

**Appendix 4.2**

**Tentative Construction Programme (Dechlorination Plant)**

Construction Tasks	2008										2009								
	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Site formation & site establishment																			
Excavation and backfilling																			
Erection of formwork, reinforcement fixing & concreting																			
Fabrication of steelwork																			
Installation of E&M equipment																			
Testing and commissioning																			

## Construction Noise Impact Assessment

### Powered Mechanical Equipment (PME) for Different Construction Tasks during Normal Daytime Working Hours (Unmitigated Scenario)

#### Proposed Dechlorination Plant

##### Site formation & site establishment

Powered Mechanical Equipment (PME)		TM Ref./ other Ref.		SWL/Item dB(A)	On-time %	Noise Barrier Reduction	Total SWL dB(A)
Breaker, excavator mounted	--	CNP028	1	122	100%	0	122
Excavator	--	CNP081	1	112	100%	0	112
Dump Truck	--	CNP067	1	117	100%	0	117
Air Compressor	--	CNP002	1	102	100%	0	102
Generator	--	CNP102	1	100	100%	0	100
						<b>Total</b>	<b>124</b>

**Excavation and backfilling**

Powered Mechanical Equipment (PME)		TM Ref./ other Ref.	No. Items	SWL/Item dB(A)	On-time %	Noise Barrier Reduction	Total SWL dB(A)
Dump Truck	- -	CNP067	1	117	100%	0	117
Excavator	- -	CNP081	1	112	100%	0	112
Generator	- -	CNP102	1	100	100%	0	100
Air Compressor	- -	CNP002	1	102	100%	0	102
Breaker, excavator mounted	- -	CNP028	1	122	100%	0	122
						<b>Total</b>	<b>124</b>

**Erection of formwork, reinforcement fixing & concreting**

Powered Mechanical Equipment (PME)		TM Ref./ other Ref.	No. Items	SWL/Item dB(A)	On-time %	Noise Barrier Reduction	Total SWL dB(A)
Mobile Crane	- -	CNP048	1	112	100%	0	112
Concrete Lorry Mixer	- -	CNP044	1	109	100%	0	109
Bar Bender and cutter	- -	CNP021	1	90	100%	0	90
Concrete Pump	- -	CNP047	1	109	100%	0	109
Poker	- -	CNP170	3	113	100%	0	118
Chipper, hand held	- -	CNP043	1	112	100%	0	112
Saw, circular wood	- -	CNP201	1	108	100%	0	108
Generator	- -	CNP102	1	100	100%	0	100
Air Compressor	- -	CNP002	1	102	100%	0	102
						<b>Total</b>	<b>121</b>

**Fabrication of steelwork**

Powered Mechanical Equipment (PME)		TM Ref./ other Ref.	No. Items	SWL/Item dB(A)	On-time %	Noise Barrier Reduction	Total SWL dB(A)
Backhoe	- -	CNP081	1	112	100%	0	112
Mobile Crane	- -	CNP048	1	112	100%	0	112
Lorry	- -	CNP141	1	112	100%	0	112
Generator	- -	CNP102	1	100	100%	0	100
Air Compressor	- -	CNP002	1	102	100%	0	102
						<b>Total</b>	<b>117</b>

**Powered Mechanical Equipment (PME) for Different Construction Tasks during Normal Daytime Working Hours (Mitigated Scenario - Use of Quiet Plant)**

**Proposed Dechlorination Plant**

**Site formation & site establishment**

Powered Mechanical Equipment (PME)	TM Ref./ other Ref.		SWL/Item dB(A)	On-time %	Noise Barrier Reduction	Total SWL dB(A)
Breaker, excavator mounted [1] -	C2/4	1	119	100%	0	119
Excavator [1] -	C3/97	1	105	100%	0	105
Dump Truck [1] -	C9/20	1	103	100%	0	103
Air Compressor - -	CNP002	1	102	100%	0	102
Generator [1] -	CNP 103	1	95	100%	0	95
					<b>Total</b>	<b>119</b>

**Excavation and backfilling**

Powered Mechanical Equipment (PME)	TM Ref./ other Ref.	No. Items	SWL/Item dB(A)	On-time %	Noise Barrier Reduction	Total SWL dB(A)
Dump Truck [1] -	C9/20	1	103	100%	0	103
Excavator [1] -	C3/97	1	105	100%	0	105
Generator [1] -	CNP 103	1	95	100%	0	95
Air Compressor - -	CNP002	1	102	100%	0	102
Breaker, excavator mounted [1] -	C2/4	1	119	100%	0	119
					<b>Total</b>	<b>119</b>

**Erection of formwork, reinforcement fixing & concreting**

Powered Mechanical Equipment (PME)	TM Ref./ other Ref.	No. Items	SWL/Item dB(A)	On-time %	Noise Barrier Reduction	Total SWL dB(A)
Mobile Crane [1] -	C7/114	1	101	100%	0	101
Concrete Lorry Mixer [1] -	C6/23	1	100	100%	0	100
Bar Bender and cutter - -	CNP021	1	90	100%	0	90
Concrete Pump [1] -	C6/36	1	106	100%	0	106
Poker [1] -	C6/32	3	100	100%	0	105
Chipper, hand held - -	CNP043	1	112	100%	0	112
Saw, circular wood - -	CNP201	1	108	100%	0	108
Generator [1] -	CNP 103	1	95	100%	0	95
Air Compressor - -	CNP002	1	102	100%	0	102
					<b>Total</b>	<b>115</b>

**Fabrication of steelwork**

Powered Mechanical Equipment (PME)	TM Ref./ other Ref.	No. Items	SWL/Item dB(A)	On-time %	Noise Barrier Reduction	Total SWL dB(A)
Backhoe [1] -	C8/33	1	102	100%	0	102
Mobile Crane [1] -	C7/114	1	101	100%	0	101
Lorry [1] -	C3/59	1	105	100%	0	105
Generator [1] -	CNP 103	1	95	100%	0	95
Air Compressor - -	CNP002	1	102	100%	0	102
					<b>Total</b>	<b>109</b>

Note: (1) Use of Quiet PME

### Calculation of Construction Noise Levels at Representative NSR - Unmitigated Scenario

NSR: N1

	SWL	Distance	SPL	2008										2009												
				Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep				
Site formation & site establishment	124	120	77								77	77														
Excavation and backfilling	124	120	77										77													
Erection of formwork, reinforcement fixing & concreting	121	120	74											74	74	74										
Fabrication of steelwork	117	120	70													70	70	70	70	70						
Installation of E&M equipment #	-	-	-																		-	-				
Testing and commissioning #	-	-	-																			-	-	-		
Total SPL, dB(A)														77	77	77	74	74	76	70	70	70	70	-	-	-

# As advised by DSD, no PME would be required for installation of E&M equipment and testing & commissioning

### Calculation of Construction Noise Levels at Representative NSR - Mitigated Scenario

NSR: N1

	SWL	Distance	SPL	2008										2009												
				Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep				
Site formation & site establishment	119	120	73								73	73														
Excavation and backfilling	119	120	73										73													
Erection of formwork, reinforcement fixing & concreting	115	120	69											69	69	69										
Fabrication of steelwork	109	120	62												62	62	62	62	62	62						
Installation of E&M equipment #	-	-	-																		-	-				
Testing and commissioning #	-	-	-																			-	-	-		
Total SPL, dB(A)														73	73	73	69	69	70	62	62	62	62	-	-	-

# As advised by DSD, no PME would be required for installation of E&M equipment and testing & commissioning