

Missouri Department of dnr.mo.gov

NATURAL RESOURCES

Michael L. Parson, Governor

Carol S. Comer, Director

APR 11 2019

Ms. Linda Patterson
Human Resources
Hutchens Construction Company PORT-0784
1007 Main Street
Cassville, MO 65625

RE: New Source Review - Project Number: 2018-12-004
Installation Number: PORT-0784

Dear Ms. Patterson:

Enclosed with this letter is your permit to construct. Please study it carefully and refer to Appendix A for a list of common abbreviations and acronyms used in the permit. Also, note the special conditions on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files. Operation in accordance with these conditions and your new source review permit application is necessary for continued compliance. In addition, please note that Hutchens Construction Company PORT-0784 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 mail, it will be deemed filed on the date it is received by the administrative hearing commission,

Ms. Linda Patterson
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whose contact information is: Administrative Hearing Commission, United States Post Office Building, 131 West High Street, Third Floor, P.O. Box 1557, Jefferson City, Missouri 65102, phone: 573-751-2422, fax: 573-751-5018, website: www.oa.mo.gov/ahc.

If you have any questions, 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



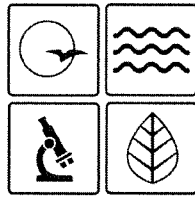
Susan Heckenkamp
New Source Review Unit Chief

SH:shj

Enclosures

c: Southwest Regional Office
PAMS File: 2018-12-004

Permit Number: 042019-007



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: 042019-007

Project Number: 2018-12-004
Installation ID: PORT-0784

Parent Company: Hutchens Construction Company

Parent Company Address: 1007 Main Street, Cassville, MO 65625

Installation Name: Hutchens Construction Company PORT-0784

Installation Address: Old Highway 39/Farm Road 1240, Shell Knob, MO 65747

Location Information: Barry County, S5 T22N R25W

Application for Authority to Construct was made for:
Construction of a new rock crushing portable 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

APR 11 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:

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**
Hutchens Construction Company PORT-0784 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. Hutchens Construction Company PORT-0784 shall not be operated at any location longer than 24 consecutive months except if the Site Specific Special Conditions of this portable plant, PORT-0784, 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**
Hutchens Construction Company PORT-0784 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**
Hutchens Construction Company PORT-0784 shall report to the Air Pollution Control Program Compliance/Enforcement Section by mail at P.O. Box 176, Jefferson City, MO 65102 or by e-mail at AirComplianceReporting@dnr.mo.gov, 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-0784

Site ID Number: 009-P034

Site Name: Shell Knob Quarry

Site Address: Old Highway 39/Farm Road 1240, Shell Knob, MO 65747

Site County: Barry S5 T22N R25W

1. Annual Emission Limit
 - A. Hutchens Construction Company PORT-0784 shall emit less than 15.0 tons of PM₁₀ in any 12-month period from the entire installation which consists of the equipment listed in Table 1. The SSM emissions as reported to the Air Pollution Control Program's Compliance/Enforcement Section in accordance with the requirements of 10 CSR 10-6.050 *Start-Up, Shutdown, and Malfunction Conditions* shall be included in the limit.
 - B. Hutchens Construction Company PORT-0784 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. Moisture Content Testing Requirement
 - A. Hutchens Construction Company PORT-0784 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.
 - 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 Hutchens Construction

SITE SPECIFIC SPECIAL CONDITIONS:

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

Company PORT-0784 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 2.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 2.A, Hutchens Construction Company PORT-0784 shall either:
- 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.

3. **Primary Equipment Requirement**
Hutchens Construction Company PORT-0784 shall process all rock through the primary crusher (EP-02). Bypassing the primary crusher is prohibited.
4. **Nonroad Engine Requirement**
Hutchens Construction Company PORT-0784's engine shall not remain at one location within this site longer than 12 consecutive months in order for the Caterpillar 3412 engine to meet the definition of a nonroad engine as stated in 40 CFR 89.2. This engine shall be moved with its associated equipment at least once every 12 consecutive months at this site.
5. **Record Keeping Requirement**
Hutchens Construction Company PORT-0784 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.
6. **Reporting Requirement**
Hutchens Construction Company PORT-0784 shall report to the Air Pollution Control Program, Compliance / Enforcement Section by mail to P.O. Box 176, Jefferson City, MO 65102 or by email at AirComplianceReporting@dnr.mo.gov, no later than 10 days after any exceedances of the limitations imposed by this permit.
7. **Undocumented Watering Requirement**
Hutchens Construction Company PORT-0784 shall apply a water spray on all haul roads and vehicular activity areas whenever conditions exist that would allow visible emissions from these sources to leave the property.

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

Project Number: 2018-12-004
Installation ID Number: PORT-0784

Permit Number: 042019-007

Hutchens Construction Company PORT-0784:
Old Highway 39/Farm Road 1240
Shell Knob, MO 65747

Complete: December 7, 2018

Parent Company:
Hutchens Construction Company
1007 Main Street
Cassville, MO 65625

Barry County, S5 T22N R25W

PROJECT DESCRIPTION

Hutchens Construction Company is purchasing an Allis portable crushing plant (Model H4000, manufactured 1994) consisting of a two deck screen (Cedar Rapids 6x20, manufactured 2017) with three legs consisting of a Cedar Rapids conveyor (3 total) and a stacker (3 total). The MHDR of the plant is 200 tons per hour.

The applicant is using undocumented watering to control particulate matter emissions from haul roads and vehicular activity areas.

The CAT 3412, 610HP engine will be used with this portable plant and meets the definition of non-road engine as defined in 40 CFR 89.2 (1)(i). Therefore, the emissions of the engine were not included. Although a portable plant is allowed to operate at a site for 24 consecutive months, the diesel engine is only allowed to operate at this site for 12 consecutive months in order for the diesel engine to be classified as a non-road engine.

This installation is located in Barry 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 Hutchens Construction Company PORT-0784 from the Air Pollution Control Program. There is a portable plant (PORT-0775) that may operate at the same time at the Shell Knob quarry.

TABLES

Table 1: Equipment List

Emission Point	Equipment List	MHDR
EP-01	Loading into Grizzly	200 tph
EP-02	Primary Crusher Allis H4000	200 tph
EP-03	Conveyor to Screen	200 tph
EP-04	Screen Cedarapids	200 tph
EP-05	Conveyors (3 total)	200 tph
EP-06	Stackers (3 total)	200 tph
EP-07a	Load-In Stockpile	200 tph
EP-07b	Load-out Stockpile	200 tph
EP-07c	Vehicular Activity (100 feet)	1.47 VMT/hr
EP-07d	Wind Erosion	3.0 acres
EP-08	Haul Roads to crusher (1,214.4 feet)	3.68 VMT/hr
EP-09	Haul Road to Highway (8,448 feet)	25.60 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 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 PM₁₀ annual emission limit to avoid dispersion modeling requirements found in 10 CSR-6.060 Section (6).

Table 2: Emissions Summary (tons per year)

Air Pollutant	De Minimis Level/SMAL	^a Potential Emissions from Process Equipment	Existing Actual Emissions	^b Potential Emissions of the Application	Conditioned Potential Emissions
PM	25.0	3.35	N/A	820.93	49.78
PM ₁₀	15.0	1.24	N/A	247.38	<15.0
PM _{2.5}	10.0	0.17	N/A	29.63	1.80
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
Total HAPs	25.0	N/A	N/A	N/A	N/A

N/A = Not Applicable

^aExcludes storage pile emissions and haul roads

^bIncludes storage pile emissions and haul roads

EMISSIONS CALCULATIONS

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

Emissions from the rock-crushing equipment:

- Calculated using emission factors from AP-42 Section 11.19.2 "Crushed Stone Processing and Pulverized Mineral Processing," August 2004.
- The controlled emission factors were used because the inherent moisture content of the crushed rock is greater 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 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 50% control efficiency for PM and PM₁₀ and a 41% control efficiency for PM_{2.5} were applied to the emission calculations for the use of undocumented watering.

Emissions from storage piles:

- Load-in and load-out of storage piles were calculated using the predictive equation from AP-42 Section 13.2.4.
- The moisture content of the aggregate of 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

Hutchens Construction Company PORT-0784 cannot operate with any other plants that have ambient impact limits based on the Air Pollution Control Program's nomographs. When another plant/portable plant is locating to these sites, please refer to that plant's permit's special conditions to see if they contain ambient impact limits.

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of PM₁₀ are conditioned below de minimis levels. Potential emissions of PM are above de minimis levels but remain below major levels.

APPLICABLE REQUIREMENTS

Hutchens Construction Company PORT-0784 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 November 14, 2018, received December 3, 2018, designating Hutchens Construction Company as the owner and operator of the installation.

Attachment A: PM₁₀ 12-Month Rolling Total Emissions Tracking Sheet
 Hutchens Construction Company PORT-0784

Project Number: 2018-12-004

Permit Number: 042019-007

Site Name: Shell Knob Quarry

Site Address: Old Highway 39/Farm Road 1240, Shell Knob, MO 65747

Site County: Barry County, S5 T22N R25W

This sheet covers the period from _____ to _____ (Copy as needed)
 (Month, Day Year) (Month, Day Year)

Month	Production (tons)	PM ₁₀ Composite Emission Factor (lb/ton)	Monthly PM ₁₀ Emissions ¹ (lbs)	Startup, Shutdown and Malfunction PM ₁₀ Emissions ² (lbs)	Monthly PM ₁₀ Emissions ³ (tons)	12-Month Rolling Total Emissions ⁴ (tons)
<i>Example</i>	<i>10,000</i>	<i>0.2824</i>	<i>2,824</i>	<i>0.0</i>	<i>1.4</i>	<i>1.4 + 11 previous months</i>
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¹Multiply the monthly production by the PM₁₀ composite emission factor.
²As reported to the Air Pollution Control Program’s Compliance/Enforcement Section according to the provisions of 10 CSR 10-6.050 for the month.
³Add the monthly PM₁₀ emissions plus the SSM emissions from the same time period and divide by 2000 and
⁴Add the monthly emissions (tons) to the sum of the monthly emissions from the previous eleven months. A total of less than 15.0 tons of PM₁₀ per consecutive 12 months is necessary for compliance.

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	

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

For Single Plant Operation

Hours per day	24.0
Days per year	22.1
Hours per year	531.2

For Multiple Plant Operation

Hours per day	24.0
Days per year	22.1
Hours per year	531.2

Pollutant	Justification for Limit
PM10	De Minimis

Pollutant	Potential Emissions of Process Equipment (tons/yr)	Potential Emissions including fugitives (tons/yr)	Allowable Emissions for 531 hours per year (tons/yr)	Deminimis Thresholds	Plant-wide Composite Emission Factor (lb/ton)
PM	3.35	820.93	49.78	25	0.9371
PM ₁₀	1.24	247.38	15.00	15	0.2824
PM _{2.5}	0.17	29.63	1.80	10	0.0338
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 design rate (tons/hr)	200
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Tons of product per day	4,800.0
Tons of product per year	106,233.0

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General Plant Information

Primary Unit Size (tons per hour)	200	If is important that you read all the comments (cells marked with a red triangle in the upper right corner) because they may direct you to make changes to the data entry cells.
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Emission Point Information

Emission Point	Stack Height (feet)	Stack Inside Diameter (feet)	Stack Gas Flow Rate (ACFM)	Stack Gas Exit Temp (°F)

Storage Pile Information

Storage Pile ID No.	Pile #1	Pile #2	Pile #3	Pile #4
Maximum Area of Storage Pile (Acres)	3			
Type of Material Stored:	Crushed Limestone			
Moisture Content %:	1.5			
Silt Content %:	1.6			
Method of Load In to Storage Pile:	Conveyor/Stacker			
Method of Load Out from Storage Pile:	Loader			
Distance Loader Travels (feet)	100			
Unloaded Loader Weight (tons)	35.00			
Loaded Loader Weight (tons)	44.00			
Rate (tons/hour)	350.00			
max VMT per hour	1,4731			
Surface Treatment:	Unpaved			
Vehicular Area Control:	Watering			

Haul Road Information

Haul Road ID No.	Haul Road to Crusher	Haul Road to Highway	Road #3	Road #4	Road #5	Road #6
Length of Haul Road (feet) Enter the length of each roadway in feet. The plant layout diagram (drawn to scale) should document and support the value entered. Note: Twice this distance is used, one trip in and one out.	1214.4	6448				
Unloaded Truck Weight (tons)	15	15				
Loaded Truck Weight (tons)	40	40				
Rate Hauled (tons/hour)	200	200				
max VMT per hour	3,6800	25,6000				
Surface Treatment:	Unpaved	Unpaved				
Haul Road Control:	Watering	Watering				

Engine Set Information

Type of Fuel	#1	#2	#3
Brake Horsepower (bhp)			
Engine kilowatt rating (KW)			
gallons per hour			
Engine MHR (mmBtu per hour, input)			
Is this a generator set engine?			
Model Year (yyyy)			
Fuel Sulfur Content (% weight sulfur)			

Combustion Sources

Combustion ID - Description	Combustion #1	Combustion #2	Desc #2	Combustion #3	Desc #3
Heat Rate	mmBtu/hour mgal/hour mmcf/hour	In regards to 40 CFR Part 98	mmBtu/hour mgal/hour mmcf/hour	In regards to 40 CFR Part 98	mmBtu/hour mgal/hour mmcf/hour
Fuel Type	In regards to AP-42 Chapter 1	In regards to 40 CFR Part 98	% weight sulfur	In regards to AP-42 Chapter 1	In regards to 40 CFR Part 98
Fuel Sulfur Content (% weight sulfur, for oil; grains of sulfur/100 cuft gas vapor for Butane and Propane; not used for Natural gas)		% weight sulfur	% weight sulfur		% weight sulfur

Liquid Storage Tanks	Tank ID	Tank #1	Tank #2	Tank #3	Tank #4	Tank #5	Tank #6
Annual VOC (pounds)							
Annual VOC (tons)							

Enter Emission Unit Information Below

Emission Point Number	Emission Line Number	Description	SCC	Maximum Hourly	Units of Measure	Control Device Number	Control Type	Capture Efficiency (%)	Control Efficiency (%)	Pollutant	Emission Factor	Emission Factor (ton/LM)	Emission Rate (t/hr)	Potential Emissions (ton/yr)	Allowable Emissions (ton/yr)
	EngSet #1	Model Year			bhp gallons per hour MMBtu/hour kW/hr					PM ₁₀ PM _{2.5} SO ₂ NO _x CO VOC CH ₂ O HAPs CO ₂ H ₂ O GHG _{CO₂} CH ₄					
	EngSet #2	Model Year			bhp gallons per hour MMBtu/hour kW/hr					PM ₁₀ PM _{2.5} SO ₂ NO _x CO VOC CH ₂ O HAPs CO ₂ H ₂ O GHG _{CO₂} CH ₄					
	EngSet #3	Model Year			bhp gallons per hour MMBtu/hour kW/hr					PM ₁₀ PM _{2.5} SO ₂ NO _x CO VOC CH ₂ O HAPs CO ₂ H ₂ O GHG _{CO₂} CH ₄					
	76	Pile #1 Load in		350.00	tons per hour					PM ₁₀ PM _{2.5}	0.0087 ton 0.0041 ton	3.08E+00 1.44E+00	13.37 6.32	0.81 0.38	
	76	Load out		350.00	tons per hour					PM ₁₀ PM _{2.5}	0.0087 ton 0.0041 ton	3.08E+00 1.44E+00	13.37 6.32	0.81 0.38	
	76	Vehicle Activity		1.47	VMT per hour	Unpaved, Wetting				PM ₁₀ PM _{2.5}	10.0700 VMT 2.4327 VMT	2.19E+01 2.53E+00	0.96 11.08	0.06 0.67	
	76	Wind Erosion		3.00	acres					PM ₁₀ PM _{2.5}	0.3434 VMT 0.1783 acre-ft 0.0860 acre-ft	2.88E+01 5.35E+01 2.87E+01	1.30 2.34 1.17	0.08 0.14 0.07	
	Pile #2	Load in			tons per hour					PM ₁₀ PM _{2.5}					
		Load out			tons per hour					PM ₁₀ PM _{2.5}					
		Vehicle Activity			VMT per hour					PM ₁₀ PM _{2.5}					
		Wind Erosion			acres					PM ₁₀ PM _{2.5}					
	Pile #3	Load in			tons per hour					PM ₁₀ PM _{2.5}					
		Load out			tons per hour					PM ₁₀ PM _{2.5}					
		Vehicle Activity			VMT per hour					PM ₁₀ PM _{2.5}					
		Wind Erosion			acres					PM ₁₀ PM _{2.5}					
	Pile #4	Load in			tons per hour					PM ₁₀ PM _{2.5}					
		Load out			tons per hour					PM ₁₀ PM _{2.5}					
		Vehicle Activity			VMT per hour					PM ₁₀ PM _{2.5}					
		Wind Erosion			acres					PM ₁₀ PM _{2.5}					
	Road #1			3.68	VMT per hour	Unpaved, Wetting				PM ₁₀ PM _{2.5}	11.8867 VMT 3.4500 VMT	2.15E+01 9.36E+00	94.20 27.80	5.71 1.69	
										PM ₁₀ PM _{2.5}	0.3400 VMT	7.88E+01	3.28	0.23	
	Road #2			25.60	VMT per hour	Unpaved, Wetting				PM ₁₀ PM _{2.5}	11.0287 VMT 3.4500 VMT	1.50E+02 4.42E+01	665.31 180.42	38.74 11.73	
										PM ₁₀ PM _{2.5}	0.3400 VMT	5.20E+00	22.78	1.38	

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/LM)	Emission Rate (t/yr)	Potential Emissions (ton/yr)	Allowable Emissions (ton/yr)
		Road #3			VMT per hour			N/A	N/A	PM ₁₀	VMT				
		Road #4			VMT per hour			N/A	N/A	PM _{2.5}	VMT				
		Road #5			VMT per hour			N/A	N/A	PM ₁₀	VMT				
		Road #6			VMT per hour			N/A	N/A	PM _{2.5}	VMT				

Equipment	Unit ID	Description of Unit	Equipment Description/SCC	Heat Rate	LHM per hour	Control Efficiency (%)	Control Efficiency (%)	Pollutant	Emission Factor	Emission Factor (lbs/LM)	Emission Rate (t/yr)	Potential Emissions (ton/yr)	Allowable Emissions (ton/yr)
		Combustion #1			mmBtu	100%	100%	PM ₁₀	mgal				
						100%	100%	PM _{2.5}	mgal				
						100%	100%	SO ₂	mgal				
						100%	100%	NO _x	mgal				
						100%	100%	VOC	mgal				
						100%	100%	CO	mgal				
						100%	100%	CH ₄	mgal				
						100%	100%	Pb	mgal				
						100%	100%	HAPs	mgal				
						100%	100%	CO ₂	mgal				
						100%	100%	N ₂ O	mgal				
						100%	100%	GHG _{non}	mgal				
		Combustion #2			mmBtu	100%	100%	PM ₁₀	mgal				
						100%	100%	PM _{2.5}	mgal				
						100%	100%	SO ₂	mgal				
						100%	100%	NO _x	mgal				
						100%	100%	VOC	mgal				
						100%	100%	CO	mgal				
						100%	100%	CH ₄	mgal				
						100%	100%	Pb	mgal				
						100%	100%	HAPs	mgal				
						100%	100%	CO ₂	mgal				
						100%	100%	N ₂ O	mgal				
						100%	100%	GHG _{non}	mgal				
		Combustion #3			mmBtu	100%	100%	PM ₁₀	mgal				
						100%	100%	PM _{2.5}	mgal				
						100%	100%	SO ₂	mgal				
						100%	100%	NO _x	mgal				
						100%	100%	VOC	mgal				
						100%	100%	CO	mgal				
						100%	100%	CH ₄	mgal				
						100%	100%	Pb	mgal				
						100%	100%	HAPs	mgal				
						100%	100%	CO ₂	mgal				
						100%	100%	N ₂ O	mgal				
						100%	100%	GHG _{non}	mgal				

Equipment Operational Status	Emission Unit Number	Description of Unit	Equipment/SCC Description	Mt/yr	Units	Equip Type	Control Type	Capture Efficiency (%)	Control Efficiency (%)	Pollutant	Emission Factor	Emission Factor (lbs/LM)	Emission Rate (t/yr)	Potential Emissions (ton/yr)	Allowable Emissions (ton/yr)
N	EP-01	loading into crusher/grizzly	Truck Unloading - Fragmented Stone EF 30502031	200.00	Tons	Fugitive	Moisture => 1.5%	100%	0.00%	PM ₁₀	0.000021	Tons	6.45E-03	2.85E-02	1.70E-03
N	EP-02	primary crusher/Auto Mode H400 1984	Crusher-Primary (Diameter 3'-12") 30502001	200.00	Tons	Process	Moisture => 1.5%	100%	77.76%	PM ₁₀	0.0054	Tons	2.40E-01	1.05E+00	6.37E-02
N	EP-03	conveyor to screen	Conveyor 30502006	200.00	Tons	Process	Moisture => 1.5%	100%	77.80%	PM ₁₀	0.000444444	Tons	1.60E-01	4.13E-01	2.87E-02
N	EP-04	Primary Screen	Screens, (3/16" or Greater) 30502002	200.00	Tons	Process	Moisture => 1.5%	100%	91.20%	PM ₁₀	0.029	Tons	2.80E-02	1.23E-01	7.44E-03
N	EP-05	conveyor (3)	Conveyor 30502006	200.00	Tons	Process	Moisture => 1.5%	100%	95.82%	PM ₁₀	0.0011	Tons	9.20E-03	4.03E-02	2.44E-03
N	EP-06	Stacker (3)	Conveyor 30002006	200.00	Tons	Process	Moisture => 1.5%	100%	91.49%	PM ₁₀	0.00087838	Tons	2.80E-02	1.23E-01	7.44E-03
N	EP-07	conveyor (3)	Conveyor 30502006	200.00	Tons	Process	Moisture => 1.5%	100%	95.82%	PM ₁₀	0.0011	Tons	9.20E-03	4.03E-02	2.44E-03
N	EP-08	Stacker (3)	Conveyor 30002006	200.00	Tons	Process	Moisture => 1.5%	100%	95.82%	PM ₁₀	0.0011	Tons	9.20E-03	4.03E-02	2.44E-03