

TABLE 3

CONSTRUCTION AND OPERATION EMISSIONS SUMMARY FOR THE CORONA ILA SITE

Construction Engine Emissions

SOURCE	SIZE / GROSS HP	DAILY AMOUNT (1) (hrs or trips)	NUMBER OF DAYS	NUMBER OF UNITS	ONE-WAY DISTANCE (miles)	NO _x			ROG			PM ₁₀			SO _x			CO			NOTES			
						EF	Daily	Total	EF	Daily	Total	EF	Daily	Total	EF	Daily	Total	EF	Daily	Total		EF	Daily	Total
						(2)	(lbs/day)	(tons)	(2)	(lbs/day)	(tons)	(2)	(lbs/day)	(tons)	(2)	(lbs/day)	(tons)	(2)	(lbs/day)	(tons)		(2)	(lbs/day)	(tons)
Site Grading (11 cy)																								
Backhoe Loader	200	1	1	1	-	2370	5.2	0.0026	180	0.4	0.0002	15	0.03	0.0000	135	0.3	0.0001	205	0.5	0.0002	6			
Vac Truck	153	2	1	1	-	1660	7.3	0.0037	110	0.5	0.0002	15	0.1	0.0000	105	0.5	0.0002	110	0.5	0.0002	6			
Surveying Lt-Heavy Duty Truck	117	3	1	1	-	780	5.2	0.0026	72	0.5	0.0002	44	0.3	0.0001	85	0.6	0.0003	105	0.7	0.0003	6			
Lt-Heavy Duty Truck	10 cu yd	1	1	1	30	11.3	1.5	0.0007	2.2	0.3	0.0001	0.59	0.08	0.0000	0.31	0.04	0.0000	14.0	1.9	0.0009	7			
Worker Light Truck	175	1	1	1	30	18.4	2.44	0.0012	4.4	0.58	0.0003	0.84	0.11	0.0001	0.31	0.041	0.0000	35	4.6	0.0023	6			
Equipment Delivery Truck	Low boy	3	1	-	30	11.3	4.5	0.0022	2.2	0.9	0.0004	0.59	0.23	0.0001	0.31	0.12	0.0001	14.0	5.6	0.0028	7			
Worker Light Truck	Light	2	1	-	30	1.0	0.26	0.0001	0.35	0.09	0.0000	0	0	0.0000	0.06	0.02	0.0000	7.22	1.9	0.0010	7			
Maxima and Subtotals (Site Grading)							16	0.01		2.3	0.0016		0.7	0.0004		0.8	0.0008		14.6	0.008				
Pad Construction (11cy)																								
Cement Truck	10 yd3	1	1	-	30	11.3	1.5	0.0007	2.2	0.3	0.0001	0.59	0.1	0.0000	0.31	0.0	0.0000	14.0	1.9	0.0009	7			
Gravel Truck	10 yd3	1	1	-	30	11.3	1.5	0.0007	2.2	0.3	0.0001	0.59	0.1	0.0000	0.31	0.0	0.0000	14.0	1.9	0.0009	7			
Worker Light Truck	Light	2	1	-	30	1.00	0.3	0.0001	0.35	0.1	0.0000	0	0	0.0000	0.06	0.0	0.0000	7.22	1.9	0.0010	7			
Maxima and Subtotals (Pad Construction)							3.2	0.002		0.7	0.0003		0.16	0.0001		0.1	0.0000		5.6	0.00				
Trenching & Utility Installation (350cy)																								
Excavator	84	8	12	1	-	774	13.6	0.082	64	1.1	0.0068	13	0.2	0.0014	58	1.0	0.0061	79	1.4	0.008	6			
Equipment Delivery Truck	Low boy	1	2	-	30	11.3	1.5	0.001	2.2	0.3	0.0003	0.59	0.1	0.0001	0.31	0.0	0.0000	14.0	1.9	0.002	7			
Worker Light Truck	Light	2	12	-	30	1.00	0.3	0.002	0.35	0.1	0.0006	0	0	0.0000	0.06	0.0	0.0001	7.2	1.9	0.011	7			
Maxima and Subtotals (Trenching and Utility Installation)							15	0.08		1.5	0.0076		0.31	0.0015		1.1	0.0062		5.2	0.02				
Access Road Construction (75cy)																								
Grader	200	4	3	1	-	2370	21	0.031	180	1.6	0.002	15	0.13	0.0002	135	1.2	0.002	205	1.8	0.003	6			
Dozer	153	4	3	1	-	1660	15	0.022	110	1.0	0.002	15	0.13	0.0002	105	0.9	0.001	110	1.0	0.002	6			
Gravel Truck	10 yd3	4	2	-	30	11.3	6.0	0.0060	2.2	1.2	0.0012	0.6	0.3	0.0003	0.3	0.2	0.0002	14	7.4	0.0074	7			
Compactor	-	4	2	1	-	1787	16	0.016	71	0.6	0.001	67	0.6	0.001	235	2.1	0.002	128	1.1	0.001	8			
Equipment Delivery Truck	Low boy	1	2	-	30	11.3	1.5	0.002	2.2	0.3	0.000	0.6	0.08	0.0001	0.3	0.0	0.000	14	1.9	0.002	7			
Worker Light Truck	Light	2	8	-	25	1.0	0.2	0.001	0.35	0.08	0.000	0	0	0.0000	0.06	0.0	0.000	7.2	1.6	0.006	7			
Maxima and Subtotals (Access Road Construction)							29	0.08		3.1	0.01		1.0	0.0014		2.3	0.006		12.7	0.02				
Shelter Placement																								
Crane	150 ton	2	1	1	-	576	2.5	0.001	82	0.4	0.0002	64	0.3	0.000	41	0.2	0.000	1624	7.2	0.004	8			
Equipment Delivery Truck	Low boy	1	1	-	60	11.3	3.0	0.001	2.2	0.6	0.000	0.59	0.2	0.000	0.31	0.1	0.000	14.0	3.7	0.002	7			
Worker Light Truck	Light	2	1	-	30	1.00	0.3	0.0001	0.35	0.1	0.00005	0	0	0	0.06	0.0	0.000	7.2	1.9	0.001	7			
Maxima and Subtotals (Shelter Placement)							5.8	0.003		1.0	0.001		0.44	0.000		0.3	0.00		12.8	0.01				
General Construction Activities																								
Compactor	<25 hp	1	1	1	-	8	0.02	0.00001	227	0.5	0.0002	1.4	0.00	0.0000	0	0.0	0.0000	6350	14.0	0.007	8			
Equipment Delivery Truck	Low boy	1	1	-	30	11.3	1.5	0.0007	2.2	0.3	0.0001	0.59	0.1	0.0000	0.31	0.0	0.0000	14.0	1.9	0.001	7			
Construction Generator	<50 hp	8	12	1	-	0.02	0.0003	0.000002	0.002	0.00004	0.0000	0	0	0	0.00	0.0	0.0000	0.01	0.0002	0.000	8			
Water Truck	4500 gal.	1	2	-	30	11.3	1.5	0.001	2.2	0.29	0.0003	0.59	0.08	0.0001	0.31	0.04	0.00004	14.0	1.9	0.002	6			
Worker Light Truck	Light	1	14	-	30	1.0	0.13	0.0009	0.35	0.05	0.0003	0	0	0	0.06	0.0	0.0001	7.2	1.0	0.007	7			
Maxima and Subtotals (General Construction)							3.1	0.00		1.1	0.0010		0.16	0.0001		0.09	0.0001		19	0.02				
Maxima and Subtotals, Construction Engine Emissions⁽³⁾							29	0.18		3.1	0.017		1.0	0.004		2.3	0.01		19	0.08				
Total Construction Emissions (Fugitive plus exhaust)								0.18			0.017		22	0.13		0.0129				0.076				
Construction Thresholds							100 lbs/day	2.5 tpq		75 lbs/day	2.5 tpq		150 lbs/day	6.75 tpq		150 lbs/day	6.75 tpq		550 lbs/day	24.75 tpq				
Insignificant Impact⁽⁹⁾							Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes				

Construction Fugitive Dust Emissions

SOURCE	DAILY AMOUNT (hours)	DAYS OF ACTIVITY	AREA OF GRADING / TRENCHING	PM ₁₀ EMISSIONS			NOTES	
				EF	(daily lbs)	(total tons)		
Access Road Construction	8	0	0.00 acres	39.4 lb/acre-day	0	0.000		
Trenching - Cable Installation	8	8	0.46 acres	39.4 lb/acre-day	18.1	0.072		
Wind Erosion	8	12	-	0.51 lb/hr	4.1	0.024		
Subtotal, Construction Fugitive Emissions ⁽³⁾	24	20	0.48 acres	6.6 lb/acre-day	3.2	0.032	11	
Total PM10 Construction Emissions (Engine Exhaust and Fugitive)⁽³⁾						21	0.13	13

(Continued)

Operation Emissions ⁽⁴⁾

SOURCE	SIZE / GROSS HP	DAILY AMOUNT (hours)	DAYS OF ACTIVITY	NUMBER OF UNITS	ONE-WAY DISTANCE (miles)	NO _x			ROG			PM ₁₀			SO _x			CO			NOTES
						EF	Daily	Annual	EF	Daily	Annual	EF	Daily	Annual	EF	Daily	Annual	EF	Daily	Annual	
						(g/hr) ⁽²⁾	(lbs/day)	(tons/year)	(g/hr) ⁽²⁾	(lbs/day)	(tons/year)	(g/hr) ⁽²⁾	(lbs/day)	(tons/year)	(g/hr) ⁽²⁾	(lbs/day)	(tons/year)	(g/hr) ⁽²⁾	(lbs/day)	(tons/year)	
Emergency Generator	337 (300 KW)	0.5	60	1		2,325	3	0.08	337	0.37	0.01	135	0.15	0.004	313	0.35	0.010	2,865	3.2	0.09	6,12
Worker Light Truck	Light	-	60	1	30	1.0	0.13	0.004	0.35	0.05	0.001	0	0	0	0.06	0.01	0.0002	7.2	0.96	0.03	7
Total Operation Emissions ⁽⁵⁾							3	0.08		0.42	0.01		0.15	0.004		0.35	0.011		4.1	0.12	
Operation Thresholds						Exempt			Exempt			Exempt			Exempt			Exempt			
Insignifigant Impact ⁽¹⁰⁾						Yes			Yes			Yes			Yes			Yes			

'- = Not applicable

Unit abbreviations: g/hr = grams per hour, lb/day = pounds per day, tpy = tons per year, tpq = tons per quarter

(1) Daily amount is measured in hours for off-road construction equipment (e.g., grader), and in number of trips for on-road vehicles (e.g., worker light-truck).

(2) Emission factors are in grams per hour for off-road equipment, and in grams per mile for on-road vehicles.

(3) Construction engine emission subtotals are for the complete project. Major pieces of construction off-road equipment (e.g., grader, dozer) are used consecutively, not concurrently.

(4) Operation and construction will not occur simultaneously, and hence, the emissions are not additive.

(5) Operational emission totals are for the project. Only one generator will be tested on a single day.

(6) Emission factors are from Caterpillar Corp.

(7) EMFAC7G Emission Factors (1998, 15mph, 75°F)

(8) SCAQMD CEQA Handbook, Table A9-8-B

(9) Construction emissions have insignifigant impact when no emission of a major piece of off-road equipment exceeds threshold (i.e., major pieces are used consequently, not concurrently).

(10) Operation emissions have an insignifigant impact if emergency generators are exempt from regulatory limits or if no regulations apply.

(11) Number of days subject to wind erosion equal to days for trenching.

(12) The 25-minute test cycle will be conducted mostly at 50 percent load. To be conservative, the horsepower is stated and emissions are calculated at 75 percent load.

(13) Daily construction fugitive emissions includes the specific activity plus wind erosion.