DOCKETED

Docket Number:	00-AFC-14C
Project Title:	El Segundo Power Redevelopment Project Compliance
TN #:	201510
Document Title:	Air Quality Data to Supplement Certain Responses in Data Response Set 1
Description:	N/A
Filer:	Dee Hutchinson
Organization:	Locke Lord LLP
Submitter Role:	Applicant Representative
Submission Date:	1/3/2014 2:18:57 PM
Docketed Date:	1/3/2014

Locke Lord LLP
Attorneys & Counselors

500 Capitol Mall, Suite 1800
Sacramento, CA 95814
Telephone: 916-930-2500
Fax: 916-930-2501
www.lockelord.com

John A. McKinsey
Direct Telephone: 916-930-2527
Direct Fax: 916-720-0443
jmckinsey@lockelord.com

January 3, 2014

VIA HAND-DELIVERY AND E-FILING

El Segundo Energy Center Petition to Amend (00-AFC-14C)
Craig Hoffman, Project Manager
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

Re: El Segundo Energy Center Petition to Amend (00-AFC-14C)
Air Quality Data to Supplement Certain Responses in Data Response Set 1

Dear Mr. Hoffman:

On November 14, 2013, California Energy Commission staff requested additional data to supplement the air quality data responses El Segundo Energy Center LLC ("**ESEC LLC**") provided in Data Response Set 1 on September 12, 2013 (CEC TN# 200464). In response to staff's request, ESEC LLC hereby submits the enclosed air quality data, including modeling information on the enclosed compact disk. Please contact me or my colleague Allison Harris if there are questions about the enclosures.

Locke Lord LLP

By: _____
John A. McKinsey
Attorneys for El Segundo Energy Center LLC

JAM:awph

Enclosures (the compact disk will be hand-delivered)

El Segundo Energy Center
Petition to Amend

(00-AFC-14C)

Air Quality Data Responses

(Response to CEC Request for Supplemental Data dated November 15, 2013)

Submitted to

California Energy Commission

Prepared by

El Segundo Energy Center LLC

January 3, 2014

Contents

Introduction

Attached are El Segundo Energy Center LLC's (ESEC LLC) responses to the California Energy Commission Staff's (Staff) November 15, 2013 request for supplemental Air Quality data related to the El Segundo Energy Center (ESEC) Petition to Amend (00-AFC-14C).

Supplemental Air Quality Data Response

On November 14, 2013 the California Energy Commission ("CEC") Staff requested additional information regarding the demolition/construction air quality impact analysis performed as part of the El Segundo Energy Center Petition to Amend (00-AFC-14C) (the "Proposed Project")(see CEC TN # 201221, filed November 15, 2013). The following is the response of El Segundo Energy Center LLC ("ESEC LLC") to this request for supplemental data.

DATA REQUEST

AQ-1: Staff is looking at the construction emissions estimation for El Segundo (provided in data response set one, TN # 200464, dated Sept. 12, 2013, and an accompanying CD with a CalEEMod input spreadsheet). Table 3.1D-6R shows the maximum daily onsite fugitive dust was estimated to be 0.77 lbs/day for PM10 and 0.12 lbs/day for PM2.5, which were used as inputs for fugitive dust impacts analysis. Staff is trying to understand why the onsite fugitive dust emissions were only estimated for the demolition phase (first 6 months) and why the onsite fugitive dust emissions would be zero for the remaining 24 months. The CalEEMod input spreadsheet didn't include information for dust from material movement (i.e. grading, bulldozing, or truck loading) in the 'tblGrading' worksheet. Staff would like to know if there will be any grading, bulldozing, or truck loading onsite. Staff would also like to know if there will be any truck traveling on unpaved roads on the project site. If there will be such activities onsite, staff will need emissions estimation associated with these activities. Staff will also need a revised construction impacts analysis to be consistent with any revised emissions estimation.

Response: As discussed in Section 3.1.4.1 of the April 2013 El Segundo Energy Center Amendment Petition to Amend (00-AFC-14C) and in the responses to Data Request Numbers 14 – 17 provided in ESEC LLC's Data Response Set 1 dated September 12, 2013 (TN # 200464) ("Data Response Set 1"), the CalEEMod model was used to calculate demolition and construction emissions for the Proposed Project. In addition, as discussed in Data Response Number 3 of Data Response Set 1, the demolition phase of the Proposed Project is expected to occur during Months 1 through 6, the construction phase is expected to occur during Months 7 through 26, and the commissioning phase is expected to occur during Months 27 through 30. Therefore, in the CalEEMod model runs performed as part of Data Response Set 1, four CalEEMod model phase types were used, as shown below.

- Months 1 through 6: CalEEMod phase type set to "demolition;"
- Months 7 through 24: CalEEMod phase type set to "building construction;"
- Month 25: CalEEMod phase type set to "paving;" and
- Months 26 through 30: CalEEMod phase type set to "architectural coating."

The "building construction" phase type was used for Months 7 through 24 because installing foundations, erecting structures, and installing equipment are the main activities expected to occur during these months; which matches the activities listed in the "building construction" phase type definition in the CalEEMod user manual.[1] When the "building construction" phase type is selected, the CalEEMod model does not calculate fugitive dust emissions, regardless of the type of construction equipment identified for the period in

[1] California Emissions Estimator Model (CalEEMod) User's Guide, Section 4.3.1.

question. CalEEMod only calculates fugitive dust emissions if the phase types "demolition," "site preparation," or "grading" are selected.

After examining the type of construction equipment that is expected to be onsite during Months 7 through 24 (see enclosed Table 3.1D-8R), it is likely that there will be fugitive dust generated by equipment such as dozers and graders. Therefore, ESEC LLC has revised the demolition/construction analysis by changing the CalEEMod phase type for Months 7 through 24 from "building construction" to "grading." The "grading" phase type was selected because the CalEEMod user manual definition for this term more closely matches the expected activities during Months 7 through 24 than "demolition" or "site preparation." As shown on enclosed Table 3.1D-8R, following Month 24, the onsite construction equipment is mainly associated with paving and/or architectural coating activities. Therefore, the CalEEMod phase types listed above for these months remain unchanged for the revised analysis.

To respond to the CEC Staff question regarding emissions for onsite worker/truck travel during the demolition/construction phase of the Proposed Project, ESEC LLC examined how the CalEEMod model accounts for worker/truck travel emissions. While the CalEEMod model calculates both combustion and paved road travel fugitive dust emissions for workers and truck hauling or deliveries, all of these travel emissions are assumed to occur offsite. Because a portion of this travel is expected to occur on the Proposed Project site due to worker and/or truck travel on the Proposed Project's access road, ESEC LLC revised its demolition/construction analysis to account for these onsite emissions. This was done by assuming an onsite roundtrip travel distance of 0.5 mile for each worker or truck trip[2] and manually allocating a portion of the offsite travel emissions to onsite travel. For example, to estimate offsite vehicle combustion/paved road travel dust emissions for worker vehicle travel, the CalEEMod model assumes a travel distance of 14.7 miles. A factor of 0.5/14.7 was used to convert a portion of the offsite worker travel emissions (combustion/paved road dust emissions) into onsite travel emissions. This same onsite travel distance of 0.5 mile was used to convert a portion of the offsite truck delivery/hauling emissions into onsite travel emissions. Because nearly all of the onsite travel by workers and delivery trucks will be done on paved surfaces (paved access roads and paved parking areas), onsite unpaved travel by workers and delivery trucks is expected to be minimal. The manually calculated onsite worker/delivery truck emission estimates are shown in enclosed Table 3.1D-5R, with combustion travel emissions referred to as "on-site vehicle" and fugitive dust travel emissions referred to as "fugitive (on-site vehicle)."

Finally, the revised demolition/construction analysis was performed using the most current version of the CalEEMod model (Version 2013.2.2) that was released on October 2, 2013, including the use of the CalEEMod load factors for the onsite construction equipment. The use of the newest version of the CalEEMod model along with the current CalEEMod load factors resulted in a decrease in the estimated onsite construction equipment combustion emissions.

The revised demolition/construction emission estimates are shown in the tables in Attachment DR14-1 of this response, with changes shown in strikethrough and underline format. The updated CalEEMod model input spreadsheet and output results are included in the enclosed compact disc.

New ambient impact modeling has been performed based on the revised demolition/construction emission estimates. The modeling results are summarized in Table 3.1-22R of Attachment DR14-1 below. Table 3.1-22R shows that the modeling of the revised demolition/construction emissions does not change any of the conclusions discussed in the PTA or in the updated demolition/construction impact analysis submitted to the CEC Staff on September 23, 2013 (as TN# 200666). These conclusions are that while for some

[2] Based on traveling on the paved access road from the public street to the paved parking area located in the tank farm area.

pollutants/averaging periods the modeled impacts are potentially significant, mitigation measures will be used to minimize emissions and the Proposed Project's demolition/construction emission ambient impacts are not expected to cause new exceedances of any state or federal air quality standard).

<u>Attachment DR14-1:</u> Revised Demolition/Construction Emissions Calculations and Support Data Tables (See Attached Tables)

Table 3.1D-1R (Updated December 26, 2013)
Daily and Annual Construction Emissions

Daily Construction Emissions (peak month) (lbs/day)						
	NOx	CO	VOC	SOx	PM10	PM2.5
Onsite						
Off-Road Equipment **(Combustion)**	~~185.56~~ **116.45**	~~219.33~~ **137.85**	~~9.37~~ **5.78**	~~0.41~~ **0.27**	~~8.00~~ **5.44**	~~8.00~~[1] **5.44**
On-Site Vehicles (Combustion)	**0.20**	**1.49**	**0.11**	**0.00**	**0.01**	**0.01**
Off-Road Equipment - Fugitive Dust					~~0.77~~ **4.90**	~~0.12~~ **2.60**
On-Site Vehicles - Fugitive Dust					**0.39**	**0.10**
Subtotal **(On-Site)**	~~185.56~~ **116.65**	~~219.33~~ **139.34**	~~9.37~~ **5.89**	~~0.41~~ **0.27**	~~8.77~~ **10.74**	~~8.12~~[1] **8.15**
Offsite						
Worker Travel **(Combustion)**	5.17	58.80	~~22.31~~ **3.82**	0.14	0.09	0.08
Truck Emissions **(Combustion)**	2.66	3.59	~~0.49~~ **0.27**	0.01	0.04	0.04
Hauling Emissions **(Combustion)**	~~5.16~~ **4.91**	~~4.03~~ **3.84**	~~0.70~~ **0.31**	0.01	0.08	0.07
Worker Travel - Fugitive Dust					11.18	2.96
Truck - Fugitive Dust					0.19	0.05
Hauling - Fugitive Dust					~~4.88~~ **0.30**	~~1.21~~ **0.08**
Subtotal **(Offsite)**	~~12.99~~ **12.74**	~~66.42~~ **66.22**	~~23.50~~ **4.41**	~~0.16~~ **0.16**	~~16.45~~ **11.87**	~~4.42~~ **3.29**
Total	~~198.54~~ **129.39**	~~285.74~~ **205.56**	~~32.87~~ **10.30**	~~0.57~~ **0.43**	~~25.22~~ **22.61**	~~12.54~~[1] **11.45**

Peak Annual Construction Emissions (tons/yr, rolling 12-month maximum)						
	NOx	CO	VOC	SOx	PM10	PM2.5
Onsite						
Off-Road Equipment **(Combustion)**	~~21.77~~ **13.77**	~~25.75~~ **16.24**	~~1.09~~ **0.69**	~~0.05~~ **0.03**	~~0.93~~ **0.62**	~~0.93~~[1] **0.62**
On-Site Vehicles (Combustion)	**0.03**	**0.21**	**0.01**	**0.00**	**0.00**	**0.00**
Off-Road Equipment - Fugitive Dust					~~0.05~~ **0.47**	~~0.01~~ **0.25**
On-Site Vehicles - Fugitive Dust					**0.04**	**0.01**
Subtotal **(On-Site)**	~~21.77~~ **13.80**	~~25.75~~ **16.45**	~~1.09~~ **0.70**	~~0.05~~ **0.03**	~~0.98~~ **1.14**	~~0.94~~[1] **0.89**
Offsite						
Worker Travel **(Combustion)**	0.61	6.38	~~2.24~~ **0.42**	0.02	0.01	0.01
Truck Emissions **(Combustion)**	0.19	0.24	~~0.03~~ **0.02**	0.00	0.00	0.00
Hauling Emissions **(Combustion)**	~~0.32~~ **0.31**	0.24	~~0.04~~ **0.02**	0.00	0.00	0.00
Worker Travel - Fugitive Dust					1.26	0.33
Truck - Fugitive Dust					0.01	0.00
Hauling - Fugitive Dust					~~0.31~~ **0.02**	~~0.08~~ **0.01**
Subtotal **(Offsite)**	~~1.12~~ **1.11**	6.86	~~2.31~~ **0.45**	0.02	~~1.60~~ **1.31**	~~0.43~~ **0.36**
Total	~~22.89~~ **14.92**	~~32.61~~ **23.31**	~~3.40~~ **1.16**	~~0.07~~ **0.05**	~~2.57~~ **2.44**	~~1.37~~[1] **1.25**

Table 3.1D-2R (Updated December 26, 2013)
Modeled Emissions – Short Term Impacts

Short Term Impacts (24 hours and less)					
	NOx	CO	SOx	PM10	PM2.5
TOTAL					
~~Off Road Equipment~~					
Off-Road Equipment and On-Site Vehicles (Combustion) (lbs/day)	~~185.56~~ **116.65**	~~219.33~~ **139.34**	~~0.41~~ **0.27**	~~9.37~~ **5.45**	~~8.00~~ **5.45**
~~Off Road Equipment~~					
Off-Road Equipment and On-Site Vehicles (Combustion) (hrs/day)	8	8	8	8	8
~~Off Road Equipment~~					
Off-Road Equipment and On-Site Vehicles (Combustion) (lbs/hr)	~~23.19~~ **14.58**	~~27.42~~ **17.42**	~~0.05~~ **0.03**	~~1.17~~ **0.68**	~~1.00~~ **0.68**
~~Off Road Equipment~~					
Off-Road Equipment and On-Site Vehicles (Combustion) (g/sec)	~~2.92~~ **1.84**	~~3.45~~ **2.19**	~~0.01~~ **0.0004**	~~0.15~~ **0.09**	~~0.13~~ **0.09**
Off-Road Equipment and On-Site Vehicles (Fugitive Dust) (lbs/day)				~~0.77~~ **5.29**	~~0.12~~ **2.71**
Off-Road Equipment and On-Site Vehicles (Fugitive Dust) (hrs/day)				8	8
Off-Road Equipment and On-Site Vehicles (Fugitive Dust) (lbs/hr)				~~0.10~~ **0.66**	~~0.01~~ **0.34**
Off-Road Equipment and On-Site Vehicles (Fugitive Dust) (g/sec)				~~0.01~~ **0.08**	~~0.00~~ **0.04**

Table 3.1D-3R (Updated December 26, 2013)
Modeled Emissions - Long-Term Impacts

Long Term Impacts (annual)					
	NOx	CO	SOx	PM10	PM2.5
TOTAL					
~~Off Road Equipment~~	~~21.77~~	~~25.75~~	~~0.05~~	~~0.93~~	~~0.93~~
Off-Road Equipment and On-Site Vehicles (Combustion) (tons/yr)	**13.80**	**16.45**	**0.03**	**0.62**	**0.62**
~~Off Road Equipment~~					
Off-Road Equipment and On-Site Vehicles (Combustion) (days/yr)	262	262	262	262	262
~~Off Road Equipment~~					
Off-Road Equipment and On-Site Vehicles (Combustion) (hrs/day)	8	8	8	8	8
~~Off Road Equipment~~	~~20.77~~	~~24.57~~	~~0.05~~	~~0.89~~	~~0.89~~
Off-Road Equipment and On-Site Vehicles (Combustion) (lbs/hr)	**13.17**	**15.70**	**0.03**	**0.59**	**0.59**
~~Off Road Equipment~~	~~2.62~~	~~3.10~~	~~0.01~~	~~0.11~~	~~0.11~~
Off-Road Equipment and On-Site Vehicles (Combustion) (g/sec)	**1.66**	**1.98**	**0.004**	**0.07**	**0.07**
Off-Road Equipment and On-Site Vehicles (Fugitive Dust) (tons/yr)				~~0.05~~ **0.51**	~~0.01~~ **0.27**
Off-Road Equipment and On-Site Vehicles (Fugitive Dust) (days/yr)				262	262
Off-Road Equipment and On-Site Vehicles (Fugitive Dust) (hrs/day)				8	8
Off-Road Equipment and On-Site Vehicles (Fugitive Dust) (lbs/hr)				~~0.04~~ **0.49**	~~0.01~~ **0.25**
Off-Road Equipment and On-Site Vehicles (Fugitive Dust) (g/sec)				~~0.01~~ **0.06**	~~0.00~~ **0.03**

Table 3.1D-4R (Updated December 26, 2013)
Greenhouse Gas Emission Calculations

Construction GHG Emissions (MT, Total for 26-month Demolition/Construction Period)				
	CO2	CH4	N2O	CO2e
Off-Road Equipment	~~5858.23~~ **3854.17**	~~1.46~~ **0.89**	0.00	~~5888.86~~ **3872.95**
On-Site Vehicles	**70.76**	**0.01**	**0.00**	**70.86**
Worker Travel	1875.88	0.10	0.00	1877.94
Truck Emissions	71.10	0.00	0.00	71.11
Hauling Emissions	~~73.96~~ **73.34**	0.00	0.00	~~73.97~~ **73.36**
Total	~~7879.16~~ **5945.28**	~~1.56~~ **1.00**	0.00	~~7911.88~~ **5966.22**

Table 3.1D-5R (Updated December 26, 2013)
Monthly and Annual Emission Calculations

		2016												2017												2018		Commissioning			
Calendar Month		Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Project Month		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
																	ROG														
Off-Road Equipment	(tons/month)	0.01	0.02	0.02	0.02	0.02	0.01	0.01	0.03	0.04	0.05	0.06	0.06	0.06	0.06	0.07	0.06	0.06	0.06	0.06	0.04	0.04	0.04	0.02	0.01	8.48E-03	0	0	0	0	0
On-site Vehicles	(tons/month)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Hauling Emission	(tons/month)	3.23E-03	3.23E-03	3.23E-03	3.23E-03	3.23E-03	3.23E-03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck Emission	(tons/month)	1.90E-04	4.70E-04	1.33E-03	1.49E-03	2.73E-03	2.93E-03	1.21E-03	1.33E-03	1.27E-03	1.21E-03	1.27E-03	1.27E-03	1.16E-03	1.05E-03	1.21E-03	1.05E-03	1.21E-03	1.25E-03	1.28E-03	1.40E-03	1.19E-03	1.16E-03	7.10E-04	6.80E-04	5.20E-04	3.00E-04	2.50E-04	8.00E-05	9.00E-05	0
Worker Travel	(tons/month)	8.44E-03	8.44E-03	9.25E-03	8.44E-03	8.84E-03	8.84E-03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.02	0.01	0.01	0.01	0.01
Off-Road Equipment	Rolling 12-month total (tons/year)												0.36	0.41	0.45	0.50	0.54	0.58	0.63	0.68	0.69	0.68	0.66	0.63	0.58	0.52	0.46				
Off-Road + On-Site Vehicles	Rolling 12-month total (tons/year)												0.37	0.42	0.46	0.51	0.55	0.60	0.65	0.69	0.70	0.69	0.68	0.64	0.59	0.54	0.48				
Hauling Emission	Rolling 12-month total (tons/year)												0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Truck Emission	Rolling 12-month total (tons/year)												0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01				
Worker Travel	Rolling 12-month total (tons/year)												0.24	0.26	0.27	0.29	0.31	0.34	0.37	0.38	0.39	0.40	0.41	0.42	0.41	0.41	0.41				
																	NOx														
Off-Road Equipment	(tons/month)	0.24	0.37	0.43	0.33	0.35	0.21	0.26	0.62	0.88	1.07	1.13	1.26	1.23	1.16	1.34	1.16	1.30	1.21	1.15	0.88	0.71	0.79	0.38	0.27	0.17	0				
On-site Vehicles	(tons/month)	1.87E-03	2.08E-03	2.75E-03	2.83E-03	3.77E-03	3.91E-03	2.37E-03	2.59E-03	2.48E-03	2.37E-03	2.48E-03	2.48E-03	2.24E-03	2.04E-03	2.35E-03	2.04E-03	2.98E-03	2.91E-03	2.84E-03	3.11E-03	2.78E-03	2.84E-03	2.52E-03	1.83E-03	1.70E-03	1.37E-03				
Hauling Emission	(tons/month)	0.05	0.05	0.05	0.05	0.05	0.05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck Emission	(tons/month)	0.00	0.00	0.01	0.02	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
Worker Travel	(tons/month)	0.01	0.01	0.01	0.01	0.01	0.01	0.04	0.05	0.05	0.04	0.05	0.05	0.04	0.04	0.04	0.04	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.04	0.04	0.03	0.01	0.01	0.01	0.01
Off-Road Equipment	Rolling 12-month total (tons/year)												7.15	8.15	8.94	9.85	10.68	11.63	12.62	13.51	13.77	13.61	13.33	12.58	11.59	10.53	9.38				
Off-Road + On-Site Vehicles	Rolling 12-month total (tons/year)												7.18	8.18	8.97	9.88	10.71	11.66	12.65	13.54	13.80	13.64	13.36	12.61	11.62	10.56	9.41				
Hauling Emission	Rolling 12-month total (tons/year)												0.31	0.26	0.21	0.16	0.10	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Truck Emission	Rolling 12-month total (tons/year)												0.17	0.18	0.19	0.18	0.18	0.16	0.15	0.15	0.15	0.15	0.15	0.14	0.14	0.13	0.12				
Worker Travel	Rolling 12-month total (tons/year)												0.35	0.38	0.40	0.43	0.46	0.50	0.55	0.56	0.58	0.59	0.60	0.61	0.61	0.61	0.60				
																	CO														
Off-Road Equipment	(tons/month)	0.32	0.47	0.56	0.47	0.49	0.26	0.32	0.74	1.04	1.26	1.32	1.48	1.44	1.36	1.59	1.38	1.53	1.43	1.37	1.04	0.85	0.95	0.46	0.33	0.22	0				
On-site Vehicles	(tons/month)	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01				
Hauling Emission	(tons/month)	0.04	0.04	0.04	0.04	0.04	0.04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck Emission	(tons/month)	0.00	0.01	0.02	0.02	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
Worker Travel	(tons/month)	0.13	0.13	0.14	0.13	0.14	0.14	0.45	0.49	0.47	0.45	0.47	0.47	0.43	0.39	0.45	0.39	0.64	0.61	0.58	0.64	0.58	0.61	0.61	0.41	0.40	0.35	0.11	0.11	0.12	0.11
Off-Road Equipment	Rolling 12-month total (tons/year)												8.72	9.84	10.73	11.76	12.67	13.72	14.89	15.94	16.24	16.04	15.74	14.88	13.73	12.52	11.16				
Off-Road + On-Site Vehicles	Rolling 12-month total (tons/year)												8.87	10.00	10.90	11.94	12.85	13.91	15.10	16.15	16.45	16.27	15.96	15.11	13.96	12.74	11.38				
Hauling Emission	Rolling 12-month total (tons/year)												0.24	0.20	0.16	0.12	0.08	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Truck Emission	Rolling 12-month total (tons/year)												0.22	0.23	0.24	0.24	0.23	0.21	0.19	0.19	0.20	0.20	0.20	0.19	0.18	0.17	0.16				
Worker Travel	Rolling 12-month total (tons/year)												3.61	3.91	4.17	4.47	4.73	5.23	5.70	5.83	5.98	6.09	6.24	6.38	6.31	6.29	6.25				
																	SO2														
Off-Road Equipment	(tons/month)	5.10E-04	8.10E-04	9.50E-04	7.70E-04	7.60E-04	5.90E-04	5.70E-04	1.38E-03	1.95E-03	2.41E-03	2.54E-03	2.85E-03	2.80E-03	2.63E-03	3.05E-03	2.67E-03	2.97E-03	2.78E-03	2.65E-03	2.04E-03	1.61E-03	1.74E-03	8.00E-04	5.60E-04	3.50E-04	0				
On-site Vehicles	(tons/month)	1.28E-05	1.35E-05	1.60E-05	1.57E-05	1.85E-05	1.85E-05	3.58E-05	3.92E-05	3.75E-05	3.58E-05	3.75E-05	3.75E-05	3.75E-05	3.41E-05	3.89E-05	3.41E-05	5.49E-05	5.25E-05	5.01E-05	5.56E-05	5.01E-05	5.25E-05	5.18E-05	3.51E-05	3.75E-05	3.27E-05				
Hauling Emission	(tons/month)	1.30E-04	1.30E-04	1.30E-04	1.30E-04	1.30E-04	1.30E-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck Emission	(tons/month)	0	1.00E-05	3.00E-05	4.00E-05	7.00E-05	7.00E-05	3.00E-05	3.00E-05	3.00E-05	3.00E-05	3.00E-05	3.00E-05	3.00E-05	3.00E-05	3.00E-05	3.00E-05	3.00E-05	3.00E-05	3.00E-05	4.00E-05	3.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	1.00E-05	0	0	0
Worker Travel	(tons/month)	2.80E-04	2.80E-04	3.10E-04	2.80E-04	3.00E-04	3.00E-04	9.90E-04	1.09E-03	1.04E-03	9.90E-04	1.04E-03	1.04E-03	1.04E-03	9.40E-04	1.08E-03	9.40E-04	1.55E-03	1.48E-03	1.41E-03	1.55E-03	1.41E-03	1.48E-03	1.48E-03	9.90E-04	1.08E-03	9.40E-04	3.00E-04	2.80E-04	3.10E-04	2.80E-04
Off-Road Equipment	Rolling 12-month total (tons/year)												0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02				
Off-Road + On-Site Vehicles	Rolling 12-month total (tons/year)												0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02				
Hauling Emission	Rolling 12-month total (tons/year)												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Truck Emission	Rolling 12-month total (tons/year)												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Worker Travel	Rolling 12-month total (tons/year)												0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01				
																	PM10														
Fugitive (Off Road)	(tons/month)	7.7E-03	7.7E-03	7.7E-03	7.7E-03	7.7E-03	7.7E-03	0.03	0.03	0.05	0.05	0.05	0.05	0.05	0.05	0.03	0.02	0.03	0.02	0.00	0.00	0.03	0.03	0.03	0.03						
Fugitive (On-site Vehicles)	(tons/month)	8.7E-04	8.8E-04	1.0E-03	9.3E-04	1.0E-03	1.0E-03	2.8E-03	3.1E-03	2.9E-03	2.8E-03	2.9E-03	2.9E-03	2.9E-03	2.7E-03	3.1E-03	2.7E-03	4.4E-03	4.2E-03	4.0E-03	4.4E-03	4.0E-03	4.2E-03	4.1E-03	2.8E-03	3.0E-03	2.6E-03				
Fugitive - Hauling	(tons/month)	3.11E-03	3.11E-03	3.11E-03	3.11E-03	3.11E-03	3.11E-03	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fugitive - Truck	(tons/month)	1.30E-04	3.20E-04	9.20E-04	1.03E-03	1.90E-03	2.03E-03	8.40E-04	9.20E-04	8.80E-04	8.40E-04	8.80E-04	8.80E-04	8.80E-04	8.00E-04	9.20E-04	8.00E-04	9.20E-04	9.50E-04	9.70E-04	1.06E-03	9.00E-04	8.80E-04	5.40E-04	5.20E-04	4.20E-04	2.50E-04	2.00E-04	6.00E-05	7.00E-05	0
Fugitive - Worker Travel	(tons/month)	0.02	0.02	0.03	0.02	0.02	0.02	0.08	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.09	0.08	0.13	0.12	0.12	0.13	0.12	0.12	0.12	0.08	0.09	0.08	0.02	0.02	0.03	0.02
Fugitive (Off Road)	Rolling 12-month total (tons/year)												0.32	0.36	0.40	0.42	0.43	0.45	0.47	0.47	0.44	0.39	0.36	0.34	0.31	0.26	0.21				
Fugitive (On-site Vehicles)	Rolling 12-month total (tons/year)												0.02	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04				
Fugitive - Hauling	Rolling 12-month total (tons/year)												0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Fugitive - Truck	Rolling 12-month total (tons/year)												0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01				
Fugitive - Worker Travel	Rolling 12-month total (tons/year)												0.65	0.71	0.76	0.82	0.88	0.98	1.08	1.11	1.15	1.18	1.22	1.26	1.25	1.26	1.26				
Off-Road Equipment	(tons/month)	1.10E-02	1.66E-02	1.95E-02	1.61E-02	1.69E-02	9.88E-03	1.10E-02	2.68E-02	3.70E-02	4.54E-02	4.76E-02	5.45E-02	5.49E-02	5.24E-02	6.26E-02	5.44E-02	6.04E-02	5.67E-02	5.41E-02	4.07E-02	3.37E-02	3.79E-02	1.84E-02	1.29E-02	8.72E-03	0				
On-site Vehicles	(tons/month)	2.87E-05	3.16E-05	4.21E-05	4.39E-05	5.88E-05	6.10E-05	3.72E-05	4.07E-05	3.90E-05	3.72E-05	3.90E-05	3.90E-05	3.65E-05	3.37E-05	3.83E-05	3.37E-05	4.88E-05	4.82E-05	4.65E-05	5.10E-05	4.57E-05	4.67E-05	4.16E-05	3.04E-05	2.96E-05	2.44E-05				
Hauling Emission	(tons/month)	7.90E-04	7.90E-04	7.90E-04	7.90E-04	7.90E-04	7.90E-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck Emission	(tons/month)	3.00E-05	7.00E-05	2.10E-04	2.40E-04	4.40E-04	4.70E-04	1.90E-04	2.10E-04	2.00E-04	1.90E-04	2.00E-04	2.00E-04	1.80E-04	1.70E-04	1.90E-04	1.70E-04	1.90E-04	2.00E-04	2.00E-04	2.20E-04	1.90E-04	1.80E-04	1.10E-04	1.10E-04	8.00E-05	5.00E-05	4.00E-05	1.00E-05	1.00E-05	0
Worker Travel	(tons/month)	2.00E-04	2.00E-04	2.10E-04	2.00E-04	2.10E-04	2.10E-04	6.90E-04	7.50E-04	7.20E-04	6.90E-04	7.20E-04	7.20E-04	6.90E-04	6.30E-04	7.20E-04	6.30E-04	1.03E-03	9.90E-04	9.40E-04	1.03E-03	9.40E-04	9.90E-04	9.90E-04	6.60E-04	7.00E-04	6.10E-04	1.90E-04	1.80E-04	2.00E-04	1.80E-04
Off-Road Equipment	Rolling 12-month total (tons/year)												0.31	0.36	0.39	0.44	0.47	0.52	0.56	0.61	0.62	0.62	0.61	0.58	0.54	0.49	0.44				
Off-Road + On-Site Vehicles	Rolling 12-month total (tons/year)												0.31	0.36	0.39	0.44	0.47	0.52	0.56	0.61	0.62	0.62	0.61	0.58	0.54	0.49	0.44				
Hauling Emission	Rolling 12-month total (tons/year)												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Truck Emission	Rolling 12-month total (tons/year)												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Worker Travel	Rolling 12-month total (tons/year)												0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01				

Table 3.1D-5R (Updated December 26, 2013) (cont.)

		PM2.5																														
Fugitive (Off Road)	(tons/month)	1.16E-03	1.16E-03	1.16E-03	1.16E-03	1.16E-03	1.16E-03	0.01	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.01							
Fugitive (On-site Vehicles)	(tons/month)	2.32E-04	2.36E-04	2.68E-04	2.51E-04	2.78E-04	2.81E-04	7.45E-04	8.18E-04	7.80E-04	7.45E-04	7.80E-04	7.80E-04	7.80E-04	7.11E-04	8.18E-04	7.11E-04	1.16E-03	1.11E-03	1.06E-03	1.16E-03	1.06E-03	1.11E-03	1.10E-03	7.39E-04	8.08E-04	6.99E-04					
Fugitive - Hauling	(tons/month)	8.50E-04	8.50E-04	8.50E-04	8.50E-04	8.50E-04	8.50E-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fugitive - Truck	(tons/month)	4.00E-05	9.00E-05	2.60E-04	3.00E-04	5.40E-04	5.80E-04	2.40E-04	2.60E-04	2.50E-04	2.40E-04	2.50E-04	2.50E-04	2.50E-04	2.30E-04	2.60E-04	2.30E-04	2.60E-04	2.70E-04	2.80E-04	3.00E-04	2.60E-04	2.50E-04	1.50E-04	1.50E-04	1.20E-04	7.00E-05	6.00E-05	2.00E-05	2.00E-05	0	
Fugitive - Worker Travel	(tons/month)	6.12E-03	6.12E-03	6.70E-03	6.12E-03	6.41E-03	6.41E-03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	6.41E-03	6.12E-03	6.70E-03	6.12E-03	
Fugitive (Off Road)	Rolling 12-month total (tons/year)												0.15	0.18	0.20	0.21	0.23	0.24	0.25	0.25	0.24	0.21	0.20	0.18	0.17	0.14	0.11					
Fugitive (On-site Vehicles)	Rolling 12-month total (tons/year)												0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01					
Fugitive - Hauling	Rolling 12-month total (tons/year)												0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
Fugitive - Truck	Rolling 12-month total (tons/year)												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
Fugitive - Worker Travel	Rolling 12-month total (tons/year)												0.17	0.19	0.20	0.22	0.23	0.26	0.29	0.30	0.31	0.31	0.32	0.33	0.33	0.33	0.33					
Off-Road Equipment	(tons/month)	0.011	0.017	0.020	0.016	0.017	0.010	0.011	0.027	0.037	0.045	0.048	0.055	0.055	0.052	0.063	0.054	0.060	0.057	0.054	0.041	0.034	0.038	0.018	0.013	8.72E-03	0					
On-site Vehicles	(tons/month)	2.65E-05	2.94E-05	3.95E-05	4.03E-05	5.37E-05	5.59E-05	3.45E-05	3.80E-05	3.62E-05	3.45E-05	3.62E-05	3.62E-05	3.41E-05	3.06E-05	3.58E-05	3.06E-05	4.54E-05	4.40E-05	4.26E-05	4.68E-05	4.19E-05	4.33E-05	3.82E-05	2.80E-05	2.79E-05	2.23E-05					
Hauling Emission	(tons/month)	7.30E-04	7.30E-04	7.30E-04	7.30E-04	7.30E-04	7.30E-04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck Emission	(tons/month)	3.00E-05	7.00E-05	2.00E-04	2.20E-04	4.00E-04	4.30E-04	1.80E-04	2.00E-04	1.90E-04	1.80E-04	1.90E-04	1.90E-04	1.70E-04	1.50E-04	1.80E-04	1.50E-04	1.80E-04	1.80E-04	1.80E-04	2.00E-04	1.70E-04	1.70E-04	1.00E-04	1.00E-04	8.00E-05	4.00E-05	4.00E-05	1.00E-05	1.00E-05	0	
Worker Travel	(tons/month)	1.80E-04	1.80E-04	2.00E-04	1.80E-04	1.90E-04	1.90E-04	6.30E-04	6.90E-04	6.60E-04	6.30E-04	6.60E-04	6.60E-04	6.40E-04	5.80E-04	6.70E-04	5.80E-04	9.50E-04	9.10E-04	8.70E-04	9.50E-04	8.70E-04	9.10E-04	9.10E-04	6.10E-04	6.50E-04	5.70E-04	1.80E-04	1.70E-04	1.90E-04	1.70E-04	
Off-Road Equipment	Rolling 12-month total (tons/year)												0.31	0.36	0.39	0.44	0.47	0.52	0.56	0.61	0.62	0.62	0.61	0.58	0.54	0.49	0.44					
Off-Road + On-Site Vehicles	Rolling 12-month total (tons/year)												0.31	0.36	0.39	0.44	0.47	0.52	0.56	0.61	0.62	0.62	0.61	0.58	0.54	0.49	0.44					
Hauling Emission	Rolling 12-month total (tons/year)												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
Truck Emission	Rolling 12-month total (tons/year)												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
Worker Travel	Rolling 12-month total (tons/year)												0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01					
		CO2																														
Off-Road Equipment	(MT/month)	47.31	75.05	87.94	70.50	70.47	51.98	53.38	126.86	178.90	219.52	231.70	259.34	250.94	235.44	271.89	237.37	264.64	247.18	235.46	181.34	144.09	156.59	73.12	51.47	31.69	0.00					
On-site Vehicles	(MT/month)	1.07	1.11	1.32	1.28	1.51	1.55	2.76	3.03	2.90	2.76	2.90	2.90	2.79	2.54	2.92	2.54	4.08	3.91	3.75	4.11	3.74	3.90	3.82	2.59	2.70	2.32					
Hauling Emission	(MT/month)	12.22	12.22	12.22	12.22	12.22	12.22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck Emission	(MT/month)	0.41	1.03	2.95	3.31	6.07	6.50	2.69	2.95	2.82	2.69	2.82	2.82	2.77	2.52	2.90	2.52	2.90	2.99	3.05	3.34	2.85	2.77	1.71	1.63	1.32	0.76	0.63	0.20	0.22	0.00	
Worker Travel	(MT/month)	21.59	21.59	23.64	21.59	22.61	22.61	75.55	82.74	79.15	75.55	79.15	79.15	76.11	69.19	79.57	69.19	113.67	108.73	103.78	113.67	103.78	108.73	108.73	72.65	76.60	66.61	20.93	19.98	21.88	19.98	
Off-Road Equipment	Rolling 12-month total (MT/year)												1,473	1,677	1,837	2,021	2,188	2,382	2,577	2,759	2,814	2,779	2,716	2,557	2,350	2,130	1,895					
Off-Road + On-Site Vehicles	Rolling 12-month total (MT/year)												1,498	1,703	1,865	2,051	2,219	2,416	2,613	2,796	2,852	2,818	2,756	2,598	2,390	2,171	1,935					
Hauling Emission	Rolling 12-month total (MT/year)												73	61	49	37	24	12	0	0	0	0	0	0	0	0	0					
Truck Emission	Rolling 12-month total (MT/year)												37	39	41	41	40	37	33	34	34	34	34	33	32	30	29					
Worker Travel	Rolling 12-month total (MT/year)												605	659	707	763	811	902	988	1,016	1,047	1,072	1,105	1,134	1,128	1,128	1,126					
		CH4																														
Off-Road Equipment	(MT/month)	0.01	0.02	0.03	0.02	0.02	0.01	0.02	0.03	0.04	0.05	0.05	0.06	0.06	0.05	0.06	0.05	0.06	0.05	0.05	0.04	0.03	0.04	0.02	0.0151	9.87E-03	0					
On-site Vehicles	(MT/month)	4.17E-05	4.24E-05	4.69E-05	4.32E-05	4.66E-05	4.74E-05	1.40E-04	1.53E-04	1.46E-04	1.40E-04	1.46E-04	1.46E-04	1.35E-04	1.23E-04	1.41E-04	1.23E-04	2.01E-04	1.93E-04	1.84E-04	2.01E-04	1.84E-04	1.93E-04	1.92E-04	1.28E-04	1.31E-04	1.14E-04					
Hauling Emission	(MT/month)	9.00E-05	9.00E-05	9.00E-05	9.00E-05	9.00E-05	9.00E-05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck Emission	(MT/month)	0	1.00E-05	2.00E-05	2.00E-05	4.00E-05	5.00E-05	2.00E-05	2.00E-05	2.00E-05	2.00E-05	2.00E-05	2.00E-05	2.00E-05	2.00E-05	2.00E-05	2.00E-05	2.00E-05	2.00E-05	2.00E-05	2.00E-05	2.00E-05	2.00E-05	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0	0	0	0	
Worker Travel	(MT/month)	1.16E-03	1.16E-03	1.27E-03	1.16E-03	1.22E-03	1.22E-03	4.07E-03	4.46E-03	4.26E-03	4.07E-03	4.26E-03	4.26E-03	3.93E-03	3.58E-03	4.11E-03	3.58E-03	5.87E-03	5.62E-03	5.36E-03	5.87E-03	5.36E-03	5.62E-03	5.62E-03	3.75E-03	3.82E-03	3.32E-03	1.04E-03	1.00E-03	1.09E-03	1.00E-03	
Off-Road Equipment	Rolling 12-month total (MT/year)												0.37	0.41	0.44	0.48	0.51	0.54	0.58	0.61	0.62	0.61	0.59	0.56	0.51	0.47	0.41					
Off-Road + On-Site Vehicles	Rolling 12-month total (MT/year)												0	0	0	0	1	1	1	1	1	1	1	1	1	0	0					
Hauling Emission	Rolling 12-month total (MT/year)												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
Truck Emission	Rolling 12-month total (MT/year)												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
Worker Travel	Rolling 12-month total (MT/year)												0.03	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06	0.06					
		N2O																														
Off-Road Equipment	(MT/month)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
On-site Vehicles	(MT/month)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
Hauling Emission	(MT/month)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	
Truck Emission	(MT/month)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	
Worker Travel	(MT/month)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	
Off-Road Equipment	Rolling 12-month total (MT/year)												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
Off-Road + On-Site Vehicles	Rolling 12-month total (MT/year)												0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Hauling Emission	Rolling 12-month total (MT/year)												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
Truck Emission	Rolling 12-month total (MT/year)												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
Worker Travel	Rolling 12-month total (MT/year)												0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
		CO2e																														
Off-Road Equipment	(MT/month)	47.60	75.51	88.48	70.92	70.91	52.23	53.71	127.53	179.83	220.60	232.85	260.61	252.12	236.52	273.09	238.42	265.80	248.25	236.48	182.14	144.77	157.36	73.54	51.79	31.90	0.00					
On-site Vehicles	(MT/month)	1.07	1.12	1.32	1.28	1.52	1.55	2.77	3.03	2.90	2.77	2.90	2.90	2.79	2.54	2.92	2.54	4.08	3.92	3.76	4.11	3.74	3.90	3.83	2.59	2.70	2.32					
Hauling Emission	(MT/month)	12.2259	12.2259	12.2259	12.2259	12.2259	12.2259	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck Emission	(MT/month)	0.41	1.03	2.95	3.31	6.07	6.51	2.69	2.95	2.82	2.69	2.82	2.82	2.77	2.52	2.90	2.52	2.90	2.99	3.05	3.35	2.85	2.77	1.71	1.63	1.32	0.76	0.63	0.20	0.22	0.00	
Worker Travel	(MT/month)	21.61	21.61	23.67	21.61	22.64	22.64	75.63	82.84	79.24	75.63	79.24	79.24	76.19	69.26	79.65	69.26	113.79	108.84	103.90	113.79	103.90	108.84	108.84	72.73	76.68	66.68	20.96	20.00	21.91	20.00	
Off-Road Equipment	Rolling 12-month total (MT/year)												1,481	1,685	1,846	2,031	2,198	2,393	2,589	2,772	2,827	2,792	2,728	2,569	2,360	2,140	1,904					
Off-Road + On-Site Vehicles	Rolling 12-month total (MT/year)												1,506	1,712	1,875	2,061	2,230	2,427	2,625	2,809	2,865	2,831	2,769	2,610	2,401	2,181	1,944					
Hauling Emission	Rolling 12-month total (MT/year)												73	61	49	37	24	12	0	0	0	0	0	0	0	0	0					
Truck Emission	Rolling 12-month total (MT/year)												37	39	41	41	40	37	33	34	34	34	34	33	32	31	29					
Worker Travel	Rolling 12-month total (MT/year)												606	660	708	764	811	903	989	1,017	1,048	1,073	1,106	1,136	1,129	1,129	1,127					

Table 3.1D-6R (Updated December 26, 2013)

Daily Emission Calculations

	2016												2017												2018		Commissioning			
Calendar Month	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Project Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
															ROG (lbs/day)															
Off-Road Equipment	1.12	1.75	1.88	1.58	1.58	0.94	1.29	2.75	4.06	5.17	5.22	5.78	5.62	5.77	5.77	5.77	5.59	5.45	5.45	3.81	3.36	3.55	1.70	1.28	0.74	0.00				
On-site Vehicles	0.04	0.04	0.04	0.05	0.05	0.05	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.13	0.14	0.14	0.14	0.14	0.13	0.13	0.09	0.08	0.08				
Hauling Emission	0.30	0.30	0.27	0.30	0.28	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck Emission	0.02	0.04	0.11	0.13	0.23	0.25	0.11	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.11	0.11	0.11	0.11	0.10	0.06	0.06	0.04	0.03	0.02	0.01	0.01	0.00
Worker Travel	0.84	0.84	0.84	0.84	0.84	0.84	2.92	2.92	2.92	2.92	2.92	2.92	2.63	2.63	2.63	2.63	3.75	3.75	3.75	3.75	3.75	3.75	3.75	2.63	2.37	2.37	0.68	0.68	0.68	0.68
															NOx (lbs/day)															
Off-Road Equipment	22.47	34.93	37.45	31.76	31.76	19.31	25.16	54.25	79.70	101.88	102.67	114.45	112.07	115.69	116.45	116.45	112.76	109.96	109.96	76.74	68.02	71.95	34.47	25.86	15.03	0.00				
On-site Vehicles	0.17	0.19	0.23	0.25	0.32	0.34	0.21	0.21	0.21	0.21	0.21	0.21	0.19	0.19	0.19	0.19	0.23	0.24	0.25	0.25	0.24	0.23	0.21	0.16	0.13	0.12				
Hauling Emission	4.74	4.74	4.33	4.74	4.52	4.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck Emission	0.17	0.43	1.12	1.38	2.42	2.59	1.12	1.12	1.12	1.12	1.12	1.12	1.02	1.02	1.02	1.02	1.02	1.10	1.18	1.18	1.10	1.02	0.63	0.63	0.43	0.29	0.22	0.07	0.07	0.00
Worker Travel	1.04	1.04	1.04	1.04	1.04	1.04	3.66	3.66	3.66	3.66	3.66	3.66	3.30	3.30	3.30	3.30	4.72	4.72	4.72	4.72	4.72	4.72	4.72	3.30	2.99	2.99	0.86	0.86	0.86	0.86
															CO (lbs/day)															
Off-Road Equipment	30.08	44.45	48.46	44.48	44.48	23.30	30.77	64.61	94.52	120.20	120.06	134.50	130.86	135.75	137.85	137.85	133.36	130.22	130.22	90.50	80.73	86.72	42.23	31.75	19.20	0.00				
On-site Vehicles	0.54	0.56	0.61	0.64	0.72	0.74	1.64	1.64	1.64	1.64	1.64	1.64	1.49	1.49	1.49	1.49	2.09	2.09	2.10	2.10	2.09	2.09	2.05	1.45	1.31	1.30				
Hauling Emission	3.35	3.35	3.06	3.35	3.20	3.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck Emission	0.20	0.50	1.29	1.59	2.79	2.99	1.29	1.29	1.29	1.29	1.29	1.29	1.22	1.22	1.22	1.22	1.22	1.31	1.40	1.40	1.31	1.22	0.75	0.75	0.54	0.36	0.27	0.09	0.09	0.00
Worker Travel	13.00	13.00	13.00	13.00	13.00	13.00	45.50	45.50	45.50	45.50	45.50	45.50	41.16	41.16	41.16	41.16	58.80	58.80	58.80	58.80	58.80	58.80	58.80	41.16	37.39	37.39	10.68	10.68	10.68	10.68
															SO2 (lbs/day)															
Off-Road Equipment	0.05	0.08	0.08	0.07	0.07	0.05	0.05	0.12	0.18	0.23	0.23	0.26	0.25	0.26	0.27	0.27	0.26	0.25	0.25	0.18	0.15	0.16	0.07	0.05	0.03	0.00				
On-site Vehicles	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00				
Hauling Emission	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck Emission	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Travel	0.03	0.03	0.03	0.03	0.03	0.03	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.10	0.10	0.10	0.03	0.03	0.03	0.03
															PM10 (lbs/day)															
Fugitive (Off-Road)	0.73	0.73	0.67	0.73	0.70	0.70	2.56	2.56	4.90	4.90	4.90	4.90	4.70	4.70	2.35	2.35	2.35	2.35	2.35	0.00	0.00	2.56	2.56	2.56						
Fugitive (On-site Vehicles)	0.08	0.09	0.09	0.09	0.10	0.10	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.39	0.39	0.39	0.39	0.39	0.39	0.38	0.27	0.27	0.27				
Fugitive - Hauling	0.30	0.30	0.28	0.30	0.29	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive - Truck	0.01	0.03	0.08	0.10	0.18	0.19	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.08	0.05	0.05	0.04	0.03	0.02	0.01	0.01	0.00
Fugitive - Worker Travel	2.24	2.24	2.24	2.24	2.24	2.24	7.82	7.82	7.82	7.82	7.82	7.82	7.82	7.82	7.82	7.82	11.18	11.18	11.18	11.18	11.18	11.18	11.18	7.82	7.82	7.82	2.24	2.24	2.24	2.24
Off-Road Equipment	1.05	1.58	1.70	1.53	1.53	0.90	1.05	2.33	3.37	4.32	4.33	4.95	4.99	5.24	5.44	5.44	5.26	5.15	5.15	3.54	3.21	3.44	1.67	1.23	0.76	0.00	0.00	0.00	0.00	0.00
On-site Vehicles	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Hauling Emission	0.08	0.08	0.07	0.08	0.07	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck Emission	0.00	0.01	0.02	0.02	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
Worker Travel	0.02	0.02	0.02	0.02	0.02	0.02	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.06	0.06	0.06	0.02	0.02	0.02	0.02
															PM2.5 (lbs/day)															
Fugitive (Off-Road)	0.11	0.11	0.10	0.11	0.11	0.11	1.31	1.31	2.60	2.60	2.60	2.60	2.58	2.58	1.29	1.29	1.29	1.29	1.29	0.00	0.00	1.31	1.31	1.31						
Fugitive (On-site Vehicles)	0.02	0.02	0.02	0.02	0.03	0.03	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.07	0.07	0.07				
Fugitive - Hauling	0.08	0.08	0.08	0.08	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive - Truck	0.00	0.01	0.02	0.03	0.05	0.05	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00
Fugitive - Worker Travel	0.59	0.59	0.59	0.59	0.59	0.59	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.08	2.08	2.08	0.59	0.59	0.59	0.59
Off-Road Equipment	1.05	1.58	1.70	1.53	1.53	0.90	1.05	2.33	3.37	4.32	4.33	4.95	4.99	5.24	5.44	5.44	5.26	5.15	5.15	3.54	3.21	3.44	1.67	1.23	0.76	0.00	0.00	0.00	0.00	0.00
On-site Vehicle	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Hauling Emission	0.07	0.07	0.06	0.07	0.07	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck Emission	0.00	0.01	0.02	0.02	0.04	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00
Worker Travel	0.02	0.02	0.02	0.02	0.02	0.02	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.06	0.06	0.06	0.02	0.02	0.02	0.02
															CO2 (lbs/day)															
Off-Road Equipment	4,967	7,879	8,429	7,401	7,062	5,209	5,603	12,160	17,928	23,046	23,219	25,989	25,147	25,953	26,061	26,165	25,367	24,770	24,719	17,382	15,126	15,691	7,327	5,404	3,038	0				
On-site Vehicles	116	121	131	138	156	159	304	304	304	304	304	304	293	293	293	293	409	411	412	412	411	409	402	285	271	268				
Hauling Emission	1,285	1,285	1,173	1,285	1,226	1,226	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck Emission	44	109	283	349	610	654	283	283	283	283	283	283	279	279	279	279	279	300	322	322	300	279	172	172	127	84	63	21	21	0
Worker Travel	2,379	2,379	2,379	2,379	2,379	2,379	8,326	8,326	8,326	8,326	8,326	8,326	8,008	8,008	8,008	8,008	11,439	11,439	11,439	11,439	11,439	11,439	11,439	8,008	7,710	7,710	2,203	2,203	2,203	2,203
															CH4 (lbs/day)															
Off-Road Equipment	1.45	2.28	2.45	2.10	2.06	1.22	1.66	3.05	4.41	5.42	5.47	6.06	5.61	5.70	5.50	5.52	5.28	5.10	5.09	3.69	3.41	3.70	2.00	1.58	0.95	0.00				
On-site Vehicles	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01				
Hauling Emission	9.13E-03	9.13E-03	8.33E-03	9.13E-03	8.71E-03	8.71E-03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Truck Emission	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker Travel	0.12	0.12	0.12	0.12	0.12	0.12	0.43	0.43	0.43	0.43	0.43	0.43	0.39	0.39	0.39	0.39	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.39	0.37	0.37	0.10	0.10	0.10	0.10
															CO2e (lbs/day)															
Off-Road Equipment	4,997	7,927	8,481	7,446	7,106	5,234	5,638	12,224	18,020	23,160	23,334	26,116	25,265	26,072	26,177	26,281	25,477	24,877	24,826	17,459	15,198	15,769	7,369	5,437	3,058	0				
On-site Vehicles	116	121	131	138	156	159	304	304	304	304	304	304	293	293	293	293	410	411	413	413	411	410	402	285	272	269				
Hauling Emission	1,285	1,285	1,173	1,285	1,226	1,226	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Truck Emission	44	109	283	349	611	654	283	283	283	283	283	283	279	279	279	279	279	300	322	322	300	279	172	172	127	84	63	21	21	0
Worker Travel	2,381	2,381	2,381	2,381	2,381	2,381	8,335	8,335	8,335	8,335	8,335	8,335	8,016	8,016	8,016	8,016	11,451	11,451	11,451	11,451	11,451	11,451	11,451	8,016	7,717	7,717	2,205	2,205	2,205	2,205

Table 3.1D-7R (Updated December 26, 2013)
CalEEMod Input Data

For the revised 30-month Construction Schedule

CalEEMod Phase Name	Phase Type	Start Date	End Date	# day/Week	Number of Days	Daily hours	Month
Demolition 1	Demolition	2016/01/01	2016/01/31	5	21	8	1
Demolition 2	Demolition	2016/02/01	2016/02/29	5	21	8	2
Demolition 3	Demolition	2016/03/01	2016/03/31	5	23	8	3
Demolition 4	Demolition	2016/04/01	2016/04/30	5	21	8	4
Demolition 5	Demolition	2016/05/01	2016/05/31	5	22	8	5
Demolition 6	Demolition	2016/06/01	2016/06/30	5	22	8	6
Building Construction 7	~~Building Construction~~ **Grading**	2016/07/01	2016/07/31	5	21	8	7
Building Construction 8	~~Building Construction~~ **Grading**	2016/08/01	2016/08/31	5	23	8	8
Building Construction 9	~~Building Construction~~ **Grading**	2016/09/01	2016/09/30	5	22	8	9
Building Construction 10	~~Building Construction~~ **Grading**	2016/10/01	2016/10/31	5	21	8	10
Building Construction 11	~~Building Construction~~ **Grading**	2016/11/01	2016/11/30	5	22	8	11
Building Construction 12	~~Building Construction~~ **Grading**	2016/12/01	2016/12/31	5	22	8	12
Building Construction 13	~~Building Construction~~ **Grading**	2017/01/01	2017/01/31	5	22	8	13
Building Construction 14	~~Building Construction~~ **Grading**	2017/02/01	2017/02/28	5	20	8	14
Building Construction 15	~~Building Construction~~ **Grading**	2017/03/01	2017/03/31	5	23	8	15
Building Construction 16	~~Building Construction~~ **Grading**	2017/04/01	2017/04/30	5	20	8	16
Building Construction 17	~~Building Construction~~ **Grading**	2017/05/01	2017/05/31	5	23	8	17
Building Construction 18	~~Building Construction~~ **Grading**	2017/06/01	2017/06/30	5	22	8	18
Building Construction 19	~~Building Construction~~ **Grading**	2017/07/01	2017/07/31	5	21	8	19
Building Construction 20	~~Building Construction~~ **Grading**	2017/08/01	2017/08/31	5	23	8	20
Building Construction 21	~~Building Construction~~ **Grading**	2017/09/01	2017/09/30	5	21	8	21
Building Construction 22	~~Building Construction~~ **Grading**	2017/10/01	2017/10/31	5	22	8	22
Building Construction 23	~~Building Construction~~ **Grading**	2017/11/01	2017/11/30	5	22	8	23
Building Construction 24	~~Building Construction~~ **Grading**	2017/12/01	2017/12/31	5	21	8	24
Paving 25	Paving	2018/01/01	2018/01/31	5	23	8	25
Architectural Coating 26	Architectural Coating	2018/02/01	2018/02/28	5	20	8	26
Commissioning 27	Architectural Coating	2018/03/01	2018/03/31	5	22	8	27
Commissioning 28	Architectural Coating	2018/04/01	2018/04/30	5	21	8	28
Commissioning 29	Architectural Coating	2018/05/01	2018/05/31	5	23	8	29
Commissioning 30	Architectural Coating	2018/06/01	2018/06/30	5	21	8	30

Table 3.1D-8R (Updated December 26, 2013)
Equipment Schedule

						2016												2017												2018		Commissioning			
						Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	CalEEMod Equipment Type	**HP**	**Load Factor**	**hrs/day**	**days/wk**																														
	Excavator					**3**	**3**	**4**	**6**	**6**	**0**																								
Crawler Excavator w/Breaker						1			3	3																									
Crawler Excavator w/Grapple						1	1	1	1	1																									
Crawler Excavator w/Shear							2	3																											
Crawler Excavator w/Pulverizer						1			2	2																									
Skid Steel Loader	**Skid Steel Loader**					**2**	**2**	**2**	**2**	**2**	**2**																									
Track Loader	**Tractors/Loaders/Backhoes**					**1**	**2**	**2**	**2**	**2**																										
Rubber Tire Loader	**Rubber Tired Loader**					**1**	**1**	**1**	**1**	**1**	**2**																									
Water Truck	**Off-Highway Trucks**					**1**	**1**	**1**	**1**	**1**	**1**																									
Stomper	**Plate Compactor**								**1**																										
	Cranes					**0**	**4**	**4**	**0**	**0**	**0**																									
Hydro-Crane							2	2																											
Crawler Crane							2	2																											
Portable Crusher	**Crushing/Proc. Equipment**										**1**																									
	Dumpers/Tenders					**4**	**8**	**8**	**11**	**6**	**19**																									
Bottom Dumps									5		15																									
Ten Wheeler with Dump Bins						1	1	1	1	1	1																									
Semi-End Dumps						3	7	7	5	5	3																									
Tractor/Trailer	**Tractors/Loaders/Backhoes**					**1**	**1**	**1**	**1**	**1**	**1**																									
Air Compressors																																			
Ingersoll Rand, Diesel, 185 cfm	Air Compressors		~~75%~~ **48%**	8	5								3	3	5	5	8	11	13	16	16	16	16	16	10	10	9	3	1						
Paving Equipment																																			
Asphalt Paver, Cat, AP-800B, Diesel, 102 hp	Paving Equipment	102	~~85%~~ **36%**	8	5																						2	2	2	2					
Compactors																																			
Cat, CS-563, Diesel, 145 hp	Plate Compactors	145	~~65%~~ **43%**	8	5							1	1	1	1	1	1	1	1	1	1	1	1	1			1	1	1	1					
Portable Compression Equipment																																			
Multiquip, Jumping Jack, MRT-80L, gas/oil, 2 cycle		3.3	60%	8	5							1	1	2	2	2	2	2	2	2	2	2	1	1			1	1	1	1				
Multiquip, Plate Compactor, MVC-62H, gas, 4.6 hp		4.6	60%	8	5								1	1	2	2	2	2	2	2	2	1	1	1			1	1	1	1				
Concrete Vibrators																																			
North Rock, flex shaft vibrator, electric 15 amps	Cement and Mortar Mixers		~~50%~~ **56%**	8	5								2	2	5	5	6	6	6	6	6	5	5	4	2	2								
Light Towers																																			
Magnum Nightbuster 5000, 6000W, 15.5 hp	Dumpers/Tenders	15.5	~~50%~~ **29%**	10	5							2	2	2	2	2	2	2																	
Dozer																																			
Cat, D8U, diesel, 285 hp	Rubber Tired Dozers	285	~~70%~~ **40%**	8	5							1	1	2	2	2	2	2	2	1	1	1	1	1			1	1	1	1				
Excavator, Back Hoe																																			
Cat, 312 diesel 84 hp	Tractors/Loaders/Backhoes	84	~~75%~~ **37%**	8	5							1	1	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1				
Excavator, Loader																																			
Cat, 936F, diesel, 200 hp	Excavators	200	~~80%~~ **38%**	8	5							1	1	1	1	1	1																		
Cat, 938F, diesel, 140 hp	Excavators	140	~~80%~~ **38%**	8	5							1	1	2	2	1	1																		
Excavator, Motor Grader																																			
Cat, 140G, diesel, 150 hp	~~Excavators~~ **Graders**	150	~~90%~~ **38%**	8	5							1	1	1	1	1	1										1	1	1	1				
Cranes																																			
Manitowoc 4100W, Diesel, 350 hp, 225 Ton	Cranes	350	~~70%~~ **29%**	8	5												1	1	1	1	1	1	1	1										
Manitowoc, diesel, 250 hp, 150 Ton	Cranes	250	~~70%~~ **29%**	8	5				1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1								
Grove RT700B, diesel, 185 hp, 40 Ton	Cranes	185	~~50%~~ **29%**	8	5			1	1	3	3	4	4	4	4	4	3	3	3	2	2	1	1											
Grove, RT400, diesel, 185 hp, 20 Ton	Cranes	185	~~50%~~ **29%**	8	5				1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1								
Water Trucks																																			
International, diesel, 600 gal	Off-highway trucks		~~50%~~ **38%**	8	5								1	1	1	1	1	1	1	1	1	1	1	1	1	1	1							
Welders																																			
Multiquip, GA 3600, gasoline, 7.5 hp		7.5	70%	8	5								1	3	4	8	8	9	15	16	20	20	20	20	20	15	14	7	3	3	2			
Multiquip, BLW-300SS, diesel, 23 hp	Welders	23	~~75%~~ **45%**	8	5				1	1	1	3	3	5	5	6	6	6	6	6	6	6	4	3	1								
Trucks, Fuel/Lube																																			
International, diesel, 210 hp	Off-highway trucks	210	~~50%~~ **38%**	8	5								1	1	1	1	1	1	1	1	1	1	1	1	1	1	1							
750 gallons each	Off-highway trucks												1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1					
Trucks, Large																																			
Cat, D200, articulated truck, diesel, 180 hp	Off-highway trucks	180	~~65%~~ **38%**	8	5							1	1	3	3	3	3	3	3	3	3	3	2	2										
Ford flatbed, diesel, 180 hp	Off-highway trucks	180	~~80%~~ **38%**	8	5							3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	3	3	2	1				
Radios																																			
Hand held radios												4	9	16	20	23	23	26	26	26	31	31	32	31	29	23	21	16	8	8	4				
Truck Concrete Pump																																			
International, diesel, 190 hp	Pumps	190	~~60%~~ **74%**	8	5								1	2	3	3	3	3	3	3	3	3	3	3	2	1	1							
TOTAL												**17**	**34**	**53**	**69**	**76**	**84**	**88**	**96**	**99**	**109**	**105**	**104**	**102**	**83**	**68**	**66**	**40**	**23**	**20**	**6**				

Table 3.1D-8R (Updated December 26, 2013) (cont.)

					Month																											
CalEEMod INPUT	**HP**	**Load Factor**	**hrs/day**	**days/wk**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**
CalEEMod Equipment Type																																		
Cranes	226	0.29	8	5	0	4	4	0	0	0																								
Crushing/Proc. Equipment	85	0.78	8	5	0	0	0	0	0	1																								
Dumpers/Tenders	16	0.38	8	5	4	8	8	11	6	19																								
Excavators	162	0.38	8	5	3	3	4	6	6	0																								
Off-Highway Trucks	400	0.38	8	5	1	1	1	1	1	1																								
Plate Compactor	8	0.43	8	5	0	0	0	1	0	0																								
Rubber Tired Loaders	199	0.36	8	5	1	1	1	1	1	2																								
Skid Steer Loaders	64	0.37	8	5	2	2	2	2	2	2																								
Tractors/Loaders/Backhoes	97	0.37	8	5	2	3	3	3	3	1																								
Air Compressors	78	~~0.75~~ **0.48**	8	5							0	3	3	5	5	8	11	13	16	16	16	16	16	10	10	9	3	1	0	0	0	0	0	0
Cement and Mortar Mixers	9	~~0.5~~ **0.56**	8	5							0	2	2	5	5	6	6	6	6	6	5	5	4	2	2	0	0	0	0	0				
Cranes	350	~~0.7~~ **0.29**	8	5							0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0				
Cranes	250	~~0.7~~ **0.29**	8	5							0	0	1	1	2	2	2	2	2	2	2	2	2	2	1	1	0	0	0	0				
Cranes	185	~~0.5~~ **0.29**	8	5							0	1	1	3	3	4	4	4	4	4	3	3	3	2	2	1	1	0	0	0				
Cranes	185	~~0.5~~ **0.29**	8	5							0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0				
Dumpers/Tenders	16	~~0.5~~ **0.38**	10	5							2	2	2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0				
Excavators	200	~~0.8~~ **0.38**	8	5							1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Excavators	140	~~0.8~~ **0.38**	8	5							1	1	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
~~Excavators~~ **Graders**	150	~~0.9~~ **0.41**	8	5							1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1	1	0				
Off-Highway Trucks	400	~~0.5~~ **0.38**	8	5							0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0				
Off-Highway Trucks	210	~~0.5~~ **0.38**	8	5							0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0				
Off-Highway Trucks	400	~~0.5~~ **0.38**	8	5							0	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	0	0				
Off-Highway Trucks	180	~~0.65~~ **0.38**	8	5							1	1	3	3	3	3	3	3	3	3	3	2	2	0	0	0	0	0	0	0				
Off-Highway Trucks	180	~~0.8~~ **0.38**	8	5							3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	3	3	2	1	0				
Paving Equipment	102	~~0.85~~ **0.36**	8	5							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	0				
Plate Compactors	145	~~0.65~~ **0.43**	8	5							1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	0				
Pumps	190	~~0.6~~ **0.74**	8	5							0	1	2	3	3	3	3	3	3	3	3	3	3	2	1	1	0	0	0	0				
Rubber Tired Dozers	285	~~0.7~~ **0.4**	8	5							1	1	2	2	2	2	2	2	1	1	1	1	1	0	0	1	1	1	1	0				
Tractors/Loaders/Backhoes	84	~~0.75~~ **0.37**	8	5							1	1	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	0				
Welders	23	~~0.75~~ **0.45**	8	5							0	0	1	1	1	3	3	5	5	6	6	6	6	6	4	3	1	0	0	0				

Table 3-1.22R (Updated December 26, 2013)
Modeled Maximum Impacts During Construction

Pollutant	Averaging Period	Maximum Predicted Impact ($\mu g/m^3$)	Maximum Background Concentration ($\mu g/m^3$)	Total Concentration ($\mu g/m^3$)	NAAQS ($\mu g/m^3$)	CAAQS ($\mu g/m^3$)
NO_2	1 hr	~~229.1~~ **172.0**	184.2	~~287.9~~ **245.4**	--	339
	Fed 1 hr	~~229.1~~ **172.0**	129.7	~~240.5~~ **210.8**	188	--
	Annual	~~28.5~~ **18.1**	24.5	~~53.0~~ **42.6**	100	57
SO_2	1 hr	~~2.4~~ **1.6**	67.6	~~70.0~~ **69.2**	196	655
	3 hr	~~1.2~~ **0.8**	41.6	~~42.8~~ **42.4**	1300	--
	24 hr	~~0.3~~ **0.2**	15.8	~~16.1~~ **16.0**	--	105
CO	1 hr	~~1,276~~ **810.9**	3,250	~~4,526~~ **4,061**	40,000	23,000
	8 hr	~~493~~ **313.3**	2,433	~~2,926~~ **2,746**	10,000	20,000
PM_{10}	24 hr	~~7.6~~ **8.0**	52	60	150	50
	Annual	~~1.3~~ **1.5**	25.6	~~26.9~~ **27.1**	--	20
$PM_{2.5}$	24 hr	~~7.6~~ **6.1**	30	~~37.6~~ **36.1**	35	--
	Annual	~~1.3~~ **1.2**	12.8	~~14.1~~ **14**	12.0	12