

Appendix 4.5 Mitigated Construction Plant Inventory

PME	TM or other reference	SWL, dB(A)	No. of PME	% on time	Screening Effect, dB(A)	Noise Mitigation Measures	Total SWL, dB(A)
Kennedy Town CDA Decontamination Works							
Activity 1 - Preliminaries							
Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	1	50%	-10	Movable Barrier	89
Breaker, mini-robot mounted	[1]	115	1	50%	-10	Movable Barrier	102
Dump truck (50 t)	BS 5228 D.9/39	103	1	30%			98
Welding plant	[2]	78	1	50%	-10	Movable Barrier	65
Cutter, circular, steel (electric)	[1]	112	2	70%	-10	Movable Barrier	103
Saw, circular, wood	CNP 201	108	1	50%	-10	Movable Barrier	95
Crane, mobile (QPME)	EPD- 01516	101	1	50%	-5	Movable Barrier	93
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	-10	Movable Barrier	85
Total SWL, dB (A)							107
Activity 2 - Excavation & Cement Solidification							
Group 1							
Piling, vibrating hammer	[1]	115	1	50%	-10	Noise Insulating Fabric	102
Dump truck (50 t)	BS 5228 D.9/39	103	2	30%			101
Excavator, wheeled/tracked (QPME)	EPD- 01230	99	6	50%	-5	Movable Barrier	99
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	-10	Movable Barrier	85
Water pump (electric)	CNP 281	88	6	100%	-10	Movable Barrier	86
Saw, circular, wood	CNP 201	108	4	50%	-10	Movable Barrier	101
Welding plant	[2]	78	4	50%	-10	Movable Barrier	71
Total SWL, dB (A)							107
Group 2							
Piling, large diameter bored, grab and chisel	CNP 164	115	1	40%	-10	Noise Insulating Fabric	101
Piling, large diameter bored, oscillator	CNP 165	115	1	40%	-10	Noise Insulating Fabric	101
Piling, large diameter bored, reverse circulation drill	CNP 166	100	1	40%	-10	Noise Insulating Fabric	86
Piling, earth auger, auger	CNP 167	114	1	40%	-10	Noise Insulating Fabric	100
Dump truck (50 t)	BS 5228 D.9/39	103	1	30%			98
Excavator, wheeled/tracked (QPME)	EPD- 01230	99	5	50%	-5	Movable Barrier	98
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	-10	Movable Barrier	85
Water pump (electric)	CNP 281	88	6	100%	-10	Movable Barrier	86
Saw, circular, wood	CNP 201	108	2	50%	-10	Movable Barrier	98
Welding plant	[2]	78	4	50%	-10	Movable Barrier	71
Total SWL, dB (A)							107
Maximum SWL, dB (A)							107
Activity 3 - Foundation							
Dump truck (50 t)	BS 5228 D.9/39	103	4	30%			104
Excavator, wheeled/tracked (QPME)	EPD- 01230	99	8	50%	-5	Movable Barrier	100
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	-10	Movable Barrier	85
Water pump (electric)	CNP 281	88	6	100%	-10	Movable Barrier	86
Saw, circular, wood	CNP 201	108	4	50%	-10	Movable Barrier	101
Welding plant	[2]	78	4	50%	-10	Movable Barrier	71
Total SWL, dB (A)							107
Activity 4 - Form Biopile							
Dump truck (50 t)	BS 5228 D.9/39	103	2	30%			101
Excavator, wheeled/tracked (QPME)	EPD- 01230	99	6	50%	-5	Movable Barrier	99
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	-10	Movable Barrier	85
Water pump (electric)	CNP 281	88	6	100%	-10	Movable Barrier	86
Saw, circular, wood	CNP 201	108	4	50%	-10	Movable Barrier	101
Welding plant	[2]	78	4	50%	-10	Movable Barrier	71
Total SWL, dB (A)							105
Activity 5 - Operate Biopile							
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	2	100%	-10	Movable Barrier	88
Ventilation fan	CNP 241	108	2	100%	-10	Movable Barrier	101
Total SWL, dB (A)							101
Activity 6 - Decommission Biopile							
Dump truck (50 t)	BS 5228 D.9/39	103	2	30%			101
Excavator, wheeled/tracked (QPME)	EPD- 01230	99	6	50%	-5	Movable Barrier	99
Total SWL, dB (A)							103
Activity 7 - Reinstate							
Dump truck (50 t)	BS 5228 D.9/39	103	4	30%			104
Excavator, wheeled/tracked (QPME)	EPD- 01230	99	8	50%	-5	Movable Barrier	100
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	-10	Movable Barrier	85
Water pump (electric)	CNP 281	88	6	100%	-10	Movable Barrier	86
Saw, circular, wood	CNP 201	108	4	50%	-10	Movable Barrier	101
Welding plant	[2]	78	4	50%	-10	Movable Barrier	71
Total SWL, dB (A)							107

PME	TM or other reference	SWL, dB(A)	No. of PME	% on time	Screening Effect, dB(A)	Noise Mitigation Measures	Total SWL, dB(A)
Kennedy Town CDA Decontamination Works							
Activity 8 - Reprovision of RCP							
Excavator, wheeled/tracked (QPME)	EPD- 01230	99	4	50%	-5	Movable Barrier	97
Roller, vibratory (QPME)	EPD- 00591	105	2	50%	-5	Movable Barrier	100
Poker, vibratory, hand-held (electric)	[1]	102	2	50%	-5	Movable Barrier	97
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	-10	Movable Barrier	85
Bar bender and cutter (electric)	CNP 021	90	2	50%	-10	Movable Barrier	80
Saw, circular, wood	CNP 201	108	2	50%	-10	Movable Barrier	98
Total SWL, dB (A)							104
Activity 9 - Reprovision of Car Park							
Excavator, wheeled/tracked (QPME)	EPD- 01230	99	4	50%	-5	Movable Barrier	97
Roller, vibratory (QPME)	EPD- 00591	105	2	50%	-5	Movable Barrier	100
Poker, vibratory, hand-held (electric)	[1]	102	2	50%	-5	Movable Barrier	97
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	-10	Movable Barrier	85
Bar bender and cutter (electric)	CNP 021	90	2	50%	-10	Movable Barrier	80
Saw, circular, wood	CNP 201	108	2	50%	-10	Movable Barrier	98
Total SWL, dB (A)							104
Activity 10 - Reprovision of Temporary Garden							
Excavator, wheeled/tracked (QPME)	EPD- 01230	99	4	50%	-5	Movable Barrier	97
Roller, vibratory (QPME)	EPD- 00591	105	2	50%	-5	Movable Barrier	100
Poker, vibratory, hand-held (electric)	[1]	102	2	50%	-5	Movable Barrier	97
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	-10	Movable Barrier	85
Bar bender and cutter (electric)	CNP 021	90	2	50%	-10	Movable Barrier	80
Saw, circular, wood	CNP 201	108	2	50%	-10	Movable Barrier	98
Total SWL, dB (A)							104
Planned Residential Development / Planned Development							
Activity 1 - Demolition							
Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	1	50%	-10	Movable Barrier	89
Breaker, mini-robot mounted	[1]	115	1	50%	-10	Movable Barrier	102
Dump truck (50 t)	BS 5228 D.9/39	103	1	30%			98
Welding plant	[2]	78	1	50%	-10	Movable Barrier	65
Cutter, circular, steel (electric)	[1]	112	2	70%	-10	Movable Barrier	103
Saw, circular, wood	CNP 201	108	1	50%	-10	Movable Barrier	95
Crane, mobile (QPME)	EPD- 01516	101	1	50%	-5	Movable Barrier	93
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	-10	Movable Barrier	85
Total SWL, dB (A)							107
Activity 2 - Foundation							
Excavator, wheeled/tracked (QPME)	EPD- 01230	99	8	50%	-5	Movable Barrier	100
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	3	100%	-10	Movable Barrier	90
Breaker, mini-robot mounted	[1]	115	1	50%	-10	Movable Barrier	102
Dump truck (50 t)	BS 5228 D.9/39	103	4	30%			104
Water pump (electric)	CNP 281	88	4	100%	-10	Movable Barrier	84
Total SWL, dB (A)							107
Activity 3 - Sub-structure							
Generator, standard	CNP 101	108	2	100%	-10	Movable Barrier	101
Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	2	50%	-10	Movable Barrier	92
Piling, large diameter bored, reverse circulation drill	CNP 166	100	2	100%	-10	Noise Insulating Fabric	93
Excavator, wheeled/tracked (QPME)	EPD- 01230	99	2	50%	-5	Movable Barrier	94
Bar bender and cutter (electric)	CNP 021	90	2	50%	-10	Movable Barrier	80
Crane, mobile (QPME)	EPD- 01516	101	1	50%	-5	Movable Barrier	93
Lorry (20 t)	BS 5228 D.9/19	102	2	50%			102
Dump truck (50 t)	BS 5228 D.9/39	103	2	30%			101
Concrete lorry mixer	CNP 044	109	1	50%			106
Poker, vibratory, hand-held (electric)	[1]	102	4	50%	-5	Movable Barrier	100
Concrete pump, stationary/ lorry mounted	CNP 047	109	1	50%	-5	Movable Barrier	101
Water pump (electric)	CNP 281	88	2	100%	-10	Movable Barrier	81
Total SWL, dB (A)							110
Activity 4 - Superstructure							
Generator, standard	CNP 101	108	2	100%	-10	Movable Barrier	101
Piling, large diameter bored, reverse circulation drill	CNP 166	100	2	100%	-10	Noise Insulating Fabric	93
Crane, mobile (QPME)	EPD- 01516	101	1	50%	-5	Movable Barrier	93
Concrete lorry mixer	CNP 044	109	1	50%			106
Poker, vibratory, hand-held (electric)	[1]	102	4	50%	-5	Movable Barrier	100
Concrete pump, stationary/ lorry mounted	CNP 047	109	1	50%	-5	Movable Barrier	101
Total SWL, dB (A)							109

Note: [1] Extracted from EPD document namely, "Sound Power Levels of Other Commonly Used PME"

http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf

[2] SWL of Welding set is referred to the Appendix 5.1 of approved EIA Report of Hong Kong Section of Guangzhou - Shenzhen - Hong Kong Express Rail Link