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**APPENDIX 4.7**

**Calculation of Total Maximum Allowable Sound Power Level  
of the Fixed Plants**

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**Appendix 4.7 Calculation of Total Maximum Allowable Sound Power Level of the Fixed Plants**

NSR ID	Description	Distance, m	Noise Criteria (daytime), dB(A) <sup>[1]</sup>	Corrections, dB(A)			Maximum Allowable SWL for the NSR, dB(A)	Overall Maximum Allowable SWL, dB(A)
				Distance <sup>[2]</sup>	Façade <sup>[3]</sup>	Line of Sight <sup>[4]</sup>		
N1	Scattered Village Houses	209	41	-54	3	-10	102	94
N2	Lai Chi Yuen Tsuen	274	44	-57	3	-10	108	
N3	Scattered Village Houses	82	41 <sup>[5]</sup>	-46	3	-10	94	

Notes:

- [1] As the fixed plants would only operate from 8:30am to 5:30pm, only the daytime noise criteria are considered in this assessment. The measured prevailing daytime noise levels are lower than ANL-5 (i.e. 55 dB(A) for ASR = A), thus are adopted as the noise criteria for the NSRs.
- [2] Distance attenuation in dB(A) =  $20 \log D + 8$ , where D is distance in metres.
- [3] A +3 dB(A) façade correction was added to the predicted noise level to account for the façade effect at the NSR.
- [4] Noise reduction due to screening effect of topographical features.
- [5] Considering that the environment of N3 is similar to N1, the measured prevailing daytime noise level, thus noise criterion, of N1 is adopted for N3.