

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

PAGES

PAGE

ENGINEERING AND PERMITTING DIVISION

49

1

APPLICATION PROCESSING AND CALCULATIONS

APPL. NO.

DATE

See Below

8/26/2021

PROCESSOR

REVIEWER

RHH

Todd Iwata

PERMIT TO OPERATE ANALYSIS

FACILITY MAILING ADDRESS

All American Asphalt
P.O. Box 2229
Corona, CA 91718

EQUIPMENT LOCATION

10671 Jeffrey Road
Irvine, CA 92602
(ID# 082207)

EQUIPMENT DESCRIPTION

A/N 617096

Administrative Change, prior P/O G28648, A/N 544655

Air Pollution Control System, consisting of:

1. Baghouse, BH-3, MAC, Model 96AVS-36-STY-2, 36 Nomex Bags, each 6" Dia. x 8'-0" L., 450 Sq.Ft Total Filter Area, Pulse Jet Cleaning Type.
2. Exhaust System with a 7.5-Hp Blower venting a Horizontal Shaft Impact Crusher (HSI-2) ~~and a Screen (S-A)~~.

A/N 617097

Administrative Change, prior P/O F71177, A/N 434551

Air Pollution Control System, consisting of:

1. Baghouse, Flex-Kleen, Model 100-VBV-36, 36 Nomex Bags, each 6" Dia. x 8'-0" L., 450 Sq.Ft Total Filter Area, Pulse Jet Cleaning Type.
2. Exhaust System with a 7-Hp Blower venting a Horizontal Shaft Impact Crusher (HSI-12).

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

PAGES

PAGE

49

2

ENGINEERING AND PERMITTING DIVISION

APPL. NO.

DATE

See Below

8/26/2021

APPLICATION PROCESSING AND CALCULATIONS

PROCESSOR

REVIEWER

RHH

Todd Iwata

A/N 622272

***New, stationary source permit - Installed and operating.
Previously operating under Existing Various Locations
Permit:***

***All American Asphalt - Various Locations ID# 122876
P/O F57256, A/N 379338***

Crumb Rubber/Asphalt Blending System, consisting of:

1. Hopper, Receiving, Crumb Rubber, 7'-0" W. x 8'-0" L. x 15'-0" H., 10,000 Lbs. Capacity, 2-Hp Vane Feeder.
2. Hopper, Receiving, High Natural Rubber, 5'-0" W. x 8'-0" L. x 15'-0" H., 4,000 Lbs. Capacity, 2-Hp Vane Feeder.
3. Conveyor, Screw, 5-Hp.
4. Heat Exchanger, Asphalt Oil, 15-Hp Transfer Pump.
5. Tank, Extender Oil, 8'-0" Dia. x 7'-0" L., 2,000 Gals. Capacity, 2-Hp Transfer Pump.
6. Tank, Mixing, 4'-0" Dia. x 5'-0" H., 400 Gals. Capacity, 30-Hp Mixing Auger, and a Vapor Condenser with 4" thick Steel Wool.
7. Tank, Secondary Mixing and Storage, Two Compartments, 10'-0" Dia. x 45'-0" L., 30,000 Gals. Capacity, two 10-Hp Horizontal Mixing Augers, Vapor Condenser with 4" thick Steel Wool, and a 20-Hp Transfer Pump.

A/N 622276

***New, stationary source permit - Installed and operating.
Previously operating under Existing Various Locations
Permit:***

***All American Asphalt - Various Locations ID# 122876
P/O F60378, A/N 379337***

Heater, Process Oil Heater, CEI Enterprises, Model HDI-400, 4,500,000 BTU/Hr Natural Gas Fired Low NOx Burner, Power Flame, Model NP2R-G-520, with Flue Gas Recirculation, and a 10-Hp blower.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	3
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	<i>Todd Iwata</i>

A/N 622277

New, installed and operating

Air Pollution Control System, consisting of:

1. Electrostatic Precipitator, Trion Air Boss, Model T1300, Two Chambers, 0.9 Kw.
2. Exhaust System with a 1-Hp Blower, venting a Mixing Tank.

A/N 622278

New, installed and operating

Air Pollution Control System, consisting of:

1. Electrostatic Precipitator, Trion Air Boss, Model T2600, Two Chambers, 1.925 Kw.
2. Exhaust System with a 2-Hp Blower, venting a Secondary Mixing and Storage Tank.

A/N 623658

Modification, prior P/O G28647, A/N 544654

Rubber Storage System, consisting of:

1. Silo, SS-2, Crumb Rubber, 10'-0" Dia. x 42'-0" H., 300-Tons Capacity, with a Filter Vent, Astec, 18 Aramid Filter Bags, each 4-1/2" Dia. x 8'-0" L., 170 Sq.Ft. Total Filter Area, Pulse Jet Cleaning Type.
2. Hopper, H-3, Crumb Rubber, 4'-0" W. x 4'-0" L., 3-Tons Capacity.

A/N 623659

Modification, prior P/O G28646, A/N 544653

Air Pollution Control System, consisting of:

1. Baghouse, BH-4, Flex-Kleen, Model 100-VBV-36, 36 Nomex Bags, each 6" Dia. x 8'-0" L., 450 Sq.Ft Total Filter Area, Pulse Jet Cleaning Type.
2. Exhaust System with a 7-Hp Blower venting a Two Screens (S-1).

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**ENGINEERING AND PERMITTING DIVISION****APPLICATION PROCESSING AND CALCULATIONS**

PAGES

49

APPL. NO.

See Below

PROCESSOR

RHH

PAGE

4

DATE

8/26/2021

REVIEWER

Todd Iwata

A/N 623660**Modification, prior P/O G28645, A/N 544652**

Recycled Asphalt Pavement (RAP) Receiving, Crushing, Conveying, and Storage System, consisting of:

1. Hopper, H-4, Feed, Recycled Asphalt Pavement (RAP), 15'-0" W. x 20'-0" L. x 7'-0" H., 32-Tons Capacity.
2. Crusher, HIS-2, Lipman Horizontal, Shaft Impact, RAP, 125-Hp.
3. Conveyor, Belt, BC-18, RAP, 3'-0" W. x 20'-0" L., 10-Hp.
4. ~~Conveyor, Belt, BC-25, Recycled Asphalt Pavement (RAP), 2'-6" W. x 52'-0" L., 7.5-Hp.~~
5. Conveyor, Belt, C, RAP, 2'-6" W. x 60'-0" L., 15-Hp.
6. Screen, A, Telsmith, RAP, 6'-0" W. x 16'-0" L., 25-Hp.
7. Conveyor, Belt, D, RAP, 2'-6" W. x 28'-0" L., 15-Hp.
8. Conveyor, Belt, E, RAP, 2'-6" W. x 24'-0" L., 15-Hp.
9. Conveyor, Belt, F, RAP, 2'-6" W. x 58'-0" L., 15-Hp.
10. Hopper, H-1, Drive Over, RAP/Aggregate, 12'-0" W. x 15'-0" L. x 11'-8" H., 25-Tons Capacity (Common to Aggregate System).
11. Conveyor, Belt, BC-1, RAP/Aggregate, 3'-0" W. x 14'-0" L., 15-Hp (Common to Aggregate System).
12. Conveyor, Belt, BC-2, RAP/Aggregate, 3'-6" W. x 276'-0" L., 100-Hp. (Common to Aggregate System).
13. Conveyor, Belt, Shuttle, BC-3, RAP/Aggregate, 3'-6" W. x 117'-6" L., 30-Hp (Common to Aggregate System).
14. Conveyor, Belt, BC-4, RAP, 3'-6" W. x 43'-0" L., 15-Hp.
15. Silo, SS-1, RAP, 25'-0" Dia. x 42'-0" H., 600-Ton Capacity.
16. Conveyor, Belt, RAP, 2'-6" W. x 60'-0" L., 15-Hp (Optional).

A/N 623662**Modification, prior P/O G42344, A/N 553263**

Hot Mix Asphalt Plant, Drum Mix Type, consisting of:

1. ~~Two Hoppers, H-5, H-6, Recycled Asphalt Pavement (RAP), each 30-Tons Capacity.~~
1. Receiving Hopper, H-5, Recycled Asphalt Pavement (RAP), 7'-6" W. x 14'-6" L. x 5'-6" H., 30-Tons Capacity.
2. Receiving Hopper, H-6, Recycled Asphalt Pavement (RAP), 8'-5" W. x 14'-5" L. x 10'-6" H., 30-Tons Capacity.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**PAGES****PAGE**

49

5

ENGINEERING AND PERMITTING DIVISION**APPL. NO.****DATE**

See Below

8/26/2021

APPLICATION PROCESSING AND CALCULATIONS**PROCESSOR****REVIEWER**

RHH

Todd Iwata

3. Two Conveyors, Belt, BC-23, BC-24, RAP, 3'-0" W. x 20'-0" L., each 10-Hp.
4. Conveyor, Belt, BC-25, RAP, 2'-6" W. x 60'-0" L., 15-Hp.
5. Conveyor, Belt, BC-21, Aggregate/RAP, 4'-0" W. x 14'-0" L., 15-Hp.
6. Conveyor, Belt, BC-6, Aggregate/RAP, 3'-6" W. x 110'-0" L., 30-Hp.
7. Screen, S-1, Aggregate/RAP, 7'-0" W. x 20'-0" L., 30-Hp.
8. Conveyor, Belt, BC-20, Aggregate/RAP, 2'-6" W. x 21'-0" L., 5-Hp.
9. Magnet, Overhead, OM-1, Aggregate/RAP, 7.5-Hp.
10. Crusher, HIS-1, Telsmith, Horizontal Shaft Impact, Model 4230, Aggregate/RAP, 125-Hp.
11. Conveyor, Belt, BC-50, Aggregate/RAP, 3'-0" W. x 18'-0" L., 7.5-Hp.
12. Conveyor, Belt, BC-7, Aggregate/RAP, 2'-6" W. x 102'-0" L., 30-Hp.
13. Conveyor, Belt, BC-26, Aggregate/RAP, 2'-6" W. x 35'-0" L., 10-Hp.
14. Conveyor, Belt, BC-27, Aggregate/RAP, 2'-6" W. x 24'-0" L., 15-Hp.
15. Dryer, Rotary, Astec, Double Barrel Drum/Mixer Type, Model DB-9640EXP, 8'-0" Dia. x 40'-0" L., with a Low NOx Natural Gas Fired Burner, Astec, Phoenix Phantom, Model PP-125, 125,000,000 BTU/Hr, a 125-Hp Combustion Air Blower, and a 200-Hp Drum Drive.
16. Bucket Elevator, B-1, Asphalt, 100-Hp.
17. Conveyor, Drag Slant, DS-1, 25-Hp.
18. Two Conveyors, Drag Slant, DS-2, DS-3, each 40-Hp.
19. Two Conveyors, Drag Slant, DS-4, DS-5, each 30-Hp.
20. Five Silos, Loadout, AS-1 thru AS-5, Asphalt, each 13'-0" Dia. x 40'-0" H., 250-Tons Capacity.
21. Truck Loading Station.
22. Eight Conveyors, Belt, BC-8 thru BC-15, Aggregate, 2'-6" W. x 20'-0" L., each 10-Hp.
23. Conveyor, Belt, BC-16, Aggregate, 3'-6" W. x 280'-0" L., 40-Hp.
24. Screen, S-2, Aggregate, 6'-0" W. x 16'-0" L., 30-Hp.
25. Conveyor, Belt, BC-22, Aggregate, 2'-6" W. x 40'-0" L., 10-Hp.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**ENGINEERING AND PERMITTING DIVISION****APPLICATION PROCESSING AND CALCULATIONS****PAGES**

49

APPL. NO.

See Below

PROCESSOR

RHH

PAGE

6

DATE

8/26/2021

REVIEWER*Todd Iwata*

26. Conveyor, Belt, BC-17, Aggregate, 3'-6" W. x 86'-6" L., 40-Hp.
27. Conveyor, Screw, SC-2, Dust, 15-Hp.
28. Hopper, SS-3, Dust, 6'-0" Dia. x 7'-6" H., 64 Cu.Ft. Capacity.
29. Conveyor, Screw, SC-3, Dust/Crumb Rubber, 5-Hp.
30. Conveyor, Screw, SC-5, 15-Hp.
31. Conveyor, Screw, 7.5 Hp.

A/N 625347**Modification, P/O G14359, A/N 523217**

Air Pollution Control System, consisting of:

1. Cyclone Separator, Astec, 12'-0" Dia. x 16'-0" L., with a Collecting Screw Conveyor, 10-Hp.
2. Baghouse, Astec, Model RBH-112-WSP ~~SBH-87:DB~~, 1,280 Filter Bags, each 8" Dia. x 10'-0" L., 26,822 Sq.Ft Total Filter Area, Pulse Jet Cleaning Type with One Discharging Screw Conveyor, and a Bag Leak Detection System, Envea Goyen, Model Dust Alarm 40 EMP6.
3. Exhaust System with Two 200-Hp Blowers venting a Drum Mixer.
4. Conveyor, Screw, SC-2, 7.5 Hp.

A/N 628304**New, installed and operating**

Air Pollution Control System, consisting of:

1. Carbon Adsorber, ENVENT Corporation, Model EC-2000, with Two Canisters in series (Primary and Secondary), each 3'-9.5" Dia. x 7'-10" H. and each with 2,000 Pounds of Activated Carbon.
2. Exhaust System with a 10-Hp Blower venting Two Electrostatic Precipitators.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**ENGINEERING AND PERMITTING DIVISION****APPLICATION PROCESSING AND CALCULATIONS****PAGES**

49

APPL. NO.

See Below

PROCESSOR

RHH

PAGE

7

DATE

8/26/2021

REVIEWER*Todd Iwata***HISTORY**

The applications have a validated receipt dates as follows:

<u>A/N</u>	<u>Validated Receipt date</u>
617096,7	11/12/2019
622272,6,7,8	5/27/2020
623758, 59, 60, 62	8/12/2020
625347	10/20/2020
628304	4/8/2021

A/N 617096 was filed for an Administrative Change to an existing Permit to Operate (P/O), P/O G28648, A/N 544655, to remove the venting of Screen (S-A) to the baghouse. Screen S-A filters large pieces of Recycled Asphalt Pavement (RAP). PM10 emissions are not generated since fine materials (virgin aggregate and sand) are not screened but rather pass through the screen. The screen does not need to be vented to the baghouse. Based on review of the prior files and information, it has been determined that the prior permit revision to add the venting of the screen was mistakenly required and submitted. The screen was never vented to the baghouse.

A/N 617097 was filed for an Administrative Change to an existing Permit to Operate (P/O), P/O F71177, A/N 434551, to correct the identification of the crusher vented to this baghouse, from HSI-2 to HSI-1. Note: HSI-2 is vented to the baghouse under A/N 617096 in this report.

A/N 622272 was filed for a Permit to Construct (P/C) for the stationary source permitting of an existing portable crumb rubber system (All American Asphalt (Various Locations) - ID# 122876, P/O F57256, A/N 379338). The system was operating greater than the 12 months limitation required under the Various Locations Permits and hence, a stationary source permit was required.

The crumb rubber system, along with a carbon adsorber, process oil heater and two electrostatic precipitators, were previously issued a Rule 441 - Research Operations permit under A/N 623921, as further discussed below.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**ENGINEERING AND PERMITTING DIVISION****APPLICATION PROCESSING AND CALCULATIONS**

PAGES	PAGE
49	8
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	<i>Todd Iwata</i>

A/N 622276 was filed for a P/C for the stationary source permitting of an existing portable process oil heater (All American Asphalt (Various Locations) - ID# 122876, P/O F60378, A/N 379337). The heater was operating greater than the 12 months limitation required under the Various Locations Permits and hence, a stationary source permit was required.

The original equipment proposal was for a 7 MMBTU/hr burner. The installed and source tested burner is rated at 4.5 MMBTU/hr.

A/N 622277 was filed for a P/C for an electrostatic precipitator (ESP) to control particulate emissions from the mixing tank. The equipment installation and testing have been completed and is ready for a final P/O.

A/N 622278 was filed for a P/C for an ESP to control particulate emissions from the secondary mixing and storage tank. The equipment installation and testing have been completed and is ready for a final P/O.

A/N 623658 was filed for a modification to existing P/O G28647, A/N 544654, to add a crumb rubber hopper to the discharge of the rubber silo. The hopper is enclosed, and therefore no emission increase will occur.

A/N 623659 was filed for a modification to existing P/O G28646, A/N 544653, to remove the venting of screen S-2 (trash separator) to this baghouse. Screen S-2 filters trash and unwanted oversized bulk items not intended for the process. PM10 emissions are not generated since fine materials (virgin aggregate and sand) are not screened but rather pass through the screen. The screen does not need to be vented to the baghouse. Screen S-1 will be the only screen that vents to the baghouse.

A/N 623660 was filed for a Modification to existing P/O G28645, A/N 544652, to remove a RAP belt conveyor, and add an optional RAP stacking belt conveyor.

A/N 623662 was filed for a Modification to existing P/O G42344, A/N 553263, to add an enclosed screw conveyor for transfer of dust from air pollution control equipment to the drum mixer, and

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	9
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	<i>Todd Iwata</i>

clarification in the conditions that only one screen is vented to a baghouse. The two receiving hoppers were also separated into two devices in the permit wording.

A/N 625347 was filed for a Modification to existing P/O G14359 to replace the existing bag leak detection system and to add a screw conveyor.

A/N 628304 was filed for a Permit to Operate for a Carbon Adsorption Unit that was previously issued a Rule 441 Research Operations permit under A/N 623921.

As mentioned previously, A/N 623921 (not listed above) was submitted as a Rule 441 - Research Operations permit application to install a new carbon adsorber to control VOC and odor emissions from two electrostatic precipitators which in turn control emissions from one mixing tank and a secondary mixing and storage tank of the crumb rubber/asphalt oil blending system. The purpose of the Rule 441 permit was to expand the state of the knowledge of the operation of the subject equipment, including criteria pollutant emissions, odor emissions, and toxic emissions. Rule 441 allows for equipment to operate for a limited period and provides for an exemption from South Coast AQMD Regulation IV rules, but excludes Rule 402 - Public Nuisance. All other South Coast AQMD rules apply to research permits.

Over the last three years, numerous odor complaints have been filed against the facility and in response, All American Asphalt decided to install a carbon adsorber to help reduce the ongoing complaints regarding odors, while at the same time reducing VOC emissions. Based on the investigation conducted at the facility by Dr. Rosenfeld, the "Memorandum Regarding Odor Investigation At The All American Asphalt Facility In Irvine, California" dated July 31, 2020, from SWAPE found that the odor sources are the electrostatic precipitators associated with the Blending Tank and Storage Trailer.

The final version of the Rule 441 Research Operations permit, A/N 623921, was issued on December 17, 2020.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

PAGES

PAGE

49

10

ENGINEERING AND PERMITTING DIVISION

APPL. NO.

DATE

See Below

8/26/2021

APPLICATION PROCESSING AND CALCULATIONS

PROCESSOR

REVIEWER

RHH

Todd Iwata

The following timelines were requirements included in the Rule 441 Research Operations permit:

- **General Condition No. 1:**

Permit shall expire within 90 days from the issuance date of the permit (March 17, 2021), or 90 days after completion of installation/commencing operation of the equipment (May 19, 2021), whichever is later.

Note: Equipment operation commenced on February 18, 2021, therefore, 90 days later was May 19, 2021.

- **General Condition No. 3:**

Within 90 days of completion of the research equipment (July 15, 2021), the operator shall submit a comprehensive report.

Note: Completion of the research equipment is considered to be the date of the submittal of all testing reports.

The test report for the hot oil heater was submitted on April 13, 2021, and the test report for the carbon adsorption unit was submitted on April 16, 2021.

Therefore, the report would be required 90 days after April 16, 2021, or July 15, 2021. The report was submitted on May 10, 2021.

- **Oil Heater Condition No. 5C:**

The source test shall be conducted within 30 days after completion of installation/commencing operation of the equipment (March 20, 2021) or receipt of the South Coast AQMD source test protocol approval (March 28, 2021), whichever is later.

Note: Equipment operation commenced on February 18, 2021, therefore, 30 days later was March 20, 2021. Source test protocol approval was submitted on February 26, 2021, therefore, 30 days later was March 28, 2021. The source test was conducted on March 24, 2021.

- **Oil Heater Condition No. 7:**

The source test report shall be submitted to the South Coast AQMD within 30 days after the source testing date (April 18, 2021).

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

PAGES

PAGE

49

11

ENGINEERING AND PERMITTING DIVISION

APPL. NO.

DATE

See Below

8/26/2021

APPLICATION PROCESSING AND CALCULATIONS

PROCESSOR

REVIEWER

RHH

Todd Iwata

Note: The source test was conducted on March 24, 2021, therefore, 30 days later was April 23, 2021. The source test report was submitted on April 13, 2021.

• **Carbon Adsorber Condition No. 7C:**

The source test shall be conducted within 30 days after completion of installation/commencing operation of the equipment (March 20, 2021) or receipt of the South Coast AQMD source test protocol approval (March 7, 2021), whichever is later.

Note: Equipment operation commenced on February 18, 2021, therefore, 30 days later was March 20, 2021. Source test protocol approval was submitted on February 5, 2021, therefore, 30 days later was March 7, 2021. The source test was conducted on March 17-19, 2021.

• **Carbon Adsorber Condition No. 9:**

The source test report shall be submitted to the South Coast AQMD within 30 days after the source testing date (April 23, 2021).

Note: The source test was conducted on March 24, 2021, therefore, 30 days later was April 23, 2021. The source test report was submitted on April 13, 2021.

Therefore, all timelines specified in the Rule 441 Research Operations Permit were met.

Through this research permit, the facility installed and has been operating the carbon adsorption unit as described in the equipment description with emissions evaluations detailed later in this report. The research permit expired on May 19, 2021, and the operation of the carbon adsorption unit and equipment controlled by this unit are now under final evaluation for Permits to Operate covered by the open permit applications that are a part of this report. The carbon adsorption unit will be analyzed for a Permit to Operate under A/N 628304.

The following compliance activity was found in District records, computer database, except as noted, during the past 2 years:

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	12
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	<i>Todd Iwata</i>

Complaints: (provided by Victor Yip, Assistant Deputy Executive Officer, April 29, 2021)

Month-Year	Nos.	NOVs	Notes
September-19	227	3	P69725 - 9/12/2019 for Rule 402 and H&S 41700; P69580 - 9/20/2019 for Rule 402 and H&S 41700; P69581 - 9/21/2019 for Rule 402 and H&S 41700
October-19	131		
November-19	14		
December-19	77	1	P68583 - 10/31/2019 for Rules 203 (a), 203 (b), 1146, 1155
January-20	26		
February-20	26		
March-20	3		
April-20	16		
May-20	49	1	P69600 - 5/7/2020 for Rule 402 and H&S 41700
July-20	2		
August-20	27		
September-20	90		
October-20	129	1	P68592 - 10/14/2020 for Rule 402 and H&S 41700
November-20	19		
December-20	7		
January-21	35		
February-21	30		
March-21	53		
April-21	4		
Grand Total	965		

Note: No additional complaints on file since April 2021.

Notices to Comply:

- E49640 - Issued date 10/4/19, to Provide aggregate and RAP throughput (2 yrs), asphalt throughput (2 yrs), monthly natural gas usage (2 yrs), last source test on

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	13
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	<i>Todd Iwata</i>

the process heater, diagnostic emissions checks for process heater (2 yrs), rubber plant throughput, and baghouse info. Deemed in compliance by South Coast AQMD inspector on 10/7/19. (Health & Safety Code 42303)

Notices of Violation:

- P68592, Issued and Violation date 10/14/20, for discharging such quantities of air contaminants which cause nuisance to a considerable number of persons or to the public. This is a pending open case based on the required permitting actions included in this evaluation report that have not been completed and permits not yet issued as of this date. (Rule 402, and Health & Safety Code 41700)
- P69600, Issued Date 5/14/20, Violation Date 5/7/20, for discharging such quantities of air contaminants which cause nuisance to a considerable number of persons or to the public. This is a pending open case based on the required permitting actions included in this evaluation report that have not been completed and permits not yet issued as of this date. (Rule 402, and Health & Safety Code 41700)
- P69581, Issued Date 9/27/19, Violation Date 9/21/19, for discharging such quantities of air contaminants which cause nuisance to a considerable number of persons or to the public. This is a pending open case based on the required permitting actions included in this evaluation report that have not been completed and permits not yet issued as of this date. (Rule 402, and Health & Safety Code 41700)
- P69580, Issued Date 9/27/19, Violation Date 9/20/19, for discharging such quantities of air contaminants which cause nuisance to a considerable number of persons or to the public. This is a pending open case based on the required permitting actions included in this evaluation report that have not been completed and permits not yet issued as of this date. (Rule 402, and Health & Safety Code 41700)
- P69725, Issued Date 9/19/19, Violation Date 9/12/19, for discharging air contaminants which caused a nuisance

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	14
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	<i>Todd Iwata</i>

- to a considerable number of persons, specifically odors. This is a pending open case based on the required permitting actions included in this evaluation report that have not been completed and permits not yet issued as of this date. (Rule 402, and Health & Safety Code 41700)
- P68583, Issued Date 10/31/19, Violation Date 11/7/18, for failure to obtain a stationary Permit to Operate (P/O) for portable rubber plant and heater, failure to obtain a P/O for ESP attached to the rubber plant, operating asphalt batch plant without venting screen S2 to a baghouse, failing to conduct source tests. As of this date, all required applications have been received, and the required source tests have been conducted. (Rules 203, 1146, and 1155)
 - P68595, Issued Date 8/13/21, Violation Date 8/13/21, for failure to submit source test report within 120 days of source test protocol approval. The test report report was submitted to the District just beyond the 120 day time frame.

PROCESS DESCRIPTION

The facility produces asphaltic concrete. Asphaltic concrete typically consists of asphalt oil and aggregate. This facility also produces asphaltic concrete with the use of a mixture of asphalt oil and crumb rubber, in lieu of only asphalt oil. The benefits of using crumb rubber includes reduced asphalt oil usage, the addition of final product elasticity, and the recycling of rubber that would normally be sent to landfills or other unfavorable environmental options. The use of the crumb rubber/asphalt oil mix is merely an alternative to only using asphalt oil in the final asphaltic concrete product.

In the crumb rubber/asphalt blending system, recycled crumb rubber is transferred to a mixing tank via a hopper and virgin asphalt oil is pumped into the mixing tank and blended with the crumb rubber. A heater is used to boost the virgin asphalt oil from about 325 deg. F to about 445 deg. F to aid in the mixing process. The asphalt oil's maximum operating temperature is 450 deg. F., and occurs just prior to charging the mixing tank. The

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**ENGINEERING AND PERMITTING DIVISION****APPLICATION PROCESSING AND CALCULATIONS****PAGES**

49

APPL. NO.

See Below

PROCESSOR

RHH

PAGE

15

DATE

8/26/2021

REVIEWER*Todd Iwata*

crumb rubber dust cloud flash point is 543 deg. F and up to 608 deg. F, based on the Safety Data Sheets for the crumb rubber used at this facility. The melting temperature of crumb rubber is approximately 750 deg. F. Therefore, the crumb rubber used in the process will not melt and will not flash or burn off. Extender oil, which is maintained under ambient temperature, is added to meet the desired viscosity of the crumb rubber/asphalt oil mix. The mixture is then pumped to the secondary mixing and storage tank and held there until it is required for further processing to produce the final asphaltic concrete in the hot mix asphalt plant. The remaining equipment included in this report are typical equipment in a hot mix asphalt plant.

EVALUATION**A/N 617096 (Baghouse)**

- Filter ratio - 3,000 scfm/450 sq.ft. = 6.67 scfm/sq.ft.
This is an acceptable ratio for the baghouse w/pulse jet cleaning.
- The rate of 3,000 scfm is more than adequate to effectively control the emissions from the crusher.

PM/PM10 emissions will be zero for this air pollution control equipment.

A/N 617097 (Baghouse)

- Filter ratio - 3,000 scfm/450 sq.ft. = 6.67 scfm/sq.ft.
This is an acceptable ratio for the baghouse w/pulse jet cleaning.
- The rate of 3,000 scfm is more than adequate to effectively control the emissions from the crusher.

PM/PM10 emissions will be zero for this air pollution control equipment.

A/N 622272 (Crumb Rubber/Asphalt Oil Blending)**Given:**

- Operating schedule - 8 hrs/day, 6 days/wk, 49 wks/yr
(52 wks/yr will be considered for worst case PTE emissions)

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	16
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	<i>Todd Iwata</i>

evaluations.)

- Process Weight Rates:

The individual component process weight rates, on an hourly basis, are based on applications submittal, Part 1 - Project Description, Section D - Description of Process Line, 3. Production Rates. The monthly maximum production rate is based on the existing various locations permit limit of 6,900 tons/mon. (i.e. no emission potential change at the facility)

- Crumb Rubber - [REDACTED]

- Asphalt Oil - [REDACTED]

- Extender Oil - [REDACTED]

- Total - [REDACTED]
=> 6,900 tons/mon.
=> 82,800 tons/yr (12 mon./yr)

The VOC(HC) emissions calculated by TANKS for asphalt are assumed to be 78% VOC and 22% PM, with 98% of the PM being PM10

- Specific Gravity and lbs/gal.:
 - Asphalt Oil - 1.01 sg ==> 8.43 lbs/gal
 - Extender Oil - 0.95 sg ==> 7.93 lbs/gal
- Overall PM control efficiency (condenser and ESP) - 90% (typical)
- VOC control efficiency:
 - BACT for carbon adsorber - 90%
 - As tested - 97.94% (based on test results that follow)
- Control equipment venting scfm:
 - ESP - Trion T1300, vents Mixing Tank - 1,000 scfm

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	17
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	Todd Iwata

- ESP - Trion T2600, vents Secondary Mixing/Stor. Tank - 2,000 scfm

- Total permit unit venting scfm = 3,000 scfm

- Source Test results: (March 17-19, 2021)
 - Sulfur:
 - Inlet Concentration - 3.9 ppmvd
 - Inlet Emission Rate - 0.014 lb/hr
 - Outlet Concentration - 0.05 ppmvd*
 - Outlet Emission Rate - 0.00019 lb/hr*
 - * - Not actual values, detection limit
 - VOC: (Total Gaseous Non-Methane/Ethan Organics)
 - Inlet Concentration - 591.0 ppmvd
 - Inlet Emission Rate - 0.97 lb/hr
 - Outlet Concentration - 11.2 ppmvd
 - Outlet Emission Rate - 0.020 lb/hr
 - TO-15, PAH, and Metals results are attached to the end of this report.

Emission Calculations:

**Total Emissions = Crumb Rubber Processing Emissions +
Extender Oil Emissions +
Virgin Asphalt Oil Emissions +
Mixing Tank and Secondary Mixing and Storage Tank
Emissions**

Crumb Rubber Processing Emissions:

- Crumb rubber, whether from tire scraps or other manufactured crumb rubber are not expected to produce any PM or PM10 emissions due to not having any inherently fine material. Additionally, the crumb rubber used in the process is not crushed, screened or conveyed through material size reducing equipment.

Extender Oil Emissions:

- Extender Oil emissions are not expected from the Extender Oil Tank, as the tank is unheated and completely enclosed (i.e. no vent). Therefore, emissions from

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

PAGES

PAGE

49

18

ENGINEERING AND PERMITTING DIVISION

APPL. NO.

DATE

See Below

8/26/2021

APPLICATION PROCESSING AND CALCULATIONS

PROCESSOR

REVIEWER

RHH

Todd Iwata

the extender oil will occur once the extender oil is charged to the mixing tank.

Virgin Asphalt Oil Emissions:

- Virgin Asphalt Oil emissions will only occur once the asphalt oil is charged to the mixing tank.

Mixing Tank and Reaction/Holding Tank Emissions:

- Mixing Tank and Secondary Mixing and Storage Tank emissions will result from the loading and processing of the extender oil and virgin asphalt oil in these equipment. Since the throughput of mix is identical for the mixing tank and secondary mixing and storage tank, the emissions from each will be identical.
- Crumb Rubber emissions during the mixing and reaction/holding processes are deemed to be negligible. The flash point of crumb rubber dust is over 500 deg. F, and dust is not existent in this process. Additionally mixing tank operating temperature is less than maximum virgin asphalt oil operating temperature of 445 deg. F. Therefore, no additional emissions are expected from the processing of the crumb rubber.

Therefore:

Total Emissions = Mixing Tank and Secondary Mixing and Storage Tank Emissions (Based on source test results, for VOC, and P/C emission estimates, for PM/PM10)

Mixing Tank emissions: (PM/PM10)

- ROG emissions from test results, and PM/PM10 emissions will be conservatively estimated from the Tanks Program (based on Rule 441 - Research Operations permit evaluation) using the following data:

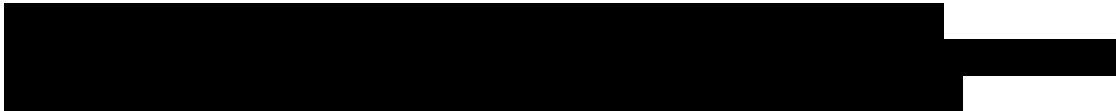


SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	19
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	<i>Todd Iwata</i>



Data used in Tanks Program, and assumptions:

- Residual Oil No. 6 is a conservative representation of the Asphalt Oil and Extender Oil mix.
- The VOC(HC) emissions calculated by TANKS for asphalt are assumed to be 78% VOC and 22% PM, with 98% of the PM being PM10.
- Standing Loss is 24 hrs/day, and 30 days/mon.
- Working Loss is 8 hrs/day, and 24.64 days/mon.
- For NSR calculation purposes:
 - Standing and Working Loss monthly emissions will be factored to the operating schedule of 8 hrs/day and 24.64 days/mon. for PTE calculations, as follows:
 - Hourly emissions = Monthly emission x 1/24.64 x 1/8
==> Monthly emission x 0.00507

Based on Tanks Program results: (for Mixing Tank)

- Standing Loss - 0.01 lb/yr (Annual)
==> 0.0007 lb/mon. (Highest month)
- Working Loss - 13.50 lbs/yr (Annual)
==> 1.1254 lbs/mon.

Emissions PM, and PM10 based on Tanks results: (Mixing tank)

R1: (hourly, uncontrolled)

PM:

$$\begin{aligned} &= (\text{Monthly standing loss} + \text{Monthly working loss}) \times 0.00507 \times 0.22 \\ &= (0.0007 + 1.1254) \times 0.00507 \times 0.22 \\ &= 0.0013 \text{ lb/hr} \end{aligned}$$

PM10:

$$\begin{aligned} &= (\text{Monthly standing loss} + \text{Monthly working loss}) \times 0.00507 \times 0.22 \\ &= (0.0007 + 1.1254) \times 0.00507 \times 0.22 \times 0.98 \\ &= 0.0012 \text{ lb/hr} \end{aligned}$$

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

PAGES

PAGE

ENGINEERING AND PERMITTING DIVISION

49

20

APPLICATION PROCESSING AND CALCULATIONS

APPL. NO.

DATE

See Below

8/26/2021

PROCESSOR

REVIEWER

RHH

Todd Iwata

Secondary Mixing and Storage Tank emissions: (PM/PM10)

Secondary Mixing and Storage Tank emissions will be conservatively estimated from the Tanks Program using the following data:

Throughputs:

Data used in Tanks Program, and assumptions: (Same as mixing tank)

- Residual Oil No. 6 is a conservative representation of the Asphalt Oil and Extender Oil mix.
- The VOC(HC) emissions calculated by TANKS for asphalt are assumed to be 78% VOC and 22% PM, with 98% of the PM being PM10.
- Standing Loss is 24 hrs/day, and 30 days/mon.
- Working Loss is 8 hrs/day, and 24.64 days/mon.
- For NSR calculation purposes:
 - Standing and Working Loss monthly emissions will be factored to the operating schedule of 8 hrs/day and 24.64 days/mon. for PTE calculations, as follows:
 - Hourly emissions = Monthly emission x 1/24.64 x 1/8
==> Monthly emission x 0.00507

Based on Tanks Program results: (Secondary Mixing and Storage Tank)

- Standing Loss - 0.048 lb/yr (Annual)
==> 0.0404 lb/mon. (Highest month)
- Working Loss - 13.50 lbs/yr (Annual)
==> 1.1254 lbs/mon.

PM and PM10 emissions based on Tanks results: (Secondary Mixing and Storage Tank)

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	21
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	Todd Iwata

R1: (hourly, uncontrolled)

PM:

$$\begin{aligned} &= (\text{Monthly standing loss} + \text{Monthly working loss}) \times 0.00507 \times 0.22 \\ &= (0.0404 + 1.1254) \times 0.00507 \times 0.22 \\ &= 0.0013 \text{ lb/hr} \end{aligned}$$

PM10:

$$\begin{aligned} &= (\text{Monthly standing loss} + \text{Monthly working loss}) \times 0.00507 \times 0.22 \times 0.98 \\ &= (0.0404 + 1.1254) \times 0.00507 \times 0.22 \times 0.98 \\ &= 0.0012 \text{ lb/hr} \end{aligned}$$

VOC: (Based on source tests)

- Emission results, VOC: (Total Gaseous Non-Methane/Ethan Organics)
 - Inlet Concentration - 591.0 ppmvd
 - Inlet Emission Rate - 0.97 lb/hr
 - Outlet Concentration - 11.2 ppmvd
 - Outlet Emission Rate - 0.020 lb/hr (97.94)
- Production rate: (During tests)
 - Run 1: March 17 - 80.987 tons/8.75 hrs
 - Run 2: March 18 - 77.312 tons/8.1 hrs
 - Run 3: March 19 - 59.306 tons/8.15 hrs
 - Total: 217.505 tons/25.0 hrs
 - Average: 8.704 tons/hr
- Production rate: (Proposed for PTE)
 - Proposed - 35 tons/hr
- Proposed to Average ratio: 4.02 (==> 35/8.704)

R1: (hourly, uncontrolled)

VOC:

$$\begin{aligned} &= 0.97 \text{ lb/hr} \times 4.02 \\ &= 3.90 \text{ lbs/hr} \end{aligned}$$

Total Emissions = Mixing Tank + Secondary Mixing and Storage Tank Emissions (PM/PM) + Source test results (VOC)

R1: (hourly, uncontrolled)

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	22
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	Todd Iwata

VOC: 3.90 lbs/hr
PM: 0.0013 lb/hr + 0.0013 lb/hr
==> 0.0026 lb/hr
PM10: 0.0012 lb/hr + 0.0012 lb/hr
==> 0.0024 lb/hr

R2: (hourly, controlled)

VOC: 3.90 lb/hr x (1-0.90)
==> 0.39 lb/hr
PM: 0.0026 lb/hr x (1-0.90)
==> 0.00026 lb/hr
PM10: 0.00026 lb/hr (controlled PM is considered all PM10)

Daily: (hourly x 8 hrs/day)

UNCONTROLLED

HC: 31.2 lbs/day
PM: 0.0208 lb/day
PM10: 0.0192 lb/day

CONTROLLED

HC: 3.12 lbs/day
PM: 0.00208 lb/day
PM10: 0.00208 lb/day

Monthly average: (Cont. daily x 24.64/30, based on 24.64 days/mon.,
12 mon./yr)

HC: 2.56 lb/day
PM: 0.00 lb/day (rounded from 0.0018 lb/day)
PM10: 0.00 lb/day (rounded from 0.0018 lb/day)

Annual: (Controlled daily x 24.64 days/mon. x 12 mon./yr)

HC: 923 lbs/yr ==> 0.46 ton/yr
PM: 1 lb/yr ==> 0.0005 ton/yr
PM10: 1 lb/yr ==> 0.0005 ton/yr

Rule 404: (PM concentration)

Estimated emissions:

= (0.00026 lb/hr) (7,000 gr/lb) / (60 min/hr) (688 scfm)
= 0.0000441 gr/cu.ft.

Allowed emissions:

= 0.196 gr/cu.ft. (688 scfm, based on source test results)

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	23
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	<i>Todd Iwata</i>

COMPLIES

Rule 405: (PM weight rate)

Estimated emissions:

= 0.00026 lb/hr

Allowed emissions:

= 15.7 lbs/hr (35 tons/hr ==> 70,000 lbs/hr)

COMPLIES

Rule 1401: (Toxic Air Contaminants)

Given:

- Materials processed and toxic compounds:

- Materials processed:

- Crumb Rubber
- Extender Oil
- Asphalt Oil

- Rule 1401 toxic compounds:

- See source test report, Summary of Results, at the end of this report, which includes the following:
 - TO-15 Inlet, Table 2-3
 - TO-15 Outlet, Table 2-4
 - PAH Inlet, Table 2-5
 - PAH Outlet, Table 2-6
 - Metals Inlet, Table 2-7
 - Metals Outlet, Table 2-8

- Under the Rule 441 permit evaluation, the health risk was calculated using TAC emission factors that were developed by the Bay Area AQMD for asphalt rubber plants. For this evaluation, the health risk will be based on source test results, as follows:

- Test results, based on 8.704 tons/hr produced
- PTE hourly production rate of 35 tons/hr produced
 - PTE/tested production ratio of ratio of 35/8.704 ==> 4.02
- VOC emissions, as tested
 - Uncontrolled ==> 0.97 lb/hr

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	24
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	Todd Iwata

- o Controlled ==> 0.02 lb/hr (97.94% efficiency)
- Controlled ==> 0.097 lb/hr (90% BACT control efficiency)
- Control efficiency ratio (BACT/as tested)
 ==> (1-0.90)/(1-0.9794)
 ==> 4.854

Therefore, as tested controlled factor to PTE throughput (35 tons/hr), and 90% BACT control efficiency:

==> 4.02 x 4.854
 ==> 19.51

<u>Pollutant</u>	<u>As tested Emission factor (lb/hr)</u>	<u>Ratioed to 35 tons/hr, and 90% cont. eff. Emission (lb/hr)</u>	TO-
15			
1,3-Butadiene	0.0*	0.0	
2-Butanone (MEK)	0.0*	0.0	
Benzene	0.0*	0.0	
Ethyl Benzene	0.0*	0.0	
m-Xylene	0.0*	0.0	
p-Xylene	0.0*	0.0	
Methanol	0.0045	0.0878	
o-Xylene	0.0*	0.0	
Carbon Disulfide	0.0*	0.0	
PAH			
Napthalene	0.000000091	0.00000178	
Benz(a)anthracene	0.0*	0.0	
Chrysene	0.000000041	0.000000800	
Benzo(b)fluoranthene	0.0*	0.0	
Benzo(k)fluoranthene	0.0*	0.0	
Ideno(1,2,3-c,d)pyrene	0.000000027	0.000000527	
Dibenz(a,h)anthracene	0.0*	0.0	
Metals			
Arsenic	0.0*	0.0	
Beryllium	0.0*	0.0	
Cadmium	0.000000051	0.000000995	
Hexavalent Chromium	0.00000068	0.0000133	
(Based on Chromium only, very conservative)			
Copper	0.0000012	0.0000234	
Lead	0.00000019	0.00000371	

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	25
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	<i>Todd Iwata</i>

Manganese	0.000004	0.0000780
Mercury	0.0*	0.0
Nickel	0.00000076	0.0000148
Selenium	0.0*	0.0
Vanadium	0.0*	0.0

*** Below detection limit**

Based on the attached Tier 3 screening analysis, the risk assessment results are as follows:

Tier 3 analysis

Cancer Risk:

- Residential 1.35 x 10⁻⁷
- Commercial 6.83 x 10⁻⁹
- Chronic 2.42 x 10⁻⁵
- Acute 4.77 x 10⁻⁵

A/N 622276 (Oil heater)

Given:

- Operating schedule - 11.67 hrs/day, 27 days/mon., 12 mon./yr (52 wks/yr will be considered for worst case PTE emissions evaluations.)
- Burner details:
 - Rating - 4.5 MMBTU/hr
 - Fuel type - Natural gas
 - NOx emissions:
 - 9 ppmv @ 3% O2 (per manufacturer, BACT req'mt.)
=> 11.54 lbs/mmcu.ft. (using std. conversion factor of 0.78 lbs/mmcu.ft./ppmv)
 - 4.1 ppmv @ 3% O2 (per source test results, low fire)
 - 3.0 ppmv @ 3% O2 (per source test results, maximum)
 - CO emissions:
 - 50 ppmv @ 3% O2 (per manufacturer)
=> 38.79 lbs/mmcu.ft. (using std. conversion factor of 1.289 lbs/mmcu.ft./ppmv)
 - 0.1 ppmv @ 3% O2 (per source test results, low fire)
 - 0.2 ppmv @ 3% O2 (per source test results, maximum)
 - HC, SOx, PM/PM10 emissions:
 - Based on EFB standard emission factors:
 - HC - 7 lbs/mmcu.ft.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	26
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	Todd Iwata

- SOx - 0.6 lb/mmccu.ft.
- PM/PM10 - 7.5 lbs/mmccu.ft.
- Fuel usage rate:
 - 4.5 MMBTU/hr x 1 cu.ft./1,050 BTU
 - ==> [REDACTED]

R1 = R2: (hourly)

- HC: 4,286 cu.ft./hr x 7 lbs/mmccu.ft. = 0.030 lb/hr
- NOx: 4,286 cu.ft./hr x 11.54 lbs/mmccu.ft. = 0.049 lb/hr
- SOx: 4,286 cu.ft./hr x 0.6 lb/mmccu.ft. = 0.003 lb/hr
- CO: 4,286 cu.ft./hr x 38.79 lbs/mmccu.ft. = 0.166 lb/hr
- PM/PM10: 4,286 cu.ft./hr x 7.5 lbs/mmccu.ft. = 0.032 lb/hr

Daily: (hourly x 11.67 hrs/day)

- HC: 0.35 lb/day
- NOx: 0.57 lb/day
- SOx: 0.04 lb/day
- CO: 1.94 lbs/day
- PM/PM10: 0.37 lb/day

Monthly average: (x 27/30, based on 6 days/wk, 52 wks/yr)

- HC: 0.32 lb/day
- NOx: 0.51 lb/day
- SOx: 0.04 lb/day
- CO: 1.75 lbs/day
- PM/PM10: 0.33 lb/day

Annual: (daily x 6 days/wk x 52 wks/yr)

- HC: 109 lbs/yr ==> 0.05 ton/yr
- NOx: 178 lbs/yr ==> 0.09 ton/yr
- SOx: 12 lbs/yr ==> 0.01 ton/yr
- CO: 605 lbs/yr ==> 0.30 ton/yr
- PM/PM10: 115 lbs/yr ==> 0.58 ton/yr

Rule 404 (PM Concentration)

Estimated emissions:

$$= (0.032 \text{ lbs/hr}) (7,000 \text{ lbs/g}) / (60 \text{ min./hr}) (998 \text{ scfm})$$
$$= 0.00374 \text{ g/scf}$$

Allowed emission = 0.188 g/scf (998 scfm, based on source test results)

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	27
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	<i>Todd Iwata</i>

Complies

GHG emissions: (Based on attached GHG NSR Calculator results)

CO₂: 526.0 lbs/hr

CH₄: 0.01 lb/hr

Rule 1401: (Toxic Air Contaminants)

Given:

- Rule 1401 toxic air contaminants for natural gas firing:
(lbs/MMcu.ft. based on Ventura County Air Pollution Control District - AB 2588 Combustion Emission Factors, May 17, 2001.
- Benzene - 0.0080
==> 0.0000343 lb/hr
- Formaldehyde - 0.0170
==> 0.0000729 lb/hr
- Polycyclic Aromatic Hydrocarbon (PAH) - 0.0004
==> 0.00000171 lb/hr
- Naphthalene - 0.0003
==> 0.00000129 lb/hr
- Acetaldehyde - 0.0043
==> 0.0000184 lb/hr
- Acrolein - 0.0027
==> 0.0000116 lb/hr
- Propylene (Propene) - 0.7310
==> 0.00313 lb/hr
- Toluene - 0.0366
==> 0.000157 lb/hr
- Xylenes (Mixed Isomers) - 0.0272
==> 0.000117 lb/hr
- Ethyl Benzene - 0.0095
==> 0.0000407 lb/hr
- n-Hexane - 0.0063
==> 0.0000270 lb/hr

Based on the attached Tier 3 screening analysis, the risk assessment results are as follows.

Tier 3 analysis

Cancer Risk:

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	28
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	Todd Iwata

- Residential 1.84 x 10⁻⁹
- Commercial 1.95 x 10⁻¹⁰
Chronic 1.29 x 10⁻⁶
Acute 4.32 x 10⁻⁶

A/N 622277 (ESP)

The 1,000 scfm is considered to be more than adequate to vent the enclosed mixing tank. PM/PM10 emissions will be identified as zero (0) in the NSR database for this control equipment.

A/N 622278 (ESP)

The 2,000 scfm is considered to be more than adequate to vent the enclosed secondary mixing and storage tank. PM/PM10 emissions will be identified as zero (0) in the NSR database for this control equipment.

A/N 623658 (Rubber Storage System)

No emission increase is proposed, therefore NSR emission entries will remain unchanged and are summarized below, based on the prior permit emissions evaluation: (Note: PM emissions not previously calculated, but PM10 = PM x 0.5 will be assumed for NSR entry purposes)

Process weight rate:



==> 270 tons/mon.

R1: (hourly, uncontrolled)

PM: 2.70 lbs/hr
PM10: 1.35 lbs/hr

R2: (hourly, controlled)

PM: 0.02 lb/hr
PM10: 0.01 lb/hr

Daily: (2 hrs/day)

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	29
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	Todd Iwata

Uncontrolled

PM: 5.40 lbs/day
PM10: 2.70 lbs/day

Controlled

PM: 0.04 lbs/day
PM10: 0.02 lb/day

30-day average: (daily controlled x 27/30, 6 days/wk, 52 wks/yr)

PM: 0.04 lbs/day (0 lb/day net change)
PM10: 0.02 lb/day (0 lb/day net change)

Annual: (daily controlled x 6 days/wk x 52 wks/yr)

PM: 12 lbs/yr ==> 0.006 ton/yr
PM10: 6 lbs/yr ==> 0.003 ton/yr

A/N 623659 (Baghouse)

- Filter ratio - 3,000 scfm/450 sq.ft. = 6.67 scfm/sq.ft.
This is an acceptable ratio for the baghouse w/pulse jet cleaning.
- The rate of 3,000 scfm is more than adequate to effectively control the emissions from the screen.

PM/PM10 emissions will be zero for this air pollution control equipment.

A/N 623660 (RAP Receiving, Crushing, Conveying & Storage System)

No emission increase is proposed, therefore NSR emission entries will remain unchanged (as corrected below) and are summarized below, based on the prior permit emissions evaluation: (Note: PM emissions not previously calculated, but PM10 = PM x 0.5 will be assumed for NSR entry purposes)

R1 = R2: (hourly)
PM: 1.24 lbs/hr
PM10: 0.62 lb/hr

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	30
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	<i>Todd Iwata</i>

PM: 7.44 lbs/day
PM10: 3.72 lbs/day

30-day average: (daily controlled x 27/30, 6 days/wk, 52 wks/yr)
PM: 6.70 lbs/day (0 lb/day net change, no prior NSR entry)
PM10: 3.35 lbs/day (4.00 lbs/day in prior NSR entry due to rounding, not a net decrease. 0 lb/day net change.)

Annual: (daily controlled x 6 days/wk x 52 wks/yr)
PM: 2,321 lbs/yr ==> 1.16 tons/yr
PM10: 1,161 lbs/yr ==> 0.58 ton/yr

A/N 623662 (HMA Plant)

No emission increase is proposed, therefore NSR emission entries will remain unchanged and are summarized below, based on the prior permit emissions evaluation: (Note: PM emissions not previously calculated, but PM10 = PM x 0.5 will be assumed for NSR entry purposes)

Process weight rate:
- 121,050 tons/mon.

R1: (hourly, uncontrolled)
ROG: 6.87 lbs/hr
NOx: 5.04 lbs/hr
SOx: 0.28 lb/hr
CO: 5.65 lbs/hr
PM: 5,401.10 lbs/hr
PM10: 2,700.55 lbs/hr

R2: (hourly, controlled)
ROG: 6.87 lbs/hr
NOx: 5.04 lbs/hr
SOx: 0.28 lb/hr
CO: 5.65 lbs/hr
PM: 5.74 lbs/hr
PM10: 2.87 lbs/hr

Daily: (8.075 hrs/day)

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	31
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	<i>Todd Iwata</i>

Uncontrolled

ROG: 55.48 lbs/day
NOx: 40.7 lbs/day
SOx: 2.26 lbs/day
CO: 45.62 lbs/day
PM: 43,614 lbs/day
PM10: 21,807 lbs/day

Controlled

ROG: 55.48 lbs/day
NOx: 40.7 lbs/day
SOx: 2.26 lbs/day
CO: 45.62 lbs/day
PM: 29.80 lbs/day
PM10: 14.90 lbs/day

30-day average: (daily controlled x 25/30, 25 days/mon., 12 mon./yr)

ROG: 46.23 lbs/day
NOx: 34.02 lbs/day
SOx: 1.89 lbs/day
CO: 38.14 lbs/day
PM: 24.84 lbs/day
PM10: 12.42 lbs/day

Annual: (daily controlled x 25 days/mon. x 12 mon./yr)

ROG: 13,869 lbs/yr ==> 6.93 tons/yr
NOx: 12,246 lbs/yr ==> 6.12 tons/yr
SOx: 681 lbs/yr ==> 0.34 ton/yr
CO: 13,731 lbs/yr ==> 6.87 tons/yr
PM: 8,940 lbs/yr ==> 4.47 tons/yr
PM10: 4,470 lbs/yr ==> 2.24 tons/yr

A/N 625347 (Cyclone/Baghouse)

- Filter ratio - 46,287 scfm/13,010 sq.ft. = 3.56 scfm/sq.ft.
This is an acceptable ratio for the baghouse w/pulse jet cleaning.
- The scfm rate is more than adequate to effectively control the emissions from the drum mixer.

PM/PM10 emissions will be zero for this air pollution control equipment.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

PAGES

PAGE

49

32

ENGINEERING AND PERMITTING DIVISION

APPL. NO.

DATE

See Below

8/26/2021

APPLICATION PROCESSING AND CALCULATIONS

PROCESSOR

REVIEWER

RHH

Todd Iwata

A/N 628304 (Based on Rule 441 Research Operations permit evaluation)

The carbon adsorber controls VOC emissions from the tanks of the crumb rubber/asphalt oil blending system. VOC emissions from the tanks are first vented to the primary canister (first in series) where VOCs are controlled by at least 90%. VOC leaving the primary canister vent to the secondary canister for further control. As the primary canister is loaded with VOC, the carbon will eventually become saturated and will need to be replaced. To determine the carbon change-out frequency, the following parameters are used:

Carbon adsorptive capacity for incoming VOC: 25%
VOC measured at the inlet of the primary canister (from test), $R_1 = 0.97$ lb/hr

R_1 (adjusted) = $0.97 \times 4.02 = 3.9$ lb/hr

VOC emissions from the tanks entering the primary canister:
31.2 lb/day (3.9 lb/hr \times 8 hrs/day)

2000 lbs of carbon per canister

Based on an adsorptive capacity of 25%, the carbon will become fully saturated after the loading of 500 lbs of organic gases (2000 lbs \times 0.25)

Approximate carbon change-out frequency = 500 lbs \div 31.2 lb/day = 16 days.

AAA will be required to measure total organic concentrations at the inlet and outlet of the primary and secondary canisters, at least once every 14 days the crumb rubber/asphalt oil blending system is operated, using a photoionization detector or any other South Coast AQMD-

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	33
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	Todd Iwata

approved organic vapor analyzer calibrated in parts per million by volume (ppmv) as hexane.

AAA will be required to replace the carbon of the primary canister within seven days after the control efficiency of the primary canister (Outlet conc./Inlet conc. x 100) is less than 90%. AAA will have the option of either adding fresh carbon into the primary canister or to redirect the exhaust from the tanks to the secondary canister and add fresh carbon in the primary canister and place it in the secondary position. If AAA only replaces the spent carbon in the primary canister, over time, the carbon in the secondary canister will become saturated. Thus, they will have to replace the spent carbon in the secondary canister before the control efficiency is less than 90%.

NSR SUMMARY (30-day average, lbs/day)

<u>A/N</u>	<u>VOC</u>	<u>NOx</u>	<u>SOx</u>	<u>CO</u>	<u>PM</u>	<u>PM10</u>
<i>Current Facility Balance</i>	47	34	2	42		17

Net Emission Change based on equipment permit proposals:

617096					0	0
617097					0	0
622272	2.56				0	0
622276	0.32	0.51	0.04	1.75	0.33	0.33
622277					0	0
622278					0	0
623658					0	0
623659					0	0
623660					0	0
623662					0	0
625347						
628304						
Change	+ 2.88	+ 0.51	+ 0.04	+ 1.75	+ 0.33	+ 0.33
New Total	49.88	34.51	2.04	43.75	0.33	17.33

- VOC: Net emission increase from the crumb rubber/asphalt oil blending system is 2.56 lbs/day. Net emission increase from

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	34
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	<i>Todd Iwata</i>

the oil heater burner is 0.32 lb/day. Total VOC emission increase for the project is 2.88 lbs/day. Therefore, 3 lbs/day (rounded from $2.88 \times 1.2 = 3.46$) of VOC offsets required prior to issuance of permit for A/N 622272.

- NOx: Net emission increase from the oil heater is 0.51 lb/day. Therefore, 1 lb/day (rounded up from $0.51 \times 1.2 = 0.61$) of NOx offsets required prior to issuance of permit for A/N 622276.
- SOX: Facility emissions are less than 4 tons/yr (21 lbs/day), therefore no offsets required.
- CO: Facility emissions are less than 29 tons/yr (159 lbs/day) additionally CO is an attainment air contaminant, therefore no offsets required.
- PM emission increase does not need to be offset, as PM is no longer a criteria air contaminant that requires increases to be offset. Additionally, most prior NSR entries did not include PM emissions, and therefore count as zero for prior emissions.
- Facility PM10 emissions are less than 4 tons/yr, therefore no offsets required.

RULES COMPLIANCE

Form 400-CEQA:

The CEQA form that was revised and subsequently submitted with this project was reviewed and all questions on the form were answered as "no", except as follows:

SECTION B:

2. A functionally identical permit unit replacement with no increase in equipment unit rating or emissions? Functional identical replacements of the previous various locations equipment, under A/Ns 622272 and 622276, and functional identical replacement of the BLDS system for the APC system, under A/N 625347. No increase in emissions will occur with these permitting actions.

SECTION C:

1. Is this project specifically evaluated in a previously certified or adopted CEQA document?
The County of Orange approved two CEQA documents for the facility. The first was a Negative Declaration filed on October 16, 1992, which was for the operation

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	35
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	<i>Todd Iwata</i>

of an asphalt batch plant and a concrete and asphalt recycling facility on a 9.7-acre site. The second was a Negative Declaration posted on November 18, 2004, which was for approval of a Site Development Permit for grading on sand and gravel site to expand its staging and current operations area and materials to be processed on-site. These documents are included in the application package. Operation of the existing facility has been evaluated under CEQA and these permits involve negligible or no expansion of the existing use.

5. Will the project emit any air toxic listed on Form 400-CEQA, Table 2 - Other Air Toxics and Their Screening Levels?

This appears to have been marked just in case the compounds on the list showed up in the final source test results. None of the Table 2 compounds were detected during testing, therefore, no further analysis of the listed compounds is required.

7. Will the project utilize a boiler, engine, or other combustion equipment that uses fuel?

As required, a GHG calculation has been provided, for the oil heater combustion.

Since the approval of the CEQA documents noted in Form 400-CEQA, Section C. 1, numerous odor complaints have been filed against the facility. As stated in the report submitted by Taylor Environmental Services on May 10, 2021 to satisfy Condition 3 of the Rule 441 research permit, the facility retained Dr. Paul Rosenfeld of Soil Water Air Protection Enterprise (SWAPE) to conduct an evaluation of the operations, the potential sources of odors, and measures to reduce odors. Based on the investigation conducted at the facility by Dr. Rosenfeld, the "Memorandum Regarding Odor Investigation At The All American Asphalt Facility In Irvine, California" dated July 31, 2020, from SWAPE found that the odor sources are the electrostatic precipitators associated with the Blending Tank and Storage Trailer, and recommended an activated carbon study to determine the feasibility and effectiveness of using activated carbon vessel as an odor control technology. The "Memorandum Regarding Activated Carbon Study At The All

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**PAGES****PAGE**

49

36

ENGINEERING AND PERMITTING DIVISION**APPL. NO.****DATE**

See Below

8/26/2021

APPLICATION PROCESSING AND CALCULATIONS**PROCESSOR****REVIEWER**

RHH

Todd Iwata

American Asphalt Facility In Irvine, California" dated August 25, 2020, summarized results from the granular activated carbon study and found that carbon adsorption can effectively filter out sulfur compounds and hydrocarbons, thereby reducing odors from the blending process. A/N 628304 is for the carbon adsorption system which would reduce emissions of sulfur compounds and hydrocarbons.

The 2021 settlement agreement between South Coast AQMD and All American Asphalt includes Supplemental Environmental Projects listed as 3a and 3b, which require providing instructions for trucks departing the facility with a load of asphalt to cover the trucks before leaving the facility and providing instructions regarding the current City of Irvine truck routes to all trucks departing the facility with a load of asphalt, respectively. These measures do not have an expiration date and therefore are still in effect to assist with reducing odor impacts to the surrounding community.

Additionally, an odor analysis was conducted using the sulfur emissions from the exhaust stream of the carbon adsorption unit. To ensure a conservative analysis, the analysis used the detection limit as the sulfur measured was below detection limits, and it was assumed that all the sulfur measured is either in the form of sulfur dioxide (SO₂) or hydrogen sulfide (H₂S). These are the two sulfur compounds which are known to cause odors and have established thresholds which can be compared against. Using US EPA's AERSCREEN dispersion model, the maximum downwind concentration was used to compare to the thresholds.

For SO₂, the maximum downwind concentration is 2×10^{-10} ppm, which is less than the threshold of 0.3 ppm.

For H₂S, the maximum downwind concentration is 0.17 µg/m³, which is less than the threshold of 42 µg/m³.

The air quality permits for the facility were first issued in 1993 and the facility has been in operation since then. The facility provides asphalt for state, county, and city roadway projects. In October 2013, AB513, also referred to

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	37
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	<i>Todd Iwata</i>

as the Rubberized Asphalt Concrete Market Development Act, was signed which increased the demand for rubberized

asphalt. Rubberized asphalt is a type of asphalt which uses crumb rubber and AB513 incentivized the use of rubberized asphalt in public roadway projects. The facility has been producing rubberized asphalt to meet the demand brought on by AB513 by using crumb rubber supplied by an outside source or using a permitted portable crumb rubber unit. A crumb rubber unit was permanently brought onto the site and operational since approximately November 2017. According to the plant manager, the asphalt production of the facility generally doesn't vary from year to year, but it is not possible to predict future public roadway project demands. Therefore, issuing the stationary permit for the crumb rubber unit and associated odor control equipment will involve "negligible or no expansion of use".

Based on the above information, the permits are exempt from CEQA pursuant to CEQA Guidelines Sections 15061(b)(3) - Common Sense Exemption and 15301 - Existing Facilities.

Further, there is no substantial evidence indicating that any of the exceptions to the categorical exemption pursuant to CEQA Guidelines Section 15300.2 apply.

Based on a report by the U.S. EPA (Hot Mix Asphalt Plants Emission Assessment Report dated December 2000, available at: <https://www3.epa.gov/ttnchie1/ap42/ch11/related/ea-report.pdf> and accessed on December 12, 2021), in 1996, there were an estimated 3,600 active asphalt plants in the United States, of which 2,300 are batch plants similar to this facility. Currently, there are more than 85 asphalt plants permitted to operate and scattered within South Coast AQMD's jurisdiction. There is nothing unusual about the size or location of this facility when compared to other asphalt plants within South Coast AQMD's jurisdiction. The permits will not result in damage to scenic resources within a highway officially designated as a state scenic highway; the facility is not on a site included on any list compiled pursuant to Section 65962.5 of the Government Code; and the permits will not cause a

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	38
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	<i>Todd Iwata</i>

substantial adverse change in the significance of a historical resource.

The facility's proposal to include the carbon adsorber to reduce VOC and sulfur containing compounds would result in additional odor control beyond what has been occurring at the facility with the operation of the crumb rubber unit.

Rule 212:

(c) (1) - This section requires a public notice for all new and modified permit units that emit air contaminants located within 1,000 feet from the outer boundary of a school. The nearest school (Northwood High School, Irvine) located from this equipment is approximately 6,800 feet. Therefore a public notice is not required.

(c) (2) - This section requires a public notice for all new or modified facilities that have on-site emission increases exceeding any of the daily maximums as specified by Rule 212(g). The proposed project will not result in any emission increase exceeding Rule 212(g) limits. Therefore, a Rule 212(c) (2) notice will not be required for this project.

(c) (3) - This section requires a public notice for all new or modified permit unit with increases in emissions of Rule 1401 resulting in MICR greater than 1E-6 per permit unit or greater than 10E-6 per facility.

Using emission factors developed by the Bay Area AQMD, the estimated cancer risks are less than one in a million. Therefore Public Notice is not required under this section of the rule.

Cancer Risk: (Total project)

- **Residential:**

- Crumb Rubber/Asphalt Oil Blending 1.35×10^{-7}
- Oil Heater 1.84×10^{-9}
- Total 1.37×10^{-7}

- **Commercial**

- Crumb Rubber/Asphalt Oil Blending 6.83×10^{-9}

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	39
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	<i>Todd Iwata</i>

- Oil Heater 1.95 x 10⁻¹⁰
- Total 7.03 x 10⁻⁹

(g) Project emissions are much less than threshold limits. Therefore, no public notice is required.

Rule 401 - No visible emission is expected with proper operation of the equipment. The minimal increase in PM10 emissions is not expected to impact the expected compliance with this rule.

Rule 402 - No nuisance is expected with proper operation of the equipment. The use of the proposed carbon adsorption system is expected to control the odor from the process and therefore eliminate the potential for continued odor complaints from the facility. The minimal increase in PM10 emissions is not expected to impact the expected compliance with this rule.

Rule 403 - No excessive fugitive dust is expected with proper operation of the equipment. The minimal increase in PM10 emissions is not expected to impact the expected compliance with this rule.

Rule 404 - Continued compliance is expected based on the evaluations of the emissions in the emission calculations of the basic permit units.

A/N 622272 (Crumb Rubber/Asphalt Oil Blending)

Estimated emissions:

= (0.00026 lb/hr)(7,000 gr/lb)/(60 min/hr)(688 scfm)

= 0.0000441 gr/cu.ft.

Allowed emissions:

= 0.196 gr/cu.ft. (688 scfm, based on source test results)

A/N 622276 (Oil Heater)

Estimated emissions:

= (0.032 lbs/hr)(7,000 lbs/g)/(60 min./hr)(998 scfm)

= 0.00374 g/scf

Allowed emissions:

= 0.188 g/scf (998 scfm, based on source test results)

Rule 405 - Continued compliance is expected based on the evaluations of the emissions in the emission calculations of the applicable basic permit unit.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

PAGES

PAGE

49

40

ENGINEERING AND PERMITTING DIVISION

APPL. NO.

DATE

See Below

8/26/2021

APPLICATION PROCESSING AND CALCULATIONS

PROCESSOR

REVIEWER

RHH

Todd Iwata

A/N 622272 (Crumb Rubber/Asphalt Oil Blending)

Estimated emissions:

= 0.00026 lb/hr

Allowed emissions:

= 15.7 lbs/hr (35 tons/hr ==> 70,000 lbs/hr)

Reg. IX - 40 CFR 60, Subpart I, Standards of Performance for Asphaltic Concrete Plants.

- Section 60.92 Standard for particulate matter.
(a) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall discharge or cause the discharge into the atmosphere from any affected facility any gases which:

(1) Contain particulate matter in excess of 90 mg/dscm (0.04 gr/dscf).

(2) Exhibit 20 percent opacity, or greater.

Estimated emissions from the Crumb Rubber/Asphalt Blending System (A/N 622272) are 0.00000758 gr/cu.ft., and since the emissions are processed through BACT air pollution control equipment the emission opacity are expected to be much less than 20 percent opacity.

Therefore, compliance with this CFR provision is attained, and testing for this portion of the facility will not be required, based on the estimated emissions significantly lower than the standard. Additionally, 40 CFR 60, Subpart A, Section 60(b)(4) states "(b) Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard". In this case, the demonstration is that the estimated emissions are much lower than the standards. For the asphalt drum mix plant (A/N 623662), no change in emissions is proposed. Therefore, continued compliance is expected.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	41
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	<i>Todd Iwata</i>

Rule 1146.1 - The oil heater is expected to operate in compliance with the applicable requirements of this rule. This rule requires a burner exhibiting emission limitations of 12 ppmv NOx @ 3% O2, and 400 ppmv CO @ 3% O2. The test results verified these limitations with results of 3.0-4.1 ppmv NOx @ 3% O2, and 2.9-3.2 ppmv CO @ 3% O2.

Rule 1155 - The baghouses are expected to operate in compliance with the applicable requirements of this rule, including (d) (1), (e) (1), (f) (1) and (f) (2).

Rule 1157 - Continued compliance is expected, as there is no changes to any of the emissions evaluations for the permit units handling aggregate.

Reg. XIII -

BACT:

BACT is the use of PM and blue smoke controls for the crumb rubber/asphalt oil blending system. The appropriate controls are applied. Additionally, for the asphalt oil heater, a low NOx burner is utilized and operates in compliance with the BACT requirement of 9 ppm NOx @ 3% O2. The source testing of the oil heater burner validated compliance with the 9 ppm limit (3.0-4.1 ppmv NOx @ 3% O2).

Offsets:

Based on the NSR summary, 3 lbs of offsets are required for VOC, and 1 lb of offsets are required for NOx, prior to issuance of the permit for A/N 622272 (Crumb Rubber/Asphalt Oil Blending), and A/N 622276 (Asphalt Oil Heater), respectively. The company has submitted the required ERCs.

Modeling:

Rule 1303, Table A-1 provides allowable emission increases of NOx, CO, and PM10, for combustion and non-combustion sources before modeling is required. The following are comparisons for the two applicable permit units included in this evaluation:

A/N 622272: (Non-combustion source)

PM10:

Estimated Emissions = 0.00026 lb/hr

Table A-1 limit = 0.41 lb/hr

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES

49

APPL. NO.

See Below

PROCESSOR

RHH

PAGE

42

DATE

8/26/2021

REVIEWER

Todd Iwata

Complies

A/N 622276: (Combustion source, 4.5 MMBtu/hr)

NOx:

Estimated Emissions = 0.049 lb/hr

Table A-1 limit = 0.31 lb/hr

Complies

CO:

Estimated Emissions = 0.166 lb/hr

Table A-1 limit = 17.1 lbs/hr

Complies

PM10:

Estimated Emissions = 0.032 lb/hr

Table A-1 limit = 1.9 lbs/hr

Complies

Reg. XIV:

Rule 1401

A/N 622272 (Crumb Rubber/Asphalt Oil Blending)

Cancer Risk: (Tier 3 analysis)

- Residential 1.35 x 10⁻⁷
- Commercial 6.83 x 10⁻⁹
- Chronic 2.42 x 10⁻⁵
- Acute 4.77 x 10⁻⁵

A/N 622276 (Oil Heater)

Cancer Risk: (Tier 3 analysis)

- Residential 1.84 x 10⁻⁹
- Commercial 1.95 x 10⁻¹⁰
- Chronic 1.29 x 10⁻⁶
- Acute 4.32 x 10⁻⁶

Rule 1401.1 - This is not a new or relocated facility, so the provisions of this rule do not apply.

RECOMMENDATIONS & CONDITIONS

Issue Permits to Operate (P/Os) based on this evaluation and the following conditions.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	43
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	<i>Todd Iwata</i>

A/N 617096 (Baghouse)

- This equipment shall be operated in compliance with all applicable requirements of Rule 1155.
- Dust collected shall be discharged only into enclosed containers or returned to process and shall not be handled in a manner that may result in the re-release of collected material to the atmosphere.
- The operator shall install and maintain a differential pressure gauge to accurately indicate the static pressure differential, in inches water column, across the filter bags.
- In operation, the pressure differential shall be maintained between 0.5 to 6 inches of water column.
- Records shall be maintained to demonstrate compliance with the Conditions on this permit. Records shall be kept in a format acceptable to the South Coast AQMD, shall be retained at the facility for a minimum of five years, and shall be made available to South Coast AQMD personnel upon request.

A/N 617097 (Baghouse)

- This equipment shall be operated in compliance with all applicable requirements of Rule 1155.
- Dust collected shall be discharged only into enclosed containers or returned to process and shall not be handled in a manner that may result in the re-release of collected material to the atmosphere.
- The operator shall install and maintain a differential pressure gauge to accurately indicate the static pressure differential, in inches water column, across the filter bags.
- In operation, the pressure differential shall be maintained between 0.5 to 6 inches of water column.
- Records shall be maintained to demonstrate compliance with the Conditions on this permit. Records shall be kept in a format acceptable to the South Coast AQMD, shall be retained at the facility for a minimum of five years, and shall be made available to South Coast AQMD personnel upon request.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	44
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	<i>Todd Iwata</i>

A/N 622272 (Crumb Rubber/Asphalt Oil Blending)

- This equipment shall not be operated unless the mixing tank, and the secondary mixing and storage tank are vented to air pollution control equipment which is in full use and has been issued a valid Permit to Operate by the Executive Officer. The air pollution control equipment shall include a condenser and steel wool for each tank, an ESP for the mixing tank and secondary mixing tank, and a common carbon adsorber serving both tank exhausts.
- The total quantity of material processed by this equipment shall not exceed 6,900 tons in any calendar month.
- The total quantity of asphaltic concrete produced at this facility shall not exceed 121,050 tons in any calendar month.
- The maximum operating temperature of the material processed in this equipment shall not exceed 450 deg. F. The maximum material operating temperature occurs at the feed line of the asphalt oil into the mixing tank. The temperature shall be measured and read daily while the plant is in production with the use of a micro motion readout on the local control panel.
- Safety data sheets for all materials used at this facility and subject to South Coast AQMD rules shall be kept current and made available to South Coast AQMD personnel upon request.
- Records shall be maintained to demonstrate compliance with the conditions on this permit. Records shall be kept in a format acceptable to the South Coast AQMD, shall be retained at the facility for a minimum of two years, and shall be made available to South Coast AQMD personnel upon request.

A/N 622276 (Oil Heater)

- This equipment shall be operated in compliance with all applicable requirements of Rule 1146.1.
- The operator shall install and maintain a non-resettable totalizing fuel meter to accurately indicate, in cubic feet, the total quantity of natural gas consumed by this equipment.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**ENGINEERING AND PERMITTING DIVISION****APPLICATION PROCESSING AND CALCULATIONS****PAGES**

49

APPL. NO.

See Below

PROCESSOR

RHH

PAGE

45

DATE

8/26/2021

REVIEWER*Todd Iwata*

- The total quantity of natural gas burned in this equipment shall not exceed 1,350,000 cubic feet in any calendar month.
- Oxides of Nitrogen (NOx) discharged from the heater burner shall not exceed 9 parts per million by volume (ppmv) expressed as NO2 on a dry basis corrected to 3% oxygen, averaged over 30 consecutive minutes.
- Records shall be maintained to demonstrate compliance with the conditions on this permit. Records shall be kept in a format acceptable to the South Coast AQMD, shall be retained at the facility for a minimum of two years, and shall be made available to South Coast AQMD personnel upon request.

A/N 622277 (ESP)

- This equipment shall be in full use whenever the mixing tank is in operation.
- This equipment shall not be operated unless it is vented to air pollution control equipment which is in full use and has been issued a valid Permit to Operate by the Executive Officer.
- The operator shall clean and maintain this equipment in accordance to the manufacturer's specifications.

A/N 622278 (ESP)

- This equipment shall be in full use whenever the secondary mixing and storage tank is in operation.
- This equipment shall not be operated unless it is vented to air pollution control equipment which is in full use and has been issued a valid Permit to Operate by the Executive Officer.
- The operator shall clean and maintain this equipment in accordance to the manufacturer's specifications.

A/N 623658 (Rubber Storage)

- This equipment shall be operated in compliance with all applicable requirements of Rule 1155.
- The total quantity of material processed by this equipment shall not exceed 270 tons in any calendar month.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	46
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	<i>Todd Iwata</i>

- Safety data sheets for all materials used at this facility and subject to South Coast AQMD rules shall be kept current and made available to South Coast AQMD personnel upon request.
- Records shall be maintained to demonstrate compliance with the Conditions on this permit. Records shall be kept in a format acceptable to the South Coast AQMD, shall be retained at the facility for a minimum of two years, and shall be made available to South Coast AQMD personnel upon request.

A/N 623659 (Baghouse)

- This equipment shall be operated in compliance with all applicable requirements of Rule 1155.
- Dust collected shall be discharged only into enclosed containers or returned to process and shall not be handled in a manner that may result in the re-release of collected material to the atmosphere.
- The operator shall install and maintain a differential pressure gauge to accurately indicate the static pressure differential, in inches water column, across the filter bags.
- In operation, the pressure differential shall be maintained between 0.5 to 6 inches of water column.
- Records shall be maintained to demonstrate compliance with the Conditions on this permit. Records shall be kept in a format acceptable to the South Coast AQMD, shall be retained at the facility for a minimum of five years, and shall be made available to South Coast AQMD personnel upon request.

A/N 623660 (RAP Receiving, Crushing, Conveying, and Storage)

- Material charged and material in process shall be kept sufficiently moist to prevent excessive dust emissions.
- This equipment shall not be operated unless the crusher (HSI-2) is vented only to air pollution control equipment which is in full use and which has been issued a Permit to Operate by the Executive Officer.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING AND PERMITTING DIVISION

APPLICATION PROCESSING AND CALCULATIONS

PAGES	PAGE
49	47
APPL. NO.	DATE
See Below	8/26/2021
PROCESSOR	REVIEWER
RHH	<i>Todd Iwata</i>

- The total quantity of Recycled Asphalt Pavement (RAP) processed by this equipment shall not exceed 121,500 tons in any calendar month.
- The total quantity of asphaltic concrete produced at this facility shall not exceed 121,050 tons in any calendar month.
- Records shall be maintained to demonstrate compliance with the Conditions on this permit. Records shall be kept in a format acceptable to the South Coast AQMD, shall be retained at the facility for a minimum of two years, and shall be made available to South Coast AQMD personnel upon request.

A/N 623662 (HMA Plant)

- This equipment shall not be operated unless the dryer/drum mixer, bucket elevator, five asphalt storage silos, truck loading station, screen (S-1), and the horizontal shaft impact crusher are vented only to air pollution control equipment which has been issued a Permit to Operate by the Executive Officer.
- The operator shall install and maintain a non-resettable totalizing fuel meter to accurately indicate the fuel usage of the dryer/drum mixer.
- The total quantity of natural gas usage by the dryer/drum mixer shall not exceed 24,107,143 cubic feet in any one calendar month.
- The total quantity of asphaltic concrete produced at this facility shall not exceed 121,050 tons in any calendar month.
- Oxides of Nitrogen (NOx) discharged from the heater burner shall not exceed 33 parts per million by volume (ppmv) expressed as NO2 on a dry basis corrected to 3% oxygen, averaged over 30 consecutive minutes.
- Aggregate charged and aggregate in process shall be kept sufficiently moist to prevent excessive dust emissions.
- This facility shall be operated in compliance with the applicable requirement of Rule 1157.
- Records shall be maintained to demonstrate compliance with the Conditions on this permit. Records shall be kept in a format acceptable to the South Coast AQMD, shall be

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**ENGINEERING AND PERMITTING DIVISION****APPLICATION PROCESSING AND CALCULATIONS****PAGES**

49

APPL. NO.

See Below

PROCESSOR

RHH

PAGE

48

DATE

8/26/2021

REVIEWER*Todd Iwata*

retained at the facility for a minimum of five years, and shall be made available to South Coast AQMD personnel upon request.

A/N 625347 (Cyclone/Baghouse venting drum mixer)

- This equipment shall be operated in compliance with all applicable requirements of Rule 1155.
- Dust collected shall be discharged only into enclosed containers or returned to process and shall not be handled in a manner that may result in the re-release of collected material to the atmosphere.
- The operator shall install and maintain a differential pressure gauge to accurately indicate the static pressure differential, in inches water column, across the filter bags.
- In operation, the pressure differential shall be maintained between 0.1 to 6 inches of water column.
- This equipment shall not be operated unless the bag leak detection system is in full use.
- Records shall be maintained to demonstrate compliance with the Conditions on this permit. Records shall be kept in a format acceptable to the South Coast AQMD, shall be retained at the facility for a minimum of five years, and shall be made available to South Coast AQMD personnel upon request.

A/N 628304 (Carbon Adsorption unit)

- An identification tag(s) or nameplate(s) shall be displayed on the equipment to show the amount of carbon in each carbon bed. The tag(s) or plate(s) shall be adhered to the equipment in a permanent and conspicuous position.
- This equipment shall be in full use whenever the mixing tank and/or secondary mixing and storage tank are in operation.
- The operator shall use fresh carbon with an initial Carbon Tetrachloride Activity Number of not less than 60% as measured by ASTM Method D3467, or a Butane Activity Number of not less than 23.5% as measured by ASTM Method D5742.
- The operator shall measure the Total Organic Compound (TOC) concentration at the inlet and outlet of the primary and secondary canisters using a photoionization detector or any

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**PAGES****PAGE**

49

49

ENGINEERING AND PERMITTING DIVISION**APPL. NO.****DATE**

See Below

8/26/2021

APPLICATION PROCESSING AND CALCULATIONS**PROCESSOR****REVIEWER**

RHH

Todd Iwata

- other South Coast AQMD-approved organic vapor analyzer calibrated in parts per million by volume (ppmv) as hexane. If another calibrating agent is used, it shall be correlated to and expressed as hexane. The analyzer shall meet EPA Method 21 requirements. Calibration of the analyzer shall be performed prior to each measuring day. Measurements shall be made at least once every 14 days the crumb rubber/asphalt oil blending system is operated.
- The operator shall replace the carbon in the primary canister with either (1) fresh carbon or (2) redirect the total incoming flow from the electrostatic precipitators to the secondary canister and replace the carbon in the primary canister and place it in the secondary position after the control efficiency of the primary canister is less than 90%. The control efficiency shall be determined using the TOC concentrations measured on the same day pursuant to condition no. 6 and the following equation:

$$\text{Control efficiency} = (1 - \text{Outlet Concentration of Primary Canister} / \text{Inlet Concentration of Primary Canister}) * 100$$

- The operator shall replace the carbon in the secondary canister before the control efficiency of the secondary canister is less than 90%.
- The operator shall complete total carbon replacement within 7 business days after the control efficiency of the primary canister is less than 90%.
- Spent carbon removed from the canister(s) shall be stored in closed containers prior to disposal or regeneration. If disposed, disposal shall be in accordance with applicable hazardous materials rules and regulations.
- Records shall be maintained to demonstrate compliance with the Conditions on this permit. Records shall be kept in a format acceptable to the South Coast AQMD, shall be retained at the facility for a minimum of two years, and shall be made available to South Coast AQMD personnel upon request.