

Annex 4B

Emission Inventory for the
Existing and Planned
Emissions Sources in the
Vicinity of the New GRS at
BPPS and LPS

Annex 4B - Emission Inventory of Existing and Planned Emission Sources in the Vicinity of the New GRS at BPPS and LPS

Sources	Emission Point ID (SP Licence)	Model Input ID	X	Y	Ground Level	NOx Emission g/s	Stack height m	Temp K	Exit Velocity m/s	Diameter m	Operation Hour
					mPD						
BPPS Existing Stacks (C1 - C8)	C1-C4	C1-C4	808809.7	830475.7	6	188.89	100	353	15	11.8	24 hours
	C5-C8	C5-C8	808930.7	830602.4	6	188.89	100	353	15	11.8	24 hours
BPPS Additional CCGT No. 1 and No. 2	-	BPPS_1	808658.8	830333.4	6	4.66	80	353	15	8	24 hours
	-	BPPS_2	808591.6	830263.3	6	4.66	80	353	15	8	24 hours
Gas Heaters of Existing GRS at BPPS	C10	W1	808986	830817.2	5	0.64	9.4	573	10	0.9	24 hours
	C11	W2	808991.3	830822.6	5	0.64	9.4	573	10	0.9	24 hours
	C12	W3	808996.6	830828.2	5	0.64	9.4	573	10	0.9	24 hours
	C13	W4	809001.9	830833.7	5	0.64	9.4	573	10	0.9	24 hours
	C14	W5	809007.1	830839.1	5	0.64	9.4	573	10	0.9	24 hours
	C15	W6	809012.4	830844.7	5	0.64	9.4	573	10	0.9	24 hours
	C16	W7	809017.7	830850.2	5	0.64	9.4	573	10	0.9	24 hours
	C21	W8	809098.4	830924.9	6	0.57	16	553	10	1.15	24 hours
	C22	W9	809100.1	830926.7	6	0.57	16	553	10	1.15	24 hours
	C23	W10	809107.9	830934.8	6	0.57	16	553	10	1.15	24 hours
	C24	W11	809109.6	830936.6	6	0.57	16	553	10	1.15	24 hours
LPS	2	L2	828997.5	808930	0	341.67	215	353	15	5.11	24 hours
	4-6	L4_L6	829187.8	808930	0	700.56	215	353	15	9.73	24 hours
	59-60	L7_L8	829440	808929.2	0	273.89	215	353	15	7.83	24 hours
	-	L9_L11	828942.5	808384.8	0	55.64	110	353	15	10.39	24 hours
	-	L12_L14	828942.9	808246.9	0	8.88	110	353	15	10.39	24 hours
	GTL5, GTL7	GT57	828896.5	808705.5	0	34.72	86	423	20	5.6	24 hours
	GTL1a	GT1a	829090.1	809100.3	0	31.9	15.7	583	45	2.67	Peak Lopping/ Emergency Only
	GTL1b	GT1b	829123.6	809100.2	0	31.9	15.7	583	45	2.67	Peak Lopping/ Emergency Only
	GTL2	GT2	828714	808703	0	82.99	86	663	32	5.6	Peak Lopping/ Emergency Only
	GTL3	GT3	828714	808703	0	82.99	86	663	32	5.6	Peak Lopping/ Emergency Only
	GTL4	GT4	828714	808703	0	82.99	86	663	32	5.6	Peak Lopping/ Emergency Only
	GTL6	GT6	828896.5	808705.5	0	82.99	86	663	32	5.6	Peak Lopping/ Emergency Only
	36a	36a	828998	808887	0	0.11	37.9	0	0.001	0.4	24 hours
	36b	36b	828998	808887	0	0.11	37.9	0	0.001	0.4	24 hours
	37a	37a	828998	808887	0	0.11	37.9	0	0.001	0.4	24 hours
	37b	37b	828998	808887	0	0.11	37.9	0	0.001	0.4	24 hours
	38a	38a	829067	808887	0	0.11	37.9	0	0.001	0.4	24 hours
	38b	38b	829067	808887	0	0.11	37.9	0	0.001	0.4	24 hours
Gas Heaters of Existing GRS at LPS	LMX HS2	S1	828735.3	808248.4	7.75	0.139	11.15	573	2.6	0.61	24 hours
	LMX HS	S3	828750.5	808249	7.75	0.139	7.45	673	4	0.61	24 hours
	-	S4	828774.9	808252.2	7.75	0.139	11.15	573	2.6	0.61	24 hours
CPPS	A1-A4	CPA	809780.3	826410.2	7.4	2188.89	215	383	17	10.8	24 hours
	B1-B4	CPB	809975.8	826085.4	7.4	1316.67	250	353	17	13.2	24 hours
LFGPGUs at WENT Landfill	-	LFG_1	810881.1	831651	6.6	0.36	20	453	34	0.5	24 hours
	-	LFG_2	810890.4	831627.2	6.6	0.24	20	453	34	0.5	24 hours
	-	LFG_3	810932.7	831679.4	6.6	0.24	20	453	34	0.5	24 hours
WENT Landfill Extension	-	XTD1	810505	831360.4	6.6	0.6786	19	740	7.06	2.33	24 hours
	-	XTD2	810505	831350.4	6.6	0.6786	19	740	7.06	2.33	24 hours
	-	XFS1	810565.9	831329.3	6.6	0.3712	20	1473	6.49	3.25	24 hours
	-	XFS2	810573.9	831329.3	6.6	0.3712	20	1473	6.49	3.25	24 hours
	-	XFS3	810581.9	831329.3	6.6	0.3712	20	1473	6.49	3.25	24 hours
	-	XPG1	810550.2	831329	6.6	0.04266	6	853	37.1	0.5	24 hours
	-	XPG2	810555.2	831329	6.6	0.04266	6	853	37.1	0.5	24 hours
	-	ETD1	810626	831358	6.6	0.377	19	740	3.92	2.33	24 hours
Existing WENT Landfill	-	ETD2	810626	831348	6.6	0.377	19	740	3.92	2.33	24 hours
	-	EF51	810672.9	831465.9	6.6	0.004856	8.2	1473	3.62	0.5	24 hours
	-	EF52	810680.9	831465.9	6.6	0.004856	8.2	1473	3.62	0.5	24 hours
	-	EF53	810688.9	831465.9	6.6	0.004856	8.2	1473	3.62	0.5	24 hours
	-	EPG1	810657.6	831463.8	6.6	0.04266	6	853	37.1	0.5	24 hours
	-	EPG2	810662.6	831463.8	6.6	0.04266	6	853	37.1	0.5	24 hours
	-	STF1	810407.5	831493.0	5.75	8.418	65.75	463	20	1.6	24 hours
STF ^(c)	-	STF2	810410.1	831493.0	5.75	8.418	65.75	463	20	1.6	24 hours
	-	STF3	810407.5	831497.0	5.75	8.418	65.75	463	20	1.6	24 hours
	-	STF4	810410.1	831497.0	5.75	8.418	65.75	463	20	1.6	24 hours
	-	IWMF	810018.6	831277.3	5	45.890	150	413	15	4.97	24 hours
Green Island Cement	-	G58	810255	825770	7	111.70	113	383	20.9	3.1	24 hours
Ecopark	-	E2	810997.7	825415.2	7	6	30	353	9	1	24 hours
Shiu Wing Steel Mill	EP1	SW1	810311	825443	7	17.1	50	367	15.2	6.2	24 hours
	EP2	SW2	810307	825449	7	0.4556	35	325	15.7	2.6	24 hours
	EP3	SW3	810310	825442	7	3.717	50	813	10.3	1.9	24 hours
	EP6	SW6	810303	825468	7	0.7194	7	753	14.9	0.2	24 hours
	-	PA_EP12	810424	825391	6	4	7	666.7	45.1	0.4	24 hours
PAFF	-	PA_EP13	810423	825389	6	4	7	666.7	45.1	0.4	24 hours
Asphalt Plant 1	EP1	AP1_EP1	809422.9	829587.2	6	4	15	413	13.2	1.5	24 hours
	EP2	AP1_EP2	809422.9	829587.2	6	2.93	23	403	17.6	1.3	24 hours
	EP4	AP1_EP4	809422.9	829587.2	6	0.025	7	493	9.1	0.39	24 hours
Asphalt Plant 2	EP1	AP_2_EP1	809226.9	829544.1	6	2.33	32	333	12	1.1	12 hours; assumes 0700 to 1900
Marine Emission (IETS Vessel during maneuvering)	-	MARa1	809097.8	831413.5	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa2	809145.3	831429.1	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa3	809192.8	831444.8	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa4	809240.3	831460.4	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa5	809287.8	831476.1	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa6	809335.8	831489.9	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa7	809383.8	831503.8	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa8	809431.9	831517.7	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa9	809479.9	831531.5	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa10	809527.4	831547.2	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa11	809574.9	831562.9	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa12	809622.3	831578.6	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa13	809669.8	831594.3	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa14	809717.6	831608.9	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa15	809765.5	831623.4	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa16	809813.3	831638	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa17	809861.1	831652.5	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa18	809908.9	831667.2	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200

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Sources	Emission Point ID (SP Licence)	Model Input ID	X	Y	Ground Level	NOx Emission	Stack height	Temp	Exit Velocity	Diameter	Operation Hour
					mPD						
	-	MARa19	809956.7	831681.9	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa20	810004.5	831696.5	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa21	810052.3	831711.2	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa22	810100.1	831725.9	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa23	810149.9	831731.1	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa24	810199.6	831736.3	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa25	810249.3	831741.5	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa26	810299.1	831746.7	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa27	810348.8	831751.9	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa28	810398.5	831757	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa29	810448.3	831762.2	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa30	810498	831767.4	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa31	810548	831765.7	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa32	810597.9	831764.1	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa33	810647.9	831762.4	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa34	810697.9	831761.7	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa35	810747.9	831761	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa36	810797.9	831760.3	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa37	810847.9	831759.7	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa38	810897.7	831763.4	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa39	810947.6	831767.1	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa40	810997.5	831770.8	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARa41	811047.3	831774.5	0	0.01057	8	530.5	8	0.3	1700 to 1800; 2100 to 2200
	-	MARb1	809097.8	831413.5	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb2	809145.3	831429.1	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb3	809192.8	831444.8	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb4	809240.3	831460.4	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb5	809287.8	831476.1	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb6	809335.8	831489.9	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb7	809383.8	831503.8	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb8	809431.9	831517.7	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb9	809479.9	831531.5	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb10	809527.4	831547.2	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb11	809574.9	831562.9	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb12	809622.3	831578.6	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb13	809669.8	831594.3	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb14	809717.6	831608.9	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb15	809765.5	831623.4	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb16	809813.3	831638	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb17	809861.1	831652.5	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb18	809908.9	831667.2	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb19	809956.7	831681.9	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb20	810004.5	831696.5	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb21	810052.3	831711.2	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb22	810100.1	831725.9	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb23	810149.9	831731.1	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb24	810199.6	831736.3	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb25	810249.3	831741.5	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb26	810299.1	831746.7	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb27	810348.8	831751.9	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb28	810398.5	831757	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb29	810448.3	831762.2	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb30	810498	831767.4	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb31	810548	831765.7	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb32	810597.9	831764.1	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb33	810647.9	831762.4	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb34	810697.9	831761.7	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb35	810747.9	831761	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb36	810797.9	831760.3	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb37	810847.9	831759.7	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb38	810897.7	831763.4	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb39	810947.6	831767.1	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb40	810997.5	831770.8	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
	-	MARb41	811047.3	831774.5	0	0.01057	8	493	8	0.3	1800 to 1900; 2000 to 2100
Marine Emission (OITF Vessel during maneuvering)	-	MARc1	809097.8	831413.5	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc2	809145.3	831429.1	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc3	809192.8	831444.8	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc4	809240.3	831460.4	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc5	809287.8	831476.1	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc6	809335.8	831489.9	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc7	809383.8	831503.8	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc8	809431.9	831517.7	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc9	809479.9	831531.5	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc10	809527.4	831547.2	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc11	809574.9	831562.9	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc12	809622.3	831578.6	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc13	809669.8	831594.3	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc14	809717.6	831608.9	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc15	809765.5	831623.4	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc16	809813.3	831638	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc17	809861.1	831652.5	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc18	809908.9	831667.2	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc19	809956.7	831681.9	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc20	810004.5	831696.5	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc21	810052.3	831711.2	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc22	810100.1	831725.9	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc23	810149.9	831731.1	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc24	810199.6	831736.3	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc25	810249.3	831741.5	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc26	810299.1	831746.7	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500

Annex 4B - Emission Inventory of Existing and Planned Emission Sources in the Vicinity of the New GRS at BPPS and LPS

Sources	Emission Point ID (SP Licence)	Model Input ID	X	Y	Ground Level	NOx Emission	Stack height	Temp	Exit Velocity	Diameter	Operation Hour
					mPD						
	-	MARc27	810348.8	831751.9	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc28	810398.5	831757	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc29	810448.3	831762.2	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc30	810498	831767.4	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc31	810548	831765.7	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc32	810597.9	831764.1	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc33	810647.9	831762.4	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc34	810697.9	831761.7	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc35	810747.9	831761	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc36	810797.9	831760.3	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc37	810847.9	831759.7	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc38	810897.7	831763.4	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc39	810947.6	831767.1	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc40	810997.5	831770.8	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
	-	MARc41	811047.3	831774.5	0	0.005808	3.5	425	8	0.2	1000 to 1100; 1400 to 1500
Marine Emission (North Lantau Vessel during maneuvering from propulsion engine)	-	MARd1	809097.8	831413.5	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd2	809145.3	831429.1	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd3	809192.8	831444.8	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd4	809240.3	831460.4	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd5	809287.8	831476.1	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd6	809335.8	831489.9	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd7	809383.8	831503.8	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd8	809431.9	831517.7	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd9	809479.9	831531.5	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd10	809527.4	831547.2	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd11	809574.9	831562.9	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd12	809622.3	831578.6	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd13	809669.8	831594.3	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd14	809717.6	831608.9	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd15	809765.5	831623.4	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd16	809813.3	831638	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd17	809861.1	831652.5	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd18	809908.9	831667.2	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd19	809956.7	831681.9	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd20	810004.5	831696.5	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd21	810052.3	831711.2	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd22	810100.1	831725.9	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd23	810149.9	831731.1	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd24	810199.6	831736.3	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd25	810249.3	831741.5	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd26	810299.1	831746.7	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd27	810348.8	831751.9	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd28	810398.5	831757	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd29	810448.3	831762.2	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd30	810498	831767.4	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd31	810548	831765.7	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd32	810597.9	831764.1	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd33	810647.9	831762.4	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd34	810697.9	831761.7	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd35	810747.9	831761	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd36	810797.9	831760.3	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd37	810847.9	831759.7	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd38	810897.7	831763.4	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd39	810947.6	831767.1	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd40	810997.5	831770.8	0	0.007664	11	699	8	0.2	0800 to 1000
	-	MARd41	811047.3	831774.5	0	0.007664	11	699	8	0.2	0800 to 1000
Marine Emission (North Lantau Vessel during maneuvering from auxiliary engine)	-	MARe1	809097.8	831413.5	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe2	809145.3	831429.1	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe3	809192.8	831444.8	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe4	809240.3	831460.4	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe5	809287.8	831476.1	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe6	809335.8	831489.9	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe7	809383.8	831503.8	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe8	809431.9	831517.7	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe9	809479.9	831531.5	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe10	809527.4	831547.2	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe11	809574.9	831562.9	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe12	809622.3	831578.6	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe13	809669.8	831594.3	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe14	809717.6	831608.9	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe15	809765.5	831623.4	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe16	809813.3	831638	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe17	809861.1	831652.5	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe18	809908.9	831667.2	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe19	809956.7	831681.9	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe20	810004.5	831696.5	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe21	810052.3	831711.2	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe22	810100.1	831725.9	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe23	810149.9	831731.1	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe24	810199.6	831736.3	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe25	810249.3	831741.5	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe26	810299.1	831746.7	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe27	810348.8	831751.9	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe28	810398.5	831757	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe29	810448.3	831762.2	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe30	810498	831767.4	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe31	810548	831765.7	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe32	810597.9	831764.1	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe33	810647.9	831762.4	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe34	810697.9	831761.7	0	0.00323	11	588	8	0.2	0800 to 1000

Annex 4B - Emission Inventory of Existing and Planned Emission Sources in the Vicinity of the New GRS at BPPS and LPS

Sources	Emission Point ID (SP Licence)	Model Input ID	X	Y	Ground Level	NOx Emission	Stack height	Temp	Exit Velocity	Diameter	Operation Hour
					mPD						
	-	MARe35	810747.9	831761	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe36	810797.9	831760.3	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe37	810847.9	831759.7	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe38	810897.7	831763.4	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe39	810947.6	831767.1	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe40	810997.5	831770.8	0	0.00323	11	588	8	0.2	0800 to 1000
	-	MARe41	811047.3	831774.5	0	0.00323	11	588	8	0.2	0800 to 1000
Marine Emission (West Kowloon Vessel during maneuvering)	-	MARf1	809097.8	831413.5	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf2	809145.3	831429.1	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf3	809192.8	831444.8	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf4	809240.3	831460.4	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf5	809287.8	831476.1	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf6	809335.8	831489.9	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf7	809383.8	831503.8	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf8	809431.9	831517.7	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf9	809479.9	831531.5	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf10	809527.4	831547.2	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf11	809574.9	831562.9	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf12	809622.3	831578.6	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf13	809669.8	831594.3	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf14	809717.6	831608.9	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf15	809765.5	831623.4	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf16	809813.3	831638	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf17	809861.1	831652.5	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf18	809908.9	831667.2	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf19	809956.7	831681.9	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf20	810004.5	831696.5	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf21	810052.3	831711.2	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf22	810100.1	831725.9	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf23	810149.9	831731.1	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf24	810199.6	831736.3	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf25	810249.3	831741.5	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf26	810299.1	831746.7	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf27	810348.8	831751.9	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf28	810398.5	831757	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf29	810448.3	831762.2	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf30	810498	831767.4	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf31	810548	831765.7	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf32	810597.9	831764.1	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf33	810647.9	831762.4	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf34	810697.9	831761.7	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf35	810747.9	831761	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf36	810797.9	831760.3	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf37	810847.9	831759.7	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf38	810897.7	831763.4	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf39	810947.6	831767.1	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf40	810997.5	831770.8	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
	-	MARf41	811047.3	831774.5	0	0.02143	12	873	8	0.27	0700 to 0800; 1900 to 2000
Marine Emission (Additional vessels for STF during maneuvering)	-	MARh1	809097.8	831413.5	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh2	809145.3	831429.1	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh3	809192.8	831444.8	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh4	809240.3	831460.4	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh5	809287.8	831476.1	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh6	809335.8	831489.9	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh7	809383.8	831503.8	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh8	809431.9	831517.7	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh9	809479.9	831531.5	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh10	809527.4	831547.2	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh11	809574.9	831562.9	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh12	809622.3	831578.6	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh13	809669.8	831594.3	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh14	809717.6	831608.9	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh15	809765.5	831623.4	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh16	809813.3	831638	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh17	809861.1	831652.5	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh18	809908.9	831667.2	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh19	809956.7	831681.9	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh20	810004.5	831696.5	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh21	810052.3	831711.2	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh22	810100.1	831725.9	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh23	810149.9	831731.1	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh24	810199.6	831736.3	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh25	810249.3	831741.5	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh26	810299.1	831746.7	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh27	810348.8	831751.9	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh28	810398.5	831757	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh29	810448.3	831762.2	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh30	810498	831767.4	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh31	810548	831765.7	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh32	810597.9	831764.1	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh33	810647.9	831762.4	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh34	810697.9	831761.7	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh35	810747.9	831761	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh36	810797.9	831760.3	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh37	810847.9	831759.7	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh38	810897.7	831763.4	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh39	810947.6	831767.1	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh40	810997.5	831770.8	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
	-	MARh41	811047.3	831774.5	0	0.02143	12	873	8	0.27	0500 to 0600; 2000 to 2100
Marine Emission	-	IETS	810986	831745.8	0	0.275	8	531	8	0.3	0000 to 1700; 2100 to 2400

Annex 4B - Emission Inventory of Existing and Planned Emission Sources in the Vicinity of the New GRS at BPPS and LPS

Sources	Emission Point ID (SP Licence)	Model Input ID	X	Y	Ground Level	NOx Emission	Stack height	Temp	Exit Velocity	Diameter	Operation Hour
					mPD	g/s	m	K	m/s	m	
(during idling)	-	IWTS	811080	831779.6	0	0.275	8	493	8	0.3	0000 to 1800; 2100 to 2400
	-	OITF	811174.4	831812.6	0	0.2552	3.5	425	8	0.1	1100 to 1500
	-	NLTS	811362.1	831881.8	0	1.254	11	588	8	0.2	0800 to 1000

Notes:

(a) Emissions from CPA and CPB are referenced from the SP licence for Castle Peak Power Station

(b) Emissions for STF, Green Island Cement, PAFF and EcoPark are referenced from the approved EIA Report for the Additional Gas-fired Generation Units Project (AEIAR-197/2016)

(c) There are 3 operational modes for STF operation. Based on sensitivity test, Mode 3 is predicted to cause the highest hourly and annual NOx impact on ASR 2. NOx impact on ASR 1 and ASR 2 is slightly higher in Mode 3 than in Mode 1, by less than 0.1 ug/m3 for annual impact and a maximum of 1.4ug/m3 for hourly impact. NOx impact on ASR 3 and ASR 4 is higher in Mode 1 than in Mode 3, by a maximum of 0.24ug/m3 for annual impact and 8.7ug/m3 for hourly impact. Therefore, STF emission parameters under Mode 1 were selected for assessment as a conservative approach.

(d) Emissions from Shiu Wing Steel Mill are obtained from the SP Licence Register

(e) WENT landfill (existing and extension) and marine emissions are referenced from the approved EIA Report for West New Territories (WENT) Landfill Extensions (AEIAR-147/2009)

(f) Emissions from IWMF are referenced from the approved EIA Report for Development of the Integrated Waste Management Facilities Phase 1 (AEIAR-163/2012)

(g) Emissions from the asphalt plants are obtained from the SP Licence Register

(h) GT1, 2, 3, 4 and 6 only operate during peak loading and emergency only. In this assessment, it is assumed to be operating continuously as a conservative approach. According to Clause A.2.1 of the LPS SP licence, the total NOx emissions from GT2 to GT7 are limited to 1,320 kg/hour. Emissions from the two emission points GT1a and GT1b serving GT1 were assumed to be partitioned equally. 36a&b, 37a&b and 38a&b are fugitive dust emission sources from ash handling and disposal plant.

(i) The base elevation of the asphalt plants was estimated based on Google Earth data.

(j) Emissions from LFGPGUs were referenced from the Project Profile for the Landfill Gas Power Generation Project at the West New Territories (WENT) Landfill (DIR-251/2017) and latest information provided by CLP.