

Screening Health Risk Assessment Tables Available (as of 12/15/06)

50% Load / Urban Option:

50hp, 100hp, 175hp, 300hp, 600hp, 750hp, 1500hp

75% Load / Urban Option:

50hp, 100hp, 200hp, 550hp, 1500hp, 2600hp

75% Load / Rural Option:

200hp, 550hp, 1500hp

Diesel Exhaust PM Risk (Potential Cancer Cases in A Million) for 50 HP Engines

Hours	EF = 0.02 g/bhp-hr											EF = 0.15 g/bhp-hr										
	Downwind Distance (m)											Downwind Distance (m)										
	20	30	40	50	70	100	200	400	800	1200	1600	20	30	40	50	70	100	200	400	800	1200	1600
10	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	2	2	1	1	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	4	2	2	1	1	0	0	0	0	0	0
40	1	0	0	0	0	0	0	0	0	0	0	5	3	2	1	1	0	0	0	0	0	0
50	1	0	0	0	0	0	0	0	0	0	0	6	4	2	2	1	0	0	0	0	0	0
100	2	1	1	0	0	0	0	0	0	0	0	12	8	5	3	2	1	0	0	0	0	0
150	2	2	1	1	0	0	0	0	0	0	0	18	11	7	5	3	1	0	0	0	0	0
200	3	2	1	1	0	0	0	0	0	0	0	23	15	10	7	4	2	0	0	0	0	0
300	5	3	2	1	1	0	0	0	0	0	0	35	23	15	10	5	3	1	0	0	0	0
400	6	4	3	2	1	0	0	0	0	0	0	47	30	20	14	7	4	1	0	0	0	0
500	8	5	3	2	1	1	0	0	0	0	0	58	38	25	17	9	5	1	0	0	0	0
1000	16	10	7	5	2	1	0	0	0	0	0	117	75	49	34	18	9	2	1	0	0	0

Hours	EF = 0.40 g/bhp-hr											EF = 0.55 g/bhp-hr										
	Downwind Distance (m)											Downwind Distance (m)										
	20	30	40	50	70	100	200	400	800	1200	1600	20	30	40	50	70	100	200	400	800	1200	1600
10	3	2	1	1	1	0	0	0	0	0	0	4	3	2	1	1	0	0	0	0	0	0
20	6	4	2	2	1	1	0	0	0	0	0	9	6	3	3	1	1	0	0	0	0	0
30	9	6	4	3	2	1	0	0	0	0	0	13	8	6	4	2	1	0	0	0	0	0
40	12	8	5	4	2	1	0	0	0	0	0	17	11	7	5	3	1	0	0	0	0	0
50	16	10	7	4	2	1	0	0	0	0	0	21	14	9	6	3	2	0	0	0	0	0
100	31	20	13	9	5	2	1	0	0	0	0	43	28	18	12	7	3	1	0	0	0	0
150	47	30	20	13	7	4	1	0	0	0	0	64	41	27	18	10	5	1	0	0	0	0
200	62	40	26	18	10	5	1	0	0	0	0	86	55	36	25	14	7	2	0	0	0	0
300	93	60	40	27	15	7	2	0	0	0	0	128	83	54	37	20	10	3	0	0	0	0
400	124	80	53	36	20	10	2	1	0	0	0	171	110	72	50	27	14	3	1	0	0	0
500	155	100	66	45	25	12	3	1	0	0	0	213	138	91	62	34	17	4	1	0	0	0
1000	311	201	132	90	49	25	6	2	0	0	0	427	276	181	124	68	34	9	2	0	0	0

Hours	EF = 1.0 g/bhp-hr										
	Downwind Distance (m)										
	20	30	40	50	70	100	200	400	800	1200	1600
10	8	5	3	2	2	1	0	0	0	0	0
20	16	10	6	5	2	2	0	0	0	0	0
30	23	15	10	7	4	2	1	0	0	0	0
40	31	20	13	9	5	2	1	0	0	0	0
50	39	25	16	11	6	3	1	0	0	0	0
100	78	51	33	23	12	6	2	0	0	0	0
150	117	75	50	33	19	9	2	1	0	0	0
200	156	100	66	45	25	12	3	1	0	0	0
300	233	151	99	68	37	19	5	1	0	0	0
400	311	201	131	90	49	25	6	2	0	0	0
500	388	251	165	113	61	31	8	2	1	0	0
1000	777	502	330	226	123	62	16	4	1	1	0

Assume: 50% load.

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

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

www.arb.ca.gov/ab2588/diesel/50modified.xls

Diesel Exhaust PM Risk (Potential Cancer Cases in A Million) for 50 HP Engines

Hours	EF = 0.02 g/bhp-hr											EF = 0.15 g/bhp-hr										
	Downwind Distance (m)											Downwind Distance (m)										
	20	30	40	50	70	100	200	400	800	1200	1600	20	30	40	50	70	100	200	400	800	1200	1600
10	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	3	2	1	1	1	0	0	0	0	0	0
30	1	0	0	0	0	0	0	0	0	0	0	4	3	2	1	1	0	0	0	0	0	0
40	1	1	0	0	0	0	0	0	0	0	0	5	4	3	2	1	1	0	0	0	0	0
50	1	1	0	0	0	0	0	0	0	0	0	7	5	3	2	1	1	0	0	0	0	0
100	2	1	1	1	0	0	0	0	0	0	0	13	10	7	5	3	1	0	0	0	0	0
150	3	2	1	1	1	0	0	0	0	0	0	19	15	10	7	4	2	1	0	0	0	0
200	4	3	2	1	1	0	0	0	0	0	0	26	19	14	10	5	3	1	0	0	0	0
300	5	4	3	2	1	1	0	0	0	0	0	39	29	20	14	8	4	1	0	0	0	0
400	7	5	4	3	1	1	0	0	0	0	0	52	39	27	19	11	6	1	0	0	0	0
500	9	6	5	3	2	1	0	0	0	0	0	65	48	34	24	13	7	2	0	0	0	0
1000	17	13	9	6	4	2	1	0	0	0	0	130	97	67	48	27	14	4	1	0	0	0

Hours	EF = 0.4 g/bhp-hr											EF = 0.55 g/bhp-hr										
	Downwind Distance (m)											Downwind Distance (m)										
	20	30	40	50	70	100	200	400	800	1200	1600	20	30	40	50	70	100	200	400	800	1200	1600
10	4	3	2	1	1	0	0	0	0	0	0	5	4	3	2	1	1	0	0	0	0	0
20	7	5	4	3	1	1	0	0	0	0	0	10	7	5	4	2	1	0	0	0	0	0
30	10	8	5	4	2	1	0	0	0	0	0	14	11	7	5	3	2	0	0	0	0	0
40	14	10	7	5	3	2	0	0	0	0	0	19	14	10	7	4	2	1	0	0	0	0
50	17	13	9	6	4	2	1	0	0	0	0	24	18	12	9	5	3	1	0	0	0	0
100	35	26	18	13	7	4	1	0	0	0	0	48	36	25	18	10	5	1	0	0	0	0
150	52	39	27	19	11	6	1	0	0	0	0	71	53	37	26	15	8	2	1	0	0	0
200	69	52	36	25	14	7	2	1	0	0	0	95	71	49	35	20	10	3	1	0	0	0
300	104	77	54	38	21	11	3	1	0	0	0	143	106	74	52	29	15	4	1	0	0	0
400	138	103	72	51	29	15	4	1	0	0	0	190	142	99	70	39	20	5	1	0	0	0
500	173	129	90	64	36	18	5	1	0	0	0	238	177	124	87	49	25	7	2	0	0	0
1000	346	258	180	127	71	37	10	2	1	0	0	475	355	247	175	98	50	13	3	1	0	0

Hours	EF = 1.0 g/bhp-hr										
	Downwind Distance (m)										
	20	30	40	50	70	100	200	400	800	1200	1600
10	9	7	5	3	2	1	0	0	0	0	0
20	17	13	9	6	4	2	1	0	0	0	0
30	26	19	14	10	5	3	1	0	0	0	0
40	35	26	18	13	7	4	1	0	0	0	0
50	43	32	23	16	9	5	1	0	0	0	0
100	87	65	45	32	18	9	2	1	0	0	0
150	130	97	68	48	27	14	4	1	0	0	0
200	173	129	90	64	36	18	5	1	0	0	0
300	259	194	135	95	54	28	7	2	1	0	0
400	346	258	180	127	71	37	10	2	1	0	0
500	432	322	225	159	89	46	12	3	1	0	0
1000	864	645	450	317	178	92	24	6	1	1	1

Assume: 75% load.

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

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

www.arb.ca.gov/ab2588/diesel/75modified.xls

Diesel Exhaust PM Risk (Potential Cancer Cases in A Million) for 100 HP Engines

Hours	EF = 0.02 g/bhp-hr										EF = 0.15 g/bhp-hr										
	Downwind Distance (m)										Downwind Distance (m)										
	20	30	40	50	70	100	200	400	800	1200	1600	20	30	40	50	70	100	200	400	800	1200
10	0	0	0	0	0	0	0	0	0	0	2	1	1	1	0	0	0	0	0	0	0
20	1	0	0	0	0	0	0	0	0	0	4	3	2	1	1	0	0	0	0	0	0
30	1	1	0	0	0	0	0	0	0	0	6	4	3	2	1	1	0	0	0	0	0
40	1	1	0	0	0	0	0	0	0	0	8	6	4	3	1	1	0	0	0	0	0
50	1	1	1	0	0	0	0	0	0	0	10	7	5	3	2	1	0	0	0	0	0
100	3	2	1	1	0	0	0	0	0	0	20	14	9	7	4	2	0	0	0	0	0
150	4	3	2	1	1	0	0	0	0	0	30	21	14	10	5	3	1	0	0	0	0
200	5	4	3	2	1	0	0	0	0	0	40	28	19	13	7	4	1	0	0	0	0
300	8	6	4	3	1	1	0	0	0	0	60	42	28	20	11	5	1	0	0	0	0
400	11	7	5	3	2	1	0	0	0	0	80	56	38	26	14	7	2	0	0	0	0
500	13	9	6	4	2	1	0	0	0	0	100	70	47	33	18	9	2	1	0	0	0
1000	27	19	13	9	5	2	1	0	0	0	200	139	94	65	36	18	5	1	0	0	0

Hours	EF = 0.40 g/bhp-hr										EF = 0.55 g/bhp-hr										
	Downwind Distance (m)										Downwind Distance (m)										
	20	30	40	50	70	100	200	400	800	1200	1600	20	30	40	50	70	100	200	400	800	1200
10	5	4	2	2	1	1	0	0	0	0	7	5	3	3	1	1	0	0	0	0	0
20	11	7	5	3	2	1	0	0	0	0	15	10	7	5	3	1	0	0	0	0	0
30	16	11	7	5	3	2	0	0	0	0	22	15	10	7	4	2	0	0	0	0	0
40	21	15	10	7	4	2	1	0	0	0	29	21	14	9	5	3	1	0	0	0	0
50	27	19	12	9	5	2	1	0	0	0	37	26	17	12	7	3	1	0	0	0	0
100	53	37	25	17	10	5	1	0	0	0	73	51	35	24	13	7	2	0	0	0	0
150	80	56	38	26	15	7	2	0	0	0	110	77	52	36	20	10	3	0	0	0	0
200	106	74	50	35	19	10	2	1	0	0	146	102	69	48	27	14	3	1	0	0	0
300	160	111	75	52	29	15	4	1	0	0	220	153	104	72	40	20	5	1	0	0	0
400	213	148	100	70	39	20	5	1	0	0	293	204	138	96	53	27	7	2	0	0	0
500	266	185	126	87	48	25	6	2	0	0	366	255	173	120	66	34	9	2	0	0	0
1000	533	371	251	175	96	49	12	3	1	0	732	510	345	240	133	68	17	4	1	0	0

Hours	EF = 1.0 g/bhp-hr										
	Downwind Distance (m)										
	20	30	40	50	70	100	200	400	800	1200	1600
10	13	9	6	5	2	2	0	0	0	0	
20	26	19	12	9	5	2	1	0	0	0	
30	40	28	19	13	7	4	1	0	0	0	
40	53	37	25	17	9	5	2	0	0	0	
50	67	47	31	22	12	6	2	0	0	0	
100	133	93	63	44	24	12	3	1	0	0	
150	200	139	94	65	37	19	5	1	0	0	
200	266	185	125	87	48	25	6	2	0	0	
300	400	278	188	131	72	37	9	2	1	0	
400	533	371	251	174	96	49	12	3	1	0	
500	666	464	314	218	121	61	16	4	1	0	
1000	1332	927	628	436	241	123	31	8	2	1	

Assume: 50% load.

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

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

Diesel Exhaust PM Risk (Potential Cancer Cases in A Million) for 100 HP Engines

Hours	EF = 0.02 g/bhp-hr											EF = 0.15 g/bhp-hr										
	Downwind Distance (m)											Downwind Distance (m)										
	20	30	40	50	70	100	200	400	800	1200	1600	20	30	40	50	70	100	200	400	800	1200	1600
10	0	0	0	0	0	0	0	0	0	0	0	2	2	1	1	1	0	0	0	0	0	0
20	1	1	0	0	0	0	0	0	0	0	0	4	4	3	2	1	1	0	0	0	0	0
30	1	1	1	0	0	0	0	0	0	0	0	6	5	4	3	2	1	0	0	0	0	0
40	1	1	1	1	0	0	0	0	0	0	0	8	7	5	4	2	1	0	0	0	0	0
50	1	1	1	1	0	0	0	0	0	0	0	11	9	6	5	3	1	0	0	0	0	0
100	3	2	2	1	1	0	0	0	0	0	0	21	17	13	9	5	3	1	0	0	0	0
150	4	4	3	2	1	1	0	0	0	0	0	32	26	19	14	8	4	1	0	0	0	0
200	6	5	3	2	1	1	0	0	0	0	0	42	35	25	18	10	5	1	0	0	0	0
300	8	7	5	4	2	1	0	0	0	0	0	63	52	38	27	16	8	2	1	0	0	0
400	11	9	7	5	3	1	0	0	0	0	0	84	70	51	36	21	11	3	1	0	0	0
500	14	12	8	6	4	2	1	0	0	0	0	106	87	63	46	26	14	4	1	0	0	0
1000	28	23	17	12	7	4	1	0	0	0	0	211	174	126	91	52	27	7	2	0	0	0

Hours	EF = 0.4 g/bhp-hr											EF = 0.55 g/bhp-hr										
	Downwind Distance (m)											Downwind Distance (m)										
	20	30	40	50	70	100	200	400	800	1200	1600	20	30	40	50	70	100	200	400	800	1200	1600
10	6	5	3	2	1	1	0	0	0	0	0	8	6	5	3	2	1	0	0	0	0	0
20	11	9	7	5	3	1	0	0	0	0	0	16	13	9	7	4	2	1	0	0	0	0
30	17	14	10	7	4	2	1	0	0	0	0	23	19	14	10	6	3	1	0	0	0	0
40	23	19	14	10	6	3	1	0	0	0	0	31	26	19	13	8	4	1	0	0	0	0
50	28	23	17	12	7	4	1	0	0	0	0	39	32	23	17	10	5	1	0	0	0	0
100	56	46	34	24	14	7	2	1	0	0	0	77	64	46	33	19	10	3	1	0	0	0
150	84	70	51	36	21	11	3	1	0	0	0	116	96	69	50	29	15	4	1	0	0	0
200	113	93	67	49	28	15	4	1	0	0	0	155	127	93	67	38	20	5	1	0	0	0
300	169	139	101	73	42	22	6	1	0	0	0	232	191	139	100	57	30	8	2	1	0	0
400	225	185	135	97	56	29	8	2	1	0	0	310	255	185	134	77	40	10	3	1	0	0
500	281	232	168	122	70	36	9	2	1	0	0	387	319	232	167	96	50	13	3	1	0	0
1000	563	463	337	243	139	72	19	5	1	1	0	774	637	463	334	191	100	26	6	2	1	0

Hours	EF = 1.0 g/bhp-hr										
	Downwind Distance (m)										
	20	30	40	50	70	100	200	400	800	1200	1600
10	14	12	9	6	4	2	1	0	0	0	0
20	28	23	17	12	7	4	1	0	0	0	0
30	42	35	25	18	11	6	2	0	0	0	0
40	56	46	34	24	14	7	2	1	0	0	0
50	70	58	42	30	18	9	2	1	0	0	0
100	141	116	84	61	35	18	5	1	0	0	0
150	211	174	126	91	52	27	7	2	1	0	0
200	281	232	168	122	70	36	10	2	1	0	0
300	422	348	253	182	105	54	14	4	1	0	0
400	563	464	337	243	139	73	19	5	1	1	0
500	704	579	421	304	174	91	24	6	2	1	1
1000	1407	1159	842	608	348	181	47	12	3	1	1

Assume: 75% load.

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

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

Diesel Exhaust PM Risk (Potential Cancer Cases in A Million) for 175 HP Engines

Hours	EF = 0.02 g/bhp-hr											EF = 0.15 g/bhp-hr										
	Downwind Distance (m)											Downwind Distance (m)										
	20	30	40	50	70	100	200	400	800	1200	1600	20	30	40	50	70	100	200	400	800	1200	1600
10	0	0	0	0	0	0	0	0	0	0	2	2	1	1	1	0	0	0	0	0	0	
20	1	1	0	0	0	0	0	0	0	0	4	4	3	2	1	1	0	0	0	0	0	
30	1	1	1	0	0	0	0	0	0	0	7	6	4	3	2	1	0	0	0	0	0	
40	1	1	1	1	0	0	0	0	0	0	9	8	6	4	2	1	0	0	0	0	0	
50	1	1	1	1	0	0	0	0	0	0	11	10	7	5	3	2	0	0	0	0	0	
100	3	3	2	1	1	0	0	0	0	0	22	19	14	10	6	3	1	0	0	0	0	
150	4	4	3	2	1	1	0	0	0	0	34	29	21	16	9	5	1	0	0	0	0	
200	6	5	4	3	2	1	0	0	0	0	45	39	29	21	12	6	2	0	0	0	0	
300	9	8	6	4	2	1	0	0	0	0	67	58	43	31	18	9	2	1	0	0	0	
400	12	10	8	6	3	2	0	0	0	0	90	77	57	42	24	13	3	1	0	0	0	
500	15	13	10	7	4	2	1	0	0	0	112	96	71	52	30	16	4	1	0	0	0	
1000	30	26	19	14	8	4	1	0	0	0	224	193	143	104	60	32	8	2	0	0	0	

Hours	EF = 0.4 g/bhp-hr											EF = 0.55 g/bhp-hr										
	Downwind Distance (m)											Downwind Distance (m)										
	20	30	40	50	70	100	200	400	800	1200	1600	20	30	40	50	70	100	200	400	800	1200	1600
10	6	5	4	3	2	1	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	
20	12	10	7	6	3	2	0	0	0	0	2	2	1	1	1	0	0	0	0	0	0	
30	18	16	12	8	5	2	1	0	0	0	3	3	2	2	1	0	0	0	0	0	0	
40	24	21	15	11	7	3	1	0	0	0	4	4	3	2	1	1	0	0	0	0	0	
50	30	26	19	14	8	4	1	0	0	0	5	5	3	3	1	1	0	0	0	0	0	
100	60	51	38	28	16	8	2	1	0	0	11	9	7	5	3	2	0	0	0	0	0	
150	90	77	57	42	24	13	3	1	0	0	16	14	10	7	4	2	1	0	0	0	0	
200	120	103	76	55	32	17	4	1	0	0	21	18	14	10	6	3	1	0	0	0	0	
300	180	154	114	83	48	25	7	2	0	0	32	27	20	15	9	5	1	0	0	0	0	
400	239	206	152	111	64	34	9	2	1	0	42	36	27	20	11	6	2	0	0	0	0	
500	299	257	190	139	80	42	11	3	1	0	53	46	34	25	14	7	2	1	0	0	0	
1000	599	515	381	278	161	84	22	5	1	1	106	91	67	49	28	15	4	1	0	0	0	

Hours	EF = 1.0 g/bhp-hr										
	Downwind Distance (m)										
	20	30	40	50	70	100	200	400	800	1200	1600
10	15	13	9	7	4	2	1	0	0	0	
20	30	26	19	14	8	4	1	0	0	0	
30	45	39	29	21	12	6	2	1	0	0	
40	60	51	38	28	16	9	2	1	0	0	
50	75	65	47	35	20	11	3	1	0	0	
100	149	128	95	69	40	21	5	2	0	0	
150	225	193	143	104	60	32	9	2	1	0	
200	299	257	191	138	80	42	11	2	1	0	
300	449	386	285	208	121	63	16	4	1	1	
400	598	515	381	278	160	84	22	5	2	1	
500	748	643	476	347	201	105	27	7	2	1	
1000	1496	1286	952	694	401	210	54	13	3	2	

Assume: 50% load.

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

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

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.

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	1	2	1	1	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	2	3	2	1	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	4	5	2	2	1	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0	5	6	3	2	1	0	0	0	0	0	0
50	0	1	0	0	0	0	0	0	0	0	0	6	8	4	3	1	1	0	0	0	0	0
100	1	1	1	0	0	0	0	0	0	0	0	12	15	8	5	2	1	1	1	0	0	0
200	2	2	1	1	0	0	0	0	0	0	0	24	31	16	10	4	2	2	1	1	0	0
300	2	3	2	1	0	0	0	0	0	0	0	36	46	25	15	6	3	2	2	1	1	0
400	3	4	2	1	0	0	0	0	0	0	0	49	61	33	20	7	4	3	2	1	1	0
500	4	5	3	2	1	0	0	0	0	0	0	61	76	41	26	9	5	4	3	2	1	0
1000	8	10	5	3	1	1	1	0	0	0	0	122	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	3	4	2	1	0	0	0	0	0	0	0	4	6	3	2	1	0	0	0	0	0	0
20	6	8	4	3	1	1	0	0	0	0	0	9	11	6	4	1	1	1	0	0	0	0
30	10	12	7	4	1	1	1	0	0	0	0	13	17	9	6	2	1	1	1	0	0	0
40	13	16	9	5	2	1	1	1	0	0	0	18	22	12	8	3	2	1	1	1	0	0
50	16	20	11	7	2	1	1	1	0	0	0	22	28	15	9	3	2	1	1	1	0	0
100	32	41	22	14	5	3	2	2	1	0	0	45	56	30	19	7	4	3	2	1	1	0
200	65	81	44	27	10	6	4	3	2	1	0	89	112	60	38	14	8	6	4	3	1	1
300	97	122	65	41	15	9	6	5	3	1	1	134	168	90	56	20	12	9	7	4	2	1
400	130	163	87	55	20	12	8	6	4	2	1	178	224	120	75	27	16	11	9	5	3	1
500	162	203	109	68	25	15	10	8	5	2	1	223	280	150	94	34	20	14	11	7	3	2
1000	324	407	218	137	49	29	21	16	10	5	2	446	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	8	10	5	3	1	1	1	0	0	0	0
20	16	20	11	7	2	1	1	1	0	0	0
30	24	31	16	10	4	2	2	1	1	0	0
40	32	41	22	14	5	3	2	2	1	0	0
50	41	51	27	17	6	4	3	2	1	1	0
100	81	102	55	34	12	7	5	4	2	1	1
200	162	203	109	68	25	15	10	8	5	2	1
300	243	305	164	102	37	22	16	12	7	3	2
400	324	407	218	137	49	29	21	16	10	5	2
500	405	508	273	171	62	37	26	20	12	6	3
1000	810	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.

Diesel Exhaust PM Risk (Potential Cancer Cases in A Million) for 300 HP Engines

Hours	EF = 0.02 g/bhp-hr											EF = 0.15 g/bhp-hr										
	Downwind Distance (m)											Downwind Distance (m)										
	20	30	40	50	70	100	200	400	800	1200	1600	20	30	40	50	70	100	200	400	800	1200	1600
10	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	1	0	0	0	0	0	0
20	1	1	1	0	0	0	0	0	0	0	0	5	5	4	3	2	1	0	0	0	0	0
30	1	1	1	1	0	0	0	0	0	0	0	7	7	6	5	3	2	0	0	0	0	0
40	1	1	1	1	0	0	0	0	0	0	0	9	9	8	6	4	2	1	0	0	0	0
50	2	2	1	1	1	0	0	0	0	0	0	11	11	10	8	5	3	1	0	0	0	0
100	3	3	3	2	1	1	0	0	0	0	0	23	23	19	15	9	5	1	0	0	0	0
150	5	5	4	3	2	1	0	0	0	0	0	34	34	29	23	14	8	2	0	0	0	0
200	6	6	5	4	3	1	0	0	0	0	0	45	45	39	30	19	10	3	1	0	0	0
300	9	9	8	6	4	2	1	0	0	0	0	68	68	58	46	28	16	4	1	0	0	0
400	12	12	10	8	5	3	1	0	0	0	0	91	91	77	61	38	21	6	1	0	0	0
500	15	15	13	10	6	3	1	0	0	0	0	114	114	96	76	47	26	7	2	0	0	0
1000	30	30	26	20	13	7	2	0	0	0	0	227	227	193	152	95	52	14	3	1	0	0

Hours	EF = 0.4 g/bhp-hr											EF = 0.55 g/bhp-hr										
	Downwind Distance (m)											Downwind Distance (m)										
	20	30	40	50	70	100	200	400	800	1200	1600	20	30	40	50	70	100	200	400	800	1200	1600
10	6	6	5	4	2	1	0	0	0	0	0	8	8	7	6	3	2	0	0	0	0	0
20	12	12	10	8	5	3	1	0	0	0	0	17	17	14	11	7	4	1	0	0	0	0
30	18	18	16	12	7	4	1	0	0	0	0	25	25	21	17	10	6	2	0	0	0	0
40	24	24	21	16	10	6	2	0	0	0	0	33	33	28	22	14	8	2	0	0	0	0
50	30	30	26	20	12	7	2	0	0	0	0	41	41	36	28	17	9	3	0	0	0	0
100	61	61	51	40	25	14	4	1	0	0	0	83	83	71	56	35	19	5	1	0	0	0
150	91	91	77	61	38	21	6	1	0	0	0	125	125	106	83	52	28	8	2	0	0	0
200	121	121	103	81	50	28	7	2	0	0	0	166	166	142	111	69	38	10	3	0	0	0
300	182	182	154	121	76	41	11	3	1	0	0	250	250	212	167	104	57	15	4	1	0	0
400	242	242	206	162	101	55	15	4	1	0	0	333	333	283	222	139	76	21	5	1	0	0
500	303	303	257	202	126	69	19	5	1	1	0	416	416	354	278	173	95	26	6	2	1	0
1000	605	605	515	405	252	138	37	9	2	1	1	832	832	708	557	347	190	51	12	3	1	1

Hours	EF = 1.0 g/bhp-hr										
	Downwind Distance (m)										
	20	30	40	50	70	100	200	400	800	1200	1600
10	15	15	13	10	6	3	1	0	0	0	0
20	30	30	26	20	12	7	2	1	0	0	0
30	45	45	39	30	19	10	3	1	0	0	0
40	61	61	51	40	25	14	4	1	0	0	0
50	75	75	65	51	31	17	5	1	0	0	0
100	152	152	128	101	63	34	9	2	1	0	0
150	227	227	193	152	94	51	14	3	1	0	0
200	303	303	257	202	126	69	19	5	1	1	0
300	454	454	386	303	189	103	28	7	2	1	1
400	606	606	515	404	252	138	37	9	2	1	1
500	757	757	643	506	315	172	47	12	3	2	1
1000	1514	1514	1286	1012	630	345	93	23	5	2	2

Assume: 50% load.

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

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

Diesel Exhaust PM Risk (Potential Cancer Cases in A Million) for 550 HP Engines

Hours	EF = 0.02 g/bhp-hr																EF = 0.15 g/bhp-hr															
	Downwind Distance (m)																Downwind Distance (m)															
	20	30	40	50	60	70	80	90	100	200	300	400	800	1200	1600	20	30	40	50	60	70	80	90	100	200	300	400	800	1200	1600		
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	2	2	1	1	1	0	0	0	0	0			
20	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	4	4	4	4	4	3	3	3	2	1	0	0	0	0			
30	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	6	6	6	6	6	5	4	4	3	1	0	0	0	0			
40	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	8	8	8	8	8	7	6	5	5	1	1	0	0	0			
50	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	10	10	10	10	10	9	7	6	6	2	1	0	0	0			
100	3	3	3	3	3	2	2	2	2	0	0	0	0	0	0	20	20	20	20	19	17	15	13	11	4	2	1	0	0			
150	4	4	4	4	4	3	3	3	2	1	0	0	0	0	0	30	30	30	30	29	26	22	19	17	5	2	1	0	0			
200	5	5	5	5	5	5	4	3	3	1	0	0	0	0	0	40	40	40	40	38	34	30	26	23	7	3	2	0	0			
300	8	8	8	8	8	7	6	5	5	1	1	0	0	0	0	60	60	60	60	57	51	45	39	34	11	5	3	1	0	0		
400	11	11	11	11	10	9	8	7	6	2	1	0	0	0	0	80	80	80	80	76	68	60	52	45	14	7	4	1	0	0		
500	13	13	13	13	13	11	10	9	8	2	1	1	0	0	0	100	100	100	100	95	85	75	65	57	18	8	5	1	1	0		
1000	27	27	27	27	25	23	20	17	15	5	2	1	0	0	0	201	201	201	201	190	170	149	130	113	36	17	9	2	1	1		

Hours	EF = 0.40 g/bhp-hr																EF = 0.55 g/bhp-hr															
	Downwind Distance (m)																Downwind Distance (m)															
	20	30	40	50	60	70	80	90	100	200	300	400	800	1200	1600	20	30	40	50	60	70	80	90	100	200	300	400	800	1200	1600		
10	5	5	5	5	5	5	4	3	3	1	0	0	0	0	0	7	7	7	7	7	6	5	5	4	1	1	0	0	0			
20	11	11	11	11	10	9	8	7	6	2	1	0	0	0	0	15	15	15	15	14	12	11	10	8	3	1	1	0	0			
30	16	16	16	16	15	14	12	10	9	3	1	1	0	0	0	22	22	22	22	21	19	16	14	12	4	2	1	0	0			
40	21	21	21	21	20	18	16	14	12	4	2	1	0	0	0	29	29	29	29	28	25	22	19	17	5	2	1	0	0			
50	27	27	27	27	25	23	20	17	15	5	2	1	0	0	0	37	37	37	37	35	31	27	24	21	7	3	2	0	0			
100	54	54	54	54	51	45	40	35	30	10	4	2	1	0	0	74	74	74	74	70	62	55	48	41	13	6	3	1	0	0		
150	80	80	80	80	76	68	60	52	45	14	7	4	1	0	0	111	111	111	111	105	94	82	71	62	20	9	5	1	1	0		
200	107	107	107	107	101	91	80	69	60	19	9	5	1	1	0	147	147	147	147	139	125	109	95	83	26	12	7	2	1	0		
300	161	161	161	161	152	136	119	104	90	29	13	7	2	1	1	221	221	221	221	209	187	164	143	124	40	18	10	3	1	1		
400	214	214	214	214	203	181	159	139	121	38	18	10	2	1	1	295	295	295	295	279	249	219	191	166	53	24	14	3	2	1		
500	268	268	268	268	253	227	199	173	151	48	22	12	3	1	1	368	368	368	368	348	312	273	238	207	66	30	17	4	2	1		
1000	536	536	536	536	507	454	398	347	302	96	44	25	6	3	2	737	737	737	737	697	624	547	477	415	132	61	34	8	4	2		

Hours	EF = 1.0 g/bhp-hr															
	Downwind Distance (m)															
	20	30	40	50	60	70	80	90	100	200	300	400	800	1200	1600	
10	13	13	13	13	13	11	10	9	8	2	1	1	0	0	0	
20	27	27	27	27	25	23	20	17	15	5	2	1	0	0	0	
30	40	40	40	40	38	34	30	26	23	7	3	2	0	0	0	
40	54	54	54	54	51	45	40	35	30	10	4	2	1	0	0	
50	67	67	67	67	63	57	50	43	38	12	6	3	1	0	0	
100	134	134	134	134	127	113	99	87	75	24	11	6	2	1	0	
150	201	201	201	201	190	170	149	130	113	36	17	9	2	1	1	
200	268	268	268	268	253	227	199	173	151	48	22	12	3	1	1	
300	402	402	402	402	380	340	298	260	226	72	33	19	5	2	1	
400	536	536	536	536	507	454	398	347	302	96	44	25	6	3	2	
500	670	670	670	670	633	567	497	433	377	120	55	31	8	4	2	
1000	1339	1339	1339	1339	1267	1134	994	867	754	240	110	62	15	7	5	

Assume: 75% load.

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

Diesel Exhaust PM Risk (Potential Cancer Cases in A Million) for 550 HP Engines

Hours	EF = 0.01 g/bhp-hr											EF = 0.15 g/bhp-hr										
	Downwind Distance (m)											Downwind Distance (m)										
	30	50	69	100	200	300	400	500	800	1600	3200	30	50	69	100	200	300	400	500	800	1600	3200
10	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	
20	0	0	0	0	0	0	0	0	0	0	2	2	2	1	1	0	0	0	0	0	0	
30	0	0	0	0	0	0	0	0	0	0	3	3	3	2	1	0	0	0	0	0	0	
40	0	0	0	0	0	0	0	0	0	0	4	4	4	3	1	1	0	0	0	0	0	
50	0	0	0	0	0	0	0	0	0	0	4	4	4	4	1	1	1	0	0	0	0	
100	1	1	1	0	0	0	0	0	0	0	9	9	9	7	3	1	1	1	0	0	0	
150	1	1	1	1	0	0	0	0	0	0	13	13	13	11	4	2	2	1	1	0	0	
200	1	1	1	1	0	0	0	0	0	0	18	18	18	14	5	3	2	2	1	0	0	
300	2	2	2	1	1	0	0	0	0	0	27	27	27	21	8	4	3	2	1	1	0	
400	2	2	2	2	1	0	0	0	0	0	36	36	36	28	10	6	4	3	2	1	0	
500	3	3	3	2	1	0	0	0	0	0	45	45	45	35	13	7	5	4	2	1	1	
1000	6	6	6	5	2	1	1	1	0	0	89	89	89	70	26	15	10	8	5	2	1	

Hours	EF = 0.40 g/bhp-hr											EF = 0.55 g/bhp-hr										
	Downwind Distance (m)											Downwind Distance (m)										
	30	50	69	100	200	300	400	500	800	1600	3200	30	50	69	100	200	300	400	500	800	1600	3200
10	2	2	2	2	1	0	0	0	0	0	3	3	3	3	1	1	0	0	0	0	0	
20	5	5	5	4	1	1	1	0	0	0	7	7	7	5	2	1	1	1	0	0	0	
30	7	7	7	6	2	1	1	1	0	0	10	10	10	8	3	2	1	1	0	0	0	
40	9	9	9	7	3	2	1	1	0	0	13	13	13	10	4	2	2	1	1	0	0	
50	12	12	12	9	3	2	1	1	1	0	16	16	16	13	5	3	2	1	1	0	0	
100	24	24	24	19	7	4	3	2	1	1	33	33	33	26	10	5	4	3	2	1	0	
150	36	36	36	28	10	6	4	3	2	1	49	49	49	39	14	8	6	4	2	1	1	
200	47	47	47	37	14	8	5	4	2	1	65	65	65	51	19	11	8	6	3	2	1	
300	71	71	71	56	21	12	8	6	4	2	98	98	98	77	29	16	11	9	5	2	1	
400	95	95	95	75	28	16	11	8	5	2	131	131	131	103	38	22	15	11	7	3	2	
500	119	119	119	94	35	20	14	10	6	3	163	163	163	129	48	27	19	14	8	4	2	
1000	237	237	237	187	70	40	27	21	12	6	326	326	326	257	96	55	38	29	17	8	4	

Hours	EF = 1.00 g/bhp-hr										
	Downwind Distance (m)										
	30	50	69	100	200	300	400	500	800	1600	3200
10	6	6	6	5	2	1	1	1	0	0	
20	12	12	12	9	3	2	1	1	1	0	
30	18	18	18	14	5	3	2	2	1	0	
40	24	24	24	19	7	4	3	2	1	0	
50	30	30	30	23	9	5	3	3	2	0	
100	59	59	59	47	17	10	7	5	3	1	
150	89	89	89	70	26	15	10	8	5	2	
200	119	119	119	94	35	20	14	10	6	3	
300	178	178	178	140	52	30	21	16	9	4	
400	237	237	237	187	70	40	27	21	12	6	
500	297	297	297	234	87	50	34	26	15	7	
1000	593	593	593	468	175	99	69	52	30	14	

Assume: 75% load.

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

Stack Info: emission rate = 0.01389 g/s; stack diameter = 0.152 m; stack height = 3 m; stack temp = 622 K; stack velocity = 73.1 m/s.

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

Diesel Exhaust PM Risk (Potential Cancer Cases in A Million) for 600 HP Engines

Hours	EF = 0.02 g/bhp-hr											EF = 0.15 g/bhp-hr										
	Downwind Distance (m)											Downwind Distance (m)										
	20	30	40	50	70	100	200	400	800	1200	1600	20	30	40	50	70	100	200	400	800	1200	1600
10	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	2	1	0	0	0	0	0
20	1	1	1	1	0	0	0	0	0	0	0	4	4	4	4	3	2	1	0	0	0	0
30	1	1	1	1	1	0	0	0	0	0	0	6	6	6	6	4	3	1	0	0	0	0
40	1	1	1	1	1	0	0	0	0	0	0	9	9	9	8	6	4	1	0	0	0	0
50	1	1	1	1	1	1	0	0	0	0	0	11	11	11	10	7	5	1	0	0	0	0
100	3	3	3	3	2	1	0	0	0	0	0	21	21	21	20	15	9	3	1	0	0	0
150	4	4	4	4	3	2	1	0	0	0	0	32	32	32	30	22	14	4	1	0	0	0
200	6	6	6	5	4	2	1	0	0	0	0	43	43	43	40	30	18	5	1	0	0	0
300	9	9	9	8	6	4	1	0	0	0	0	64	64	64	60	45	27	8	2	0	0	0
400	11	11	11	11	8	5	1	0	0	0	0	85	85	85	80	60	36	11	3	1	0	0
500	14	14	14	13	10	6	2	0	0	0	0	107	107	107	101	75	46	13	3	1	0	0
1000	28	28	28	27	20	12	4	1	0	0	0	213	213	213	201	149	91	27	7	2	1	0

Hours	EF = 0.40 g/bhp-hr											EF = 0.55 g/bhp-hr										
	Downwind Distance (m)											Downwind Distance (m)										
	20	30	40	50	70	100	200	400	800	1200	1600	20	30	40	50	70	100	200	400	800	1200	1600
10	6	6	6	5	4	2	1	0	0	0	0	8	8	8	7	6	3	1	0	0	0	0
20	12	12	12	11	8	5	2	0	0	0	0	16	16	16	15	11	7	2	0	0	0	0
30	17	17	17	16	12	7	2	1	0	0	0	24	24	24	22	16	10	3	1	0	0	0
40	23	23	23	21	16	10	3	1	0	0	0	31	31	31	30	22	13	4	1	0	0	0
50	28	28	28	27	20	12	4	1	0	0	0	39	39	39	37	27	17	5	1	0	0	0
100	57	57	57	54	40	24	7	2	0	0	0	78	78	78	74	55	33	10	3	0	0	0
150	85	85	85	80	60	36	11	3	1	0	0	117	117	117	110	82	50	15	4	1	0	0
200	114	114	114	107	80	49	14	4	1	0	0	157	157	157	148	110	67	20	5	1	0	0
300	171	171	171	161	119	73	21	5	1	1	0	235	235	235	221	164	100	30	7	2	1	0
400	227	227	227	214	159	97	29	7	2	1	1	313	313	313	295	219	133	39	10	3	1	1
500	284	284	284	268	199	122	36	9	2	1	1	391	391	391	369	273	167	49	12	3	1	1
1000	569	569	569	536	398	243	72	18	4	2	1	782	782	782	737	547	334	99	25	6	3	2

Hours	EF = 1.0 g/bhp-hr										
	Downwind Distance (m)										
	20	30	40	50	70	100	200	400	800	1200	1600
10	14	14	14	13	10	6	2	1	0	0	0
20	29	29	29	26	20	12	4	1	0	0	0
30	43	43	43	40	30	18	5	2	0	0	0
40	57	57	57	54	40	24	7	2	1	0	0
50	71	71	71	67	50	30	9	2	1	0	0
100	142	142	142	134	100	61	18	5	1	1	0
150	213	213	213	201	149	91	27	7	2	1	1
200	285	285	285	268	199	121	36	9	2	1	1
300	427	427	427	402	298	182	54	13	3	2	1
400	569	569	569	536	397	243	72	18	5	2	2
500	711	711	711	670	497	304	89	23	5	2	2
1000	1422	1422	1422	1340	994	607	180	45	11	5	3

Assume: 50% load.

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

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

Diesel Exhaust PM Risk (Potential Cancer Cases in A Million) for 750 HP Engines

Hours	EF = 0.02 g/bhp-hr											EF = 0.15 g/bhp-hr										
	Downwind Distance (m)											Downwind Distance (m)										
	20	30	40	50	70	100	200	400	800	1200	1600	20	30	40	50	70	100	200	400	800	1200	1600
10	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	2	1	0	0	0	0	0
20	1	1	1	1	0	0	0	0	0	0	0	4	4	4	4	3	2	1	0	0	0	0
30	1	1	1	1	1	0	0	0	0	0	0	6	6	6	6	5	3	1	0	0	0	0
40	1	1	1	1	1	1	0	0	0	0	0	8	8	8	8	7	4	1	0	0	0	0
50	1	1	1	1	1	1	0	0	0	0	0	10	10	10	10	8	5	2	0	0	0	0
100	3	3	3	3	2	1	0	0	0	0	0	20	20	20	20	16	11	3	1	0	0	0
150	4	4	4	4	3	2	1	0	0	0	0	30	30	30	30	25	16	5	1	0	0	0
200	5	5	5	5	4	3	1	0	0	0	0	40	40	40	40	33	21	7	2	0	0	0
300	8	8	8	8	7	4	1	0	0	0	0	61	61	61	61	49	32	10	3	1	0	0
400	11	11	11	11	9	6	2	0	0	0	0	81	81	81	81	66	42	13	3	1	0	0
500	13	13	13	13	11	7	2	1	0	0	0	101	101	101	101	82	53	17	4	1	0	0
1000	27	27	27	27	22	14	4	1	0	0	0	202	202	202	202	164	106	33	8	2	1	1

Hours	EF = 0.40 g/bhp-hr											EF = 0.55 g/bhp-hr										
	Downwind Distance (m)											Downwind Distance (m)										
	20	30	40	50	70	100	200	400	800	1200	1600	20	30	40	50	70	100	200	400	800	1200	1600
10	5	5	5	5	4	3	1	0	0	0	0	7	7	7	7	6	4	1	0	0	0	0
20	11	11	11	11	9	6	2	0	0	0	0	15	15	15	15	12	8	3	0	0	0	0
30	16	16	16	16	13	8	2	1	0	0	0	22	22	22	22	18	12	3	1	0	0	0
40	21	21	21	21	17	11	3	1	0	0	0	30	30	30	30	24	15	5	1	0	0	0
50	27	27	27	27	22	14	4	1	0	0	0	37	37	37	37	30	20	6	2	0	0	0
100	54	54	54	54	44	28	9	2	1	0	0	74	74	74	74	60	39	12	3	1	0	0
150	81	81	81	81	66	43	13	3	1	0	0	111	111	111	111	90	59	18	5	1	0	0
200	108	108	108	108	87	57	18	4	1	1	0	148	148	148	148	120	78	24	6	2	1	0
300	161	161	161	161	131	85	26	7	2	1	1	222	222	222	222	180	117	36	9	2	1	1
400	215	215	215	215	175	113	35	9	2	1	1	296	296	296	296	240	156	48	12	3	1	1
500	269	269	269	269	218	142	44	11	3	1	1	370	370	370	370	300	195	61	15	4	2	1
1000	538	538	538	538	437	283	88	22	6	2	2	740	740	740	740	601	389	121	31	8	3	2

Hours	EF = 1.0 g/bhp-hr										
	Downwind Distance (m)										
	20	30	40	50	70	100	200	400	800	1200	1600
10	13	13	13	13	11	7	2	1	0	0	0
20	27	27	27	27	22	14	5	1	0	0	0
30	40	40	40	40	33	21	6	2	1	0	0
40	54	54	54	54	44	28	9	2	1	0	0
50	67	67	67	67	54	36	11	3	1	0	0
100	135	135	135	135	109	71	22	5	2	1	1
150	201	201	201	201	164	107	33	9	2	1	1
200	269	269	269	269	219	142	44	11	3	2	1
300	404	404	404	404	327	212	66	17	4	2	2
400	538	538	538	538	437	283	88	23	5	2	2
500	673	673	673	673	546	354	110	28	7	3	2
1000	1345	1345	1345	1345	1093	708	220	56	14	6	4

Assume: 50% load.

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

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

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

Hours	EF = 0.02 g/bhp-hr											EF = 0.15 g/bhp-hr										
	Downwind Distance (m)											Downwind Distance (m)										
	20	30	40	50	70	100	200	400	800	1200	1600	20	30	40	50	70	100	200	400	800	1200	1600
10	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	2	1	0	0	0	0	
20	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3	3	1	0	0	0	0	
30	1	1	1	1	1	1	0	0	0	0	0	5	5	5	5	4	2	0	0	0	0	
40	1	1	1	1	1	1	0	0	0	0	0	7	7	7	7	6	2	1	0	0	0	
50	1	1	1	1	1	1	0	0	0	0	0	9	9	9	9	7	3	1	0	0	0	
100	2	2	2	2	2	2	1	0	0	0	0	17	17	17	17	15	6	2	0	0	0	
150	3	3	3	3	3	3	1	0	0	0	0	26	26	26	26	22	9	2	1	0	0	
200	5	5	5	5	5	4	2	0	0	0	0	34	34	34	34	30	12	3	1	0	0	
300	7	7	7	7	7	6	2	1	0	0	0	51	51	51	51	44	18	5	1	1	0	
400	9	9	9	9	9	8	3	1	0	0	0	69	69	69	69	59	24	7	2	1	0	
500	11	11	11	11	11	10	4	1	0	0	0	86	86	86	86	74	30	8	2	1	1	
1000	23	23	23	23	23	20	8	2	1	0	0	172	172	172	172	147	59	16	4	2	1	

Hours	EF = 0.40 g/bhp-hr											EF = 0.55 g/bhp-hr										
	Downwind Distance (m)											Downwind Distance (m)										
	20	30	40	50	70	100	200	400	800	1200	1600	20	30	40	50	70	100	200	400	800	1200	1600
10	5	5	5	5	5	4	2	0	0	0	0	6	6	6	6	6	2	0	0	0	0	
20	9	9	9	9	9	8	3	1	0	0	0	12	12	12	12	11	4	1	0	0	0	
30	14	14	14	14	14	12	5	1	0	0	0	19	19	19	19	16	6	2	0	0	0	
40	18	18	18	18	18	16	6	2	0	0	0	25	25	25	25	22	9	3	0	0	0	
50	23	23	23	23	23	20	8	2	1	0	0	32	32	32	32	27	11	3	1	0	0	
100	46	46	46	46	46	39	16	4	1	1	0	63	63	63	63	54	22	6	2	1	0	
150	69	69	69	69	69	59	24	7	2	1	1	95	95	95	95	81	33	9	2	1	1	
200	91	91	91	91	91	79	32	9	2	1	1	126	126	126	126	108	44	12	3	1	1	
300	137	137	137	137	137	118	48	13	3	2	1	189	189	189	189	162	65	18	5	2	1	
400	183	183	183	183	183	157	63	17	4	2	1	252	252	252	252	216	87	24	6	3	2	
500	229	229	229	229	229	196	79	22	6	2	2	315	315	315	315	270	109	30	8	3	2	
1000	458	458	458	458	458	393	158	44	11	5	3	630	630	630	630	540	217	60	15	7	4	

Hours	EF = 1.0 g/bhp-hr										
	Downwind Distance (m)										
	20	30	40	50	70	100	200	400	800	1200	1600
10	12	12	12	12	12	10	4	1	0	0	0
20	23	23	23	23	23	19	8	2	1	0	0
30	34	34	34	34	34	30	12	3	1	0	0
40	46	46	46	46	46	40	16	5	1	1	0
50	58	58	58	58	58	49	19	5	2	1	1
100	114	114	114	114	114	98	40	11	3	2	1
150	172	172	172	172	172	147	59	16	4	2	2
200	229	229	229	229	229	197	79	22	5	2	2
300	343	343	343	343	343	295	119	33	9	4	2
400	458	458	458	458	458	393	158	44	11	5	3
500	572	572	572	572	572	491	198	54	14	6	4
1000	1145	1145	1145	1145	1145	982	395	110	27	12	8

Assume: 50% load.

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

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

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

Hours	EF = 0.02 g/bhp-hr															EF = 0.15 g/bhp-hr														
	Downwind Distance (m)															Downwind Distance (m)														
	20	30	40	50	60	70	80	90	100	200	300	400	800	1200	1600	20	30	40	50	60	70	80	90	100	200	300	400	800	1200	1600
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2	2	1	1	0	0	0	0	
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3	3	3	3	3	3	2	1	0	0	0	
30	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	5	5	5	5	5	5	5	5	4	2	1	1	0	0	
40	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	6	6	6	6	6	6	6	6	6	3	2	1	0	0	
50	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	8	8	8	8	8	8	8	8	7	4	2	1	0	0	
100	2	2	2	2	2	2	2	2	2	2	1	1	0	0	0	15	15	15	15	15	15	15	15	15	8	4	2	1	0	
150	3	3	3	3	3	3	3	3	3	3	2	1	0	0	0	23	23	23	23	23	23	23	23	22	12	6	4	1	0	
200	4	4	4	4	4	4	4	4	4	4	2	1	1	0	0	30	30	30	30	30	30	30	30	30	16	8	5	1	1	
300	6	6	6	6	6	6	6	6	6	6	3	2	1	0	0	45	45	45	45	45	45	45	45	45	24	12	7	2	1	
400	8	8	8	8	8	8	8	8	8	8	4	2	1	0	0	60	60	60	60	60	60	60	60	60	31	16	10	2	1	
500	10	10	10	10	10	10	10	10	10	10	5	3	2	0	0	75	75	75	75	75	75	75	75	75	39	20	12	3	1	
1000	20	20	20	20	20	20	20	20	20	20	10	5	3	1	0	151	151	151	151	151	151	151	151	150	78	41	24	6	3	

Hours	EF = 0.40 g/bhp-hr															EF = 0.55 g/bhp-hr														
	Downwind Distance (m)															Downwind Distance (m)														
	20	30	40	50	60	70	80	90	100	200	300	400	800	1200	1600	20	30	40	50	60	70	80	90	100	200	300	400	800	1200	1600
10	4	4	4	4	4	4	4	4	4	4	2	1	1	0	0	6	6	6	6	6	6	6	6	5	3	1	1	0	0	
20	8	8	8	8	8	8	8	8	8	8	4	2	1	0	0	11	11	11	11	11	11	11	11	11	6	3	2	0	0	
30	12	12	12	12	12	12	12	12	12	12	6	3	2	0	0	17	17	17	17	17	17	17	17	16	9	4	3	1	0	
40	16	16	16	16	16	16	16	16	16	16	8	4	3	1	0	22	22	22	22	22	22	22	22	22	12	6	3	1	0	
50	20	20	20	20	20	20	20	20	20	20	10	5	3	1	0	28	28	28	28	28	28	28	28	27	14	7	4	1	1	
100	40	40	40	40	40	40	40	40	40	40	21	11	6	2	1	55	55	55	55	55	55	55	55	55	29	15	9	2	1	
150	60	60	60	60	60	60	60	60	60	60	31	16	10	2	1	83	83	83	83	83	83	83	83	82	43	22	13	3	2	
200	80	80	80	80	80	80	80	80	80	80	42	22	13	3	2	110	110	110	110	110	110	110	110	110	58	30	17	5	2	
300	121	121	121	121	121	121	121	121	120	120	63	32	19	5	2	166	166	166	166	166	166	166	166	165	86	45	26	7	3	
400	161	161	161	161	161	161	161	161	160	160	84	43	25	7	3	221	221	221	221	221	221	221	221	220	115	60	35	9	4	
500	201	201	201	201	201	201	201	201	200	200	105	54	32	8	4	276	276	276	276	276	276	276	276	274	144	74	44	11	5	
1000	402	402	402	402	402	402	402	402	399	399	209	108	64	16	8	552	552	552	552	552	552	552	552	549	288	149	87	23	10	

Hours	EF = 1.0 g/bhp-hr														
	Downwind Distance (m)														
	20	30	40	50	60	70	80	90	100	200	300	400	800	1200	1600
10	10	10	10	10	10	10	10	10	10	5	3	2	0	0	
20	20	20	20	20	20	20	20	20	20	10	5	3	1	0	
30	30	30	30	30	30	30	30	30	30	16	8	5	1	0	
40	40	40	40	40	40	40	40	40	40	21	11	6	2	0	
50	50	50	50	50	50	50	50	50	50	26	14	8	2	1	
100	100	100	100	100	100	100	100	100	100	52	27	16	4	2	
150	151	151	151	151	151	151	151	151	150	78	41	24	6	3	
200	201	201	201	201	201	201	201	201	200	105	54	32	8	4	
300	301	301	301	301	301	301	301	301	299	157	81	48	12	6	
400	402	402	402	402	402	402	402	402	399	209	108	64	16	8	
500	502	502	502	502	502	502	502	502	499	262	135	79	21	9	
1000	1004	1004	1004	1004	1004	1004	1004	1004	998	523	271	159	41	19	

Assume: 75% load.

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

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

Hours	EF = 0.01 g/bhp-hr											EF = 0.15 g/bhp-hr										
	Downwind Distance (m)											Downwind Distance (m)										
	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

Hours	EF = 0.40 g/bhp-hr											EF = 0.55 g/bhp-hr										
	Downwind Distance (m)											Downwind Distance (m)										
	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

Hours	EF = 1.0 g/bhp-hr										
	Downwind Distance (m)										
	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.

Diesel Exhaust PM Risk (Potential Cancer Cases in A Million) for 2600 HP Engines

Hours	EF = 0.02 g/bhp-hr												EF = 0.15 g/bhp-hr											
	Downwind Distance (m)												Downwind Distance (m)											
	50	80	100	120	150	175	200	280	370	400	800	1600	50	80	100	120	150	175	200	280	370	400	800	1600
10	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2	1	1	1	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3	3	3	3	2	1	1	0	0	
40	1	1	1	1	1	1	0	0	0	0	0	0	4	4	4	4	4	4	3	2	2	1	0	0
50	1	1	1	1	1	1	1	0	0	0	0	0	4	4	4	4	4	4	3	2	2	1	0	0
100	1	1	1	1	1	1	1	1	1	1	0	0	9	9	9	9	9	9	8	6	4	4	1	0
150	2	2	2	2	2	2	2	1	1	1	0	0	13	13	13	13	13	13	12	9	6	5	2	1
200	2	2	2	2	2	2	2	2	1	1	0	0	18	18	18	18	18	17	16	12	8	7	2	1
300	4	4	4	4	4	4	3	2	2	1	0	0	26	26	26	26	26	26	25	18	12	11	3	1
400	5	5	5	5	5	5	4	3	2	2	1	0	35	35	35	35	35	35	33	24	16	14	4	1
500	6	6	6	6	6	6	6	4	3	2	1	0	44	44	44	44	44	44	41	30	20	18	5	2
1000	12	12	12	12	12	12	11	8	5	5	1	0	88	88	88	88	88	87	82	59	40	36	10	3

Hours	EF = 0.4 g/bhp-hr												EF = 0.55 g/bhp-hr											
	Downwind Distance (m)												Downwind Distance (m)											
	50	80	100	120	150	175	200	280	370	400	800	1600	50	80	100	120	150	175	200	280	370	400	800	1600
10	2	2	2	2	2	2	2	2	1	1	0	0	3	3	3	3	3	3	2	2	1	0	0	
20	5	5	5	5	5	5	4	3	2	2	1	0	7	7	7	7	7	6	6	4	3	3	1	0
30	7	7	7	7	7	7	7	5	3	3	1	0	10	10	10	10	10	10	9	7	4	4	1	0
40	9	9	9	9	9	9	9	6	4	4	1	0	13	13	13	13	13	13	12	9	6	5	2	1
50	12	12	12	12	12	12	11	8	5	5	1	0	16	16	16	16	16	16	15	11	7	7	2	1
100	24	24	24	24	24	23	22	16	11	10	3	1	32	32	32	32	32	32	30	22	15	13	4	1
150	35	35	35	35	35	35	33	24	16	14	4	1	48	48	48	48	48	48	45	33	22	20	6	2
200	47	47	47	47	47	46	44	32	22	19	6	2	65	65	65	65	65	64	60	44	30	26	8	2
300	70	70	70	70	70	70	66	48	32	28	8	3	97	97	97	97	97	96	90	65	44	39	11	4
400	94	94	94	94	94	93	87	63	43	38	11	3	129	129	129	129	129	128	120	87	59	52	15	5
500	117	117	117	117	117	116	109	79	54	47	14	4	161	161	161	161	161	160	150	109	74	65	19	6
1000	235	235	235	235	235	232	218	158	108	95	27	8	323	323	323	323	323	319	300	218	148	130	38	12

Hours	EF = 1.0 g/bhp-hr											
	Downwind Distance (m)											
	50	80	100	120	150	175	200	280	370	400	800	1600
10	6	6	6	6	6	6	6	4	3	2	1	0
20	12	12	12	12	12	12	11	8	6	5	1	1
30	18	18	18	18	18	18	17	12	8	7	2	1
40	24	24	24	24	24	23	22	16	11	10	3	1
50	29	29	29	29	29	29	27	20	14	12	4	1
100	59	59	59	59	59	58	55	40	27	24	7	2
150	88	88	88	88	88	87	82	60	40	36	10	3
200	117	117	117	117	117	116	109	79	54	47	14	4
300	176	176	176	176	176	174	164	119	81	71	21	6
400	235	235	235	235	235	232	219	158	108	95	27	9
500	293	293	293	293	293	290	273	198	135	118	34	11
1000	587	587	587	587	587	581	546	396	269	237	68	21

Assume: 75% load.

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

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