

Installation of Submarine Gas Pipelines  
and Associated Facilities from  
To Kwa Wan to North Point for Former Kai Tak Airport Development  
Consultancy Services for Feasibility Study and Detailed Design  
Environmental Impact Assessment Report



## **Appendix I2**

### **Unmitigated Construction Noise Levels**

Unmitigated Plant Inventory (Marine Work)

Appendix I2

PME	TM or other reference	No. of PME	SWL, dB(A)	% on time	Total SWL, dB(A)
<b>Stage 1 - Trench Dredging</b>					
Dredger, grab	CNP 063	1	112	100%	112
Tug boat	CNP 221	4	110	100%	116
				<b>Total</b>	<b>117</b>
<b>Stage 2a - Pipe Laying (At sea)</b>					
Derrick barge	CNP 061	6	104	100%	112
Tug boat	CNP 221	4	110	100%	116
Crane, mobile/ barge mounted (diesel)	CNP 048	5	112	100%	119
				<b>Total</b>	<b>121</b>
<b>Stage 2b - Pipe Laying (On land)</b>					
Winch (pneumatic)	CNP 261	1	110	100%	110
Generator, standard	CNP 101	2	108	100%	111
Crane, mobile/ barge mounted (diesel)	CNP 048	1	112	100%	112
Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	2	102	100%	105
				<b>Total</b>	<b>116</b>
<b>Stage 3 - Backfilling</b>					
Derrick barge	CNP 061	1	104	100%	104
Tug boat	CNP 221	4	110	100%	116
				<b>Total</b>	<b>116</b>

**Construction Noise Levels -  
Marine Dredging Works (Unmitigated)**

NSRs	Floor	Slant Distance to the Nearest Marine Construction Activities, (m)	Slant Distance to the Nearest Land Construction Activities, (m)	Distance Correction, dB(A) for Marine Construction Activities	Distance Correction, dB(A) for Land Construction Activities	Façade Correction, dB(A)	Construction Activities and Maximum SWL, dB(A)				Maximum SPL, dB(A)
							Trench Dredging	Pipe Laying (at sea)	Pipe Laying (on land)	Backfilling	
							117	121	116	116	
SCH01	1/F	370.0	176.0	-59	-53	3	61	65	66	60	66
	2/F	370.1	176.1	-59	-53	3	61	65	66	60	66
	4/F	370.2	176.4	-59	-53	3	61	65	66	60	66
SCH02	1/F	346.0	144.1	-59	-51	3	62	65	68	61	68
	3/F	346.1	144.3	-59	-51	3	62	65	68	61	68
	6/F	346.5	145.1	-59	-51	3	62	65	68	60	68
WFM	1/F	449.3	241.5	-61	-56	3	59	63	64	58	64
	8/F	450.4	243.6	-61	-56	3	59	63	63	58	63
	15/F	452.4	247.3	-61	-56	3	59	63	63	58	63
SUV	1/F	427.1	245.2	-61	-56	3	60	64	63	59	64
	18/F	430.8	251.5	-61	-56	3	60	64	63	59	64
	30/F	436.5	261.2	-61	-56	3	60	63	63	58	63
MHE	1/F	334.0	159.0	-58	-52	3	62	66	67	61	67
	5/F	334.3	159.7	-58	-52	3	62	66	67	61	67
	9/F	335.0	161.1	-59	-52	3	62	66	67	61	67
KCM	1/F	325.0	174.1	-58	-53	3	62	66	66	61	66
	4/F	325.3	174.5	-58	-53	3	62	66	66	61	66
	7/F	325.7	175.3	-58	-53	3	62	66	66	61	66
LKB	1/F	400.0	246.0	-60	-56	3	60	64	63	59	64
	4/F	400.1	246.2	-60	-56	3	60	64	63	59	64
	7/F	400.5	246.7	-60	-56	3	60	64	63	59	64
FSQ	1/F	209.0	122.0	-54	-50	3	66	70	69	65	70
	4/F	209.2	122.4	-54	-50	3	66	70	69	65	70
	7/F	209.8	123.4	-54	-50	3	66	70	69	65	70

PME	TM or other reference	No. of PME	SWL, dB(A)	% on time	Total SWL, dB(A)
<b>Stage 1 - Mobilization/Site Preparation</b>					
Breaker, excavator mounted (pneumatic)	CNP 027	1	122	50%	119
Excavator/ loader, wheeled/ tracked	CNP 081	1	112	50%	109
Lorry	CNP 141	1	112	50%	109
<b>Total</b>					<b>120</b>
<b>Stage 2a - Landfall Site Construction (Seawall demolition)</b>					
Breaker, excavator mounted (pneumatic)	CNP 027	2	122	50%	122
Air compressor, air flow > 10m3/min and <= 30m3/min	CNP 002	2	102	100%	105
Crane, mobile/ barge mounted (diesel)	CNP 048	1	112	100%	112
Dump truck	CNP 067	1	117	50%	114
Generator, standard	CNP 101	1	108	100%	108
<b>Total</b>					<b>123</b>
<b>Stage 2b - Seawall reinstatement</b>					
Crane, mobile/ barge mounted (diesel)	CNP 048	1	112	100%	112
Dump truck	CNP 067	1	117	50%	114
Excavator/ loader, wheeled/ tracked	CNP 081	1	112	50%	109
Lorry	CNP 141	1	112	50%	109
Road roller	CNP 185	1	108	100%	108
<b>Total</b>					<b>118</b>
<b>Stage 3a - Construction of pigging station - Surface reinstatement</b>					
<b>Group 1 - Site Excavation</b>					
Excavator/ loader, wheeled/ tracked	CNP 081	1	112	30%	107
<b>Total</b>					<b>107</b>
<b>Group 2 - Filling</b>					
Dump truck	CNP 067	1	117	30%	112
<b>Total</b>					<b>112</b>
<b>Group 3 - Surface Reinstatement</b>					
Road roller	CNP 185	1	108	30%	103
Poker, vibratory, hand-held	CNP 170	1	113	30%	108
<b>Total</b>					<b>109</b>
<b>112</b>					
<b>Stage 3b - Construction of pigging station - Facilities installation</b>					
<b>Group 1 - Transportation of Material</b>					
Lorry	CNP 141	1	112	25%	106
<b>Total</b>					<b>106</b>
<b>Group 2 - Facilities Installation</b>					
Generator, standard	CNP 101	1	108	100%	108
Concrete lorry mixer	CNP 044	1	109	30%	104
Poker, vibratory, hand-held	CNP 170	1	113	30%	108
Excavator/ loader, wheeled/ tracked	CNP 081	1	112	30%	107
<b>Total</b>					<b>113</b>
<b>Max. =</b>					<b>113</b>
<b>Overall Maximum of Stage 3</b>					<b>113</b>

**Construction Noise Levels -  
Seawall Demolition and Reinstatement (Unmitigated)**

NSRs	Floor	Slant Distance to the Nearest Construction Activities, (m)	Distance Correction, dB(A)	Façade Correction, dB(A)	Construction Activities and Maximum SWL, dB(A)	
					Landfall Site Construction (Seawall Demolition)	Seawall Reinstatement
					123	118
SCH01	1/F	176.0	-53	3	73	68
	2/F	176.1	-53	3	73	68
	4/F	176.4	-53	3	73	68
SCH02	1/F	144.1	-51	3	75	70
	3/F	144.3	-51	3	75	70
	6/F	145.1	-51	3	75	70
WFM	1/F	241.5	-56	3	71	65
	8/F	243.6	-56	3	70	65
	15/F	247.3	-56	3	70	65
SUV	1/F	245.2	-56	3	70	65
	18/F	251.5	-56	3	70	65
	30/F	261.2	-56	3	70	65
MHE	1/F	159.0	-52	3	74	69
	5/F	159.7	-52	3	74	69
	9/F	161.1	-52	3	74	69
KCM	1/F	174.1	-53	3	73	68
	4/F	174.5	-53	3	73	68
	7/F	175.3	-53	3	73	68
LKB	1/F	246.0	-56	3	70	65
	4/F	246.2	-56	3	70	65
	7/F	246.7	-56	3	70	65
FSQ	1/F	122.0	-50	3	76	71
	4/F	122.4	-50	3	76	71
	7/F	123.4	-50	3	76	71

Note: Figure in shaded boxes denotes exceedances of relevant noise criteria

**Construction Noise Levels -  
Mobilizations/ Site Preparation and Construction of Pigging Station (Unmitigated)**

NSRs	Floor	Slant Distance to the Nearest Construction Activities, (m)	Distance Correction, dB(A)	Façade Correction, dB(A)	Construction Activities and Maximum SWL, dB(A)	
					Mobilization/Site Preparation	Construction of Pigging Station
					120	113
SCH01	1/F	122.1	-50	3	73	66
	2/F	122.2	-50	3	73	66
	4/F	122.6	-50	3	73	66
SCH02	1/F	121.1	-50	3	73	66
	3/F	121.4	-50	3	73	66
	6/F	122.3	-50	3	73	66
WFM	1/F	194.7	-54	3	69	62
	8/F	197.3	-54	3	69	62
	15/F	201.7	-54	3	69	62
SUV	1/F	230.2	-55	3	68	61
	18/F	236.9	-55	3	67	60
	30/F	247.2	-56	3	67	60
MHE	1/F	144.0	-51	3	72	65
	5/F	144.7	-51	3	72	65
	9/F	146.3	-51	3	71	65
KCM	1/F	190.1	-54	3	69	62
	4/F	190.5	-54	3	69	62
	7/F	191.2	-54	3	69	62
LKB	1/F	197.0	-54	3	69	62
	4/F	197.3	-54	3	69	62
	7/F	197.9	-54	3	69	62
FSQ	1/F	168.0	-53	3	70	63
	4/F	168.3	-53	3	70	63
	7/F	169.0	-53	3	70	63

Note: Figure in shaded boxes denotes exceedances of relevant noise criteria