Sensitivity Test – Adopt Maximum SP Emission Rates for Non-SP Chimneys

A sensitivity test on emissions from non-SP industries in TPIE has also been conducted by adopting the maximum NO_x, RSP and FSP emission rates among all nearby SP licenses in order to determine the potential cumulative air quality impact on the nearby representative ASRs (emission rates can be referred to **Appendix 3.11**). However, it must be noted that adopting the maximum emission rates from the SP licenses is an unrealistic assumption given the emissions from such non-SP industries (e.g. food factories, printing centres, etc.) are unlikely noxious or offensive as compared with those from SPs due to the nature and scale of these industries.

Under this hypothetical sensitivity test, apart from the industrial emission from non-SPs chimneys which adopt the maximum emission rates from SP licenses, emissions from open road network, marine vessels and other background contributions, as well as the assessment methodologies remain the same as those described in **Section 3.5.4** of the EIA Report.

The 19th highest 1-hour and annual NO_2 concentrations, and 10th highest 24-hour and annual RSP/FSP concentrations predicted under this hypothetical sensitivity test show that, even adopting the very conservative emission rates at all non-SP chimneys, no exceedances are predicted at all representative ASRs. Particularly for the planned ASRs proposed under this Project (i.e. ASRs PA1 and PA3), there are no significant increase in cumulative air quality impact under this sensitivity test as these ASRs are low-rise only and are therefore less sensitive to the tall chimneys in TPIE. Hence, adopting the averaged emission rates among all nearby SP licenses is already considered a reasonably worst-case scenario.

Table A3.1 Cumulative NO_2, RSP and FSP concentrations (hypothetical sensitivity test)

ASR ID	Worst Hit Level (m)	Concentrations (µg/m^3)					
		NO_2		RSP		FSP	
		19th High 1-hour Conc.	Annual Conc.	10th High 24-hour Conc.	Annual Conc.	10th High 24-hour Conc.	Annual Conc.
AQO		**200**	**40**	**100**	**50**	**75**	**35**
Existing ASRs							
A1	1.5/10	111	17	80	37	59	25
A2	1.5	101	14	75	33	57	24
A3	1.5	157	23	79	37	59	26
A4	1.5/15	159	27	79	37	59	27
A9	1.5	168	26	79	38	59	28
A10	1.5	114	15	75	34	57	24
A11	1.5	98	13	75	33	56	23
A12	1.5/10	171	23	77	37	58	27
A13	1.5/5	156	24	78	36	58	26
A14	1.5	153	22	78	36	59	26
Planned ASRs							
PA1	1.5	110	16	78	35	59	25
PA2	1.5	104	14	75	33	56	24
PA3	1.5/5	111	16	80	36	58	25