



OCT 15 2019

John Bennett
Cal Mat of Central California
500 North Brand Products, Suite 500
Glendale, CA 91203

Re: Notice of Preliminary Decision - Authority to Construct
Facility Number: S-1538
Project Number: S-1180660 and S-1181013

Dear Mr. Bennett:

Enclosed for your review and comment is the District's analysis of Cal Mat of Central California's application for an Authority to Construct for addition of existing asphaltic concrete and new recycled materials operations to the existing rock plant, at 16101 Highway 166 in Kern County.

The notice of preliminary decision for this project has been posted on the District's website (www.valleyair.org). After addressing all comments made during the 30-day public notice period, the District intends to issue the Authority to Construct. Please submit your written comments on this project within the 30-day public comment period, as specified in the enclosed public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Richard Edgehill of Permit Services at (661) 392-5617.

Sincerely,

Arnaud Marjollet
Director of Permit Services

AM:rue

Enclosures

cc: Courtney Graham, CARB (w/ enclosure) via email

Samir Sheikh
Executive Director/Air Pollution Control Officer

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San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

Facility Name: Cal Mat of Central California Date: October 14, 2019
Mailing Address: 500 North Brand Products, Suite 500, Glendale, CA 91203 Engineer: Richard Edgehill
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Application #: S-1538-1-11, '-2-8, '-7-0, '-8-0, '-9-0 (project 1180660)
S-1538-10-0 (project 1181013)
Project #'s: S-1180660, S-1181013
Deemed Complete: May 8, 2018 (1181660), March 1, 2018 (1181013)

I. Proposal

The primary business of Cal Mat of Central California (Cal Mat) is the production of aggregates and asphalt concrete to be used in pavement construction projects. Cal Mat has requested Authorities to Construct (ATCs) to operate Aggregate Unloading Operation S-8623-2, Hot Mix Asphaltic Concrete Drum Mix Plant S-8623-3, and recycled material processing operation S-8623-10 in conjunction with equipment located at facility S-1538 (Cal Mat's Rock Crushing Plant Stationary Source). Applicant intends to physically connect the S-8623-2, '-3, and '-10 equipment with the rock crushing plant equipment, and as such all of this equipment will be part of the same stationary source S-1538.

Additionally, the applicant has requested that PM10 emissions limits of Crushing Operation S-1538-1 and Secondary Crushing and Screening Operation S-1538-2, be updated using revised and generally accepted emissions factors.

The applicant will also add a sand screw and stacker conveyor in wet service to the crushing and screening operation S-1538-2 equipment. The equipment is expected to have no PM10 emissions.

Note that stockpile emissions for S-1538 have not been previously assessed and are established by this project. A newly created permit unit will be assigned to the facility stockpiles (ATC S-1538-9-0).

Further, the facility is undergoing an expansion and Kern County has prepared and finalized an Environmental Impact Report (EIR). The highest plant feed expected (year 2025) is 6 MM tons/yr (EIR Appendix D-1 Air Quality and Climate Change Impact Assessment, Appendix B (of Appendix D-1), Equipment and Activity Data in **Attachment I**). Permits S-1538-1 and '-2 have existing limits higher than this amount. For consistency with the limit in the EIR, the District has required that annual throughput limits in the EIR

be lowered for the permits for units '-1 and '-2 to ensure that the 6 MM tons/yr limit is not exceeded. The changes to '-1 and '-2 permit conditions are described below.

S-1538-1

Process weight rate introduced to entire permit unit shall not exceed any of the following: 29,664 tons per day or 6,000,000 tons/yr. [District Rule 2201] N

S-1538-2

Throughput of screen S1 shall not exceed any of the following: 35,252 tons per day or 6,000,000 tons/yr. Throughput of hopper H72A shall not exceed 6,160 tons per day. [District Rule 2201] N

The project results in an increase in facility emissions triggering BACT and public notice. Offsets are not required.

Disposition of Outstanding ATCs

Current PTOs S-1538-1-8 and '-2-7 are included in **Attachment I**.

Please note that post-project emissions from facility S-1538 do not exceed Major Source Thresholds. Therefore, Rules 2520 and 2530 are not applicable.

II. Applicable Rules

Rule 1070	Inspections (12/17/92)
Rule 2201	New and Modified Stationary Source Review Rule (2/18/16)
Rule 2410	Prevention of Significant Deterioration (6/16/11)
Rule 4001	New Source Performance Standards (4/14/99)
Rule 4002	National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101	Visible Emissions (2/17/05)
Rule 4102	Nuisance (12/17/92)
Rule 4201	Particulate Matter Concentration (12/17/92)
Rule 4309	Dryers, Dehydrators, and Ovens (12/15/05)
Rule 4801	Sulfur Compounds (12/17/92)
Rule 8011	General Requirements (8/19/04)
Rule 8031	Bulk Materials (8/19/04)
Rule 8041	Carryout and Trackout (8/19/04)
Rule 8071	Unpaved Vehicle/Equipment Traffic Areas (9/16/04)
CH&SC 41700	Health Risk Assessment
CH&SC 42301.6	School Notice
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)	
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines	

III. Project Location

The equipment will be authorized to operate at 16101 Highway 166, in Kern County. The equipment will not be located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

S-1538-1 and '-2 (Crushing/Secondary Crushing)

Units '-1 and '-2 facility processes (crush, screen, convey, stack) mined material for preparation of aggregate which is sold. The current PM10 emissions from units '-1 and '-2 are based on AP-42 emissions factors (lb PM10/ton) and daily throughput limits (tons/day). As mentioned in the proposal section, this project adds an annual throughput limit of 6 tons/yr, to ensure consistency with the Kern County EIR (please see the Calculations Section below).

Additionally PM10 emissions from S-1538-1 and '-2 will be updated in this project. For S-1538-1, crushing emissions were estimated erroneously using the AP-42 uncontrolled emissions factor. Water sprays are used for PM10 control and therefore the controlled emissions factor is appropriate. Additionally, the conveying emissions factor was updated to the Generally Accepted Emissions Factors from AP-42 (please see discussion below for S-1538-1). For S-1538-2, the equipment and PM10 emissions list from project 1092800 (ATC S-1538-2-4) were corrected with comments justifying the changes.

Finally, a sand screw, stacker conveyor, and stockpile will be added to S-1538-2. The equipment will process wet material with no expected PM10 emissions

S-1538-7 (previously S-8623-2) Aggregate Unloading

Aggregate is transported via front end loader into a grizzly feeder and conveyed to a radial stacker onto stockpiles. Aggregate from the stockpiles are loaded into the appropriate cold feed hopper using front-end loaders. The aggregate cold feed system will utilize five cold feed hoppers to meter the required sized aggregate onto a conveyor belt, which transports the aggregate into a vibrating screen permitted under S-1538-8.

S-1538-8 (previously S-8623-3) Hot Mix Asphalt Plant

The vibrating screen is utilized to remove oversized aggregate prior to conveying into the rotary drum dryer/mixer. Recycled Asphalt Product (RAP) is received from offsite and unloaded onto open storage piles. RAP from the storage piles are loaded into the RAP feed system, which utilizes two feed hoppers to meter the required RAP onto a conveyor belt and drops the RAP into a vibrating screen. From the vibrating screen the sized RAP is conveyed into the rotary drum dryer/mixer.

The sized aggregate and RAP are dropped into the rotary drum and heated by a 107 MMBtu/hr natural gas or vaporized propane fired burner. Heated liquid asphalt cement is

pumped from the storage tanks (exempt) into the rotary drum mixer served by a Gencor Model CFP-182 baghouse. The heated aggregate and RAP are mixed with liquid asphalt cement as it flows through the rotary drum dryer/mixer. The produced hot mixed asphalt concrete is dropped out the discharged chute onto an inclined drag conveyor, which transports the product into the truck loadout storage silo.

The hot mix asphalt concrete will be transported from the rotary drum dryer/mixer into the product storage silos by an incline drag conveyor. The produced hot mix asphalt concrete is discharged from the storage silos through "clam style" gates into awaiting transport trucks for delivery to paving sites.

VOC, CO, PM₁₀ emissions are generated from the storage and loadout operations. The emissions will be controlled by venting the silo and truck loadout to the burner of the drum dryer for emissions control.

S-1538-9 (Sand and Aggregate Storage Piles)

Active facility stockpiles will be included on the permit. These stockpiles will be wetted for control of PM₁₀ emissions.

S-1538-10 (Concrete/Asphalt Crushing)

A new recycled material processing operation will be used to crush, screen and stack asphaltic and Portland concrete for reuse in asphaltic concrete hot mix plants.

The facility hires subcontractors to bring this equipment onsite to process stored aggregate or recycle materials when needed based on their customers' requirements. The processing equipment brought onsite will vary based on the size of the job and type of equipment available from their subcontractors. Therefore, the facility is requesting flexibility in their equipment description to accommodate various possible types of processing equipment needed to satisfy customers' requirements as allowed under District Policy SSP-1615.

Proposed Modification

The update equipment and emissions list is included in **Attachment II**.

A process diagram showing the new equipment is included in **Attachment III**.

V. Equipment Listing

Pre-Project Equipment Description:

PTO S-1538-1-8: CRUSHING OPERATION INCLUDING VIBRATING GRIZZLY FEEDER, NORDBERG MODEL C140 JAW CRUSHER AND FIVE CONVEYORS

PTO S-1538-2-7: SECONDARY CRUSHING AND SCREENING OPERATION INCLUDING TWO CONE CRUSHERS WITH WATER SPRAYS, THREE FEED

HOPPERS, 22 CONVEYORS, FOUR DOUBLE DECK SCREENS, AND A WASH PLANT CONSISTING OF CONVEYORS, SCREENS, A SAND SCREW, AND PILES

Proposed Modification:

PTO S-1538-1-11: MODIFICATION OF CRUSHING OPERATION INCLUDING VIBRATING GRIZZLY FEEDER, NORDBERG MODEL C140 JAW CRUSHER AND FIVE CONVEYORS: REVISE PM10 EMISSIONS, AND LOWER ANNUAL THROUGHPUT

PTO S-1538-2-8: MODIFICATION OF SECONDARY CRUSHING AND SCREENING OPERATION INCLUDING TWO CONE CRUSHERS WITH WATER SPRAYS, THREE FEED HOPPERS, 22 CONVEYORS, FOUR DOUBLE DECK SCREENS, AND A WASH PLANT CONSISTING OF CONVEYORS, SCREENS, A SAND SCREW, AND PILES: REVISE PM10 EMISSIONS, ADD SAND SCREW AND STACKER CONVEYOR IN WET SERVICE AND LOWER ANNUAL THROUGHPUT

Post Project Equipment Description:

PTO S-1538-1-11: CRUSHING OPERATION INCLUDING VIBRATING GRIZZLY FEEDER, NORDBERG MODEL C140 JAW CRUSHER AND FIVE CONVEYORS

PTO S-1538-2-8: SECONDARY CRUSHING AND SCREENING OPERATION INCLUDING TWO CONE CRUSHERS WITH WATER SPRAYS, THREE FEED HOPPERS, 22 CONVEYORS, FOUR DOUBLE DECK SCREENS, AND A WASH PLANT CONSISTING OF CONVEYORS, SCREENS, SAND SCREWS, AND PILES

PTO S-1538-7-0: AGGREGATE UNLOADING INCLUDING RECEIVING HOPPER, CONVEYORS AND RADIAL STACKER ALSO PERMITTED AS S-8623-2

PTO S-1538-8-0: HOT MIX ASPHALTIC CONCRETE DRUM MIX PLANT INCLUDING FIVE COLD FEED AGGREGATE BINS EACH WITH A FEED BELT CONVEYOR, TWO RAP BINS EACH WITH A FEED BELT CONVEYOR, ONE AGGREGATE COLLECTING CONVEYOR FEEDING A VIBRATING SCREEN WITH A DRUM MIXER FEED CONVEYOR, ONE RAP COLLECTING CONVEYOR FEEDING A VIBRATING SCREEN WITH A DRUM MIXER FEED CONVEYOR, ONE 107 MMBTU/HR NATURAL GAS OR PROPANE FIRED GENCOR ULTRADRUM MODEL 400 (9'9"X44'L) DRUM DRYER/MIXER WITH A LOW-NOX BURNER VENTED TO A GENCOR MODEL CFP-182 BAGHOUSE, ONE ENCLOSED DRAG SLAT CONVEYOR AND ONE 100-TON ASPHALT CONCRETE STORAGE SILO VENTED TO THE DRUM DRYER BURNER AND A TRUCK LOADOUT VENTED TO THE DRUM DRYER BURNER ALSO PERMITTED AS S-8623-3

PTO S-1538-9-0: STORAGE AND HANDLING OF AGGREGATE STORAGE PILES

PTO S-1538-10-0: CONCRETE AND ASPHALT CRUSHING OPERATION CONSISTING OF A FEED HOPPER, UP TO TWO CRUSHERS, UP TO TWO MULTIDECK SCREENS, UP TO 12 CONVEYORS, UP TO THREE STACKERS, AND ASSOCIATED STORAGE PILES

VI. Emission Control Technology Evaluation

S-1538-1 and '-2 (Crushing and Screening Operations)

Particulate matter less than 10 microns in aerodynamic diameter (PM₁₀) is the only pollutant of concern emitted from the aggregate blending operations. Water sprays are used to minimize fugitive emissions at the conveyor transfer points.

S-1538-7 and '-8 (Aggregate Unloading, Hot Mix Asphalt/Concrete Drum Mix Plant)

The facility will control the PM emissions from the loading and conveying of the cold feed aggregate material with the use of high moisture content material and water fog sprays at conveyor transfer points and other loading operations when needed. The high moisture content of the material being processed will prevent visible emissions in excess of 5% opacity. The inactive stockpiles will be watered on an as needed basis to reduce fugitive dust emissions.

RAP is typically sized to 1" minus when utilized in the HMA plant with an inherent asphalt oil content of 4.0%. The oil serves as a binding medium to minimize fugitive dust emissions.

VOC and PM₁₀ emissions are generated from the conveying, drying, and mixing operations. In the Gencor Ultradrums portable drum mix plant, natural gas or vaporized propane will be used to fire a 107 MMBtu/hr low-NO_x burner used to dry and heat the aggregate. The burner generates NO_x, VOC, CO, SO_x and PM₁₀ emissions. The emissions from the proposed Gencor Ultradrums portable drum mix plant are
The drum dryer has a low NO_x burner with maximum NO_x emissions of 3.8 ppmvd @ 19% O₂ and maximum CO emissions of 42 ppmvd @ 19% O₂. The drum dryer is fired on natural gas or propane. Particulate matter (PM) emissions from the drum dryer/mixer are vented to a baghouse with a PM₁₀ control efficiency of at least 99%.

PM₁₀ and VOC emissions (blue smoke) due to the loading, storage, and unloading of the AC are vented to the burner of the drum dryer, which is also vented through a baghouse for emissions control.

S-1538-9-0 (Stockpiles)

Stockpiled material will be sufficiently wetted using water sprays to limit visible emissions to less than 5% opacity for no more than 3 minutes in any given hour which is required by BACT.

S-1538-10-0 (Asphalt & Concrete Crushing Operation)

The facility will control the PM emissions from the loading, conveying, crushing, and screening of the aggregate or recycle material by the use of water sprays at the loading bins, conveyor transfer points, crushers, and screens when needed to provide adequate moisture to maintain compliance with the applicable visible emission requirements. In addition, the inherent asphalt oil content (typically 3%) of the recycled asphalt pavement functions as a binding medium to minimize fugitive dust emissions. On site storage piles and haul roads will be kept adequately moist to reduce fugitive dust emissions with the use of a water truck.

VII. General Calculations

A. Assumptions

Particulate matter (PM) will be emitted from the loading, conveying, crushing, screening and stacking of materials.

To streamline emission calculations, PM2.5 emissions are assumed to be equal to PM10 emissions. Only if needed to determine if a project is a Federal Major Modification for PM2.5 will specific PM2.5 emission calculations will be performed.

S-1538-1 and '-2

Pursuant to Aggregate Permitting Policy SSPE 1610, "excluding crushers, a unit handling material with 6% or greater moisture does not result in significant emissions. Pursuant to Aggregate Permitting Policy SSPE 1610. The moisture content of the sand screw and stacker conveyor in wet service will exceed 6% and therefore no PM10 emissions are expected.

S-1538-7 (formerly S-8623-2)

- Particulate matter (PM) is the only pollutant that will be emitted from the aggregate unloading operation
- Throughput: 5,640 ton/day and 376,000 tons/year (applicant)

S-1538-8 (formerly S-8623-3)

- Particulate matter (PM) is the only pollutant that will be emitted from the storage, loading, conveying and screening of the cold feed aggregate and reclaim asphalt pavement (RAP).
- The cold feed aggregate will have a moisture content of at least 1.5%.
- The RAP will have an asphalt oil content of 4.0% (applicant)

Drum Dryer/Mixer and Silo

- NO_x, CO, SO_x, VOC, and PM₁₀ will be emitted from the combustion of natural gas or propane and from the mixing of the asphaltic oil with aggregate and RAP in the drum dryer/mixer.
- Heat input to the drum dryer/mixer burner is limited to 1,350 MMBtu in any one day and 107,000 MMBtu in any one calendar year (applicant)
- PM₁₀, VOC, and CO will be emitted from the filling of the AC storage silo and the AC truck loadout.
- The VOC control efficiency of ducting the asphalt concrete storage silo vent and silo discharge gate (truck loadout) to the burner of the drum dryer is at least 30%.
- The PM₁₀ control efficiency of ducting the asphalt concrete storage silo vent and silo discharge gate (truck loadout) to the burner of the rotary drum dry and associated baghouse is at least 95%.

S-1538-9

The facility has approximately 60 acres of stockpiles. However, the maximum stockpile area disturbed daily is 3 acres (pre-project). As two acres of new stockpiles will be added from permits '-7 and '-10, the post-project area of disturbed stockpiles is 5 acres (post-project).

The PM₁₀ control efficiency of water spray equipment for the storage piles is 80%.

S-1538-10

- PM emissions will be controlled with the use of water spray system at the receiving hoppers, conveyor drop points, crushers, and screens.

B. Emission Factors

S-1538-1, '-2, '-7, and '-10

District Policy SSP 1610 (Aggregate Permitting Policy) and AP-42 Table 11.19.2-2 (English Units) Emission Factors for Crushed Stone Processing Operations

EF_{Aggregate Bin Loading} = 0.000016 /ton lb-PM₁₀

EF_{Screening/Conveyor Transfer Point} = 0.000046 lb-PM₁₀/ton

EF_{Storage piles} = 5.27 lb/acre/day (uncontrolled)

Table 1: Aggregate Processing Emission Factors	
Source	Emission Factor
Truck Unloading	0.000016 lb-PM ₁₀ /ton of material
Transfer Point (Conveyor or front-end loader drop)	0.000046 lb-PM ₁₀ /ton of material (controlled)
	0.0011 lb-PM ₁₀ /ton of material (uncontrolled)
Screening	0.0087 lb-PM ₁₀ /ton of material (uncontrolled)
	0.00074 lb-PM ₁₀ /ton of material (controlled)
Crushing	0.0024 lb-PM₁₀/ton of material (uncontrolled)
	0.00054 lb-PM₁₀/ton of material (controlled)
Storage Piles (uncontrolled)	5.27 lb-PM ₁₀ /acre/day
	0.121 lb-PM ₁₀ /1,000 ft ² /day

S-1538-8

Drum Dryer

Pollutant	
NOx	0.044 lb/MMBtu, 3.8 ppmv @ 19% O ₂
SOx	0.00285 lb/MMBtu (natural gas), 0.016 lb/MMBtu (propane)
PM10	0.00086 lb/ton
CO	0.293 lb/MMBtu, 42 ppmv @ 19% O ₂
VOC	0.001 lb/ton

Silos (lb/ton)

	Silo Filling Uncontrolled	Silo Filling Controlled*	Silo Loadout Uncontrolled	Silo Loadout Controlled*
VOC	0.0122	0.0085	0.00416	0.0029
CO	0.00118		0.00135	
PM10	0.000586	0.000029	0.000522	0.000026

*Ducting the emissions to the burner of the rotary drum dryer/mixer, 30% VOC control, 95% PM10 control

C. Calculations

The PM₁₀ emissions for this facility is calculated by summing the process rate for each piece of equipment times its designated emission factor (EF) times the number of drop points (if applicable) multiplied times control efficiency (CE).

1. Pre-Project Potential to Emit (PE1)

PTO S-1538-1 – Primary Crushing

Crushers:

$$\text{PE (lb-PM}_{10}\text{/day)} = \text{process rate (ton/day)} \times \text{EF (lb-PM}_{10}\text{/ton)}$$

$$\text{PE1 (lb-PM}_{10}\text{/day)} = 14,400 \text{ ton/day} \times 0.00054 \text{ lb-PM}_{10}\text{/ton}^*$$

$$\text{PE1 (lb-PM}_{10}\text{/day)} = 7.8 \text{ lb-PM}_{10}\text{/day}$$

*PE1 for the crusher was erroneously based on an uncontrolled emissions factor and is corrected in this project. The crusher uses water spray for control.

Conveyors:

$$\text{PE (lb-PM}_{10}\text{/day)} = \text{process rate (ton/day)} \times \text{EF (lb- PM}_{10}\text{/ton)}$$

x Drop Points

$$\text{PE (lb-PM}_{10}\text{/day)} = (29,664 \text{ ton/day} \times 0.000048 \text{ lb- PM}_{10}\text{/ton}^{**} \times 6 \text{ drop points}) + (14,400 \text{ ton/day} \times 0.000048 \text{ lb- PM}_{10}\text{/ton}^{**} \times 1 \text{ drop points})$$

$$\text{PE (lb-PM}_{10}\text{/day)} = 9.2 \text{ lb-PM}_{10}\text{/day}$$

$$\text{Total} = 7.8 + 9.2 = 17.0 \text{ lb PM}_{10}\text{/day (6,205 lb PM}_{10}\text{/yr)}$$

**PE1 for conveyors calculated using slightly larger emissions factor than AP-42.

S-1538-2 – Secondary Crushing

(Please see calculations in **Attachment II**)

PM10: 70.4 lb/day, 21,414 lb/yr

S-1538-9

$$\text{EF}_{\text{Storage piles}} = 5.27 \text{ lb/acre/day} \times 3.0 \text{ acres (1 - 0.8)} = 3.2 \text{ lb/day, 1,154 lb/yr}$$

S-1538-10

This is a new permit unit and therefore PE1 = 0.

2. Post Project Potential to Emit (PE2)

PTO S-1538-1 – Primary Crushing

Nordberg Crusher/Conveyor:

PE (lb-PM₁₀/day) = process rate (ton/day) x EF (lb-PM₁₀/ton)

PE2 (lb-PM₁₀/day) = 14,400 ton/day x (0.00054 lb-PM₁₀/ton* + 0.000046 lb-PM₁₀/ton)

PE2 (lb-PM₁₀/day) = 8.4 lb-PM₁₀/day (3,080 lb PM₁₀/yr)

*PE2 for the crusher is based on a controlled emissions factor. Note that 14,400 x 365 = 5.256 MM tons/yr < 6 MM tons/yr and therefore no annual throughput limit was added.

Conveyors:

PE (lb-PM₁₀/day) = process rate (ton/day) x EF (lb- PM₁₀/ton)
 x Drop Points

PE (lb-PM₁₀/day) = (29,664 ton/day x 0.000046 lb- PM₁₀/ton x 6 drop points)

PE (lb-PM₁₀/day) = 8.2 lb-PM₁₀/day

PE (lb-PM₁₀/yr) = (6,000,000 tons/yr x 0.000046 lb- PM₁₀/ton x 6 drop points)
 = 1,656 lb-PM₁₀/yr

Permit Unit	PM10 - Daily PE2 (lb/day)	PM10 - Annual PE2 (lb/Year)
Nordberg Crusher/Conveyor	8.4	3,080
Conveyors	8.2	1,656
Total	16.6	4,736

PTO S-1538-2 – Secondary Crushing

PM10: 57.2 lb/day, 9,777 lb/yr* (refer to calculations in **Attachment II**).

*For consistency with the Kern County EIR, the above annual emissions calculated in **Attachment II**, using the updated equipment and generally accepted emissions factors was decreased from 17,463 lb/yr by a factor of 6,000,000/10,716,608 (to 9,777 lb/yr) as 10,716,608 tons/yr was the highest throughput used in the calculations (conveyor to S1 and Screen S1). As noted earlier 6 MM tons/yr is the highest plant feed rate in the EIR.

S-1538-7-0 – Aggregate Unloading Operation

Daily PE2				
Equipment Description	# of Transfer Points	Processing Rate (ton/day)	EF (lb-PM ₁₀ /ton)	Daily PE2 _{Aggregate & RAP} (lb-PM ₁₀ /day)
Aggregate Bin Loading	1	5,640	0.000016	0.090
Aggregate conveying	4	5,640	0.000046	1.038

Annual PE2				
Equipment Description	# of Transfer Points	Processing Rate (ton/year)	EF (lb-PM ₁₀ /ton)	Annual PE2 _{Aggregate & RAP} (lb-PM ₁₀ /year)
Aggregate Bin Loading	1	376,000	0.000016	6
Aggregate conveying	4	376,000	0.000046	69

	lb PM ₁₀ /day	lb PM ₁₀ /yr
Aggregate Bin Loading	0.090	6
Aggregate conveying	1.038	69
Total	1.128	75

S-1538-8 – Hot Mix Asphalt Production Operation

Aggregate and RAP Handling

PM₁₀: 3.1 lb PM₁₀/day, 250 lb PM₁₀/yr

Hot Mix Asphalt Drum Dryer/Mixer

Pollutant	Processing Rate or Fuel Heat Input	EF	Daily PE2
NOx	1,380 MMBtu/day	0.044 lb/MMBtu	60.7 lb-NOx/day
SOx	1,380 MMBtu/day	0.016 lb/MMBtu*	22.1 lb-SOx/day
PM ₁₀	6,000 ton/day	0.00086 lb/ton	5.2 lb-PM ₁₀ /day
CO	1,380 MMBtu/day	0.293 lb/MMBtu	404.3 lb-CO/day
VOC	6,000 ton/day	0.001 lb/ton	6.0 lb-VOC/day

Pollutant	Processing Rate or Fuel Heat Input	EF	Annual PE2
NOx	107,000 MMBtu/yr	0.044 lb/MMBtu	4708 lb-NOx/yr
SOx	107,000 MMBtu/year	0.016 lb/MMBtu*	1,712 lb-SOx/yr
PM ₁₀	400,000 ton/year	0.00086 lb/ton	344 lb-PM ₁₀ /yr
CO	107,000 MMBtu/yr	0.293 lb/MMBtu	31,351 lb-CO/yr
VOC	400,000 ton/year	0.001 lb/ton	400 lb-VOC/yr

*SOx emissions higher for propane combustion than for natural gas. Emissions of NOx, CO, PM10, and VOC are equal for propane and natural gas combustion

Asphalt Concrete Silo Filling and Loadout

CO: 6000 ton/day x (0.00118 lb/ton + 0.00135 lb/ton) = 15.2 lb/day
 400,000 tons/yr x (0.00118 lb/ton + 0.00135 lb/ton) = 1,012 lb/yr

VOC: 6000 ton/day x (0.0085 lb/ton + 0.0029 lb/ton) = 68.4 lb/day
 400,000 tons/yr x (0.0085 lb/ton + 0.0029 lb/ton) = 4,560 lb/yr

PM₁₀: 6000 ton/day x (0.000029 lb/ton + 0.000026 lb/ton) = 0.3 lb/day
 400,000 tons/yr x (0.000029 lb/ton + 0.000026 lb/ton) = 22 lb/yr

S-1538-8

PE2		
Pollutant	Daily Emissions (lb/day)	Annual Emissions (lb/year)
NO _x	60.7	4,708
SO _x	22.1	1,712
PM ₁₀	5.2 + 0.3 (silo) + 3.1 (Ag/RAP handling) = 8.6	344 + 22 (silo) + 250 (Ag/RAP handling) = 616
CO	404.3 + 15.2 (silo) = 419.5	31,351 + 1,012 (silo) = 32,363
VOC	6.0 + 68.4 (silo) = 74.4	400 + 4,560 (silo) = 4,960

S-1538-9

EF_{Storage piles} = 5.27 lb/acre/day x 5.0 acres (1 – 0.8) = 5.27 lb/day, 1,924 lb/yr

S-1538-10

Daily and Annual PE2 Calculations							
Process Description	Processing Rate			EF (Controlled) lb-PM ₁₀ /ton	Potential to Emit (PE2)		
	tons/hr	tons/day	tons/year		lb-PM ₁₀ /hr	lb-PM ₁₀ /day	lb-PM ₁₀ /yr
Feed Hopper Loading	500	7200	180,000	0.000046	0.023	0.331	8.28
Hopper	500	7200	180,000	0.000046	0.023	0.331	8.28
Jaw Crushing	250	3600	90,000	0.00054	0.135	1.944	48.6
Conveyor	500	7200	180,000	0.000046	0.023	0.331	8.28
Screen (3-deck)	750	10,800	270,000	0.00074	0.555	7.992	199.8
Conveying	250	3600	90,000	0.000046	0.012	0.166	4.14
Conveying	167	2400	60,000	0.000046	0.008	0.110	2.76
Conveying	167	2400	60,000	0.000046	0.008	0.110	2.76
Conveying	167	2400	60,000	0.000046	0.008	0.110	2.76
Cone/Impact Crusher	250	3600	90,000	0.00054	0.135	1.944	48.6
Conveying	250	3600	90,000	0.000046	0.012	0.166	4.14
Screen (2-deck)	500	7200	180,000	0.00074	0.37	5.328	133.2
Conveying	167	2400	60,000	0.000046	0.008	0.110	2.76
Conveying	167	2400	60,000	0.000046	0.008	0.110	2.76
Conveying	167	2400	60,000	0.000046	0.008	0.110	2.76
Stacker	167	2400	60,000	0.000046	0.008	0.110	2.76
Stacker	167	2400	60,000	0.000046	0.008	0.110	2.76
Stacker	167	2400	60,000	0.000046	0.008	0.110	2.76
Total:					1.36	19.6	488

Emissions profiles are included in **Attachment IV**.

3. Pre-Project Stationary Source Potential to Emit (SSPE1)

Pursuant to District Rule 2201, the SSPE1 is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of Emission Reduction Credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions (AER) that have occurred at the source, and which have not been used on-site.

The SSPE1 will be calculated for each facility where the unit will be authorized to operate:

S-1538 SSPE1 (lb/year)					
Permit Unit	NO _x	SO _x	PM ₁₀	CO	VOC
S-1538-1	0	0	6,205	0	0
S-1538-2	0	0	21,414	0	0
S-1538-3	0	0	0	0	0
S-1538-9*	0	0	1,154	0	0
SSPE1	0	0	28,773	0	0

*erroneously excluded previously

4. Post Project Stationary Source Potential to Emit (SSPE2)

Pursuant to District Rule 2201, the SSPE2 is the PE from all units with valid ATCs or PTOs at the Stationary Source and the quantity of ERCs which have been banked since September 19, 1991 for AER that have occurred at the source, and which have not been used on-site.

S-1538 SSPE2 (lb/year)					
Permit Unit	NO _x	SO _x	PM ₁₀	CO	VOC
S-1538-1	0	0	4,736	0	0
S-1538-2	0	0	9,777	0	0
S-1538-3	0	0	0	0	0
S-1538-7	0	0	75	0	0
S-1538-8	4,708	1,712	616	32,363	4,960
S-1538-9	0	0	1,924	0	0
S-1538-10	0	0	488	0	0
SSPE2	4,708	1,712	17,616	32,363	4,960

5. Major Source Determination

Rule 2201 Major Source Determination:

Pursuant to District Rule 2201, a Major Source is a stationary source with a SSPE2 equal to or exceeding one or more of the following threshold values. For the purposes of determining major source status the following shall not be included:

- any ERCs associated with the stationary source
- Emissions from non-road IC engines (i.e. IC engines at a particular site at the facility for less than 12 months)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 51.165

S-1538 Rule 2201 Major Source Determination (lb/year)						
	NO _x	SO _x	PM ₁₀	PM _{2.5}	CO	VOC
SSPE1	0	0	28,773	28,773	0	0
SSPE2	4,708	1,712	17,616	17,616	32,363	4,960
Major Source Threshold	20,000	140,000	140,000	200,000	200,000	20,000
Major Source?	No	No	No	No	No	No

Note: PM2.5 assumed to be equal to PM10

As seen in the table above, the facility is not an existing Major Source and is not becoming a Major Source as a result of this project.

Rule 2410 Major Source Determination:

The facilities or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(iii). Therefore the PSD Major Source threshold is 250 tpy for any regulated NSR pollutant.

S-1538 PSD Major Source Determination (tons/year)						
	NO ₂	VOC	SO ₂	CO	PM	PM ₁₀
Estimated Facility PE before Project Increase	0	0	0	0	14.4	14.4
PSD Major Source Thresholds	250	250	250	250	250	250
PSD Major Source ? (Y/N)	N	N	N	N	N	N

As shown above, these facilities are not an existing PSD major source for any regulated NSR pollutant expected to be emitted at each of these facilities.

6. Baseline Emissions (BE)

The BE calculation (in lb/year) is performed pollutant-by-pollutant for each unit within the project to calculate the QNEC, and if applicable, to determine the amount of offsets required.

Pursuant to District Rule 2201, BE = PE1 for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, located at a Major Source.

otherwise,

BE = Historic Actual Emissions (HAE), calculated pursuant to District Rule 2201.

As shown in Section VII.C.5 above, these facilities are not a Major Source for any pollutant.

Therefore BE=PE1.

The permit units ('-7 thru '-10) are new and therefore BE = 0.

7. SB 288 Major Modification

SB 288 Major Modification is defined in 40 CFR Part 51.165 as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act."

Since facility S-1538 is not a major source for any of the pollutants addressed in this project, this project does not constitute an SB 288 major modification.

8. Federal Major Modification

District Rule 2201 states that a Federal Major Modification is the same as a "Major Modification" as defined in 40 CFR 51.165 and part D of Title I of the CAA.

Since facility S-1538 is not a major source for any of the pollutants addressed in this project, this project does not constitute a Federal Major Modification. Additionally, since the facilities are not a major source for PM₁₀ (140,000 lb/year), they are not a major source for PM_{2.5} (200,000 lb/year).

9. Rule 2410 – Prevention of Significant Deterioration (PSD) Applicability Determination

Rule 2410 applies to any pollutant regulated under the Clean Air Act, except those for which the District has been classified nonattainment. The pollutants which must be addressed in the PSD applicability determination for sources located in the SJV and which are emitted in this project are: (See 52.21 (b) (23) definition of significant)

- PM
- PM10

The facilities or the equipment evaluated under this project is not listed as one of the categories specified in 40 CFR 52.21 (b)(1)(i). The PSD Major Source threshold is 250 tpy for any regulated NSR pollutant.

S-1538 PSD Major Source Determination: Potential to Emit (tons/year)						
	NO2	VOC	SO2	CO	PM	PM10
Total PE from New and Modified Units	2.4	2.5	0.9	16.2	8.8	8.8
PSD Major Source threshold	250	250	250	250	250	250
New PSD Major Source?	N	N	N	N	N	N

As shown in the table above, the potential to emit for the project, by itself, does not exceed any PSD major source threshold. Therefore Rule 2410 is not applicable and no further analysis is required.

10. Quarterly Net Emissions Change (QNEC)

The QNEC is calculated solely to establish emissions that are used to complete the District's PAS emissions profile screen. There is no change in emissions and therefore the QNEC = 0.

QNEC (lb/qtr) — S-1538-1					
Pollutant	NO _x	SO _x	PM ₁₀	CO	VOC
PE2 (lb/yr)	0	0	4,736	0	0
BE (lb/yr)	0	0	6,205	0	0
QNEC	0	0	-367.25	0	0

QNEC (lb/qtr) — S-1538-2					
Pollutant	NO _x	SO _x	PM ₁₀	CO	VOC
PE2 (lb/yr)	0	0	9,777	0	0
BE (lb/yr)	0	0	21,414	0	0

QNEC	0	0	-2909.25	0	0
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QNEC (lb/qtr) — S-1538-7					
Pollutant	NO _x	SO _x	PM ₁₀	CO	VOC
PE2 (lb/yr)	0	0	75	0	0
BE (lb/yr)	0	0	0	0	0
QNEC	0	0	18.75	0	0

QNEC (lb/qtr) — S-1538-8					
Pollutant	NO _x	SO _x	PM ₁₀	CO	VOC
PE2 (lb/yr)	4,708	1,712	616	32,363	4,960
BE (lb/yr)	0	0	0	0	0
QNEC	1,177	428	154	8,090.75	1,240

QNEC (lb/qtr) — S-1538-9					
Pollutant	NO _x	SO _x	PM ₁₀	CO	VOC
PE2 (lb/yr)	0	0	1,924	0	0
BE (lb/yr)	0	0	1,154	0	0
QNEC	0	0	192.5	0	0

QNEC (lb/qtr) — S-1538-10					
Pollutant	NO _x	SO _x	PM ₁₀	CO	VOC
PE2 (lb/yr)	0	0	488	0	0
BE (lb/yr)	0	0	0	0	0
QNEC	0	0	122	0	0

VIII. Compliance

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. Unless specifically exempted by Rule 2201, BACT shall be required for the following actions*:

- a. Any new emissions unit with a potential to emit exceeding two pounds per day,
- b. The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,

- c. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an AIPE exceeding two pounds per day, and/or
- d. Any new or modified emissions unit, in a stationary source project, which results in an SB 288 Major Modification or a Federal Major Modification, as defined by the rule.

*Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

a. New emissions units – PE > 2 lb/day

The tables below indicate that BACT is triggered for S-1538-7 (aggregate handling), S-1538-8 for the asphalt plant drum dryer mixer (NO_x, SO_x, PM₁₀, CO, and VOC), and HMA silo filling and loadout (CO and VOC), and ' -10 for the screens.

S-1538-7

Operation	Emissions (lb/day)	BACT?
Aggregate Bin Loading	0.090	No
Aggregate conveying	1.038	No

S-1538-8

Operation	Emissions	BACT?
Aggregate and RAP Handling	3.1 lb PM ₁₀ /day but < 2 lb/day PM ₁₀ from each emissions unit	No
HMA Drum Dryer Mixer	NO _x , SO _x , PM ₁₀ , CO and VOC > 2 lb/day	Yes
Silo Filling and Loadout	CO and VOC > 2 lb/day PM ₁₀ < 2 lb/day	Yes No

S-1538-10

Emissions Unit	lb/day	BACT?
Feed Hopper Loading	0.3	No
Material Crushing	2.0	No
Conveying	< 0.2	No
2 deck screen	5.3	Yes
3 deck screen	8.0	Yes
Stacker	0.1	No

b. Relocation of emissions units – PE > 2 lb/day

As discussed in Section I above, there are no emissions units being relocated from one stationary source to another; therefore BACT is not triggered.

c. Modification of emissions units – AIPE > 2 lb/day

$$\text{AIPE} = \text{PE2} - \text{HAPE}$$

Where,

AIPE = Adjusted Increase in Permitted Emissions, (lb/day)

PE2 = Post-Project Potential to Emit, (lb/day)

HAPE = Historically Adjusted Potential to Emit, (lb/day)

$$\text{HAPE} = \text{PE1} \times (\text{EF2}/\text{EF1})$$

Where,

PE1 = The emissions unit's PE prior to modification or relocation, (lb/day)

EF2 = The emissions unit's permitted emission factor for the pollutant after modification or relocation. If EF2 is greater than EF1 then EF2/EF1 shall be set to 1

EF1 = The emissions unit's permitted emission factor for the pollutant before the modification or relocation

$$\text{AIPE} = \text{PE2} - (\text{PE1} * (\text{EF2} / \text{EF1}))$$

S-1538-9:

EF2 = EF1 for PM10

$$\begin{aligned} \text{AIPE} &= 5.3 - (3.2 * (1)) \\ &= 2.1 \text{ lb PM}_{10}/\text{day} \end{aligned}$$

As demonstrated above, the AIPE is greater than 2.0 lb/day for PM₁₀ emissions for any baghouse. Therefore BACT is triggered for PM₁₀.

d. SB 288/Federal Major Modification

As discussed in Sections VII.C.7 and VII.C.8 above, this project does not constitute an SB 288 and/or Federal Major Modification. Therefore BACT is not triggered due to a SB288 Major Modification.

2. BACT Guideline

S-1538-8

BACT Guideline 6.3.1, applies to the Drum Mixer and AC Silo [Asphaltic Concrete - Drum Mix Plant, = or > 2,000 ton/day or = or > 75.6 MMBtu/hr burner].

Please note that BACT Guideline 6.3.1 was updated on 8/23/18 with a more stringent NOx BACT requirement. However, as this application was deemed complete on 5/9/18, i.e. prior to the update. Therefore, the previous version of BACT Guideline 6.3.1 is applicable.

S-1538-9

BACT Guideline 6.1.1, applies to the Aggregate Stockpiles [Aggregate Crushing, Screening & Storage Operation - = or > 5,850 tons/day]

S-1538-10

BACT Guideline 6.1.2, applies to the recycled material processing operation. [Sand, Gravel, Aggregate, Recycled Asphalt & Recycled Concrete: Processing, Crushing, Screening and Storage Operations]

The above referenced BACT Guidelines are included in **Attachment V**.

3. Top-Down BACT Analysis

Per Permit Services Policies and Procedures for BACT, a Top-Down BACT analysis shall be performed as a part of the application review for each application subject to the BACT requirements pursuant to the District's NSR Rule.

Pursuant to the attached Top-Down BACT Analysis (see **Attachment VI**), BACT has been satisfied with the following:

S-1538-8-0

NOx: Low-NOx burner and either natural gas or LPG as the primary fuel

SOx: PUC quality natural gas or LPG as a primary fuel

PM10: to vent the drum dryer into a baghouse, use an enclosed drag slat conveyor, hot mix storage silo and truck loadout (enclosed on two sides) are vented to the burner of the rotary drum dryer burner, which is vented through a fabric filter baghouse, and use either natural gas or propane fuel

VOC: natural gas as a primary fuel and venting the hot mix silo and loadout operation to the rotary drum dryer burner

S-1538-9-0

PM10: moistened aggregate and less than 5% opacity

S-1538-10-0

PM10: The following permit condition reflects the BACT requirements:

Visible emission from any feeder, screen, or conveyor shall not exceed 7% opacity as measured pursuant to Title 40, Part 60, Subpart OOO (Standards of Performance for Nonmetallic Processing Plants) of the Code of Federal Regulations. [District Rules 2201 and 4001 and 40 CFR Part 60.672(b)] N

B. Offsets

1. Offset Applicability

Offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the SSPE2 equals to or exceeds the offset threshold levels in Table 4-1 of Rule 2201.

The SSPE2 is compared to the offset thresholds in the following table.

Offset Determination (lb/year)					
	NO_x	SO_x	PM₁₀	CO	VOC
SSPE2	4,708	1,712	17,616	32,363	4,960
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets triggered?	No	No	No	No	No

2. Quantity of Offsets Required

As seen above, the SSPE2 is not greater than the offset thresholds. Therefore offset calculations will not be required for this project.

C. Public Notification

1. Applicability

Public noticing is required for:

- a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications,
- b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
- c. Any project which results in the offset thresholds being surpassed, and/or
- d. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant.
- e. Any project which results in a Title V significant permit modification

a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications

New Major Sources are new facilities, which are also Major Sources. As shown in Section VII.C.5 above, the SSPE2 is not greater than the Major Source threshold for any pollutant at each facility. Therefore, public noticing is not required for this project for new Major Source purposes.

As demonstrated in Sections VII.C.7 and VII.C.8, this project does not constitute an SB 288 or Federal Major Modification; therefore, public noticing for SB 288 or Federal Major Modification purposes is not required.

b. PE > 100 lb/day

Applications which include a new emissions unit with a PE greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements.

ATC S-1538-8 drum/dryer mixer has CO emissions exceeding 100 lb/day; therefore public noticing for PE > 100 lb/day purposes is required.

c. Offset Threshold

The SSPE1 and SSPE2 are compared to the offset thresholds in the following tables.

Offset Thresholds				
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?
NO _x	0	4,708	20,000 lb/year	No
SO _x	0	1,712	54,750 lb/year	No
PM ₁₀	28,773	17,616	29,200 lb/year	No
CO	0	32,363	200,000 lb/year	No
VOC	0	4,960	20,000 lb/year	No

As detailed above, there were no thresholds surpassed with this project; therefore public noticing is not required for offset purposes.

d. SSIPE > 20,000 lb/year

Public notification is required for any permitting action that results in a SSIPE of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPE = SSPE2 – SSPE1. The SSIPE is compared to the SSIPE Public Notice thresholds in the following tables.

SSIPE Public Notice Thresholds					
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
NO _x	0	4,708	4,708	20,000 lb/year	No
SO _x	0	1,712	1,712	20,000 lb/year	No
PM ₁₀	28,773	17,616	-11,157	20,000 lb/year	No
CO	0	32,363	32,363	20,000 lb/year	Yes
VOC	0	4,960	4,960	20,000 lb/year	No

As demonstrated above, the SSIPE for CO exceeds 20,000 lb/year; therefore public noticing for SSIPE purposes is required.

e. Title V Significant Permit Modification

Since S-1538 does not have a Title V operating permits, this change is not a Title V significant Modification, and therefore public noticing is required.

2. Public Notice Action

As discussed above, this project will not result in emissions, for any pollutant, which would subject the project to any of the noticing requirements listed above. Therefore, public notice will not be required for this project.

D. Daily Emission Limits (DELs)

DELs and other enforceable conditions are required by Rule 2201 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. The DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

For the portable aggregate/lime blending plant, the DELs are stated in the form of emission factors (lb-PM10 per day), the daily and yearly process weight of aggregate, and the daily and yearly process weight of lime/cement.

Proposed (Current) Rule 2201 (DEL) Conditions:

S-1538-1

Process weight rate for Nordberg crusher shall not exceed 14,400 tons per day. [District Rule 2201] N

Process weight rate introduced to entire permit unit shall not exceed any of the following: 29,664 tons per day or 6,000,000 tons/yr. [District Rule 2201] N

PM10 emission rate shall not exceed 0.00054 lb/ton from the Nordberg crusher or 0.000048 lb/ton from any conveyor transfer point. [District Rule 2201] N

S-1538-2

Emission factors for PM10 (from equipment outside of the wash plant) shall not exceed the following: 0.0005 lb/ton for feed hopper H72A, 0.00074 lb/ton for screens, 0.00054 lb/ton for crushers, and 0.000046 lb/ton for conveyor transfer points [District Rule 2201] N

Emissions shall not exceed 57.2 lb/day nor 9,777 lb/yr PM10. [District Rule 2201] N

Throughput of screen S1 shall not exceed any of the following: 35,252 tons per day or 6,000,000 tons/yr. Throughput of hopper H72A shall not exceed 6,160 tons per day. [District Rule 2201] N

S-1538-7-0

Process weight rate introduced to entire permit unit shall not exceed 5,640 tons per day nor 376,000 ton/year. [District Rule 2201] N

PM10 emission rate shall not exceed 0.000016 lb/ton from loading the grizzly bin, 0.000046 lb/ton from any conveyor transfer point nor 1.05 lb/acre/day from the stockpiled material. [District Rule 2201] N

S-1538-8-0

Heat input to the drum dryer/mixer burner shall not exceed 1,350 MMBtu in any one day and 107,000 MMBtu in any one calendar year. [District Rule 2201] N

The quantity of aggregate received or processed shall not exceed 5,640 tons in any one day. [District Rule 2201] N

PM10 emissions from the receiving and processing of the aggregate shall not exceed 0.0004 lb/ton of aggregate received and processed. [District Rule 2201] N

The quantity of reclaimed asphalt pavement (RAP) received or processed shall not exceed 1,500 tons in any one day. [District Rule 2201] N

PM10 emissions from the processing of the reclaimed asphalt pavement (RAP) shall not exceed 0.0004 lb/ton of RAP received and processed. [District Rule 2201] N

The area of active and inactive stockpiles for the asphaltic concrete manufacturing plant shall not exceed 2.0 acres. [District Rule 2201] N

PM10 emissions from the stockpiles for the asphaltic concrete manufacturing plant shall not exceed 1.05 pounds per acre of storage area per day. [District Rule 2201] N

The quantity of asphaltic concrete produced shall not exceed 6,000 tons in any one day and 400,000 tons in any one calendar year. [District Rule 2201] N

NOx emissions from the drum dryer/mixer shall not exceed 3.8 ppmvd @ 19% O2 (referenced as NO2). [District Rule 2201] N

CO emissions from the drum dryer/mixer shall not exceed 42.0 ppmvd @ 19% O2. [District Rule 2201] N

VOC emissions from the drum dryer/mixer shall not exceed 0.001 pounds per ton of asphaltic concrete produced. [District Rule 2201] N

PM10 emissions (measured at the baghouse outlet) shall not exceed 0.00086 pounds per ton of asphaltic concrete produced. [District Rule 2201] N

SOx emissions from the combustion of propane shall not exceed 0.016 lb/MMBtu. [District Rule 2201] N

SOx emissions from the combustion of natural gas shall not exceed 0.00285 lb/MMBtu. [District Rule 2201] N

The quantity of produced asphaltic concrete transferred into the storage silo and loaded out into trucks shall not exceed 6,000 tons in any one day and 400,000 tons in any one calendar year. [District Rule 2201] N

Emissions from the transfer of the produced asphaltic concrete into the storage silo shall not exceed any of the following limits: 0.00118 pounds of CO per ton of asphaltic concrete silo transferred, 0.0085 pounds of VOC per ton of asphaltic concrete transferred, or 0.000029 pounds of PM10 per ton of asphaltic concrete transferred. [District Rule 2201] N

Emissions from truck loading of asphaltic concrete shall not exceed any of the following limits: 0.00135 pounds of CO per ton of asphaltic concrete loaded, 0.0029 pounds of VOC per ton of asphaltic concrete loaded, or 0.000026 pounds of PM10 per ton of asphaltic concrete loaded. [District Rule 2201] N

S-1538-9

Controlled emissions from active stockpiles shall not exceed 1.054 lb PM10/acre/day. [District Rule 2201] N

Combined area of active stockpiles shall not be greater than 5 acres. [District Rule 2201] N

S-1538-10

Amount of material received by feed hopper loading and 2-deck screen shall not exceed either of the following: 7,200 tons/day or 180,000 tons/yr. [District Rule 2201] N

Amount of material received by jaw crusher and cone crusher shall not exceed either of the following: 3,600 tons/day or 90,000 tons/yr. [District Rule 2201] N

Amount of material received by 3-deck screen shall not exceed either of the following: 10,800 tons/day or 270,000 tons/yr. [District Rule 2201] N

Amount of material received by conveyor following jaw crusher shall not exceed either of the following: 7,200 tons/day or 180,000 tons/yr. [District Rule 2201] N

Amount of material received by conveyors following cone crusher and 3-deck screen shall not exceed either of the following: 3600 tons/day or 90,000 tons/yr. [District Rule 2201] N

Amount of material received by conveyors other than listed above and stacker shall not exceed either of the following: 2,400 tons/day or 60,000 tons/yr. [District Rule 2201] N

Emission rates from feed hopper loading, conveyors, and stacker shall not exceed 0.000046 lb PM10/ton for each drop point. [District Rule 2201] N

Emission rates from crushers shall not exceed 0.00054 lb PM10/ton for each drop point. [District Rule 2201] N

Emission rate from screens shall not exceed 0.00074 lb PM10/ton for each drop point. [District Rule 2201] N

PM10 emissions shall not exceed 19.6 lb/day or 488 lb PM10/yr. [District Rule 2201] N

E. Compliance Assurance

1. Source Testing

Pursuant to District Policy APR 1705, source testing is not for required for S-8623-2-0 to demonstrate compliance with Rule 2201.

There are no proposed changes to the 24 month source testing requirement listed on permits S-8623-3 (S-1538-8).

2. Monitoring

S-1538-8

Monthly monitoring of NOx and CO is required by Rule 4309.

3. Recordkeeping

Recordkeeping requirements for S-1538-7 and '-8 are as follows:

S-1538-7

Permittee shall keep accurate records of aggregate throughput on a daily basis and make such records readily available for District inspection for a period of at least 5 years. [District Rule 2201] N

S-1538-8

A daily log shall be maintained and shall include the following: (a). Total quantity of aggregate received (in tons); (b). Total quantity of aggregate processed (in tons); (c). Total quantity of RAP received (in tons); (d). Total quantity of RAP processed (in tons); (e). Total storage area (in acres) of the aggregate stockpiles; (f). Total storage area (in acres) of the RAP stockpiles; (g). Total quantity of asphaltic concrete produced (in tons); (h). Total quantity of asphaltic concrete transferred into the storage silo (in tons); (i). Total quantity of asphaltic concrete loaded into trucks (in tons); (j). Type and quantity of fuel consumed in the drum dryer/mixer (in scf of natural gas or gallons of propane); (k). Total hours the HMA batch plant was operated in any one rolling 24 hour period. [District Rules 1070 & 2201] N

The permittee shall maintain a record of the cumulative annual amount of asphaltic concrete produced, transferred into the storage silo, and loaded into trucks. The cumulative total shall be updated at least monthly. [District Rule 1070 & 2201] N

The permittee shall maintain a record of the cumulative annual heat input to the drum dryer/mixer. The cumulative total shall be updated at least monthly. The heat input can be determined by multiplying the amount of fuel burned by its corresponding heating value (natural gas = 1,000 Btu/scf or propane = 94,000 Btu/gallon). [District Rules 1070 & 2201] N

{3246} All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] N

S-1538-10

The permittee shall maintain records of tons/day and tons per year of material received by feed hopper, crusher, conveyors, 3-deck screen, 2-deck screen, and stacker. [District Rule 2201] N

All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 17 CCR 93116] N

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis (AAQA)

An AAQA shall be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. The District's Technical Services Division conducted the required analysis. Refer to **Attachment VII** of this document for the AAQA summary sheet.

The proposed location is in an attainment area for NO_x, CO, and SO_x. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for NO_x, CO, or SO_x.

The proposed location is in a non-attainment area for the state's PM₁₀ as well as federal and state PM_{2.5} thresholds. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for PM₁₀ and PM_{2.5}.

Rule 2410 Prevention of Significant Deterioration

As shown in Section VII. C. 9. above, this project does not result in a new PSD major source or PSD major modification. No further discussion is required.

Rule 2520 Federally Mandated Operating Permits

Since this facility's potential emissions do not exceed any major source thresholds of Rule 2201, this facility is not a major source, and Rule 2520 does not apply.

Rule 4001 New Source Performance Standards (NSPS)

S-1538-1 and '-2

The requirements of the Code of Federal Regulations, Chapter 40 (40 CFR), Part 60, Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants) apply to any fixed or portable, aboveground Nonmetallic Mineral Processing Plants with a capacity, as defined in 60.671, greater than 23 megagrams per hour (25 tons per hour).

No newly constructed or reconstructed units are proposed in this project, nor is there an increase in emissions. Therefore, the units is not being modified. Since the permittee is retrofitting the unit with an equivalent size, or smaller, burner for compliance with District rules and regulations, the requirements of these sections do not apply to the unit.

S-1538-7 and '-8

Pursuant to section 60.671, nonmetallic mineral processing plant means any combination of equipment that is used to crush or grind any nonmetallic mineral wherever located, including lime plants, power plants, steel mills, asphalt concrete plants, Portland cement plants, or any other facility processing nonmetallic minerals. The HMA does not include crushing or grinding equipment; therefore, this subpart does not apply. No further discussion is required.

S-1538-10

This standard is applicable to fixed and portable nonmetallic mineral processing plants, with processing rates greater than 25 tons/hr and 150 tons/hr respectively, which have commenced construction, reconstruction or modification after August 31, 1983.

The applicant is proposing to install and operate portable conveyors, crushers, and screens, which will occur after the cutoff date of August 31, 1983 and the process rate will be > 150 tons/hour. Therefore, this permit unit will be subject to this subpart.

According to §60.670(f), Table 1, the requirements of §60.11 apply to this subpart. §60.11 requires the opacity observations be conducted within 60 days after achieving the maximum production rate but no later than 180 days after initial startup of the facility. The following condition will be included on the ATC permit:

- *For the purpose of demonstrating initial compliance, opacity observations shall be conducted for the equipment within 60 days after achieving the maximum production rate but no later than 180 days after initial startup. [40 CFR §60.670(f) & §60.11 and District Rule 4001]*

§60.672(b), which applies to fugitive emissions from any affected facility (except crushers not served by a control device), is also divided into separate requirements for existing sources and for new sources. For existing sources, fugitive opacity shall not exceed 10% for most affected facilities, and 15% for crushers. For new sources, the opacity limits are 7% generally and 12% for crushers. Note that since open storage stockpiles are not included in the list of affected facilities specified in §60.670, these fugitive opacity limits do not apply to the stockpiles, although opacity may be limited under Rule 2201. The following conditions will be included on the ATC permit and PTO to enforce these requirements for new facilities:

- *Visible emissions from any feeder, screen, or conveyor shall not exceed 7% opacity as measured pursuant to Title 40, Part 60, Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants) of the Code of Federal Regulations. [District Rule 4001 and 40 CFR §60.672(b)]*
- *Visible emissions from each crusher shall not exceed 12% opacity as measured pursuant to Title 40, Part 60, Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants) of the Code of Federal Regulations. [District Rule 4001 and 40 CFR §60.672(b)]*

§60.674(b) states that the owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses wet suppression to control emissions from the affected facility, must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The owner or operator must initiate corrective action within 24 hours and complete corrective action as expeditiously as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. The owner or operator must

record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under §60.676(b).

For this proposed project the applicant is proposing to hire subcontractors to bring the recycle material processing equipment onsite to process received recycle material. Therefore, in addition to the required monthly periodic inspection of the spray nozzles and initial startup inspection of the spray nozzles will also be required.

The following conditions will be included on the ATC permit and PTO to enforce these requirements:

- *The permittee shall perform an initial startup inspection and monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The owner or operator must initiate corrective action within 24 hours and complete corrective action as expeditiously as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. [40 CFR §60.674(b) and District Rule 4001]*

§60.675(c)(1) states that in determining compliance with the particulate matter standards in §60.672(b), the owner or operator shall use Method 9 of Appendix A-4 of this part and the procedures in §60.11, with the additional requirements specified in §60.675(c)(1)(i) through §60.675(c)(1)(iii).

§60.675(c)(3) states that when determining compliance with the fugitive emissions standard for any affected facility described under §60.672(b) of this subpart, the duration of the Method 9 (40 CFR Part 60, Appendix A-4) observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in Table 3 of this subpart must be based on the average of the five 6-minute averages.

Therefore, the following condition will be included in the ATC permit and PTO to ensure compliance with these requirements:

- *Demonstration of the visible emissions opacity limits shall be determined using EPA Method 9 and the procedures listed in §60.11, with the additional requirements specified in §60.675(c)(1)(i) through §60.675(c)(1)(iii). The duration of the Method 9 observations must be based on the average of the five 6-minute averages. [40 CFR §60.675(c)(1) and (c)(3) and 40 CFR §60.11, and District Rule 4001]*

§60.676(b) requires that the owner or operator of any affected facility must record each periodic inspection required under §60.674(b), including dates and any corrective actions taken, in a logbook (in written or electronic format). The owner or operator must keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Administrator upon request. Therefore, the following condition will be included in the ATC permit and PTO to ensure compliance with this requirement:

- *The permittee shall maintain a logbook that contains the following information: 1) dates of water spray nozzles inspections, 2) finding, 3) dates and any corrective actions taken, and 4) inspector name and signature. The logbook must be kept onsite and the*

permittee shall make hard or electronic copies (whichever is requested) of the logbook available to the Administrator or the District inspection upon request. [40 CFR §60.676(b) and District Rule 4001]

According to §60.676(f), the owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of this subpart, including the reports of opacity observations made using Method 9 to demonstrate compliance with §60.672(b). The following condition will be included on each Authority to Construct:

- *The permittee shall submit written reports of initial demonstration of visible emission opacity compliance made using the methods and procedures listed in 40 CFR §60.675(c)(1) and §60.675(c)(3) to the District within 60 days after the completion of initial opacity tests. [40 CFR §60.676(f), District Rules 1070 & 4001]*

Compliance with this subpart is expected.

Rule 4101 Visible Emissions

No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour, which is as dark or darker than Ringelmann 1 or equivalent to 20% opacity. Opacity is expected to be less than 20% provided that all of the equipment is maintained and operated properly.

The PM emissions from the rotary drum drier/mixer will be controlled with a baghouse. Pursuant to District Policy SSP 1005, the visible emissions from a baghouse shall be limited by permit conditions to not equal or exceed 5% opacity for a period or periods aggregating more than three (3) minutes in any one (1) hour. If the equipment is properly maintained this condition should not be exceeded. Conditions will be placed on the Authority to Construct permit and Permit to Operate to ensure compliance with the visible emission requirements.

Rule 4102 Nuisance

Rule 4102 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations, provided the equipment is well maintained. Therefore, compliance with this rule is expected.

California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR 1905 – *Risk Management Policy for Permitting New and Modified Sources* specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

An HRA is not required for a project with a total facility prioritization score of less than one. According to the Technical Services Memo for this project (**Attachment VII**), the

total facility prioritization score including this project was greater than one. Therefore, an HRA was required to determine the short-term acute and long-term chronic exposure from this project.

The cancer risk for this project is shown below:

Units	Prioritization Score	Acute Hazard Index	Chronic Hazard Index	Maximum Individual Cancer Risk	T-BACT Required	Special Permit Requirements
1-11	0.00	0.00	0.00	0.00E+00	No	No
2-8	0.00	0.00	0.00	0.00E+00	No	No
7-0	0.01	0.00	0.00	1.33E-09	No	No
8-0	0.75	0.03	0.00	1.30E-07	No	Yes
9-0	0.01	0.00	0.00	1.42E-08	No	No
10-0	0.02	0.01	0.00	3.38E-08	No	No
Project Totals	0.79	0.04	0.01	1.79E-07		
Facility Totals	>1	0.04	0.01	14.5E-06		

Proposed Permit Requirements

To ensure that human health risks will not exceed District allowable levels; the following shall be included as requirements for:

Unit # 1-11, 2-8, 7-0, 9-0, & 10-0

1. No special requirements.

Unit # 8-0

1. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction.

Discussion of T-BACT

BACT for toxic emission control (T-BACT) is required if the cancer risk exceeds one in one million. As demonstrated above, T-BACT is not required for this project because the HRA indicates that the risk (0.08 E-06) is not above the District's thresholds for triggering T-BACT requirements; therefore, compliance with the District's Risk Management Policy is expected.

Rule 4201 Particulate Matter Concentration

Section 3.0 of this Rule prohibits the release or discharge into the atmosphere from any single source operation, dust, fumes, or total suspended particulate matter emissions in excess of 0.1 grain per cubic foot of gas at dry standard conditions, as determined by the test methods in section 4.0 of this Rule. The HMA unit is currently operating in compliance with the rule and the project is not expected to affect compliance status. Continued compliance is expected.

Rule 4309 Dryers, Dehydrators, and Ovens

The HMA plant associated with this project is natural gas or propane fired with a maximum heat input of 107 MMBtu/hr. Pursuant to Section 2.0 of District Rule 4309, the unit is subject to the requirements of this Rule. The HMA unit is currently operating in compliance with the rule and the project is not expected to affect compliance status. Continued compliance is expected.

Rule 4801 Sulfur Compounds

Section 3.1 prohibits emissions of sulfur compounds as SO₂ in excess of 0.2% by volume (2,000 ppmv) averaged over 15 minutes. The HMA unit is currently operating in compliance with the rule and the project is not expected to affect compliance status. Continued compliance is expected.

California Health & Safety Code 42301.6 (School Notice)

The District has verified that this site is not located within 1,000 feet of a school. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required.

California Environmental Quality Act (CEQA)

CEQA requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The District adopted its *Environmental Review Guidelines* (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities;
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

Greenhouse Gas (GHG) Significance Determination

District is a Responsible Agency

It is determined that another agency has prepared an environmental review document for the project. The District is a Responsible Agency for the project because of its discretionary approval power over the project via its Permits Rule (Rule 2010) and New Source Review Rule (Rule 2201), (CEQA Guidelines §15381). As a Responsible Agency, the District is limited to mitigating or avoiding impacts for which it has statutory authority. The District does not have statutory

authority for regulating greenhouse gas emissions. The District has determined that the applicant is responsible for implementing greenhouse gas mitigation measures, if any, imposed by the Lead Agency.

District CEQA Findings

The County of Kern (County) is the public agency having principal responsibility for approving the Project. As such, the County served as the Lead Agency for the project. On December 6, 2016, the County certified the Environmental Impact Report (EIR), finding that air quality and greenhouse gas impacts would have a significant, unavoidable impact on air quality. The County approved the project and adopted a Statement of Overriding Consideration (SOC).

The District is a Responsible Agency for the project because of its discretionary approval power over the project via its Permits Rule (Rule 2010) and New Source Review Rule (Rule 2201), (CEQA Guidelines §15381). As a Responsible Agency the District complies with CEQA by considering the EIR prepared by the Lead Agency, and by reaching its own conclusion on whether and how to approve the project involved (CEQA Guidelines §15096). The District has considered the Final EIR certified by the County.

The District's engineering evaluation of the project (this document) demonstrates that the District would impose permit conditions requiring the applicant to meet BACT. Thus, the District concludes that through a combination of project design elements and permit conditions, project specific stationary source emissions will be reduced to less than significant levels.

As a Responsible Agency the District is required to issue findings for significant air quality impacts detailed in the Lead Agency's EIR and adopt an SOC. The District has required all feasible mitigation measures to lessen stationary source emissions impacts to air quality from this project. As a single purpose agency, the District lacks the Lead Agency's broader scope of authority over the project and does not believe that it should overrule the decisions made by the Lead Agency. Accordingly, after considering the Lead Agency's EIR, the SOC, and the substantial evidence the Lead Agency relied on in adopting the SOC, the District finds that it had no basis on which to disagree with the SOC and evidence relied on therein. The District therefore adopts the Lead Agency's SOC by reference as its own.

Indemnification Agreement/Letter of Credit Determination

The criteria pollutant emissions and toxic air contaminant emissions associated with the proposed project are not significant, and there is minimal potential for public concern for this particular type of facility/operation. Therefore, an Indemnification Agreement and/or a Letter of Credit will not be required for this project in the absence of expressed public concern.

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue ATCs S-1538-1-11, '-2-8, '-7-0, '-8-0, '-9-0, and '-10-0 on the attached draft ATCs in **Attachment VIII**.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-1538-1-1	3020-01-G	935 hp	\$ 936.00
S-1538-2-8	3020-01-H	> 1600 hp	\$ 1,183.00
S-1538-7-0	3020-01-D	167 hp	\$ 362.00
S-1538-8-0	3020-01-H	107 MMBtu/hr	\$ 1,183.00
S-1538-9-0	3020-06	miscellaneous	\$122.00
S-1538-10-0	3020-01-G	1570 hp	\$936.00

Attachments

- I: Current PTOs
- II: S-1538-2 Emissions
- III: Process Flow Diagram
- IV: Emissions Profiles
- V: BACT Guidelines
- VI: BACT Analysis
- VII: AAQA/HRA Summary
- VIII: Draft ATCs

Attachment I
Current PTOs

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1538-1-8

EXPIRATION DATE: 05/31/2023

SECTION: 13 TOWNSHIP: 11N RANGE: 21W

EQUIPMENT DESCRIPTION:

CRUSHING OPERATION INCLUDING VIBRATING GRIZZLY FEEDER, NORDBERG MODEL C140 JAW CRUSHER AND FIVE CONVEYORS

PERMIT UNIT REQUIREMENTS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged which is dark or darker than 5% opacity from all crushing and conveying equipment associated with this permit. [District Rule 2201]
3. All haul roads and other roadways traversed by mobile equipment and/or motor vehicles shall be adequately moistened with water at such a frequency as required to prevent visible emissions equal to or in excess of 20% opacity from such roads. [District Rule 4101]
4. All stockpiled sand, gravel aggregate, rock and other materials shall be maintained adequately moist to prevent visible emissions in excess of 20% opacity. [District Rule 4101]
5. All material transfer points shall be enclosed by open-topped windshield boxes. [District Rule 2201]
6. Moisture content of processed material shall not be less than 4% by weight. [District Rule 2201]
7. Aggregate material processed throughout the facility shall have a moisture content of at least 4.0% by weight. The percent moisture shall be determined by weighing an approximately 2-lb sample of aggregate from any point of the operation, bringing the sample to dryness in a drying oven, then weighing the dried sample; the weight difference is the moisture content. [District Rule 2201]
8. Process weight rate for Nordberg crusher shall not exceed 14,400 tons per day. [District Rule 2201]
9. Process weight rate introduced to entire permit unit shall not exceed 29,664 tons per day. [District Rule 2201]
10. PM10 emission rate shall not exceed 0.0024 lb/ton from the Nordberg crusher or 0.000048 lb/ton from any conveyor transfer point. [District Rule 2201]
11. Permittee shall comply with all applicable New Source Performance Standard (NSPS) subpart OOO reporting and recordkeeping requirements. [District Rule 4001]
12. Permittee shall keep accurate records of aggregate throughput on a daily basis and make such records readily available for District inspection for a period of at least 5 years. [District Rule 2201]

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley Air Pollution Control District

PERMIT UNIT: S-1538-2-7

EXPIRATION DATE: 05/31/2023

SECTION: 13 TOWNSHIP: 11N RANGE: 21W

EQUIPMENT DESCRIPTION:

SECONDARY CRUSHING AND SCREENING OPERATION INCLUDING TWO CONE CRUSHERS WITH WATER SPRAYS, THREE FEED HOPPERS, 22 CONVEYORS, FOUR DOUBLE DECK SCREENS, AND A WASH PLANT CONSISTING OF CONVEYORS, SCREENS, A SAND SCREW, AND PILES

PERMIT UNIT REQUIREMENTS

1. Screen S9A shall be equipped with operational water sprays and only receive and process material from the wash plant. [District Rule 2201]
2. All transfer points handling material with product moisture content less than 6% moisture content by weight shall be equipped with operational water spray bars. [District Rule 2201]
3. Crushers shall be equipped with operational wet suppression systems maintaining minimum product moisture content of 4% by weight. [District Rule 2201]
4. Feed hopper H72A shall be equipped with operational wet suppression system or shall maintain minimum product moisture content of 4% by weight. [District Rule 2201]
5. Operator shall not cause to be discharged into the atmosphere from feed hopper H72A any fugitive emissions which exhibit greater than 5 percent opacity for three minutes in any one hour. [District Rules 2201 and 4101]
6. Operator shall not cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility, including screens (excluding crushers) any fugitive emissions which exhibit greater than 10 percent opacity for three minutes in any one hour. [District Rules 4001, 60.672(b), and 4101]
7. Operator shall not cause to be discharged into the atmosphere from any crusher any fugitive emissions which exhibit greater than 15% opacity for three minutes in any one hour. [District Rules 4001, 60.672(c), and 4101]
8. Operator shall not cause to be discharged into the atmosphere from any equipment or operations utilized in the wash plant, fugitive emissions which exhibit greater than 5% opacity for three minutes in any one hour. [District Rules 2201 and 4401]
9. Wash plant includes tower 3 and downstream equipment through stackout conveyors B24, B26B, and B29. [District Rule 2201]
10. Emission factors for PM10 (from equipment outside of the wash plant) shall not exceed the following: 0.0005 lb/ton for feed hopper H72A, 0.00074 lb/ton for screens, 0.00054 lb/ton for crushers, and 0.000046 lb/ton for conveyor transfer points [District Rule 2201]
11. Emissions shall not exceed 70.4 lb/day PM10. [District Rule 2201]
12. Throughput of screen S1 shall not exceed 35,252 tons per day. Throughput of hopper H72A shall not exceed 6,160 tons per day. [District Rule 2201]
13. Permittee shall keep accurate records of screen S1 and hopper H72A throughputs on a daily basis and make such records readily available for District inspection for a period of at least 5 years. [District Rule 2201]

These terms and conditions are part of the Facility-wide Permit to Operate.

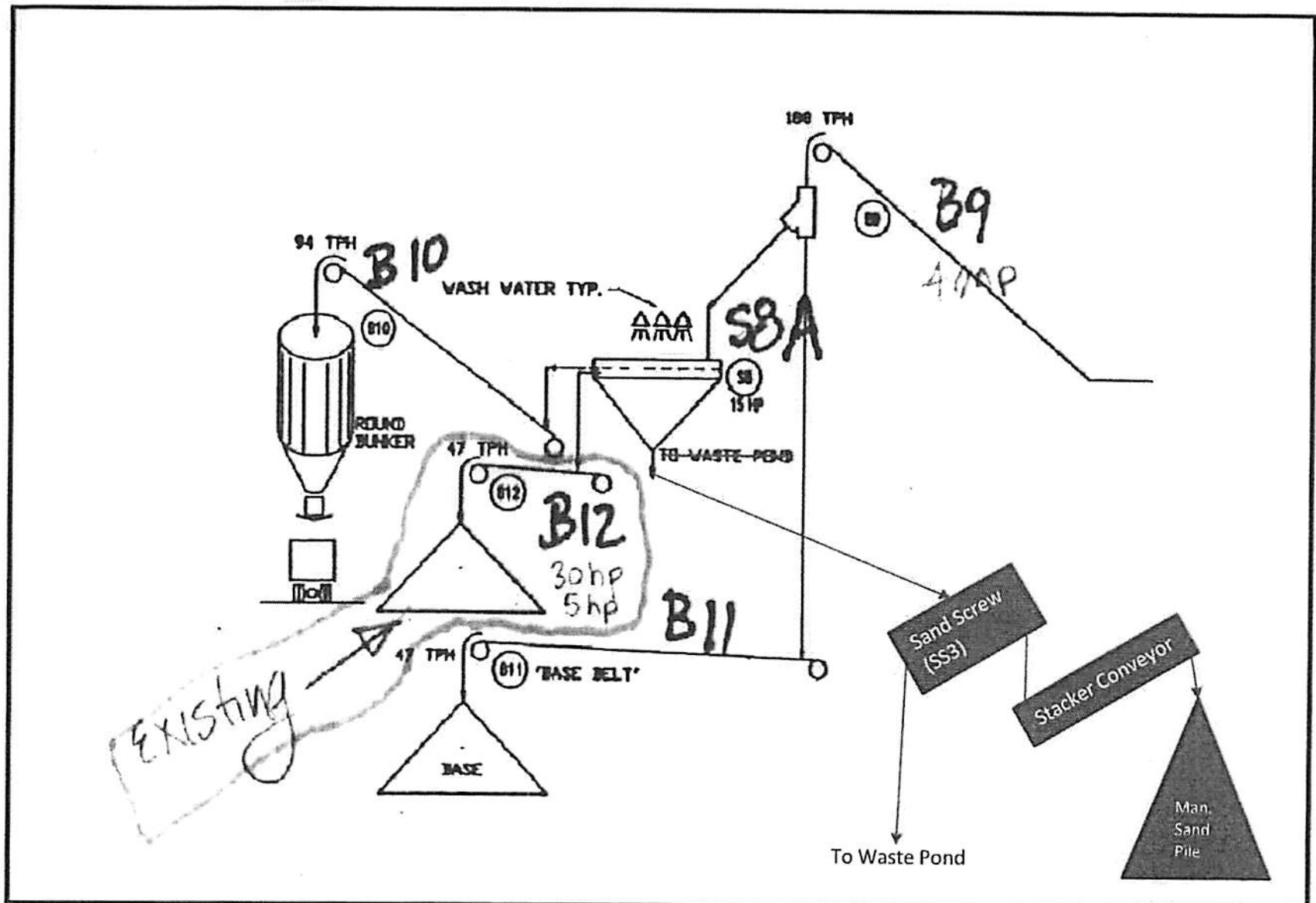
Attachment II
S-1538 Emissions

D. Post-project Potential to Emit (PTE)

Number	Name	Post-project emissions			Proposed Revised				Note
		EF (lb/ton)	Q (tph)	Q (tpd)	Q (tpy)	EF (lb/ton)	PM10 (lb/day)	PM10 (lb/yr)	
B1	Conveyor xfr to S1	0.000046	2,518	35,252	10,716,608	0.000046	1.6	493	no change
S1	Screen S1	0.000074	2,518	35,252	10,716,608	0.000074	26.1	7,930	no change
B4	Conveyor xfr to C2 xfer box	0.000046	488	6,832	2,076,928	0.000046	0.3	96	no change
B4a	Xfr to C2	0.000046	488	6,832	2,076,928	0.000046	0.3	96	no change
C2	Crusher C2	0.00054	488	6,832	2,076,928	0.00054	3.7	1,122	no change
B2	Conveyor Xfr to B1 & B3	0.000046	1,136	15,904	4,834,816	0.000046	0.7	222	no emissions change (from B2)
B3	Conveyor Xfr to S2	0.000046	648	9,072	2,757,888	0.000046	0.4	127	no change
S2	3-deck screen	0.00074	648	9,072	2,757,888	0.00074	6.7	2,041	no change
B5	Conveyor to xfer box xfer Dts (2)	0.000046	160	2,240	680,960	0.000046	0.1	31	no change
B5A	Xfr to C3	0.000046	160	2,240	680,960	0.000046	0.1	31	no change
C3	Crusher C3	0.00054	160	2,240	680,960	0.00054	1.2	368	no change
B73	Conv xfr to B6A	0.000046	440	6,160	1,872,640	0.000046	0.3	86	no change
B6A	Conv xfr to B6b	0.000046	2,030	28,420	8,639,680	0.000046	1.3	397	no change
B6B	Conv xfr to B6C	0.000046	2,030	28,420	8,639,680	0.000046	1.3	397	no change
B6C	Conv stacking to pile.	0.000046	2,030	28,420	8,639,680	0.000046	1.3	397	no change
FB1	Underpile feed conv to B20	0	1,015	14,210	4,319,840	-	0.0	-	no change
B20	Conveyor to screens3	0.000046	1,015	14,210	4,319,840	0.000046	0.7	199	no change
FB2	Underpile feed conv to B21	0	1,015	14,210	4,319,840	-	0.0	-	no change
B21	Conveyor to screen S4	0.000046	1,015	14,210	4,319,840	0.000046	0.7	199	no change
S3	2-deck wet screen to conveyors B22, B26 and sand screw 34	0	1,015	14,210	4,319,840	-	0.0	-	no change
S4	3-deck wet screen to conveyors B22, B26 and sand screw 36	0	1,015	14,210	4,319,840	-	0.0	-	no change
B22	Conv to conveyor B23	0	1,334	18,676	5,677,504	-	0.0	-	no change
B23	Conv to B24	0	1,334	18,676	5,677,504	-	0.0	-	no change
B24	Conv to washed gravel pile 1x#4G	0	1,334	18,676	5,677,504	-	0.0	-	no change
	Washed gravel pile with underpile feed conveyors to B25	0	1,334	18,676	5,677,504	-	0.0	-	no change
B25	Conveyor to conveyor B25B	0.000046	1,334	18,676	5,677,504	-	0.0	-	Wet, washed because H27 & B32 no longer exist.
B26	Conv to split chute to conv B26A	0	232	3,248	987,392	-	0.0	-	no change
B26A	Conveyor to wet screen S9	0	182	2,548	774,592	-	0.0	-	no change
S8	Dewatering wet screen to conv B26B	0	182	2,548	774,592	-	0.0	-	no change
B26B	Discharging to washed 1/4" gravel Pile	0	182	2,548	774,592	-	0.0	-	no change
B26C	Conveyor to B27	0	182	2,548	774,592	-	0.0	-	no change
B27	Conveyor to washed gravel pile	0	182	2,548	774,592	-	0.0	-	no change
S6	Wet screen to conveyor B28	0	182	2,548	774,592	-	0.0	-	no change
S7	Wet screen to conveyor B28	0	182	2,548	774,592	-	0.0	-	no change
B28	Conveyor to B29	0	364	5,096	1,549,184	-	0.0	-	no change
B29	Stack out conv (WCS product)	0	364	5,096	1,549,184	-	0.0	-	no change
B25B	Conv xfr to B25C	0.000046	1,334	18,676	5,677,504	-	0.0	-	Wet, washed because H27 & B32 no longer exist.
B25C	Conv xfr to wet screen S79	0.000046	1,334	18,676	5,677,504	-	0.0	-	Wet, washed because H27 & B32 no longer exist.
S9A	Wet screen, equipped with water sprays and receiving only from the wet plant	0	1,334	18,676	5,677,504	-	0.0	-	no change
B25D	Conv xfr to split chute to bunkers 30 & 31	0	668	9,352	2,843,008	-	0.0	-	no change
Bunker30	Overhead load out bunker (prev 1 1/2)	0.000046	333	4,662	1,417,248	-	0.0	-	wet
Bunker31	Overhead bunker (prev 1G)	0.000046	335	4,690	1,425,760	-	0.0	-	wet
H43	Feed hopper	0.000046	665	9,310	2,830,240	0.000046	0.4	130	no change
B30	Conv xfr to WCS pile	0.000046	665	9,310	2,830,240	0.000046	0.4	130	no change
	Underfeed convs xfr to B31	0.000046	665	9,310	2,830,240	-	0.0	-	underground
B31	Conv xfr to split chute to over head truck loadout bunkers 46 & 47	0.000046	665	9,310	2,830,240	0.000046	0.4	130	no change

Bunkers 46&47	Over head loadout bunker (prev y. G)	0.000046	666	5,324	2,834,496	0.000046	0.4	130	no change, includes throughput from Bunker 46 above.	
B7	Conv xfr to S5	0.000046	488	6,832	2,076,928	0.000046	0.3	96	no change	
S5	2-deck screen	0.000074	488	6,832	2,076,928	0.000074	≤ 1	1,537	no change	
	Xfr to loadout bunker	0.000046	75	1,050	319,200	-	0.0	-	no change	
	Xfr to S6	0.000046	300	4,200	1,276,800	-	0.0	-	quantified in S5 above	
S6	2-deck screen to bunkers	0.000074	300	4,200	1,276,800	0.000074	2.1	945	no change	
	Xfr to 3/4 CR bunker	0.000046	75	1,050	319,200	-	0.0	-	quantified in S6 above	
	Xfr to 1/2 CR bunker	0.000046	75	1,050	319,200	-	0.0	-	quantified in S6 above	
	Xfr to 3/8 CR bunker	0.000046	75	1,050	319,200	-	0.0	-	quantified in S6 above	
	Xfr to #4 CR bunker	0.000046	75	1,050	319,200	-	0.0	-	quantified in S6 above	
3/4 CR overhead (OH) bunker	Xfr to truck loadout and/or conv B9	0.000046	75	1,050	319,200	0.000046	0.0	15	no change	
1/2 CR OH bunker	To loadout and/or conv B9	0.000046	75	1,050	319,200	0.000046	0.0	15	no change	
3/8 CR OH bunker	To loadout and/or conv B9	0.000046	75	1,050	319,200	0.000046	0.0	15	no change	
#4 CR OH bunker	To loadout and/or conv B9	0.000046	75	1,050	319,200	0.000046	0.0	15	no change	
B9	Conv xfr to split chute to S3	0.000046	235	3,290	1,000,160	0.000046	0.2	46	no change	
	xfr to B11	0.000046	-	-	-	0.000046	0.0	-	combined into B9 above	
S8A	5x14 triple deck screen	0.000000	141	1,974	600,096	-	0.0	-	no change	
	Xfr to B10	0.000046	94	1,316	400,064	-	0.0	-	quantified in S8A above	
	Xfr to B12	0.000046	47	658	200,032	-	0.0	-	quantified in S8A above	
B10	Conv xfr to 1*G bunker	0.000000	94	1,316	400,064	-	0.0	-	no change	
	1G truck load out bunker	0.000046	94	1,316	400,064	0.000046	0.1	18	no change	
B12	Conv xfr to pile	0.000000	47	658	200,032	-	0.0	-	no change	
B11	Conv (base belt) to base pile	0.000046	47	658	200,032	0.000046	0.0	9	no change	
S53	Sand Screw (44", 25 hp)	0.000000	47	658	200,032	-	0.0	-	wet	
B13	Stacker (15 hp + 5 hp trav.) to Man. Sand Pile	0.000000	47	658	200,032	-	0.0	-	wet	
Total post-project emissions:								57.2	17,463	

Attachment III Process Diagram



Source: APCD Engineering File 1494567

SESPE
CONSULTING, INC.

FIGURE

1

Process Flow Diagram - New Sand

San Emidio Quarry

Kern County, CA

APCD PTO 1538-2

PROJECT #:

VU01

DATE:

7/3/18

SCALE:

no scale

DRAWN BY:

SDC

Attachment IV Emissions Profiles

Permit #: S-1538-1-11	Last Updated
Facility: CALMAT OF CENTRAL CALIFORNIA	06/18/2019 EDGEHILR

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	0.0	0.0	4736.0	0.0	0.0
Daily Emis. Limit (lb/Day)	0.0	0.0	16.6	0.0	0.0
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	-2812.0	0.0	0.0
Q2:	0.0	0.0	-2813.0	0.0	0.0
Q3:	0.0	0.0	-2813.0	0.0	0.0
Q4:	0.0	0.0	-2813.0	0.0	0.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: S-1538-2-8	Last Updated
Facility: CALMAT OF CENTRAL CALIFORNIA	06/18/2019 EDGEHILR

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	0.0	0.0	9777.0	0.0	0.0
Daily Emis. Limit (lb/Day)	0.0	0.0	57.2	0.0	0.0
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	-2909.0	0.0	0.0
Q2:	0.0	0.0	-2909.0	0.0	0.0
Q3:	0.0	0.0	-2909.0	0.0	0.0
Q4:	0.0	0.0	-2910.0	0.0	0.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: S-1538-7-0	Last Updated
Facility: CALMAT OF CENTRAL CALIFORNIA	06/24/2019 EDGEHILR

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	0.0	0.0	75.0	0.0	0.0
Daily Emis. Limit (lb/Day)	0.0	0.0	1.1	0.0	0.0
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	18.0	0.0	0.0
Q2:	0.0	0.0	19.0	0.0	0.0
Q3:	0.0	0.0	19.0	0.0	0.0
Q4:	0.0	0.0	19.0	0.0	0.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: S-1538-8-0	Last Updated
Facility: CALMAT OF CENTRAL CALIFORNIA	07/09/2018 EDGEHILR

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	4708.0	1712.0	616.0	32363.0	4960.0
Daily Emis. Limit (lb/Day)	60.7	22.1	8.6	419.5	74.4
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	1177.0	428.0	154.0	8090.0	1240.0
Q2:	1177.0	428.0	154.0	8091.0	1240.0
Q3:	1177.0	428.0	154.0	8091.0	1240.0
Q4:	1177.0	428.0	154.0	8091.0	1240.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: S-1538-9-0	Last Updated
Facility: CALMAT OF CENTRAL CALIFORNIA	01/24/2019 EDGEHILR

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	0.0	0.0	1924.0	0.0	0.0
Daily Emis. Limit (lb/Day)	0.0	0.0	5.3	0.0	0.0
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	192.0	0.0	0.0
Q2:	0.0	0.0	192.0	0.0	0.0
Q3:	0.0	0.0	193.0	0.0	0.0
Q4:	0.0	0.0	193.0	0.0	0.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: S-1538-10-0	Last Updated
Facility: CALMAT OF CENTRAL CALIFORNIA	06/25/2019 EDGEHILR

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	0.0	0.0	488.0	0.0	0.0
Daily Emis. Limit (lb/Day)	0.0	0.0	19.6	0.0	0.0
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	0.0	0.0	122.0	0.0	0.0
Q2:	0.0	0.0	122.0	0.0	0.0
Q3:	0.0	0.0	122.0	0.0	0.0
Q4:	0.0	0.0	122.0	0.0	0.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Attachment V BACT Guidelines

Best Available Control Technology (BACT) Guideline 6.1.1 Last Update: 1/27/1994

Aggregate Crushing, Screening & Storage Operation - = or > 5,850 tons/day

Pollutant	Achieved in Practice or in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10	Screens served by fabric filter baghouse, all other emission points less than 5% opacity utilizing water spray with chemical additive		

Best Available Control Technology (BACT) Guideline 6.3.1
Last Update: 5/21/2001

Asphaltic Concrete - Drum Mix Plant, = or > 2,000 ton/day or = or > 75.6 MMBtu/hr burner

Pollutant	Achieved in Practice or in the SIP	Technologically Feasible	Alternate Basic Equipment
CO	Natural gas or LPG as a primary fuel.		
NOx	0.088 lb/MMBtu Low-NOx burner and either natural gas or LPG as the primary fuel.		
PM10	99% control efficiency (Rotary drum vents to fabric collector or Venturi scrubber with centrifugal separator) and enclosed conveyors; hot mix storage silos enclosed all vent to oil mist collectors; and natural gas or LPG as a primary fuel.	99% control efficiency (Rotary drum vents to fabric collector or Venturi scrubber with centrifugal separator) and enclosed drag slat conveyor; hot mix storage silos and truck loadout enclosed on two sides; all vent to blue smoke control comprised of electrostatic precipitator or filter pack; and natural gas or LPG as a primary fuel.	
SOx	PUC quality natural gas or LPG as a primary fuel.		
VOC	Natural gas or LPG as a primary fuel; and enclosed hot mix silos and loadout operation vented to	Enclosed hot mix silos and loadout operation vented to an afterburner.	

Pollutant	Achieved in Practice or in the SIP	Technologically Feasible	Alternate Basic Equipment
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the rotary-dryer burner.

Best Available Control Technology (BACT) Guideline 6.1.2
Last Update: 7/31/2018

Sand, Gravel, Aggregate, Recycled Asphalt & Recycled Concrete: Processing, Crushing, Screening and Storage Operations

Pollutant	Achieved in Practice or in the SIP	Technologically Feasible	Alternate Basic Equipment
PM10	1) CRUSHING: Water sprays allowing visible emissions no greater than 12% opacity as measured using EPA Method 9 (Visible Opacity) 2) SCREENING: Water sprays allowing visible emissions no greater than 7% opacity as measured using EPA Method 9 (Visible Opacity) 3) CONVEYORS/TRANSFER POINT: Water sprays allowing visible emissions no greater than 7% opacity as measured using EPA Method 9 (Visible Opacity) 4) STORAGE (PILES): Water sprays allowing visible emissions no greater than 20% opacity as measured using EPA Method 9 (Visible Opacity)	1) CRUSHING: Charged fog spray or water spray with chemical additives 2) STORAGE (PILES): Water spray with chemical suppressant	

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a state implementation plan must be cost effective as well as feasible.

Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

This is a Summary Page for this Class of Source. For background information, see Permit Specific BACT Determinations on Details Page.

Attachment VI BACT Analyses

Top Down BACT Analysis for the Aggregate Stockpile (S-1523-9)

BACT Guideline 6.1.1 applies to the aggregate unloading stockpiles. In accordance with the District BACT policy, information from that guideline will be utilized without further analysis.

1. BACT Analysis for PM10

a. Step 1 - Identify all control technologies

BACT Guideline 6.1.1 identifies the following options:

...emission points less than 5% opacity utilizing water spray with chemical additive

b. Step 2 - Eliminate technologically infeasible options

aggregate coated with chemical additive is not suitable for AC manufacturing; therefore this option is eliminated

c. Step 3 - Rank remaining options by control effectiveness

.....emission points less than 5% opacity utilizing water spray

d. Step 4 - Cost Effectiveness Analysis

The applicant has proposed the only control option remaining under consideration. Therefore, a cost effectiveness analysis is not required.

e. Step 5 - Select BACT

BACT for will be the use of moistened aggregate and less than 5% opacity. Therefore, BACT is satisfied.

Top Down BACT Analysis for the Drum Mixer (S-1538-8)

BACT Guideline 6.3.1 applies to the drum mixer. In accordance with the District BACT policy, information from that guideline will be utilized without further analysis.

Please note that the application was deemed complete on 5/2/18. As such the version of BACT Guideline in effect on 5/8/18 is applicable as discussed below.

1. BACT Analysis for NOx

a. Step 1 - Identify all control technologies

BACT Guideline 6.1.1 identifies the following options:

0.088 lb/MMBtu Low-NOx burner and either natural gas or LPG as the primary fuel.

b. Step 2 - Eliminate technologically infeasible options

The control technology is technologically feasible

c. Step 3 - Rank remaining options by control effectiveness

0.088 lb/MMBtu Low-NOx burner and either natural gas or LPG as the primary fuel.

d. Step 4 - Cost Effectiveness Analysis

The applicant has proposed a NOx emissions rate of 0.044 lb/MMBtu which is lower than 0.088 lb/MMBtu. Therefore, a cost effectiveness analysis is not required.

e. Step 5 - Select BACT

BACT for will be the use of a low-NOx burner (the proposed burner has a NOx EF of 0.044 lb/MMBtu) and natural gas or LPG as the primary fuel. The applicant is proposing such a control. Therefore, BACT is satisfied.

2. BACT Analysis for SOx

a. Step 1 - Identify all control technologies

BACT Guideline 6.1.1 identifies the following options:

PUC quality natural gas or LPG as a primary fuel.

b. Step 2 - Eliminate technologically infeasible options

the control technology is technologically feasible

c. Step 3 - Rank remaining options by control effectiveness

PUC quality natural gas or LPG as a primary fuel.

d. Step 4 - Cost Effectiveness Analysis

The applicant has proposed the listed control option. Therefore, a cost effectiveness analysis is not required.

e. Step 5 - Select BACT

BACT for will be the use PUC quality natural gas or LPG as a primary fuel. The applicant is proposing such a control. Therefore, BACT is satisfied.

3. BACT Analysis for PM10

a. Step 1 - Identify all control technologies

BACT Guideline 6.1.1 identifies the following options:

99% control efficiency (Rotary drum vents to fabric collector or Venturi scrubber with centrifugal separator) vented to blue smoke control comprised of electrostatic precipitator or filter pack; and natural gas or LPG as a primary fuel. (Technologically Feasible)

99% control efficiency (Rotary drum vents to fabric collector or Venturi scrubber with centrifugal separator) and enclosed conveyors; and natural gas or LPG as a primary fuel. (Achieved in Practice)

b. Step 2 - Eliminate technologically infeasible options

All of the listed control technologies are technologically feasible

c. Step 3 - Rank remaining options by control effectiveness

99% control efficiency (Rotary drum vents to fabric collector or Venturi scrubber with centrifugal separator) vented to blue smoke control comprised of electrostatic precipitator or filter pack; and natural gas or LPG as a primary fuel. (Technologically Feasible)

99% control efficiency (Rotary drum vents to fabric collector or Venturi scrubber with centrifugal separator) and enclosed conveyors; and natural gas or LPG as a primary fuel. (Achieved in Practice)

d. Step 4 - Cost Effectiveness Analysis

The applicant has proposed a control equivalent to the most effective option. Therefore, a cost effectiveness analysis is not required.

e. Step 5 - Select BACT

Pursuant to the referenced BACT Guideline 6.3.1, the most stringent control technique for PM₁₀ emissions is the following: (a). Vent the rotary drum dryer to a fabric collector or venturi scrubber with a centrifugal separator (99% control efficiency); (b). Enclosed drag slat conveyor; (c). Hot mix storage silos and truck loadout enclosed on two sides all vented to a blue smoke control device comprised of an electrostatic precipitator or filter pack; (d). Natural gas or LPG as a primary

fuel. The applicant is proposing to vent the drum dryer into a baghouse, use an enclosed drag slat conveyor, hot mix storage silo and truck loadout (enclosed on two sides) are vented to the burner of the rotary drum dryer burner, which is vented through a fabric filter baghouse, and use either natural gas or propane fuel. For the hot mix storage silos and truck loadout, the applicant is not proposing the use a blue smoke control device comprised of an electrostatic precipitator or filter pack. However, the applicant is proposing to vent the storage silo and truck loadout into the rotary drum dryer/mixer, which is vented through a fabric filter baghouse with a control efficiency equivalent to that of a blue smoke control device utilizing a filter pack. Therefore, the applicant is proposing an equivalent control method for the hot mix storage silo and truck loadout. The applicant is proposing the use of the most stringent control technique and BACT for PM₁₀ is being proposed. No further analysis is required for PM₁₀ emissions.

4. BACT Analysis for VOC

a. Step 1 - Identify all control technologies

BACT Guideline 6.3.1 identifies the following options:

Enclosed hot mix silos and loadout operation vented to an afterburner.
(Technologically Feasible)

Natural gas or LPG as a primary fuel; and enclosed hot mix silos and loadout operation vented to the rotary-dryer burner. (Achieved in Practice)

b. Step 2 - Eliminate technologically infeasible options

All of the listed control technologies are technologically feasible

c. Step 3 - Rank remaining options by control effectiveness

Enclosed hot mix silos and loadout operation vented to an afterburner.
(Technologically Feasible)

Natural gas or LPG as a primary fuel; and enclosed hot mix silos and loadout operation vented to the rotary-dryer burner. (Achieved in Practice)

d. Step 4 - Cost Effectiveness Analysis

The following cost effectiveness analysis was provided in project 1153558 (ATCs S-8623-2-0 and '-3-0). Applicant has provided a statement from an equipment manufacturer stating that costs for a VOC afterburner have increased by approximately 15%. Therefore the project 1153558 afterburner cost (below) is conservatively low.

Cost Effective Threshold:

The District's BACT Policy establishes annual cost thresholds for imposed control based upon the amount of pollutants abated by the controls. If the cost of control is at or below the threshold, the control is considered cost effective. If the cost exceeds the threshold, it is not cost effective and the control is not required. The cost effective threshold for VOC is \$17,500/ton (Revised BACT Cost Effectiveness Thresholds, dated May 14, 2008).

Industry Standard Emissions:

Industry standard emissions are considered to be what is available to the industry as standard equipment. For asphaltic concrete manufacturing plants, the industry standard is to not use any type of VOC capture and control equipment. The uncontrolled Industry Standard Emissions (ISE) will be calculated based on the applicant's proposed annual processing rate limit and the uncontrolled emission factors for silo filling and truck loadout as indicated in Section VII.B. of this document. Therefore:

Processing Rate: 400,000 ton/year
EF_{VOC/Silo Filling (Uncontrolled)}: 0.0122 lb-VOC/ton
EF_{VOC/Loadout (Uncontrolled)}: 0.00416 lb-VOC/ton

$$\begin{aligned}\text{Annual ISE}_{\text{voc}} &= \text{Processing Rate (ton/year)} \times [\text{EF}_{\text{VOC/Silo Filling (Uncontrolled)}} \text{ (lb/ton)} \\ &\quad + \text{EF}_{\text{VOC/Loadout (Uncontrolled)}} \text{ (lb/ton)}] \\ &= 400,000 \text{ ton/year} \times [0.0122 \text{ lb-VOC/ton} + 0.00416 \text{ lb-VOC/ton}] \\ &= 6,544 \text{ lb-VOC/year}\end{aligned}$$

1st Most Effective Control Option:

Use of natural gas or LPG as a primary fuel and enclosed hot mix silos and loadout operation vented to an afterburner. – 98% Control Efficiency.

(A). Emission Reduction:

Based on the above determined industry standard emissions and assuming a VOC capture efficiency of 100% and incinerator destruction efficiency of 98%, the amount of VOC emissions reduced is calculated below.

$$\begin{aligned}\text{VOC Emission Reductions} &= \text{Annual ISE}_{\text{voc}} \times 1 \text{ tons}/2,000 \text{ lb} \times \text{Overall Control Eff.} \\ &= 6,544 \text{ lb/year} \times 1 \text{ tons}/2,000 \text{ lb} \times 0.98 \\ &= 3.2 \text{ ton/year}\end{aligned}$$

(B). Annualized Capital Investment to Purchase and Install an Afterburner:

The following capital cost estimate for an afterburner serving the proposed asphaltic concrete storage silos and truck loadout is from project C1150592 (6/25/15).

Equipment Cost = \$540,987
Taxes (8% of equipment cost) = \$43,278.96
Installation Cost = \$50,000

Shipping Costs = \$14,000

Total Capital Investment = Equipment Cost + Taxes + Installation Cost
+ Shipping Costs
= \$540,987 + \$43,278.96 + \$50,000 + \$14,000
= \$648,266

Pursuant to District Policy APR 1305, Section X. (11/09/99), the annual cost of the afterburner system will be calculated as follows. The cost will be spread over the expected life of the incineration system, which is estimated at 10 years and using the capital recovery equation (Equation 1). A 10% interest rate is assumed in the equation and the assumption will be made that the equation has no salvage value at the end of the ten-year cycle.

Equation 1: $ACI = [P \times i(1+i)^n]/[(1+i)^n - 1]$

Where: ACI = Annualized Capital Investment
P = Present Value
I = Interest Rate (10%)
N = Equipment Life (10 years)

$ACI_{\text{Afterburner}} = [\$648,266 \times 0.1(1.1)^{10}]/[(1.1)^{10} - 1] = \$105,502/\text{year}$

(C). Cost Effectiveness of an Afterburner:

Cost Effectiveness_{Afterburner}

= Annualized Capital Investment (\$/year) ÷ Annual Emission Reduction (ton/year)
= \$105,502/year ÷ 3.2 ton VOC/year
= \$32,969/ton

The cost effectiveness of utilizing an afterburner to capture and control VOC emissions is greater than the VOC cost effectiveness threshold of \$17,500/ton. Therefore, this VOC control option is not cost effective and is being removed from consideration at this time.

2nd Most Effective Control Option:

Use of natural gas or LPG as a primary fuel and enclosed hot mix silos and loadout operation vented to the rotary drum dryer burner. – 30% Control Efficiency.

The applicant is proposing to utilize natural gas as a primary fuel and enclosed hot mix silos and loadout operation vented to the rotary drum dryer burner. Therefore, the applicant is proposing this control option and a cost effectiveness analysis is not required.

Step 5 - Select BACT

The applicant will meet the remaining 2nd most effective control option (Achieved-In-Practice) BACT by using natural gas as a primary fuel and venting the hot mix silo and loadout operation to the rotary drum dryer burner for VOC emissions control.

S-1538-10 Top Down BACT Analysis for the Crushing and Screening Operation

Step 1 - Identify All Possible Control Technologies

1. **CRUSHING: Charged fog spray or water spray with chemical additives (Alternate Basic Equipment)**
2. **CRUSHING: Water sprays allowing visible emissions no greater than 12% opacity as measured using EPA Method 9 (Visible Opacity) (Achieved in Practice)**
3. **SCREENING: Water sprays allowing visible emissions no greater than 7% opacity as measured using EPA Method 9 (Visible Opacity) (Achieved in Practice)**
4. **CONVEYORS/TRANSFER POINT: Water sprays allowing visible emissions no greater than 7% opacity as measured using EPA Method 9 (Visible Opacity) (Achieved in Practice)**

Step 2 - Eliminate Technologically Infeasible Options

Water spray with chemical additives results in residue buildup in the crushers as well as downstream equipment. The control efficiency of water spray is equal to charged fog spray. Note that charged fog spray systems use less water than water streams and are sometimes used in crushers to minimize water exposure and consequent damage to the crusher's moving parts. Therefore, charged fog spray or water spray with chemical additives are eliminated.

Step 3 - Rank Remaining Control Technologies

1. **CRUSHING: Water sprays allowing visible emissions no greater than 12% opacity as measured using EPA Method 9 (Visible Opacity) (Achieved in Practice)**
2. **SCREENING: Water sprays allowing visible emissions no greater than 7% opacity as measured using EPA Method 9 (Visible Opacity) (Achieved in Practice)**
3. **CONVEYORS/TRANSFER POINT: Water sprays allowing visible emissions no greater than 7% opacity as measured using EPA Method 9 (Visible Opacity) (Achieved in Practice)**

Step 4 - Cost Effectiveness Analyses

The applicant's proposed use of "controlled" emission factors requires that visible emissions will meet BACT requirements. Therefore, BACT has been proposed; therefore, a cost effectiveness analysis is not required.

Step 5 - Select BACT

Water sprays for crushing, screening and conveyor transfer points allowing visible emissions no greater than BACT 6.1.2's opacity limits.

**Attachment VII
AAQA/HRA**



San Joaquin Valley Air Pollution Control District Risk Management Review and Ambient Air Quality Analysis

To: Richard Edgehill – Permit Services
 From: Will Worthley – Technical Services
 Date: June 27, 2019
 Facility Name: CALMAT OF CENTRAL CALIFORNIA
 Location: 16101 HIGHWAY 166, BAKERSFIELD
 Application #(s): S-1538-1-11, -2-8, -7-0, -8-0, -9-0
 Project #: S-1180660/1181013

1. Summary

1.1 RMR

Units	Prioritization Score	Acute Hazard Index	Chronic Hazard Index	Maximum Individual Cancer Risk	T-BACT Required	Special Permit Requirements
1-11	0.00	0.00	0.00	0.00E+00	No	No
2-8	0.00	0.00	0.00	0.00E+00	No	No
7-0	0.01	0.00	0.00	1.33E-09	No	No
8-0	0.75	0.03	0.00	1.30E-07	No	Yes
9-0	0.01	0.00	0.00	1.42E-08	No	No
10-0	0.02	0.01	0.00	3.38E-08	No	No
Project Totals	0.79	0.04	0.01	1.79E-07		
Facility Totals	>1	0.04	0.01	14.5E-06		

1.2 AAQA

Pollutant	Air Quality Standard (State/Federal)				
	1 Hour	3 Hours	8 Hours	24 Hours	Annual
CO	Pass		Pass		
NO _x	Pass				Pass
SO _x	Pass	Pass		Pass	Pass
PM10				Pass	Pass
PM2.5				Pass	Pass

Notes:

- Results were taken from the attached AAQA Report.
- The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2) unless otherwise noted below.
- Modeled PM10 concentrations were below the District SIL for fugitive sources of 10.4 µg/m³ for the 24-hour average concentration and 2.08 µg/m³ for the annual concentration.
- Modeled PM2.5 concentrations were below the District SIL for fugitive sources of 2.5 µg/m³ for the 24-hour average concentration and 0.63 µg/m³ for the annual concentration.

To ensure that human health risks will not exceed District allowable levels; the following shall be included as requirements for:

Unit # 1-11, 2-8, 7-0, 9-0, & 10-0

1. No special requirements.

Unit # 8-0

1. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction.

2. Project Description

Technical Services received a request on June 26, 2019 to perform a Risk Management Review (RMR) and Ambient Air Quality Analysis (AAQA) for the following:

- Unit -1-11: MODIFICATION OF CRUSHING OPERATION INCLUDING VIBRATING GRIZZLY FEEDER, NORDBERG MODEL C140 JAW CRUSHER AND FIVE CONVEYORS: REVISE EMISSIONS FACTOR
- Unit -2-8: MODIFICATION OF SECONDARY CRUSHING AND SCREENING OPERATION INCLUDING TWO CONE CRUSHERS WITH WATER SPRAYS, THREE FEED HOPPERS, 22 CONVEYORS, FOUR DOUBLE DECK SCREENS, AND A WASH PLANT CONSISTING OF CONVEYORS, SCREENS, A SAND SCREW, AND PILES: REVISE PM10 EMISSIONS, ADD SAND SCREW AND STACKER CONVEYOR IN WET SERVICE
- Unit -7-0: AGGREGATE UNLOADING INCLUDING RECEIVING HOPPER, CONVEYORS AND RADIAL STACKER (FORMER S-8623-2)
- Unit -8-0: HOT MIX ASPHALTIC CONCRETE DRUM MIX PLANT INCLUDING FIVE COLD FEED AGGREGATE BINS EACH WITH A FEED BELT CONVEYOR, TWO RAP BINS EACH WITH A FEED BELT CONVEYOR, ONE AGGREGATE COLLECTING CONVEYOR FEEDING A VIBRATING SCREEN WITH A DRUM MIXER FEED CONVEYOR, ONE RAP COLLECTING CONVEYOR FEEDING A VIBRATING SCREEN WITH A DRUM MIXER FEED CONVEYOR, ONE 107 MMBTU/HR NATURAL GAS OR PROPANE FIRED GENCOR ULTRADRUM MODEL 400 (9'9"X44'L) DRUM DRYER/MIXER WITH A LOW-NOX BURNER VENTED TO A GENCOR MODEL CFP-182 BAGHOUSE, ONE ENCLOSED DRAG SLAT CONVEYOR AND ONE 100-TON ASPHALT CONCRETE STORAGE SILO VENTED TO THE DRUM DRYER BURNER AND A TRUCK LOADOUT VENTED TO THE DRUM DRYER BURNER (FORMERLY S-8623-3)
- Unit -9-0: SAND AND AGGREGATE STORAGE PILES
- Unit -10-0: RECYCLABLE CONSTRUCTION MATERIALS PROCESSING OPERATION CONSISTING OF A FEED HOPPER, UP TO TWO CRUSHERS, UP TO TWO MULTIDECK SCREENS, UP TO 12 CONVEYORS, UP TO THREE STACKERS, AND ASSOCIATED STORAGE PILES

3. RMR Report

3.1 Analysis

The District performed an analysis pursuant to the District's Risk Management Policy for Permitting New and Modified Sources (APR 1905, May 28, 2015) to determine the possible cancer and non-cancer health impact to the nearest resident or worksite. This policy requires that

an assessment be performed on a unit by unit basis, project basis, and on a facility-wide basis. If a preliminary prioritization analysis demonstrates that:

- A unit's prioritization score is less than the District's significance threshold and;
- The project's prioritization score is less than the District's significance threshold and;
- The facility's total prioritization score is less than the District's significance threshold

Then, generally no further analysis is required.

The District's significant prioritization score threshold is defined as being equal to or greater than 1.0. If a preliminary analysis demonstrates that either the unit(s) or the project's or the facility's total prioritization score is greater than the District threshold, a screening or a refined assessment is required

If a refined assessment is greater than one in a million but less than 20 in one million for carcinogenic impacts (Cancer Risk) and less than 1.0 for the Acute and Chronic hazard indices (Non-Carcinogenic) on a unit by unit basis, project basis and on a facility-wide basis the proposed application is considered less than significant. For unit's that exceed a cancer risk of 1 in one million, Toxic Best Available Control Technology (TBACT) must be implemented.

Toxic emissions for this project were calculated using the following methods:

- Toxic emissions from the project were calculated using emission factors from the table, "DEFAULT VALUES - TRACE METAL CONCENTRATIONS" in the November 1998 San Diego Air Pollution Control District document, Aggregate Crushing Operations. Respirable Silica emissions were calculated using emission factors derived from the 2009 technical paper from the Journal of Air and Waste Management Association (JAWA), PM₄ Crystalline Silica Emission Factors and Ambient Concentrations at Aggregate-Producing Sources in California.
- Toxic emissions from the project were calculated using emission factors from the table, "DEFAULT VALUES - Material Storage" in the December 1998 San Diego Air Pollution Control District document, Open Material Storage Areas.
- Toxic emissions from the project were calculated using emission factors from tables 11.1-10 (pg. 21) and 11.1-12 (pg. 30) in March 2004 AP 42 Chapter 11 Mineral Products Industry, Section 1 Hot Mix Asphalt Plants.
- Toxic emissions from the dust in this Landfill is derived from emission factors based on CARB PM Species Profile #421 from the 1989 Report, Determination of Particle Size Distribution and Chemical Composition of Particulate Matter from Selected Sources in California.

These emissions were input into the San Joaquin Valley APCD's Hazard Assessment and Reporting Program (SHARP). In accordance with the District's Risk Management Policy, risks from the proposed unit's toxic emissions were prioritized using the procedure in the 2016 CAPCOA Facility Prioritization Guidelines. The prioritization score for this proposed facility was greater than 1.0 (see RMR Summary Table). Therefore, a refined health risk assessment was required.

The AERMOD model was used, with the parameters outlined below and meteorological data for 2013-2017 from Conner (rural dispersion coefficient selected) to determine the dispersion factors (i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid. These dispersion factors were input into the SHARP Program, which then used the Air Dispersion Modeling and Risk Tool (ADMRT) of the Hot Spots Analysis and Reporting

Program Version 2 (HARP 2) to calculate the chronic and acute hazard indices and the carcinogenic risk for the project.

The following parameters were used for the review:

Source Process Rates					
Unit ID	Process ID	Process Material	Process Units	Hourly Process Rate	Annual Process Rate
7	1	PM10	LB	0.1375	75
8	1	Asphalt Produced	Tons	250	400000
9	1	PM10	LB	0.086	770
10	1	PM10	LB	1.36	488

Area Source Parameters					
Unit ID	Unit Description	Release Height (m)	X-Length (m)	Y -Length (m)	Area (m ²)
7	Aggregate Unloading	4.57	91.00	91.00	8281.00
10	Construction Material Processing	2.00	0.50	0.50	0.25

Polygon Area Source Parameters				
Unit ID	Unit Description	Release Height (m)	No. Vertices	Area (m ²)
9	Aggregate Piles	1.00	14	544158

Point Source Parameters						
Unit ID	Unit Description	Release Height (m)	Temp. (°K)	Exit Velocity (m/sec)	Stack Diameter (m)	Vertical/ Horizontal/ Capped
8	Asphalt Concrete Drum Plant	9.90	436	22.33	1.55	Vertical

4. AAQA Report

The District modeled the impact of the proposed project on the National Ambient Air Quality Standard (NAAQS) and/or California Ambient Air Quality Standard (CAAQS) in accordance with District Policy APR-1925 (Policy for District Rule 2201 AAQA Modeling) and EPA's Guideline for Air Quality Modeling (Appendix W of 40 CFR Part 51). The District uses a progressive three level approach to perform AAQAs. The first level (Level 1) uses a very conservative approach. If this analysis indicates a likely exceedance of an AAQS or Significant Impact Level (SIL), the analysis proceeds to the second level (Level 2) which implements a more refined approach. For the 1-hour NO₂ standard, there is also a third level that can be implemented if the Level 2 analysis indicates a likely exceedance of an AAQS or SIL.

The modeling analyses predicts the maximum air quality impacts using the appropriate emissions for each standard's averaging period. Required model inputs for a refined AAQA include background ambient air quality data, land characteristics, meteorological inputs, a receptor grid,

and source parameters including emissions. These inputs are described in the sections that follow.

Ambient air concentrations of criteria pollutants are recorded at monitoring stations throughout the San Joaquin Valley. Monitoring stations may not measure all necessary pollutants, so background data may need to be collected from multiple sources. The following stations were used for this evaluation:

Monitoring Stations				
Pollutant	Station Name	County	City	Measurement Year
CO	Arvin - Di Giorgio	Kern	Arvin	2016
NOx	Bakersfield-California Avenue	Kern	Bakersfield	2016
PM10	Bakersfield-California Avenue	Kern	Bakersfield	2016
PM2.5	BAKERSFIELD - SOUTHEAST (PLANZ)	Kern	Bakersfield	2016
SOx	Fresno - Garland	Fresno	Fresno	2016

Technical Services performed modeling for directly emitted criteria pollutants with the emission rates below:

Emission Rates (lbs/hour)						
Unit ID	Process	NOx	SOx	CO	PM10	PM2.5
7	1	0	0	0	0.1375	0.1375
8	1	0.54	0.20	3.69	0.07	0.07
9	1	0	0	0	0.09	0.09
10	1	0	0	0	1.36	0.16

Emission Rates (lbs/year)						
Unit ID	Process	NOx	SOx	CO	PM10	PM2.5
7	1	0	0	0	75	75
8	1	4,708	1,712	32,363	616	616
9	1	0	0	0	770	770
10	1	0	0	0	488	57

The AERMOD model was used to determine if emissions from the project would cause or contribute to an exceedance of any state of federal air quality standard. The parameters outlined below and meteorological data for 2013-2017 from Conner (rural dispersion coefficient selected) were used for the analysis:

The following parameters were used for the review:

Area Source Parameters					
Unit ID	Unit Description	Release Height (m)	X-Length (m)	Y-Length (m)	Area (m ²)
7	Unit 7	4.57	91.00	91.00	8281.00
10	Unit 10	2.00	0.50	0.50	0.25

Polygon Area Source Parameters				
Unit ID	Unit Description	Release Height (m)	No. Vertices	Area (m ²)
9	Unit 9	1.00	14	544158

Point Source Parameters						
Unit ID	Unit Description	Release Height (m)	Temp. (°K)	Exit Velocity (m/sec)	Stack Diameter (m)	Vertical/ Horizontal/ Capped
8	Unit 8	9.90	436	22.33	1.55	Vertical

5. Conclusion

5.1 RMR

Unit 8-0

The cumulative acute and chronic indices for this facility, including this project, are below 1.0; and the cumulative cancer risk for this facility, including this project, is less than 20 in a million. However, the cancer risk for one or more units in this project is greater than 1.0 in a million. **In accordance with the District's Risk Management Policy, the project is approved with Toxic Best Available Control Technology (T-BACT).**

Units 1-11, 2-8, 7-0, 9-0, & 10-0

The cumulative acute and chronic indices for this facility, including this project, are below 1.0; and the cumulative cancer risk for this facility, including this project, is less than 20 in a million. In addition, the cancer risk for each unit in this project is less than 1.0 in a million. **In accordance with the District's Risk Management Policy, the project is approved without Toxic Best Available Control Technology (T-BACT).**

To ensure that human health risks will not exceed District allowable levels; the permit requirements listed on page 1 of this report must be included for this proposed unit.

These conclusions are based on the data provided by the applicant and the project engineer. Therefore, this analysis is valid only as long as the proposed data and parameters do not change.

5.2 AAQA

The emissions from the proposed equipment will not cause or contribute significantly to a violation of the State and National AAQS.

6. Attachments

- A. Modeling request from the project engineer
- B. Additional information from the applicant/project engineer
- C. Prioritization score w/ toxic emissions summary
- D. Facility Summary
- E. AAQA results

Attachment VIII
Draft ATCs

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1538-1-11

LEGAL OWNER OR OPERATOR: CALMAT OF CENTRAL CALIFORNIA
MAILING ADDRESS: ATTN: SENIOR ENVIRONMENTAL SPECIALIST
500 N BRAND BLVD STE 500
GLENDALE, CA 91203

LOCATION: 16101 HIGHWAY 166
BAKERSFIELD, CA 93311

SECTION: 13 TOWNSHIP: 11N RANGE: 21W

EQUIPMENT DESCRIPTION:

MODIFICATION OF CRUSHING OPERATION INCLUDING VIBRATING GRIZZLY FEEDER, NORDBERG MODEL C140 JAW CRUSHER AND FIVE CONVEYORS: REVISE EMISSIONS FACTOR AND LOWER ANNUAL THROUGHPUT

CONDITIONS

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged which is dark or darker than 5% opacity from all crushing and conveying equipment associated with this permit. [District Rule 2201]
3. All haul roads and other roadways traversed by mobile equipment and/or motor vehicles shall be adequately moistened with chemical dust suppressant and/or water at such a frequency as required to prevent visible emissions equal to or in excess of 20% opacity from such roads. [District Rule 4101]
4. All material transfer points shall be enclosed by open-topped windshield boxes. [District Rule 2201]
5. Moisture content of processed material shall not be less than 4% by weight. [District Rule 2201]
6. Aggregate material processed throughout the facility shall have a moisture content of at least 4.0% by weight. The percent moisture shall be determined by weighing an approximately 2-lb sample of aggregate from any point of the operation, bringing the sample to dryness in a drying oven, then weighing the dried sample; the weight difference is the moisture content. [District Rule 2201]
7. Process weight rate for Nordberg crusher shall not exceed 14,400 tons per day. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director, APCO

DRAFT

Arnaud Marjolle, Director of Permit Services
S-1538-1-11 - Oct 14 2016 12:51PM - EDG/HLR - Joint Inspection NOT Required

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1538-1-11

LEGAL OWNER OR OPERATOR: CALMAT OF CENTRAL CALIFORNIA
MAILING ADDRESS: ATTN: SENIOR ENVIRONMENTAL SPECIALIST
500 N BRAND BLVD STE 500
GLENDALE, CA 91203

LOCATION: 16101 HIGHWAY 166
BAKERSFIELD, CA 93311

SECTION: 13 TOWNSHIP: 11N RANGE: 21W

EQUIPMENT DESCRIPTION:

MODIFICATION OF CRUSHING OPERATION INCLUDING VIBRATING GRIZZLY FEEDER, NORDBERG MODEL C140
JAW CRUSHER AND FIVE CONVEYORS: REVISE EMISSIONS FACTOR AND LOWER ANNUAL THROUGHPUT

CONDITIONS

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged which is dark or darker than 5% opacity from all crushing and conveying equipment associated with this permit. [District Rule 2201]
3. All haul roads and other roadways traversed by mobile equipment and/or motor vehicles shall be adequately moistened with chemical dust suppressant and/or water at such a frequency as required to prevent visible emissions equal to or in excess of 20% opacity from such roads. [District Rule 4101]
4. All material transfer points shall be enclosed by open-topped windshield boxes. [District Rule 2201]
5. Moisture content of processed material shall not be less than 4% by weight. [District Rule 2201]
6. Aggregate material processed throughout the facility shall have a moisture content of at least 4.0% by weight. The percent moisture shall be determined by weighing an approximately 2-lb sample of aggregate from any point of the operation, bringing the sample to dryness in a drying oven, then weighing the dried sample; the weight difference is the moisture content. [District Rule 2201]
7. Process weight rate for Nordberg crusher shall not exceed 14,400 tons per day. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director, APCO

DRAFT

Arnaud Marjolle, Director of Permit Services

S-1538-1-11 - Oct 14 2010 12:51PM - EDOEHLR - Joint Inspection NOT Required

8. Process weight rate introduced to entire permit unit shall not exceed any of the following: 29,664 tons per day or 6,000,000 tons/yr. [District Rule 2201]
9. PM10 emission rate shall not exceed 0.00054 lb/ton from the Nordberg crusher or 0.000048 lb/ton from any conveyor transfer point. [District Rule 2201]
10. Permittee shall comply with all applicable New Source Performance Standard (NSPS) subpart OOO reporting and recordkeeping requirements. [District Rule 4001]
11. Permittee shall keep accurate records of aggregate throughput on a daily basis and make such records readily available for District inspection for a period of at least 5 years. [District Rule 2201]

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1538-2-8

LEGAL OWNER OR OPERATOR: CALMAT OF CENTRAL CALIFORNIA
MAILING ADDRESS: ATTN: SENIOR ENVIRONMENTAL SPECIALIST
500 N BRAND BLVD STE 500
GLENDALE, CA 91203

LOCATION: 16101 HIGHWAY 166
BAKERSFIELD, CA 93311

SECTION: 13 TOWNSHIP: 11N RANGE: 21W

EQUIPMENT DESCRIPTION:

MODIFICATION OF SECONDARY CRUSHING AND SCREENING OPERATION INCLUDING TWO CONE CRUSHERS WITH WATER SPRAYS, THREE FEED HOPPERS, 22 CONVEYORS, FOUR DOUBLE DECK SCREENS, AND A WASH PLANT CONSISTING OF CONVEYORS, SCREENS, A SAND SCREW, AND PILES: REVISE PM10 EMISSIONS, ADD SAND SCREW AND STACKER CONVEYOR IN WET SERVICE AND LOWER ANNUAL THROUGHPUT

CONDITIONS

1. Screen S9A shall be equipped with operational water sprays and only receive and process material from the wash plant. [District Rule 2201]
2. All transfer points handling material with product moisture content less than 6% moisture content by weight shall be equipped with operational water spray bars. [District Rule 2201]
3. Crushers shall be equipped with operational wet suppression systems maintaining minimum product moisture content of 4% by weight. [District Rule 2201]
4. Feed hopper H72A shall be equipped with operational wet suppression system or shall maintain minimum product moisture content of 4% by weight. [District Rule 2201]
5. Operator shall not cause to be discharged into the atmosphere from feed hopper H72A any fugitive emissions which exhibit greater than 5 percent opacity for three minutes in any one hour. [District Rules 2201 and 4101]
6. Operator shall not cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility, including screens (excluding crushers) any fugitive emissions which exhibit greater than 10 percent opacity for three minutes in any one hour. [District Rules 4001, 60.672(b), and 4101]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director / APCO

DRAFT

Arnaud Marjollet, Director of Permit Services
6-1538-2-8 : Oct 14 2019 12:51PM - EDGEKLR : Joint Inspection NOT Required

7. Operator shall not cause to be discharged into the atmosphere from any crusher any fugitive emissions which exhibit greater than 15% opacity for three minutes in any one hour. [District Rules 4001, 60.672(c), and 4101]
8. Operator shall not cause to be discharged into the atmosphere from any equipment or operations utilized in the wash plant, fugitive emissions which exhibit greater than 5% opacity for three minutes in any one hour. [District Rules 2201 and 4401]
9. Wash plant includes tower 3 and downstream equipment through stackout conveyors B24, B26B, and B29. [District Rule 2201]
10. Emission factors for PM10 (from equipment outside of the wash plant) shall not exceed the following: 0.0005 lb/ton for feed hopper H72A, 0.00074 lb/ton for screens, 0.00054 lb/ton for crushers, and 0.000046 lb/ton for conveyor transfer points [District Rule 2201]
11. Emissions shall not exceed 57.2 lb/day or 9,777 lb/yr PM10. [District Rule 2201]
12. Throughput of screen S1 shall not exceed any of the following: 35,252 tons per day or 6,000,000 tons/yr. Throughput of hopper H72A shall not exceed 6,160 tons per day. [District Rule 2201]
13. Permittee shall keep accurate records of screen S1 and hopper H72A throughputs on a daily basis and make such records readily available for District inspection for a period of at least 5 years. [District Rule 2201]

DRAFT

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1538-7-0

LEGAL OWNER OR OPERATOR: CALMAT OF CENTRAL CALIFORNIA
MAILING ADDRESS: ATTN: SENIOR ENVIRONMENTAL SPECIALIST
500 N BRAND BLVD STE 500
GLENDALE, CA 91203

LOCATION: 16101 HIGHWAY 166
BAKERSFIELD, CA 93311

EQUIPMENT DESCRIPTION:
AGGREGATE UNLOADING INCLUDING RECEIVING HOPPER, CONVEYORS AND RADIAL STACKER

CONDITIONS

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. No air contaminant shall be discharged which is dark or darker than 5% opacity from all crushing and conveying equipment associated with this permit. [District Rule 2201]
3. All haul roads and other roadways traversed by mobile equipment and/or motor vehicles shall be adequately moistened with chemical dust suppressant and/or water at such a frequency as required to prevent visible emissions equal to or in excess of 20% opacity from such roads. [District Rule 4101]
4. Aggregate material processed throughout the facility shall have a moisture content of at least 1.5% by weight. The percent moisture shall be determined by weighing an approximately 2-lb sample of aggregate from any point of the operation, bringing the sample to dryness in a drying oven, then weighing the dried sample; the weight difference is the moisture content. [District Rule 2201]
5. Process weight rate introduced to entire permit unit shall not exceed 5,640 tons per day nor 376,000 ton/year. [District Rule 2201]
6. PM10 emission rate shall not exceed any of the following: 0.000016 lb/ton from loading the grizzly bin and 0.000046 lb/ton from any conveyor transfer point. [District Rule 2201]
7. Permittee shall keep accurate records of aggregate throughput on a daily basis and make such records readily available for District inspection for a period of at least 5 years. [District Rule 2201]

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-6500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director / APCO

DRAFT

Arnaud Marjolle, Director of Permit Services
S-1538-7-0, Oct 14 2019 12:51 PM - EDG/EHLR - Joint Inspection NOT Required

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1538-8-0

LEGAL OWNER OR OPERATOR: CALMAT OF CENTRAL CALIFORNIA
MAILING ADDRESS: ATTN: SENIOR ENVIRONMENTAL SPECIALIST
500 N BRAND BLVD STE 500
GLENDALE, CA 91203

LOCATION: 16101 HIGHWAY 166
BAKERSFIELD, CA 93311

EQUIPMENT DESCRIPTION:

HOT MIX ASPHALTIC CONCRETE DRUM MIX PLANT INCLUDING FIVE COLD FEED AGGREGATE BINS EACH WITH A FEED BELT CONVEYOR, TWO RAP BINS EACH WITH A FEED BELT CONVEYOR, ONE AGGREGATE COLLECTING CONVEYOR FEEDING A VIBRATING SCREEN WITH A DRUM MIXER FEED CONVEYOR, ONE RAP COLLECTING CONVEYOR FEEDING A VIBRATING SCREEN WITH A DRUM MIXER FEED CONVEYOR, ONE 107 MMBTU/HR NATURAL GAS OR PROPANE FIRED GENCOR ULTRADRUM MODEL 400 (9'9"X44'L) DRUM DRYER/MIXER WITH A LOW-NOX BURNER VENTED TO A GENCOR MODEL CFP-182 BAGHOUSE, ONE ENCLOSED DRAG SLAT CONVEYOR AND ONE 100-TON ASPHALT CONCRETE STORAGE SILO VENTED TO THE DRUM DRYER BURNER AND A TRUCK LOADOUT VENTED TO THE DRUM DRYER BURNER

CONDITIONS

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. All haul roads and other roadways traversed by mobile equipment and/or motor vehicles shall be adequately moistened with chemical dust suppressant and/or water at such a frequency as required to prevent visible emissions equal to or in excess of 20% opacity from such roads. [District Rule 4101]
4. {271} All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
5. Neither cutback, slow cure, or emulsified concrete products (as defined in District Rule 4641, Sections 3.2, 3.4, 3.10, and 5.1) shall be utilized or produced at this facility. [District Rule 4641]

CONDITIONS CONTINUE ON NEXT PAGE

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Samir Sheikh, Executive Director / APCO

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Arnaud Marjolle, Director of Permit Services

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6. Visible emissions from the baghouse serving the asphaltic concrete rotary drum dryer/mixer shall not equal or exceed 5% opacity for a period or periods aggregating more than three minutes in any one hour. [District Rule 2201]
7. The exhaust stack of the baghouse and drum dryer/mixer shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (a flapper type rain cap is acceptable), roof overhang, or any other obstruction. [District Rule 4102]
8. The baghouse shall be equipped with a pressure differential gauge to indicate the pressure drop across the bags. The gauge shall be maintained in good working condition at all times and shall be located in an easily accessible location. [District Rule 2201]
9. Replacement bags numbering at least 10% of the total number of bags in the largest baghouse using each type of bag shall be maintained on the premises. [District Rule 2201]
10. Material removed from the baghouse shall be disposed of in a manner preventing entrainment into the atmosphere. [District Rule 2201]
11. The baghouse cleaning frequency and duration shall be adjusted to optimize the control efficiency. [District Rule 2201]
12. This unit is subject to the requirements of 40 CFR Part 60, Subpart I: Standards of Performance for Asphalt Concrete Plants. [District Rule 4001 and 40 CFR §60.90]
13. Particulate matter emissions from the exhaust stack of the baghouse shall not exceed 0.04 grains/dscf. [District Rule 4001 and 40 CFR §60.92(a)(1)]
14. The drum dryer/mixer burner shall be fired only on natural gas or propane. [District Rule 2201]
15. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of fuel combusted by the drum dryer/mixer burner shall be installed, utilized, and properly maintained. [District Rule 2201]
16. Heat input to the drum dryer/mixer burner shall not exceed 1,350 MMBtu in any one day and 107,000 MMBtu in any one calendar year. [District Rule 2201]
17. The quantity of aggregate received or processed shall not exceed 5,640 tons in any one day. [District Rule 2201]
18. PM10 emissions from the receiving and processing of the aggregate shall not exceed 0.0004 lb/ton of aggregate received and processed. [District Rule 2201]
19. The quantity of reclaimed asphalt pavement (RAP) received or processed shall not exceed 1,500 tons in any one day. [District Rule 2201]
20. PM10 emissions from the processing of the reclaimed asphalt pavement (RAP) shall not exceed 0.0004 lb/ton of RAP received and processed. [District Rule 2201]
21. The quantity of asphaltic concrete produced shall not exceed 6,000 tons in any one day and 400,000 tons in any one calendar year. [District Rule 2201]
22. NOx emissions from the drum dryer/mixer shall not exceed 3.8 ppmvd @ 19% O2 (referenced as NO2). [District Rule 2201]
23. CO emissions from the drum dryer/mixer shall not exceed 42.0 ppmvd @ 19% O2. [District Rule 2201]
24. VOC emissions from the drum dryer/mixer shall not exceed 0.001 pounds per ton of asphaltic concrete produced. [District Rule 2201]
25. PM10 emissions (measured at the baghouse outlet) shall not exceed 0.00086 pounds per ton of asphaltic concrete produced. [District Rule 2201]
26. SOx emissions from the combustion of propane shall not exceed 0.016 lb/MMBtu. [District Rule 2201]
27. SOx emissions from the combustion of natural gas shall not exceed 0.00285 lb/MMBtu. [District Rule 2201]
28. The quantity of produced asphaltic concrete transferred into the storage silo and loaded out into trucks shall not exceed 6,000 tons in any one day and 400,000 tons in any one calendar year. [District Rule 2201]

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CONDITIONS CONTINUE ON NEXT PAGE

29. Emissions from the transfer of the produced asphaltic concrete into the storage silo shall not exceed any of the following limits: 0.00118 pounds of CO per ton of asphaltic concrete silo transferred, 0.0085 pounds of VOC per ton of asphaltic concrete transferred, or 0.000029 pounds of PM10 per ton of asphaltic concrete transferred. [District Rule 2201]
30. Emissions from truck loading of asphaltic concrete shall not exceed any of the following limits: 0.00135 pounds of CO per ton of asphaltic concrete loaded, 0.0029 pounds of VOC per ton of asphaltic concrete loaded, or 0.000026 pounds of PM10 per ton of asphaltic concrete loaded. [District Rule 2201]
31. Source testing to measure NOx and CO emissions from this unit shall be conducted at least once every 24 months thereafter. [District Rules 2201 & 4309]
32. {3722} All test results for NOx and CO shall be reported in ppmv @ 19% O2 (or no correction if measured above 19% O2), corrected to dry stack conditions. [District Rule 4309]
33. {110} The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
34. Source testing to measure NOx and CO emissions from the asphaltic concrete continuous mix plant shall be conducted utilizing one of the following options: (a). Test the unit using locally mined aggregate in the dryer. If the source test using locally mined aggregate fails, the operator may re-run the source test using aggregate from a different source.; (b). Test the unit using aggregate from a source different from the source used during normal operations.; (c). Test the unit using a heat-absorbing material in the dryer, but no aggregate.; (d). Test the unit with no material in the dryer. [District Rule 4309]
35. {109} Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081]
36. {3718} NOx emissions for source test purposes shall be determined using EPA Method 7E or ARB Method 100 on a ppmv basis. [District Rule 4309]
37. {3719} CO emissions for source test purposes shall be determined using EPA Method 10 or ARB Method 100. [District Rule 4309]
38. {3720} Stack gas oxygen (O2) shall be determined using EPA Method 3 or 3A or ARB Method 100. [District Rule 4309]
39. Source testing to measure PM10 emissions shall be conducted using EPA method 201 and 202, or EPA method 201A and 202, or CARB method 501 and 5. [District Rule 1081]
40. In lieu of performing a source test for PM10, the results of the total particulate test may be used for compliance with the PM10 emission limit provided the results include both the filterable and condensable (back half) particulates, and that all particulate matter is assumed to be PM10. If this option is exercised, source testing shall be conducted using CARB Method 5 or EPA Method 5 (including condensable (back half) particulates). [District Rule 1081]
41. {3713} All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4309. [District Rule 4309]
42. {3715} For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rule 4309]
43. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month in which asphalt is produced on at least five days or for at least 32 hours, whichever comes first (and in which a source test is not performed), using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 production days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309]

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CONDITIONS CONTINUE ON NEXT PAGE

44. The asphalt continuous mix plant permittee shall monitor and record the stack concentration of NO_x, CO, and O₂ at least once every month in which asphalt is produced on at least five days or for at least 32 hours, whichever comes first (and in which a source test is not performed), using a portable emission monitor that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 production days of restarting the unit unless monitoring has been performed within the last month. [District Rule 4309]
45. {3742} If either the NO_x or CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, the permittee shall notify the District within the following 1 hour and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of performing the notification and testing required by this condition. [District Rule 4309]
46. {3743} All alternate monitoring parameter emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rule 4309]
47. {3744} The permittee shall maintain records of: (1) the date and time of NO_x, CO, and O₂ measurements, (2) the O₂ concentration in percent and the measured NO_x and CO concentrations corrected to 19% O₂ (or no correction if measured above 19% O₂), (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rule 4309]
48. A daily log shall be maintained and shall include the following: (a). Total quantity of aggregate received (in tons); (b). Total quantity of aggregate processed (in tons); (c). Total quantity of RAP received (in tons); (d). Total quantity of RAP processed (in tons); (e). Total storage area (in acres) of the aggregate stockpiles; (f). Total storage area (in acres) of the RAP stockpiles; (g). Total quantity of asphaltic concrete produced (in tons); (h). Total quantity of asphaltic concrete transferred into the storage silo (in tons); (i). Total quantity of asphaltic concrete loaded into trucks (in tons); (j). Type and quantity of fuel consumed in the drum dryer/mixer (in scf of natural gas or gallons of propane); (k). Total hours the HMA continuous mix plant was operated in any one rolling 24 hour period. [District Rules 1070 & 2201]
49. The permittee shall maintain a record of the cumulative annual amount of asphaltic concrete produced, transferred into the storage silo, and loaded into trucks. The cumulative total shall be updated at least monthly. [District Rule 1070 & 2201]
50. The permittee shall maintain a record of the cumulative annual heat input to the drum dryer/mixer. The cumulative total shall be updated at least monthly. The heat input can be determined by multiplying the amount of fuel burned by its corresponding heating value (natural gas = 1,000 Btu/scf or propane = 94,000 Btu/gallon). [District Rules 1070 & 2201]
51. {3246} All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1538-9-0

LEGAL OWNER OR OPERATOR: CALMAT OF CENTRAL CALIFORNIA
MAILING ADDRESS: ATTN: SENIOR ENVIRONMENTAL SPECIALIST
500 N BRAND BLVD STE 500
GLENDALE, CA 91203

LOCATION: 16101 HIGHWAY 166
BAKERSFIELD, CA 93311

EQUIPMENT DESCRIPTION:
STORAGE AND HANDLING OF AGGREGATE STORAGE PILES

CONDITIONS

1. {271} All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]
2. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
3. All stockpiled sand, gravel aggregate, rock and other materials shall be maintained adequately moist to prevent visible emissions in excess of 5% opacity. [District Rule 4101]
4. Combined area of active stockpiles shall not be greater than 5 acres. [District Rule 2201]
5. Maximum active stockpile area shall be calculated as a fraction of total acres of stockpiles assessed by aerial survey using conservative geometry assumptions. [District Rule 2201]
6. Controlled emissions from active stockpiles shall not exceed 1.054 lb PM10/acre/day. [District Rule 2201]
7. {3443} When handling bulk materials outside an enclosed structure or building, water or chemical/organic stabilizers/suppressants shall be applied as required to limit Visible Dust Emissions to a maximum of 20% opacity. When necessary to achieve this opacity limitation, wind barriers with less than 50% porosity shall also be used. [District Rules 8011 and 8031]

CONDITIONS CONTINUE ON NEXT PAGE

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Samir Sheikh, Executive Director / APCO

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Arnaud Marjolle, Director of Permit Services
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8. {3444} When storing bulk materials outside an enclosed structure or building, water or chemical/organic stabilizers/suppressants shall be applied as required to limit Visible Dust Emissions to a maximum of 20% opacity. When necessary to achieve this opacity limitation, all bulk material piles shall also be either maintained with a stabilized surface as defined in Section 3.58 of District Rule 8011, or shall be protected with suitable covers or barriers as prescribed in Table 8031-1, Section B, of District Rule 8031. [District Rules 8011 and 8031]
9. {3445} When transporting bulk materials outside an enclosed structure or building, all bulk material transport vehicles shall limit Visible Dust Emissions to 20% opacity by either limiting vehicular speed, maintaining sufficient freeboard on the load, applying water to the top of the load, or covering the load with a tarp or other suitable cover. [District Rules 8011 and 8031]
10. {3446} All outdoor chutes and conveyors shall be controlled by any of the following options: 1) full enclosure, 2) operation with water spray equipment that sufficiently wets materials to limit VDE to 20% opacity, or 3) the concentration of particles having an aerodynamic diameter of 10 microns or less in the conveyed material shall be sufficiently small to limit VDE to 20% opacity. [District Rules 8011 and 8031]
11. {3447} An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/04) or Rule 8011(8/19/04). [District Rules 8011 and 8041]
12. {3448} Where dusting materials are allowed to accumulate on paved surfaces, the accumulation shall be removed daily or water and/or chemical/organic dust stabilizers/suppressants shall be applied to the paved surface as required to maintain continuous compliance with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011 and limit Visible Dust Emissions (VDE) to 20% opacity. [District Rules 8011 and 8071]
13. {3449} On each day that 50 or more Vehicle Daily Trips or 25 or more Vehicle Daily Trips with 3 axles or more will occur on an unpaved vehicle/equipment traffic area, permittee shall apply water, gravel, roadmix, or chemical/organic dust stabilizers/suppressants, vegetative materials, or other District-approved control measure as required to limit Visible Dust Emissions to 20% opacity and comply with the requirements for a stabilized unpaved road as defined in Section 3.59 of District Rule 8011. [District Rules 8011 and 8071]
14. {3450} Whenever any portion of the site becomes inactive, permittee shall restrict access and periodically stabilize any disturbed surface to comply with the conditions for a stabilized surface as defined in Section 3.58 of District Rule 8011. [District Rules 8011 and 8071]
15. {3451} Records and other supporting documentation shall be maintained as required to demonstrate compliance with the requirements of the rules under Regulation VIII only for those days that a control measure was implemented. Such records shall include the type of control measure(s) used, the location and extent of coverage, and the date, amount, and frequency of application of dust suppressant, manufacturer's dust suppressant product information sheet that identifies the name of the dust suppressant and application instructions. Records shall be kept for one year following project completion that results in the termination of all dust generating activities. [District Rules 8011, 8031, and 8071]

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT
DRAFT

PERMIT NO: S-1538-10-0

LEGAL OWNER OR OPERATOR: CALMAT OF CENTRAL CALIFORNIA
MAILING ADDRESS: ATTN: SENIOR ENVIRONMENTAL SPECIALIST
500 N BRAND BLVD STE 500
GLENDALE, CA 91203

LOCATION: 16101 HIGHWAY 166
BAKERSFIELD, CA 93311

EQUIPMENT DESCRIPTION:
CONCRETE AND ASPHALT CRUSHING OPERATION CONSISTING OF A FEED HOPPER, UP TO TWO CRUSHERS, UP TO TWO MULTIDECK SCREENS, UP TO 12 CONVEYORS, UP TO THREE STACKERS, AND ASSOCIATED STORAGE PILES

CONDITIONS

1. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
2. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
3. Amount of material received by feed hopper loading and 2-deck screen shall not exceed either of the following: 7,200 tons/day or 180,000 tons/yr. [District Rule 2201]
4. Amount of material received by jaw crusher and cone crusher shall not exceed either of the following: 3,600 tons/day or 90,000 tons/yr. [District Rule 2201]
5. Amount of material received by 3-deck screen shall not exceed either of the following: 10,800 tons/day or 270,000 tons/yr. [District Rule 2201]
6. Amount of material received by conveyor following jaw crusher shall not exceed either of the following: 7,200 tons/day or 180,000 tons/yr. [District Rule 2201]
7. Amount of material received by conveyors following cone crusher and 3-deck screen shall not exceed either of the following: 3600 tons/day or 90,000 tons/yr. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

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Samir Sheikh, Executive Director / APCCO

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Arnaud Marjolle, Director of Permit Services
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8. Amount of material received by conveyors other than listed above and stacker shall not exceed either of the following: 2,400 tons/day or 60,000 tons/yr. [District Rule 2201]
9. Emission rates from feed hopper loading, conveyors, and stacker shall not exceed 0.000046 lb PM10/ton for each drop point. [District Rule 2201]
10. Emission rates from crushers shall not exceed 0.00054 lb PM10/ton for each drop point. [District Rule 2201]
11. Emission rate from screens shall not exceed 0.00074 lb PM10/ton for each drop point. [District Rule 2201]
12. PM10 emissions shall not exceed 19.6 lb/day or 488 lb PM10/yr. [District Rule 2201]
13. The permittee may use any combination of equipment as long as the equipment in use does not exceed the equipment description and the prescribed operational limits contained in this permit. [District Rule 2201]
14. Only asphaltic and portland concrete shall be processed. [District Rules 2201 and 4102]
15. Visible emission from any feeder, screen, or conveyor shall not exceed 7% opacity as measured pursuant to Title 40, Part 60, Subpart OOO (Standards of Performance for Nonmetallic Processing Plants) of the Code of Federal Regulations. [District Rules 2201 and 4001 and 40 CFR Part 60.672(b)]
16. Visible emissions from each crusher shall not exceed 12% opacity as measured pursuant to Title 40, Part 60, Subpart OOO (Standards of Performance for Nonmetallic Processing Plants) of the Code of Federal Regulations. [District Rules 2201 and 4001 and 40 CFR Part 60.672(b)]
17. For the purpose of demonstrating initial compliance, opacity observations shall be conducted for the equipment within 60 days after achieving the maximum production rate but no later than 180 days after initial startup. [District Rule 4001 and 40 CFR Part 60.670(f) and 40 CFR Part 60.11]
18. The permittee shall perform an initial startup inspection and monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The owner or operator must initiate corrective action within 24 hours and complete corrective action as expeditiously as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. [District Rule 4001 and 40 CFR Part 60.674(b)]
19. All spray nozzles shall be maintained in proper working condition at all times. [District Rule 2201]
20. Demonstration of the visible emissions opacity limits shall be determined using EPA Method 9 and the procedures listed in 40 CFR Part 60.11, with the additional requirements specified in 40 CFR Part 60.675(c)(1)(i) through Part 60.675(c)(1)(iii). The duration of the Method 9 observations must be based on the average of the five 6-minute averages. [District Rule 4001 and 40 CFR Part 60.675(c)(1) and (c)(3), 40 CFR Part 60.11]
21. The permittee shall maintain a logbook that contains the following information: 1) dates of water spray nozzles inspections, 2) finding, 3) dates and any corrective actions taken, and 4) inspector name and signature. The logbook must be kept onsite and the permittee shall make hard or electronic copies (whichever is requested) of the logbook available to the Administrator or the District inspection upon request. [District Rule 4001 and 40 CFR Part 60.676(b)]
22. The permittee shall submit written reports of initial demonstration of visible emission opacity compliance made using the methods and procedures listed in 40 CFR Part 60.675(c)(1) and Part 60.675(c)(3) to the District within 60 days after the completion of initial opacity tests. [District Rules 1070 and 4001, and 40 CFR Part 60.676(f)]
23. The permittee shall maintain records of tons/day and tons per year of material received by feed hopper, crusher, conveyors, 3-deck screen, 2-deck screen, and stacker. [District Rule 2201]
24. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rule 4702 and 17 CCR 93116]

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