

Missouri Department of dnr.mo.gov

# NATURAL RESOURCES

Michael L. Parson, Governor

Carol S. Comer, Director

FEB 25 2019

Ms. Kendra Hopkins  
Corporate Secretary  
K & D Crushing, Inc. PORT-0785  
15343 East State Highway 8  
Mineral Point, MO 63660

RE: New Source Review - Project Number: 2019-01-029  
Installation Number: PORT-0785

Dear Ms. Hopkins:

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 is necessary for continued compliance. In addition, please note that K & D Crushing, Inc. PORT-0785 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 filed on the date it is mailed; if it is sent by any method other than registered mail or certified



Recycled paper

Ms. Kendra Hopkins  
Page Two

mail, it will be deemed filed on the date it is received by the administrative hearing commission, whose contact information is: Administrative Hearing Commission, United States Post Office Building, 131 West High Street, Third Floor, P.O. Box 1557, Jefferson City, Missouri 65102, phone: 573-751-2422, fax: 573-751-5018, website: [www.oa.mo.gov/ahc](http://www.oa.mo.gov/ahc).

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



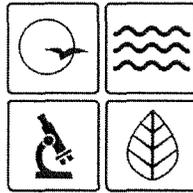
Susan Heckenkamp  
New Source Review Unit Chief

SH:kkj

Enclosures

c: Southeast Regional Office  
PAMS File: 2019-01-029

Permit Number: 022019-004



**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: 022019-004

Project Number: 2019-01-029  
Installation ID: PORT-0785

Parent Company: K & D Crushing, Inc. PORT-0785

Parent Company Address: 15343 East State Highway 8, Mineral Point, MO 63660

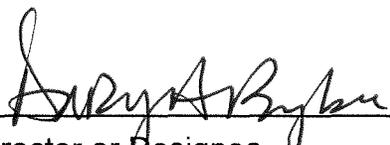
Installation Name: K & D Crushing, Inc. PORT-0785

Installation Address: Highway KK, approximately 5.5 miles south of Highway 32,  
Bixby, MO 65439

Location Information: Reynolds County, S2 T33N R2W

Application for Authority to Construct was made for:  
Installation of a new 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.

  
\_\_\_\_\_  
Director or Designee  
Department of Natural Resources

FEB 25 2019

\_\_\_\_\_  
Effective Date

## STANDARD CONDITIONS:

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

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

You must notify the Enforcement and Compliance Section of the Department's Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available within 30 days of actual startup. Also, you must notify the Department's regional office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of the permit application and this permit and permit review shall be kept at the installation address and shall be made available to Department's personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant source(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit using the contact information below.

### Contact Information:

Missouri Department of Natural Resources  
Air Pollution Control Program  
P.O. Box 176  
Jefferson City, MO 65102-0176  
(573) 751-4817

The regional office information can be found at the following website:

<http://dnr.mo.gov/regions/>

**GENERAL SPECIAL CONDITIONS:**

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

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*The special conditions listed in this permit were included based on the authority granted to the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."*

1. **Equipment Identification Requirement**  
K & D Crushing, Inc. PORT-0785 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. K & D Crushing, Inc. PORT-0785 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**  
K & D Crushing, Inc. PORT-0785 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**  
K & D Crushing, Inc. PORT-0785 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-0785

Site Name: Hwy KK Quarry

Site Address: Highway KK, approximately 5.5 miles south of Highway 32, Bixby, MO 65439

Site County: Reynolds S2 T33N R2W

1. Annual Emission Limit

A. K & D Crushing, Inc. PORT-0785 shall emit less than 15.0 tons of PM<sub>10</sub> 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. K & D Crushing, Inc. PORT-0785 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. Primary Equipment Requirement

K & D Crushing, Inc. PORT-0785 shall process all rock through the 2-deck screen (EP-02). Bypassing the screen is prohibited.

3. Record Keeping Requirement

K & D Crushing, Inc. PORT-0785 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.

4. Reporting Requirement

K & D Crushing, Inc. PORT-0785 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](mailto:AirComplianceReporting@dnr.mo.gov), no later than 10 days after any exceedances of the limitations imposed by this permit.

5. Undocumented Watering Requirement

K & D Crushing, Inc. PORT-0785 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: 2019-01-029  
Installation ID Number: PORT-0785

Permit Number: 022019-004

K & D Crushing, Inc. PORT-0785: Complete: January 28, 2019  
Highway KK, approximately 5.5 miles south of Highway 32  
Bixby, MO 65439

Parent Company:  
K & D Crushing, Inc. PORT-0785  
15343 East State Highway 8  
Mineral Point, MO 63660

Reynolds County, S2 T33N R2W

PROJECT DESCRIPTION

K & D Crushing, Inc. is installing a Kleeman MC110-ZI portable crusher at its quarry located on Highway KK, approximately 5.5 miles south of Highway 32. The portable plant (screen and crusher) is rated at 364 tons per hour and is track mounted. Therefore the engine meets the definition of a nonroad engine as stated in 40 CFR 89.2. The portable plant consists of the equipment as stated in Table 1.

Table 1: Equipment list of the Kleeman MC110-ZI portable plant PORT-0785:

Emission Point	Equipment Description	MHDR
EP-01	Grizzly/feeder	364 tph
EP-02	2-Deck screen	364 tph
EP-03	Jaw Crusher (Kleeman MC110-ZI)	364 tph
EP-04	Conveyor	364 tph
EP-05a	Load-in	364 tph
EP-05b	Load-out	364 tph
EP-05c	Vehicular Activity	1.03 VMT
EP-05d	Wind Erosion	0.3 Acres
EP-06	Haul Road	850 feet

This installation is located in Reynolds 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 K & D Crushing, Inc. PORT-0785 from the Air Pollution Control Program but Table 1 lists permits for other portable plant issued to K & D Crushing, Inc.

## TABLES

The following permits have been issued to K & D Crushing located at the quarry on Highway KK from the Air Pollution Control Program.

Table 2: Permit History

Permit Number	Description
072000-018	Portable Crusher PORT-0429
072000-021	Portable Screen PORT-0430

PORT-0429 and PORT-0430 have amended their NAAQS requirement to a daily production limit in Project #2019-02-011 (Permit #072000-018C) and 2019-02-012 (Permit 3072000-021A), respectively.

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 since this is a new portable plant. 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 PM<sub>10</sub> annual emission limit to avoid dispersion modeling requirements found in 10 CSR-6.060 Section (6).

Table 3: Emissions Summary (tons per year)

Air Pollutant	De Minimis Level/SMAL	<sup>a</sup> Potential Emissions from Process Equipment	Existing Actual Emissions	<sup>b</sup> Potential Emissions of the Application	Conditioned Potential Emissions
PM	25.0	53.25	N/A	337.11	43.08
PM <sub>10</sub>	15.0	19.45	N/A	117.37	<15.0
PM <sub>2.5</sub>	10.0	2.14	N/A	14.98	1.91
SO <sub>x</sub>	40.0	N/A	N/A	N/A	N/A
NO <sub>x</sub>	40.0	N/A	N/A	N/A	N/A
VOC	40.0	N/A	N/A	N/A	N/A
CO	100.0	N/A	N/A	N/A	N/A
Total HAPs	25.0	N/A	N/A	N/A	N/A

N/A = Not Applicable

<sup>a</sup>Excludes storage pile emissions and haul roads

<sup>b</sup>Includes 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 uncontrolled emission factors were used because the inherent moisture content of the crushed rock is less than 1.5 % by weight.

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 PM<sub>10</sub> and a 41% control efficiency for PM<sub>2.5</sub> 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 less than 1.5% 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

K & D Crushing, Inc. PORT-0785 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 PM<sub>10</sub> are conditioned below de minimis levels. Potential emissions of PM are above de minimis levels but remain below major levels.

### APPLICABLE REQUIREMENTS

K & D Crushing, Inc. PORT-0785 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.

- *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 January 18, 2019, received January 22, 2019, designating K & D Crushing, Inc. PORT-0785 as the owner and operator of the installation.



## APPENDIX A

### Abbreviations and Acronyms

<b>%</b> .....	percent	<b>MMBtu</b> ....	Million British thermal units
<b>°F</b> .....	degrees Fahrenheit	<b>MMCF</b> ....	million cubic feet
<b>acfm</b> .....	actual cubic feet per minute	<b>MSDS</b> .....	Material Safety Data Sheet
<b>BACT</b> .....	Best Available Control Technology	<b>NAAQS</b> ...	National Ambient Air Quality Standards
<b>BMPs</b> .....	Best Management Practices	<b>NESHAPs</b> ..	National Emissions Standards for Hazardous Air Pollutants
<b>Btu</b> .....	British thermal unit	<b>NO<sub>x</sub></b> .....	nitrogen oxides
<b>CAM</b> .....	Compliance Assurance Monitoring	<b>NSPS</b> .....	New Source Performance Standards
<b>CAS</b> .....	Chemical Abstracts Service	<b>NSR</b> .....	New Source Review
<b>CEMS</b> .....	Continuous Emission Monitor System	<b>PM</b> .....	particulate matter
<b>CFR</b> .....	Code of Federal Regulations	<b>PM<sub>2.5</sub></b> .....	particulate matter less than 2.5 microns in aerodynamic diameter
<b>CO</b> .....	carbon monoxide	<b>PM<sub>10</sub></b> .....	particulate matter less than 10 microns in aerodynamic diameter
<b>CO<sub>2</sub></b> .....	carbon dioxide	<b>ppm</b> .....	parts per million
<b>CO<sub>2e</sub></b> .....	carbon dioxide equivalent	<b>PSD</b>	Prevention of Significant Deterioration
<b>COMS</b> .....	Continuous Opacity Monitoring System	<b>PTE</b> .....	potential to emit
<b>CSR</b> .....	Code of State Regulations	<b>RACT</b> .....	Reasonable Available Control Technology
<b>dscf</b> .....	dry standard cubic feet	<b>RAL</b> .....	Risk Assessment Level
<b>EIQ</b> .....	Emission Inventory Questionnaire	<b>SCC</b> .....	Source Classification Code
<b>EP</b> .....	Emission Point	<b>scfm</b> .....	standard cubic feet per minute
<b>EPA</b> .....	Environmental Protection Agency	<b>SDS</b> .....	Safety Data Sheet
<b>EU</b> .....	Emission Unit	<b>SIC</b> .....	Standard Industrial Classification
<b>fps</b> .....	feet per second	<b>SIP</b> .....	State Implementation Plan
<b>ft</b> .....	feet	<b>SMAL</b> .....	Screening Model Action Levels
<b>GACT</b> .....	Generally Available Control Technology	<b>SO<sub>x</sub></b> .....	sulfur oxides
<b>GHG</b> .....	Greenhouse Gas	<b>SO<sub>2</sub></b> .....	sulfur dioxide
<b>gpm</b> .....	gallons per minute	<b>SSM</b> .....	startup, shutdown, & malfunction
<b>gr</b> .....	grains	<b>tph</b> .....	tons per hour
<b>GWP</b> .....	Global Warming Potential	<b>tpy</b> .....	tons per year
<b>HAP</b> .....	Hazardous Air Pollutant	<b>VMT</b> .....	vehicle miles traveled
<b>hr</b> .....	hour	<b>VOC</b> .....	Volatile Organic Compound
<b>hp</b> .....	horsepower		
<b>lb</b> .....	pound		
<b>lbs/hr</b> .....	pounds per hour		
<b>MACT</b> .....	Maximum Achievable Control Technology		
<b>µg/m<sup>3</sup></b> .....	micrograms per cubic meter		
<b>m/s</b> .....	meters per second		
<b>Mgal</b> .....	1,000 gallons		
<b>MW</b> .....	megawatt		
<b>MHDR</b> .....	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

For Multiple Plant Operation

Hours per day	24.0
Days per year	46.6
Hours per year	1119.5

Hours per day	24.0
Days per year	46.6
Hours per year	1119.5

Pollutant	Justification for Limit
PM10	De Minimis

Pollutant	Potential Emissions of Process Equipment (tons/yr)	Potential Emissions including fugitives (tons/yr)	Allowable Emissions for 1120 hours per year (tons/yr)	Deminimis Thresholds	Plant-wide Composite Emission Factor (lb/ton)
PM	53.25	337.11	43.08	25	0.2114
PM <sub>10</sub>	19.45	117.37	15.00	15	0.0736
PM <sub>2.5</sub>	2.14	14.98	1.91	10	0.0094
SO <sub>2</sub>	-	-	-	40	0.0000
NO <sub>2</sub>	-	-	-	40	0.0000
VOC	-	-	-	40	0.0000
CO	-	-	-	100	0.0000
CH <sub>2</sub> O	-	-	-	2.00	0.0000
Pb	-	-	-	0.01	0.0000
HAPs	-	-	-	10	0.0000
CO <sub>2</sub>	-	-	-	100	0.0000
N <sub>2</sub> O	-	-	-	100	0.0000
CH <sub>4</sub>	-	-	-	100	0.0000
GHG <sub>mass</sub>	-	-	-	100	0.0000
CO <sub>2</sub> eq	-	-	-	100,000	0.0000

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

Maximum hourly design rate (tons/hr)	364
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Tons of product per day	8,736.0
Tons of product per year	407,504.3





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 (lb/JobM)	Emission Rate (t/hr)	Potential Emissions (ton/yr)	Allowable Emissions (ton/yr)
	EngSet #1	Model Year			bhp gallons per hour MMBtu/hour kW-hr			N/A N/A N/A N/A N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A N/A N/A N/A N/A	PM <sub>10</sub> PM <sub>2.5</sub> SO <sub>2</sub> NO <sub>2</sub> CO VOC CH <sub>2</sub> O HAPs CO <sub>2</sub> NO <sub>x</sub> CHG <sub>non</sub> CH <sub>4</sub>	mmBtu mmBtu Gallon mmBtu mmBtu mmBtu mmBtu mmBtu mmBtu mmBtu mmBtu mmBtu				
	EngSet #2	Model Year			bhp gallons per hour MMBtu/hour kW-hr			N/A N/A N/A N/A N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A N/A N/A N/A N/A	PM <sub>10</sub> PM <sub>2.5</sub> SO <sub>2</sub> NO <sub>2</sub> CO VOC CH <sub>2</sub> O HAPs CO <sub>2</sub> NO <sub>x</sub> CHG <sub>non</sub> CH <sub>4</sub>	mmBtu mmBtu Gallon mmBtu mmBtu mmBtu mmBtu mmBtu mmBtu mmBtu mmBtu mmBtu				
	EngSet #3	Model Year			bhp gallons per hour MMBtu/hour kW-hr			N/A N/A N/A N/A N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A N/A N/A N/A N/A	PM <sub>10</sub> PM <sub>2.5</sub> SO <sub>2</sub> NO <sub>2</sub> CO VOC CH <sub>2</sub> O HAPs CO <sub>2</sub> NO <sub>x</sub> CHG <sub>non</sub> CH <sub>4</sub>	mmBtu mmBtu Gallon mmBtu mmBtu mmBtu mmBtu mmBtu mmBtu mmBtu mmBtu mmBtu				
	Pile #1	Load in		364.00	tons per hour			N/A N/A N/A N/A N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A N/A N/A N/A N/A	PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub>	ton ton ton ton ton ton ton ton ton	9.23E+00 4.35E+00 8.61E-01 9.23E+00 4.35E+00 5.61E-01 6.28E+00 1.79E+00 2.10E-01 2.35E-02 2.67E-02 4.01E-03	40.42 19.12 2.89 40.42 19.12 2.89 27.50 7.82 0.92 0.03 0.12 0.02	5.17 2.44 0.37 5.17 2.44 0.37 3.51 1.00 0.12 0.03 0.01 0.00	
		Load out		364.00	tons per hour			N/A N/A N/A N/A N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A N/A N/A N/A N/A	PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub>	ton ton ton ton ton ton ton ton ton	9.23E+00 4.35E+00 8.61E-01 9.23E+00 4.35E+00 5.61E-01 6.28E+00 1.79E+00 2.10E-01 2.35E-02 2.67E-02 4.01E-03	40.42 19.12 2.89 40.42 19.12 2.89 27.50 7.82 0.92 0.03 0.12 0.02	5.17 2.44 0.37 5.17 2.44 0.37 3.51 1.00 0.12 0.03 0.01 0.00	
		Vehicular Activity		1.03	VMT per hour		Unpaved, Watering	N/A N/A N/A N/A N/A N/A N/A N/A N/A	50% 50% 41% 50% 50% 41% 50% 50% 41%	PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub>	12.1436 VMT 3.4532 VMT 0.3453 VMT 0.1762 acre-hr 0.0892 acre-hr 0.0134 acre-hr	6.28E+00 1.79E+00 2.10E-01 2.35E-02 2.67E-02 4.01E-03	27.50 7.82 0.92 0.03 0.12 0.02	3.51 1.00 0.12 0.03 0.01 0.00	
		Wind Erosion		0.30	acres			N/A N/A N/A N/A N/A N/A N/A N/A N/A	PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub>	ton ton ton ton ton ton ton ton ton	9.23E+00 4.35E+00 8.61E-01 9.23E+00 4.35E+00 5.61E-01 6.28E+00 1.79E+00 2.10E-01 2.35E-02 2.67E-02 4.01E-03	40.42 19.12 2.89 40.42 19.12 2.89 27.50 7.82 0.92 0.03 0.12 0.02	5.17 2.44 0.37 5.17 2.44 0.37 3.51 1.00 0.12 0.03 0.01 0.00		
	Pile #2	Load in			tons per hour			N/A N/A N/A N/A N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A N/A N/A N/A N/A	PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub>	ton ton ton ton ton ton ton ton ton	9.23E+00 4.35E+00 8.61E-01 9.23E+00 4.35E+00 5.61E-01 6.28E+00 1.79E+00 2.10E-01 2.35E-02 2.67E-02 4.01E-03	40.42 19.12 2.89 40.42 19.12 2.89 27.50 7.82 0.92 0.03 0.12 0.02	5.17 2.44 0.37 5.17 2.44 0.37 3.51 1.00 0.12 0.03 0.01 0.00	
		Load out			tons per hour			N/A N/A N/A N/A N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A N/A N/A N/A N/A	PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub>	ton ton ton ton ton ton ton ton ton	9.23E+00 4.35E+00 8.61E-01 9.23E+00 4.35E+00 5.61E-01 6.28E+00 1.79E+00 2.10E-01 2.35E-02 2.67E-02 4.01E-03	40.42 19.12 2.89 40.42 19.12 2.89 27.50 7.82 0.92 0.03 0.12 0.02	5.17 2.44 0.37 5.17 2.44 0.37 3.51 1.00 0.12 0.03 0.01 0.00	
		Vehicular Activity			VMT per hour			N/A N/A N/A N/A N/A N/A N/A N/A N/A	50% 50% 41% 50% 50% 41% 50% 50% 41%	PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub>	12.1436 VMT 3.4532 VMT 0.3453 VMT 0.1762 acre-hr 0.0892 acre-hr 0.0134 acre-hr	6.28E+00 1.79E+00 2.10E-01 2.35E-02 2.67E-02 4.01E-03	27.50 7.82 0.92 0.03 0.12 0.02	3.51 1.00 0.12 0.03 0.01 0.00	
		Wind Erosion			acres			N/A N/A N/A N/A N/A N/A N/A N/A N/A	PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub>	ton ton ton ton ton ton ton ton ton	9.23E+00 4.35E+00 8.61E-01 9.23E+00 4.35E+00 5.61E-01 6.28E+00 1.79E+00 2.10E-01 2.35E-02 2.67E-02 4.01E-03	40.42 19.12 2.89 40.42 19.12 2.89 27.50 7.82 0.92 0.03 0.12 0.02	5.17 2.44 0.37 5.17 2.44 0.37 3.51 1.00 0.12 0.03 0.01 0.00		
	Pile #3	Load in			tons per hour			N/A N/A N/A N/A N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A N/A N/A N/A N/A	PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub>	ton ton ton ton ton ton ton ton ton	9.23E+00 4.35E+00 8.61E-01 9.23E+00 4.35E+00 5.61E-01 6.28E+00 1.79E+00 2.10E-01 2.35E-02 2.67E-02 4.01E-03	40.42 19.12 2.89 40.42 19.12 2.89 27.50 7.82 0.92 0.03 0.12 0.02	5.17 2.44 0.37 5.17 2.44 0.37 3.51 1.00 0.12 0.03 0.01 0.00	
		Load out			tons per hour			N/A N/A N/A N/A N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A N/A N/A N/A N/A	PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub>	ton ton ton ton ton ton ton ton ton	9.23E+00 4.35E+00 8.61E-01 9.23E+00 4.35E+00 5.61E-01 6.28E+00 1.79E+00 2.10E-01 2.35E-02 2.67E-02 4.01E-03	40.42 19.12 2.89 40.42 19.12 2.89 27.50 7.82 0.92 0.03 0.12 0.02	5.17 2.44 0.37 5.17 2.44 0.37 3.51 1.00 0.12 0.03 0.01 0.00	
		Vehicular Activity			VMT per hour			N/A N/A N/A N/A N/A N/A N/A N/A N/A	50% 50% 41% 50% 50% 41% 50% 50% 41%	PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub>	12.1436 VMT 3.4532 VMT 0.3453 VMT 0.1762 acre-hr 0.0892 acre-hr 0.0134 acre-hr	6.28E+00 1.79E+00 2.10E-01 2.35E-02 2.67E-02 4.01E-03	27.50 7.82 0.92 0.03 0.12 0.02	3.51 1.00 0.12 0.03 0.01 0.00	
		Wind Erosion			acres			N/A N/A N/A N/A N/A N/A N/A N/A N/A	PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub>	ton ton ton ton ton ton ton ton ton	9.23E+00 4.35E+00 8.61E-01 9.23E+00 4.35E+00 5.61E-01 6.28E+00 1.79E+00 2.10E-01 2.35E-02 2.67E-02 4.01E-03	40.42 19.12 2.89 40.42 19.12 2.89 27.50 7.82 0.92 0.03 0.12 0.02	5.17 2.44 0.37 5.17 2.44 0.37 3.51 1.00 0.12 0.03 0.01 0.00		
	Pile #4	Load in			tons per hour			N/A N/A N/A N/A N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A N/A N/A N/A N/A	PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub>	ton ton ton ton ton ton ton ton ton	9.23E+00 4.35E+00 8.61E-01 9.23E+00 4.35E+00 5.61E-01 6.28E+00 1.79E+00 2.10E-01 2.35E-02 2.67E-02 4.01E-03	40.42 19.12 2.89 40.42 19.12 2.89 27.50 7.82 0.92 0.03 0.12 0.02	5.17 2.44 0.37 5.17 2.44 0.37 3.51 1.00 0.12 0.03 0.01 0.00	
		Load out			tons per hour			N/A N/A N/A N/A N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A N/A N/A N/A N/A	PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>10</sub>	ton ton ton ton ton ton ton ton ton	9.23E+00 4.35E+00 8.61E-01 9.23E+00 4.35E+00 5.61E-01 6.28E+00 1.79E+00 2.10E-01 2.35E-02 2.67E-02 4.01E-03	40.42 19.12 2.89 40.42 19.12 2.89 27.50 7.82 0.92 0.03 0.12 0.02	5.17 2.44 0.37 5.17 2.44 0.37 3.51 1.00 0.12 0.03 0.01 0.00	
		Vehicular Activity			VMT per hour			N/A N/A N/A N/A N/A N/A N/A N/A N/A	50% 50% 41% 50% 50% 41% 50% 50% 41%	PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub>	12.1436 VMT 3.4532 VMT 0.3453 VMT 0.1762 acre-hr 0.0892 acre-hr 0.0134 acre-hr	6.28E+00 1.79E+00 2.10E-01 2.35E-02 2.67E-02 4.01E-03	27.50 7.82 0.92 0.03 0.12 0.02	3.51 1.00 0.12 0.03 0.01 0.00	
		Wind Erosion			acres			N/A N/A N/A N/A N/A N/A N/A N/A N/A	PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub> PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub>	ton ton ton ton ton ton ton ton ton	9.23E+00 4.35E+00 8.61E-01 9.23E+00 4.35E+00 5.61E-01 6.28E+00 1.79E+00 2.10E-01 2.35E-02 2.67E-02 4.01E-03	40.42 19.12 2.89 40.42 19.12 2.89 27.50 7.82 0.92 0.03 0.12 0.02	5.17 2.44 0.37 5.17 2.44 0.37 3.51 1.00 0.12 0.03 0.01 0.00		
	Road #1			7.81	VMT per hour		Unpaved, Watering	N/A N/A N/A	50% 50% 41%	PM <sub>10</sub> PM <sub>10</sub> PM <sub>2.5</sub>	10.2413 VMT 3.0228 VMT 0.3023 VMT	4.00E+01 1.19E+01 1.39E+00	175.74 31.72 6.09	22.39 6.81 0.78	

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/UGM)	Emission Rate (lb/yr)	Potential Emissions (tons/yr)	Allowable Emissions (tons/yr)
		Road #2			VMT per hour			N/A	N/A	PM <sub>10</sub>					
		Road #3			VMT per hour			N/A	N/A	PM <sub>2.5</sub>					
		Road #4			VMT per hour			N/A	N/A	PM <sub>10</sub>					
		Road #5			VMT per hour			N/A	N/A	PM <sub>2.5</sub>					
		Road #6			VMT per hour			N/A	N/A	PM <sub>10</sub>					

Equipment	Unit ID	Description of Unit	Equipment Description/SCC	Heat Rate	UoM per hour						Emission Factor (lbs/UGM)				
		Combustion #1		mmBtu	mgal					100%	N/A	PM <sub>10</sub>	mgal		
										100%	N/A	PM <sub>2.5</sub>	mgal		
										100%	N/A	SO <sub>2</sub>	mgal		
										100%	N/A	NO <sub>2</sub>	mgal		
										100%	N/A	VOC	mgal		
										100%	N/A	CO	mgal		
										100%	N/A	CH <sub>4</sub> O	mgal		
										100%	N/A	Pb	mgal		
										100%	N/A	HAPs	mgal		
										100%	N/A	CO <sub>2</sub>	mgal		
										100%	N/A	N <sub>2</sub> O	mgal		
										100%	N/A	GHG <sub>non</sub>	mgal		
		Combustion #2		mmBtu	mgal					100%	N/A	PM <sub>10</sub>	mgal		
										100%	N/A	PM <sub>2.5</sub>	mgal		
										100%	N/A	SO <sub>2</sub>	mgal		
										100%	N/A	NO <sub>2</sub>	mgal		
										100%	N/A	VOC	mgal		
										100%	N/A	CO	mgal		
										100%	N/A	CH <sub>4</sub> O	mgal		
										100%	N/A	Pb	mgal		
										100%	N/A	HAPs	mgal		
										100%	N/A	CO <sub>2</sub>	mgal		
										100%	N/A	N <sub>2</sub> O	mgal		
										100%	N/A	GHG <sub>non</sub>	mgal		
		Combustion #3		mmBtu	mgal					100%	N/A	PM <sub>10</sub>	mgal		
										100%	N/A	PM <sub>2.5</sub>	mgal		
										100%	N/A	SO <sub>2</sub>	mgal		
										100%	N/A	NO <sub>2</sub>	mgal		
										100%	N/A	VOC	mgal		
										100%	N/A	CO	mgal		
										100%	N/A	CH <sub>4</sub> O	mgal		
										100%	N/A	Pb	mgal		
										100%	N/A	HAPs	mgal		
										100%	N/A	CO <sub>2</sub>	mgal		
										100%	N/A	N <sub>2</sub> O	mgal		
										100%	N/A	GHG <sub>non</sub>	mgal		

Equipment Operational Status	Emission Unit Number	Description of Unit	Equipment/SCC Description	MHTP	Units	Equip Type	Control Type				Emission Factor (lbs/UGM)				
E	EP-01	Unloading into feedhopper	Truck Unloading - Fragmented Stone EF 30502031	364.00	Tons	Fugitive	No Control	100%	0.00%	PM <sub>10</sub>	0.000033	Tons	1.16E-02	5.10E-02	6.52E-03
						Fugitive		100%	0.00%	PM <sub>2.5</sub>	0.000016	Tons	5.82E-03	2.55E-02	3.29E-03
								100%	0.00%	PM <sub>2.5</sub>	0.000008	Tons	2.91E-03	1.28E-02	1.63E-03
E	EP-02	primary jaw crusher/Kleeman portable	Screens, (3'16" or Greater) 30502002	364.00	Tons	Process	No Control	100%	0.00%	PM <sub>10</sub>	0.023	Tons	9.10E+00	3.99E+01	5.09E+00
						Process		100%	0.00%	PM <sub>2.5</sub>	0.0087	Tons	3.17E+00	1.39E+01	1.77E+00
						Process		100%	0.00%	PM <sub>2.5</sub>	0.000587838	Tons	2.14E-01	9.37E-01	1.20E-01
E	EP-03	PRFI	Crusher-Primary (Diameter 3-12') 30502001	364.00	Tons	Process	No Control	100%	0.00%	PM <sub>10</sub>	0.0054	Tons	1.97E+00	8.61E+00	1.10E+00
						Process		100%	0.00%	PM <sub>2.5</sub>	0.0024	Tons	8.74E-01	3.83E+00	4.89E-01
						Process		100%	0.00%	PM <sub>2.5</sub>	0.000444444	Tons	1.67E-01	7.06E-01	9.06E-02
E	EP-04	conveyor	Conveyor 30502006	364.00	Tons	Process	No Control	100%	0.00%	PM <sub>10</sub>	0.003	Tons	1.09E+00	4.79E+00	6.11E-01
						Process		100%	0.00%	PM <sub>2.5</sub>	0.0011	Tons	4.00E-01	1.75E+00	2.24E-01
						Process		100%	0.00%	PM <sub>2.5</sub>	0.00031087	Tons	1.13E-01	4.58E-01	6.33E-02
								100%	0.00%	PM <sub>10</sub>					
								100%	0.00%	PM <sub>2.5</sub>					
								100%	0.00%	PM <sub>10</sub>					
								100%	0.00%	PM <sub>2.5</sub>					