

TECHNICAL APPENDIX 13.7: CONSTRUCTION ACTIVITIES

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A.1 WORST CASE CONSTRUCTION ACTIVITIES AND ASSOCIATED NOISE LEVELS FOR SITE ESTABLISHMENT, HAUL ROADS

Activity	Plant Item	Quantity	Utilisation %	Sound Power, LW (dB(A))	Sound Power corrected for quantity and utilisation, LW (dB(A))	L _{Aeq} at 10 m (dB)
Site Establishment and Haul Roads	c6.26 articulated dump truck	6	90%	107	115	87
	C1.13 tracked excavator	2	90%	114	117	89
	c5.27 vibratory Roller	1	80%	95	94	66
	c5.28 vibratory Roller	1	80%	104	103	76
	c4.88 water pump (diesel)	2	70%	97	98	70
	C2.34 Lorry	5	30%	108	110	82
	c4.55 telescopic handler	3	40%	99	99	71
	C6.38 Tractor (towing water bowser)	1	80%	111	111	83
	C4.21 Large lorry concrete mixer	2	30%	105	103	75
	C5.14 Bulldozer	1	50%	113	110	82
	HIAB	2	15%	105	100	72
	Diesel Generator for tower lights	10	50%	75	82	54
	c4.79 diesel generator	2	30%	92	90	62
Total					121	93

A.2 WORST CASE CONSTRUCTION ACTIVITIES AND ASSOCIATED NOISE LEVELS FOR EARTHWORKS AC

Activity	Plant Item	Quantity	Utilisation %	Sound Power, LW (dB(A))	Sound Power corrected for quantity and utilisation, LW (dB(A))	L _{Aeq} at 10 m (dB)
Earthworks AC	c2.24 tracked excavator	1	90%	101	101	73
	c6.26 articulated dump truck	12	90%	107	118	90
	C1.13 tracked excavator	4	90%	114	120	92
	c5.27 vibratory Roller	1	70%	95	93	65
	c5.28 vibratory Roller	3	70%	104	108	80
	C2.34 Lorry	6	50%	108	113	85
	c4.55 telescopic handler	3	70%	99	102	74
	C6.38 Tractor (towing water bowser)	3	60%	111	114	86
	C5.15 Bulldozer	4	80%	111	116	88
	c4.86 diesel generator	4	70%	93	98	70
		16	30%	75	82	54
		C6.31 Grader	2	70%	75	76
	C9.15 Tracked semi-mobile crusher	2	80%	124	126	98
Total					128	100

A.3 WORST CASE CONSTRUCTION ACTIVITIES AND ASSOCIATED NOISE LEVELS FOR EARTHWORKS DC

Activity	Plant Item	Quantity	Utilisation %	Sound Power, LW (dB(A))	Sound Power corrected for quantity and utilisation, LW (dB(A))	L _{Aeq} at 10 m (dB)
Earthworks DC	c2.24 tracked excavator	1	90%	101	101	73
	c6.26 articulated dump truck	9	90%	107	116	88
	C1.13 tracked excavator	2	90%	114	117	89
	c5.27 vibratory Roller	1	60%	95	92	64
	c5.28 vibratory Roller	2	70%	104	106	78
	C2.34 Lorry	5	50%	108	112	84
	c4.55 telescopic handler	1	30%	99	93	65
	C6.38 Tractor (towing water bowser)	3	40%	111	112	84
	C5.15 Bulldozer	2	80%	111	113	85
	c4.86 diesel generator	4	50%	93	97	69
		16	30%	75	82	54
		C6.31 Grader	2	60%	75	76
	C9.15 Tracked semi-mobile crusher	2	60%	124	125	97
Total					127	99

A.4 WORST CASE CONSTRUCTION ACTIVITIES AND ASSOCIATED NOISE LEVELS FOR CIVILS PLATFORM WORKS

Activity	Plant Item	Quantity	Utilisation %	Sound Power, LW (dB(A))	Sound Power corrected for quantity and utilisation, LW (dB(A))	L _{Aeq} at 10 m (dB)
Civils Platform Works	c2.16 tracked excavator	2	70%	103	104	76
	c2.24 tracked excavator	8	70%	101	109	81
	c6.26 articulated dump truck	14	70%	107	117	89
	c5.27 vibratory Roller	3	40%	95	95	67
	c5.28 vibratory Roller	3	40%	104	105	77
	c4.88 water pump (diesel)	10	20%	97	100	72
	C2.34 Lorry	10	70%	108	117	89
	C8.20 Tipper lorry	1	60%	107	105	77
	c4.55 telescopic handler	8	70%	99	106	78
	c4.41 mobile telescopic crane	2	90%	99	102	74
	C6.38 Tractor (towing water bowser)	3	60%	111	114	86
	8	60%	105	112	84	
Total					127	99

A.5 WORST CASE CONSTRUCTION ACTIVITIES AND ASSOCIATED NOISE LEVELS FOR M&E INSTALLATION AND COMMISSIONING

Activity	Plant Item	Quantity	Utilisation %	Sound Power, LW (dB(A))	Sound Power corrected for quantity and utilisation, LW (dB(A))	L _{Aeq} at 10 m (dB)
M&E Installation and Commissioning	c4.86 diesel generator	4	50%	93	97	69
	c4.55 telescopic handler	4	70%	99	103	75
	C4.59 Diesel scissor lift	4	70%	106	111	83
	c4.41 mobile telescopic crane	1	10%	99	89	61
Total					111	83

A.6 WORST CASE CONSTRUCTION ACTIVITIES AND ASSOCIATED NOISE LEVELS FOR BUNDING, LANDSCAPING AND REMOVAL OF TEMPORARY LAYDOWN AND WELFARE

Activity	Plant Item	Quantity	Utilisation %	Sound Power, LW (dB(A))	Sound Power corrected for quantity and utilisation, LW (dB(A))	L _{Aeq} at 10 m (dB)
Bunding, Landscaping and Removal of Temporary Laydown and Welfare	c2.16 tracked excavator	2	30%	103	100	73
	c2.24 tracked excavator	3	20%	101	99	71
	c6.26 articulated dump truck	9	10%	107	107	79
	c5.27 vibratory Roller	1	10%	95	85	57
	c4.88 water pump (diesel)	2	20%	97	93	65
	C2.34 Lorry	4	25%	108	108	80
	c4.55 telescopic handler	2	50%	99	99	71
	C6.38 Tractor (towing water bowser)	2	10%	111	104	77
	C5.15 Bulldozer	2	10%	111	104	76
	c4.86 diesel generator	1	10%	93	83	56
Total					113	85