

# Appendix 5.2      Unmitigated Construction Noise Impact

Noise Sensitive Receiver						2015												2016											
N1 - Village House No. 308, Sha Ling	SWL	Dist.(m) <sup>1</sup>	DC <sup>2</sup>	FC <sup>3</sup>	CNL, dB(A)	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12		
OWTF Construction Site 1																													
Activity 1 - Demolition and Site Clearance	125	75	46	3	82	82	82	82																					
Activity 2 - Construction Piling	123	75	46	3	80			80	80	80	80	80	80	80	80*														
Activity 3 - Site Formation	121	75	46	3	78			78	78	78	78	78	78	78	78*														
Activity 4 - Buildings (Pre-treatment, Office, Wastewater Treatment, Composting)	121	75	46	3	78										78*	78	78	78	78	78	78	78	78	78	78	78	78		
Activity 5 - Road Widening	123	75	46	3	80				80	80	80	80	80	80	80	80	80												
Activity 6 - Sewerage System Construction	122	75	46	3	79					79	79	79	79	79	79	79	79	79	79	79	79								
Activity 7 - Landscaping	116	75	46	3	73													73	73	73	73	73	73	73	73	73	73		
Activity 8 - Process Plants and E&M Plants Installation	114	75	46	3	71												71	71	71	71	71	71	71	71					
Activity 9 - Utiles Installation	119	75	46	3	76											76	76	76	76	76	76	76	76						
OWTF Construction Site 2																													
Activity 1 - Demolition and Site Clearance	125	196	54	3	74	74	74	74																					
Activity 2 - Construction Piling	123	196	54	3	72			72	72	72	72	72	72	72	72*														
Activity 3 - Site Formation	121	196	54	3	70			70	70	70	70	70	70	70	70*														
Activity 4 - Buildings (Pre-treatment, Office, Wastewater Treatment, Composting)	121	196	54	3	70										70*	70	70	70	70	70	70	70	70	70	70	70	70		
Activity 5 - Road Widening	123	196	54	3	72				72	72	72	72	72	72	72	72	72												
Activity 6 - Sewerage System Construction	122	196	54	3	71					71	71	71	71	71	71	71	71	71	71	71	71								
Activity 7 - Landscaping	116	196	54	3	65													65	65	65	65	65	65	65	65	65	65		
Activity 8 - Process Plants and E&M Plants Installation	114	196	54	3	63												63	63	63	63	63	63	63	63					
Activity 9 - Utiles Installation	119	196	54	3	68											68	68	68	68	68	68	68	68						
Construction of Rising Main and Gas Pipeline																													
Activity 1 - Rising Main Installation	113	220	55	3	61						61	61	61	61	61	61	61	61	61	61	61								
Activity 2 - Gas Pipeline Installation	113	220	55	3	61						61	61	61	61	61	61	61	61	61	61	61								
Activity 3 - Minor Modification of Access Road ^	120	220	55	3	68	68	68	68	68	68												68	68	68	68	68	68		
Cumulative Noise Impact, dB(A)						83	83	86	85	86	86	86	86	86	86	85	84	84	84	84	84	84	82	81	80	80	75		

Remarks:

1. Slant distance is adopted for the construction noise assessment
2. Distance correction in dB(A)
3. Facade correction in dB(A)

\* According to the construction programme, activity 2&3 will be finished on 18-12-2015 and activity 4 will be started on 21-12-2015 so that they will not working simultaneously.

Therefore, noise level of activity 4 which is less than noise level of activity 2&3 is not take into account at the cumulative noise impact.

^ Access road modification work will not coincide with installation work. Worst case sceanrio of construction programme has been shown in calculation for conservative approach.

**Bold** figures denote exceedance of relevant noise criteria

Noise Sensitive Receiver						2015												2016											
N2 - Village House No. 319, Sha Ling	SWL	Dist.(m) <sup>1</sup>	DC <sup>2</sup>	FC <sup>3</sup>	CNL, dB(A)	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12		
OWTF Construction Site 1																													
Activity 1 - Demolition and Site Clearance	125	92	47	3	81	81	81	81																					
Activity 2 - Construction Piling	123	92	47	3	79			79	79	79	79	79	79	79	79*														
Activity 3 - Site Formation	121	92	47	3	77			77	77	77	77	77	77	77	77*														
Activity 4 - Buildings (Pre-treatment, Office, Wastewater Treatment, Composting)	121	92	47	3	77										77*	77	77	77	77	77	77	77	77	77	77	77			
Activity 5 - Road Widening	123	92	47	3	79				79	79	79	79	79	79	79	79													
Activity 6 - Sewerage System Construction	122	92	47	3	78					78	78	78	78	78	78	78	78	78	78	78	78	78							
Activity 7 - Landscaping	116	92	47	3	72													72	72	72	72	72	72	72	72	72			
Activity 8 - Process Plants and E&M Plants Installation	114	92	47	3	70												70	70	70	70	70	70	70	70	70	70			
Activity 9 - Utilities Installation	119	92	47	3	75											75	75	75	75	75	75	75	75						
OWTF Construction Site 2																													
Activity 1 - Demolition and Site Clearance	125	207	54	3	74	74	74	74																					
Activity 2 - Construction Piling	123	207	54	3	72			72	72	72	72	72	72	72	72*														
Activity 3 - Site Formation	121	207	54	3	70			70	70	70	70	70	70	70	70*														
Activity 4 - Buildings (Pre-treatment, Office, Wastewater Treatment, Composting)	121	207	54	3	70										70*	70	70	70	70	70	70	70	70	70	70	70			
Activity 5 - Road Widening	123	207	54	3	72				72	72	72	72	72	72	72	72													
Activity 6 - Sewerage System Construction	122	207	54	3	71					71	71	71	71	71	71	71	71	71	71	71	71	71							
Activity 7 - Landscaping	116	207	54	3	65													65	65	65	65	65	65	65	65	65			
Activity 8 - Process Plants and E&M Plants Installation	114	207	54	3	63												63	63	63	63	63	63	63	63	63	63			
Activity 9 - Utilities Installation	119	207	54	3	68											68	68	68	68	68	68	68	68						
Construction of Rising Main and Gas Pipeline																													
Activity 1 - Rising Main Installation	113	244	56	3	60						60	60	60	60	60	60	60	60	60	60	60								
Activity 2 - Gas Pipeline Installation	113	244	56	3	60						60	60	60	60	60	60	60	60	60	60	60								
Activity 3 - Minor Modification of Access Road ^	120	244	56	3	67	67	67	67	67	67												67	67	67	67	67			
Cumulative Noise Impact, dB(A)						82	82	85	84	85	85	85	85	85	85	84	83	83	83	83	83	83	81	80	79	79			

Remarks:

1. Slant distance is adopted for the construction noise assessment
2. Distance correction in dB(A)
3. Facade correction in dB(A)

\* According to the construction programme, activity 2&3 will be finished on 18-12-2015 and activity 4 will be started on 21-12-2015 so that they will not working simultaneously.

Therefore, noise level of activity 4 which is less than noise level of activity 2&3 is not take into account at the cumulative noise impact.

^ Access road modification work will not coincide with installation work. Worst case sceanrio of construction programme has been shown in calculation for conservative approach.

**Bold** figures denote exceedance of relevant noise criteria

Noise Sensitive Receiver						2015												2016											
N3 - Village House No. 265, Sha Ling	SWL	Dist.(m) <sup>1</sup>	DC <sup>2</sup>	FC <sup>3</sup>	CNL, dB(A)	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12		
OWTF Construction Site 1																													
Activity 1 - Demolition and Site Clearance	125	126	50	3	78	78	78	78																					
Activity 2 - Construction Piling	123	126	50	3	76			76	76	76	76	76	76	76	76*														
Activity 3 - Site Formation	121	126	50	3	74			74	74	74	74	74	74	74	74*														
Activity 4 - Buildings (Pre-treatment, Office, Wastewater Treatment, Composting)	121	126	50	3	74										74*	74	74	74	74	74	74	74	74	74	74	74			
Activity 5 - Road Widening	123	126	50	3	76				76	76	76	76	76	76	76	76													
Activity 6 - Sewerage System Construction	122	126	50	3	75					75	75	75	75	75	75	75	75	75	75	75	75	75							
Activity 7 - Landscaping	116	126	50	3	69													69	69	69	69	69	69	69	69	69			
Activity 8 - Process Plants and E&M Plants Installation	114	126	50	3	67												67	67	67	67	67	67	67	67	67	67			
Activity 9 - Utiles Installation	119	126	50	3	72											72	72	72	72	72	72	72	72						
OWTF Construction Site 2																													
Activity 1 - Demolition and Site Clearance	125	76	46	3	82	82	82	82																					
Activity 2 - Construction Piling	123	76	46	3	80			80	80	80	80	80	80	80	80*														
Activity 3 - Site Formation	121	76	46	3	78			78	78	78	78	78	78	78	78*														
Activity 4 - Buildings (Pre-treatment, Office, Wastewater Treatment, Composting)	121	76	46	3	78										78*	78	78	78	78	78	78	78	78	78	78	78			
Activity 5 - Road Widening	123	76	46	3	80				80	80	80	80	80	80	80	80													
Activity 6 - Sewerage System Construction	122	76	46	3	79					79	79	79	79	79	79	79	79	79	79	79	79	79							
Activity 7 - Landscaping	116	76	46	3	73													73	73	73	73	73	73	73	73	73			
Activity 8 - Process Plants and E&M Plants Installation	114	76	46	3	71												71	71	71	71	71	71	71	71	71	71			
Activity 9 - Utiles Installation	119	76	46	3	76											76	76	76	76	76	76	76	76						
Construction of Rising Main and Gas Pipeline																													
Activity 1 - Rising Main Installation	113	55	43	3	73						73	73	73	73	73	73	73	73	73	73	73								
Activity 2 - Gas Pipeline Installation	113	55	43	3	73						73	73	73	73	73	73	73	73	73	73	73								
Activity 3 - Minor Modification of Access Road ^	120	55	43	3	80	80	80	80	80	80												80	80	80	80	80			
Cumulative Noise Impact, dB(A)						85	85	87	87	88	87	87	87	87	87	86	85	85	85	85	85	86	85	84	83	83			

Remarks:

1. Slant distance is adopted for the construction noise assessment
2. Distance correction in dB(A)
3. Facade correction in dB(A)

\* According to the construction programme, activity 2&3 will be finished on 18-12-2015 and activity 4 will be started on 21-12-2015 so that they will not working simultaneously.

Therefore, noise level of activity 4 which is less than noise level of activity 2&3 is not take into account at the cumulative noise impact.

^ Access road modification work will not coincide with installation work. Worst case sceanrio of construction programme has been shown in calculation for conservative approach.

**Bold** figures denote exceedance of relevant noise criteria

Noise Sensitive Receiver						2015												2016											
N4 - Village House in Sha Ling	SWL	Dist.(m) <sup>1</sup>	DC <sup>2</sup>	FC <sup>3</sup>	CNL, dB(A)	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12		
OWTF Construction Site 1																													
Activity 1 - Demolition and Site Clearance	125	221	55	3	73	73	73	71	71	71	71	71	71	71	71*														
Activity 2 - Construction Piling	123	221	55	3	71			71	71	71	71	71	71	71	71														
Activity 3 - Site Formation	121	221	55	3	69			69	69	69	69	69	69	69	69*														
Activity 4 - Buildings (Pre-treatment, Office, Wastewater Treatment, Composting)	121	221	55	3	69										69*	69	69	69	69	69	69	69	69	69	69	69			
Activity 5 - Road Widening	123	221	55	3	71				71	71	71	71	71	71	71	71	70	70	70	70	70	70							
Activity 6 - Sewerage System Construction	122	221	55	3	70					70	70	70	70	70	70	70	70	70	70	70	70								
Activity 7 - Landscaping	116	221	55	3	64													64	64	64	64	64	64	64	64	64			
Activity 8 - Process Plants and E&M Plants Installation	114	221	55	3	62												62	62	62	62	62	62	62	62					
Activity 9 - Utiles Installation	119	221	55	3	67											67	67	67	67	67	67	67	67						
OWTF Construction Site 2																													
Activity 1 - Demolition and Site Clearance	125	77	46	3	82	82	82	82							80*														
Activity 2 - Construction Piling	123	77	46	3	80			80	80	80	80	80	80	80	80*														
Activity 3 - Site Formation	121	77	46	3	78			78	78	78	78	78	78	78	78*														
Activity 4 - Buildings (Pre-treatment, Office, Wastewater Treatment, Composting)	121	77	46	3	78										78*	78	78	78	78	78	78	78	78	78	78	78			
Activity 5 - Road Widening	123	77	46	3	80				80	80	80	80	80	80	80	80	80	79	79	79	79	79							
Activity 6 - Sewerage System Construction	122	77	46	3	79					79	79	79	79	79	79	79	79	79	79	79	79								
Activity 7 - Landscaping	116	77	46	3	73													73	73	73	73	73	73	73	73	73			
Activity 8 - Process Plants and E&M Plants Installation	114	77	46	3	71												71	71	71	71	71	71	71	71					
Activity 9 - Utiles Installation	119	77	46	3	76											76	76	76	76	76	76	76	76						
Construction of Rising Main and Gas Pipeline																													
Activity 1 - Rising Main Installation	113	138	51	3	65						65	65	65	65	65	65	65	65	65	65	65								
Activity 2 - Gas Pipeline Installation	113	138	51	3	65						65	65	65	65	65	65	65	65	65	65	65								
Activity 3 - Minor Modification of Access Road ^	120	138	51	3	72	72	72	72	72	72												72	72	72	72	72			
Cumulative Noise Impact, dB(A)						83	83	86	85	86	86	86	86	86	86	85	84	84	84	84	84	84	82	81	80	80			

Remarks:

1. Slant distance is adopted for the construction noise assessment
2. Distance correction in dB(A)
3. Facade correction in dB(A)

\* According to the construction programme, activity 2&3 will be finished on 18-12-2015 and activity 4 will be started on 21-12-2015 so that they will not working simultaneously.

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