



**Environmental Health Department
Air Quality Program
Interoffice Memorandum**

Timothy M. Keller, Mayor

To:	Permit File
From:	Regan Eyerman
Subject:	Permit Application #3340-RMD
Date:	October 16, 2020
Permit Description:	New Construction Permit

Facility Name:	New Mexico Terminal Services, LLC.	UTM Coordinates,	
Facility Address:	9615 Broadway Boulevard SE Albuquerque, NM	North:	3869300
Facility ID:	FA0007616	East:	347500
		Record ID:	PR0009169

Proposal

New Mexico Terminal Services, LLC has submitted a construction air quality permit application to the Air Quality Program (Program) of the City of Albuquerque Environmental Health Department for a new permit. The permit is for a 400 ton/hr hot mix asphalt plant (HMA) with railcar unloading and truck loading operations, and with aggregate and recycled asphalt pavement (RAP) products handling to be located at 9615 Broadway Blvd. SE in Albuquerque, NM. The owner of this facility is New Mexico Terminal Services, 9615 Broadway Blvd. SE, Albuquerque, NM 87105. The application package included detailed emissions calculations which were reviewed for accuracy and completeness.

The equipment and activities proposed to be operated at the Facility will consist of one (1) rail hopper, one (1) rail hopper conveyor, one (1) rail telescoping conveyor, one (1) aggregate truck loading, one (1) HMA scale conveyor, one (1) HMA slinger conveyor, one (1) hot mix drum, one (1) hot mix drum baghouse, six (6) cold feed bins, one (1) cold feed conveyor, one (1) cold feed scalping screen, one (1) scalping screen conveyor, one (1) cold feed pug mill, one (1) mineral filler silo, one (1) mineral filler silo baghouse, one (1) HMA RAP bin, two (2) HMA RAP screen conveyors, one (1) HMA RAP screen, one (1) HMA RAP screen conveyor, one (1) HMA incline conveyor, one (1) fuel oil fired hot oil heater, two (2) HMA cement storage tanks, one (1) RAP crusher plant, one (1) RAP crusher plant conveyor, three (3) HMA silos, HMA yard, plant haul roads, and aggregate/RAP storage piles.

A control efficiency of 91-95% on Particulate Matter (PM) emissions will be achieved through a water injection system. Additionally a control efficiency of above 99% on PM emissions will be achieved using baghouses on the filler silo and the drum mixer. Material storage pile and haul road emissions are to be regulated under Fugitive Dust Control 20.11.20.12A. NMAC General Provisions.

The modeling section investigated the ambient impacts of both hydrogen sulfide (H₂S) and Lead (Pb) emissions.

The H₂S emissions were calculated at 44 lb/year. A H₂S emission rate about 4 times higher than the 44 lb/year was input to AERMOD as a safety factor. Specifically, an H₂S emission rate of 0.0219 lb/hr was used with the Baghouse Stack emission point. Using 5 years of meteorological data, the maximum hourly impact was 0.17 µg/m³. The level of the New Mexico Ambient Air Quality Standard for H₂S is 13.9 µg/m³ per the New Mexico Environment Department's (NMED) Air Dispersion Modeling Guidelines. The significance level for modeled H₂S impacts is 1.0 µg/m³. In other words, an emission rate 4 times higher than calculated for the plant produced a maximum impact 5 times lower than the significance level for impacts and more than 50 times lower than the level of the standard.

A Pb emission rate of 0.006 lb/hr was calculated for burning used oil for the operation of the asphalt drum dryer. The level of the NAAQS for Pb is 0.15 µg/m³ and the significance level for impacts is 0.03 µg/m³. AERMOD was run, per NMED guidance on Pb modeling, with the 0.006 lb/hr emission rate. The maximum monthly average impact for both scenarios was 0.00161 µg/m³ which is an order of magnitude below the significance level for Pb and two orders of magnitude below the level of the Pb NAAQS.

Permitting History

Permit Number	Issuance Date	Permit Type	Brief Description
3340		Re-issue New	Current Permitting Action
3340	September 19, 2018	New	The permit was remanded on February 22, 2019

Regulatory Applicability

New Mexico Administrative Code (NMAC) Regulations

The applicable Albuquerque-Bernalillo County Air Quality Control Board regulations include but are not limited to the provisions below:

Citation	Regulation	Does it apply to the Facility and/ or Equipment? Y/N (List units)
20.11.1	Environmental Protection General	Yes. All facility
20.11.2	Permit Fees	Yes. All facility
20.11.2.18.C	Ton-per-year application review fees for stationary sources that require permits pursuant to 20.11.41 NMAC or other board regulation, and whose applicability is based on the source's pound per hour or ton per year emissions:	Yes. All facility
(4)	Permits for proposed sources with a proposed allowable emission rate equal to or greater than 50 tons per year and less than 75 tons per year: \$5,035.00.	

Citation	Regulation	Does it apply to the Facility and/ or Equipment? Y/N (List units)
20.11.2.18.D	Federal program review fees due in addition to the stationary source permit application review fees:	Yes. All facility
(1)	Review fee for 40 CFR 60 standards is \$1,119.00	
*	<i>The fees above have been adjusted for the Consumer Price Index on January 1, 2020.</i>	
→	<i>The Department received proof of payment of \$4937 on March 12, 2018. The remaining \$1217 will be invoiced.</i>	
20.11.2.21	Annual Emissions Fees and Rate for Stationary Sources	Yes. All facility
B.	Permitted source: Sources issued a permit pursuant to 20.11.41 NMAC, 20.11.42 NMAC, 20.11.60 NMAC, 20.11.61 NMAC or other board regulation, shall pay a minimum annual emission fee of \$216.00 or \$51.00 per ton, whichever is greater. The annual emission fee shall be calculated as required by Subsection C of 20.11.2.13 NMAC	
F.	Beginning January 1, 2011, and every January 1 thereafter, an increase based on the consumer price index shall be added to the annual emission fee and rates required by 20.11.2.21 NMAC. The annual emission fees and rates pursuant to 20.11.2.21 NMAC shall be adjusted by an amount equal to the increase in the consumer price index for the immediately preceding year.	
	<i>The Annual Emission Fees were adjusted for the Consumer Price Index on January 1, 2020</i>	

Emission Unit #	CO* TPY	NOx* TPY	SO2* TPY	VOC* TPY	PM10 TPY	HAP TPY
Totals	54	24	24	20	16	4
Total = 138 tpy						
<i>*Note: The total emissions on this table are for billable use only. These are NOT the allowable annual emissions for the facility.</i>						

Citation	Regulation	Does it apply to the Facility and/ or Equipment? Y/N (List units)
20.11.5	Visible Air Contaminants	
20.11.5.12	General Stationary Sources	
	No person owning or operating any stationary source, not otherwise addressed in this Part, shall cause or allow visible air contaminant emissions that exceed an opacity of 20 percent, 6 minute time-averaged.	Yes. Units #1 - #14 & #21 - #26
20.11.8	Ambient Air Quality Standards – Only New Mexico State Standards	Yes. All facility
	Note: 20.11.8 NMAC is applicable, but the newer federal standards contained in 40 CFR §50 apply.	
20.11.20	Fugitive Dust Control	
A.	20.11.20 NMAC is applicable to all sources of fugitive dust in Bernalillo county, unless otherwise exempt.	Yes. All facility
20.11.20.12	General Provisions	
D.	A permittee whose violation of 20.11.20 NMAC results in fugitive dust being deposited upon real property beyond the limits of the permitted area shall take all actions necessary to remedy damage caused by a violation proven with credible evidence. Such remedies may include, but not be limited to, compensation, removal of the fugitive dust and/or repair of any damage after obtaining permission from property owners or operators before doing any remedial work on the damaged property. It shall be a separate violation of 20.11.20 NMAC to fail to remove the fugitive dust and repair the damage as specified in a written schedule or any extension agreed to by the permittee and the owner of the damaged property. If the parties cannot agree to a schedule, the department may establish deadlines and failure to comply with the deadlines shall be a separate violation of 20.11.20 NMAC. No violation will occur if the failure to perform the corrective action is for reasons beyond the control of the person performing the work including without limitation acts of God or government preemption in connection with a national emergency or if the owner of the allegedly damaged property refuses to grant reasonable permission and access to conduct the remediation activities.	Yes. All facility
E.	Stockpiles shall be no higher than 15 feet above the existing natural or man-made grade that abuts the stockpile, unless	

Citation	Regulation	Does it apply to the Facility and/ or Equipment? Y/N (List units)
	otherwise approved in advance and in writing by the department.	
20.11.20.23	Reasonably Available Control Measures for Fugitive Dust	
	The permittee may include in the permit application one or more of the reasonably available control measures included in 20.11.20.23 NMAC or one or more alternative fugitive dust control measures, including measures taken to comply with any other statute or regulation if the measures will effectively control fugitive dust during active operations or on inactive disturbed surface areas	
A	Unpaved roadways:	Yes. Unit #27
B.	Paved Roadways	Yes. Unit #27
C.	Trucks hauling bulk materials on public and private roadways	Yes. Unit #27
D.	Active operations in construction areas and other surface disturbances	Yes. All facility
E.	Bulk material handling	Yes. Units #1 - #26 & #28.
F.	Industrial sites	Yes. All facility
K.	High wind contingency measures	Yes. All facility
I.	Stockpile Formation	
20.11.40	Source Registration	
20.11.40.2	This Part is applicable to any stationary source located in Bernalillo County.	Yes. All facility
20.11.40.6	By January 1, 1974, any person owning or operating any commercial or industrial stationary source, which emits more than two thousand pounds of any air contaminant per year or any amount of a hazardous air pollutant, must obtain a Registration Certificate for the source from the Director. Any person owning or operating any commercial or industrial stationary source constructed after September 1, 1973, and meeting the emission requirements of this section, must obtain a Registration Certificate for the source from the Director within one hundred and eighty days after the initial startup date of the source.	
20.11.41	Construction Permits	
2011.41.2.B	Source classifications; source types that require a construction permit before commencing construction, modification or operation of a stationary source subject to 20.11.41 NMAC:	Yes. All facility

Citation	Regulation	Does it apply to the Facility and/ or Equipment? Y/N (List units)
(1)	any equipment or process that is subject or becomes subject to 20.11.63 NMAC, New Source Performance Standards for Stationary Sources, or 20.11.64 NMAC, Emission Standards for Hazardous Air Pollutants for Stationary Sources;	
20.11.49	Excess Emissions	
20.11.49.13.A	Applicable to any source:	Yes. All facility
(1)	whose operation results in an emission of a regulated air pollutant, including a fugitive emission, in excess of the quantity, rate, opacity or concentration specified by an air quality regulation or permit condition; or	
(2)	subject to the requirements of 20.11.47 NMAC, Emissions Inventory Requirements, 20.11.41 NMAC, Construction Permits, 20.11.42 NMAC, Operating Permits, 20.11.61 NMAC, Prevention of Significant Deterioration, or 20.11.60 NMAC, Permitting In Nonattainment Areas.	
20.11.66	Process Equipment	
20.11.66.2.A.	This Part is applicable to owner and operators of any equipment capable of emitting pollution emissions into the atmosphere within Bernalillo County. NOTE: 20.11.66 NMAC is applicable to the facility, however, the facility is subject to the newer, more stringent requirements of 40 CFR § 60.92(a)(1)-(2).	Yes. All facility
20.11.63	New Source Performance Standards	
20.11.63.11	Incorporation of federal standards	
	Federal Standard at 40 CFR Part 60, Subpart I for Hot Mix Asphalt Plants. The unit was constructed after June 11, 1973.	Yes. All facility
→	Facility constructed after June 11, 1973	
20.11.90	Source Surveillance; Administration, Enforcement, Inspection	Yes. All facility
20.11.90.2.A	Scope:	
A.	20.11.90 is applicable to any source within the Bernalillo County.	
20.11.90.13	Source Surveillance	
A	The owner or operator of any stationary source of an air contaminant shall, upon notification by the director, maintain records of the nature and amounts of emissions, to which an air quality control emission regulation applies, from the source and any other information as may be deemed necessary	

Citation	Regulation	Does it apply to the Facility and/ or Equipment? Y/N (List units)
	by the director to determine whether the source is in compliance with applicable regulations.	
E	The director shall establish a periodic visual surveillance system to detect and investigate apparent violations of visible emission limitations and such complaints relating to apparent violations of the regulations as may occur.	
20.11.90.14	Administration and Enforcement	
A.	Upon request of the director, the person responsible for the emission of air contaminants for which limits are established by the rules codified under Title 20, Environmental Protection, Chapter 11, Albuquerque - Bernalillo County Air Quality Control Board, of the New Mexico Administrative Code, shall provide such facilities, utilities, and openings exclusive of instrument and sensing devices, as may be necessary for the proper determination of the nature, extent, quantity and degree of such air contaminants. Such facilities may be either temporary or permanent at the discretion of the person responsible for their provisions; and shall be suitable for determination consistent with emission limits established in these rules.	

Federal Applicability

The applicable federal regulations include, but are not limited to, the provisions below:

Citation	Regulation	Does it apply to the Facility and/ or Equipment? Y/N (List units)
40 CFR 50	National Primary and Secondary Ambient Air Quality Standards	Yes. All facility
§50.4	National primary ambient air quality standards for sulfur oxides (sulfur dioxide) General Provision	
§50.5	National secondary ambient air quality standards for sulfur oxides (sulfur dioxide)	
§50.6	National primary and secondary ambient air quality standards for PM10	
§50.7	National primary and secondary ambient air quality standards for PM2.5	
§50.8	National primary ambient air quality standards for carbon monoxide	
§50.9	National 1-hr primary and secondary ambient air quality standards for ozone	
§50.10	National 8-hr primary and secondary ambient air quality standards for ozone	
§50.11	National primary and secondary ambient air quality standards for oxides of nitrogen (with nitrogen dioxide as the indicator)	
§50.13	National primary and secondary ambient air quality standards for PM2.5	
§50.15	National primary and secondary ambient air quality standards for ozone	
§50.16	National primary and secondary ambient air quality standards for lead	
§50.17	National secondary ambient air quality standards for sulfur oxides (sulfur dioxide)	
§50.18	National primary and secondary ambient air quality standards for PM2.5	
§50.19	National primary and secondary ambient air quality standards for ozone	
40 CFR 60	Standards of Performance for New Stationary Source	Yes. Units #15 - #22
Subpart A	General Provision	
§60.1	Applicability	
(a)	Except as provided in subparts B and C, the provisions of this part apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of	

Citation	Regulation	Does it apply to the Facility and/ or Equipment? Y/N (List units)
	publication in this part of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility	
§60.8	Performance tests	
(a)	... within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, or at such other times specified by this part, and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).	#21, #22
§60.11	Compliance with standards and maintenance requirements	
(d)	At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.	All units that do not have manufacturer's specifications
Subpart I	Standards of Performance for Hot Mix Asphalt Facilities	
§60.90	Applicability and designation of affected facility.	Yes
(a)	The affected facility to which the provisions of this subpart apply is each hot mix asphalt facility. For the purpose of this subpart, a hot mix asphalt facility is comprised only of any combination of the following: dryers; systems for screening, handling, storing, and weighing hot aggregate; systems for loading, transferring, and storing mineral filler, systems for mixing hot mix asphalt; and the loading, transfer, and storage systems associated with emission control systems.	Units #21 - #26
(b)	Any facility under paragraph (a) of this section that commences construction or modification after June 11, 1973, is subject to the requirements of this subpart.	
§60.92	Standard for particulate matter.	
(a)	On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator	

Citation	Regulation	Does it apply to the Facility and/ or Equipment? Y/N (List units)
	subject to the provisions of this subpart shall discharge or cause the discharge into the atmosphere from any affected facility any gases which: (1) Contain particulate matter in excess of 90 mg/dscm (0.04 gr/dscf). (2) Exhibit 20 percent opacity, or greater.	
§60.93	Test methods and procedures	
(a)	In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b).	
(b)	The owner or operator shall determine compliance with the particulate matter standards in §60.92 as follows: (1) Method 5 shall be used to determine the particulate matter concentration. The sampling time and sample volume for each run shall be at least 60 minutes and 0.90 dscm (31.8 dscf). (2) Method 9 and the procedures in §60.11 shall be used to determine opacity.	
Subpart OOO	OOO—Standards of Performance for Nonmetallic Mineral Processing Plants	
§60.670	Applicability and designation of affected facility.	Yes
(a)(1)	Except as provided in paragraphs (a)(2), (b), (c), and (d) of this section, the provisions of this subpart are applicable.... each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station. Also, crushers and grinding mills at hot mix asphalt facilities that reduce the size of nonmetallic minerals embedded in recycled asphalt pavement and subsequent affected facilities up to, but not including, the first storage silo or bin are subject to the provisions of this subpart.	Units #15 – #20
§60.672	Standard for particulate matter (PM)	Yes
(b)	Affected facilities must meet the fugitive emission limits and compliance requirements in Table 3 of this subpart within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11. The requirements in Table 3 of this subpart apply for fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems.	Units #15- #20

Citation	Regulation	Does it apply to the Facility and/ or Equipment? Y/N (List units)
Table 3	Fugitive Emission Limits	Yes. Units #15 and #16
	Affected facilities that commence construction, modification, or reconstruction on or after April 22, 2008. Must meet 12% Opacity	

Specific Conditions for this Facility

FACILITY WIDE CONDITIONS

These are the permitted activities at the Facility:

- 1) a 400-tph hot mix asphalt (HMA) Plant;
- 2) a 140 tph recycled asphalt pavement (RAP) crushing and screening plant
- 3) a 133-tph aggregate railcar-unloading terminal and transport off-site by truck the aggregate no used in the HMA Production Process;
- 4) aggregate storage piles and truck loading; and
- 5) haul roads.

B. The HMA process is authorized to the following activities:

- 1) utilize virgin aggregate, recycled asphalt pavement (RAP), mineral filler and asphalt cement in in the hot asphalt mix,
- 2) transport RAP and mineral filler on and off-site by haul truck; and,
- 3) transport off-site by truck the hot mix asphalt product and the aggregate not used in the hot mix

C. The HMA Production Process is authorized to operate the following storage piles and equipment :

- 1) a 400-tph HMA Plant:
 - a) HMA Cold Aggregate Feed Bins (6)
 - b) HMA Cold Aggregate Feed Bin Conveyor
 - c) HMA Scalping Screen
 - d) HMA Scalping Screen Conveyor
 - e) HMA Pug Mill
 - f) HMA Scale Conveyor
 - g) HMA Slinger Conveyor
 - h) HMA Mineral Filler Silo
 - i) HMA Drum Dryer/Mixer
 - j) HMA Incline Conveyor
 - k) HMA Silos (3)
 - l) HMA Heater, and
 - m) HMA Cement Storage Tanks (2)

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- 2) a 140-tph RAP Plant:
 - a) RAP Storage Pile
 - b) RAP Bin
 - c) RAP Crusher
 - d) RAP Crusher Conveyor
 - e) RAP Screen
 - f) RAP Screen Conveyor
 - g) RAP Screen Transfer Conveyor, and
 - h) RAP Screen Transfer Conveyor
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A. The aggregate railcar unloading terminal consist of the following:

- 1) Aggregate can be used in the asphalt mix and it will be delivered by railcar and offloaded using a railcar bottom dump hopper, transfer conveyors, and radial telescoping stacker to storage piles; and
 - 2) Aggregate material cannot be used in the hot mix asphalt process
-

Fencing/ barrier consistent with the air dispersion modeling submitted February 23, 2018 shall be installed and maintained so that it restricts public access to the property prior to the beginning of operation; all property within the fenceline/barriers must be continuously owned or controlled by the permittee.

All Facility sources must remain at least 150 ft. from the property fence as depicted in the air dispersion modeling files provided in the application, with the exception of (1) the rail car, (2) the rail car hopper, (3) the railcar conveyor, (4) the railcar telescoping conveyer, (5) railcar transfer points and (6) the entrance road.

The railcar, the railcar hopper, the railcar hopper conveyor, the railcar telescoping conveyor, and the rail car transfer points must be at least 40 feet from the fenceline.

The entrance road shall be paved.

Material storage piles shall be watered to control fugitive dust emissions from leaving the property

Hourly Production Limits/Throughput Limits

Hot Mix Asphalt (HMA) Plant:

- 400 tons per hour (tph) production rate

Recycled Asphalt Plant (RAP):

- 140 tph throughput rate
-

Daily Production Limits/Throughput Limits

HMA Plant:

- during the months of December through February, the total daily production is limited to 3,200 tons;
- during the months of March through May, the total daily production is limited to 4,000 tons; and,
- during the months of June through November, the total daily production is limited to 4,800 tons.

RAP Plant:

- during the months of December through February, the total daily throughput is limited to 1,120 tons;
- during the months of March through May, the total daily throughput is limited to 1,400 tons; and,
- during the months of June through November, the total daily throughput is limited to 1,680 tons.

Railcar Unloading Operations:

- 3200 tons of aggregate per day
-

Annual Production Limit/Throughput Limit, based on a 12-month rolling total

HMA Plant:

- 800,000 tons per year

RAP Plant:

- 280,000 tons per year

Hours of Operation

HMA Plant and RAP Plant, (except Units #1, #2, #3, #5, and #25, and paved/unpaved aggregate haul roads)

- From December through February: Seven (7) days a week, from 4 AM to 9 PM
- From March through November: Continuously

The following units and activities may operate or be performed continuously:

- Units #1, #2, #3 and #5, railcar and truck operations
- Unit #25 – HMA Heater
- Rail hopper truck traffic on paved aggregate haul road (PAGG) and unpaved aggregate haul road (UPA), as shown in Appendix A of the permit

EQUIPMENT SPECIFIC CONDITIONS

Storage Piles Material storage piles shall be watered to prevent fugitive dust emissions from leaving the property;

→ ***Include Monitoring and Recordkeeping Conditions***

Haul Roads Based on the application, the emissions were calculated on the number of trucks on the haul road. The number of trucks were calculate based on the type of material and throughput. Based on that information and the hours of operation, the facility will be limited to the following:

Facility:

- 27 trucks per hour,
- From December to January: 487 trucks per day
- From March to November: 648 trucks per day

→ ***Include Monitoring and Recordkeeping Conditions***

Truck traffic at the facility is permitted only at the haul roads shown in Figures 1 thru 4 of the permit.

#11, #12 and #14 Must operate with an atomized water spray bar. This condition has been placed in the permit based on air dispersion modeling of the Facility at this location to demonstrate compliance with the National Ambient Air Quality Standards and New Mexico Ambient Air Quality Standards for PM2.5, and PM10.

→ ***Include Monitoring and Recordkeeping Conditions***

#15 Per §60.672(b) and Table 3, fugitive emission limits for crushers at which a capture system is not used:

- 12% Opacity
- An initial performance test according to §60.11 of this part and §60.675 of this subpart; and
- Periodic inspections of water sprays according to §60.674(b) and §60.676(b); and
- A repeat performance test according to §60.11 of this part and §60.675 of this subpart within 5 years from the previous performance test for fugitive emissions from affected facilities without water sprays. Affected facilities controlled by water carryover from upstream water sprays that are inspected according to the requirements in §§60.674(b) and 60.676(b) are exempt from this 5-year repeat testing requirement.

#16 thru #20, and all affected transfer points	Per §60.672(b) and Table 3, fugitive emission limits for grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations or from any other affected facility as defined in §60.670 and 60.671):
	<ul style="list-style-type: none"> • 7% opacity • An initial performance test according to §60.11 of this part and §60.675 of this subpart; and • Periodic inspections of water sprays according to §60.674(b) and §60.676(b); and • A repeat performance test according to §60.11 of this part and §60.675 of this subpart within 5 years from the previous performance test for fugitive emissions from affected facilities without water sprays. Affected facilities controlled by water carryover from upstream water sprays that are inspected according to the requirements in §60.674(b) and §60.676(b) are exempt from this 5-year repeat testing requirement.
	→ Include Monitoring and Recordkeeping Conditions
#21 and #22	Per 60.92(a)(1) and (2)
	Contain particulate matter in excess of 90 mg/dscm (0.04 gr/dscf). Exhibit 20 percent opacity, or greater.
	→ Monitoring:
#21	Mineral Filler Silo
	Method 9 Opacity tests shall be conducted according to the requirements of 40 CFR 60, Subpart I and Appendix A. <ul style="list-style-type: none"> • At each calendar month, the Permittee shall conduct an EPA Method 9 Opacity test on the Silo Baghouse for the duration of the silo batch loading to verify that the Silo Baghouse is not damaged, that the silo stack is secured to and emissions are routed to the Silo Baghouse, and that compliance with 40 CFR 60, NSPS I opacity limits is demonstrated. • The Silo Baghouse differential pressure shall be monitored every 3 minutes, at a minimum, for the duration of the silo loading. • Filling of the Silo shall cease immediately if the pressure drop is not within the manufacturer's specified normal operating range or the range correlating with opacity tests demonstrating compliance with the 40 CFR 60, NSPS I opacity limits. Loading shall not re-commence until the cause of the deviation is determined and rectified.
#21	Silo Baghouse
	The controlled emissions from Mineral Silo were calculated using a 99% efficiency from the baghouse. The 99% control efficiency was obtained from Volume II, Chapter 3 of Preferred and Alternative Methods for Estimating Air Emissions from Hot-Mix Asphalt Plants, Table 3.2-1, Typical Hot-Mix Asphalt Plant Emission Control Techniques.
	Based on the same report, the baghouses need to maintain a pressure difference to work efficiency, which requires the bags to be cleaned periodically.
#22	HMA Drum Dryer/Mixer
	<u>Mixer Baghouse:</u>

	<ul style="list-style-type: none"> EPA Method 9 Opacity tests shall be conducted according to the requirements of 40 CFR 60, Subpart I and Appendix A. At least once each calendar month, the Permittee shall conduct a EPA Method 9 Opacity test on the Mixer Baghouse to verify that the Mixer Baghouse is not damaged, that the stack(s) is/are secured, that emissions are routed to the Baghouse, and that compliance with 40 CFR 60, NSPS I opacity limits is demonstrated. Concurrently during any visible emissions monitoring of the Mixer Baghouse, differential pressure shall be monitored every 1 minute, at a minimum. . During operation, the Mixer Baghouse differential pressure shall be monitored at once every hour, at a minimum, during daylight operations; and it shall be monitored continuously during night time operations. Operations shall cease immediately if the pressure drop is not within the manufacturer's specified normal operating range or the range correlating with opacity tests demonstrating compliance with the 40 CFR 60, NSPS I opacity limits. Operations shall not re-commence until the cause of the deviation is determined and rectified
	→ <i>Include Recordkeeping Conditions for both units (#21 and #22)</i>
#22	Must be shut down in the event of a malfunction of the Mixer Baghouse that causes the differential pressure to go outside of operating range as determined through compliance testing or manufacturer specifications, and repairs shall be made to the affected equipment. The Facility shall not restart operations until the capture and control equipment for Unit #22 HMA Drum Dyer/ Mixer is fully functional.
	Authorized to burn either on-specification used oil meeting the specifications listed in 40 CFR § 279.11 or natural gas/propane as the fuel
#22 and #25	The pound per hour (lb/hr) emission rates of Nitrogen Oxides (NOx) and/or Carbon Monoxide (CO) for Emission Units #22 and #25 shall be based on a three-hour average.
	→ <i>Include Monitoring and Recordkeeping Conditions</i>
#25	Authorized to burn natural gas/propane or low sulfur diesel
	→ <i>Include Recordkeeping Condition</i>
Watering and Stabilizers	Controlled Emissions from the haul roads were calculated assuming 90% control efficiency from watering and applying stabilizer to the haul road
	→ <i>Include Monitoring and Recordkeeping Conditions</i>
Fugitive Dust	The applicant request the following control measures in the application:
	Unpaved roadways: <ul style="list-style-type: none"> using dust suppressants applied in amounts, frequency and rates recommended by the manufacturer and maintained as recommended by the manufacturer; and using wet suppression and millings;
	High wind contingency measures: <ul style="list-style-type: none"> using wetting agents or surfactants on disturbed areas, bulk materials or stockpiles; or shutting down active operations.

Active Stockpiles:	
<ul style="list-style-type: none"> • applying wet suppression on a regular basis; 	
→ <i>Include Monitoring and Recordkeeping Conditions</i>	
Opacity	All remaining units, except for Unit #27 20% Opacity based on 20.11.5.12 NMAC
Other	The estimated HAP emissions in the application are provided in Appendix B for informational purposes.

Actions Taken

2/23/2018	Received application
3/23/2018	Application received and ruled complete
4/10/2018	Request for PIH received by Nora Garcia, President of Mountain View Neighborhood Association
4/17/2018	Permit extension request approved by Department Director
6/26/2018	Air dispersion model review completed
8/30/2018	First PIH held at Mountain View Community Center
9/19/2018	Permit issued by the Air Quality Program
2/13/2019	Permit reversed and remanded back to the Air Quality Program due to not publishing PIH notice in newspaper
4/24/2019	Second PIH held at Mountain View Community Center
6/27/2019	Third PIH held at Mountain View Community Center

TABLE A

AP-42 (11/06) Section 13.2.4 Aggregate Handling and Storage Piles

Unit #1				Unit #4				Unit #6				Units #6 and 14				Unit #7			
TSP	PM10	PM25		TSP	PM10	PM25		TSP	PM10	PM25		TSP	PM10	PM25		TSP	PM10	PM25	
k				k				k				k				k			
0.74		0.35	0.053	0.74		0.35	0.053	0.74		0.35	0.053	0.74		0.35	0.053	0.74		0.35	0.053
U				U				U				U				U			
1.3		1.3	1.3	8.5		8.5	8.5	8.5		8.5	8.5	8.5		8.5	8.5	8.5		8.5	8.5
M				M				M				M				M			
2		2	2	2		2	2	2		2	2	2		2	2	2		2	2
EF, lb/ton				EF, lb/ton				EF, lb/ton				EF, lb/ton				EF, lb/ton			
0.0004		0.0002	0.00003	0.0047		0.0022	0.0003	0.0047		0.0022	0.0003	0.0014		0.0007	0.0001	0.0047		0.0022	0.0003
Capacity, tph				Capacity, tph				Capacity, tph				Capacity, tph				Capacity, tph			
133.3		133.3	133.3	133.3		133.3	133.3	100		100	100	140		140	140	230		230	230
Capacity, tpy				Capacity, tpy				Capacity, tpy				Capacity, tpy				Capacity, tpy			
1168000		1168000	1168000	1168000		1168000	1168000	708000		708000	708000	280000		280000	280000	460000		460000	460000
Controlled				Controlled				Controlled				Controlled				Controlled			
E (TSP), lb/hr	E (PM10), lb/hr	E (PM25), lb/hr		E (TSP), lb/hr	E (PM10), lb/hr	E (PM25), lb/hr		E (TSP), lb/hr	E (PM10), lb/hr	E (PM25), lb/hr		E (TSP), lb/hr	E (PM10), lb/hr	E (PM25), lb/hr		E (TSP), lb/hr	E (PM10), lb/hr	E (PM25), lb/hr	
0.05		0.03	0.004	0.63		0.30	0.05	0.47		0.22	0.03	0.20		0.09	0.01	1.09		0.51	0.08
E (TSP), tpy	E (PM10), tpy	E (PM25), tpy		E (TSP), tpy	E (PM10), tpy	E (PM25), tpy		E (TSP), tpy	E (PM10), tpy	E (PM25), tpy		E (TSP), tpy	E (PM10), tpy	E (PM25), tpy		E (TSP), tpy	E (PM10), tpy	E (PM25), tpy	
0.24		0.11	0.02	2.76		1.30	0.20	1.67		0.79	0.12	0.20		0.09	0.01	1.09		0.51	0.08

Sample calculation

$$\text{Emission Factor (lb/ton)} = k(0.0032)(U/5)^{1.5}(M/2)^{1.4}$$

PM10	PM10 (lb/ton) = (0.35)(0.0032)(1.3/5) ^{1.5} (2/2) ^{1.4}
	PM10 (lb/ton) = 0.0002
	PM10 (lb/hr) = [133.3 tph] [0.0002 lb/ton]
	PM10 (lb/hr) = 0.03
	PM10 (ton/yr) = [1,168,000 tons/yr] [0.0002 lb/ton] [1 ton/2000 lbs]
	PM10 (ton/yr) = 0.11

TABLE B

AP-42 (11/06) Section 11.19.2.2 Conveyor Transfer Point Controlled

Units #2 and 3				Units #8 and 10				Units #11, 12 and 13				Units #16, 18, 19 and 20			
TSP	PM10	PM25		TSP	PM10	PM25		TSP	PM10	PM25		TSP	PM10	PM25	
EF, lb/ton				EF, lb/ton				EF, lb/ton				EF, lb/ton			
0.00014		0.000046	0.000013	0.00014		0.000046	0.000013	0.00014		0.000046	0.000013	0.00014		0.000046	0.000013
Capacity, tph				Capacity, tph				Capacity, tph				Capacity, tph			
133.3		133.3	133.3	230		230	230	236		236	236	140		140	140
Capacity, tpy				Capacity, tpy				Capacity, tpy				Capacity, tpy			
1168000		1168000	1168000	460000		460000	460000	472000		472000	472000	280000		280000	280000
Controlled				Controlled				Controlled				Controlled			
E (TSP), lb/hr	E (PM10), lb/hr	E (PM25), lb/hr		E (TSP), lb/hr	E (PM10), lb/hr	E (PM25), lb/hr		E (TSP), lb/hr	E (PM10), lb/hr	E (PM25), lb/hr		E (TSP), lb/hr	E (PM10), lb/hr	E (PM25), lb/hr	
0.02		0.01	0.002	0.03		0.01	0.003	0.03		0.01	0.003	0.02		0.01	0.002
E (TSP), tpy	E (PM10), tpy	E (PM25), tpy		E (TSP), tpy	E (PM10), tpy	E (PM25), tpy		E (TSP), tpy	E (PM10), tpy	E (PM25), tpy		E (TSP), tpy	E (PM10), tpy	E (PM25), tpy	
0.08		0.03	0.01	0.03		0.01	0.003	0.03		0.01	0.003	0.02		0.01	0.002

Sample calculation

PM10	PM10 (lb/yr) = [133.3 tph] [0.000046 lb/ton]
	PM10 (lb/yr) = 0.01
	PM10 (ton/yr) = [1,168,00 tons/yr] [0.000046 lb/ton] [1 ton/2000 lbs]
	PM10 (ton/yr) = 0.03

TABLE C

AP-42 (11/06) Section 11.19.2.2 Screening Controlled

Unit #9				Unit #17			
TSP	PM10	PM25		TSP	PM10	PM25	
EF, lb/ton				EF, lb/ton			
0.00220	0.000740	0.000050		0.00220	0.000740	0.000050	
Capacity, tph				Capacity, tph			
230	230	230		140	140	140	
Capacity, tpy				Capacity, tpy			
460000	460000	460000		280000	280000	280000	
Controlled				Controlled			
E (TSP), lb/hr	E (PM10), lb/hr	E (PM25), lb/hr		E (TSP), lb/hr	E (PM10), lb/hr	E (PM25), lb/hr	
0.51	0.17	0.012		0.31	0.10	0.007	
E (TSP), tpy	E (PM10), tpy	E (PM25), tpy		E (TSP), tpy	E (PM10), tpy	E (PM25), tpy	
0.51	0.17	0.01		0.31	0.10	0.01	

Sample calculation

PM10 PM10 (lb/yr) = [230 tph] [0.00074 lb/ton]
PM10 (lb/yr) = 0.17
 PM10 (ton/yr) = [460,000 tons/yr] [0.00074 lb/ton] [1 ton/2000 lbs]
PM10 (ton/yr) = 0.17

TABLE D

AP-42 (11/06) Section 11.19.2.2 Tertiary Crushing Controlled

Unit #15			
TSP	PM10	PM25	
EF, lb/ton			
0.00120	0.000540	0.000100	
Capacity, tph			
140	140	140	
Capacity, tpy			
280000	280000	280000	
Controlled			
E (TSP), lb/hr	E (PM10), lb/hr	E (PM25), lb/hr	
0.17	0.08	0.014	
E (TSP), tpy	E (PM10), tpy	E (PM25), tpy	
0.17	0.08	0.01	

Sample calculation

PM10 PM10 (lb/yr) = [140 tph] [0.00054 lb/ton]
PM10 (lb/yr) = 0.08
 PM10 (ton/yr) = [280,000 tons/yr] [0.00054 lb/ton] [1 ton/2000 lbs]
PM10 (ton/yr) = 0.08

TABLE E

AP-42 (6/06) Section 11.12-2 Emission Factors for Concrete Batching

	Unit #21		
	PM10	PM25*	
TSP			
EF, lb/ton	0.73000	0.470000	0.032648
Capacity, tph			
	25	25	25
Capacity, tpy			
	12000	12000	12000
Efficiency, %			
	99	99	99

Controlled			
E (TSP), lb/hr	E (PM10), lb/hr	E (PM25), lb/hr	
0.18	0.12	0.008	
E (TSP), tpy	E (PM10), tpy	E (PM25), tpy	
0.04	0.03	0.002	

Sample calculation

PM10	PM10 (lb/yr) = [25 tph] [0.47 lb/ton][1-0.99]
	PM10 (lb/yr) = 0.12
	PM10 (ton/yr) = [12,000 tons/yr] [0.47 lb/ton] [1 ton/2000 lbs][1-0.99]
	PM10 (ton/yr) = 0.03

* Uncontrolled k values for Truck Mix Operations

TABLE F

AP-42 (03/04) Tables 11.1-3, 11.1-4, 11.1-7, 11.1-8 and 11.1-10 in section 11.1 Hot Mix Asphalt Plants

	Unit #22							
	NOx	SO2	VOC	TSP	PM10	PM25	HAP*	
CO								
EF, lb/ton	0.13	0.055	0.058	0.033	0.03300	0.023000	0.023000	0.01038
Capacity, tph								
	400	400	400	400	400	400	400	
Capacity, tpy								
	800000	800000	800000	800000	800000	800000	800000	800000

Controlled

E (CO), lb/hr	E (NOx), lb/hr	E (SO2), lb/hr	E (VOC), lb/hr	E (TSP), lb/hr	E (PM10), lb/hr	E (PM25), lb/hr	--	
52.0	22.0	23.2	13.2	13.2	9.2	9.2	--	
E (CO), tpy	E (NOx), tpy	E (SO2), tpy	E (VOC), tpy	E (TSP), tpy	E (PM10), tpy	E (PM25), tpy	E (HAP), tpy	
52.0	22.0	23.2	13.2	13.2	9.2	9.2	4.2	

Sample calculation

CO	CO (lb/yr) = [400 tph] [0.13 lb/ton]
	CO (lb/yr) = 52.00
	CO (ton/yr) = [800,000 tons/yr] [0.13 lb/ton] [1 ton/2000 lbs]
	CO (ton/yr) = 52.00

* HAP emissions from Table 11.1-10 for waste oil with fabric filter

TABLE G

AP-42 (03/04) Table 11.1-14 Load Out and Silo Filling Operations

	Unit #23		
Total PM	VOC	CO	
V	-0.5	-0.5	-0.5
T	325	325	325
Capacity, tph	400	400	400
Capacity, tpy	800000	800000	800000
E (PM), lb/ton	E (VOC), lb/ton	E (CO), lb/ton	
5.86E-04	1.22E-02	1.18E-03	
E (PM), lb/hr	E (VOC), lb/hr	E (CO), lb/hr	
0.23	4.87	0.47	
E (PM), ton/yr	E (VOC), ton/yr	E (CO), ton/yr	
0.23	4.87	0.47	

Sample calculation

Emission Factor (lb/ton) = $0.000332 + 0.00105(-V)e^{((0.0251(T+460)-20.43))}$

Total PM	PM (lb/ton) = $0.000332 + 0.00105(0.5)e^{((0.0251(325+460)-20.43))}$
	PM (lb/ton) = 5.86E-04
	PM (lb/hr) = [400 tph] [5.86E-04 lb/ton]
	PM (lb/hr) = 0.23
	PM (ton/yr) = [800,000 tons/yr] [5.86E-04 lb/ton] [1 ton/2000 lbs]
	PM (ton/yr) = 0.23

TABLE H

AP-42 (03/04) Table 11.1-14 Load Out and Silo Filling Operations

Unit #24			
Total PM	VOC	CO	
V	-0.5	-0.5	-0.5
T	325	325	325
Capacity, tph	400	400	400
Capacity, tpy	800000	800000	800000
E (PM), lb/ton	E (VOC), lb/ton	E (CO), lb/ton	
5.22E-04	4.16E-03	1.35E-03	
E (PM), lb/hr	E (VOC), lb/hr	E (CO), lb/hr	
0.21	1.66	0.54	
E (PM), ton/yr	E (VOC), ton/yr	E (CO), ton/yr	
0.21	1.66	0.54	

Sample calculation

Emission Factor (lb/ton) = $0.000181 + 0.00141(-V)^{((0.0251(T+460)-20.43))}$

Total PM	PM (lb/ton) = $0.000181 + 0.00141(0.5)^{((0.0251(325+460)-20.43))}$
	PM (lb/ton) = 5.22E-04
	PM (lb/hr) = [400 tph] [5.22E-04 lb/ton]
	PM (lb/hr) = 0.21
	PM (ton/yr) = [800,000 tons/yr] [5.22E-04 lb/ton] [1 ton/2000 lbs]
	PM (ton/yr) = 0.21

TABLE I

AP-42 (5/10) Tables 1.3-1 and 1.3-3 Fuel Oil Combustion or 1.5-1 LPG Combustion

Unit #25

Diesel

Engine, gal/hr	NOx, lb/10 ³ gal	COx, lb/10 ³ gal	VOC, lb/10 ³ gal	SOx, lb/10 ³ gal	PM, lb/10 ³ gal	NOx, lb/hr	NOx, ton/yr	CO, lb/hr	CO, ton/yr	VOC, lb/hr	VOC, ton/yr	SOx, lb/hr	SOx, ton/yr	PM, lb/hr	PM, ton/yr
19.5	20	5	0.34	7.1	2	0.39	1.7082	0.0975	0.42705	0.00663	0.029039	0.13845	0.606411	0.039	0.17082

Propane

Engine, gal/hr	NOx, lb/10 ³ gal	COx, lb/10 ³ gal	VOC, lb/10 ³ gal	SOx, lb/10 ³ gal	PM, lb/10 ³ gal	NOx, lb/hr	NOx, ton/yr	CO, lb/hr	CO, ton/yr	VOC, lb/hr	VOC, ton/yr	SOx, lb/hr	SOx, ton/yr	PM, lb/hr	PM, ton/yr
27.3	13	7.5	1	0.005	0.7	0.3549	1.554462	0.20475	0.896805	0.0273	0.119574	0.000137	0.000598	0.01911	0.083702

Sample calculation

NOx	NOx (lb/yr) = [19.5 gal/hr] [20 lb/10 ³ gal] [10 ³ gal/1000 gal]
	NOx (lb/yr) = 0.39
	NOx (ton/yr) = [0.39 lb/yr] [8760 hr/yr] [1 ton/2000 lbs]
	NOx (ton/yr) = 1.71

TABLE JAP-42 (3/04) Section 11.1.2.5 Fugitive Emissions from Production Operations.

Unit #28	
CO	VOC
EF, lb/ton	
0.00035	0.001100
Capacity, tph	
400	400
Capacity, tpy	
800000	800000

Controlled	
E (CO), lb/hr	E (VOC), lb/hr
0.14	0.44
E (CO), tpy	E (VOC), tpy
0.14	0.44

Sample calculation

CO	CO (lb/yr) = [400 tph] [0.00035 lb/ton]
	CO (lb/yr) = 0.14
	CO (ton/yr) = [800,000 tons/yr] [0.00035 lb/ton] [1 ton/2000 lbs]
	CO (ton/yr) = 0.14

TABLE K

AP-42 (11/06) Section 13.2.2 Unpaved Roads

Unit #27								
	Hourly Roadtrips	Miles per Roadtrip	Annual throughput, tons	Annual Roadtrips	Amount of each load, tons	VMT per hour (Controlled)	VMT per year (Controlled)	
Mineral Filler	0.20	0.26246	12000		480	25	0.05	125.98
Asphalt Cement	1	0.26246	48000		1920	25	0.26	503.92
Asphalt	16	0.26246	800000		32000	25	4.20	8398.72
Aggregate	4	0.17804	708000		28320	25	0.71	5042.09
RAP	5.6	0.33335	280000		11200	25	1.87	3733.52
Total	26.80	1.30	1848000		73920		7.09	17804

	TSP	PM10	PM25
k	4.9	1.5	0.15
a	0.7	0.9	0.9
b	0.45	0.45	0.45
W	27.5	27.5	27.5
s	4.8	4.8	4.8
p	60	60	60

Fugitive Dust			
E (TSP), lb/VMT	hourly	E (TSP), lb/VMT	annual
0.70			0.58
E (TSP), lb/hr		E (TSP), ton/yr	
4.96		5.20	

E (PM10), lb/VMT	hourly	E (PM10), lb/VMT	annual
0.18			0.15
E (PM10), lb/hr		E (PM10), ton/yr	
1.28		1.33	

E (PM25), lb/VMT	hourly	E (PM25), lb/VMT	annual
0.02			0.01
E (PM25), lb/hr		E (PM25), ton/yr	
0.13		0.13	

Sample calculation

VMT	VMT per hour = ((0.2+1+16) roadtrips/hr)(0.26246 miles/trip)+(4 roadtrips/hr)(0.17804 miles/trip)+(5.6 roadtrips/hr)(0.33335 miles/trip)
	VMT per hour = 7.09
	VMT per year = ((480+1920+32000) roadtrips/yr)(0.26246 miles/trip)+(28320 roadtrips/yr)(0.17804 miles/trip)+(11200 roadtrips/yr)(0.33335 miles/trip)
	VMT per year = 17804

Hourly

Emission Factor (lb/VMT) = $k(s/12)^p(W/3)^0 (1-0.90)$

PM10	PM10 (lb/VMT) = $(1.5)(4.8/12)^{0.9}/(27.5/3)^{0.45}(1-0.90)$
	PM10 (lb/VMT) = 0.18
	PM10 (lb/hr) = (7.09 VMT/hr) [0.18 lb/VMT]
	PM10 (lb/hr) = 1.26

Annual

Emission Factor (lb/VMT) = $k(s/12)^p(W/3)^0 (1-0.90)/[(365-p)/365]$

PM10	PM10 (lb/VMT) = $(1.5)(4.8/12)^{0.9}/(27.5/3)^{0.45}[(365-60)/365](1-0.90)$
	PM10 (lb/VMT) = 0.15
	PM10 (ton/yr) = (17804 VMT/yr) [0.15 lb/VMT] (1 ton/2000 lbs)
	PM10 (ton/yr) = 1.33

TABLE L

AP-42 (1/11) Section 13.2.1 Paved Roads

Unit #27

Hourly Roadtrips*	Miles per Roadtrip	Annual throughput, tons*	Annual Roadtrips*	Amount of VMT per hour (Controlled)	VMT per year(Controlled)
26.80	0.66266	1848000	73920	17.76	48984

TSP	PM10	PM25	
k			
	0.011	0.0022	0.00054
sL			
	0.6	0.6	0.6
W			
	27.5	27.5	27.5
P			
	60	60	60
N			
	365	365	365

Fugitive Dust

E (TSP), lb/VMT	hourly	E (TSP), lb/VMT	annual
0.20			0.19
E (TSP), lb/hr		E (TSP), ton/yr	
3.61		4.77	
E (PM10), lb/VMT	hourly	E (PM10), lb/VMT	annual
0.04			0.04
E (PM10), lb/hr		E (PM10), ton/yr	
0.72		0.95	
E (PM25), lb/VMT	hourly	E (PM25), lb/VMT	annual
0.01			0.01
E (PM25), lb/hr		E (PM25), ton/yr	
0.18		0.23	

Sample calculation

VMT	VMT per hour = (26.8 roadtrips/hr)(0.66266 miles/trip)
	VMT per hour = 17.76
	VMT per year = (73290 roadtrips/yr)(0.66266 miles/trip)
	VMT per year = 48984

Hourly

Emission Factor (lb/VMT) = $k(sL)^{0.91}(W)^{1.02}$

PM10	PM10 (lb/VMT) = $(0.0022)(0.6)^{0.91}/(27.5)^{1.02}$
	PM10 (lb/VMT) = 0.04
	PM10 (lb/hr) = (17.76 VMT/hr) [0.04 lb/VMT]
	PM10 (lb/hr) = 0.72

Annual

Emission Factor (lb/VMT) = $k(sL)^{0.91}(W)^{1.02}(1-p/4N)$

PM10	PM10 (lb/VMT) = $(0.0022)(0.6)^{0.91}/(27.5)^{1.02}$
	PM10 (lb/VMT) = 0.04
	PM10 (ton/yr) = (48984 VMT/yr) [0.29 lb/VMT](1 ton/2000 lbs)
	PM10 (ton/yr) = 0.95

* From the "Unpaved Haul Roads" Sheet

TABLE M

Controlled Emission Totals													
Process Equipment Unit	NOx Emissions		CO Emissions		VOC Emissions		SOx Emissions		PM10 Emissions		PM2.5 Emissions		HAP Emissions
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	tpy
1	--	--	--	--	--	--	--	--	0.03	0.11	0.004	0.017	--
2	--	--	--	--	--	--	--	--	0.01	0.03	0.002	0.008	--
3	--	--	--	--	--	--	--	--	0.01	0.03	0.002	0.008	--
4	--	--	--	--	--	--	--	--	0.30	1.30	0.05	0.20	--
5	--	--	--	--	--	--	--	--	0.22	0.79	0.03	0.12	--
6	--	--	--	--	--	--	--	--	0.09	0.09	0.014	0.01	--
7	--	--	--	--	--	--	--	--	0.51	0.51	0.078	0.078	--
8	--	--	--	--	--	--	--	--	0.01	0.01	0.003	0.003	--
9	--	--	--	--	--	--	--	--	0.17	0.17	0.012	0.012	--
10	--	--	--	--	--	--	--	--	0.01	0.01	0.003	0.003	--
11	--	--	--	--	--	--	--	--	0.01	0.01	0.003	0.003	--
12	--	--	--	--	--	--	--	--	0.01	0.01	0.003	0.003	--
13	--	--	--	--	--	--	--	--	0.01	0.01	0.003	0.003	--
14	--	--	--	--	--	--	--	--	0.09	0.09	0.014	0.01	--
15	--	--	--	--	--	--	--	--	0.08	0.08	0.014	0.014	--
16	--	--	--	--	--	--	--	--	0.01	0.01	0.002	0.002	--
17	--	--	--	--	--	--	--	--	0.10	0.10	0.007	0.007	--
18	--	--	--	--	--	--	--	--	0.01	0.01	0.002	0.002	--
19	--	--	--	--	--	--	--	--	0.01	0.01	0.002	0.002	--
20	--	--	--	--	--	--	--	--	0.01	0.01	0.002	0.002	--
21	--	--	--	--	--	--	--	--	0.12	0.03	0.008	0.002	--
22	22.0	22.0	52.0	52.0	13.2	13.2	23.2	23.2	9.2	9.2	9.2	9.2	4.2
23	--	--	0.47	0.47	4.87	4.87	--	--	0.23	0.23	0.23	0.23	--
24	--	--	0.54	0.54	1.66	1.66	--	--	0.21	0.21	0.21	0.21	--
25*	0.39	1.71	0.20	0.90	0.03	0.12	0.14	0.61	0.04	0.17	0.04	0.17	--
26	--	--	--	--	0.04	0.15	--	--	--	--	--	--	--
27	--	--	--	--	--	--	--	--	1.99	2.28	0.30	0.37	--
28	--	--	0.14	0.14	0.44	0.44	--	--	--	--	--	--	--
Totals	22.4	23.7	53.4	54.0	20.2	20.5	23.3	23.8	13.5	15.5	10.2	10.7	4.2

From Tanks 4.0.9d Program (VOC = 153.46 lb/yr)

Emission Unit #25 can burn only one fuel at a time, maximum emissions rate from burning either natural gas or diesel used in table

Details and calculation examples from each type of source included in proceeding pages