

Outlying Islands Sewerage Stage 2
 Upgrading of Tai O Sewage Collection Treatment
 and Disposal Facilities

Detailed Calculation of Operation Noise Levels

Unmitigated Scenario

Noise Criterion (dB(A))

50 07:00-23:00
 45 23:00-07:00

SST - Christian Zheng Sheng Association Ltd

Project Specific PME Item	SWL dB(A)	No. of Items	Total SWL, dB(A)	Dist. From NSR, m	Dist. Corr., dB(A)	Screening Corr., dB(A)	Façade Corr., dB(A)	Corrected Noise Levels, dB(A)
Operation Noise of Tai O STW								
Submersible pump (ref 1)	85	16	97	211	-54.5	0	3	45.5
Mechanically raked fine screen (ref 3)	92	2	95	211	-54.5	0	3	43.5
Deodourization fans (ref 4)	85	14	96	211	-54.5	0	3	44.5
Exhaust Fan (ref 2)	79	45	96	211	-54.5	0	3	44.5
Mechanical Pump (ref 5)	92	25	106	211	-54.5	0	3	54.5
Blower (ref 6)	85	6	93	211	-54.5	0	3	41.5
Total								56.1

SST - Christian Zheng Sheng Association Ltd

Max.

Comply with Noise Criterion

Daytime

56

No

Night-time

56

No

Remarks:

(ref 1) SWL of plant refer to CNP283

(ref 2) SWL of plant refers to approved EIA of Harbour Area Treatment Scheme (HATS) Stage 2A (EIA-148/2008) and Good Practices on Ventilation System Noise Control based on the flow rate of 1,300 m³/h

(ref 3) SWL of plant refer to the approved EIA Report on Tai Po Sewage Treatment Works Stage V (EIA-097/2004)

(ref 4) SWL of plant refer to Good Practices on Ventilation System Noise Control based on the flow rate of 17,000 m³/hr and 125 Pa.

(ref 5) SWL of plant refer to Good Practices on Pumping System Noise Control based on the horsepower of pumpset 20 hp at 1800 rpm.

(ref 6) SWL of plant refer to the tender specification for Shatin STW Stage 3 Upgrading and approved EIA of Harbour Area Treatment Scheme (HATS) Stage 2A (EIA-148/2008)

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 45 07:00-23:00
 42 23:00-07:00

NCT6 - No. 10 Nam Chung Tsuen

Project Specific PME Item	SWL dB(A)	No. of Items	Total SWL, dB(A)	Dist. From NSR, m	Dist. Corr., dB(A)	Screening Corr., dB(A)	Façade Corr., dB(A)	Corrected Noise Levels, dB(A)
Operation Noise of Fan Kwai Tong SPS								
Submersible pump (ref 1)	85	1	85	16	-32.1	0	3	55.9
Deodourization fans (ref 4)	85	1	85	16	-32.1	0	3	55.9
Exhaust Fan (ref 2)	79	1	79	21	-34.3	0	3	47.7
							Total	59.2

NCT6 - No. 10 Nam Chung Tsuen	Max.	Comply with Noise Criterion
Daytime	59	No
Night-time	59	No

Remarks:

(ref 1) SWL of plant refer to CNP283

(ref 2) SWL of plant refers to approved EIA of Harbour Area Treatment Scheme (HATS) Stage 2A (EIA-148/2008) and Good Practices on Ventilation System Noise Control based on the flow rate of 1,300 m³/h

(ref 4) SWL of plant refer to Good Practices on Ventilation System Noise Control based on the flow rate of 17,000 m³/hr and 125 Pa.

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PT2 - Planned GIC Site at Fan Kwai Tong

Project Specific PME Item	SWL dB(A)	No. of Items	Total SWL, dB(A)	Dist. From NSR, m	Dist. Corr., dB(A)	Screening Corr., dB(A)	Façade Corr., dB(A)	Corrected Noise Levels, dB(A)
Operation Noise of Fan Kwai Tong SPS								
Submersible pump (ref 1)	85	1	85	19	-33.6	0	3	54.4
Deodourization fans (ref 4)	85	1	85	19	-33.6	0	3	54.4
Exhaust Fan (ref 2)	79	1	79	20	-33.9	0	3	48.1
Total								57.9

PT2 - Planned GIC Site at Fan Kwai Tong	Max.	Comply with Noise Criterion
Daytime	58	No
Night-time	58	No

Remarks:

(ref 1) SWL of plant refer to CNP283

(ref 2) SWL of plant refers to approved EIA of Harbour Area Treatment Scheme (HATS) Stage 2A (EIA-148/2008) and Good Practices on Ventilation System Noise Control based on the flow rate of 1,300 m³/h

(ref 4) SWL of plant refer to Good Practices on Ventilation System Noise Control based on the flow rate of 17,000 m³/hr and 125 Pa.

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Noise Criterion (dB(A))

45 07:00-23:00
 39 23:00-07:00

WHV4 - No. 21 Wang Hang Village

Project Specific PME Item	SWL dB(A)	No. of Items	Total SWL, dB(A)	Dist. From NSR, m	Dist. Corr., dB(A)	Screening Corr., dB(A)	Façade Corr., dB(A)	Corrected Noise Levels, dB(A)
Operation Noise of Hang Mei SPS								
Submersible pump (ref 1)	85	1	85	48	-41.6	0	3	46.4
Deodourization fans (ref 4)	85	1	85	48	-41.6	0	3	46.4
Exhaust Fan (ref 2)	79	1	79	46	-41.3	0	3	40.7
							Total	50.0

WHV4 - No. 21 Wang Hang Village	Max.	Comply with Noise Criterion
Daytime	50	No
Night-time	50	No

Remarks:

(ref 1) SWL of plant refer to CNP283

(ref 2) SWL of plant refers to approved EIA of Harbour Area Treatment Scheme (HATS) Stage 2A (EIA-148/2008) and Good Practices on Ventilation System Noise Control based on the flow rate of 1,300 m³/h

(ref 4) SWL of plant refer to Good Practices on Ventilation System Noise Control based on the flow rate of 17,000 m³/hr and 125 Pa.

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WHV6 - No. 18 Wang Hang Village

Project Specific PME Item	SWL dB(A)	No. of Items	Total SWL, dB(A)	Dist. From NSR, m	Dist. Corr., dB(A)	Screening Corr., dB(A)	Façade Corr., dB(A)	Corrected Noise Levels, dB(A)
Operation Noise of Hang Mei SPS								
Submersible pump (ref 1)	85	1	85	34	-38.6	0	3	49.4
Deodourization fans (ref 4)	85	1	85	34	-38.6	0	3	49.4
Exhaust Fan (ref 2)	79	1	79	33	-38.4	0	3	43.6
							Total	52.9

WHV6 - No. 18 Wang Hang Village	Max.	Comply with Noise Criterion
Daytime	53	No
Night-time	53	No

Remarks:

(ref 1) SWL of plant refer to CNP283

(ref 2) SWL of plant refers to approved EIA of Harbour Area Treatment Scheme (HATS) Stage 2A (EIA-148/2008) and Good Practices on Ventilation System Noise Control based on the flow rate of 1,300 m³/h

(ref 4) SWL of plant refer to Good Practices on Ventilation System Noise Control based on the flow rate of 17,000 m³/hr and 125 Pa.

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WHV7 - No. 25 Wang Hang Village

Project Specific PME Item	SWL dB(A)	No. of Items	Total SWL, dB(A)	Dist. From NSR, m	Dist. Corr., dB(A)	Screening Corr., dB(A)	Façade Corr., dB(A)	Corrected Noise Levels, dB(A)
Operation Noise of Hang Mei SPS								
Submersible pump (ref 1)	85	1	85	41	-40.3	0	3	47.7
Deodourization fans (ref 4)	85	1	85	41	-40.3	0	3	47.7
Exhaust Fan (ref 2)	79	1	79	41	-40.3	0	3	41.7
Total								51.3

WHV7 - No. 25 Wang Hang Village	Max.	Comply with Noise Criterion
Daytime	51	No
Night-time	51	No

Remarks:

(ref 1) SWL of plant refer to CNP283

(ref 2) SWL of plant refers to approved EIA of Harbour Area Treatment Scheme (HATS) Stage 2A (EIA-148/2008) and Good Practices on Ventilation System Noise Control based on the flow rate of 1,300 m³/h

(ref 4) SWL of plant refer to Good Practices on Ventilation System Noise Control based on the flow rate of 17,000 m³/hr and 125 Pa.