

Calculation of Construction Noise Levels (Demolition of existing buildings) - mitigated

Job Title.: Yau Tong Bay Reclamation
 Job No.: 21253
 Date: 30-11-00

Plant Schedule for demolition of existing buildings - Mitigated

Code	Description	Sound Power Level,	No.	% on time
		SPL (dB(A))		
BS-C.6,28	Excavator/loader, wheeled tracked	102	1	100
CNP 023	Breakers	108	2	70
CNP 103	Generator	95	1	100
CNP 001	Air compressor	100	1	100
BS-C.9,19	Dump truck	102	1	100
CNP 021	Bar bender and cutter	90	2	100

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Definition of terms:

SPL - the sound power level as per EPD's TM

No. - the number of items of plant operating simultaneously

% on - the percentage of time with plant operating

Xr, Yr, Hr - the coordinates of the NSR, m

Xs, Ys, Hs - the coordinates of the source, m

Lsr - the slant distance between the source and NSR, m

Cno Cno - correction for no. of plant items

CLsr CLsr - the correction for slant distance between the source and the NSR, dB(A)

Calm Calm - the air absorption using CONCAWE methodology for distance greater than 300m

Cstri Cstri - the sound reduction provided by barrier/enclosure/building envelope

Cfac Cfac - the facade correction, dB(A)

CNL CNL - the corrected noise level, dB(A)(30 minutes)

NSR	RYTE1, Yau Tong Estate Redevelopment (Phase 1)		Xr: 842590.6 Yr: 817630.0 Hr: 25												CNL
Area 1	Sound Power Level		No.	% on	Source location & distance				Corrections						CNL
Code	Description	SPL (dB(A))			Xs	Ys	Hs	Lsr	Cno	Ccon	CLsr	Calm	Cstri	Cfac	dB(A)
BS-C.6.28	Excavator/loader, wheeled tracked	102	1	100	842139	817743	1.5	465.8	0	0	-53.4	-1.3	0.0	3	42.3
CNP 023	Breakers	108	2	70	842139	817743	1.5	465.8	3	-1.5	-53.4	-1.3	0.0	3	49.8
CNP 103	Generator	95	1	100	842139	817743	1.5	465.8	0	0	-53.4	-1.3	0.0	3	35.3
CNP 001	Air compressor	100	1	100	842139	817743	1.5	465.8	0	0	-53.4	-1.3	0.0	3	40.3
BS-C.9.19	Dump truck	102	1	100	842139	817743	1.5	465.8	0	0	-53.4	-1.3	0.0	3	42.3
CNP 021	Bar bender and cutter	90	2	100	842139	817743	1.5	465.8	3	0	-53.4	-1.3	0.0	3	33.3
Sub-total															51.6
Sub-Total SWL = 111															
Area 2	Sound Power Level		No.	No.	Source location & distance				Corrections						CNL
Code	Description	SPL (dB(A))			Xs	Ys	Hs	Lsr	Cno		CLsr	Calm	Cstri	Cfac	dB(A)
BS-C.6.28	Excavator/loader, wheeled tracked	102	1	100	842410	817656	1.5	183.7	0	0	-45.2	0.0	0.0	3	51.8
CNP 023	Breakers	108	2	70	842410	817656	1.5	183.7	3	-1.5	-45.3	0.0	0.0	3	59.2
CNP 103	Generator	95	1	100	842410	817656	1.5	183.7	0	0	-45.2	0.0	0.0	3	44.8
CNP 001	Air compressor	100	1	100	842410	817656	1.5	183.7	0	0	-45.3	0.0	0.0	3	49.7
BS-C.9.19	Dump truck	102	1	100	842410	817656	1.5	183.7	0	0	-45.3	0.0	0.0	3	51.7
CNP 021	Bar bender and cutter	90	2	100	842410	817656	1.5	183.7	3	0	-45.3	0.0	0.0	3	42.7
Sub-total															61.0
Sub-Total SWL = 111															
Area 3	Sound Power Level		No.	No.	Source location & distance				Corrections						CNL
Code	Description	SPL (dB(A))			Xs	Ys	Hs	Lsr	Cno		CLsr	Calm	Cstri	Cfac	dB(A)
BS-C.6.28	Excavator/loader, wheeled tracked	102	1	100	842348	817503	1.5	275.1	0	0	-48.8	0.0	0.0	3	48.2
CNP 023	Breakers	108	2	70	842348	817503	1.5	275.1	3	-1.5	-48.8	0.0	0.0	3	55.7
CNP 103	Generator	95	1	100	842348	817503	1.5	275.1	0	0	-48.8	0.0	0.0	3	41.2
CNP 001	Air compressor	100	1	100	842348	817503	1.5	275.1	0	0	-48.8	0.0	0.0	3	46.2
BS-C.9.19	Dump truck	102	1	100	842348	817503	1.5	275.1	0	0	-48.8	0.0	0.0	3	48.2
CNP 021	Bar bender and cutter	90	2	100	842348	817503	1.5	275.1	3	0	-48.8	0.0	0.0	3	39.2
Sub-total															57.5
Sub-Total SWL = 111															
Total 63.0 Total SWL * = 116															

* - Sound Power Level with the corrections of plant number and reduction of operating time, if any.

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Definition of terms:

SPL - the sound power level as per EPD's TM

No. - the number of items of plant operating simultaneously

% on - the percentage of time with plant operating

Xr, Yr, Hr - the coordinates of the NSR, m

Xs, Ys, Hs - the coordinates of the source, m

Lsr - the slant distance between the source and NSR, m

Cno - Cno - correction for no. of plant items

CLsr - CLsr - the correction for slant distance between the source and the NSR, dB(A)

Calm - Calm - the air absorption using CONCAVE methodology for distance greater than 300m

Csn - Csn - the sound reduction provided by barrier/enclosure/building envelope

Cfac - Cfac - the facade correction, dB(A)

CNL - CNL - the corrected noise level, dB(A)(30 minutes)

NSR		RYTE2, Yau Tong Estate Redevelopment (Phase 2)		Xr: 842545.3 Yr: 817778.8 Hr: 25											
Area 1		Sound Power Level,		Source location & distance				Corrections				CNL			
Code	Description	SPL (dB(A))	No.	% on	Xs	Ys	Hs	Lsr	Cno	Con	CLsr	Calm	Csn	Cfac	dB(A)
BS-C 6,28	Excavator/loader, wheeled tracked	102	1	100	842230	817763	1.5	316.3	0	0	-50.0	-0.9	0.0	3	46.1
CNP 023	Breakers	108	2	70	842230	817763	1.5	316.3	3	-1.5	-50.0	-0.9	0.0	3	53.6
CNP 103	Generator	95	1	100	842230	817763	1.5	316.3	0	0	-50.0	-0.9	0.0	3	39.1
CNP 001	Air compressor	100	1	100	842230	817763	1.5	316.3	0	0	-50.0	-0.9	0.0	3	44.1
BS-C 9,19	Dump truck	102	1	100	842230	817763	1.5	316.3	0	0	-50.0	-0.9	0.0	3	46.1
CNP 021	Bar bender and cutter	90	2	100	842230	817763	1.5	316.3	3	0	-50.0	-0.9	0.0	3	37.1
Sub-total															55.4
		Sub-Total SWL = 111													
Area 2		Sound Power Level,		Source location & distance				Corrections				CNL			
Code	Description	SPL (dB(A))	No.	No.	Xs	Ys	Hs	Lsr	Cno	Con	CLsr	Calm	Csn	Cfac	dB(A)
BS-C 6,28	Excavator/loader, wheeled tracked	102	1	100	842400	817674	1.5	180.3	0	0	-45.0	0.0	0.0	3	52.0
CNP 023	Breakers	108	2	70	842400	817674	1.5	180.3	3	-1.5	-45.1	0.0	0.0	3	59.3
CNP 103	Generator	95	1	100	842400	817674	1.5	180.3	0	0	-45.0	0.0	0.0	3	45.0
CNP 001	Air compressor	100	1	100	842400	817674	1.5	180.3	0	0	-45.1	0.0	0.0	3	49.9
BS-C 9,19	Dump truck	102	1	100	842400	817674	1.5	180.3	0	0	-45.1	0.0	0.0	3	51.9
CNP 021	Bar bender and cutter	90	2	100	842400	817674	1.5	180.3	3	0	-45.1	0.0	0.0	3	42.9
Sub-total															61.2
		Sub-Total SWL = 111													
Area 3		Sound Power Level,		Source location & distance				Corrections				CNL			
Code	Description	SPL (dB(A))	No.	No.	Xs	Ys	Hs	Lsr	Cno	Con	CLsr	Calm	Csn	Cfac	dB(A)
BS-C 6,28	Excavator/loader, wheeled tracked	102	1	100	842266	817487	1.5	404.5	0	0	-52.1	-1.1	0.0	3	43.7
CNP 023	Breakers	108	2	70	842266	817487	1.5	404.5	3	-1.5	-52.1	-1.1	0.0	3	51.2
CNP 103	Generator	95	1	100	842266	817487	1.5	404.5	0	0	-52.1	-1.1	0.0	3	36.7
CNP 001	Air compressor	100	1	100	842266	817487	1.5	404.5	0	0	-52.1	-1.1	0.0	3	41.7
BS-C 9,19	Dump truck	102	1	100	842266	817487	1.5	404.5	0	0	-52.1	-1.1	0.0	3	43.7
CNP 021	Bar bender and cutter	90	2	100	842266	817487	1.5	404.5	3	0	-52.1	-1.1	0.0	3	34.7
Sub-total															53.0
		Sub-Total SWL = 111													
		Total 62.7 Total SWL * = 116													

* - Sound Power Level with the corrections of plant number and reduction of operating time, if any.

Calculation of Construction Noise Levels (Demolition of existing buildings) - mitigated

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 Job No.: 21253
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Definition of terms:

SPL	- the sound power level as per EPD's TM	Cno	Cno	- correction for no. of plant items
No	- the number of items of plant operating simultaneously	CLsr	CLsr	- the correction for slant distance between the source and the NSR, dB(A)
% on	- the percentage of time with plant operating	Clatm	Clatm	- the air absorption using CONCAWE methodology for distance greater than 300m
Xr, Yr, Hr	- the coordinates of the NSR, m	Csri	Csri	- the sound reduction provided by barrier enclosure/building envelope
Xs, Ys, Hs	- the coordinates of the source, m	Cfac	Cfac	- the facade correction, dB(A)
Lsr	- the slant distance between the source and NSR, m	CNL	CNL	- the corrected noise level, dB(A)(30 minutes)

NSR		RYCT, Yau Tong Centre		Xr: 842580 Yr: 817320 Hr: 25										CNL	
Area 1		Sound Power Level,	No.	% on	Source location & distance				Corrections					CNL	
Code	Description	SPL (dB(A))			Xs	Ys	Hs	Lsr	Cno	Con	CLsr	Clatm	Csri	Cfac	dB(A)
BS-C 6,28	Excavator/loader, wheeled tracked	102	1	100	842085	817740	1.5	649.6	0	0	-56.2	-1.8	-10.0	3	28.9
CNP 023	Breakers	108	2	70	842085	817740	1.5	649.6	3	-1.5	-56.3	-1.8	-10.0	3	36.4
CNP 103	Generator	95	1	100	842085	817740	1.5	649.6	0	0	-56.2	-1.8	-10.0	3	21.9
CNP 001	Air compressor	100	1	100	842085	817740	1.5	649.6	0	0	-56.3	-1.8	-10.0	3	26.9
BS-C 9,19	Dump truck	102	1	100	842085	817740	1.5	649.6	0	0	-56.3	-1.8	-10.0	3	28.9
CNP 021	Bar bender and cutter	90	2	100	842085	817740	1.5	649.6	3	0	-56.3	-1.8	-10.0	3	19.9
Sub-total															38.2
															Sub-Total SWL = 111
Area 2		Sound Power Level,	No.	No.	Source location & distance				Corrections					CNL	
Code	Description	SPL (dB(A))			Xs	Ys	Hs	Lsr	Cno		CLsr	Clatm	Csri	Cfac	dB(A)
BS-C 6,28	Excavator/loader, wheeled tracked	102	1	100	842440	817565	1.5	283.2	0	0	-49.0	0.0	-10.0	3	36.0
CNP 023	Breakers	108	2	70	842440	817565	1.5	283.2	3	-1.5	-49.0	0.0	-10.0	3	45.4
CNP 103	Generator	95	1	100	842440	817565	1.5	283.2	0	0	-49.0	0.0	-10.0	3	31.0
CNP 001	Air compressor	100	1	100	842440	817565	1.5	283.2	0	0	-49.0	0.0	-10.0	3	36.0
BS-C 9,19	Dump truck	102	1	100	842440	817565	1.5	283.2	0	0	-49.0	0.0	-10.0	3	38.0
CNP 021	Bar bender and cutter	90	2	100	842440	817565	1.5	283.2	3	0	-49.0	0.0	-10.0	3	29.0
Sub-total															47.3
															Sub-Total SWL = 111
Area 3		Sound Power Level,	No.	No.	Source location & distance				Corrections					CNL	
Code	Description	SPL (dB(A))			Xs	Ys	Hs	Lsr	Cno		CLsr	Clatm	Csri	Cfac	dB(A)
BS-C 6,28	Excavator/loader, wheeled tracked	102	1	100	842240	817426	1.5	356.9	0	0	-51.0	-1.0	-10.0	3	35.0
CNP 023	Breakers	108	2	70	842240	817426	1.5	356.9	3	-1.5	-51.1	-1.0	-10.0	3	42.4
CNP 103	Generator	95	1	100	842240	817426	1.5	356.9	0	0	-51.0	-1.0	-10.0	3	28.0
CNP 001	Air compressor	100	1	100	842240	817426	1.5	356.9	0	0	-51.1	-1.0	-10.0	3	33.0
BS-C 9,19	Dump truck	102	1	100	842240	817426	1.5	356.9	0	0	-51.1	-1.0	-10.0	3	35.0
CNP 021	Bar bender and cutter	90	2	100	842240	817426	1.5	356.9	3	0	-51.1	-1.0	-10.0	3	26.0
Sub-total															44.3
															Sub-Total SWL = 111
Total															49.4
															Total SWL * = 116

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No	- the number of items of plant operating simultaneously	CLsr	CLsr	- the correction for slant distance between the source and the NSR, dB(A)
% on	- the percentage of time with plant operating	Catm	Catm	- the air absorption using CONCAWE methodology for distance greater than 300m
Xr, Yr, Hr	- the coordinates of the NSR, m	Csri	Csri	- the sound reduction provided by barrier/enclosure/building envelope
Xs, Ys, Hs	- the coordinates of the source, m	Cfac	Cfac	- the facade correction, dB(A)
Lsr	- the slant distance between the source and NSR, m	CNL	CNL	- the corrected noise level, dB(A)(30 minutes)

NSR		RCKL, Houses at Cha Kwo Ling		Xr : 841685 Yr : 817860 Hr : 20												
Area 1	Sound Power Level		Source location & distance				Corrections				CNL					
Code	Description	SPL (dB(A))	No.	% on	Xs	Ys	Hs	Lsr	Cno	Con	CLsr	Catm	Csri	Cfac	dB(A)	
BS-C.6,28	Excavator/loader, wheeled tracked	102	1	100	842015	817770	1.5	342.6	0	0	-50.7	-1.0	-10.0	3	35.4	
CNP 023	Breakers	108	2	70	842015	817770	1.5	342.6	3	-1.5	-50.7	-1.0	-10.0	3	42.8	
CNP 103	Generator	95	1	100	842015	817770	1.5	342.6	0	0	-50.7	-1.0	-10.0	3	28.4	
CNP 001	Air compressor	100	1	100	842015	817770	1.5	342.6	0	0	-50.7	-1.0	-10.0	3	33.3	
BS-C.9,19	Dump truck	102	1	100	842015	817770	1.5	342.6	0	0	-50.7	-1.0	-10.0	3	35.3	
CNP 021	Bar bender and cutter	90	2	100	842015	817770	1.5	342.6	3	0	-50.7	-1.0	-10.0	3	26.4	
Sub-total															44.7	
Sub-Total SWL =															111	
Area 2	Sound Power Level		Source location & distance				Corrections				CNL					
Code	Description	SPL (dB(A))	No.	No.	Xs	Ys	Hs	Lsr	Cno	Con	CLsr	Catm	Csri	Cfac	dB(A)	
BS-C.6,28	Excavator/loader, wheeled tracked	102	1	100	842350	817670	1.5	691.9	0	0	-56.8	-1.9	-10.0	3	28.3	
CNP 023	Breakers	108	2	70	842350	817670	1.5	691.9	3	-1.5	-56.8	-1.9	-10.0	3	35.7	
CNP 103	Generator	95	1	100	842350	817670	1.5	691.9	0	0	-56.8	-1.9	-10.0	3	21.3	
CNP 001	Air compressor	100	1	100	842350	817670	1.5	691.9	0	0	-56.8	-1.9	-10.0	3	26.3	
BS-C.9,19	Dump truck	102	1	100	842350	817670	1.5	691.9	0	0	-56.8	-1.9	-10.0	3	28.3	
CNP 021	Bar bender and cutter	90	2	100	842350	817670	1.5	691.9	3	0	-56.8	-1.9	-10.0	3	19.3	
Sub-total															37.6	
Sub-Total SWL =															111	
Area 3	Sound Power Level		Source location & distance				Corrections				CNL					
Code	Description	SPL (dB(A))	No.	No.	Xs	Ys	Hs	Lsr	Cno	Con	CLsr	Catm	Csri	Cfac	dB(A)	
BS-C.6,28	Excavator/loader, wheeled tracked	102	1	100	842200	817450	1.5	658.5	0	0	-56.4	-1.8	0.0	3	38.8	
CNP 023	Breakers	108	2	70	842200	817450	1.5	658.5	3	-1.5	-56.4	-1.8	0.0	3	46.2	
CNP 103	Generator	95	1	100	842200	817450	1.5	658.5	0	0	-56.4	-1.8	0.0	3	31.8	
CNP 001	Air compressor	100	1	100	842200	817450	1.5	658.5	0	0	-56.4	-1.8	0.0	3	36.8	
BS-C.9,19	Dump truck	102	1	100	842200	817450	1.5	658.5	0	0	-56.4	-1.8	0.0	3	38.8	
CNP 021	Bar bender and cutter	90	2	100	842200	817450	1.5	658.5	3	0	-56.4	-1.8	0.0	3	29.8	
Sub-total															48.1	
Sub-Total SWL =															111	
Total		50.0													Total SWL * =	116

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% on	- the percentage of time with plant operating	Catm	Catm	- the air absorption using CONCAWE methodology for distance greater than 300m
Xr, Yr, Hr	- the coordinates of the NSR, m	Csri	Csri	- the sound reduction provided by barrier/enclosure/building envelope
Xs, Ys, Hs	- the coordinates of the source, m	Cfac	Cfac	- the facade correction, dB(A)
Lsr	- the slant distance between the source and NSR, m	CNL	CNL	- the corrected noise level, dB(A)(30 minutes)

NSR		REHC1, Eastern Harbour Crossing (Phase 1)		Xr : 842357.7 Yr : 817990.8 Hr : 30											CNL		
Area 1		Sound Power Level,		Source location & distance				Corrections					CNL				
Code	Description	SPL (dB(A))	No.	% on	Xs	Ys	Hs	Lsr	Cno	Con	CLsr	Catm	Csri	Cfac	dB(A)		
BS-C.6,28	Excavator/loader, wheeled tracked	102	1	100	842116	817782	1.5	320.5	0	0	-50.1	-0.9	0.0	3	46.0		
CNP 023	Breakers	108	2	70	842116	817782	1.5	320.5	3	-1.5	-50.1	-0.9	0.0	3	53.5		
CNP 103	Generator	95	1	100	842116	817782	1.5	320.5	0	0	-50.1	-0.9	0.0	3	39.0		
CNP 001	Air compressor	100	1	100	842116	817782	1.5	320.5	0	0	-50.1	-0.9	0.0	3	44.0		
BS-C.9,19	Dump truck	102	1	100	842116	817782	1.5	320.5	0	0	-50.1	-0.9	0.0	3	46.0		
CNP 021	Bar bender and cutter	90	2	100	842116	817782	1.5	320.5	3	0	-50.1	-0.9	0.0	3	37.0		
Sub-total															55.3	Sub-Total	111
SWL =																	
Area 2		Sound Power Level,		Source location & distance				Corrections					CNL				
Code	Description	SPL (dB(A))	No.	No.	Xs	Ys	Hs	Lsr	Cno		CLsr	Catm	Csri	Cfac	dB(A)		
BS-C.6,28	Excavator/loader, wheeled tracked	102	1	100	842379	817707	1.5	286.4	0	0	-49.1	0.0	0.0	3	47.9		
CNP 023	Breakers	108	2	70	842379	817707	1.5	286.4	3	-1.5	-49.1	0.0	0.0	3	55.3		
CNP 103	Generator	95	1	100	842379	817707	1.5	286.4	0	0	-49.1	0.0	0.0	3	40.9		
CNP 001	Air compressor	100	1	100	842379	817707	1.5	286.4	0	0	-49.1	0.0	0.0	3	45.9		
BS-C.9,19	Dump truck	102	1	100	842379	817707	1.5	286.4	0	0	-49.1	0.0	0.0	3	47.9		
CNP 021	Bar bender and cutter	90	2	100	842379	817707	1.5	286.4	3	0	-49.1	0.0	0.0	3	38.9		
Sub-total															57.2	Sub-Total	111
SWL =																	
Area 3		Sound Power Level,		Source location & distance				Corrections					CNL				
Code	Description	SPL (dB(A))	No.	No.	Xs	Ys	Hs	Lsr	Cno		CLsr	Catm	Csri	Cfac	dB(A)		
BS-C.6,28	Excavator/loader, wheeled tracked	102	1	100	842223	817461	1.5	547.1	0	0	-54.7	-1.5	0.0	3	40.7		
CNP 023	Breakers	108	2	70	842223	817461	1.5	547.1	3	-1.5	-54.8	-1.5	0.0	3	48.2		
CNP 103	Generator	95	1	100	842223	817461	1.5	547.1	0	0	-54.7	-1.5	0.0	3	33.7		
CNP 001	Air compressor	100	1	100	842223	817461	1.5	547.1	0	0	-54.8	-1.5	0.0	3	38.7		
BS-C.9,19	Dump truck	102	1	100	842223	817461	1.5	547.1	0	0	-54.8	-1.5	0.0	3	40.7		
CNP 021	Bar bender and cutter	90	2	100	842223	817461	1.5	547.1	3	0	-54.8	-1.5	0.0	3	31.7		
Sub-total															50.0	Sub-Total	111
SWL =																	
Total															59.8	Total SWL * =	116

* - Sound Power Level with the corrections of plant number and reduction of operating time, if any.

Calculation of Construction Noise Levels (Demolition of existing buildings) - mitigated

Job Title: Yau Tong Bay Reclamation

Job No.: 21253

Date: 30-11-00

Definition of terms:

SPL	- the sound power level as per EPD's TM	Cno	Cno	- correction for no. of plant items
No	- the number of items of plant operating simultaneously	CLsr	CLsr	- the correction for plant distance between the source and the NSR, dB(A)
% on	- the percentage of time with plant operating	Catm	Catm	- the air absorption using CONCAWE methodology for distance greater than 300m
Xr, Yr, Hr	- the coordinates of the NSR, m	Csri	Csri	- the sound reduction provided by barrier/enclosure/building envelope
Xs, Ys, Hs	- the coordinates of the source, m	Cfac	Cfac	- the facade correction, dB(A)
Lsr	- the plant distance between the source and NSR, m	CNL	CNL	- the corrected noise level, dB(A)(30 minutes)

NSR	REHC2, Eastern Harbour Crossing (Phase 2)		Xr: 842187.1 Yr: 817927.0 Hr: 32		Sound Power Level				Source location & distance					Corrections				CNL
Area 1	Description	SPL (dB(A))	No.	% on	Xs	Ys	Hs	Lsr	Cno	Con	CLsr	Catm	Csri	Cfac	dB(A)			
BS-C.6.28	Excavator/loader, wheeled tracked	102	1	100	842099	817776	1.5	177.5	0	0	-44.9	0.0	0.0	3	52.1			
CNP 023	Breakers	108	2	70	842099	817776	1.5	177.5	3	-1.5	-45.0	0.0	0.0	3	59.5			
CNP 103	Generator	95	1	100	842099	817776	1.5	177.5	0	0	-44.9	0.0	0.0	3	45.1			
CNP 001	Air compressor	100	1	100	842099	817776	1.5	177.5	0	0	-45.0	0.0	0.0	3	50.0			
BS-C.9.19	Dump truck	102	1	100	842099	817776	1.5	177.5	0	0	-45.0	0.0	0.0	3	52.0			
CNP 021	Bar bender and cutter	90	2	100	842099	817776	1.5	177.5	3	0	-45.0	0.0	0.0	3	43.0			
Sub-total															61.3			
Sub-Total SWL =															111			
Area 2	Description	SPL (dB(A))	No.	No.	Xs	Ys	Hs	Lsr	Cno	Con	CLsr	Catm	Csri	Cfac	dB(A)			
BS-C.6.28	Excavator/loader, wheeled tracked	102	1	100	842299	817774	1.5	191.7	0	0	-45.5	0.0	0.0	3	51.5			
CNP 023	Breakers	108	2	70	842299	817774	1.5	191.7	3	-1.5	-45.7	0.0	0.0	3	58.8			
CNP 103	Generator	95	1	100	842299	817774	1.5	191.7	0	0	-45.5	0.0	0.0	3	44.5			
CNP 001	Air compressor	100	1	100	842299	817774	1.5	191.7	0	0	-45.7	0.0	0.0	3	49.3			
BS-C.9.19	Dump truck	102	1	100	842299	817774	1.5	191.7	0	0	-45.7	0.0	0.0	3	51.3			
CNP 021	Bar bender and cutter	90	2	100	842299	817774	1.5	191.7	3	0	-45.7	0.0	0.0	3	42.4			
Sub-total															60.7			
Sub-Total SWL =															111			
Area 3	Description	SPL (dB(A))	No.	No.	Xs	Ys	Hs	Lsr	Cno	Con	CLsr	Catm	Csri	Cfac	dB(A)			
BS-C.6.28	Excavator/loader, wheeled tracked	102	1	100	842215	817459	1.5	470.1	0	0	-53.4	-1.3	0.0	3	42.3			
CNP 023	Breakers	108	2	70	842215	817459	1.5	470.1	3	-1.5	-53.4	-1.3	0.0	3	49.7			
CNP 103	Generator	95	1	100	842215	817459	1.5	470.1	0	0	-53.4	-1.3	0.0	3	35.3			
CNP 001	Air compressor	100	1	100	842215	817459	1.5	470.1	0	0	-53.4	-1.3	0.0	3	40.2			
BS-C.9.19	Dump truck	102	1	100	842215	817459	1.5	470.1	0	0	-53.4	-1.3	0.0	3	42.2			
CNP 021	Bar bender and cutter	90	2	100	842215	817459	1.5	470.1	3	0	-53.4	-1.3	0.0	3	33.3			
Sub-total															51.6			
Sub-Total SWL =															111			
Total															64.3			
Total SWL * =															116			

* - Sound Power Level with the corrections of plant number and reduction of operating time, if any.

Calculation of Construction Noise Levels (Demolition of existing buildings) - mitigated

Job Title: Yau Tong Bay Reclamation

Job No.: 21253

Date: 30-11-00

Definition of terms:

SPL - the sound power level as per EPD's TM
 No - the number of items of plant operating simultaneously
 % on - the percentage of time with plant operating
 Xr, Yr, Hr - the coordinates of the NSR, m
 Xs, Ys, Hs - the coordinates of the source, m
 Lsr - the slant distance between the source and NSR, m

Cno Cno - correction for no. of plant items
 CLsr CLsr - the correction for slant distance between the source and the NSR, dB(A)
 Catm Catm - the air absorption using CONCAWE methodology for distance greater than 300m
 Csr Csr - the sound reduction provided by barrier/enclosure/building envelope
 Cfac Cfac - the facade correction, dB(A)
 CNL CNL - the corrected noise level, dB(A)(30 minutes)

NSR		RSCH1, School to the N-E (9/1999)		Xr : 842494.6 Yr : 817896.5 Hr : 25												CNL
Area 1		Sound Power Level,		Source location & distance				Corrections					CNL			
Code	Description	SPL (dB(A))	No.	% on	Xs	Ys	Hs	Lsr	Cno	Con	CLsr	Catm	Csr	Cfac	dB(A)	
BS-C.6,28	Excavator/loader, wheeled tracked	102	1	100	842211	817799	1.5	300.5	0	0	-49.5	-0.8	0.0	3	46.6	
CNP 023	Breakers	108	2	70	842211	817799	1.5	300.5	3	-1.5	-49.6	-0.8	0.0	3	54.1	
CNP 103	Generator	95	1	100	842211	817799	1.5	300.5	0	0	-49.5	-0.8	0.0	3	39.6	
CNP 001	Air compressor	100	1	100	842211	817799	1.5	300.5	0	0	-49.6	-0.8	0.0	3	44.6	
BS-C.9,19	Dump truck	102	1	100	842211	817799	1.5	300.5	0	0	-49.6	-0.8	0.0	3	46.6	
CNP 021	Bar bender and cutler	90	2	100	842211	817799	1.5	300.5	3	0	-49.6	-0.8	0.0	3	37.6	
Sub-total															55.9	
Area 2		Sound Power Level,		Source location & distance				Corrections					CNL			
Code	Description	SPL (dB(A))	No.	No.	Xs	Ys	Hs	Lsr	Cno		CLsr	Catm	Csr	Cfac	dB(A)	
BS-C.6,28	Excavator/loader, wheeled tracked	102	1	100	842393	817683	1.5	237.5	0	0	-47.5	0.0	0.0	3	49.5	
CNP 023	Breakers	108	2	70	842393	817683	1.5	237.5	3	-1.5	-47.5	0.0	0.0	3	56.9	
CNP 103	Generator	95	1	100	842393	817683	1.5	237.5	0	0	-47.5	0.0	0.0	3	42.5	
CNP 001	Air compressor	100	1	100	842393	817683	1.5	237.5	0	0	-47.5	0.0	0.0	3	47.5	
BS-C.9,19	Dump truck	102	1	100	842393	817683	1.5	237.5	0	0	-47.5	0.0	0.0	3	49.5	
CNP 021	Bar bender and cutler	90	2	100	842393	817683	1.5	237.5	3	0	-47.5	0.0	0.0	3	40.5	
Sub-total															58.8	
Area 3		Sound Power Level,		Source location & distance				Corrections					CNL			
Code	Description	SPL (dB(A))	No.	No.	Xs	Ys	Hs	Lsr	Cno		CLsr	Catm	Csr	Cfac	dB(A)	
BS-C.6,28	Excavator/loader, wheeled tracked	102	1	100	842237	817470	1.5	499.2	0	0	-54.0	-1.4	0.0	3	41.6	
CNP 023	Breakers	108	2	70	842237	817470	1.5	499.2	3	-1.5	-54.0	-1.4	0.0	3	49.1	
CNP 103	Generator	95	1	100	842237	817470	1.5	499.2	0	0	-54.0	-1.4	0.0	3	34.6	
CNP 001	Air compressor	100	1	100	842237	817470	1.5	499.2	0	0	-54.0	-1.4	0.0	3	39.6	
BS-C.9,19	Dump truck	102	1	100	842237	817470	1.5	499.2	0	0	-54.0	-1.4	0.0	3	41.6	
CNP 021	Bar bender and cutler	90	2	100	842237	817470	1.5	499.2	3	0	-54.0	-1.4	0.0	3	32.6	
Sub-total															50.9	
Total															61.1	
Total SWL * =															116	

* - Sound Power Level with the corrections of plant number and reduction of operating time, if any.

Calculation of Construction Noise Levels (Demolition of existing buildings) - mitigated

Job Title: Yau Tong Bay Reclamation
 Job No.: 21253
 Date: 30-11-00

Definition of terms:

SPL	- the sound power level as per EPD's TM	Cno	Cno	- correction for no. of plant items
No	- the number of items of plant operating simultaneously	CLsr	CLsr	- the correction for slant distance between the source and the NSR, dB(A)
% on	- the percentage of time with plant operating	Catm	Catm	- the air absorption using CONCAWE methodology for distance greater than 300m
Xr, Yr, Hr	- the coordinates of the NSR, m	Csr	Csr	- the sound reduction provided by barrier/enclosure/building envelope
Xs, Ys, Hs	- the coordinates of the source, m	Cfac	Cfac	- the facade correction, dB(A)
Lsr	- the slant distance between the source and NSR, m	CNL	CNL	- the corrected noise level, dB(A)(30 minutes)

NSR		RSCH2, School to the S-E (9/1999)		Xr : 842560.0 Yr : 817706.3 Hr : 25												CNL
Area 1		Sound Power Level,		Source location & distance				Corrections					CNL			
Code	Description	SPL (dB(A))	No.	% on	Xs	Ys	Hs	Lsr	Cno	Con	CLsr	Catm	Csri	Cfac	dB(A)	
BS-C.6,28	Excavator/loader, wheeled tracked	102	1	100	842210	817744	1.5	353.1	0	0	-50.9	-1.0	0.0	3	45.1	
CNP 023	Breakers	108	2	70	842210	817744	1.5	353.1	3	-1.5	-51.0	-1.0	0.0	3	52.5	
CNP 103	Generator	95	1	100	842210	817744	1.5	353.1	0	0	-50.9	-1.0	0.0	3	38.1	
CNP 001	Air compressor	100	1	100	842210	817744	1.5	353.1	0	0	-51.0	-1.0	0.0	3	43.1	
BS-C.9,19	Dump truck	102	1	100	842210	817744	1.5	353.1	0	0	-51.0	-1.0	0.0	3	45.1	
CNP 021	Bar bender and cutter	90	2	100	842210	817744	1.5	353.1	3	0	-51.0	-1.0	0.0	3	36.1	
Sub-total															54.4	
															Sub-Total SWL = 111	
Area 2		Sound Power Level,		Source location & distance				Corrections					CNL			
Code	Description	SPL (dB(A))	No.	No.	Xs	Ys	Hs	Lsr	Cno	Con	CLsr	Catm	Csri	Cfac	dB(A)	
BS-C.6,28	Excavator/loader, wheeled tracked	102	1	100	842404	817666	1.5	162.4	0	0	-44.1	0.0	0.0	3	52.9	
CNP 023	Breakers	108	2	70	842404	817666	1.5	162.4	3	-1.5	-44.2	0.0	0.0	3	60.3	
CNP 103	Generator	95	1	100	842404	817666	1.5	162.4	0	0	-44.1	0.0	0.0	3	45.9	
CNP 001	Air compressor	100	1	100	842404	817666	1.5	162.4	0	0	-44.2	0.0	0.0	3	50.8	
BS-C.9,19	Dump truck	102	1	100	842404	817666	1.5	162.4	0	0	-44.2	0.0	0.0	3	52.8	
CNP 021	Bar bender and cutter	90	2	100	842404	817666	1.5	162.4	3	0	-44.2	0.0	0.0	3	43.8	
Sub-total															62.1	
															Sub-Total SWL = 111	
Area 3		Sound Power Level,		Source location & distance				Corrections					CNL			
Code	Description	SPL (dB(A))	No.	No.	Xs	Ys	Hs	Lsr	Cno	Con	CLsr	Catm	Csri	Cfac	dB(A)	
BS-C.6,28	Excavator/loader, wheeled tracked	102	1	100	842336	817529	1.5	287.1	0	0	-49.1	0.0	0.0	3	47.9	
CNP 023	Breakers	108	2	70	842336	817529	1.5	287.1	3	-1.5	-49.2	0.0	0.0	3	55.3	
CNP 103	Generator	95	1	100	842336	817529	1.5	287.1	0	0	-49.1	0.0	0.0	3	40.9	
CNP 001	Air compressor	100	1	100	842336	817529	1.5	287.1	0	0	-49.2	0.0	0.0	3	45.8	
BS-C.9,19	Dump truck	102	1	100	842336	817529	1.5	287.1	0	0	-49.2	0.0	0.0	3	47.8	
CNP 021	Bar bender and cutter	90	2	100	842336	817529	1.5	287.1	3	0	-49.2	0.0	0.0	3	38.9	
Sub-total															57.2	
															Sub-Total SWL = 111	
																Total 63.8
															Total SWL * = 116	

* - Sound Power Level with the corrections of plant number and reduction of operating time, if any.

Calculation of Construction Noise Levels (Demolition of existing buildings) - mitigated

Job Title.: Yau Tong Bay Reclamation

Job No.: 21253

Date: 30-11-00

Definition of terms:

SPL - the sound power level as per EPD's TM

No. - the number of items of plant operating simultaneously

% on - the percentage of time with plant operating

Xr, Yr, Hr - the coordinates of the NSR, m

Xs, Ys, Hs - the coordinates of the source, m

Lsr - the slant distance between the source and NSR, m

Cno Cno - correction for no. of plant items

CLsr CLsr - the correction for slant distance between the source and the NSR, dB(A)

Cadm Cadm - the air absorption using CONCAWE methodology for distance greater than 300m

Csri Csri - the sound reduction provided by barrier/enclosure/building envelope

Cfac Cfac - the facade correction, dB(A)

CNL CNL - the corrected noise level, dB(A)(30 minutes)

NSR		RSCH3, Schools at ASD site (9/2004)		Xr : 842210.7 Yr : 817839.9 Hr : 10												CNL
Area 1		Sound Power Level,	No.	% on	Source location & distance				Corrections					CNL		
Code	Description	SPL (dB(A))			Xs	Ys	Hs	Lsr	Cno	Con	CLsr	Cadm	Csri	Cfac	dB(A)	
BS-C.6.28	Excavator/loader, wheeled tracked	102	1	100	842121	817780	1.5	107.6	0	0	-40.6	0.0	0.0	3	56.4	
CNP 023	Breakers	108	2	70	842121	817780	1.5	107.6	3	-1.5	-40.6	0.0	0.0	3	63.8	
CNP 103	Generator	95	1	100	842121	817780	1.5	107.6	0	0	-40.6	0.0	0.0	3	49.4	
CNP 001	Air compressor	100	1	100	842121	817780	1.5	107.6	0	0	-40.6	0.0	0.0	3	54.4	
BS-C.9.19	Dump truck	102	1	100	842121	817780	1.5	107.6	0	0	-40.6	0.0	0.0	3	56.4	
CNP 021	Bar bender and cutter	90	2	100	842121	817780	1.5	107.6	3	0	-40.6	0.0	0.0	3	47.4	
Sub-total															65.7	
Sub-Total SWL = 111																
Area 2		Sound Power Level,	No.	No.	Source location & distance				Corrections					CNL		
Code	Description	SPL (dB(A))			Xs	Ys	Hs	Lsr	Cno		CLsr	Cadm	Csri	Cfac	dB(A)	
BS-C.6.28	Excavator/loader, wheeled tracked	102	1	100	842314	817731	1.5	150.1	0	0	-43.5	0.0	0.0	3	53.5	
CNP 023	Breakers	108	2	70	842314	817731	1.5	150.1	3	-1.5	-43.5	0.0	0.0	3	60.9	
CNP 103	Generator	95	1	100	842314	817731	1.5	150.1	0	0	-43.5	0.0	0.0	3	46.5	
CNP 001	Air compressor	100	1	100	842314	817731	1.5	150.1	0	0	-43.5	0.0	0.0	3	51.5	
BS-C.9.19	Dump truck	102	1	100	842314	817731	1.5	150.1	0	0	-43.5	0.0	0.0	3	53.5	
CNP 021	Bar bender and cutter	90	2	100	842314	817731	1.5	150.1	3	0	-43.5	0.0	0.0	3	44.5	
Sub-total															62.8	
Sub-Total SWL = 111																
Area 3		Sound Power Level,	No.	No.	Source location & distance				Corrections					CNL		
Code	Description	SPL (dB(A))			Xs	Ys	Hs	Lsr	Cno		CLsr	Cadm	Csri	Cfac	dB(A)	
BS-C.6.28	Excavator/loader, wheeled tracked	102	1	100	842217	817460	1.5	379.9	0	0	-51.6	-1.1	0.0	3	44.3	
CNP 023	Breakers	108	2	70	842217	817460	1.5	379.9	3	-1.5	-51.6	-1.1	0.0	3	51.8	
CNP 103	Generator	95	1	100	842217	817460	1.5	379.9	0	0	-51.6	-1.1	0.0	3	37.3	
CNP 001	Air compressor	100	1	100	842217	817460	1.5	379.9	0	0	-51.6	-1.1	0.0	3	42.3	
BS-C.9.19	Dump truck	102	1	100	842217	817460	1.5	379.9	0	0	-51.6	-1.1	0.0	3	44.3	
CNP 021	Bar bender and cutter	90	2	100	842217	817460	1.5	379.9	3	0	-51.6	-1.1	0.0	3	35.4	
Sub-total															53.7	
Sub-Total SWL = 111																
Total															67.7	
Total SWL * = 116																

* - Sound Power Level with the corrections of plant number and reduction of operating time, if any.