

**APPENDIX 4.7  
Emission Inventory of Portal Emissions  
(Construction)**

**Emission Inventory of Tunnel Portal for Construction Phase 1-7**

Road No.	Emission Source ID	Portal Description	Tunnel Length (km)	Source Type	x-coordinate	y-coordinate	Release Height	Initial Lateral Dimension	Initial Vertical	Hourly Emission Rate (g/s)		
							(m)	(m)	(m)	TSP	RSP	FSP
1e	1eN01	Tsing Lun Rd (NB)	0.0260	Volume	815696	830585	2.85	3.74	2.65	7.80E-05	7.80E-05	7.17E-05
	1eN02		0.0260	Volume	815699	830593	2.85	3.74	2.65	7.80E-05	7.80E-05	7.17E-05
	1eN03		0.0260	Volume	815701	830601	2.85	3.74	2.65	3.90E-05	3.90E-05	3.59E-05
	1eN04		0.0260	Volume	815704	830608	2.85	3.74	2.65	3.90E-05	3.90E-05	3.59E-05
1e	1eS01	Tsing Lun Rd (SB)	0.0260	Volume	815676	830557	2.85	3.74	2.65	7.80E-05	7.80E-05	7.17E-05
	1eS02		0.0260	Volume	815674	830549	2.85	3.74	2.65	7.80E-05	7.80E-05	7.17E-05
	1eS03		0.0260	Volume	815672	830542	2.85	3.74	2.65	3.90E-05	3.90E-05	3.59E-05
	1eS04		0.0260	Volume	815674	830532	2.85	3.74	2.65	3.90E-05	3.90E-05	3.59E-05

**Calculated AERMOD input data:**

Release Height, m = "Height of Tunnel" / 2

Initial Lateral Dimension, m = "Width of tunnel" / 2.15

Initial Vertical Dimension, m = "Height of tunnel" / 2.15

Emissions from portals were predicted assuming the emissions behave a volume sources in accordance with the recommendations in the 1991 Permanent International Association of Road Congress Report (1991 PIARC Report) as adopted in Route 3 Tai Lam Tunnel &amp; Yuen Long Approach Northern Section - Volume 1 Detailed Environmental Impact Assessment - Final Report

**Emission Inventory of Tunnel Portal for Construction Phase 8**

Road No.	Emission Source ID	Portal Description	Tunnel Length (km)	Source Type	x-coordinate	y-coordinate	Release Height	Initial Lateral Dimension	Initial Vertical	Hourly Emission Rate (g/s)		
							(m)	(m)	(m)	TSP	RSP	FSP
1e	1eN01	Tsing Lun Rd (NB)	0.0260	Volume	815696	830585	2.85	3.74	2.65	7.20E-05	7.17E-05	6.60E-05
	1eN02		0.0260	Volume	815699	830593	2.85	3.74	2.65	7.20E-05	7.17E-05	6.60E-05
	1eN03		0.0260	Volume	815701	830601	2.85	3.74	2.65	3.60E-05	3.59E-05	3.30E-05
	1eN04		0.0260	Volume	815704	830608	2.85	3.74	2.65	3.60E-05	3.59E-05	3.30E-05
1e	1eS01	Tsing Lun Rd (SB)	0.0260	Volume	815676	830557	2.85	3.74	2.65	7.20E-05	7.17E-05	6.60E-05
	1eS02		0.0260	Volume	815674	830549	2.85	3.74	2.65	7.20E-05	7.17E-05	6.60E-05
	1eS03		0.0260	Volume	815672	830542	2.85	3.74	2.65	3.60E-05	3.59E-05	3.30E-05
	1eS04		0.0260	Volume	815674	830532	2.85	3.74	2.65	3.60E-05	3.59E-05	3.30E-05

**Calculated AERMOD input data:**

Release Height, m = "Height of Tunnel" / 2

Initial Lateral Dimension, m = "Width of tunnel" / 2.15

Initial Vertical Dimension, m = "Height of tunnel" / 2.15

Emissions from portals were predicted assuming the emissions behave a volume sources in accordance with the recommendations in the 1991 Permanent International Association of Road Congress Report (1991 PIARC Report) as adopted in Route 3 Tai Lam Tunnel &amp; Yuen Long Approach Northern Section - Volume 1 Detailed Environmental Impact Assessment - Final Report