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Visayas Base Load Power Project (Philippines)

KSPC Multipartite Monitoring Team Meeting Minutes 4Q 2015 (English Version)

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Minutes of the 2015 Fourth Quarter MMT Meeting

Date: **March 28, 2016**
 Location: **KSPC Basement Conference Room**

Time: **1000H-1300H**

Conducted by: **E&C and C&PR Department**
 Activity: **2015 Fourth Quarter MMT Meeting**
 Facilitator: **Neil Lawrence V. Miral/Joanne Claire S. Simbajon/E&C**

Facilitating Attendees:

No.	KSPC Representatives	No.	DENR-EMB Representatives
1	Ill Hwa Jeong	1	Marcelino Tabuco/ EMB-PCD
2	Neil Lawrence V. Miral	2	Ariel Gillera/ EMB-EIA
3	Joanne Claire T. Supnet-Simbajon	3	Luis Antonio Monisit/EMB-PCD
4	Gladys Auxilio		
5	Victorio B. Naval		
6	Jasmin Sumaoy		
7	Klayd del Carmen		

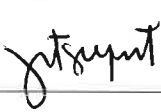

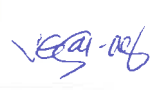

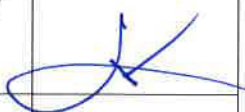
KSPC MMT held their fourth quarter meeting last March 28, 2016 at the KSPC Basement Meeting Room. The meeting started at around 1000H and ended 1300H. Majority of the members were present and generally the meeting went well. The following meeting agenda were discussed.

Agenda Topics

No.	Agenda	Comments/Suggestions	Responsible Person/Due Date
1	<ul style="list-style-type: none"> Updates from Previous Meeting Minutes <ul style="list-style-type: none"> Fourth Quarter Environmental Monitoring Adopt an Estero 	<ul style="list-style-type: none"> Naga City Sanitary Department will present design for the septic tank / treatment facility for the wastes generated by the households discharging in the old SPC discharge channel. KSPC will coordinate with the coal supplier regarding disposal plan of the vessel's operational and sanitary wastes. 	<p>Naga City Sanitary Department/April 28, 2016</p> <p>KSPC – E&C</p>
2	<ul style="list-style-type: none"> Barangay Public Consultation Minutes <ul style="list-style-type: none"> Barangay Colon Barangay North Poblacion Barangay Tangke 	<ul style="list-style-type: none"> Minor complaints on dust contamination @ Brgy North Poblacion. Strict implementation of dust suppression program and replacement of damage screens/nets. 	KSPC – E&C

No.	Agenda	Comments/Suggestions	Responsible Person/Due Date
3	<ul style="list-style-type: none"> Fourth Quarter Environmental Monitoring Results <ul style="list-style-type: none"> Ambient Air Water Effluent Marine Water Ground Water River Water Marine Life Study 	<ul style="list-style-type: none"> Double check groundwater sampling points; sampling must be done to deep wells used as source of drinking water. Change total coliform to fecal coliform for marine water sampling. 	KSPC – E&C
4	<ul style="list-style-type: none"> Environmental Activities <ul style="list-style-type: none"> Adopt an Estero Activity 	<ul style="list-style-type: none"> Follow up EMB 7 for the MOA of the new adopted water bodies. 	KSPC E&C/ EMB 7
5	<ul style="list-style-type: none"> Work and Financial Plan Approval 	<ul style="list-style-type: none"> No changes; approved by the TechCom Members 	KSPC E&C
6	<ul style="list-style-type: none"> Future Activities/Other Matters <ul style="list-style-type: none"> Technical Committee Members' Training 	<ul style="list-style-type: none"> Invite FDR Con to discuss on their Solid Waste Management Process. Invite Mr. Marco Silveron of EMB7 to discuss on RA 9003. Naga City LGU will discuss briefly their Solid Waste Management Plan 	KSPC E&C / Naga City LGU / EMB7

Attachments: A. Photos
 B. Attendance Sheet
 C. Presentation Material

Prepared by:	Reviewed by:		Noted by:	
				
SIMBAJON, J.C.	MIRAL, N.L.	SUMAOY, J	JEONG, I.H.	NAVAL, V.B.

Attachment A:

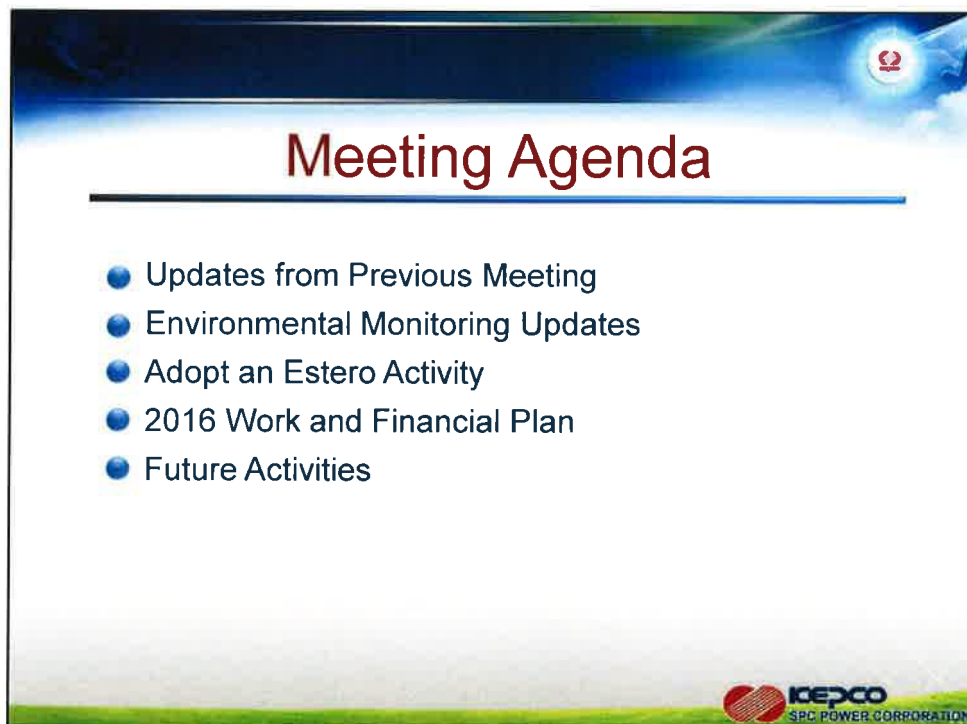




ATTENDANCE SHEET

MMT MEETING; March 28, 2016; KSPC ADMIN BLDG CONFERENCE ROOM

No.	Name	Agency/Group	Contact Number	Email Address	Signature
1	Marcelino Tabuco	DENR-EMB 7 EIA (Chairman)	3461-647		
2	Luis Antonio M. Monsit	DENR-EMB 7 PCD (Vice Chairman)		lmonsit@gmail.com	
3	James Almora	DENR-EMB 7			
4	JETHAN U. REPOLLO	CENRO			
5		Barangay Colon			
6	EARL IAN CABIGON	Barangay Tangke	0936692688	earlni.bai0415@yahoo.ph	
7	Kidd Salas	Barangay North Poblacion	0916266965		
8	ISABELINO REPUNTE	Parents Teachers & Community Association (PTCA)	09276674520		
9	Joanne Uain S. Sinayan	KSPC - PCO			
10	VIMAC AMPUGAN	Rural Health Unit Representative	0917324143		
11	MARIBEL S. PANTORILIA	Colon Elementary School Representative	09331889326		
12	JASON REYAN	SPC Power Corp. PCO	09438163922		
13		Naga - PCO			
14	Leonila Miranda	Fisher Folks Assoc. from Barangay Colon	489-5140		
15		Naga City Sanitary Department			
16	Aginaldo Briones	Department of Energy	09331521867		
17	JEAN VB Naval	KSPC	09173225929		
18	Mila Vildosola	Colon	0943407570		
19	Jarmin Sumary	KSPC			
20	Kloyd del Carmen				
21	Freddie Sarillan	DENR	9677-411	carnsarillan@gmail.com	
22	MAHMUD	DENR		@yuhaw.com	
23	NEIL MIRAL	KSPC	505-4065	sb-ops@gahcoo.com	
24	Jeong, Ilhwa	KSPC			
25					





3rd Quarter MMT Meeting			
<ul style="list-style-type: none"> Date: October 20, 2015 Venue: KSPC Admin Bldg. Basement Conference Room 			
Agenda Topics			
No.	Agenda	Comments/Suggestions	Responsible Person/Due Date
1	<ul style="list-style-type: none"> Updates from Previous Meeting Minutes Second Quarter Environmental Monitoring Adopt an Estero PCG invitation 	<ul style="list-style-type: none"> MMT TechCom Members agreed to purchase Ambient Air Sampling Equipment (1hr sampler for TSP only) For the new adopted water body include DO, BOD, COD, Fecal Coliform and Temperature for the parameters to be tested; Follow up Naga LGU on the issue regarding discharge of sanitary waste from households near the old SPC discharge channel KSPC will coordinate with the coal supplier regarding disposal plan of the vessel's operational and sanitary wastes. 	<ul style="list-style-type: none"> KSPC – E&C KSPC – E&C & Naga LGU KSPC – E&C
2	<ul style="list-style-type: none"> Barangay Public Consultation Minutes Barangay Colon Barangay North Poblacion Barangay Tangke 	<ul style="list-style-type: none"> MMT TechCom Members agreed with Brgy. Tangke's request to transfer groundwater sampling point; KSPC will have to check the exact location of the new sampling point Include summary of health report in each barangay 	<ul style="list-style-type: none"> KSPC – E&C & Brgy. Tangke

2nd Quarter MMT Meeting			
No.	Agenda	Comments/Suggestions	Responsible Person/Due Date
3	<ul style="list-style-type: none"> Second Quarter Environmental Monitoring Results <ul style="list-style-type: none"> Ambient Air Water Effluent Marine Water Ground Water River Water Marine Life Study 	<ul style="list-style-type: none"> Include no. of vessels during Marine Water Sampling within the coverage area Include Interpretation of air quality data using the Air Quality Index 	KSPC – E&C
4	<ul style="list-style-type: none"> Environmental Activities <ul style="list-style-type: none"> Adopt an Estero Activity 	<ul style="list-style-type: none"> Include no. of sacks of garbage collected during the activity. 	KSPC E&C
5	Future Activities/Other Matters	<ul style="list-style-type: none"> MMT TechCom Training will be by November Fourth Quarter Monitoring by December National MMT Convention 	KSPC E&C




Barangay Public Consultation Updates

Barangay North Poblacion (02-10-16)

An open forum followed after the presentation. The following items were discussed:

No.	Queries/Comments from Colon Residents	KSPC's Response	Responsible Entity
1	Request for proper distribution of powder detergent donation	- KSPC donates powder detergent only to households affected by dust contamination due to coal handling operation	KSPC C&PR
2	Request for financial assistance for the procurement of uniform for the Barangay Officials, Bantay Dagat and BHW	- Submit letter of request address to the President.	KSPC C&PR




Barangay Public Consultation Updates

Barangay Colon (02-09-16)

An open forum followed after the presentation. The following items were discussed:

No.	Queries/Comments from Colon Residents	KSPC's Response	Responsible Entity
1	Employment opportunities for Colon residents especially during Overhaul Activities	- Interested applicants will submit their Blodata to the barangay; Barangay will endorse list of selected applicants to KSPC. - Department In need of utilities/technical staffs will be the one to decide on who to choose.	KSPC C&PR / HR&GA
2	Request for financial assistance for the installation of railings at the old discharge channel of Salcon (end part)	- Submit letter of request address to the president.	KSPC C&PR




Barangay Public Consultation Updates

Barangay Tangke (01-18-16)

An open forum followed after the presentation. The following items were discussed:

No.	Queries/Comments from Tangke Residents	KSPC's Response	Responsible Entity
1.	Increase frequency of doctor's free checkup and consultation	KSPC is planning to increase the frequency of doctor's free checkup and consultation to twice a week (still for management approval)	KSPC C&PR
2.	How to avail the livelihood skills training	Residents will have to coordinate with the Brgy. Chairman for the requirements. 10 deserving individuals will be chosen to join the said training (to be decided by the Brgy. Officials)	KSPC C&PR
3.	Inquiries on gift giving during Christmas, sponsorship of children's contest and free Tuli for children	Submit request letter addressed to the President. Financial assistance will be provided.	KSPC C&PR
4.	Loud noise is sometimes observed during operation	Loud noise usually being heard during emergency shutdowns (high pressure steam being vent out). During normal operation, noise of plant is within standard.	KSPC E&C
5.	Are the shells taken near the plant still safe for human consumption	As per marine life study and marine water monitoring results, shells in the area near the Cebu Power Plant is still safe for human consumption.	KSPC E&C

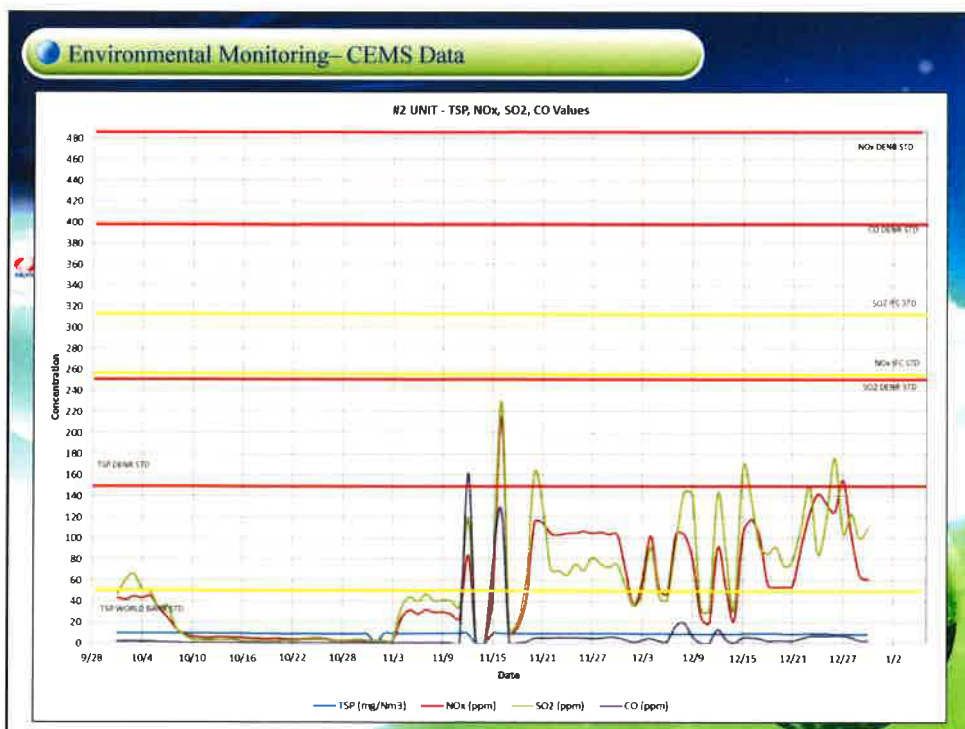
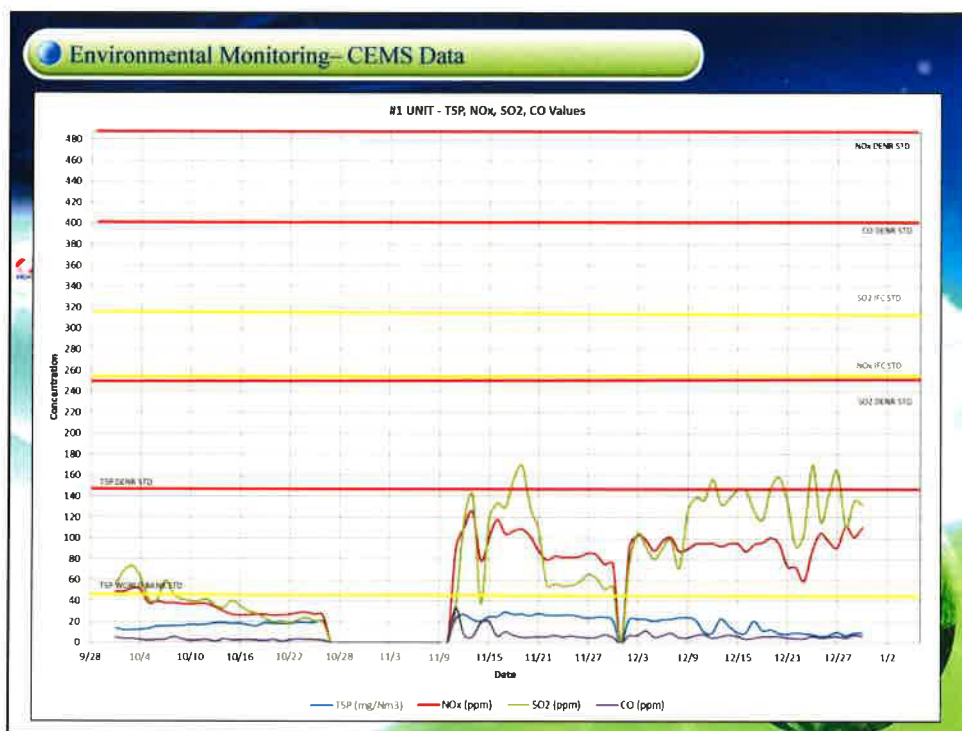



Environmental Monitoring–CEMS Data												
	TSP (DENR-EMB: 150 mg/Nm ³ , World Bank: 50 mg/Nm ³)						NO _x (DENR-EMB: 487 ppm, World Bank : 252 ppm)					
DATE	OCTOBER		NOVEMEBR		DECEMBER		OCTOBER		NOVEMEBR		DECEMBER	
Unit	mg/Nm ³	ton/day	mg/Nm ³	ton/day	mg/Nm ³	ton/day	ppm	ton/day	ppm	ton/day	ppm	ton/day
Ave	16.63	0.12	25.20	0.15	13.96	0.11	34.14	0.32	93.08	0.72	94.10	1.00
Max	20.16	0.14	29.33	0.23	24.36	0.22	51.60	0.48	125.07	0.96	111.26	1.19
Min	11.75	0.08	20.42	0.05	5.94	0.04	26.05	0.24	74.79	0.22	59.11	0.63

	CO (DENR-EMB: 400 mg/Nm ³)						SO ₂ (DENR-EMB: 245 ppm, World Bank: 319 ppm)					
DATE	OCTOBER		NOVEMEBR		DECEMBER		OCTOBER		NOVEMEBR		DECEMBER	
Unit	ppm	ton/day	ppm	ton/day	ppm	ton/day	ppm	ton/day	ppm	ton/day	ppm	ton/day
Ave	2.76	0.02	8.84	0.04	5.96	0.04	37.53	107.23	89.36	0.91	125.16	1.85
Max	5.34	0.03	33.46	0.12	11.59	0.08	73.19	209.11	169.03	1.66	170.07	2.51
Min	0.98	0.01	4.54	0.01	3.53	0.02	18.71	53.46	34.62	0.25	71.09	1.14

Environmental Monitoring–CEMS Data												
	TSP (DENR-EMB: 150 mg/Nm ³ , World Bank: 50 mg/Nm ³)						NO _x (DENR-EMB: 487 ppm, World Bank : 252 ppm)					
DATE	OCTOBER		NOVEMEBR		DECEMBER		OCTOBER		NOVEMEBR		DECEMBER	
Unit	mg/Nm ³	ton/day	mg/Nm ³	ton/day	mg/Nm ³	ton/day	ppm	ton/day	ppm	ton/day	ppm	ton/day
Ave	9.17	0.08	9.00	0.07	8.81	0.08	12.51	0.01	64.95	0.05	79.63	0.07
Max	9.58	0.09	9.44	0.09	9.28	0.08	44.60	0.05	214.94	0.11	154.48	0.12
Min	8.86	0.07	0.28	0.00	8.29	0.06	1.96	0.00	1.35	0.00	20.02	0.02

	CO (DENR-EMB: 400 ppm)						SO ₂ (DENR-EMB: 245 ppm, World Bank: 319 ppm)					
DATE	OCTOBER		NOVEMEBR		DECEMBER		OCTOBER		NOVEMEBR		DECEMBER	
Unit	ppm	ton/day	ppm	ton/day	ppm	ton/day	ppm	ton/day	ppm	ton/day	ppm	ton/day
Ave	0.45	0.00	15.42	0.01	4.68	0.00	13.61	0.02	63.87	0.07	94.05	0.12
Max	1.92	0.00	161.53	0.06	19.50	0.01	65.39	0.08	229.48	0.21	176.00	0.22
Min	0.01	0.00	0.11	0.00	0.21	0.00	1.37	0.00	2.25	0.00	31.34	0.04

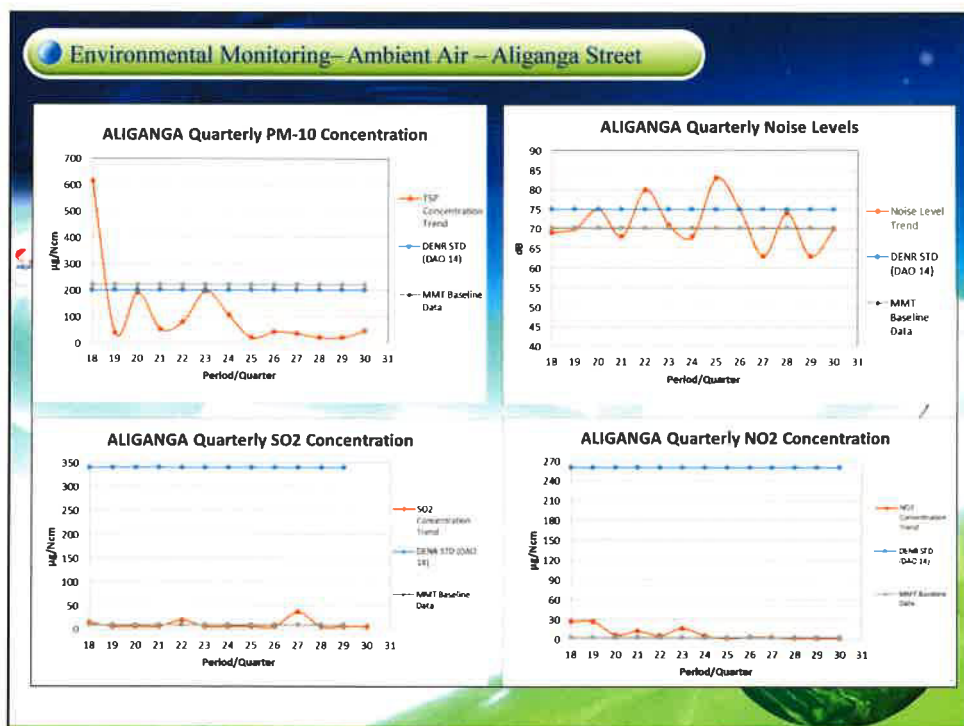


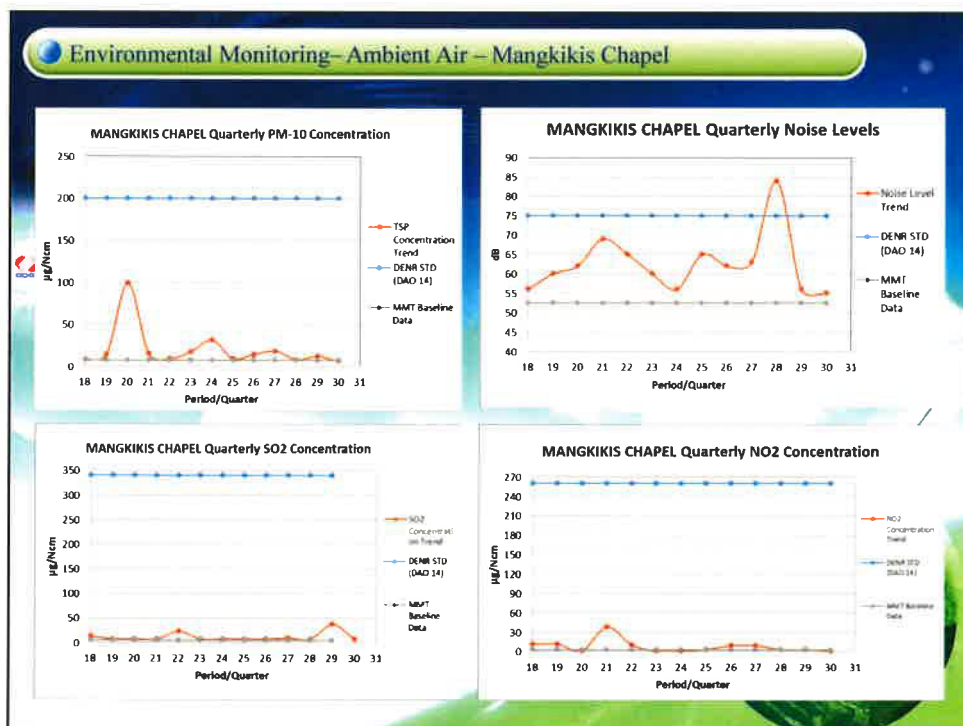
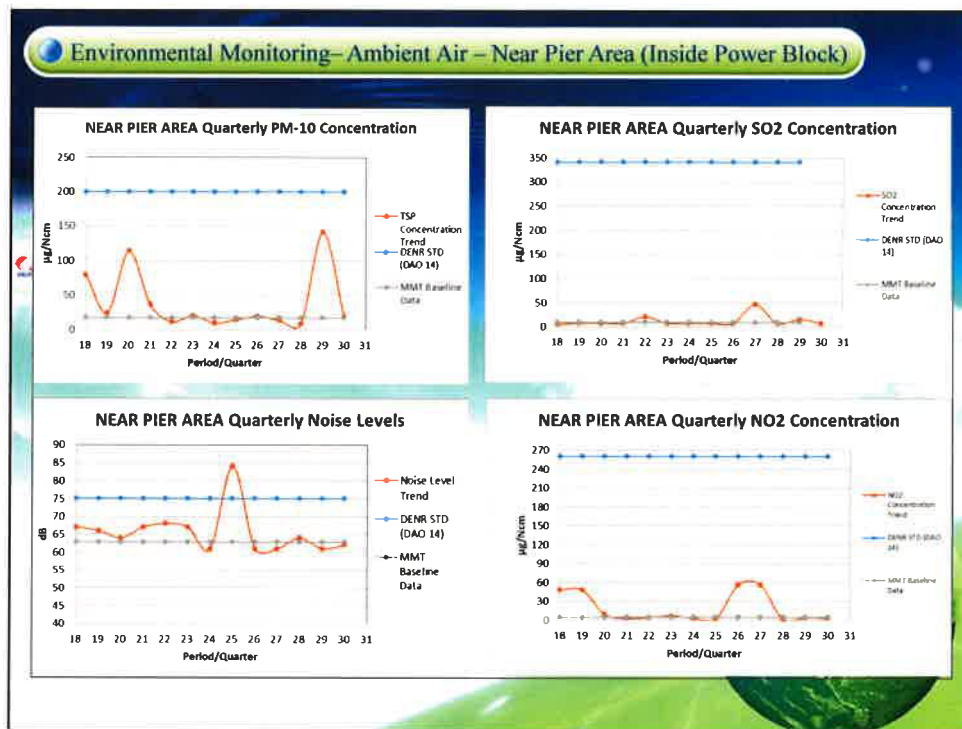


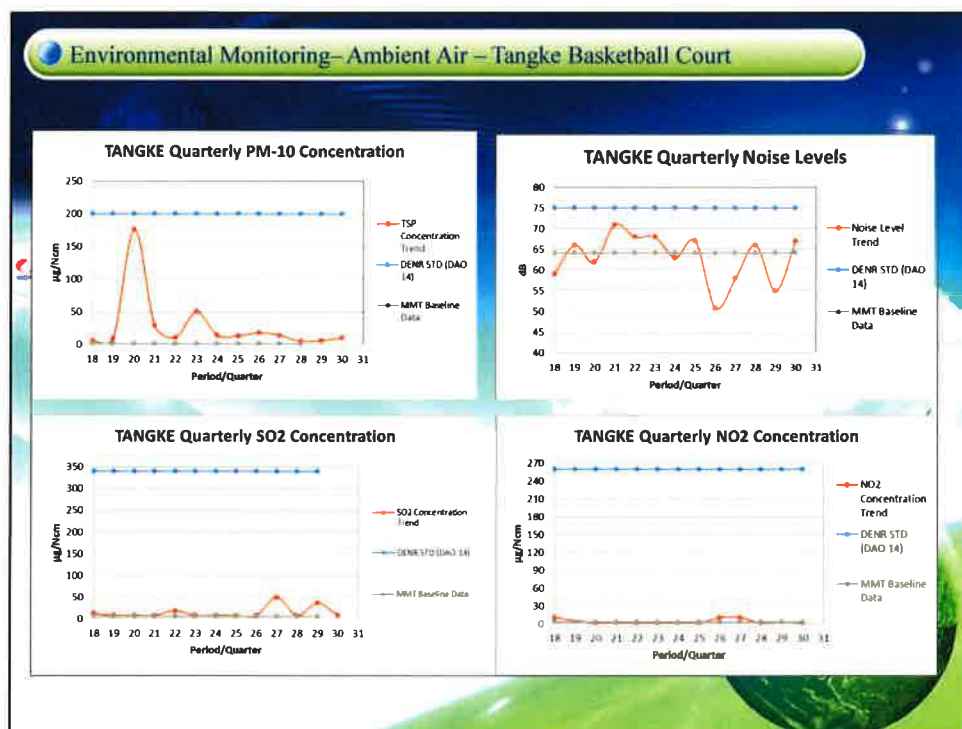
Environmental Monitoring– Ambient Air

AMBIENT AIR QUALITY (Third Party Conducted by OML)

Station/Location	PARAMETERS					
	PM-10, µg/Ncm	SO ₂ , µg/Ncm	NO ₂ , µg/Ncm	Noise, dB	CO, ppm	
Minimum Detection Limit	1	0.01	0.01	---	0	Observations during sampling
DENR Standard, 1-hr	200	340	260	75	30	
DENR Standard, 24-hr	150	180	150	75	30	
World Bank Standard (IFC, 1-hr)	--- ^A	--- ^A	200 ^C	70	--- ^A	
World Bank Standard (IFC, 24-hr)	50	20	40	---	---	
Brgy. Tangke, Basketball Court	10	<7	<1	67	0	✓ Time: (12/17/15)/ 12:46-01:46PM ✓ Wind Direction: SE to NW ✓ Sampling location, Brgy. Tangke Basketball Court residential area. Sources of noise, Christmas party on-going approximately 10m away, children playing and people talking along the area.
Along National Road cor., Alinganga St., Near Perimeter Fence of SPC Power Corp.	45	<7	<1	70	0	✓ Time: (12/17/15)/ 11:36AM-12:36PM ✓ Wind Direction: SE to NE ✓ Sampling location, Alinganga Street 10m away from the highway. Sources of noise from motorcycles passing by with open muffler and vehicles passing in the highway.
Near Pier Area inside the power plant site	19	<7	3	62	0	✓ Time: (12/17/15)/ 10:20-11:20AM ✓ Wind Direction: SE to NW ✓ Sampling location pier area, near boiler and stack. Sources of noise from boiler and compressor.





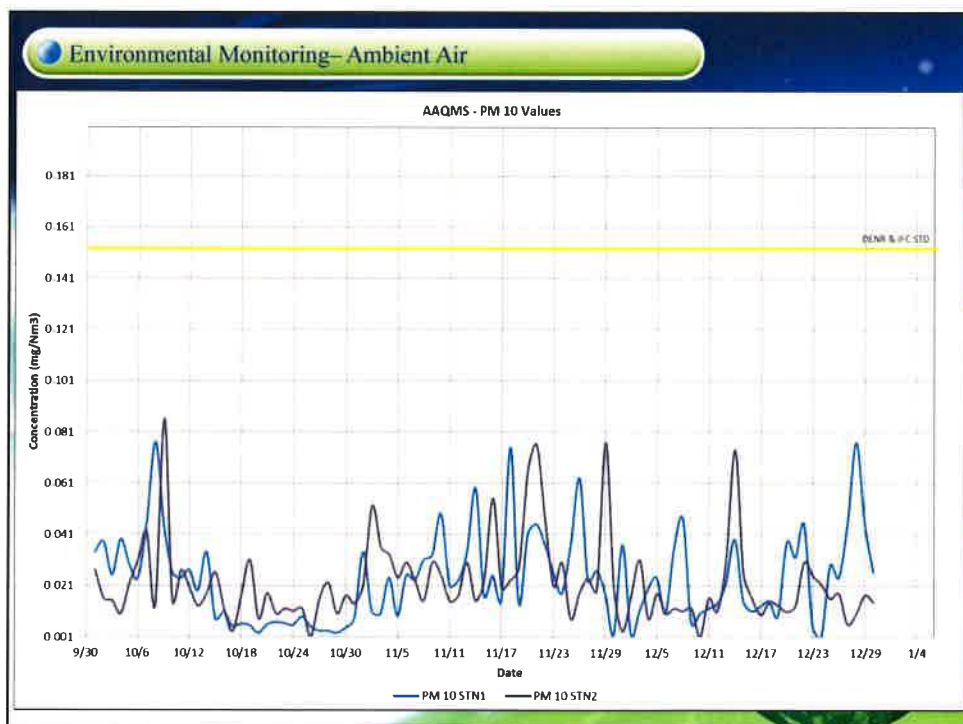
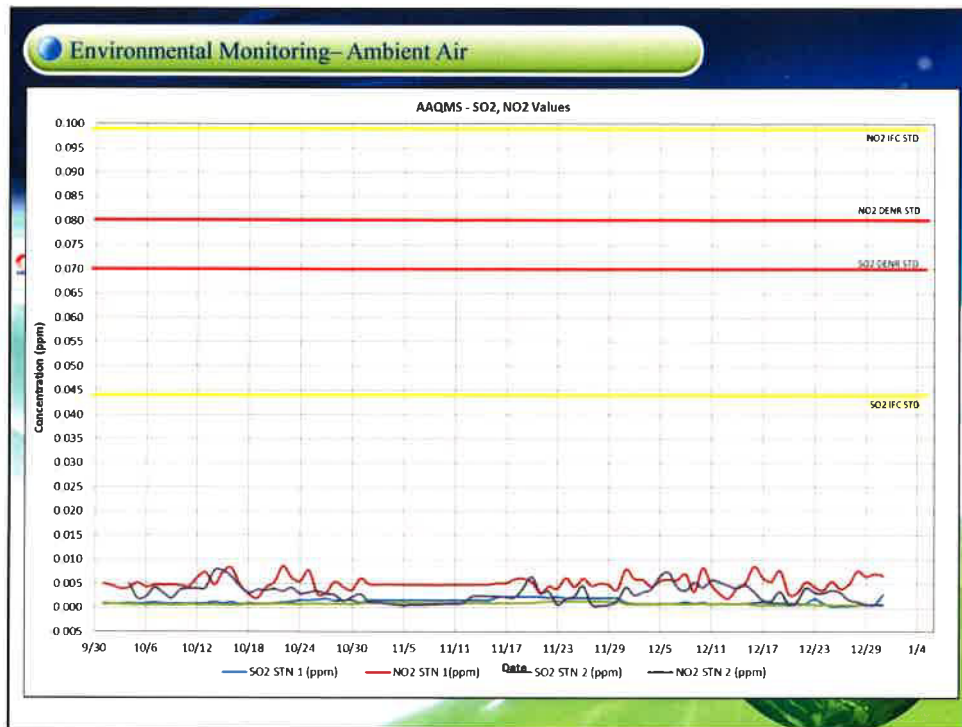




Environmental Monitoring–Ambient Air

Ambient Air Quality Monitoring (Fourth Quarter 2015)

Month		Station 1					Station 2					Remarks	
		Item					Item						
		Wind Speed	NO ₂	PM 10	NOISE	SO ₂	Wind Speed	NO ₂	PM 10	NOISE	SO ₂		
		m/s	PPM	mg/m ³	dB	PPM	m/s	PPM	mg/m ³	dB	PPM		
DENR STD		NA	0.080	0.150	75.000 ^b	0.070	NA	0.080	0.150	75.000 ^b	0.070	NA	
WORLD BANK STD		NA	0.0987 ^a	0.150 ^c	70.000 ^d	0.0443 ^a	NA	0.0987 ^a	0.150 ^c	70.000 ^d	0.0443 ^a	NA	
October	Max	2.300	0.007	0.019	47.100	0.001	0.500	0.004	0.013	53.838	0.001	PASS	
	Average	0.700	0.005	0.034	49.400	0.001	0.500	0.008	0.018	56.096	0.001	PASS	
November	Max	1.100	0.005	0.059	48.700	0.002	0.900	0.002	0.015	48.200	0.001	PASS	
	Average	1.000	0.005	0.017	45.800	0.002	1.000	0.002	0.023	48.000	0.001	PASS	
December	Max	1.000	0.002	0.022	48.700	0.001	0.800	0.005	0.031	46.900	0.001	PASS	
	Average	1.400	0.004	0.039	46.600	0.001	1.200	0.004	0.074	47.900	0.001	PASS	
Air Quality Index (DAO 2000-81)		FAIR to GOOD - No pollutant-specific cautionary statements for the general public.					FAIR to GOOD - No pollutant-specific cautionary statements for the general public.						





Environmental Performance Review - Effluents														
Water Effluents Monitoring (4th Quarter 2015)														
Parameters	Cooling Water Effluent				Stormdrain 1 ^A (near LCF)				Stormdrain 2 ^A (near WTS)				DENR Standard ^B	IFC
MONTH	Oct	Nov	Dec	3rd Party	Oct	Nov	Dec	3rd Party	Oct	Nov	Dec	3rd Party	(Class SD)	
pH	8.250	8.290	8.260	7.600	7.710	8.260	7.740	7.500	8.010	8.180	8.280	8.300	5.0 ~ 9.0	6.0 ~ 9.0
Turbidity (NTU)	0.650	0.850	0.840	2.300	15.600	17.800	5.280	1.300	0.510	5.530	0.450	3.400		
Conductivity (µS)	50.10	49.00	49.30		1.16	2.28	0.81		60.40	58.50	57.20			
TSS (mg/L)				39.000				64.000				14.000		50
COD (ppm O ₂)	116.190	160.000	114.790	119.000	136.220	118.270	90.440	147.000	188.300	132.280	161.740	38.000	<200 ppm	<200 ppm
BOD ₅ (mg/L)	8.000	7.000	20.000	<1	94.000	13.000	64.000	6.000	87.000	9.000	14.000	15.000	100	
Oil & Grease (mg/L)				<1				<1				1.000	10	10
Residual Chlorine (mg/L)	0.020	0.070	0.160	<0.2	0.000	0.040	0.000	<0.2		0.050	0.020	<0.2		<0.20 ppm

^A where treated effluent from the sanitary treatment system is discharged together with rain water into the lowest sewerage, samples are collected from a catch basin.

^B DAO 50-05 Revised Effluent Regulations of 1990

^C First increase of 30 mg/L increase from baseline data (any season). Baseline Data: 442 mg/L

^D No in-house laboratory testing was made due to the availability of the instrument to be used for testing.

^E No in-house laboratory testing was made since all city wastewater is treated in the plant's wastewater treatment facility.

^F No residual chlorine standard is set by DENR-EMB for class SD water.



SeaWater Temperature Monitoring (4th Quarter 2015)							
Points	Time	Sampling Location (Temp. in °C)	Baseline Point (Temp. in °C)	ΔT (°C)	Residual Chlorine, mg/L	pH	Plant Load
							(% Capacity)
M1	AM	29.50				7.90	Unit 1-100%,
	PM	29.30				8.00	Unit 2-100%
M2	AM	29.60	29.50	0.10	<0.2	8.00	Unit 1-100%,
	PM	29.50	29.30	0.20		8.00	Unit 2-100%
M3	AM	29.40	29.50	-0.10	<0.2	8.00	Unit 1-100%,
	PM	29.40	29.30	0.10		8.00	Unit 2-100%
M4	AM	29.40	29.50	-0.10	<0.2	8.00	Unit 1-100%,
	PM	29.30	29.30	0.00		8.00	Unit 2-100%
M5	AM	28.80	29.50	-0.70	<0.2	8.00	Unit 1-100%,
	PM	28.70	29.30	-0.60		8.10	Unit 2-100%
DENR Standard Temp. Inc. (DAO 90-35)				< 3 °C			
IFC Standard Temperature Increase				< 3°C			
IFC Standard Residual Chlorine				0.2 mg/L			



Environmental Performance Review

Groundwater Monitoring (3rd Party Conducted by OML)

Parameters	Station/Location ^A															PHLSDW ^B	
	STN 1			STN 2			STN 3			STN 4			STN 5				
	10-Jun	5-Sep	15-Dec	10-Jun	5-Sep	15-Dec	10-Jun	5-Sep	15-Dec	10-Jun	5-Sep	15-Dec	10-Jun	5-Sep	15-Dec		
pH	7.3	7.3	7.2	7.3	7.7	7.5	7.3	7.6	7.2	7.3	7.5					6.5-8.5	
DO, mg/L	5.0	6.0	6.0	2.0	7.0	6.0	5.0	8.0	5.0	6.0	5.0					N/A	
BOD ₅ , mg/L	<1	<1	1.0	<1.0	4.0	1.0	<1	3.0	2.0	4.0	4.0					N/A	
COD, mg/L	<9	<9	10.0	<9	10.0	5.0	<9	10.0	<5	21.0	20.0					N/A	
TSS, mg/L	<1	4.0	1.0	<1	3.0	1.0	<1	<1	<1	5.0	5.0					N/A	
Oil & Grease, mg/L	1.0	2.0	1.0	2.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0					N/A	
TDS, mg/L	628.0	526.0	502.0	658.0	568.0	650.0	628.0	549.0	548.0	724.0	805.0					500	
Total Coliform MPN/100ml	<1.1	8.00	>8.0	>8.0	<1.1	>8.0	<1.1	<1.1	<1.1	1.10	<1.1					<1.1	
Cr ⁶⁺ , mg/L	0.002	<0.002	<0.002	0.002	<0.002	<0.002	0.002	<0.002	<0.002	0.002	<0.002		<0.002	<0.002	0.028	0.05	
CN, mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05					0.07	
Ps, mg/L	<0.005	<0.01	<0.01	<0.005	<0.01	<0.01	<0.005	<0.01	<0.01	<0.005	<0.01		<0.005	<0.01	<0.01	0.01	
Hg, mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001		<0.0001	<0.0001	<0.0001	0.001	
NO ₃ -N, mg/L	5.01	6.52	0.03	18.89	6.69	0.14	5.03	7.25	2.18	0.02	0.16					50	
Cl, mg/L	103.70	85.60	58.30	108.40	63.70	116.60	103.70	55.00	100.60	174.40	174.40					250	
As, mg/L							<0.001	<0.001	<0.001				<0.001	0.041	<0.001	0.05	
Cd, mg/L							<0.002	<0.003	<0.003				<0.002	<0.003	<0.003	0.003	

^A STN 1: Deepwell Brgy Upper Color; STN 2: Deepwell Brgy Tangle; STN 3: Deepwell Brgy Lower Color; STN 4: Deepwell Brgy North Poblacion; STN 5: Leache Well (EAP5);

^B Philippine National Standards for Drinking Water (2007);

^C Parameter not necessary for testing;

^D No sample taken, deepwell source under repair

Environmental Performance Review – Water Resource

Marine Water Monitoring (3rd Party Conducted by OML)

Parameters	Station/Location ^A															DENR Standard ^B Class SD	
	STN 1			STN 2			STN 3			STN 4			STN 5				
	3-Jun	5-Sep	15-Dec	3-Jun	5-Sep	15-Dec	3-Jun	5-Sep	15-Dec	3-Jun	5-Sep	15-Dec	3-Jun	5-Sep	15-Dec		
pH	8.9	8.3	8	8.3	8.3	8.1	8.3	8.4	8.2	8.3	8.4	8.2	8.3	7.9	8.2	6.0-8.5	
DO, mg/L	6	6	7	6	6	7	6	7	7	6	6	7	6	6	7	2 ^C	
BOD ₅ , mg/L	1	<1	<1	1	2	1	1	<1	1	1	1	2	1	1	2	-	
TSS, mg/L	20	48	55	31	47	40	35	57	57	35	69	48	37	46	45	-	
Oil & Grease, mg/L	1	1	<1	1	3	1	1	3	<1	1	3	<1	<1	3	<1	5	
Total Coliforms, MPN/100ml	<1.1	4.6	>8.0	<1.1	4.6	>8.0	<1.1	4.6	>8.0	<1.1	4.6	>8.0	<1.1	<1.1	>8.0	-	
Cr ⁶⁺ , mg/L	0.002	0.002	<0.002	<0.002	0.003	0.028	0.004	<0.002	<0.002	0.002	<0.002	<0.002	0.004	0.003	<0.002	-	
Turbidity, NTU	0.5	0.6	0.8	0.4	0.9	1	0.4	0.5	1	0.5	0.4	1.4	0.6	0.6	0.9	N/A	
CN, mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	
SO ₄ , mg/L	2734	2753	415	2721	2641	423	2733	2660	465	2722	2732	449	2733	2699	410	N/A	
Pb, mg/L	<0.005	<0.01	<0.01	<0.005	<0.01	<0.01	<0.005	<0.01	<0.01	<0.005	<0.01	<0.01	<0.005	<0.01	<0.01	-	
Hg, mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	-	

^A STN 1: Front of City Hall Plaza; STN 2: Front of SPC Site; STN 3: Front of Barangay North Poblacion; STN 4: Front of Color Elementary School (Lower Kayam); STN 5: Front of Lyan Elementary School (Barangay Lyan)

^B DAO 90-14 Revised Water Usage and Classification/Water Quality Criteria

^C Minimum Standard

Not more than 50 mg/L increase of the baseline value

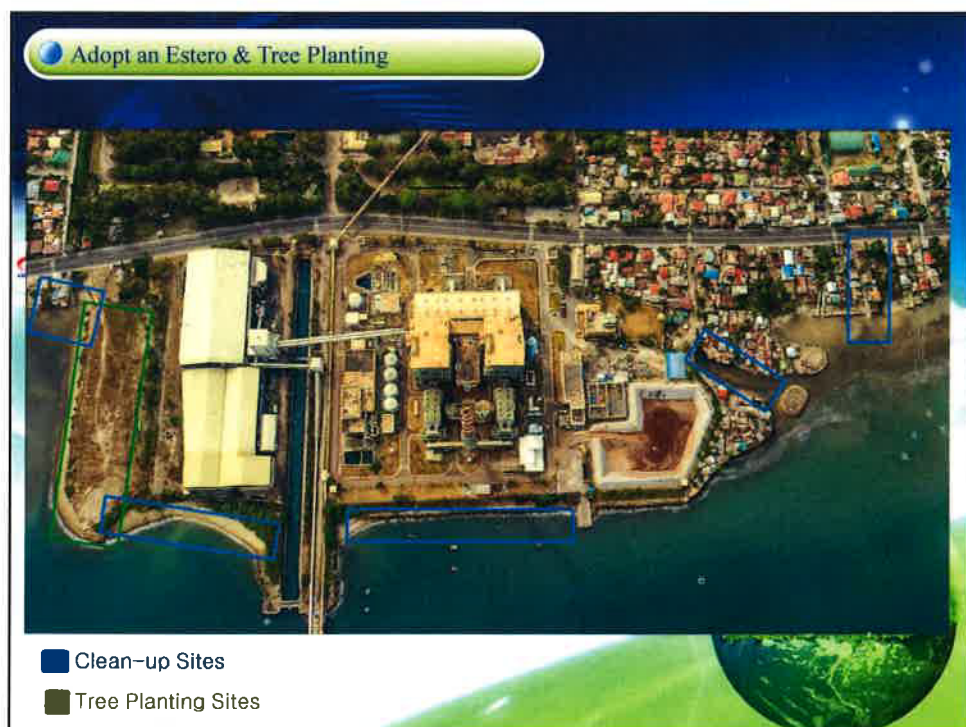
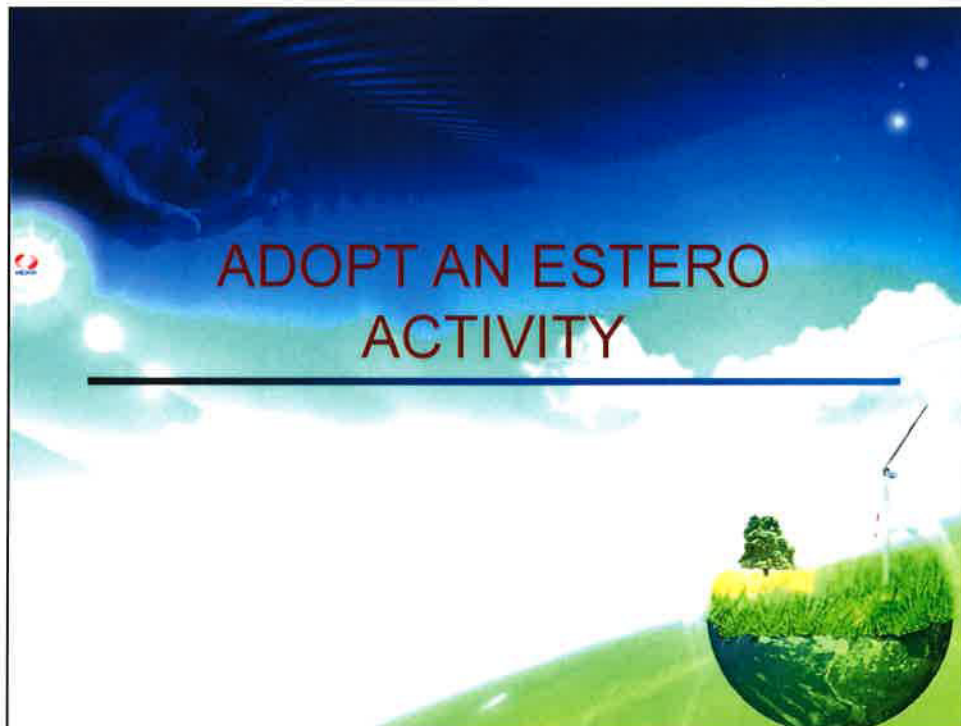
STN 1 baseline: 7 mg/L

STN 2 baseline: 442 mg/L

STN 3 baseline: 13 mg/L

STN 4 baseline: 22 mg/L

STN 5 baseline: 15 mg/L







Technical Committee Members					
No.	Technical/Sectoral	Official Rep.	Contact No.	Alternate	Contact No.
1	DENR-EMB 7 EIA (Chairman)	Mr. William P. Cuñado	0917-3070531	Mr. Ariel Gillera	0906-6625290
2	DENR-EMB 7 PCD (Vice Chairman)	Mr. Marcelino Tabuco	032-346-1647	Mr. Luis Antonio M. Monisit	0925-7774779
3	DENR-EMB 7	Mr. Ariel Gillera	0939-4608879	Mr. Luis Antonio M. Monisit	0925-7774779
4	CENRO	Mr. Raul Pasoc	032-4166227	Mr. Lucio S. Canete Jr.	0916-4219384
5	Barangay Colon	Brgy. Cpt. Rosetato A. Repollo	0935-8359890	Ms. Mila Vildosola	0943-4097570
6	Barangay Tangke	Brgy. Cpt. Neil Bartolabac	0918-3399444	Mr. Earl Ian Cabigon	032-273-3699
7	Barangay North Poblacion	Brgy. Cpt. Ray Manabat	032-3474216/ 0935-2413328	Mr. Kennedy Salas	0916-2669615
8	Parents Teachers & Community Association (PTCA)	Mr. Isabelito Repunte	0932-4322346/ 0977-1364283	Ms. Rolinda Rivera	-

Technical Committee Members					
9	KSPC - PCO	Mr. Neil Lawrence Miral	0917-6220127	Joanne Claire Supnet-Simbajon	0917-6380034
10	Rural Health Unit Representative	Dr. Andres Gestopa	0918-3742387	Ms. May Fatima Buenavista	0922-8120905
11	Colon Elementary School Representative	Ms. Maribel Pantorilla	0933-1889326	Ms. Teresita Rodriguez	0920-4917346
12	SPC Power Corp. PCO	Mr. Jason Reuyan	0943-8163922	Mr. Eddie Rolde/Safety Officer	032-2726837
13	Naga - PCO	Ms. Jehan Ubas-Repollo	0908-5633465	Mr. Arthur Villamor	032-489-8989
14	Fisher Folks Assoc. from Barangay Colon	Ms. Leonila Miranda	032-4895140	Mr. Geroncio Miranda	-
15	Naga City Sanitary Department	Mr. Verneil Alinsonorin	0917-6329143	Mr. Adrian Ramil	032-273-2891
16	Department of Energy	Engr. Jose Rey Maleza, MPSM	0915-6875877	Mr. Aginaldo Briones	0933-1521887

