

October 3, 2022

Mr. Stephen Amberg
Air Pollution Control District
10124 Old Grove Road
San Diego, CA 92131

Re: Risk Reduction Plan (EIF ID 200706271)
Vulcan Materials Company, Western Division, Otay Mesa Asphalt Plant
7522 Paseo de la Fuente, San Diego CA

Dear Mr. Amberg,

This letter constitutes a Risk Reduction Audit and Plan (“The Plan”) as defined in SDAPCD Rule 1210(e)(2), and presents actions that will be taken to address off-site acute and chronic worker health impacts estimated by the 2019 Health Risk Assessment for the subject Facility. An application for Change of Permit Conditions is attached in order to implement The Plan.

FACILITY RISK CHARACTERIZATION

The approved 2019 HRA for the subject Facility estimated that off-site receptors and geographical areas were subject to worker chronic and acute hazard impacts respectively. Facility emissions characteristics have not changed substantially since 2019. Equipment operated onsite has remained consistent and throughput values have not increased or decreased sufficiently to warrant additional health risk assessment.

Worker chronic impact locations should be reconsidered based on up to date aerial photography. Figure 1 provides a recent (June 2022) photograph of the industrial area surrounding the Vulcan Facility. Receptor 396 was the MEIW in the 2019 HRA model, and represented an office at a truck yard. This office is no longer present in the updated photograph. Receptors 496 and 517 represented an empty lot in the 2019 HRA, but a facility has since been built in this location (NEC Energy Solutions). Based on the 2019 HRA, Receptors 496 and 517 have a chronic hazard index of greater than 1.0.

In order to conservatively assess and reduce health impacts, this Risk Reduction Plan treats each of these receptors (396, 496, and 517) as active worker receptors.

EMISSIONS UNIT IDENTIFICATION

Emissions reductions are proposed for the following units:

1. Facility Roads

Correction of District provided emissions calculations is necessary to appropriately account for permit conditions, which result in facility road emissions control of at least 80%. Permit APCD2012-PTO-001417, Condition 26. states *"On site paved haul roads shall be swept with a SCAQMD PM10-Certified street sweeper every Monday, Wednesday and Friday of the operating week. Daily records documenting compliance with this condition shall be maintained on-site for the last three years and made available to the District upon request."* Other facilities that operate PM₁₀ efficient vacuum truck sweepers at 4 hour intervals are considered to be using BACT and assumed to have a road emissions control efficiency of 95%. It is therefore conservative and appropriate to assume that this Facility achieves 80% control on road based emissions. The emissions BEC file provided by the District in the approved HRA provided no control for road based emissions.

2. Asphalt Stack/Baghouse

Only high efficiency filtration fabric with a PM₁₀ removal efficiency of equal to or greater than 99.998% will be used to filter asphalt stack emissions. An application for change of permit conditions will be submitted to add this language as a permit condition to permit number 001417.

SCHEDULE FOR IMPLEMENTATION WITHIN 5 YEARS

The Change of Permit Condition Applications are attached alongside this letter. Upon issuance of the updated permits, the Facility will comply with updated permit language, reducing health impacts below significant levels.

DEMONSTRATION OF RISK REDUCTION

HARP2 ADMRT (Version 22118) was run with updated emissions inventories based on the proposed changes. AERMOD plot files used were taken from the District approved 2019 HRA modeling files. The updated HARP run files have been transmitted alongside this letter. Changes made to the emissions inventory are outlined below.

1. Reduction of Road based Fugitive Dust Emissions by 80%

Worker chronic impacts are largely a result of fugitive dust emissions from roads. By reducing road dust emissions by 80%, total impact will be reduced below significance thresholds. The updated emissions inventory file includes the value of 0.2 in the multiplier column pollutants emitted by the ROAD model object.

2. Reduction of Filterable Emissions from Asphalt Stack by a Factor of 20

Acute impacts are largely the result of filterable fugitive dust from the asphalt stack. As detailed in AP-42 Table 11.1-4, uncontrolled drum mix asphalt stack PM₁₀ emissions are designated a factor of 6.4 lbs/ton asphalt produced, whereas the use of a fabric filter results in an emissions factor of 0.0042 lbs/ton asphalt produced. This means that the fabric filter used in AP-42 emissions factors has a PM₁₀ removal efficiency of 99.93%. By using a filtration technology tested and verified to achieve equal to or greater than 99.998% removal of PM₁₀ particulate, filterable particulate matter from the asphalt stack will be reduced by a factor of approximately 35. The updated emissions inventory file includes the value of 0.02857 in the multiplier column for filterable

pollutants emitted by the STACK model object. Tables 1 and 2 below demonstrate updated hazard index values for relevant receptors.

Table 1. Risk Reduction Results – Worker Chronic Impacts

Receptor #	Receptor Description	Worker Chronic Hazard Index	
		Pre-Reduction	Post-Reduction
936	MEIW – Truckyard Office East of Vulcan Facility	1.9	0.65
517	Warehouse North of Vulcan Facility (NEC Energy Solutions)	1.2	0.34
496	Warehouse North of Vulcan Facility (NEC Energy Solutions)	1.7	0.48

Table 2. Risk Reduction Results – Acute Impacts

Receptor #	Receptor Description	Acute Hazard Index	
		Pre-Reduction	Post-Reduction
86	Pre-Reduction PMI – Open Field East of Facility	2.1	0.37
974	Post-Reduction PMI – Fence-line, south east corner of facility	1.2	0.78


As demonstrated by Tables 1 and 2, updated risk values are below significance thresholds.

SCHEDULE FOR PROVIDING PROGRESS REPORTS

Vulcan Materials Company is submitting a Change of Permit Conditions application coincident to this letter. Once permit language is updated by the District, emissions will be reduced below significant levels and further progress reports will be provided by way of annual emission inventory reporting.

Please call me at (530) 574 0231 or Brent Leclerc of Vulcan Materials at (818) 858-5984 if you have any questions or if you need additional information.

Respectfully submitted,


Andre Almeida, P.E.
Engineer II
Sespe Consulting, Inc.

Attachments:

Figure 1 – June 2022 Aerial Photograph of Facility
Figure 2 – Updated Worker Chronic Impact Isopleth
Application Cover Letter for Change of Permit Conditions
SDAPCD General Application Form
Fee Estimate Provided by District
Modeling File Update Package (zip file)



Aerial Photograph Taken June 2022

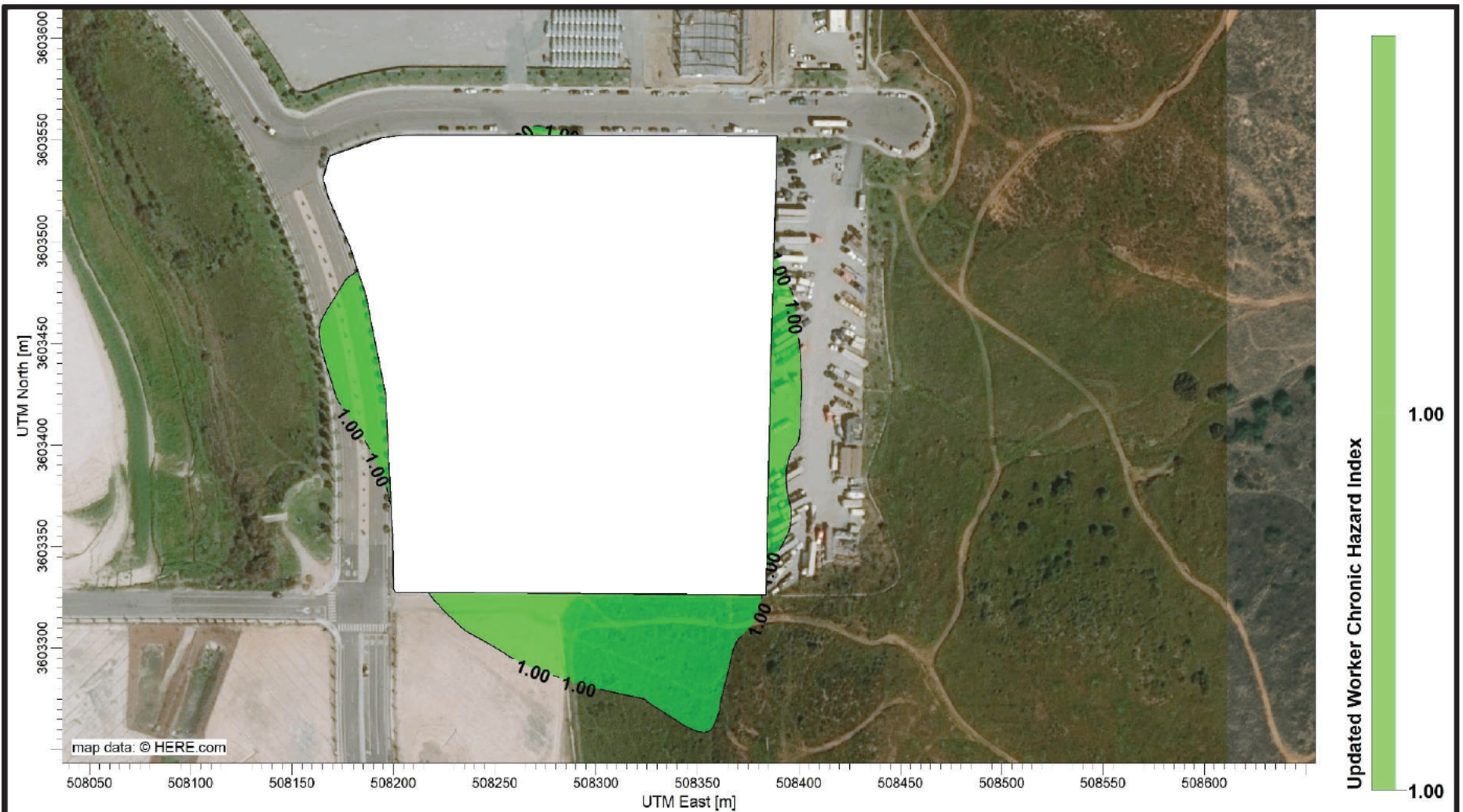
SESPE
CONSULTING, INC.

FIGURE

1

Updated Aerial Photograph
Vulcan Materials Asphalt Plant
7522 Paseo De La Fuente
San Diego, CA

PROJECT #:	210509.0326	DATE:	9/26/22
SCALE:	AS SHOWN	DRAWN BY:	ADA



SESPE
CONSULTING, INC.

FIGURE

2

Updated Worker Chronic Isopleth
Vulcan Materials Asphalt Plant
7522 Paseo De La Fuente
San Diego, CA

PROJECT #:	210509.0326	DATE:	9/26/22
SCALE:	AS SHOWN	DRAWN BY:	ADA

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Office (619) 894-8669 • Fax (805) 667-8104

October 3, 2022

Permits and Engineering Division
Air Pollution Control District
10124 Old Grove Road
San Diego, CA 92131


**Re: Application for Change of Permit Conditions – APCD2012-PTO-001417
Vulcan Materials Company, Western Division, Otay Mesa Asphalt Plant
7522 Paseo de la Fuente, San Diego CA**

Vulcan Materials Company, Western Division is seeking to add the following language as a permit condition on PTO-001417:

41. Fabric filters used in the Asphalt Dryer baghouse will have a manufacturer rated PM₁₀ control efficiency of 99.998% or greater.

Please call me at (530) 574 0231 or Brent Lecrec of Vulcan Materials at (818) 858-5984 if you have any questions or if you need additional information.

Respectfully submitted,


Andre Almeida, P.E.
Engineer II
Sespe Consulting, Inc.

Attachments:

1. General Application Form

Internal Use Only	
APP ID: APCD	-APP/CER-
SITE ID: APCD	-SITE-

GENERAL PERMIT OR REGISTRATION APPLICATION FORM



Submittal of this application does not grant permission to construct or to operate equipment except as specified in Rule 24(c).

REASON FOR SUBMITTAL OF APPLICATION:

- | | | |
|--|---|--|
| <input type="checkbox"/> New Installation | <input type="checkbox"/> Existing Unpermitted Equipment or Rule 11 Change | <input type="checkbox"/> Modification of Existing Permitted Equipment |
| <input type="checkbox"/> Amendment to Existing Authority to Construct or Application | <input type="checkbox"/> Change of Equipment Location | <input type="checkbox"/> Change of Equipment Ownership (please provide proof of ownership) |
| <input checked="" type="checkbox"/> Change of Permit Conditions | <input type="checkbox"/> Change Permit to Operate Status to Inactive | <input type="checkbox"/> Banking Emissions |
| <input type="checkbox"/> Registration of Portable Equipment | <input type="checkbox"/> Other (Specify) _____ | |

List affected APP/PTO Record ID(s): 001417

APPLICANT INFORMATION

Name of Business (DBA) Vulcan Materials Company, Western Division

Does this organization own or operate any other APCD permitted equipment at this or any other adjacent locations? ☒ Yes ☐ No

If yes, list assigned Site Record IDs listed on your Permits 06271

Name of Legal Owner (if different from DBA)

Equipment Owner	Authority to Construct Mailing Address
Name: Vulcan Materials Company, Western Division	Name: Vulcan Materials Otay Mesa Asphalt Plant
Mailing Address: 16013 East Foothill Blvd	Mailing Address: 7522 Paseo de la Fuente
City: Irwindale State: CA Zip: 91702	City: San Diego State: CA Zip: 92154
Phone: (818) 858 5984	Phone: (818) 858 5984
E-Mail Address: leclercb@vmcmail.com	E-Mail Address: leclercb@vmcmail.com

Permit To Operate Mailing Address	Invoice Mailing Address
Name: Vulcan Materials Otay Mesa Asphalt Plant	Name: Vulcan Materials Otay Mesa Asphalt Plant
Mailing Address: 7522 Paseo de la Fuente	Mailing Address: 7522 Paseo de la Fuente
City: San Diego State: CA Zip: 92154	City: San Diego State: CA Zip: 92154
Phone: (818) 858 5984	Phone: (818) 858 5984
E-Mail Address: leclercb@vmcmail.com	E-Mail Address: leclercb@vmcmail.com

EQUIPMENT/PROCESS INFORMATION: Type of Equipment: ☒ Stationary ☐ Portable, if portable please enter below the equipment storage address. If portable, will operation exceed 12 consecutive months at the same location ☐ Yes ☐ No

Equipment Location Address 7522 Paseo de la Fuente City San Diego State: CA

Parcel No. 6480403600 Zip 92154 Phone (818) 858 5984 E-mail: leclercb@vmcmail.com

Site Contact Brent Leclerc Phone (818) 858 5984

General Description of Equipment/Process Drum Mix Asphalt Plant

Application Submitted by ☒ Owner ☐ Operator ☐ Contractor ☒ Consultant Affiliation Sespe Consulting

EXPEDITED APPLICATION PROCESSING: ☐ I hereby request Expedited Application Processing and understand that:

a) Expedited processing will incur additional fees and permits will not be issued until the additional fees are paid in full (see Rule 40(d)(8)(iv) for details) b) Expedited processing is contingent on the availability of qualified staff c) Once engineering review has begun this request cannot be cancelled d) Expedited processing does not guarantee action by any specific date nor does it guarantee permit approval.

☐ This application contains trade secret or confidential information (see reverse for instructions)

I hereby certify that all information provided on this application is true and correct.

Print Name Brent Leclerc Date 10/3/2022
Phone (818) 858 5984 Company Vulcan Materials Company, Western Division
E-mail Address leclercb@vmcmail.com

Internal Use Only

Date	Staff Initials:	Amt Rec'd \$	Fee Schedule
RNP:	EMF:	NBF:	TA: