Appendix 3.10a Calculation of idling emission rates of NOx and RSP within BCP

No. of idling vehicles per hour as provided by Traffic Consultants	PTI			Coach loading	Coach unloading	Kiosks (to Hong Kong)			Kiosks (to PRC)		
	Bus	GMB	Taxi	NFB	NFB	Coach	PV	GV	Coach	PV	GV
GV								10			10
PC			48				3.4			2.9	
Coach	0.5	0.2		23.2	5.8	0.8			0.8		
Total queue length (m/hr) (Note 1)	6	2.4	288	278.4	69.6	9.6	20.4	120	9.6	17.4	120

NOx emissions from idling vehicles	PTI			Coach loading	Coach unloading	Kiosks (to Hong Kong)			Kiosks (to PRC)		
	Bus/coach		Taxi	NFB	NFB	Coach	PV	GV	Coach	PV	GV
g/min-veh (Note 2)	1.317	1.317	0.2	1.317	1.317	1.317	0.2	1.317	1.317	0.2	1.317
g/hr-veh	79.02	79.02	12	79.02	79.02	79.02	12	79.02	79.02	12	79.02
g/km-veh (Note 3)	13170	32925	42	284	1135	8231	588	659	8231	690	659

RSP emissions from idling vehicles	PTI			Coach loading	Coach unloading	Kiosks (to Hong Kong)			Kiosks (to PRC)		
	Bus/coach		Taxi	NFB	NFB	Coach	PV	GV	Coach	PV	GV
g/min-veh (Note 2)	0.06	0.06		0.06	0.06	0.06		0.06	0.06		0.06
g/hr-veh	3.6	3.6	0	3.6	3.6	3.6	0	3.6	3.6	0	3.6
g/km-veh (Note 3)	600	1500	0	13	52	375	0	30	375	0	30

(1) According to the Planning Study on LT/HYW BCP and its Associated Connecting Roads in HK - Feasibility Study, it is assumed that the average lengths of goods vehicles, coach/bus and passenger car/taxi are respectively 12m, 12m and 6m.

(2) The NOx and RSP emission factors are based on the Planning Study on LT/HYW BCP and its Associated Connecting Roads in HK - Feasibility Study and the approved EIA for Improvements to San Tin Interchange.

(3) Emissions in g/km-veh = Emission rates in g/hr-veh x 1000 / Total queue length in m/hr. The idling emissions (g/km-veh) were modelled as "parking lot" in the Caline4 model.