

Annex 16.4

Noise Model Source Data

(ERM)

Table D.1 Marine Construction Noise Sources

Description	Quantity	Lw, Octave band Centre Frequency, dB(A); Ref 20x 10 ⁻⁶ Pa										% on time	
		Lw 31	Lw 63	Lw 125	Lw 250	Lw 500	Lw 1k	Lw 2k	Lw 4k	Lw 8k	Lw Tot, dB(A)	Day	Night
Tubular steel Piling Rig (unmitigated)	2	88	107	113	121	127	130	130	123	109	134	85	85
Sheet Piling Rig (vibratory)	2	111	110	107	110	112	110	105	95	95	118	85	85
Rainbow dredge	2	111	105	103	103	102	103	95	91	91	114	85	85
Sheet Piling Rig (hyd)	2	108	115	116	112	111	106	102	93	93	121	25	25
Cutter Suction Dredge	1	46	69	88	92	100	99	97	92	81	104	100	100
Backhoe Dredge 100T	1	100	103	110	106	106	105	104	100	95	114	100	100
Bucket Ladder Dredge	1	110	109	113	111	104	105	103	99	90	118	100	100
Diesel driven water pump	2	62	80	87	96	97	99	98	90	80	104	100	100
Generator	2	62	80	87	96	97	99	98	90	80	104	100	100
Lighting Set	3	62	75	82	90	92	94	93	85	75	99	100	100
Compressor	2	60	78	85	92	94	95	92	88	77	100	100	100
Welder (piling)	2	25	50	74	78	84	89	84	80	71	92	100	100

Table D.2 Terrestrial Construction Noise Sources Team - MEP

Description	Quantity	Lw, Octave band Centre Frequency, dB(A); Ref 20x 10 ⁻⁶ Pa									% on time	
		Lw 31	Lw 63	Lw 125	Lw 250	Lw 500	Lw 1k	Lw 2k	Lw 4k	Lw 8k	Lw Tot, dB(A)	Daytime
Compressor	2	60	78	85	92	94	95	92	88	77	100	100
Large Dozer	2	78	89	101	108	107	107	106	102	92	114	75
Small/ Medium Dozer	1	--	62	79	92	101	104	103	95	89	108	100
Diesel driven water pump	2	62	80	87	96	97	99	98	90	80	104	100
Excavator	4	41	70	83	92	96	103	102	93	81	106	100
FEL	1	--	36	62	83	101	107	107	105	95	112	100
Generator	2	62	80	87	96	97	99	98	90	80	104	100
Grader	1	67	81	101	100	106	106	106	100	92	112	100
Lighting Set	3	62	75	82	90	92	94	93	85	75	99	100
Roller	3	66	79	86	92	95	98	96	92	85	102	100
Terex ADT	6	51	73	83	91	102	108	107	102	93	112	100
Water Cart	1	69	95	96	98	102	103	101	98	87	108	100
Welder	1	25	50	74	78	84	89	84	80	71	92	100

Table D.3 Operational Noise Sources - MEP

Description	Quantity	Lw, Octave band Centre Frequency, dB(A); Ref 20x 10 ⁻⁶ Pa										% on time	
		Lw 31	Lw 63	Lw 125	Lw 250	Lw 500	Lw 1k	Lw 2k	Lw 4k	Lw 8k	Lw Tot, dB(A)	Daytime	Night time
Heavy lift fork-truck (full power)	4	73	86	87	94	95	97	97	88	80	102	50	50
Ship at Berth	7	65	78	82	84	86	87	85	80	80	93	100	100
Ship berthing/leaving	2	75	88	92	94	96	97	95	90	90	103	70	70
Dockside crane	9	72	81	85	89	95	96	93	887	78	100	70	70
B1 Building source (external noise level)	16	65	78	82	84	86	87	85	80	80	93	100	100
Building N2 source (external noise level)	8	65	78	82	84	86	87	85	80	80	93	100	100
Building N3 source (external noise level)	8	65	78	82	84	86	87	85	80	80	93	100	100
Foundations Building source (external noise level)	10	65	78	82	84	86	87	85	80	80	93	100	100
F1 Bldg source (external noise level)	4	65	78	82	84	86	87	85	80	80	93	100	100
Towers Building source (external noise level)	8	65	78	82	84	86	87	85	80	80	93	100	100
Towers Building 2 source (external noise level)	8	65	78	82	84	86	87	85	80	80	93	100	100
Blades Building 1 source (external noise level)	10	65	78	82	84	86	87	85	80	80	93	100	100
Blades Building 2 source (external noise level)	10	65	78	82	84	86	87	85	80	80	93	100	100
SP1 Building source (external noise level)	4	65	78	82	84	86	87	85	80	80	93	100	100
SP2 Building source (external noise level)	4	65	78	82	84	86	87	85	80	80	93	100	100
SP3 Building source (external noise level)	4	65	78	82	84	86	87	85	80	80	93	100	100
SP4 Building source (external noise level)	4	65	78	82	84	86	87	85	80	80	93	100	100
SP5 Building source (external noise level)	4	65	78	82	84	86	87	85	80	80	93	100	100

Description	Quantity	Lw, Octave band Centre Frequency, dB(A); Ref 20x 10 ⁻⁶ Pa										% on time	
		Lw 31	Lw 63	Lw 125	Lw 250	Lw 500	Lw 1k	Lw 2k	Lw 4k	Lw 8k	Lw Tot, dB(A)	Daytime	Night time
SP6 Building source (external noise level)	4	65	78	82	84	86	87	85	80	80	93	100	100
SP7 Building source (external noise level)	4	65	78	82	84	86	87	85	80	80	93	100	100
Nacelle Bldg source (external noise level)	8	65	78	82	84	86	87	85	80	80	93	100	100

Table D.4 Operational (Moving) Noise Sources - MEP

Description	Lw, Octave band Centre Frequency, dB(A); Ref 20x 10 ⁻⁶ Pa									Flow			
	Lw 31	Lw 63	Lw 125	Lw 250	Lw 500	Lw 1k	Lw 2k	Lw 4k	Lw 8k	Lw Tot, dB(A)	Daytime	Night time	Average Speed km/h
Train arrival/ departure	104	109	109	115	110	112	113	110	104	120	2	2	25
SPMT	70	74	75	77	85	85	84	78	75	110	22	14	3
Heavy lift fork-truck (full power)	4	73	86	87	94	95	97	97	88	80	102		