

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	42	75	100	200	300	400	500	800	1600	3200	30	42	75	100	200	300	400	500	800	1600	3200
10	0	0	0	0	0	0	0	0	0	0	0	2	2	1	1	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	3	3	2	1	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	5	5	2	2	1	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0	6	6	3	2	1	0	0	0	0	0	0
50	1	1	0	0	0	0	0	0	0	0	0	8	8	4	3	1	1	0	0	0	0	0
100	1	1	1	0	0	0	0	0	0	0	0	15	15	8	5	2	1	1	1	0	0	0
200	2	2	1	1	0	0	0	0	0	0	0	31	31	16	10	4	2	2	1	1	0	0
300	3	3	2	1	0	0	0	0	0	0	0	46	46	25	15	6	3	2	2	1	1	0
400	4	4	2	1	0	0	0	0	0	0	0	61	61	33	20	7	4	3	2	1	1	0
500	5	5	3	2	1	0	0	0	0	0	0	76	76	41	26	9	5	4	3	2	1	0
1000	10	10	5	3	1	1	1	0	0	0	0	153	153	82	51	18	11	8	6	4	2	1

Hours	EF = 0.40 g/bhp-hr											EF = 0.55 g/bhp-hr										
	Downwind Distance (m)											Downwind Distance (m)										
	30	42	75	100	200	300	400	500	800	1600	3200	30	42	75	100	200	300	400	500	800	1600	3200
10	4	4	2	1	0	0	0	0	0	0	0	6	6	3	2	1	0	0	0	0	0	0
20	8	8	4	3	1	1	0	0	0	0	0	11	11	6	4	1	1	1	0	0	0	0
30	12	12	7	4	1	1	1	0	0	0	0	17	17	9	6	2	1	1	1	0	0	0
40	16	16	9	5	2	1	1	1	0	0	0	22	22	12	8	3	2	1	1	1	0	0
50	20	20	11	7	2	1	1	1	0	0	0	28	28	15	9	3	2	1	1	1	0	0
100	41	41	22	14	5	3	2	2	1	0	0	56	56	30	19	7	4	3	2	1	1	0
200	81	81	44	27	10	6	4	3	2	1	0	112	112	60	38	14	8	6	4	3	1	1
300	122	122	65	41	15	9	6	5	3	1	1	168	168	90	56	20	12	9	7	4	2	1
400	163	163	87	55	20	12	8	6	4	2	1	224	224	120	75	27	16	11	9	5	3	1
500	203	203	109	68	25	15	10	8	5	2	1	280	280	150	94	34	20	14	11	7	3	2
1000	407	407	218	137	49	29	21	16	10	5	2	559	559	300	188	68	40	29	22	13	6	3

Hours	EF = 1.0 g/bhp-hr										
	Downwind Distance (m)										
	30	42	75	100	200	300	400	500	800	1600	3200
10	10	10	5	3	1	1	1	0	0	0	0
20	20	20	11	7	2	1	1	1	0	0	0
30	31	31	16	10	4	2	2	1	1	0	0
40	41	41	22	14	5	3	2	2	1	0	0
50	51	51	27	17	6	4	3	2	1	1	0
100	102	102	55	34	12	7	5	4	2	1	1
200	203	203	109	68	25	15	10	8	5	2	1
300	305	305	164	102	37	22	16	12	7	3	2
400	407	407	218	137	49	29	21	16	10	5	2
500	508	508	273	171	62	37	26	20	12	6	3
1000	1017	1017	545	341	123	73	52	40	24	11	6

Assume: 75% load.

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