

Appendix 4D

PME Inventory for the Construction of the STW and Outfalls (Mitigated with Silencing Equipment)

Activities		Equipment Used	Number Used	On time	Reference	SWL (dB(A))	Subtotal SWL dB(A)
Extension of inlet pumping mains (X1 and X2)	Breaking Concrete Surface (X2)	<i>Breaker, excavator mounted (hydraulic) (Silence)</i>	1	100%	BS 5228(a)	110	110.6
		Air compressor, air flow > 10m ³ /min and <= 30m ³ /min	1	100%	CNP 002	102	
	Excavation (X2)	Excavator/loader, wheeled/tracked	1	100%	CNP 081	112	112.0
		Water pump, submersible (electric)	1	100%	CNP 283	85	
	Pipelaying (X2)	Compactor, vibratory	1	100%	CNP 050	105	105.0
Surfacing (X2)	Concrete mixer pump <i>Poker, vibratory, hand-held (Silence)</i>	1	100%	CNP 047	109	110.0	
		2	100%	BS 5228 (b)	100		
Mainlaying (X1)	Drill, percussive, hand-held (electric)	1	100%	CNP 064	103	103.0	

Note: * Concrete surface breaking, excavation, pipelaying and surfacing construction activities at X2 would be carried out in sequence.

The highest SWL of these four, **112.0dB(A)** is adopted for assessment.

BS 5228(a) refers to Table C-8, item 13

BS 5228(b) refers to Table C-6, item 32

Activities		Equipment Used	Number Used	On time	Reference	SWL (dB(A))	Subtotal SWL dB(A)
STW Construction (notional source at Y)	Site Formation, Earthworks, Boulder/Rock Breaking	Excavator/loader, wheeled/tracked	1	100%	CNP 081	112	120.2
		<i>Breaker, excavator mounted (hydraulic) (Silence)</i>	1	100%	BS 5228(a)	110	
		Bulldozer	1	100%	CNP 030	115	
		Generator, silenced, 75 dB(A) at 7 m	1	100%	CNP 102	100	
		Rock drill, hand-held (pneumatic)	1	100%	CNP 183	116	
		Air compressor, air flow > 10m ³ /min and <= 30m ³ /min	1	100%	CNP 002	102	
		Sheet Piling Plant	1	100%	BS 5228(1)	106	
	Mini-piling	Crane, mobile/barge mounted (diesel)	1	100%	CNP 048	112	115.3
		Generator, silenced, 75 dB(A) at 7 m	1	100%	CNP 102	100	
		Piling, large diameter bored, reverse circulation drill	1	100%	CNP 166	100	
		Welding Machine	1	100%	BS 5228 (2)	108	
		Water pump (petrol)	1	100%	CNP 282	103	
	Concreting/Roadwork	Concrete pump, stationary/lorry mounted	1	100%	CNP 047	109	117.7
		Crane, mobile/barge mounted (diesel)	1	100%	CNP 048	112	
		Concrete mixer pump	1	100%	CNP 047	109	
Generator, silenced, 75 dB(A) at 7 m		1	100%	CNP 102	100		
<i>Poker, vibratory, hand-held (Silence)</i>		2	100%	BS 5228 (b)	100		
Road roller		2	100%	CNP 185	108		
Grader	1	100%	CNP 104	113			

Note: BS 5228(1) refers to Table C4 Item No 13

BS 5228(2) refers to Table C7 Item No 60

Activities		Equipment Used	Number Used	On time	Reference	SWL (dB(A))	Subtotal SWL dB(A)
Modification and demolition of the existing facilities (Y)		Breaker, hand-held, mass <= 10kg	1	100%	CNP 023	108	117.3
		Rock drill, hand-held (pneumatic)	1	100%	CNP 183	116	
		<i>Breaker, hand-held, mass > 10kg and <20 kg</i>	1	100%	CNP 024	108	
		Air compressor, air flow > 10m ³ /min and <= 30m ³ /min	1	100%	CNP 002	102	

Activities		Equipment Used	Number Used	On time	Reference	SWL (dB(A))	Subtotal SWL dB(A)
Construction of new submarine outfall & emergency overflow (Z)		Derrick barge	1	100%	CNP 061	104	119.7
		Dredger, grab	1	100%	CNP 063	112	
		Bulldozer	1	100%	CNP 030	115	
		Generator, silenced, 75 dB(A) at 7 m	1	100%	CNP 102	100	
		Rock drill, hand-held (pneumatic)	1	100%	CNP 183	116	
		Air compressor, air flow > 10m ³ /min and <= 30m ³ /min	1	100%	CNP 002	102	