

APPENDIX 6E

**Sound Power Level of
Construction Plant
Inventory**

Project : 25308-50 Kong-Zuhai-Macao-Bridge Hong Kong Boundary Crossing Facilities - Investigation
 Title : SWLs of PME

PME	% Operation	Corr, dB(A)	Unmitigated SWLs					Quiet Plant				Mitigated Scenario					
			ID	Description	Power rating Size, weight	PME SWL, dB(A)	Unmitigated SWL, dB(A)	ID	Power rating Size, weight	PME SWL, dB(A)	Quiet Plant SWL, dB(A)	Enclosure, dB(A)	Barrier, dB(A)	Acoustic Mat, dB(A)	Total Reduction, dB(A)	Mitigated SWL, dB(A)	
Compressor	100	0	CNP003	Air compressor, air flow > 30m3/min	-	104	104	C7-44	above 34m3/m	103	103	-10				-10	93
Asphalt paver	50	-3	CNP004	Asphalt paver	-	109	106	C8-24	90kW, 13t	101	98					0	98
Bar bending machine	100	0	CNP021	Bar bender and cutter (electric)	-	90	90				90					0	90
Hand-held breaker	80	-1	CNP026	Breaker, hand-held, mass > 35kg	-	114	113				113			0		0	113
Breaker (Pneumatic)	80	-1	CNP027	Breaker, excavator mounted (pneumatic)	-	122	121				121			-5		-5	116
Hydraulic breaker	80	-1	CNP028	Breaker, excavator mounted (hydraulic)	-	122	121	C8-13	73kW, 200kg	110	109			0		0	109
Bulldozer	100	0	CNP030	Bulldozer	-	115	115				115					0	115
Mower	100	0	CNP030	Bulldozer	-	115	115				115					0	115
Concrete truck	100	0	CNP044	Concrete lorry mixer	-	109	109				109					-5	104
Concrete Mixer Truck	100	0	CNP044	Concrete lorry mixer	-	109	109				109					-5	104
Concrete pump	100	0	CNP047	Concrete pump, stationary / lorry mounted	-	109	109	C6-34	100kW	107	107					-5	102
Mobile crane	30	-5	CNP048	Crane, mobile / barge mounted (diesel)	-	112	107	C7-112	58kW, 34t	102	97					0	97
Track-mounted Crane	30	-5	CNP048	Crane, mobile / barge mounted (diesel)	-	112	107	C7-112	58kW, 34t	102	97					0	97
Crane	30	-5	CNP048	Crane, mobile / barge mounted (diesel)	-	112	107	C7-112	58kW, 34t	102	97					0	97
Compactor	100	0	CNP050	Compactor, vibratory	-	105	105				105					0	105
Derrick lighter	70	-2	CNP061	Derrick Barge	-	104	102				102					0	102
Crane Barge	70	-2	CNP061	Derrick Barge	-	104	102				102					0	102
Barge	70	-2	CNP061	Derrick Barge	-	104	102				102					0	102
Hopper Barge	70	-2	CNP061	Derrick Barge	-	104	102				102					0	102
Pelican Barge	70	-2	CNP061	Derrick Barge	-	104	102				102					0	102
SCP Barge	70	-2	CNP061	Derrick Barge	-	104	102				102					0	102
Grab dredger	100	0	CNP063	Dredger, grab	-	112	112				112					0	102
Truck	100	0	CNP067	Dump truck	-	117	117	C3-60	24t	104	112					0	112
Dump Truck	100	0	CNP067	Dump truck	-	117	117	C3-60	24t	104	104					0	104
Excavator	70	-2	CNP081	Excavator / loader, wheeled / tracked	-	112	110	C3-35	45kW	106	104					0	104
Loader	70	-2	CNP081	Excavator / loader, wheeled / tracked	-	112	110	C3-35	45kW	106	104					0	104
Backactor	70	-2	CNP081	Excavator / loader, wheeled / tracked	-	112	110	C3-35	45kW	106	104					0	104
Backhoe	70	-2	CNP081	Excavator / loader, wheeled / tracked	-	112	110	C3-35	45kW	106	104					0	104

PME	% Operation	Corr, dB(A)	Unmitigated SWLs					Quiet Plant				Mitigated Scenario					
			ID	Description	Power rating Size, wieght	PME SWL, dB(A)	Unmitigated SWL, dB(A)	ID	Power rating Size, wieght	PME SWL, dB(A)	Quiet Plant SWL, dB(A)	Enclosure, dB(A)	Barrier, dB(A)	Acoustic Mat, dB(A)	Total Reduction, dB(A)	Mitigated SWL, dB(A)	
Generator	100	0	CNP102	Generator, silenced, 75dB(A) at 7m	-	100	100				100	-10				-10	90
Motor Grader	100	0	CNP104	Grader	-	113	113				113					0	113
Lorry	70	-2	CNP141	Lorry	-	112	110	C9-19	20t	102	100					0	100
Piling, Large Diameter Bored, rcd	100	0	CNP166	Piling, large dia bored, RCD	-	100	100				100					0	100
Vibrator	100	0	CNP170	Poker, vibratory, hand held	-	113	113	C6-32	-	100	100					0	100
Vibratory Poker	100	0	CNP170	Poker, vibratory, hand held	-	113	113	C6-32	-	100	100					0	100
Roller	50	-3	CNP185	Road Roller	-	108	105	C8-30	51kW	101	98					0	98
Scraper	100	0	CNP204	Scraper	-	119	119				119					0	119
Tug boat	20	-7	CNP221	Tug boat	-	110	103				103					0	103
Winch	100	0	CNP261	Winch (pneumatic)	-	110	110				110					0	110
Water pump	100	0	CNP282	Water pump (petrol)	-	103	103				103					-10	93
Crawler Crane	100	0		Crawler crane	-	102	102	C7-112	58kW, 34t	102	102	-10				0	102
Deck Traveller	20	-7		Based on Agreement No. CE39/2001 Shenzhen Western Corridor - Investigation and Planning	-	114	107				107						107
Launching Girder	20	-7		Based on Agreement No. CE39/2001 Shenzhen Western Corridor - Investigation and Planning	-	114	107				107						107
Crane Truck	100	0	CNP144	Lorry, with crane/grab gross vehicle weight > 38 tonne	-	112	112				112						112
Hydraulic Vibratory Driver	100	0		Hydraulic 220 000 kg/pile, clay		94	94	C4-12			94						94
Horizontal Jack	100	0		0.48 dia Lorry mounted auger		112	112	C4-44			112						112