

Appendix 11.4.3

Results for Indoor Fatality Probability in Smoke Ingress Calculation

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LD Level	Outdoor Conc, C _o (ppm)	Cloud Passage Time, t _p (min)	Air Change Rate (air change per		Max Indoor Conc Attained (ppm)	Total Dose, D (ppm ^{1.18})*min	Indoor Fatality Probability	Outdoor Fatality Probability	Indoor/ Outdoor Fatality Probability Ratio
			hour)	min), λ					
90	3244	10	1	0.0167	499	7526	0.0000	0.2822	0.0000
90	3244	20	1	0.0167	921	31296	0.0010	0.7241	0.0014
90	3244	30	1	0.0167	1278	70162	0.0416	0.8998	0.0462
90	3244	40	1	0.0167	1581	123359	0.2182	0.9613	0.2270
90	3244	10	3	0.05	1276	24113	0.0002	0.2822	0.0007
90	3244	20	3	0.05	2051	89581	0.0936	0.7241	0.1293
90	3244	30	3	0.05	2520	181906	0.4515	0.8998	0.5018
90	3244	40	3	0.05	2805	292750	0.7524	0.9613	0.7827
90	3244	10	6	0.1	2051	45598	0.0069	0.2822	0.0245
90	3244	20	6	0.1	2805	148127	0.3195	0.7241	0.4412
90	3244	30	6	0.1	3082	272198	0.7120	0.8998	0.7913
90	3244	40	6	0.1	3185	406122	0.8916	0.9613	0.9275
50	1707	10	1	0.0167	263	3528	0.0000	0.0317	0.0000
50	1707	20	1	0.0167	485	14670	0.0000	0.2465	0.0000
50	1707	30	1	0.0167	673	32890	0.0013	0.4999	0.0026
50	1707	40	1	0.0167	832	57827	0.0198	0.6865	0.0288
50	1707	10	3	0.05	672	11303	0.0000	0.0317	0.0000
50	1707	20	3	0.05	1079	41993	0.0047	0.2465	0.0191
50	1707	30	3	0.05	1326	85272	0.0804	0.4999	0.1608
50	1707	40	3	0.05	1476	137233	0.2748	0.6865	0.4003
50	1707	10	6	0.1	1079	21375	0.0001	0.0317	0.0032
50	1707	20	6	0.1	1476	69438	0.0401	0.2465	0.1627
50	1707	30	6	0.1	1622	127599	0.2354	0.4999	0.4709
50	1707	40	6	0.1	1676	190378	0.4820	0.6865	0.7021
3	665	10	1	0.0167	102	1160	0.0000	0.0001	0.0000
3	665	20	1	0.0167	189	4823	0.0000	0.0052	0.0000
3	665	30	1	0.0167	262	10813	0.0000	0.0300	0.0000
3	665	40	1	0.0167	324	19012	0.0000	0.0817	0.0000
3	665	10	3	0.05	262	3716	0.0000	0.0001	0.0000
3	665	20	3	0.05	420	13806	0.0000	0.0052	0.0000
3	665	30	3	0.05	517	28035	0.0005	0.0300	0.0167
3	665	40	3	0.05	575	45118	0.0066	0.0817	0.0808
3	665	10	6	0.1	420	7027	0.0000	0.0001	0.0000
3	665	20	6	0.1	575	22829	0.0001	0.0052	0.0192
3	665	30	6	0.1	632	41951	0.0046	0.0300	0.1533
3	665	40	6	0.1	653	62591	0.0271	0.0817	0.3317

Notes:

calculation is based on Probit equation for the most toxic substance (HCl) in the plume mixture
 probit equation $Pr = -15.59 + 1.69 \ln(C_o^{1.18} t_p)$ for outdoor and $Pr = -15.59 + 1.69 \ln(D)$ for indoor