

Diesel Exhaust PM Risk (Potential Cancer Cases in A Million) for 200 HP Engines

Hours	EF = 0.01 g/bhp-hr											EF = 0.15 g/bhp-hr										
	Downwind Distance (m)											Downwind Distance (m)										
	30	40	50	70	100	200	300	400	800	1200	1600	30	40	50	70	100	200	300	400	800	1200	1600
10	0	0	0	0	0	0	0	0	0	0	0	2	2	2	1	1	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	5	4	3	2	1	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	7	6	5	3	2	0	0	0	0	0	0
40	1	1	0	0	0	0	0	0	0	0	0	9	8	6	4	2	1	0	0	0	0	0
50	1	1	1	0	0	0	0	0	0	0	0	11	10	8	5	3	1	0	0	0	0	0
100	2	1	1	1	0	0	0	0	0	0	0	23	19	15	9	5	1	1	0	0	0	0
200	3	3	2	1	1	0	0	0	0	0	0	45	38	30	19	10	3	1	1	0	0	0
300	5	4	3	2	1	0	0	0	0	0	0	68	58	45	28	15	4	2	1	0	0	0
400	6	5	4	3	1	0	0	0	0	0	0	90	77	60	38	21	6	2	1	0	0	0
500	8	6	5	3	2	0	0	0	0	0	0	113	96	76	47	26	7	3	2	0	0	0
1000	15	13	10	6	3	1	0	0	0	0	0	225	192	151	94	52	14	6	3	1	0	0

Hours	EF = 0.40 g/bhp-hr											EF = 0.55 g/bhp-hr										
	Downwind Distance (m)											Downwind Distance (m)										
	30	40	50	70	100	200	300	400	800	1200	1600	30	40	50	70	100	200	300	400	800	1200	1600
10	6	5	4	3	1	0	0	0	0	0	0	8	7	6	3	2	1	0	0	0	0	0
20	12	10	8	5	3	1	0	0	0	0	0	17	14	11	7	4	1	0	0	0	0	0
30	18	15	12	8	4	1	0	0	0	0	0	25	21	17	10	6	2	1	0	0	0	0
40	24	20	16	10	6	1	1	0	0	0	0	33	28	22	14	8	2	1	1	0	0	0
50	30	26	20	13	7	2	1	0	0	0	0	41	35	28	17	9	3	1	1	0	0	0
100	60	51	40	25	14	4	2	1	0	0	0	83	70	55	35	19	5	2	1	0	0	0
200	120	102	81	50	28	7	3	2	0	0	0	165	141	111	69	38	10	5	3	1	0	0
300	180	154	121	75	41	11	5	3	1	0	0	248	211	166	104	57	15	7	4	1	0	0
400	240	205	161	101	55	15	7	4	1	0	0	330	281	222	138	76	20	9	5	1	1	0
500	300	256	202	126	69	19	8	5	1	1	0	413	352	277	173	95	26	11	6	2	1	1
1000	600	512	403	251	138	37	16	9	2	1	1	826	704	554	346	189	51	23	13	3	1	1

Hours	EF = 1.0 g/bhp-hr										
	Downwind Distance (m)										
	30	40	50	70	100	200	300	400	800	1200	1600
10	15	13	10	6	3	1	0	0	0	0	0
20	30	26	20	13	7	2	1	0	0	0	0
30	45	38	30	19	10	3	1	1	0	0	0
40	60	51	40	25	14	4	2	1	0	0	0
50	75	64	50	31	17	5	2	1	0	0	0
100	150	128	101	63	34	9	4	2	1	0	0
200	300	256	202	126	69	19	8	5	1	1	0
300	450	384	302	189	103	28	12	7	2	1	1
400	600	512	403	251	138	37	16	9	2	1	1
500	751	640	504	314	172	46	21	11	3	1	1
1000	1501	1279	1008	628	344	93	41	23	5	3	2

Assume: 75% load.

Model Used: ISCST3; Meteorological Data: West Los Angeles (1981). Urban Option.

Stack Info: emission rate = 0.00556 g/s; stack diameter = 0.102 m; stack height = 3 m; stack temp = 622 K; stack velocity = 59.9 m/s.

The bold number indicates the downwind distance at the maximum risks.