutant you should enter that percentage on the Emission Calculations worksheet for the specific equipment & pollutant. Note: Documentation on the Control Efficiency % may also need to be provided to justify the value entered.

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	8.0
Days per year	432.1
Hours per year	3456.7

For Multiple Plant Operation

Hours per day	8.0
Days per year	432.1
Hours per year	3456.7

Pollutant	Justification for Limit
	De Minimis

Pollutant	Potential Emissions of Process Equipment (tons/yr)	Potential Emissions including fugitives (tons/yr)	Allowable Emissions for 2457 hours per year (tons/yr)	De Minimis Thresholds	Plant-wide Composite Emission Factor (lb/ton)
PM	11.69	101.41	40.02	25	0.0463
PM ₁₀	4.45	38.01	15.00	15	0.0174
PM _{2.5}	0.70	7.31	2.89	10	0.0033
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 ₂ eq	-	-	-	100,000	0.0000

Limit Hours per Year
Limit Hours per Year w/ 24 hr day

Maximum hourly discharge (tons/hr)	500
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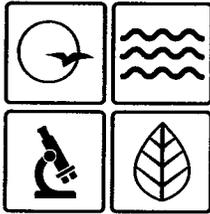
Tons of product per day	4,000.0
Tons of product per year	1,728,358.8

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/Lohr)	Emission Rate (lbs/hr)	Potential Emissions (tons/yr)	Allowable Emissions (tons/yr)
		EngSet #1			gpg gallons per hour MMBtu/hour kW-hr			N/A	N/A	PM		mmBtu			
		Model Year						N/A	N/A	PM ₁₀		mmBtu			
								N/A	N/A	PM _{2.5}		mmBtu			
								N/A	N/A	SO ₂		Gallon			
								N/A	N/A	NO ₂		mmBtu			
								N/A	N/A	CO		mmBtu			
								N/A	N/A	VOC		mmBtu			
								N/A	N/A	CH ₄		mmBtu			
								N/A	N/A	HAPs		mmBtu			
								N/A	N/A	CO ₂		mmBtu			
								N/A	N/A	N ₂ O		mmBtu			
								N/A	N/A	GHG _{equiv}		mmBtu			
								N/A	N/A	CH ₄		mmBtu			
		EngSet #2			gpg gallons per hour MMBtu/hour kW-hr			N/A	N/A	PM		mmBtu			
		Model Year						N/A	N/A	PM ₁₀		mmBtu			
								N/A	N/A	PM _{2.5}		mmBtu			
								N/A	N/A	SO ₂		Gallon			
								N/A	N/A	NO ₂		mmBtu			
								N/A	N/A	CO		mmBtu			
								N/A	N/A	VOC		mmBtu			
								N/A	N/A	CH ₄		mmBtu			
								N/A	N/A	HAPs		mmBtu			
								N/A	N/A	CO ₂		mmBtu			
								N/A	N/A	N ₂ O		mmBtu			
								N/A	N/A	GHG _{equiv}		mmBtu			
								N/A	N/A	CH ₄		mmBtu			
		EngSet #3			gpg gallons per hour MMBtu/hour kW-hr			N/A	N/A	PM		mmBtu			
		Model Year						N/A	N/A	PM ₁₀		mmBtu			
								N/A	N/A	PM _{2.5}		mmBtu			
								N/A	N/A	SO ₂		Gallon			
								N/A	N/A	NO ₂		mmBtu			
								N/A	N/A	CO		mmBtu			
								N/A	N/A	VOC		mmBtu			
								N/A	N/A	CH ₄		mmBtu			
								N/A	N/A	HAPs		mmBtu			
								N/A	N/A	CO ₂		mmBtu			
								N/A	N/A	N ₂ O		mmBtu			
								N/A	N/A	GHG _{equiv}		mmBtu			
								N/A	N/A	CH ₄		mmBtu			
18a		Pile #1						N/A	N/A	PM		ton	4.30E+00	16.10	7.54
		Load In		500.00	tons per hour			N/A	N/A	PM ₁₀		ton	2.06E+00	9.03	3.87
								N/A	N/A	PM _{2.5}		ton	3.12E-01	1.37	0.54
18b		Load out		500.00	tons per hour			N/A	N/A	PM		ton	4.30E+00	16.10	7.54
								N/A	N/A	PM ₁₀		ton	2.06E+00	9.03	3.87
								N/A	N/A	PM _{2.5}		ton	3.12E-01	1.37	0.54
18c		Vehicular Activity		10.62	VMT per hour	Unpaved, Documented Watering		N/A	80%	PM		VMT	8.13E+00	35.60	14.00
								N/A	80%	PM ₁₀		VMT	2.31E+00	10.12	3.90
								N/A	74%	PM _{2.5}		VMT	4.81E-01	2.03	1.04
18d		Wind Erosion		4.00	acres			N/A	N/A	PM		acres-hr	7.13E-01	3.12	1.23
								N/A	N/A	PM ₁₀		acres-hr	3.37E-01	1.56	0.62
								N/A	N/A	PM _{2.5}		acres-hr	5.35E-02	0.23	0.09
		Pile #2						N/A	N/A	PM		ton			
		Load In			tons per hour			N/A	N/A	PM ₁₀		ton			
								N/A	N/A	PM _{2.5}		ton			
		Load out			tons per hour			N/A	N/A	PM		ton			
								N/A	N/A	PM ₁₀		ton			
								N/A	N/A	PM _{2.5}		ton			
		Vehicular Activity			VMT per hour			N/A	N/A	PM		VMT			
								N/A	N/A	PM ₁₀		VMT			
								N/A	N/A	PM _{2.5}		VMT			
		Wind Erosion			acres			N/A	N/A	PM		acres-hr			
								N/A	N/A	PM ₁₀		acres-hr			
								N/A	N/A	PM _{2.5}		acres-hr			
		Pile #3						N/A	N/A	PM		ton			
		Load In			tons per hour			N/A	N/A	PM ₁₀		ton			
								N/A	N/A	PM _{2.5}		ton			
		Load out			tons per hour			N/A	N/A	PM		ton			
								N/A	N/A	PM ₁₀		ton			
								N/A	N/A	PM _{2.5}		ton			
		Vehicular Activity			VMT per hour			N/A	N/A	PM		VMT			
								N/A	N/A	PM ₁₀		VMT			
								N/A	N/A	PM _{2.5}		VMT			
		Wind Erosion			acres			N/A	N/A	PM		acres-hr			
								N/A	N/A	PM ₁₀		acres-hr			
								N/A	N/A	PM _{2.5}		acres-hr			
		Pile #4						N/A	N/A	PM		ton			
		Load In			tons per hour			N/A	N/A	PM ₁₀		ton			
								N/A	N/A	PM _{2.5}		ton			
		Load out			tons per hour			N/A	N/A	PM		ton			
								N/A	N/A	PM ₁₀		ton			
								N/A	N/A	PM _{2.5}		ton			
		Vehicular Activity			VMT per hour			N/A	N/A	PM		VMT			
								N/A	N/A	PM ₁₀		VMT			
								N/A	N/A	PM _{2.5}		VMT			
		Wind Erosion			acres			N/A	N/A	PM		acres-hr			
								N/A	N/A	PM ₁₀		acres-hr			
								N/A	N/A	PM _{2.5}		acres-hr			
19		Load #1		2.50	VMT per hour	Unpaved, Documented Watering		N/A	80%	PM		VMT	11.5441	12.83	4.99
								N/A	80%	PM ₁₀		VMT	3.4074	3.79	1.47
								N/A	74%	PM _{2.5}		VMT	0.3407	0.97	0.39

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/Unit)	Emission Rate (lb/hr)	Potential Emissions (tons/yr)	Allowable Emissions (tons/yr)
	Road #2				VMT per hour			N/A	N/A	PM ₁₀		VMT			
	Road #3				VMT per hour			N/A	N/A	PM _{2.5}		VMT			
	Road #4				VMT per hour			N/A	N/A	PM ₁₀		VMT			
	Road #5				VMT per hour			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	Unit per hour						Emission Factor (lbs/MMBtu)				
		Combustion #1			mmBtu			100%	N/A	PM		mgal			
					mgal			100%	N/A	PM ₁₀		mgal			
					mmscf			100%	N/A	PM _{2.5}		mgal			
								100%	N/A	SO ₂		mgal			
								100%	N/A	NO _x		mgal			
								100%	N/A	VOC		mgal			
								100%	N/A	CO		mgal			
								100%	N/A	CH ₄		mgal			
								100%	N/A	Pb		mgal			
								100%	N/A	HAPs		mgal			
								100%	N/A	CO ₂		mgal			
								100%	N/A	N ₂ O		mgal			
								100%	N/A	GHG		mgal			
								100%	N/A	CH ₄		mgal			
		Combustion #2			mmBtu			100%	N/A	PM		mgal			
					mgal			100%	N/A	PM ₁₀		mgal			
					mmscf			100%	N/A	PM _{2.5}		mgal			
								100%	N/A	SO ₂		mgal			
								100%	N/A	NO _x		mgal			
								100%	N/A	VOC		mgal			
								100%	N/A	CO		mgal			
								100%	N/A	CH ₄		mgal			
								100%	N/A	Pb		mgal			
								100%	N/A	HAPs		mgal			
								100%	N/A	CO ₂		mgal			
								100%	N/A	N ₂ O		mgal			
								100%	N/A	GHG		mgal			
								100%	N/A	CH ₄		mgal			
		Combustion #3			mmBtu			100%	N/A	PM		mgal			
					mgal			100%	N/A	PM ₁₀		mgal			
					mmscf			100%	N/A	PM _{2.5}		mgal			
								100%	N/A	SO ₂		mgal			
								100%	N/A	NO _x		mgal			
								100%	N/A	VOC		mgal			
								100%	N/A	CO		mgal			
								100%	N/A	CH ₄		mgal			
								100%	N/A	Pb		mgal			
								100%	N/A	HAPs		mgal			
								100%	N/A	CO ₂		mgal			
								100%	N/A	N ₂ O		mgal			
								100%	N/A	GHG		mgal			
								100%	N/A	CH ₄		mgal			

Emission Point Number	Emission Unit Number	Description	SCC	Maximum Hourly	Units of Measure	Control Device Number	Control Type	Capture Efficiency (%)	Control Efficiency (%)	Potential	Emission Factor	Emission Factor (lbs/LOM)	Emission Rate (lbs/hr)	Potential Emissions (ton/yr)	Allowable Emissions (ton/yr)
Equipment Operational Status	Emission Unit Number	Description of Unit	Equipment/SCC Description	MHTP	Units	Equip Type	Control Type				Emission Factor	(lbs/LOM)			
N	EP-01	Truck unloading from pit	Truck Unloading - Fragmented Stone EF 30502001	500.00	Tons	Fugitive	Moisture => 1.5%	100%	0.00%	PM	0.000002	Tons	1.80E-02	7.01E-02	2.77E-02
						Fugitive		100%	0.00%	PM _{2.5}	0.000018	Tons	8.00E-03	3.00E-02	1.38E-02
						Fugitive		100%	0.00%	PM ₁₀	0.000008	Tons	4.00E-03	1.78E-02	8.91E-03
N	EP-02	Feed hopper	Grizzly Feeder 30502001	500.00	Tons	Fugitive	Moisture => 1.5%	100%	0.00%	PM	0.000002	Tons	1.80E-02	7.01E-02	2.77E-02
						Fugitive		100%	0.00%	PM _{2.5}	0.000018	Tons	8.00E-03	3.00E-02	1.38E-02
						Fugitive		100%	0.00%	PM ₁₀	0.000008	Tons	4.00E-03	1.78E-02	8.91E-03
N	EP-03	Universal Primary Impactor Model 5100	Crusher-Primary, (Diameter 3-12') 30502001	500.00	Tons	Process	Moisture => 1.5%	100%	77.78%	PM	0.0004	Tons	6.00E-01	2.83E+00	1.04E+00
						Process		100%	77.80%	PM _{2.5}	0.0004	Tons	2.70E-01	1.18E+00	4.87E-01
						Process		100%	77.50%	PM ₁₀	0.000444444	Tons	5.00E-02	2.18E-01	8.64E-02
N	EP-04	Eject Conveyor	Conveyor 30502006	500.00	Tons	Process	Moisture => 1.5%	100%	95.33%	PM	0.003	Tons	7.00E-02	3.07E-01	1.21E-01
						Process		100%	95.82%	PM _{2.5}	0.0011	Tons	2.30E-02	1.01E-01	3.98E-02
						Process		100%	95.82%	PM ₁₀	0.00031087	Tons	6.50E-03	2.85E-02	1.12E-02
N	EP-05	Swift 80' conveyor	Conveyor 30502006	500.00	Tons	Process	Moisture => 1.5%	100%	95.33%	PM	0.003	Tons	7.00E-02	3.07E-01	1.21E-01
						Process		100%	95.82%	PM _{2.5}	0.0011	Tons	2.30E-02	1.01E-01	3.98E-02
						Process		100%	95.82%	PM ₁₀	0.00031087	Tons	6.50E-03	2.85E-02	1.12E-02
EP-06	KPI dual screening plant	Screens, (3/16" or Greater) 30502002		600.00	Tons	Process	Moisture => 1.5%	100%	91.20%	PM	0.028	Tons	1.10E+00	4.62E+00	1.68E+00
						Process		100%	91.49%	PM _{2.5}	0.0087	Tons	3.70E-01	1.62E+00	6.30E-01
						Process		100%	91.49%	PM ₁₀	0.00087838	Tons	2.50E-02	1.10E-01	4.50E-02
EP-07	Sandvik cone crusher	Crusher-Secondary, (Diameter 1-4') 30502002		400.00	Tons	Process	Moisture => 1.5%	100%	77.78%	PM	0.0004	Tons	4.80E-01	2.10E+00	8.30E-01
						Process		100%	77.80%	PM _{2.5}	0.0004	Tons	2.19E-01	9.48E-01	3.75E-01
						Process		100%	77.50%	PM ₁₀	0.000444444	Tons	4.00E-02	1.75E-01	6.91E-02
EP-08	Superior 36" x 80' conveyor	Conveyor 30502006		500.00	Tons	Process	Moisture => 1.5%	100%	95.33%	PM	0.003	Tons	7.00E-02	3.07E-01	1.21E-01
						Process		100%	95.82%	PM _{2.5}	0.0011	Tons	2.30E-02	1.01E-01	3.98E-02
						Process		100%	95.82%	PM ₁₀	0.00031087	Tons	6.50E-03	2.85E-02	1.12E-02
EP-09	Superior 36" x 80' conveyor	Conveyor 30502006		500.00	Tons	Process	Moisture => 1.5%	100%	95.33%	PM	0.003	Tons	7.00E-02	3.07E-01	1.21E-01
						Process		100%	95.82%	PM _{2.5}	0.0011	Tons	2.30E-02	1.01E-01	3.98E-02
						Process		100%	95.82%	PM ₁₀	0.00031087	Tons	6.50E-03	2.85E-02	1.12E-02
EP-10	Superior 36" x 70' conveyor	Conveyor 30502006		500.00	Tons	Process	Moisture => 1.5%	100%	95.33%	PM	0.003	Tons	7.00E-02	3.07E-01	1.21E-01
						Process		100%	95.82%	PM _{2.5}	0.0011	Tons	2.30E-02	1.01E-01	3.98E-02
						Process		100%	95.82%	PM ₁₀	0.00031087	Tons	6.50E-03	2.85E-02	1.12E-02
EP-11	Kolberg 36" x 80' conveyor	Conveyor 30502006		500.00	Tons	Process	Moisture => 1.5%	100%	95.33%	PM	0.003	Tons	7.00E-02	3.07E-01	1.21E-01
						Process		100%	95.82%	PM _{2.5}	0.0011	Tons	2.30E-02	1.01E-01	3.98E-02
						Process		100%	95.82%	PM ₁₀	0.00031087	Tons	6.50E-03	2.85E-02	1.12E-02
EP-12	KPI 42" x 128' Stacking Conveyor	Conveyor 30502006		800.00	Tons	Process	Moisture => 1.5%	100%	95.33%	PM	0.003	Tons	7.00E-02	3.07E-01	1.21E-01
						Process		100%	95.82%	PM _{2.5}	0.0011	Tons	2.30E-02	1.01E-01	3.98E-02
						Process		100%	95.82%	PM ₁₀	0.00031087	Tons	6.50E-03	2.85E-02	1.12E-02
EP-13	Swift K3680 Conveyor	Conveyor 30502006		0.00	Tons	Process	Moisture => 1.5%	100%	95.33%	PM	0.003	Tons	0.00E+00	0.00E+00	0.00E+00
						Process		100%	95.82%	PM _{2.5}	0.0011	Tons	0.00E+00	0.00E+00	0.00E+00
						Process		100%	95.82%	PM ₁₀	0.00031087	Tons	0.00E+00	0.00E+00	0.00E+00
EP-14	KPI 90" x 100' Conveyor	Conveyor 30502006		0.00	Tons	Process	Moisture => 1.5%	100%	95.33%	PM	0.003	Tons	0.00E+00	0.00E+00	0.00E+00
						Process		100%	95.82%	PM _{2.5}	0.0011	Tons	0.00E+00	0.00E+00	0.00E+00
						Process		100%	95.82%	PM ₁₀	0.00031087	Tons	0.00E+00	0.00E+00	0.00E+00
EP-15	3' x 60' Transfer Conveyor	Conveyor 30502006		0.00	Tons	Process	Moisture => 1.5%	100%	95.33%	PM	0.003	Tons	0.00E+00	0.00E+00	0.00E+00
						Process		100%	95.82%	PM _{2.5}	0.0011	Tons	0.00E+00	0.00E+00	0.00E+00
						Process		100%	95.82%	PM ₁₀	0.00031087	Tons	0.00E+00	0.00E+00	0.00E+00
EP-16	Superior 36" x 70' Transfer Conveyor	Conveyor 30502006		0.00	Tons	Process	Moisture => 1.5%	100%	95.33%	PM	0.003	Tons	0.00E+00	0.00E+00	0.00E+00
						Process		100%	95.82%	PM _{2.5}	0.0011	Tons	0.00E+00	0.00E+00	0.00E+00
						Process		100%	95.82%	PM ₁₀	0.00031087	Tons	0.00E+00	0.00E+00	0.00E+00
EP-17	Swift K3680 Conveyor	Conveyor 30502006		0.00	Tons	Process	Moisture => 1.5%	100%	95.33%	PM	0.003	Tons	0.00E+00	0.00E+00	0.00E+00
						Process		100%	95.82%	PM _{2.5}	0.0011	Tons	0.00E+00	0.00E+00	0.00E+00
						Process		100%	95.82%	PM ₁₀	0.00031087	Tons	0.00E+00	0.00E+00	0.00E+00
		CAT Diesel Engh (generator nonroad) #2				Process		100%	0.00%	PM	0.00%	Tons	0.00E+00	0.00E+00	0.00E+00
						Process		100%	0.00%	PM _{2.5}	0.00%	Tons	0.00E+00	0.00E+00	0.00E+00
						Process		100%	0.00%	PM ₁₀	0.00%	Tons	0.00E+00	0.00E+00	0.00E+00
		CAT Diesel Engh (generator nonroad) #2				Process		100%	0.00%	PM	0.00%	Tons	0.00E+00	0.00E+00	0.00E+00
						Process		100%	0.00%	PM _{2.5}	0.00%	Tons	0.00E+00	0.00E+00	0.00E+00
						Process		100%	0.00%	PM ₁₀	0.00%	Tons	0.00E+00	0.00E+00	0.00E+00



Missouri Department of dnr.mo.gov

NATURAL RESOURCES

Eric R. Greitens, Governor

Carol S. Comer, Director

SEP 19 2017

Mr. Shawn Krivachek
Aggregate Manager
C. J. Moyna & Sons, Inc.
24412 Hwy B
Elkader, MO 52043

RE: New Source Review - Project Number: 2017-06-048
Installation Number: PORT-0753

Dear Mr. Krivachek:

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. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

This permit may include requirements with which you may not be familiar. If you would like the department to meet with you to discuss how to understand and satisfy the requirements contained in this permit, an appointment referred to as a Compliance Assistance Visit (CAV) can be set up with you. To request a CAV, please contact your local regional office or fill out an online request. The regional office contact information can be found at the following website: <http://dnr.mo.gov/regions/>. The online CAV request can be found at <http://dnr.mo.gov/cav/compliance.htm>.

If you were adversely affected by this permit decision, you may be entitled to pursue an appeal before the administrative hearing commission pursuant to Sections 621.250 and 643.075.6 RSMo. To appeal, you must file a petition with the administrative hearing commission within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the administrative hearing commission, whose contact information is: Administrative Hearing Commission, United States Post Office Building, 131 West High Street, Third Floor, P.O. Box 1557, Jefferson City, Missouri 65102, phone: 573-751-2422, fax: 573-751-5018, website: www.oa.mo.gov/ahc.



Recycled paper

Mr. Shawn Krivachek
Page Two

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

c: Northeast Regional Office
PAMS File: 2017-06-048

Permit Number: 092017-005