

Appendix 5.4 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)
Construction of Organic Waste Treatment Facility							
Activity 1 - Demolition and Site Clearance							
Group 1							
Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	2	100%	-15	Noise Enclosure	90
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	-15	Noise Enclosure	80
Breaker, excavator mounted (hydraulic), 52kW	BS 5228 Table D.8/12	106	2	100%	-10	Movable Barrier	99
Total SWL, dB (A)							100
Group 2							
Excavator, wheeled/tracked	EPD-01230	99	2	100%	-5	Movable Barrier	97
Total SWL, dB (A)							97
Group 3							
Bulldozer	BS 5228 Table D.9/2	104	2	100%	-5	Movable Barrier	102
Lorry, with crane/grab, 5.5 tonne < gross vehicle weight <= 38 tonne	[1]	105	3	100%	-5	Movable Barrier	105
Dump truck (50t)	BS 5228 Table D.9/39	103	2	100%	0	-	106
Total SWL, dB (A)							109
Maximum SWL, dB (A)							109
Activity 2 - Construction Piling							
Group 1							
Piling, diaphragm wall, bentonite filtering plant	CNP 162	105	2	100%	-10	Noise Insulating Fabric	98
Piling, diaphragm wall, hydraulic extractor	CNP 163	90	2	100%	-10	Noise Insulating Fabric	83
Mobile crane (62kW)	BS 5228 Table D.7/114	101	2	100%	0	-	104
Concrete lorry mixer (6m3)	BS 5228 Table D.6/23	100	2	100%	0	-	103
Concrete pump (100kW)	BS 5228 Table D.6/36	106	2	100%	-10	Movable Barrier	99
Total SWL, dB (A)							108
Group 2							
Piling, large diameter bored, grab and chisel	CNP 164	115	2	100%	-10	Noise Insulating Fabric	108
Piling, large diameter bored, oscillator	CNP 165	115	2	100%	-10	Noise Insulating Fabric	108
Piling, large diameter bored, reverse circulation drill	CNP 166	100	2	100%	-10	Noise Insulating Fabric	93
Mobile crane (62kW)	BS 5228 Table D.7/114	101	2	100%	0	-	104
Concrete lorry mixer (6m3)	BS 5228 Table D.6/23	100	2	100%	0	-	103
Concrete pump (100kW)	BS 5228 Table D.6/36	106	2	100%	-10	Movable Barrier	99
Total SWL, dB (A)							113
Maximum SWL, dB (A)							113
Activity 3 - Site Formation							
Group 1							
Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	2	100%	-15	Noise Enclosure	90
Excavator, wheeled/tracked	EPD-01230	99	2	100%	-5	Movable Barrier	97
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	-15	Noise Enclosure	80
Lorry, with crane/grab, 5.5 tonne < gross vehicle weight <= 38 tonne	[1]	105	3	100%	-5	Movable Barrier	105
Total SWL, dB (A)							106
Group 2							
Excavator, wheeled/tracked	EPD-01230	99	2	100%	-5	Movable Barrier	97
Water pump, submersible (electric)	CNP 283	85	4	100%	0	-	91
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	-15	Noise Enclosure	80
Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	2	100%	-15	Noise Enclosure	90
Dump truck (50t)	BS 5228 Table D.9/39	103	2	100%	0	-	106
Total SWL, dB (A)							107
Group 3							
Concrete lorry mixer (6m3)	BS 5228 Table D.6/23	100	2	100%	0	-	103
Concrete pump (100kW)	BS 5228 Table D.6/36	106	2	100%	-10	Movable Barrier	99
Poker, vibratory, hand-held	BS 5228 Table D.6/40	98	2	100%	-5	Movable Barrier	96
Compactor, vibratory	EPD-00054	102	2	100%	-5	Movable Barrier	100
Roller, vibratory	EPD-00509	95	2	100%	0	-	98
Total SWL, dB (A)							107
Maximum SWL, dB (A)							107
Activity 4 - Buildings (Pre-treatment, Office, Wastewater Treatment, Composting)							
Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	2	100%	-15	Noise Enclosure	90
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	-15	Noise Enclosure	80
Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 025	111	2	100%	-10	Movable Barrier	104
Concrete lorry mixer (6m3)	BS 5228 Table D.6/23	100	2	100%	0	-	103
Concrete pump (100kW)	BS 5228 Table D.6/36	106	2	100%	-10	Movable Barrier	99
Mobile crane (62kW)	BS 5228 Table D.7/114	101	1	100%	0	-	101
Lorry, with crane/grab, 5.5 tonne < gross vehicle weight <= 38 tonne	[1]	105	3	100%	-5	Movable Barrier	105
Poker, vibratory, hand-held	BS 5228 Table D.6/40	98	2	100%	-5	Movable Barrier	96
Bar bender and cutter (electric)	CNP 021	90	4	100%	0	-	96
Drill/grinder, hand-held (electric)	CNP 065	98	4	100%	-5	Movable Barrier	99
Saw, circular, wood	CNP 201	108	1	100%	-10	Movable Barrier	98
Crane, tower (electric)	CNP 049	95	2	100%	0	-	98
Hoist, passenger/ material (electric)	CNP 122	95	2	100%	0	-	98
Air blower (electric)	[1]	95	4	100%	0	-	101
Total SWL, dB (A)							112

PME	TM or other reference	SWL, dB(A)	No. of PME	% on time	Screening Effect, dB(A)	Noise Mitigation Measures	Total SWL, dB(A)
Construction of Organic Waste Treatment Facility							
Activity 5 - Road Widening							
Group 1							
Excavator, wheeled/tracked	EPD-01230	99	2	100%	-5	Movable Barrier	97
Concrete lorry mixer (6m3)	BS 5228 Table D.6/23	100	2	100%	0	-	103
Concrete pump (100kW)	BS 5228 Table D.6/36	106	2	100%	-10	Movable Barrier	99
Poker, vibratory, hand-held	BS 5228 Table D.6/40	98	2	100%	-5	Movable Barrier	96
Dump truck (50t)	BS 5228 Table D.9/39	103	2	100%	0	-	106
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	-15	Noise Enclosure	80
Total SWL, dB (A)							109
Group 2							
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	-15	Noise Enclosure	80
Asphalt paver	BS 5228 Table D.8/24	101	2	100%	0	-	104
Roller, vibratory	EPD-00509	95	2	100%	0	-	98
Road roller	EPD-00223	99	2	100%	0	-	102
Total SWL, dB (A)							107
Maximum SWL, dB (A)							109
Activity 6 - Sewerage System Construction							
Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	2	100%	-15	Noise Enclosure	90
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	-15	Noise Enclosure	80
Breaker, hand-held, mass >= 20kg and <= 35kg	CNP 025	111	2	100%	-10	Movable Barrier	104
Mobile crane (62kW)	BS 5228 Table D.7/114	101	1	100%	0	-	101
Excavator, wheeled/tracked	EPD-01230	99	2	100%	-5	Movable Barrier	97
Lorry, with crane/grab, 5.5 tonne < gross vehicle weight <= 38 tonne	[1]	105	3	100%	-5	Movable Barrier	105
Concrete lorry mixer (6m3)	BS 5228 Table D.6/23	100	2	100%	-10	Movable Barrier	93
Concrete pump (100kW)	BS 5228 Table D.6/36	106	2	100%	-10	Movable Barrier	99
Poker, vibratory, hand-held	BS 5228 Table D.6/40	98	2	100%	-5	Movable Barrier	96
Bar bender and cutter (electric)	CNP 021	90	4	100%	0	-	96
Compactor, vibratory	EPD-00054	102	2	60%	-5	Movable Barrier	98
Total SWL, dB (A)							110
Activity 7 - Landscaping							
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	-15	Noise Enclosure	80
Excavator, wheeled/tracked	EPD-01230	99	2	100%	-5	Movable Barrier	97
Lorry, with crane/grab, 5.5 tonne < gross vehicle weight <= 38 tonne	[1]	105	3	100%	-5	Movable Barrier	105
Total SWL, dB (A)							106
Activity 8 - Process Plants and E&M Plants Installation							
Mobile crane (62kW)	BS 5228 Table D.7/114	101	1	100%	0	-	101
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	-15	Noise Enclosure	80
Lorry, with crane/grab, 5.5 tonne < gross vehicle weight <= 38 tonne	[1]	105	3	100%	-5	Movable Barrier	105
Drill/grinder, hand-held (electric)	CNP 065	98	2	100%	-5	Movable Barrier	96
Hoist, passenger/ material (electric)	CNP 122	95	2	100%	0	-	98
Total SWL, dB (A)							107
Activity 9 - Utilities Installation							
Mobile crane (62kW)	BS 5228 Table D.7/114	101	1	100%	0	-	101
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	-15	Noise Enclosure	80
Lorry, with crane/grab, 5.5 tonne < gross vehicle weight <= 38 tonne	[1]	105	3	100%	-5	Movable Barrier	105
Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	102	2	100%	-15	Noise Enclosure	90
Excavator, wheeled/tracked	EPD-01230	99	2	100%	-5	Movable Barrier	97
Breaker, hand-held, mass > 10kg and < 20kg	CNP 024	108	2	100%	-10	Movable Barrier	101
Hoist, passenger/ material (electric)	CNP 122	95	2	100%	0	-	98
Total SWL, dB (A)							108
Construction of Rising Main and Gas Pipeline							
Activity 1 - Rising Main Installation							
Mobile crane (62kW)	BS 5228 Table D.7/114	101	1	100%	0	-	101
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	-15	Noise Enclosure	80
Lorry, with crane/grab, 5.5 tonne < gross vehicle weight <= 38 tonne	[1]	105	1	100%	-5	Movable Barrier	100
Total SWL, dB (A)							104
Activity 2 - Gas Pipeline Installation							
Mobile crane (62kW)	BS 5228 Table D.7/114	101	1	100%	0	-	101
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	-15	Noise Enclosure	80
Lorry, with crane/grab, 5.5 tonne < gross vehicle weight <= 38 tonne	[1]	105	1	100%	-5	Movable Barrier	100
Total SWL, dB (A)							104
Activity 3 - Minor Modification of Access Road							
Group 1							
Excavator, wheeled/tracked	EPD-01230	99	1	100%	-5	Movable Barrier	94
Concrete lorry mixer (6m3)	BS 5228 Table D.6/23	100	1	100%	0	-	100
Concrete pump (100kW)	BS 5228 Table D.6/36	106	1	100%	-10	Movable Barrier	96
Poker, vibratory, hand-held	BS 5228 Table D.6/40	98	1	100%	-5	Movable Barrier	93
Dump truck (50t)	BS 5228 Table D.9/39	103	1	100%	0	-	103
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	-15	Noise Enclosure	80
Total SWL, dB (A)							106
Group 2							
Generator, super silenced, 70 dB(A) at 7 m	CNP 103	95	1	100%	-15	Noise Enclosure	80
Asphalt paver	BS 5228 Table D.8/24	101	1	100%	0	-	101
Roller, vibratory	EPD-00509	95	1	100%	0	-	95
Road roller	EPD-00223	99	1	100%	0	-	99
Total SWL, dB (A)							104
Maximum SWL, dB (A)							106

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