Appendix 12.1 Calculations of Emission Rates

Location	Source	Emission Factors	Emission Rates	Parameters		*Remarks*
Shek Kong Works Area	**Cut & Cover Area & Stockpile Area** Source ID: SK1-SK45	Heavy Construction Area Source (g/m2/s)	3.11343E-06	TSP emission factor (Mg/hectare/month of activity) Percentage area actively operating (%) % of dust suppression Emission height (m)	2.69 15 90 0	*from AP-42, S13.2.3, 1/95 ed.* *from engineer* *for watering ten times a day*
		Wind erosion E (g/m2/s) (For night-time only)	4.04300E-07	TSP emission factor (Mg/hectare/yr) Percentage area actively operating (%) % of dust suppression Emission height (m)	0.85 15 0 0	*AP-42, 5th ed., Table 11.9.4* *from engineer*
	Construction Sites	Haul Road (g/m/s) Source ID: HR1A, HR1B, HR1C, HR1D HR2A, HR2B, HR2C, HR2D	 4.01305E-04 2.30257E-04	TSP emission factor (g/VKT) Particle size multiplier, k (g/VKT) Road silt loading (g/m2), sL Average truck weight (tons), W E (g/VKT) No. of truck trips per day No. of truck trips per day no. of operation hour (hr) % of dust suppression (For Haul Road HR1A to HR1D) % of dust suppression (For Haul Road HR2A to HR2D) Road width (m) Emission height (m)	E=k × (sL/2)^0.65 × (W/3)^1.5 24 12 16 947 732 420 12 97.5 97.5 6 0.5	*AP-42, Section 13.2.1, 11/06 ed.* *AP-42, Section 13.2.1, Table 13.2.1-1, 11/06 ed.* *AP-42, Section 13.2.1, Table 13.2.1-4, 11/06 ed.* *The average weight of the empty truck and full load truck* *calculated* *from engineer* *from engineer* *from engineer(7:00-19:00)* *97.5%, watering haul road once per hour and keeping haul road in wet condition* *97.5%, watering haul road once per hour and keeping haul road in wet condition* *from engineer*
Tse Uk Tsuen Works Area	**Construction Sites**	Haul Road (g/m/s) Source ID: HR4A, HR4B, HR4C	1.57891E-04	TSP emission factor (g/VKT) Particle size multiplier, k (g/VKT) Road silt loading (g/m2), sL Average truck weight (tons), W E (g/VKT) No. of truck trips per day no. of operation hour (hr) % of dust suppression Road width (m) Emission height (m)	E=k × (sL/2)^0.65 × (W/3)^1.5 24 12 16 947 72 12 90 6 0.5	*AP-42, Section 13.2.1, 11/06 ed.* *AP-42, Section 13.2.1, Table 13.2.1-1, 11/06 ed.* *AP-42, Section 13.2.1, Table 13.2.1-4, 11/06 ed.* *The average weight of the empty truck and full load truck* *calculated* *from engineer* *from engineer(7:00-19:00)* *90%, keeping haul road in wet condition* *from engineer*
Pat Heung Works Area	**Construction Sites**	Haul Road (g/m/s) Source ID: HR5A, HR5B, HR5C	3.15781E-04	TSP emission factor (g/VKT) Particle size multiplier, k (g/VKT) Road silt loading (g/m2), sL Average truck weight (tons), W E (g/VKT) No. of truck trips per day no. of operation hour (hr) % of dust suppression Road width (m) Emission height (m)	E=k × (sL/2)^0.65 × (W/3)^1.5 24 12 16 947 288 12 95 6 0.5	*AP-42, Section 13.2.1, 11/06 ed.* *AP-42, Section 13.2.1, Table 13.2.1-1, 11/06 ed.* *AP-42, Section 13.2.1, Table 13.2.1-4, 11/06 ed.* *The average weight of the empty truck and full load truck* *calculated* *from engineer* *from engineer(7:00-19:00)* *95%, keeping haul road in wet condition and the wheels of the trucks will be washed before entering the site* *from engineer*

Appendix 12.1 Calculations of Emission Rates

Location	Source	Emission Factors	Emission Rates	Parameters		*Remarks*
Nam Cheong Works Area	**Cut & Cover Area Stockpile Area** Source ID: NC1-NC9	Heavy Construction Area Source (g/m2/s)	1.55671E-05	TSP emission factor (Mg/hectare/month of activity) Percentage area actively operating (%) % of dust suppression Emission height (m)	2.69 30 75 0	*from AP-42, S13.2.3, 1/95 ed.* *from engineer* *for watering four times a day*
		Wind erosion E (g/m2/s) (For night-time only)	8.08600E-07	TSP emission factor (Mg/hectare/yr) Percentage area actively operating (%) % of dust suppression Emission height (m)	0.85 30 0 0	*AP-42, 5th ed., Table 11.9.4* *from engineer*
	Construction Sites	Haul Road (g/m/s) Source ID: HR6A, HR6B	6.31563E-04	TSP emission factor (g/VKT) Particle size multiplier, k (g/VKT) Road silt loading (g/m2), sL Average truck weight (tons), W E (g/VKT) No. of truck trips per day no. of operation hour (hr) % of dust suppression Road width (m) Emission height (m)	E=k × (sL/2)^0.65 × (W/3)^1.5 24 12 16 947 288 12 90 6 0.5	*AP-42, Section 13.2.1, 11/06 ed.* *AP-42, Section 13.2.1, Table 13.2.1-1, 11/06 ed.* *AP-42, Section 13.2.1, Table 13.2.1-4, 11/06 ed.* *The average weight of the empty truck and full load truck* *calculated* *from engineer* *from engineer(7:00-19:00)* *90%, keeping haul road in wet condition* *from engineer*
Nam Cheong Barging Points	**Two Barging Points for Nam Cheong Works Area**	Unloading of spoils to barge (g/s) Source ID: BP1, BP2	1.67442E-02	TSP emission factor (kg/Mg) Particle size multiplier, k Material moisture content, M (%) Average wind speed, U (m/s) E (kg/Mg) Maximum total handling capacity (Mg/day) Maximum handling capacity for each barging point (Mg/day) no. of operation hour (hr) % of dust suppression Emission height (m)	E = k × (0.0016) × [(U/2.2)^1.3 / (M/2)^1.4] 0.74 2 2.33 1.28E-03 11340 5670 12 90 0.5	*AP-42, Section 13.2.4, 11/06 ed.* *AP-42, S13.2.4, particle size < 30 um, 1/95 ed.* *from engineer* *from Hong Kong Observatory, Hong Kong Observatory Station(Yr2007)* *calculated* *from engineer; for Nam Cheong Works Area* *from engineer; there are two barging points* *from engineer (operation hours would be from 7:00 to 19:00)* *installation of flexible curtain and shelter with water spray at discharge point*
	One Barging Point for West Kowloon Terminus Works Area	Unloading of spoils to barge (g/s) Source ID: BP3	4.26664E-03	TSP emission factor (kg/Mg) Particle size multiplier, k Material moisture content, M (%) Average wind speed, U (m/s) E (kg/Mg) Maximum total handling capacity (Mg/day) Maximum handling capacity for each barging point (Mg/day) no. of operation hour (hr) % of dust suppression Emission height (m)	E = k × (0.0016) × [(U/2.2)^1.3 / (M/2)^1.4] 0.74 5 2.33 3.54E-04 31266 5211 12 90 0.5	*AP-42, Section 13.2.4, 11/06 ed.* *AP-42, S13.2.4, particle size < 30 um, 1/95 ed.* *from engineer (Most of the excavated materials at WKT are marine deposit, therefore, higher moisture content is expected)* *from Hong Kong Observatory, Hong Kong Observatory Station(Yr2007)* *calculated* *from engineer; for West Kowloon Terminus Works Area* *from engineer; there are six barging points (5 at West Kowloon Terminus Works Area; 1 at Nam Cheong Works Area)* *from engineer (operation hours would be from 7:00 to 19:00)* *installation of flexible curtain and shelter with water spray at discharge point*
	Haul Road at barging facilities	Haul Road to barging points (g/m/s) Source ID: HR13 HR14A, HR14B, HR14C	 3.94727E-04 1.97363E-04	TSP emission factor (g/VKT) Particle size multiplier, k (g/VKT) Road silt loading (g/m2), sL Average truck weight (tons), W E (g/VKT) No. of truck trips per day No. of truck trips per day no. of operation hour (hr) % of dust suppression Road width (m) Emission height (m)	E=k × (sL/2)^0.65 × (W/3)^1.5 24 12 16 947 720 360 12 97.5 6 0.5	*AP-42, Section 13.2.1, 11/06 ed.* *AP-42, Section 13.2.1, Table 13.2.1-1, 11/06 ed.* *AP-42, Section 13.2.1, Table 13.2.1-4, 11/06 ed.* *The average weight of the empty truck and full load truck* *calculated* *from engineer, round-trip included* *from engineer, round-trip included* *from engineer(7:00-19:00)* *97.5%, watering haul road once per hour and keeping haul road in wet condition* *from engineer*
	Temporary Stockpile Area (For Emergency Use) Source ID: NC10	Heavy Construction Area Source (g/m2/s)	1.55671E-05	TSP emission factor (Mg/hectare/month of activity) Percentage area actively operating (%) % of dust suppression Emission height (m)	2.69 30 75 0	*from AP-42, S13.2.3, 1/95 ed.* *from engineer* *for watering four times a day*
		Wind erosion E (g/m2/s) (For night-time only)	8.08600E-07	TSP emission factor (Mg/hectare/yr) Percentage area actively operating (%) % of dust suppression Emission height (m)	0.85 30 0 0	*AP-42, 5th ed., Table 11.9.4* *from engineer*

Appendix 12.1 Calculations of Emission Rates

Location	Source	Emission Factors	Emission Rates	Parameters		Remarks
West Kowloon Works Area	**Cut & Cover Area & Stockpile Area**	Heavy Construction Area Source (g/m2/s)	3.89178E-06	TSP emission factor (Mg/hectare/month of activity)	2.69	*from AP-42, S13.2.3, 1/95 ed.*
				Percentage area actively operating (%)	15	*from engineer*
		Source ID:		% of dust suppression	87.5	*for watering eight times a day*
		WK1-WK23		Emission height (m)	0	
		Wind erosion E (g/m2/s) (For night-time only)	4.04300E-07	TSP emission factor (Mg/hectare/yr)	0.85	*AP-42, 5th ed., Table 11.9.4*
				Percentage area actively operating (%)	15	*from engineer*
				% of dust suppression	0	
				Emission height (m)	0	
West Kowloon Barging Point	**Construction Sites**	Haul Road to barging points (g/m/s)		TSP emission factor (g/VKT)	E=k × (sL/2)^0.65 × (W/3)^1.5	
						AP-42, Section 13.2.1, 11/06 ed.
				Particle size multiplier, k (g/VKT)	24	*AP-42, Section 13.2.1, Table 13.2.1-1, 11/06 ed.*
				Road silt loading (g/m2), sL	12	*AP-42, Section 13.2.1, Table 13.2.1-4, 11/06 ed.*
				Average truck weight (tons), W	16	*The average weight of the empty truck and full load truck*
		Source ID:		E (g/VKT)	947	*calculated*
		HR8A, HR8B	9.86817E-04	No. of truck trips per day	1800	*from engineer, round-trip included*
		HR9	7.89453E-04	No. of truck trips per day	1440	*from engineer, round-trip included*
		HR10A, HR10B, HR10C	5.92090E-04	No. of truck trips per day	1080	*from engineer, round-trip included*
		HR7A, HR7B, HR7C	4.93408E-04	No. of truck trips per day	900	*from engineer*
		HR11	3.94727E-04	No. of truck trips per day	720	*from engineer, round-trip included*
		HR12A, HR12B	1.97363E-04	No. of truck trips per day	360	*from engineer, round-trip included*
				no. of operation hour (hr)	12	*from engineer(7:00-19:00)*
				% of dust suppression	97.5	*97.5%, watering haul road once per hour and keeping haul road in wet condition*
				Road width (m)	6	*from engineer*
				Emission height (m)	0.5	
	Five Barging Points for West Kowloon Terminus Works Area	Unloading of spoils to barge (g/s)	4.26664E-03	TSP emission factor (kg/Mg)	E = k × (0.0016) × [(U/2.2)^1.3 / (M/2)^1.4]	
						AP-42, Section 13.2.4, 11/06 ed.
				Particle size multiplier, k	0.74	*AP-42, S13.2.4, particle size < 30 um, 1/95 ed.*
				Material moisture content, M (%)	5	*from engineer (Most of the excavated materials at WKT are marine deposit, therefore, higher moisture content is expected)*
				Average wind speed, U (m/s)	2.33	*from Hong Kong Observatory, Hong Kong Observatory Station(Yr2007)*
		Source ID:		E (kg/Mg)	3.54E-04	*calculated*
		BP4-BP8		Maximum total handling capacity (Mg/day)	31266	*from engineer; for West Kowloon Terminus Works Area*
				Maximum handling capacity for each barging point (Mg/day)	5211	*from engineer; there are six barging points (5 at West Kowloon Terminus Works Area; 1 at Nam Cheong Works Area)*
				no. of operation hour (hr)	12	*from engineer (operation hours would be from 7:00 to 19:00)*
				% of dust suppression	90	*installation of flexible curtain and shelter with water spray at discharge point*
				Emission height (m)	0.5	
West Kowloon Terminus Concrete Batching Plant	**Construction Sites**	Haul Road within concrete batching plant (g/m/s)	6.92456E-04	TSP emission factor (g/VKT)	E=k × (sL/2)^0.65 × (W/3)^1.5	
						AP-42, Section 13.2.1, 11/06 ed.
				Particle size multiplier, k (g/VKT)	24	*AP-42, Section 13.2.1, Table 13.2.1-1, 11/06 ed.*
				Road silt loading (g/m2), sL	12	*AP-42, Section 13.2.1, Table 13.2.1-4, 11/06 ed.*
				Average truck weight (tons), W	21	*The average weight of the empty truck and full load truck*
		Source ID:		E (g/VKT)	1424	*calculated*
		CB16		No. of truck trips per day	420	*from engineer*
				no. of operation hour (hr)	12	*from engineer(7:00-19:00)*
				% of dust suppression	95	*95%, keeping haul road in wet condition and wheel washing pit installed at the gate of the concrete batching plant.*
				Road width (m)	6	*from engineer*
				Emission height (m)	0.5	
	Unloading of raw materials	Unloading Aggregate (g/s)	2.43056E-02	TSP emission factor (kg/Mg)	0.0035	*AP-42, Section 11.12, Table 11.12-1, 6/06 ed.*
				Maximum loading rate (tonnes/day)	6000	*from engineer*
				no. of operation hour (hr)	12	*from engineer(7:00-19:00)*
		Source ID:		Loading rate (tonnes/hr)	500	*calculated*
		CB15		% of dust suppression	95	*95%, the receiving hopper should be provided with enclosures on 3 sides with top cover and water spraying system*
				Emission height (m)	0.5	
	Cement/PFA Silos	Small Cement Silos (g/s)	1.48333E-02	TSP emission factor (mg/m3)	30	*Adjusted emission factor should be followed for plant operation in future*
				Dust extraction flow rate for each mixer (m3/hr)	1780	*from engineer*
				no. of operation hour (hr)	12	*from engineer(7:00-19:00)*
		Source ID:		no. of small cement silos	3	*from engineer*
		CB1, CB4, CB7		Emission height (m)	35	*from engineer*
		PFA Silos (g/s)	1.48333E-02	TSP emission factor (mg/m3)	30	*Adjusted emission factor should be followed for plant operation in future*
				Dust extraction flow rate for each mixer (m3/hr)	1780	*from engineer*
		Source ID:		no. of operation hour (hr)	12	*from engineer(7:00-19:00)*
		CB2, CB3, CB5, CB6, CB8, CB9		no. of PFA silos	6	*from engineer*
				Emission height (m)	35	*from engineer*
		Large Capacity Cement Silos (g/s)	4.90000E-02	TSP emission factor (mg/m3)	50	*EPD BPM Standard*
				Dust extraction flow rate for each mixer (m3/hr)	3528	*from engineer*
		Source ID:		no. of operation hour (hr)	12	*from engineer(7:00-19:00)*
		CB13, CB14		no. of large cement silos	2	*from engineer*
				Emission height (m)	20	*from engineer*
	Mixing Tower	Mixer (g/s)	1.97778E-02	TSP emission factor (mg/m3)	40	*Adjusted emission factor should be followed for plant operation in future*
				Dust extraction flow rate for each mixer (m3/hr)	1780	*from engineer*
		Source ID:		no. of operation hour (hr)	12	*from engineer(7:00-19:00)*
		CB10, CB11, CB12		no. of mixers	3	*from engineer*
				Emission height (m)	17	*from engineer*

Shek Kong Works Area Dust Emission Sources

Line Sources

Source ID	Day-time Emission Rates (g/m/s)	Night-time Emission Rates (g/m/s)	X co-ordinates (Starting)	Y co-ordinates (Starting)	X co-ordinates (Ending)	Y co-ordinates (Ending)	Emission Height (metres)	Source Width (metres)
HR1A	4.01305E-04	0.00000E+00	826697.5	833504.5	826837.4	833375.3	0.5	6
HR1B	4.01305E-04	0.00000E+00	826837.4	833375.3	827051.4	833061.4	0.5	6
HR1C	4.01305E-04	0.00000E+00	827051.4	833061.4	827175.9	832977.4	0.5	6
HR1D	4.01305E-04	0.00000E+00	827175.9	832977.4	827287.4	832815.3	0.5	6
HR2A	2.30257E-04	0.00000E+00	827287.4	832815.3	827541.2	832446.7	0.5	6
HR2B	2.30257E-04	0.00000E+00	827541.2	832446.7	827543.2	832389.6	0.5	6
HR2C	2.30257E-04	0.00000E+00	827543.2	832389.6	827606.6	832351.4	0.5	6
HR2D	2.30257E-04	0.00000E+00	827606.6	832351.4	827610.9	832319.6	0.5	6
HR4A	1.57891E-04	0.00000E+00	827958.6	832237.3	827923.5	832191.2	0.5	6
HR4B	1.57891E-04	0.00000E+00	827923.5	832191.2	827914.3	832113.9	0.5	6
HR4C	1.57891E-04	0.00000E+00	827914.3	832113.9	827869.6	832079.0	0.5	6
HR5A	3.15781E-04	0.00000E+00	828186.0	832270.7	828238.5	832230.6	0.5	6
HR5B	3.15781E-04	0.00000E+00	828238.5	832230.6	828259.7	832155.8	0.5	6
HR5C	3.15781E-04	0.00000E+00	828259.7	832155.8	828261.3	832062.8	0.5	6

Area Sources

Source ID	Day-time Emission Rates ($g/m^2/s$)	Night-time Emission Rates ($g/m^2/s$)	X co-ordinates (At centre)	Y co-ordinates (At centre)	X dimension (metres)	Y dimension (metres)	Emission Height (metres)	Rotation angle(°)
SK1	3.11343E-06	4.04300E-07	826811.7	833591.9	31.7	83.7	0	35.5
SK2	3.11343E-06	4.04300E-07	826787.8	833574.9	26.3	83.1	0	32.12
SK3	3.11343E-06	4.04300E-07	826850.0	833529.4	23.8	61.8	0	34.17
SK4	3.11343E-06	4.04300E-07	826829.4	833515.1	25.8	61.7	0	33.15
SK5	3.11343E-06	4.04300E-07	826886.5	833475.9	24.2	67.2	0	32.72
SK6	3.11343E-06	4.04300E-07	826865.7	833462.2	25.9	67.0	0	34.36
SK7	3.11343E-06	4.04300E-07	826925.8	833419.0	24.1	70.4	0	34.15
SK8	3.11343E-06	4.04300E-07	826905.1	833404.8	24.9	71.2	0	35.3
SK9	3.11343E-06	4.04300E-07	826967.5	833359.1	23.3	74.5	0	34.73
SK10	3.11343E-06	4.04300E-07	826946.0	833344.6	26.3	74.0	0	32.6
SK11	3.11343E-06	4.04300E-07	827009.1	833298.0	23.4	72.5	0	34.02
SK12	3.11343E-06	4.04300E-07	826988.3	833283.7	25.9	73.2	0	33.94
SK13	3.11343E-06	4.04300E-07	827050.4	833237.5	24.3	74.2	0	34.62
SK14	3.11343E-06	4.04300E-07	827029.8	833223.1	26.2	72.6	0	34.88
SK15	3.11343E-06	4.04300E-07	827095.2	833173.0	23.4	81.0	0	34.89
SK16	3.11343E-06	4.04300E-07	827074.2	833158.9	26.1	81.7	0	35.26
SK17	3.11343E-06	4.04300E-07	827143.8	833102.9	23.4	89.1	0	33.35
SK18	3.11343E-06	4.04300E-07	827122.9	833088.2	27.2	88.0	0	34.14
SK19	3.11343E-06	4.04300E-07	827193.9	833029.3	23.4	89.1	0	33.34
SK20	3.11343E-06	4.04300E-07	827173.0	833014.7	27.2	88.0	0	33.97
SK21	3.11343E-06	4.04300E-07	827244.0	832956.6	23.4	89.1	0	33.34
SK22	3.11343E-06	4.04300E-07	827223.1	832941.9	27.2	88.0	0	34.14
SK23	3.11343E-06	4.04300E-07	827293.7	832883.7	23.3	89.0	0	33.48
SK24	3.11343E-06	4.04300E-07	827272.8	832869.0	27.2	88.0	0	34.26
SK25	3.11343E-06	4.04300E-07	827343.3	832810.6	23.4	89.1	0	33.35
SK26	3.11343E-06	4.04300E-07	827322.4	832795.9	27.3	88.0	0	34.14
SK27	3.11343E-06	4.04300E-07	827394.1	832737.5	23.4	89.0	0	33.34
SK28	3.11343E-06	4.04300E-07	827373.2	832722.9	27.2	87.9	0	33.97
SK29	3.11343E-06	4.04300E-07	827444.8	832664.2	23.4	89.1	0	33.35
SK30	3.11343E-06	4.04300E-07	827423.9	832649.6	27.2	87.9	0	33.97
SK31	3.11343E-06	4.04300E-07	827494.6	832591.3	23.4	89.1	0	33.34
SK32	3.11343E-06	4.04300E-07	827473.7	832576.7	27.2	88.0	0	33.97
SK33	3.11343E-06	4.04300E-07	827545.0	832518.0	23.4	89.0	0	33.34
SK34	3.11343E-06	4.04300E-07	827524.1	832503.3	27.3	88.0	0	34.14
SK35	3.11343E-06	4.04300E-07	827598.5	832449.8	32.7	81.8	0	33.78
SK36	3.11343E-06	4.04300E-07	827572.9	832433.0	27.9	82.1	0	33.46
SK37	3.11343E-06	4.04300E-07	827661.6	832427.0	25.9	65.3	0	75.45
SK38	3.11343E-06	4.04300E-07	827705.7	832418.2	30.6	24.9	0	77.59
SK39	3.11343E-06	4.04300E-07	826868.0	833379.8	22.2	22.2	0	34.48
SK40	3.11343E-06	4.04300E-07	827852.8	832089.2	9.2	11.0	0	35.39
SK41	3.11343E-06	4.04300E-07	828262.4	832036.3	21.8	22.0	0	46.14
SK42	3.11343E-06	4.04300E-07	826746.4	833635.4	26.8	62.1	0	37.54
SK43	3.11343E-06	4.04300E-07	826769.8	833652.4	31.1	63.4	0	37.3
SK44	3.11343E-06	4.04300E-07	827838.0	832050.3	27.9	36.3	0	34.82
SK45	3.11343E-06	4.04300E-07	827861.1	832066.3	28.0	36.2	0	34.71

Nam Cheong Works Area Dust Emission Sources

Point Sources

Source ID	Day-time Emission Rates (g/s)	Night-time Emission Rates (g/s)	X co-ordinates (At centre)	Y co-ordinates (At centre)	Emission Height (metres)
BP1	1.67442E-02	0.00000E+00	833151.9	820954.1	0.5
BP2	1.67442E-02	0.00000E+00	833217.1	820913.0	0.5
BP3	4.26664E-03	0.00000E+00	833277.2	820875.2	0.5

Line Sources

Source ID	Day-time Emission Rates (g/m/s)	Night-time Emission Rates (g/m/s)	X co-ordinates (Starting)	Y co-ordinates (Starting)	X co-ordinates (Ending)	Y co-ordinates (Ending)	Emission Height (metres)	Source Width (metres)
HR6A	6.31563E-04	0.00000E+00	833562.9	821132.8	833430.2	821240.4	0.5	6
HR6B	6.31563E-04	0.00000E+00	833430.2	821240.4	833383.7	821249.0	0.5	6
HR13	3.94727E-04	0.00000E+00	833184.3	821073.2	833241.5	821033.1	0.5	6
HR14A	1.97363E-04	0.00000E+00	833241.5	821033.1	833226.2	820927.3	0.5	6
HR14B	1.97363E-04	0.00000E+00	833241.5	821033.1	833302.1	820988.8	0.5	6
HR14C	1.97363E-04	0.00000E+00	833302.1	820988.8	833285.8	820891.6	0.5	6

Area Sources

Source ID	Day-time Emission Rates ($g/m^2/s$)	Night-time Emission Rates ($g/m^2/s$)	X co-ordinates (At centre)	Y co-ordinates (At centre)	X dimension (metres)	Y dimension (metres)	Emission Height (metres)	Rotation angle(°)
NC1	1.55671E-05	8.08600E-07	833498.6	821280.0	31.3	46.1	0	49.14
NC2	1.55671E-05	8.08600E-07	833535.1	821251.3	31.3	46.1	0	49
NC3	1.55671E-05	8.08600E-07	833571.9	821222.9	31.3	46.1	0	49.01
NC4	1.55671E-05	8.08600E-07	833615.0	821188.4	30.5	65.4	0	52.72
NC5	1.55671E-05	8.08600E-07	833771.9	821064.4	37.2	49.5	0	50.29
NC6	1.55671E-05	8.08600E-07	833809.3	821034.3	35.9	45.4	0	52.04
NC7	1.55671E-05	8.08600E-07	833843.8	821006.7	36.5	41.6	0	53.25
NC8	1.55671E-05	8.08600E-07	833874.7	820981.6	37.3	39.3	0	49.19
NC9	1.55671E-05	8.08600E-07	833364.9	821249.5	22.0	22.0	0	20.49
NC10	1.55671E-05	8.08600E-07	833174.8	820997.3	22.0	22.0	0	57.61

West Kowloon Works Area Dust Emission Sources

Point Sources

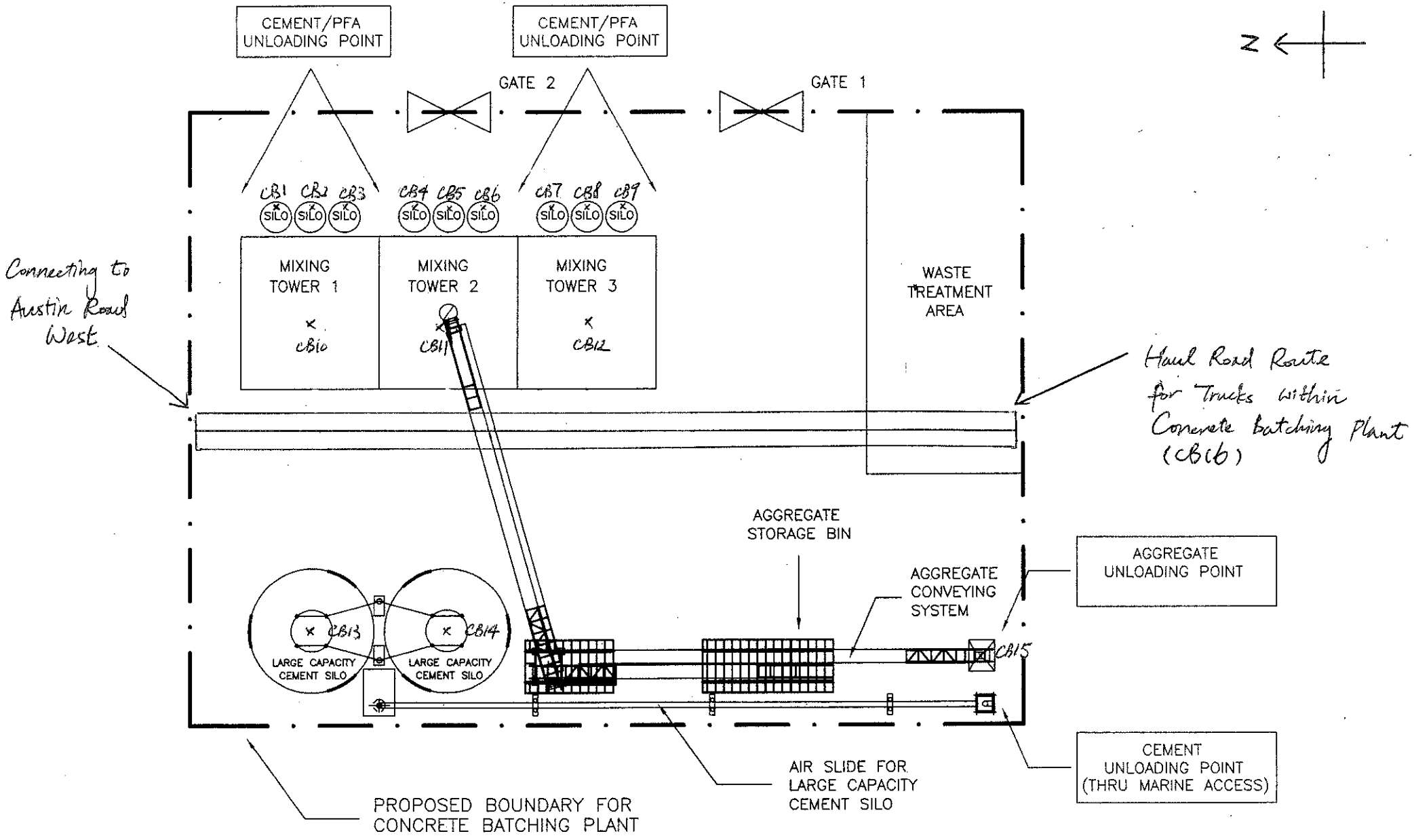
Source ID	Day-time Emission Rates (g/s)	Night-time Emission Rates (g/s)	X co-ordinates (At centre)	Y co-ordinates (At centre)	Emission Height (metres)	Remarks
BP8	4.26664E-03	0.00000E+00	834172.9	817748.2	0.5	-
BP7	4.26664E-03	0.00000E+00	834328.6	817755.8	0.5	-
BP6	4.26664E-03	0.00000E+00	834397.5	817847.6	0.5	-
BP5	4.26664E-03	0.00000E+00	834591.9	817925.1	0.5	-
BP4	4.26664E-03	0.00000E+00	834639.9	817929.6	0.5	-
CB1	1.48333E-02	0.00000E+00	835250.9	818163.9	20	20m is height set in the model run, actual height is 35m.
CB2	1.48333E-02	0.00000E+00	835250.2	818161.4	20	20m is height set in the model run, actual height is 35m.
CB3	1.48333E-02	0.00000E+00	835249.3	818159.0	20	20m is height set in the model run, actual height is 35m.
CB4	1.48333E-02	0.00000E+00	835245.7	818147.8	20	20m is height set in the model run, actual height is 35m.
CB5	1.48333E-02	0.00000E+00	835244.8	818145.4	20	20m is height set in the model run, actual height is 35m.
CB6	1.48333E-02	0.00000E+00	835244.1	818142.8	20	20m is height set in the model run, actual height is 35m.
CB7	1.48333E-02	0.00000E+00	835240.4	818131.8	20	20m is height set in the model run, actual height is 35m.
CB8	1.48333E-02	0.00000E+00	835239.6	818129.2	20	20m is height set in the model run, actual height is 35m.
CB9	1.48333E-02	0.00000E+00	835238.7	818126.7	20	20m is height set in the model run, actual height is 35m.
CB10	1.97778E-02	0.00000E+00	835242.8	818164.0	17	-
CB11	1.97778E-02	0.00000E+00	835237.4	818147.7	17	-
CB12	1.97778E-02	0.00000E+00	835232.5	818131.7	17	-
CB13	4.90000E-02	0.00000E+00	835212.3	818179.3	20	-
CB14	4.90000E-02	0.00000E+00	835209.5	818169.7	20	-
CB15	2.43056E-02	0.00000E+00	835193.0	818117.9	0.5	-

Line Sources

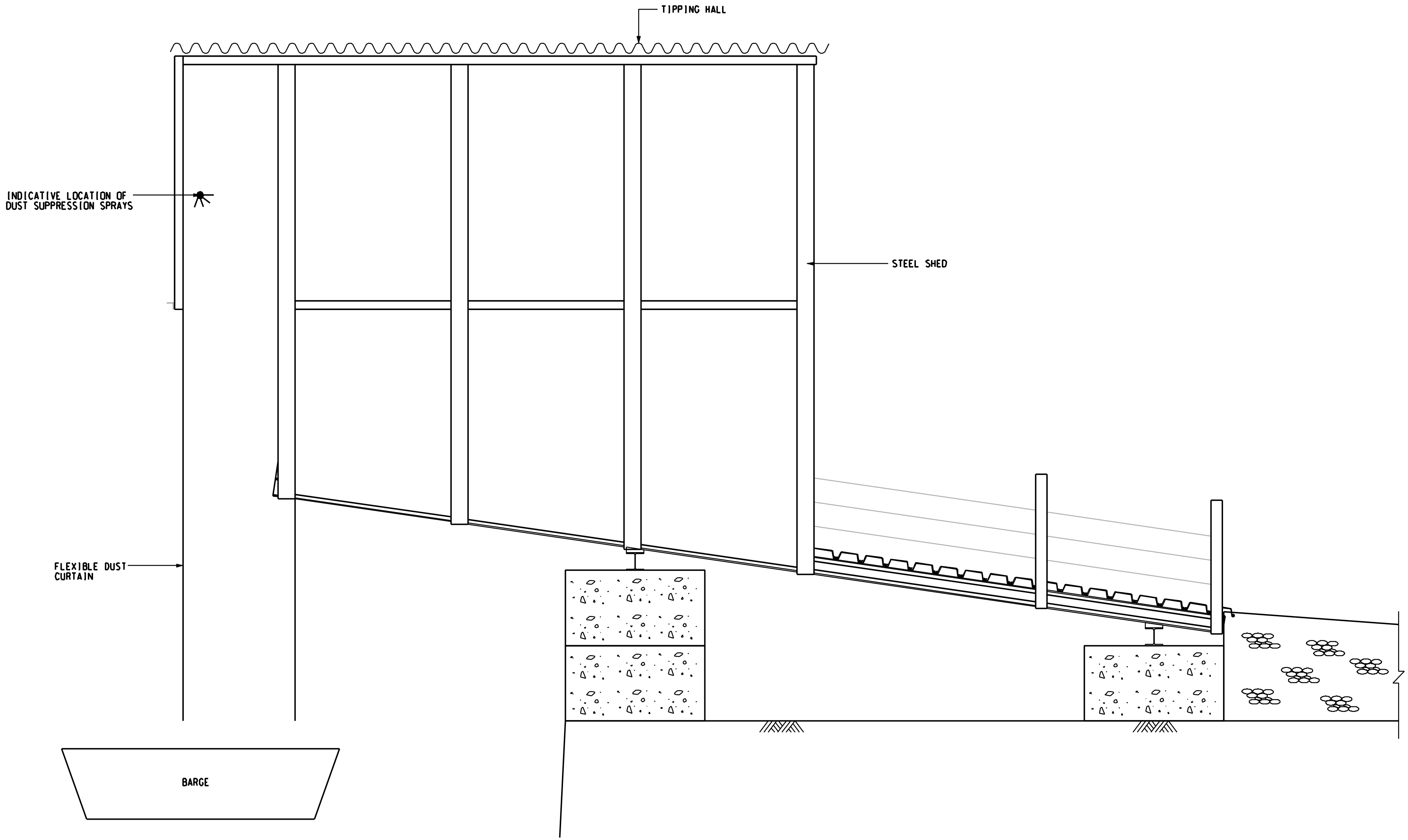
Source ID	Day-time Emission Rates (g/m/s)	Night-time Emission Rates (g/m/s)	X co-ordinates (Starting)	Y co-ordinates (Starting)	X co-ordinates (Ending)	Y co-ordinates (Ending)	Emission Height (metres)	Source Width (metres)
HR7A	4.93408E-04	0.00000E+00	834964.1	818123.2	834964.1	817983.2	0.5	6
HR7B	4.93408E-04	0.00000E+00	834964.1	817983.2	834895.8	817976.0	0.5	6
HR7C	4.93408E-04	0.00000E+00	834898.1	818144.6	834895.8	817976.0	0.5	6
HR8A	9.86817E-04	0.00000E+00	834895.8	817976.0	834764.7	817958.0	0.5	6
HR8B	9.86817E-04	0.00000E+00	834764.7	817958.0	834637.5	817945.4	0.5	6
HR9	7.89453E-04	0.00000E+00	834637.5	817945.4	834588.3	817940.5	0.5	6
HR10A	5.92090E-04	0.00000E+00	834588.3	817940.5	834519.6	817934.4	0.5	6
HR10B	5.92090E-04	0.00000E+00	834519.6	817934.4	834425.8	817897.2	0.5	6
HR10C	5.92090E-04	0.00000E+00	834425.8	817897.2	834389.4	817855.7	0.5	6
HR11	3.94727E-04	0.00000E+00	834389.4	817855.7	834313.9	817770.0	0.5	6
HR12A	1.97363E-04	0.00000E+00	834313.9	817770.0	834289.8	817763.6	0.5	6
HR12B	1.97363E-04	0.00000E+00	834289.8	817763.6	834163.3	817763.4	0.5	6
CB16	6.92456E-04	0.00000E+00	835210.5	818104.3	835245.3	818210.0	0.5	6

Area Sources

Source ID	Day-time Emission Rates ($g/m^2/s$)	Night-time Emission Rates ($g/m^2/s$)	X co-ordinates (At centre)	Y co-ordinates (At centre)	X dimension (metres)	Y dimension (metres)	Emission Height (metres)	Rotation angle(°)
WK1	3.89178E-06	4.04300E-07	834946.4	818542.1	48.4	91.8	0	7.48
WK2	3.89178E-06	4.04300E-07	835010.7	818545.0	76.3	78.3	0	9.87
WK3	3.89178E-06	4.04300E-07	835067.7	818551.7	36.8	71.3	0	8.73
WK4	3.89178E-06	4.04300E-07	834948.3	818468.4	68.8	54.1	0	10.22
WK5	3.89178E-06	4.04300E-07	835023.7	818482.4	79.7	49.4	0	9.47
WK6	3.89178E-06	4.04300E-07	835081.4	818495.1	37.3	46.0	0	9.11
WK7	3.89178E-06	4.04300E-07	834949.7	818409.4	86.4	62.4	0	11.21
WK8	3.89178E-06	4.04300E-07	835034.3	818426.6	83.8	62.8	0	10.97
WK9	3.89178E-06	4.04300E-07	835096.6	818440.8	43.0	66.4	0	12.19
WK10	3.89178E-06	4.04300E-07	834964.3	818329.8	95.3	102.2	0	10.96
WK11	3.89178E-06	4.04300E-07	835065.0	818348.8	103.9	102.3	0	11.1
WK12	3.89178E-06	4.04300E-07	835134.3	818360.5	32.8	104.6	0	11.24
WK13	3.89178E-06	4.04300E-07	834986.0	818244.7	99.4	73.0	0	10.3
WK14	3.89178E-06	4.04300E-07	835088.1	818261.7	104.5	77.1	0	8.79
WK15	3.89178E-06	4.04300E-07	835160.1	818272.5	38.2	77.6	0	9.09
WK16	3.89178E-06	4.04300E-07	835003.2	818170.9	98.6	78.3	0	11.21
WK17	3.89178E-06	4.04300E-07	835104.7	818186.9	105.7	74.9	0	10.22
WK18	3.89178E-06	4.04300E-07	835020.7	818093.8	99.3	80.2	0	12.18
WK19	3.89178E-06	4.04300E-07	835123.6	818104.7	108.2	94.2	0	13.26
WK20	3.89178E-06	4.04300E-07	834775.7	818095.9	69.3	82.4	0	5.59
WK21	3.89178E-06	4.04300E-07	834840.1	818101.2	62.1	78.3	0	4.9
WK22	3.89178E-06	4.04300E-07	834781.7	818016.6	65.2	75.8	0	8.38
WK23	3.89178E-06	4.04300E-07	834845.5	818024.3	63.4	74.7	0	7.57



PROPOSED LAYOUT FOR CONCRETE BATCHING PLANT



SCHEMATIC DIAGRAM FOR BARGING POINTS