Appendix 3.14 Predicted Cumulative Hourly, Daily and Annual Average SO_2 concentrations in ug/m^3 at Various Assessment Height levels

Air Sensitive Receiver (ASR)		Description of ASR	X	Y	Z	Assessment Height (mAG)	Assessment Height (mPD)	(1) Sludge Treatment Facility at 65mAG			(2) Green Island Cement Plant			(3) Eco Park			(4) Shiu Wing Steel Mill			(5) Industrial Chimney			(6) Marine Emission			(7) WENT Landfill			(8) Adjusted Concentrations contributed from BPPS & CPPS			Total Cumulative		
								SO_2 1-hr ug/m^3	SO_2 24hr ug/m^3	SO_2 Annual ug/m^3

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								SO_2 1-hr ug/m^3	SO_2 24hr ug/m^3	SO_2 Annual ug/m^3	SO_2 1-hr ug/m^3	SO_2 24hr ug/m^3	SO_2 Annual ug/m^3	SO_2 1-hr ug/m^3	SO_2 24hr ug/m^3	SO_2 Annual ug/m^3	SO_2 1-hr ug/m^3	SO_2 24hr ug/m^3	SO_2 Annual ug/m^3	SO_2 1-hr ug/m^3	SO_2 24hr ug/m^3	SO_2 Annual ug/m^3	SO_2 1-hr ug/m^3	SO_2 24hr ug/m^3	SO_2 Annual ug/m^3	SO_2 1-hr ug/m^3	SO_2 24hr ug/m^3	SO_2 Annual ug/m^3	SO_2 1-hr ug/m^3	SO_2 24hr ug/m^3	SO_2 Annual ug/m^3	SO_2 1-hr ug/m^3	SO_2 24hr ug/m^3	SO_2 Annual ug/m^3
Far Field	A27	Tuen Mun Town Plaza	815619	828192	6	1.5	7.5	0.62	0.00	0.01	0.00	0.10	0.18	0.00	0.18	0.05	0.00	1.39	0.12	28.44	3.81	0.89	0.00	0.00	0.00	0.01	0.00	0.00	0	34	1.0	53	63	26
						5.0	11.0	0.62	0.00	0.01	0.00	0.10	0.18	0.00	0.18	0.05	0.00	1.40	0.12	28.48	3.82	0.90	0.00	0.00	0.00	0.01	0.00	0.00	0	34	1.0	53	64	26
						10.0	16.0	0.62	0.00	0.01	0.00	0.10	0.18	0.00	0.18	0.05	0.00	1.42	0.12	28.61	3.85	0.93	0.00	0.00	0.00	0.01	0.00	0.00	0	34	1.0	53	64	26
						20.0	26.0	0.62	0.00	0.01	0.00	0.12	0.19	0.00	0.18	0.05	0.00	1.50	0.13	29.12	3.97	1.03	0.00	0.00	0.00	0.01	0.00	0.00	0	34	1.0	54	64	26
						40.0	46.0	0.04	0.03	0.01	0.00	1.10	0.19	0.00	0.06	0.06	0.00	0.33	0.16	34.71	6.26	1.40	0.00	0.00	0.00	0.00	0.09	0.00	0	34	1.0	59	66	27
						60.0	66.0	0.02	0.04	0.01	0.00	0.02	0.20	0.00	0.00	0.06	0.00	0.00	0.20	60.15	11.37	1.85	0.00	0.00	0.00	0.00	0.00	0.01	0	32	1.0	84	68	27
						80.0	86.0	0.02	0.04	0.01	0.00	0.02	0.21	0.00	0.00	0.06	0.00	0.00	0.24	119.07	17.21	2.26	0.00	0.00	0.00	0.00	0.00	0.01	0	32	1.0	143	74	28
						100.0	106.0	0.27	0.00	0.01	0.00	0.22	0.22	0.00	0.01	0.05	0.00	0.04	0.28	122.32	14.45	2.23	0.00	0.00	0.00	0.00	0.01	0.01	0	32	1.0	147	71	28
						120.0	126.0	0.33	0.01	0.01	0.00	1.70	0.24	0.00	0.09	0.04	0.00	1.28	0.28	83.76	9.33	1.40	0.00	0.00	0.00	0.00	0.98	0.01	0	32	1.0	108	70	27
Far Field	A28	S.K.H. St. Simon's Lui Ming Choi Secondary School	815386	828679	5.5	1.5	7.0	0.48	0.03	0.01	14.72	1.16	0.14	0.60	0.17	0.03	4.59	0.69	0.11	11.40	2.85	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0	34	1.0	56	63	26
						5.0	10.5	0.48	0.03	0.01	14.72	1.16	0.14	0.60	0.17	0.03	4.59	0.69	0.11	11.50	2.88	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0	34	1.0	56	63	26
						10.0	15.5	0.48	0.03	0.01	14.73	1.16	0.14	0.60	0.17	0.03	4.59	0.69	0.11	11.80	2.98	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0	34	1.0	56	63	26
						20.0	25.5	0.48	0.03	0.01	14.74	1.16	0.14	0.60	0.17	0.03	4.59	0.70	0.12	12.95	3.39	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0	34	1.0	57	63	26
Far Field	A29	Hong Lai Garden	815459	828801	5	1.5	6.5	0.95	0.03	0.01	0.00	1.19	0.13	1.72	0.15	0.03	4.99	0.65	0.09	22.22	2.74	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0	34	1.0	54	63	26
						5.0	10.0	0.95	0.03	0.01	0.00	1.19	0.13	1.72	0.15	0.03	4.99	0.65	0.09	22.23	2.76	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0	34	1.0	54	63	26
						10.0	15.0	0.95	0.03	0.01	0.00	1.19	0.13	1.72	0.15	0.03	4.99	0.65	0.09	22.28	2.81	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0	34	1.0	54	63	26
						20.0	25.0	0.95	0.03	0.01	0.00	1.20	0.14	1.72	0.15	0.03	4.99	0.66	0.10	22.48	3.04	1.07	0.00	0.00	0.00	0.00	0.00	0.00	0	34	1.0	54	63	26
						40.0	45.0	1.39	0.02	0.01	0.00	0.14	0.15	10.29	0.16	0.03	0.00	0.11	0.11	22.93	8.11	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0	34	1.0	59	67	27
						60.0	65.0	0.02	0.06	0.01	0.00	0.89	0.17	10.48	0.01	0.03	0.01	0.65	0.14	53.14	15.32	3.18	0.00	0.00	0.00	0.00	0.00	0.00	0	32	1.0	88	73	28
						80.0	85.0	0.38	0.06	0.01	0.00	0.00	0.21	0.00	0.00	0.03	0.00	0.00	0.17	126.20	30.37	4.76	0.00	0.00	0.00	0.00	0.00	0.01	0	32	1.0	151	87	30
						100.0	105.0	0.01	0.03	0.01	0.00	0.00	0.29	0.00	0.00	0.03	0.00	0.00	0.19	633.84	195.65	32.57	0.00	0.00	0.00	0.00	0.00	0.01	0	32	1.0	658	252	58
						120.0	125.0	0.21	0.00	0.01	0.00	4.36	0.45	0.00	0.20	0.02	0.00	2.22	0.20	382.66	34.53	4.36	0.00	0.00	0.00	0.00	0.00	0.01	0	32	1.0	407	98	30
Far Field	A30	Tai Hing Garden	815209	829004	17	1.5	18.5	0.11	0.03	0.01	0.00	1.28	0.12	0.00	0.11	0.06	0.00	0.77	0.08	29.83	2.33	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0	34	1.0	54	63	26
						5.0	22.0	0.11	0.03	0.01	0.00	1.28	0.12	0.00	0.11	0.06	0.00	0.78	0.08	29.91	2.34	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0	34	1.0	54	63	26
						10.0	27.0	0.11	0.03	0.01	0.00	1.28	0.12	0.00	0.11	0.06	0.00	0.78	0.08	30.18	2.35	1.06	0.00	0.00	0.00	0.00	0.00	0.00	0	34	1.0	54	63	26
						20.0	37.0	0.02	0.00	0.01	0.00	0.17	0.12	31.80	0.00	0.06	1.26	0.07	0.08	0.00	4.84	1.22	0.00	0.00	0.00	0.00	0.00	0.01	0	34	1.0	57	63	26
						40.0	57.0	0.08	0.05	0.01	0.00	0.90	0.12	0.00	0.02	0.07	0.00	0.40	0.09	86.82	11.81	1.97	0.00	0.00	0.00	0.00	0.00	0.01	0	34	1.0	111	71	27
						60.0	77.0	0.08	0.04	0.01	0.00	0.00	0.14	0.00	0.00	0.07	0.00	0.00	0.10	192.23	25.67	3.99	0.00	0.00	0.00	0.00	0.00	0.01	0	32	1.0	216	82	29
						80.0	97.0	0.23	0.01	0.01	0.00	0.80	0.16	0.00	0.21	0.06	0.00	0.52	0.11	380.18	57.14	5.79	0.00	0.00	0.00	0.00	0.00	0.01	0	32	1.0	404	115	31
						100.0	117.0	0.30	0.01	0.01	0.00	0.88	0.20	0.00	0.19	0.04	0.00	0.50	0.11	358.17	46.01	5.31	0.00	0.00	0.00	0.00	0.00	0.01	0	32	1.0	382	104	31
						120.0	137.0	0.02	0.02	0.01	0.01	0.68	0.25	11.34	0.27	0.03	8.36	1.17	0.10	378.11	36.46	4.65	0.00	0.00	0.00	0.00	0.03	0.01	0	32	1.0	422	95	30
Far Field	A31	Chelsea Heights	815449	829334	6.5	1.5	8.0	0.11	0.03	0.01	0.00	1.25	0.09	0.00	0.09	0.04	0.00	0.85	0.08	33.23	2.19	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0	34	1.0	57	62	26
						5.0	11.5	0.11	0.03	0.01	0.00	1.25	0.09	0.00	0.09	0.04	0.00	0.86	0.08	33.25	2.20	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0	34	1.0	57	62	26
						10.0	16.5	0.11	0.03	0.01	0.00	1.25	0.09	0.00	0.09	0.04	0.00	0.87	0.08	33.32	2.22	1.06	0.00	0.00	0.00	0.00	0.00	0.00	0	34	1.0	57	62	26
						20.0	26.5	0.11	0.03	0.01	0.00	1.25	0.09	0.00	0.09	0.04	0.00	0.93	0.08	33.58	2.37	1.23	0.00	0.00	0.00	0.00	0.00	0.00	0	34	1.0	58	63	26
						40.0	46.5	0.22	0.00	0.01	0.00	0.44	0.10	0.00	0.21	0.05	0.00	0.37	0.10	106.74	11.54	1.93	0.00	0.00	0.00	0.00	0.00	0.01	0	34	1.0	131	71	27
						60.0	66.5	0.02	0.00	0.01	0.00	0.00	0.10	0.00	0.01	0.05	0.00	0.00	0.13	62.68	12.69	2.66	0.00	0.00	0.00	0.00	0.00	0.01	0	32	1.0	87	69	28
						80.0	86.5	0.15	0.00	0.01	0.00	0.25	0.11	0.00	0.04	0.05	0.00	0.13	0.17	166.68	24.68	3.54	0.00	0.00	0.00	0.00	0.00	0.01	0	32	1.0	191	81	29
						100.0	106.5	0.15	0.07	0.01	0.00	0.69	0.13	0.00	0.01	0.04	0.00	2.30	0.19	293.87	30.08	3.70	0.00	0.00	0.00	0.00	0.00	0.01	0	32	1.0	318	89	29
						120.0	126.5	0.38	0.07	0.01	0.00	0.70	0.14	0.00	0.01	0.03	0.00	2.33	0.20	138.31	21.89	2.28	0.00	0.00	0.00	0.00	0.00	0.02	0	32	1.0	163	81	28
Far Field	A32	Melody Garden	813977	826276	6	1.5	7.5	0.33	0.00	0.01	0.00	2.70	0.28	0.00	0.18	0.10	0.00	0.84	0.21	37.36	1.43	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0	34	1.0	62	63	26
						5.0	11.0	0.33	0.00	0.01	0.00	2.70	0.28	0.00	0.18	0.10	0.00	0.84	0.21	37.36	1.44	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0	34	1.0	62	63	26
						10.0	16.0	0.33	0.00	0.01	0.00	2.70	0.28	0.00	0.18	0.10	0.00	0.84	0.21	37.36	1.45	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0	34	1.0	62	63	26
						20.0	26.0	0.33	0.00	0.01	0.00	2.70	0.29	0.00	0.18	0.10	0.00	0.84	0.22	37.36	1.51	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0	34	1.0	62	63	26
						40.0	46.0	0.33	0.00	0.01	0.00	2.70	0.29	0.00	0.18	0.10	0.00	0.83	0.24	37.36	1.73	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0	34	1.0	62	63	27
						60.0	66.0	1.24	0.00	0.01	0.00	1.35	0.31	0.00	0.25	0.10	0.00	4.88	0.28	45.71	0.00	0.99	0.00	0.00	0.00	0.00	0.00	0.00	0	32	1.0	71	63	27
						80.0	86.0	1.24	0.00	0.01	0.00	1.60	0.33	0.00	0.25	0.09	0.00	7.95	0.33	60.94	0.00	1.06	0.00	0.00	0.00	0.00	0.00	0.00	0	32	1.0	86	66	27
						90.0	96.0	1.86	0.00	0.01	2.87	1.96	0.35	0.00	0.24	0.08	60.56	9.17	0.35	0.00	0.00	1.04	0.00	0.00	0.00	0.00	0.00	0.00	0	32	1.0	89	68	27

Remarks:

(a) The predicted highest CALPUFF modelling results were taken to present the STF contribution at those far field ASRs.
(b) Adjusted concentrations contributed from BPPS and CPPS at each ASR were calculated based on the same approach adopted in the LNG EIA Study. Detailed calculations refer to Appendix 3.1.
(c) Cumulative Impacts are calculated by summing (1) to (8) and background SO_2 concentration of 24 μ g/m^3.