

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: 082018-005

Project Number: 2018-06-043
Installation ID: 079-0014

Parent Company: Trenton Asphalt

Parent Company Address: 1100 Main Street, Trenton, MO 64683

Installation Name: Trenton Asphalt Plant

Installation Address: 1900 E. 16th Street, Trenton, MO 64683

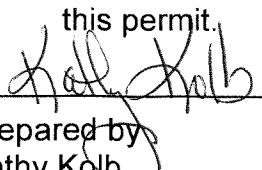
Location Information: Grundy County, S16 T61N R24W

Application for Authority to Construct was made for:

New Asphalt 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.


Prepared by
Kathy Kolb
New Source Review Unit


Director or Designee
Department of Natural Resources

AUG 06 2018

Effective Date

STANDARD CONDITIONS:

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

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

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

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

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

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

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

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

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

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

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. Undocumented Watering Requirement
Trenton Asphalt Plant 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.
2. Annual Emission Limit
 - A. Trenton Asphalt Plant shall emit less than 15.0 tons of PM₁₀ in any consecutive 12-month period from the entire installation including the summation of all PM₁₀ emissions from startup, shutdown, and malfunction as reported the Air Pollution Control Program's Compliance/Enforcement Section. (See Table 1 for the list of equipment associated with the limit).
 - B. Trenton Asphalt Plant 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. Fuel Requirement-Drum Dryer
 - A. Trenton Asphalt Plant shall burn exclusively natural gas in their drum dryer (EP-4).
 - B. Trenton Asphalt Plant shall burn exclusively natural gas in their asphalt heater (EP-7).
 - C. Trenton Asphalt Plant shall keep the records from the natural gas provider verifying it's usage with the unit and make them available for Department of Natural Resources' employees upon request.
4. Control Device Requirement-Baghouse
 - A. Trenton Asphalt Plant shall control emissions from the drum dryer (EP-04) using a baghouse as specified in the permit application.
 - B. The baghouse shall be operated and maintained in accordance with the manufacturer's specifications. The baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that Department of Natural Resources' employees may easily observe them.

SPECIAL CONDITIONS:

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

- C. Replacement filters for the baghouse shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).
 - D. Trenton Asphalt Plant shall monitor and record the operating pressure drop across the baghouse at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
 - E. Trenton Asphalt Plant shall maintain a copy of the baghouse manufacturer's performance warranty on site.
 - F. Trenton Asphalt Plant shall maintain an operating and maintenance log for the baghouse which shall include the following:
 - 1) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
 - 2) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
5. **Record Keeping Requirement**
Trenton Asphalt Plant 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**
Trenton Asphalt Plant 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.

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

Project Number: 2018-06-043
Installation ID Number: 079-0014

Permit Number: 082018-005

Trenton Asphalt Plant:
1900 E. 16th Street
Trenton, MO 64683

Complete: July 2, 2018

Parent Company:
Trenton Asphalt
1100 Main Street
Trenton, MO 64683

Grundy County, S16 T61N R24W

PROJECT DESCRIPTION

The City of Trenton procured an asphalt plant rated at 110 tph and will be located Grundy County. The asphalt drum dryer and associated bins were manufactured by ADM (Model RB110 [Road Builder Series]) with a Starjet Burner rated at 40.3 MMBTU/hr. The direct fire asphalt tank has a capacity of 20,000 gallons and the asphalt heater is rated at 0.5 MMBTU/hr. The plant will use natural gas to fuel the drum dryer and asphalt heater. There are various conveyors and a vibrating screen totaling nine drop points. Electric power will be provided by the local utility.

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

The following table lists the new pieces of equipment associated with this project.

Table 1: Project Equipment List

Emission Unit	Equipment Description	MHDR
EP1	Aggregate Bins	110 tph
EP2	Aggregate handling conveyor (3)	110 tph
EP3	Vibrating Screen	110 tph
EP4	Drum Dryer	110 tph
EP5	Plant Loadout	110 tph
EP6	Silo Loading	110 tph
EP7	Asphalt Heater	0.5 MMBTU/hr
EP8a	Storage Piles (Sand)	0.5 acres
EP8b	Storage Pile (Aggregate)	0.5 acres
EP9a	Haul Roads (Receiving Aggregate)	850 feet
EP-9b	Haul Roads (Receiving Sand)	850 feet
EP-9c	Haul Roads (Shipping/Finished Product)	850 feet

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

This installation is on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2. Fugitive emissions are counted toward major source applicability. However, Category 27 does not apply to the 100 tons per year major source level thresholds. Therefore, the major source threshold for this asphalt plant is 250 tons per year.

No permits have been issued to Trenton Asphalt Plant from the Air Pollution Control Program.

TABLES

The table below summarizes the emissions of this project. The potential emissions of the process equipment exclude emissions from haul roads and wind erosion. There are no existing actual emissions since this is a new plant. The potential emissions of the application represent the emissions of all equipment and activities assuming continuous operation (8760 hours per year). The conditioned potential emissions include emissions from sources that will limit their production to ensure compliance with the annual emission limit. Conditioned potential emissions account for a voluntary annual PM₁₀ emission limit of 15.0 tons per year in order to avoid refined modeling.

Table 2: Emissions Summary (tons per year)

Air Pollutant	De Minimis Level/SMAL	^a Potential Emissions of Process Equipment	Existing Actual Emissions	^b Potential Emissions of the Application	Conditioned Potential Emissions
PM	25.0	41.76	N/A	248.05	48.70
PM ₁₀	15.0	20.96	N/A	76.40	<15.0
PM _{2.5}	10.0	13.23	N/A	21.55	4.23
SO _x	40.0	0.00	N/A	0.00	0.00
NO _x	40.0	17.36	N/A	17.36	3.41
VOC	40.0	29.05	N/A	29.05	5.70
CO	100.0	18.11	N/A	18.11	3.55
GHG (CO ₂ e)	N/A	20,931.35	N/A	20,931.35	4,096.61
GHG (mass)	N/A	20,865.23	N/A	20,865.23	4,109.60
Formaldehyde	10.0/2.0 ^c	1.58	N/A	1.58	0.31
2-methylnaphthalene ^d	10.0/0.01 ^c	0.04	N/A	0.04	0.0083
Lead Compounds	10.0/0.01 ^c	0.00	N/A	3.0E-4	5.9E-5
Total HAPs	25.0	2.77	N/A	2.77	5.4E-3

N/A = Not Applicable

^aExcludes haul road and storage pile emissions

^bIncludes haul road and storage pile emissions

^cSMAL

^d2-methylnaphthalene is a member of the Polycyclic Organic Matter (POM) HAP group.

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 drum mix asphalt plant:

- Calculated using emission factors from AP-42 Section 11.1 "Hot Mix Asphalt Plants," April 2004.
- SO_x emissions were calculated using the SO₂ and SO₃ emission factors from AP-42 Section 1.4 "Natural Gas Combustion," July 1998 and assuming half of the sulfur up to 0.1 pound per ton of product is absorbed into the product.
- The asphalt plant is controlled by a baghouse, so the fabric filter controlled emission factor was used to calculate PM₁₀ emissions.
- Emissions from plant load-out were calculated using predictive equations found in AP-42 Table 11.1-14. Default values were used for asphalt volatility and mix temperature.

Emissions from the asphalt heater:

- Calculated using emission factors from AP-42 Section 1.4.

Emissions from aggregate handling:

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

Emissions from haul roads and vehicular activity areas:

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

Emissions from storage piles:

- Load-in and load-out of storage piles were calculated using the predictive equation from AP-42 Section 13.2.4.
- The moisture content of the aggregate is 0.7% 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*. The conditioned potential emissions include emissions from sources that will limit their production to ensure compliance with the annual PM₁₀ emission limit of 15.0 tons per year for plants in order to avoid refined modeling according to 10 CSR 10-6.060 (6)(B)3. Potential emissions of PM are above de minimis but below major source levels. There are no modeling requirements for PM. PM₁₀ and all other pollutants are under de minimis.

APPLICABLE REQUIREMENTS

Trenton Asphalt Plant 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

- *Operating Permits*, 10 CSR 10-6.065 is not required because conditioned emissions from this installation is below de minimis except for PM; PM does not trigger operating permit requirements.
- *Start-Up, Shutdown, and Malfunction Conditions*, 10 CSR 10-6.050
- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110.
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170
- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220
- *Restriction of Emission of Odors*, 10 CSR 10-6.165

SPECIFIC REQUIREMENTS

- *Restriction of Emission of Particulate Matter From Industrial Processes*, 10 CSR 10-6.400 does not apply because the drum dryer is controlled by a baghouse. All other sources are fugitive.

- 40 CFR 60 Subpart I, "Standards of Performance for Hot Mix Asphalt Facilities" 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.
- *Control of Sulfur Dioxide Emissions*, 10 CSR 10-6.261 does not apply because this plant's fuel usage is natural gas.

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 29, 2018, received June 29, 2018, designating Trenton Asphalt as the owner and operator of the installation.

APPENDIX A

Abbreviations and Acronyms

%	percent	MMBtu	Million British thermal units
°F	degrees Fahrenheit	MMCF	million cubic feet
acfm	actual cubic feet per minute	MSDS	Material Safety Data Sheet
BACT	Best Available Control Technology	NAAQS	National Ambient Air Quality Standards
BMPs	Best Management Practices	NESHAPs ..	National Emissions Standards for Hazardous Air Pollutants
Btu	British thermal unit	NO_x	nitrogen oxides
CAM	Compliance Assurance Monitoring	NSPS	New Source Performance Standards
CAS	Chemical Abstracts Service	NSR	New Source Review
CEMS	Continuous Emission Monitor System	PM	particulate matter
CFR	Code of Federal Regulations	PM_{2.5}	particulate matter less than 2.5 microns in aerodynamic diameter
CO	carbon monoxide	PM₁₀	particulate matter less than 10 microns in aerodynamic diameter
CO₂	carbon dioxide	ppm	parts per million
CO_{2e}	carbon dioxide equivalent	PSD	Prevention of Significant Deterioration
COMS	Continuous Opacity Monitoring System	PTE	potential to emit
CSR	Code of State Regulations	RACT	Reasonable Available Control Technology
dscf	dry standard cubic feet	RAL	Risk Assessment Level
EIQ	Emission Inventory Questionnaire	SCC	Source Classification Code
EP	Emission Point	scfm	standard cubic feet per minute
EPA	Environmental Protection Agency	SDS	Safety Data Sheet
EU	Emission Unit	SIC	Standard Industrial Classification
fps	feet per second	SIP	State Implementation Plan
ft	feet	SMAL	Screening Model Action Levels
GACT	Generally Available Control Technology	SO_x	sulfur oxides
GHG	Greenhouse Gas	SO₂	sulfur dioxide
gpm	gallons per minute	SSM	startup, shutdown, & malfunction
gr	grains	tph	tons per hour
GWP	Global Warming Potential	tpy	tons per year
HAP	Hazardous Air Pollutant	VMT	vehicle miles traveled
hr	hour	VOC	Volatile Organic Compound
hp	horsepower		
lb	pound		
lbs/hr	pounds per hour		
MACT	Maximum Achievable Control Technology		
µg/m³	micrograms per cubic meter		
m/s	meters per second		
Mgal	1,000 gallons		
MW	megawatt		
MHDR	maximum hourly design rate		

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

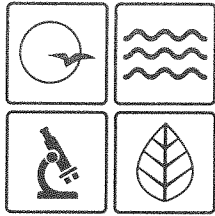
		Pollutant	Justification for Limit
Hours per day	24.0	PM10	NAAQS
Days per year	71.7	N/A	N/A
Hours per year	1719.9	PM10	De Minimis

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

Pollutant	Potential Emissions of Process Equipment (tons/yr)	Potential Emissions including fugitives (tons/yr)	Allowable Emissions for 1720 hours per year (tons/yr)	De minimis Thresholds	Plant-wide Composite Emission Factor (lbs/ton)
PM	41.76	248.05	48.70		0.5148
PM ₁₀	20.96	76.40	15.00		0.1586
PM _{2.5}	13.23	21.55	4.23		0.0447
SO ₂	0.00	0.00	0.00		0.0000
NO ₂	17.36	17.36	3.41		0.0360
VOC	29.05	29.05	5.70		0.0603
CO	18.11	18.11	3.55		0.0376
H ₂ S	2.43	2.43	0.476		0.0050
CH ₂ O	1.58	1.58	0.31		0.0033
C ₁₁ H ₁₀	0.04	0.04	0.0083		0.0001
Pb	0.00	0.000300	0.000059		0.0000
HAPs	2.77	2.77	0.54		0.0057
CO ₂	20,862.92	20,862.92	4,096.16		43.3020
CH ₄	2.27	2.27	0.45		0.0047
N ₂ O	0.04	0.04	0.01		0.0001
GHG _{mass}	20,865.23	20,865.23	4,096.61		43.3068
CO ₂ eq	20,931.35	20,931.35	4,109.60		43.4441

Maximum hourly design rate (tons/hr)	110
Distance to property boundary (ft)	300

Tons of product per day	2640.0
Tons of product per year	189,190.2



Missouri Department of dnr.mo.gov

NATURAL RESOURCES

Michael L. Parson, Governor

Carol S. Comer, Director

AUG 06 2018

Mr. Ron Urton
City Administrator
Trenton Asphalt Plant
1100 Main Street
Trenton, MO 64683

RE: New Source Review - Permit Number:
Project Number: 2018-06-043; Installation Number: 079-0014

Dear Mr. Urton:

Enclosed with this letter is your permit to construct. Please study it carefully and refer to Appendix A for a list of common abbreviations and acronyms used in the permit. Also, note the special conditions on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files. Operation in accordance with these conditions, your new source review permit application is necessary for continued compliance. In addition, please note that Trenton Asphalt Plant 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



Recycled paper


Mr. Ron Urton
Page Two

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.

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: 2018-06-043

Permit Number: 082018-005

Plant Information

Plant Type	Crack mix for mix asphalt plant			
Plant Output Capacity (tonne/hour)	110			
Blended Input Capacity (tonne/hour)	40.3			
Control Device	Fabric filter			
Best Management Practices	No			
Other Fuel Type	NG (c. 100 mmBtu/hour)	In regards to AP-42 Chapter 1	In regards to 40 CFR Part 60	In regards to AP-42 Chapter 1
Fuel Sulfur Content (% weight sulfur, for oil; grains of sulfur per 10 ⁶ cubic feet for Natural gas; grains of sulfur/100 cubic feet gas vapor for Butane and Propane)		0.01	grains of sulfur/10 ⁶ B3 gas	Natural gas and Propane fuel does Please choose most concise
Number of Common Stack Ports	0			
Screening Device	Vibrating screens			
Distance to Property Boundary (ft)	300			

Stack Emission Point Information

Emission Point	Stack Height (feet)	Stack Inlet Diameter (feet)	Stack Gas Flow Rate (ACFM)	Stack Gas Exit Temp (°F)
4	25.5	2.47	2100	300

Material Information

Material	Composition of Asphalt (% by weight)	Default Composition (% by weight)	Moisture Content of Material (% by weight)
Crushed limestone	75.00%	82.00%	0.7
Sand	18.00%	90.00%	4.17
Asphalt Cement	8.00%	8.00%	N/A
Total (100%)	100%	100%	

Asphalt plant has a rectangular stack
D=0.1099(L+W)
Width = 0.6
Length = 2.1
Calculated Diameter = 2.47

Asphalt Information

	Asphalt Viscosity	Asphalt Temperature (°F)
Default	0.5	375
Site Specific	0.5	375

Engine Set Information

Engine Set Information	Engine Set Information	8	8	10
Break Horsepower (bhp)	Type of Fuel			
Engine kilowatt rating (KW)	gallons per hour			
Engine MHR (mmBtu per hour, input)	in this a generator set engine?			
Model Year (YYYY)	Fuel Sulfur Content (% weight sulfur)			

82.72

RAPRAS Crusher

Aggregate Replaced by RAPRAS (% by weight)	25.00%
Control Type	Undocumented Warning

Storage Pile Information

Storage Pile ID No.	aggregate	sand	Pile #6
Maximum Area of Storage Pile (Acres)	0.6	0.5	
Type of Material Stored	Crushed limestone	Sand	
Moisture Content %	0.7	4.17	
Btu Content %	1.0	2.8	
Method of Load in to Storage Pile	Truck	Truck	
Method of Load Out from Storage Pile/Loader	Loader	Loader	
Distance Loader Travels (feet)	200	200	
Unloaded Loader Weight (tons)	14.50	14.00	
Loaded Loader Weight (tons)	16.50	16.50	
Rate (tonne/hour)	25	21	
max VMT per hour	1.2533	0.2848	
Surface Treatment	Unpaved	Unpaved	
Vehicle Area Control	Undocumented Warning	Undocumented Warning	

Haul Road Information

Haul Road ID No.	Aggregate delivery	Sand Delivery	Finished Product	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 the distance is used, one trip in and one out.	850	850	850			
Unloaded Truck Weight (tons)	9	9	9			
Loaded Truck Weight (tons)	24	24	24			
Rate Hauled (tonne/hour)	165.44	41.36	110			
max VMT per hour	3.9511	0.8878	0.3811			
Surface Treatment	Unpaved	Unpaved	Unpaved			
Haul Road Control	Undocumented Warning	Undocumented Warning	Undocumented Warning			

Combustion Sources

Combustion ID	Description	AC Heater	Desc #1	Combustion #2	Desc #2	Combustion #3	Desc #3
	Heat Rate	0.45 mmBtu/hour	mgBtu/hour	mgBtu/hour	mgBtu/hour	mgBtu/hour	mgBtu/hour
		0.00 mmBtu/hour	mgBtu/hour	mgBtu/hour	mgBtu/hour	mgBtu/hour	mgBtu/hour
	Fuel Type	In regards to AP-42 Chapter 1	In regards to 40 CFR Part 60	In regards to AP-42 Chapter 1	In regards to 40 CFR Part 60	In regards to AP-42 Chapter 1	In regards to 40 CFR Part 60
	Fuel Sulfur Content (% weight sulfur, for oil; grains of sulfur per 10 ⁶ cubic feet for Natural gas; grains of sulfur/100 cubic feet gas vapor for Butane and Propane)	0.01	grains of sulfur/10 ⁶ B3 gas		% weight sulfur		% weight sulfur

Emission Point Number	Emission Unit Number	Description	SCC	Maximum Hourly Design Rate	Units	Control Device Number	Control Type	Capture Efficiency (%)	Control Efficiency (%)	Pollutant	Emission Factor	Units (pounds per unit shown)	Emission Rate (pounds per hour)	Potential Emissions (tons per year)	Allowable Emissions (tons per year)	Nemograph Type (followed by 24-hr conc. then by annual conc)	Hours Adjusted Ambient 24-hr For one hr (µg/m ³)	Emission Adjusted Ambient Impact 24-hr Average (µg/m ³)	Ambient Impact Annual Average (µg/m ³)
1	1	Aggregate handling bin		103.40	tonshour			N/A	N/A	PM	0.0030	ton	0.31	1.30	0.27	None			
								N/A	N/A	PM ₁₀	0.0011	ton	0.11	0.50	0.10				
								N/A	N/A	PM _{2.5}	0.0003	ton	0.03	0.14	0.03				
2	2	Aggregate handling conveyor		930.60	tonshour			N/A	N/A	PM	0.0030	ton	2.79	12.23	2.40	None			
								N/A	N/A	PM ₁₀	0.0011	ton	1.02	4.40	0.96				
								N/A	N/A	PM _{2.5}	0.0003	ton	0.29	1.27	0.26				
3	3	Vibrating screen		103.40	tonshour			N/A	N/A	PM	0.0250	ton	2.58	11.32	2.22	None			
								N/A	N/A	PM ₁₀	0.0087	ton	0.90	3.94	0.77				
								N/A	N/A	PM _{2.5}	0.0008	ton	0.06	0.27	0.05				
		RAPIRAS Crusher			tonshour		Undocumented Watering	N/A	50%	PM		ton				None			
								N/A	50%	PM ₁₀		ton							
								N/A	50%	PM _{2.5}		ton							
4	4	Dum m/c on m/c asphalt plant Natural gas (and Propane) fired dryer NQ (< 100 mm)Btu/hour Natural gas liquid asphalt CO (on liquid asphalt, sum with fuel combustion)	3-05-002 (05, 55-63)	110.00 40.30 0.036 8.60 tph 0.06	tonshour mmBtu/hour mmBtu/hour mmBtu/hour tph		Fabric filter	N/A	N/A	PM	0.0030	ton	3.63	15.9	3.1	AERSCREEN	7.31	28.54	0.87
								N/A	N/A	PM ₁₀	0.0020	ton	2.53	11.1	2.2				
								N/A	N/A	PM _{2.5}	0.0020	ton	2.42	10.6	2.1				
								N/A	N/A	SO ₂	0.0000	mmBtu	0.00	0.0	0.0				
								N/A	N/A	NO _x	100.0000	mmBtu	3.92	17.2	3.4				
								N/A	N/A	CO	84.0000	mmBtu	3.69	16.3	3.2				
								N/A	N/A	VOC	0.0320	ton	3.52	15.4	3.0				
								N/A	N/A	CH ₄ O	0.0031	ton	0.34	1.5	0.3				
								N/A	N/A	C ₂ H ₆	0.0001	ton	0.01	0.0	0.00793				
								N/A	N/A	PS	0.0000	ton	0.00	0.0	0.0				
								N/A	N/A	HAPs	0.0053	ton	0.58	2.6	0.5				
								N/A	N/A	CO ₂	116.8890	mmBtu	4,710.82	20,632.5	4,050.9				
								N/A	N/A	CH ₄	0.0120	ton	0.48	2.1	0.4				
								N/A	N/A	H ₂ S	0.0050	ton	0.55	2.4	0.5				
								N/A	N/A	N ₂ O	0.0002	mmBtu	0.91	0.0	0.0				
5	5	Plant loadout liquid asphalt	3-05-002-14	110.00 8.60 tph	tonshour tph			N/A	N/A	PM	0.0005	ton	0.06	0.3	0.0	None			
								N/A	N/A	PM ₁₀	0.0009	ton	0.08	0.3	0.0				
								N/A	N/A	PM _{2.5}	0.0005	ton	0.06	0.3	0.0				
								N/A	N/A	CO	0.0013	ton	0.15	0.7	0.1				
								N/A	N/A	VOC	0.0039	ton	0.43	1.9	0.4				
								N/A	N/A	CH ₂ O	0.0000	ton	0.00	0.0	0.0				
N/A	N/A	HAPs	0.0001	ton	0.01	0.0	0.0												
N/A	N/A	H ₂ S	0.0002	ton	0.00	0.006	0.001												
N/A	N/A	CH ₄	0.0003	ton	0.03	0.1	0.0												
6	6	Silo loading liquid asphalt	3-05-002-13	110.00 8.60 tph	tonshour tph			N/A	N/A	PM	0.0006	ton	0.06	0.3	0.1	None			
								N/A	N/A	PM ₁₀	0.0006	ton	0.06	0.3	0.1				
								N/A	N/A	PM _{2.5}	0.0006	ton	0.06	0.3	0.1				
								N/A	N/A	CO	0.0012	ton	0.13	0.6	0.1				
								N/A	N/A	VOC	0.0122	ton	1.34	5.9	1.2				
								N/A	N/A	CH ₂ O	0.0001	ton	0.01	0.0	0.0				
								N/A	N/A	HAPs	0.0002	ton	0.02	0.1	0.0				
								N/A	N/A	H ₂ S	0.0002	ton	0.00	0.006	0.001				
								N/A	N/A	CH ₄	0.0000	ton	0.00	0.0	0.0				

Emission Point Number	Emission Unit Number	Description	SCC	Maximum Hourly Design Rate	Units	Control Device Number	Control Type	Capture Efficiency (%)	Control Efficiency (%)	Pollutant	Emission Factor	Units (pounds per units shown)	Emission Rate (pounds per hour)	Potential Emissions (tons per year)	Allowable Emissions (tons per year)	Nomograph Type (followed by 24-hr conc, then by annual conc)	Hours Adjusted Ambient 24-hr For one hr (µg/m ³)	Emission Adjusted Ambient Impact 24-hr Average (µg/m ³)	Ambient Impact Annual Average (µg/m ³)
8a	8a	Pile #1																	
		Load in		82.72	tons per hour			N/A	N/A	PM ₁₀	0.0254	ton	2.10E+00	9.15	1.80				
								N/A	N/A	PM _{2.5}	0.0018	ton	1.50E-01	0.96	0.10				
		Load out		82.72	tons per hour			N/A	N/A	PM ₁₀	0.0254	ton	2.10E+00	9.15	1.80				
								N/A	N/A	PM _{2.5}	0.0018	ton	1.50E-01	0.96	0.10				
		Vehicular Activity		1.25	VMT per hour		Unpaved, Undocumented Watering	N/A	50%	PM	8.2827	VMT	3.18E+00	22.06	4.48				
								N/A	50%	PM ₁₀	2.3496	VMT	1.47E+00	6.45	1.27				
								N/A	41%	PM _{2.5}	0.2360	VMT	1.73E-01	0.76	0.15				
		Wind Erosion		0.50	acres			N/A	N/A	PM ₁₀	0.1763	acre-hr	6.92E-02	0.36	0.06				
								N/A	N/A	PM _{2.5}	0.0892	acre-hr	4.46E-02	0.20	0.04				
								N/A	N/A	PM _{2.5}	0.0134	acre-hr	6.65E-03	0.03	0.01				
8b	8b	Pile #2																	
		Load in		20.68	tons per hour			N/A	N/A	PM ₁₀	0.0021	ton	4.31E-02	0.19	0.04				
								N/A	N/A	PM _{2.5}	0.0010	ton	2.04E-02	0.09	0.02				
		Load out		20.68	tons per hour			N/A	N/A	PM ₁₀	0.0021	ton	3.09E-02	0.01	0.00				
								N/A	N/A	PM _{2.5}	0.0010	ton	2.04E-02	0.09	0.02				
		Vehicular Activity		0.28	VMT per hour		Unpaved, Undocumented Watering	N/A	50%	PM	8.2078	VMT	1.17E+00	5.12	1.01				
								N/A	50%	PM ₁₀	2.3340	VMT	3.35E-01	1.48	0.28				
								N/A	41%	PM _{2.5}	0.2334	VMT	3.92E-02	0.17	0.03				
		Wind Erosion		0.50	acres			N/A	N/A	PM ₁₀	0.2889	acre-hr	1.45E-01	0.83	0.12				
								N/A	N/A	PM _{2.5}	0.1449	acre-hr	7.24E-02	0.32	0.06				
								N/A	N/A	PM _{2.5}	0.0211	acre-hr	1.09E-02	0.05	0.01				
		Pile #3																	
		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 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							
		Wind Erosion			acres			N/A	N/A	PM ₁₀		acre-hr							
								N/A	N/A	PM _{2.5}		acre-hr							
		Pile #4																	
		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 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							
		Wind Erosion			acres			N/A	N/A	PM ₁₀		acre-hr							
								N/A	N/A	PM _{2.5}		acre-hr							
9a	Road #1			3.55	VMT per hour		Unpaved, Undocumented Watering	N/A	50%	PM	9.2882	VMT	1.65E+01	72.22	14.18				
								N/A	50%	PM ₁₀	2.7415	VMT	4.87E+00	21.32	4.18				
								N/A	41%	PM _{2.5}	0.2742	VMT	5.73E-01	2.51	0.49				
9b	Road #2			0.89	VMT per hour		Unpaved, Undocumented Watering	N/A	50%	PM	9.2882	VMT	4.12E+00	18.06	3.55				
								N/A	50%	PM ₁₀	2.7415	VMT	1.22E+00	5.33	1.05				
								N/A	41%	PM _{2.5}	0.2742	VMT	1.43E-01	0.63	0.12				
9c	Road #3			2.35	VMT per hour			N/A	N/A	PM	6.6193	VMT	1.56E+01	66.42	13.43				
								N/A	N/A	PM ₁₀	1.9529	VMT	4.61E+00	20.20	3.97				
								N/A	N/A	PM _{2.5}	0.1955	VMT	6.47E-01	2.84	0.56				
		Road #4			VMT per hour			N/A	N/A	PM		VMT							
								N/A	N/A	PM ₁₀		VMT							
								N/A	N/A	PM _{2.5}		VMT							
		Road #5			VMT per hour			N/A	N/A	PM		VMT							
								N/A	N/A	PM ₁₀		VMT							
								N/A	N/A	PM _{2.5}		VMT							
		Road #6			VMT per hour			N/A	N/A	PM		VMT							
								N/A	N/A	PM ₁₀		VMT							
								N/A	N/A	PM _{2.5}		VMT							