

Annex 3A-3 Calculation of Odour Emission Rate in STKSTW

Facilities	NO.	Surface Area (1)	Total Surface Area	Emission Rate ⁽²⁾	Emission Rates	Emission Location	Total Odour Emission in each location (H ₂ S at inlet)	Emission Rate after 99.5% removal efficiency
							(ou/s)	(ou/s)
preliminary treatment area	1	406.00	406.00	8.79	3,568.74	STKSTW No.1	17,558.61	87.79
membrane maintenance room	1	347.00	347.00	8.79	3,050.13	STKSTW No.1		
EQ. tank 1	1	185.27	185.30	8.79	1,628.79	STKSTW No.1		
EQ. tank 2	1	255.08	255.10	8.79	2,242.33	STKSTW No.1		
Post anoxic tanks	5	41.02	205.10	8.79	1,802.83	STKSTW No.1		
Pre anoxic tanks	5	17.75	88.75	8.79	780.11	STKSTW No.1		
MBR tanks	5	34.35	171.80	0.11	18.90	STKSTW No.1		
RAS tank	1	41.86	41.90	8.79	368.30	STKSTW No.1		
scum tank	1	19.60	19.60	26.40	517.44	STKSTW No.1		
aerobic tank	5	74.37	371.90	8.79	3,269.00	STKSTW No.1		
inlet channel	1	14.82	14.80	8.79	130.09	STKSTW No.1		
common channel	1	20.68	20.70	8.79	181.95	STKSTW No.1		
Filter Presses in sludge dewatering & thickening room	1	529.00	529.00	26.40	13,965.60	STKSTW No.2	16,270.32	81.35
Sludge skips in sludge transfer area	1	46.00	46.00	26.40	1,214.40	STKSTW No.2		
sludge holding tank	2	20.64	41.30	26.40	1,090.32	STKSTW No.2		

Note:

(1) Please refer to the General Layout Plan of Sha Tau Kok STW Figure 2.5-2.10

(2) The emission calculation for the odour source was in accordance with the odour assessment presented in Approved Environmental Impact Assessment of the Upgrading of Cheung Chau Sewage Collection, Treatment and Disposal Facilities and Harbour Area Treatment.