

Appendix 4.14 Fixed Plant Noise Calculation (TMS Station)

NAP	Plant item	Direction Facing	Distance , m ⁽¹⁾	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Day / Evening Period (0700-2300)			Night-time Period (2300-0700)		
							Max. allowable SWL, dB(A)	Predicted SPL, dB(A)	Criterion, dB(A)	Max. allowable SWL, dB(A)	Total SPL, dB(A)	Criterion, dB(A)
WF1	East Façade of TMS Station	East	96	-10	-48	3	79	24	52	76	21	49
	West Façade of TMS Station	West	91	0	-47	3	85	41		82	38	
							Total SPL:	41		Total SPL:	38	

NAP	Plant item	Direction Facing	Distance , m ⁽¹⁾	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Day / Evening Period (0700-2300)			Night-time Period (2300-0700)		
							Max. allowable SWL, dB(A)	Predicted SPL, dB(A)	Criterion, dB(A)	Max. allowable SWL, dB(A)	Total SPL, dB(A)	Criterion, dB(A)
WF2	East Façade of TMS Station	East	103	-10	-48	3	79	24	52	76	21	49
	West Façade of TMS Station	West	97	0	-48	3	85	40		82	37	
							Total SPL:	40		Total SPL:	37	

NAP	Plant item	Direction Facing	Distance , m ⁽¹⁾	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Day / Evening Period (0700-2300)			Night-time Period (2300-0700)		
							Max. allowable SWL, dB(A)	Predicted SPL, dB(A)	Criterion, dB(A)	Max. allowable SWL, dB(A)	Total SPL, dB(A)	Criterion, dB(A)
WTOB	East Façade of TMS Station	East	40	-10	-40	3	79	32	52	-	-	-
	West Façade of TMS Station	West	28	0	-37	3	85	51		-	-	
							Total SPL:	51		Total SPL:	-	

Remark: No noise sensitive use is anticipated during night-time period.

NAP	Plant item	Direction Facing	Distance , m ⁽¹⁾	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Day / Evening Period (0700-2300)			Night-time Period (2300-0700)		
							Max. allowable SWL, dB(A)	Predicted SPL, dB(A)	Criterion, dB(A)	Max. allowable SWL, dB(A)	Total SPL, dB(A)	Criterion, dB(A)
WT1	East Façade of TMS Station	East	57	-10	-43	3	79	29	52	76	26	49
	West Façade of TMS Station	West	47	0	-41	3	85	47		82	44	
							Total SPL:	47		Total SPL:	44	

NAP	Plant item	Direction Facing	Distance , m ⁽¹⁾	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Day / Evening Period (0700-2300)			Night-time Period (2300-0700)		
							Max. allowable SWL, dB(A)	Predicted SPL, dB(A)	Criterion, dB(A)	Max. allowable SWL, dB(A)	Total SPL, dB(A)	Criterion, dB(A)
WT2	East Façade of TMS Station	East	40	-10	-40	3	79	32	52	76	29	49
	West Façade of TMS Station	West	28	0	-37	3	85	51		82	48	
							Total SPL:	51		Total SPL:	48	

NAP	Plant item	Direction Facing	Distance , m ⁽¹⁾	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Day / Evening Period (0700-2300)			Night-time Period (2300-0700)		
							Max. allowable SWL, dB(A)	Predicted SPL, dB(A)	Criterion, dB(A)	Max. allowable SWL, dB(A)	Total SPL, dB(A)	Criterion, dB(A)
WHPQ1	East Façade of TMS Station	East	32	0	-38	3	79	44	52	76	41	49
	West Façade of TMS Station	West	44	-10	-41	3	85	37		82	34	
							Total SPL:	45		Total SPL:	42	

NAP	Plant item	Direction Facing	Distance , m ⁽¹⁾	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Day / Evening Period (0700-2300)			Night-time Period (2300-0700)		
							Max. allowable SWL, dB(A)	Predicted SPL, dB(A)	Criterion, dB(A)	Max. allowable SWL, dB(A)	Total SPL, dB(A)	Criterion, dB(A)
WHPQ2	East Façade of TMS Station	East	38	0	-40	3	79	42	52	76	39	49
	West Façade of TMS Station	West	46	-10	-41	3	85	37		82	34	
							Total SPL:	43		Total SPL:	40	

NAP	Plant item	Direction Facing	Distance , m ⁽¹⁾	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Day / Evening Period (0700-2300)			Night-time Period (2300-0700)		
							Max. allowable SWL, dB(A)	Predicted SPL, dB(A)	Criterion, dB(A)	Max. allowable SWL, dB(A)	Total SPL, dB(A)	Criterion, dB(A)
LCCS1	East Façade of TMS Station	East	31	0	-38	3	79	44	52	-	-	-
	West Façade of TMS Station	West	42	-10	-40	3	85	38		-	-	
							Total SPL:	45		Total SPL:	-	

Remark: No noise sensitive use is anticipated during night-time period.

NAP	Plant item	Direction Facing	Distance , m ⁽¹⁾	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Day / Evening Period (0700-2300)			Night-time Period (2300-0700)		
							Max. allowable SWL, dB(A)	Predicted SPL, dB(A)	Criterion, dB(A)	Max. allowable SWL, dB(A)	Total SPL, dB(A)	Criterion, dB(A)
LCCS2	East Façade of TMS Station	East	17	0	-33	3	79	49	52	-	-	-
	West Façade of TMS Station	West	29	-10	-37	3	85	41		-	-	
							Total SPL:	50		Total SPL:	-	

Remark: No noise sensitive use is anticipated during night-time period.

NAP	Plant item	Direction Facing	Distance , m ⁽¹⁾	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Day / Evening Period (0700-2300)			Night-time Period (2300-0700)		
							Max. allowable SWL, dB(A)	Predicted SPL, dB(A)	Criterion, dB(A)	Max. allowable SWL, dB(A)	Total SPL, dB(A)	Criterion, dB(A)
NH1	East Façade of TMS Station	East	58	0	-43	3	79	39	52	76	36	49
	West Façade of TMS Station	West	69	-10	-45	3	85	33		82	30	
							Total SPL:	40		Total SPL:	37	

NAP	Plant item	Direction Facing	Distance , m ⁽¹⁾	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Day / Evening Period (0700-2300)			Night-time Period (2300-0700)		
							Max. allowable SWL, dB(A)	Predicted SPL, dB(A)	Criterion, dB(A)	Max. allowable SWL, dB(A)	Total SPL, dB(A)	Criterion, dB(A)
SHDC1	East Façade of TMS Station	East	39	-10	-40	3	79	32	52	-	-	-
	West Façade of TMS Station	West	28	0	-37	3	85	51		-	-	
							Total SPL:	51		Total SPL:	-	

Remark: No noise sensitive use is anticipated during night-time period.

Appendix 4.14 Fixed Plant Noise Calculation (TMS Station)

NAP	Plant item	Direction Facing	Distance , m ⁽¹⁾	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Day / Evening Period (0700-2300)			Night-time Period (2300-0700)		
							Max. allowable SWL, dB(A)	Predicted SPL, dB(A)	Criterion, dB(A)	Max. allowable SWL, dB(A)	Total SPL, dB(A)	Criterion, dB(A)
TCC	East Façade of TMS Station	East	38	-10	-40	3	79	32	52	-	-	
	West Façade of TMS Station	West	26	0	-36	3	85	52		-	-	
Total SPL:							52	52		Total SPL:	-	-

Remark: No noise sensitive use is anticipated during night-time period.

NAP	Plant item	Direction Facing	Distance , m ⁽¹⁾	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Day / Evening Period (0700-2300)			Night-time Period (2300-0700)		
							Max. allowable SWL, dB(A)	Predicted SPL, dB(A)	Criterion, dB(A)	Max. allowable SWL, dB(A)	Total SPL, dB(A)	Criterion, dB(A)
WK1	East Façade of TMS Station	East	80	-10	-46	3	79	26	52	76	23	
	West Façade of TMS Station	West	68	0	-45	3	85	43		82	40	
Total SPL:							43	44		Total SPL:	40	49

NAP	Plant item	Direction Facing	Distance , m ⁽¹⁾	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Day / Evening Period (0700-2300)			Night-time Period (2300-0700)		
							Max. allowable SWL, dB(A)	Predicted SPL, dB(A)	Criterion, dB(A)	Max. allowable SWL, dB(A)	Total SPL, dB(A)	Criterion, dB(A)
WK2	East Façade of TMS Station	East	77	-10	-46	3	79	26	52	76	23	
	West Façade of TMS Station	West	66	0	-44	3	85	44		82	41	
Total SPL:							44	44		Total SPL:	41	49

NAP	Plant item	Direction Facing	Distance , m ⁽¹⁾	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Day / Evening Period (0700-2300)			Night-time Period (2300-0700)		
							Max. allowable SWL, dB(A)	Predicted SPL, dB(A)	Criterion, dB(A)	Max. allowable SWL, dB(A)	Total SPL, dB(A)	Criterion, dB(A)
WB0	East Façade of TMS Station	East	45	-10	-41	3	79	31	52	-	-	
	West Façade of TMS Station	West	30	0	-38	3	85	50		-	-	
Total SPL:							51	51		Total SPL:	-	-

Remark: No noise sensitive use is anticipated during night-time period.

NAP	Plant item	Direction Facing	Distance , m ⁽¹⁾	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Day / Evening Period (0700-2300)			Night-time Period (2300-0700)		
							Max. allowable SWL, dB(A)	Predicted SPL, dB(A)	Criterion, dB(A)	Max. allowable SWL, dB(A)	Total SPL, dB(A)	Criterion, dB(A)
WB1	East Façade of TMS Station	East	60	-10	-44	3	79	28	52	76	25	
	West Façade of TMS Station	West	49	0	-42	3	85	46		82	43	
Total SPL:							46	46		Total SPL:	43	49

NAP	Plant item	Direction Facing	Distance , m ⁽¹⁾	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Day / Evening Period (0700-2300)			Night-time Period (2300-0700)		
							Max. allowable SWL, dB(A)	Predicted SPL, dB(A)	Criterion, dB(A)	Max. allowable SWL, dB(A)	Total SPL, dB(A)	Criterion, dB(A)
WB2	East Façade of TMS Station	East	45	-10	-41	3	79	31	52	76	28	
	West Façade of TMS Station	West	30	0	-38	3	85	50		82	47	
Total SPL:							51	51		Total SPL:	48	49

NAP	Plant item	Direction Facing	Distance , m ⁽¹⁾	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Day / Evening Period (0700-2300)			Night-time Period (2300-0700)		
							Max. allowable SWL, dB(A)	Predicted SPL, dB(A)	Criterion, dB(A)	Max. allowable SWL, dB(A)	Total SPL, dB(A)	Criterion, dB(A)
RG1	East Façade of TMS Station	East	51	-10	-42	3	79	30	52	76	27	
	West Façade of TMS Station	West	31	0	-38	3	85	50		82	47	
Total SPL:							50	50		Total SPL:	47	49

NAP	Plant item	Direction Facing	Distance , m ⁽¹⁾	Correction for line of sight ⁽²⁾ , dB(A)	Distance Correction of Point Source, dB(A)	Façade Correction, dB(A)	Day / Evening Period (0700-2300)			Night-time Period (2300-0700)		
							Max. allowable SWL, dB(A)	Predicted SPL, dB(A)	Criterion, dB(A)	Max. allowable SWL, dB(A)	Total SPL, dB(A)	Criterion, dB(A)
PG1	East Façade of TMS Station	East	13	0	-30	3	79	52	52	76	49	
	West Façade of TMS Station	West	32	-10	-38	3	85	40		82	37	
Total SPL:							52	52		Total SPL:	49	49

Remarks:

[1] As a conservative approach, only horizontal distance has been considered in the calculation of distance correction.

[2] A negative correction of 10 dB(A) has been adopted to the direction facing of the lower totally screened by buildings and negative correction of 5 dB(A) for NSR do not have direct line of sight to the lower.