

TECHNICAL APPENDIX 14.7: CONSTRUCTION ACTIVITIES

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1. WORST CASE CONSTRUCTION ACTIVITIES AND ASSOCIATED NOISE LEVELS FOR SITE ESTABLISHMENT

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	C6.26 Articulated Dump Truck	4	90%	107	113	85
	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	4	30%	108	109	81
	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 (Tower Lights)	10	50%	75	82	54
	C4.79 Diesel Generator	2	30%	92	90	62
Total					120	92

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

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	C2.24 Tracked Excavator	2	90%	101	104	76
	C6.26 Articulated Dump Truck	9	90%	107	116	88
	C1.13 Tracked Excavator	1	90%	114	114	86
	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	2	80%	111	113	85
	C4.86 Diesel Generator	4	70%	93	98	70
	C4.79 Diesel Generator (Tower Lights)	16	30%	75	82	54
	C6.31 Grader	2	70%	75	76	48
	C9.15 Tracked Semi-Mobile Crusher	2	80%	124	126	98
Total					128	100

3. 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	60%	103	103	76
	C2.24 Tracked Excavator	6	70%	101	107	79
	C6.26 Articulated Dump Truck	8	70%	107	115	87
	C5.27 Vibratory Roller	3	40%	95	95	67
	C5.28 Vibratory Roller	3	40%	104	105	77
	C4.88 Water Pump (Diesel)	8	20%	97	99	71
	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
	C4.21 Large Lorry Concrete Mixer	8	60%	105	112	84
	C3.25 Concrete Pump	2	10%	106	99	71
	C5.15 Bulldozer	1	80%	111	110	82
	C4.50 Tracked Mobile Crane	1	90%	99	98	70
	C5.32 Asphalt Paver (+ Tipper Lorry)	1	90%	112	111	83
C4.86 Diesel Generator	16	40%	93	102	74	
C4.79 Diesel Generator (Tower Lights)	40	30%	75	125	97	
Total					127	99

4. WORST CASE CONSTRUCTION ACTIVITIES AND ASSOCIATED NOISE LEVELS FOR BAM BUILDING 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)
Bam Building Works	C4.88 Water Pump (Diesel)	2	10%	97	90	62
	C2.34 Lorry	6	30%	108	111	83
	C4.86 Diesel Generator	4	70%	93	98	70
	C4.55 Telescopic Handler	3	50%	99	100	72
	C4.59 Diesel Scissor Lift	8	50%	106	112	84
	C4.41 Mobile Telescopic Crane	1	20%	99	92	64
	C4.21 Large Lorry Concrete Mixer	2	30%	105	103	75
Total					115	87

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

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	6	10%	107	105	77
	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	5%	99	89	61
	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					112	84