Diesel Exhaust PM Risk (Potential Cancer Cases in A Million) for 1500 HP Engines

	EF = 0.01 g/bhp-hr											EF = 0.15 g/bhp-hr										
	Downwind Distance (m)											Downwind Distance (m)										
Hours	30	50	100	**132**	200	300	400	500	800	1600	3200	30	50	100	**132**	200	300	400	500	800	1600	3200
10	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	1	1	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3	2	1	1	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0	4	4	4	4	2	1	1	1	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0	5	5	5	5	3	2	1	1	0	0	0
100	1	1	1	1	0	0	0	0	0	0	0	9	9	9	9	6	3	2	1	1	0	0
200	1	1	1	1	1	0	0	0	0	0	0	19	19	19	19	12	6	4	3	1	1	0
300	2	2	2	2	1	1	0	0	0	0	0	28	28	28	28	19	9	6	4	2	1	0
400	2	2	2	2	2	1	1	0	0	0	0	37	37	37	37	25	12	8	5	3	1	1
500	3	3	3	3	2	1	1	0	0	0	0	47	47	47	47	31	15	10	7	4	2	1
1000	6	6	6	6	4	2	1	1	0	0	0	93	93	93	93	62	31	19	14	7	3	1

	EF = 0.40 g/bhp-hr											EF = 0.55 g/bhp-hr										
	Downwind Distance (m)											Downwind Distance (m)										
Hours	30	50	100	**132**	200	300	400	500	800	1600	3200	30	50	100	**132**	200	300	400	500	800	1600	3200
10	2	2	2	2	2	1	1	0	0	0	0	3	3	3	3	2	1	1	1	0	0	0
20	5	5	5	5	3	2	1	1	0	0	0	7	7	7	7	5	2	1	1	1	0	0
30	7	7	7	7	5	2	2	1	1	0	0	10	10	10	10	7	3	2	2	1	0	0
40	10	10	10	10	7	3	2	1	1	0	0	14	14	14	14	9	5	3	2	1	0	0
50	12	12	12	12	8	4	3	2	1	0	0	17	17	17	17	11	6	4	3	1	1	0
100	25	25	25	25	17	8	5	4	2	1	0	34	34	34	34	23	11	7	5	3	1	1
200	50	50	50	50	33	17	10	7	4	2	1	68	68	68	68	46	23	14	10	5	2	1
300	75	75	75	75	50	25	15	11	6	3	1	103	103	103	103	69	34	21	15	8	3	2
400	99	99	99	99	67	33	21	15	8	3	2	137	137	137	137	91	45	28	20	11	5	2
500	124	124	124	124	83	41	26	18	10	4	2	171	171	171	171	114	57	35	25	13	6	3
1000	249	249	249	249	166	83	51	37	19	8	4	342	342	342	342	229	114	71	50	26	11	5

	EF = 1.0 g/bhp-hr										
	Downwind Distance (m)										
Hours	30	50	100	**132**	200	300	400	500	800	1600	3200
10	6	6	6	6	4	2	1	1	0	0	0
20	12	12	12	12	8	4	3	2	1	0	0
30	19	19	19	19	12	6	4	3	1	1	0
40	25	25	25	25	17	8	5	4	2	1	0
50	31	31	31	31	21	10	6	5	2	1	0
100	62	62	62	62	42	21	13	9	5	2	1
200	124	124	124	124	83	41	26	18	10	4	2
300	186	186	186	186	125	62	39	27	14	6	3
400	249	249	249	249	166	83	51	37	19	8	4
500	311	311	311	311	208	103	64	46	24	10	5
1000	622	622	622	622	416	206	128	92	48	21	10

Assume: 75% load.

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

Stack Info: emission rate = 0.04167 g/s; stack diameter = 0.330 m; stack height = 3 m; stack temp = 622 K; stack velocity = 42.5 m/s.

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