

Environmental monitoring form reported to JICA

Site Environmental Compliance Inspection and Monitoring Results

Project : BLLT Expressway Project **Implementing Agency** : KEI-NE-OC-TEDI
Sub-Project : **Monitoring Agency** : CEECO
Location : J2 section at Can Gio District, HCMC **Enforcement Agency** : Contractors
Date : Sep 2016 **Contractor(s)** : J2 Contractor SMCC – CIENCO 04 JO
Reporting Period: 3rd Quarter of 2016 **Implementation Phase** : Construction

1. Contractor(s)

Contractor(s) Environmental Awareness	Yes / No	Actions Required	Contractor Response / Comment
Contractor(s) aware of mitigation requirements?	Yes	None	None
Contractor(s) have a copy of EMP?	Yes	None	None

2. Mitigation Compliance Inspection

Impact / Mitigation Measure (From EMP)	Mitigations Implemented (Yes, No)	Mitigations Effective? (1 to 5)*	Impact Observed / Location	Action Required	Contractor Response / Comment	Endorsed by:	
						Implementing Agency	Monitoring Agency
1. Completion of detailed design in accordance with EMP requirements	Yes	1	-				
2. Preparation of tender document included detailed requirements in pollution control and protection of natural ecosystems.	Yes	1	-				
3. Proper preparation of CEMP by contractors	Yes	1	-				
4. Evidence of marking of worksite boundaries	Yes	1	J2 construction site				

5. No cutting trees outside the project ROW	Yes	1	J2 construction site				
6. Replanting vegetation damaged by site clearance	Not yet		J2 construction site				
7. No dumping of all kinds of wastes and cut trees in rivers, canals, ponds and field	Yes	2	J2 construction site				
8. General site condition and cleanliness	Yes	1	J2 construction site				
9. Covering of all trucks moving to and from site	Yes	1	J2 construction site				
10. Watering road, construction site on rainless day	Yes	2	J2 construction site				
11. Registration papers and compliance certificates of construction vehicles with Vietnam Register Authority of Police approved environmental emissions standards	Yes	2	J2 construction site				
12. Installation of temporary waste storage areas at each construction site including segregation of hazardous and non-hazardous wastes.	Yes	2	J2 construction site				
13. Sanitation conditions at construction worker camps, included sewage treatment facilities (toilets), domestic solid wastes management, house keeping etc.	Yes	1	J2 construction site				
14. Clean water and safe food supply for workers	Yes	2	J2 construction site				
15. Requirements for vegetation waste (cut trees) burning met	Yes	2	J2 construction site				
16. Proper organization of material transport to minimize environmental pollution and community disturbance	Yes	2	J2 construction site				
17. Condition and effectiveness of erosion controls	Yes	1	J2 construction site				
18. Condition and effectiveness of construction waste management	Yes	2	J2 construction site				
19. Evidence of soil and/or water acidification due to leakage of acidic water from construction site to surrounding field, canals	None	-	J2 construction site				
20. Evidence of direct or indirect disturbance of mangroves and other vegetation outside defined	None	-	J2 construction site				

w orksite boundaries							
21. Stabilization, rehabilitation and landscaping of all land surfaces affected by construction activities	Yes	2	J2 construction site				
22. Installation of noise and dust control walls	Yes	2	J2 construction site				
23. Dust generation during windy conditions	None	2	J2 construction site				
24. Number and type of community complaints on environmental issues received	None	1	J2 construction site				
25. Mangrove replanting for compensation of mangrove area lost by the project at the Thi Vai river, Long Tau and Soai Rap river banks	Not yet implement	-					

* Mitigation Effectiveness Rating Criteria (Indicative examples)

1. Very Good (all required mitigations implemented)
2. Good (the majority of required mitigations implemented)
3. Fair (some mitigations implemented)
4. Poor (few mitigations implemented)
5. Very Poor (very few mitigations implemented)

3. Ambient air Monitoring (JICA section: Package J2)

Parameter	Measured by	Monitoring Equipment	Result ($\mu\text{g}/\text{m}^3$)	Limited values (*) ($\mu\text{g}/\text{m}^3$)	Exceedance	Action Required	Contractor Responses / Comments	Endorsed by:		Date/ Location
								Implementing Agency	Monitoring Agency	
SO ₂	CEECO	TCVN 5971-1995	31-72	350	None	None	None			Date: 7th - 8th July 2016 8th - 9th August 2016 14th - 15th Sep 2016 Location: 1. KK1: Residential area near by J2 –Way the service road of 100 m to the South. 2. KK2: Household area that is nearly batching plan No.02 3. KK3: Residential area near the site – Way the Song Cha Bridge 300 m to the West (new location)
NO _x	CEECO	TCVN 6137-1996	31-76	200	None	None	None			
CO	CEECO	52 TCN 352-89/MOH	1140-4680	30,000	None	None	None			
TSP	CEECO	TCVN 5067-1995	59-247	300	None	None	None			

(*) National Technical Regulation on ambient air quality QCVN 05:2009/BTNMT

4. Noise and vibration (JICA section: Package J2)

Parameter	Measured by	Monitoring Equipment	Result	Limited values (*)	Exceedance	Action Required	Contractor Responses / Comments	Endorsed by:		Date/ Location
								Implementing Agency	Monitoring Agency	
Noise	CEECO	TCVN 7878 - 1:2008 TCVN 7878 - 2:2010	43.1 - 67.5	6:00-21:00 70 dBA	None	None	None			Date: 7th - 8th July 2016 8th - 9th August 2016 14th - 15th Sep 2016 1. KK1: Residential area near by J2 –Way the service road of 100 m to the South. 2. KK2: Household area that is nearly batching plan No.02 3. KK3: Residential area near the site – Way the Song Cha Bridge 300 m to the West (new location)
	CEECO		43.4 - 62.4	21:00-06:00 55 dBA	Yes	None	- There are not so many residents living in the surrounding area, so the impact is limited - Situation improved in October			
Vibration	CEECO	TCVN 6963-2001	33.5 – 42.4	6:00-21:00 75 dB	None	None	None			
	CEECO		36.6-48.8	21:00-06:00 Baseline Level	None	None	None			

(*) Limited values:

1. For Noise: National Technical Regulation QCVN 26:2010/BTNMT
2. For vibration: National Technical Regulation QCVN 27:2010/BTNMT

5. Surface water quality (JICA section: Package J2)

Parameter	Measured by	Monitoring Equipment	Result	Limited values (*) (mg/L) B2 Grade	Exceedance	Action Required	Contractor Responses / Comments	Endorsed by:		Date/ Location
								Implementing Agency	Monitoring Agency	
pH	CEECO	TCVN 6492-2011	6.21- 6.71	5.5-9.0	None	None	None			Date: 14th Sep 2016 Location: NM1: Soai Rap River - at location that receive wastewater from Accommodation Workers No.1 NM2: Cha river – at location that build Song Cha bridge NM3: Soai Rap River - at location that receive wastewater from concrete batching plant NM4: Canal - at location that receive wastewater from Accommodation Workers No.2
DO	CEECO	TCVN 7324-2004	4.43-4.88	≥2	None	None	None			
TSS	CEECO	TCVN 6185-2008	17-26	100	None	None	None			
BOD ₅	CEECO	TCVN 6625-2000	6-11	25	None	None	None			
COD	CEECO	TCVN 6001-2008	11-21	50	None	None	None			
NO ₃ (as N)	CEECO	TCVN 6180-1996	0.026-0.067	15	None	None	None			
NO ₂ (as N)	CEECO	TCVN 6178-1996	NDT	0.05	None	None	None			
PO ₄ ³⁻ (as P)	CEECO	TCVN 6202-2008	0.015-0.023	0.5	None	None	None			
Zinc (Zn)	CEECO	SMEWW 3111B-2012	0.021-0.035	2	None	None	None			
Iron (Fe)	CEECO	SMEWW 3111B-2012	0.054-0.102	2	None	None	None			
Arsen (As)	CEECO	TCVN 6182-1996	NDT	0.1	None	None	None			
Total oil & grease	CEECO	SMEWW 5520B-2012	0.12-0.26	0.3	None	None	None			
Coliform	CEECO	TCVN 6187-2-1996	40-700	10000	None	None	None			

(*) National Technical Regulation for surface water quality QCVN 08-MT:2015/BTNMT/B2

6. Groundwater quality

Parameter	Measured by	Monitoring Equipment	Result	Limited value (*) (mg/L)	Exceedance	Action Required	Contractor Responses / Comments	Endorsed by:		Date/ Location
								Implementing Agency	Monitoring Agency	
EC										
Cl-										
Hardness (CaCO3)										
pH										
COD										
TDS										
NH ₄ ⁺										
NO ₂ ⁻										
NO ₃ ⁻										
SO ₄ ⁻										
Fe										
Cd										
As										
Mn										
Zn										
E. Coli										

There are no groundwater wells around J2 site

(*) National Technical Regulation for underground water quality QCVN 09-MT:2015/BTNMT

7. Environmental Incidents During Reporting Period (if relevant): There is no accident, oil spill, complaint during 3rd quarter 2016

Environmental Incidents (accidents, spills, complaint)	Date / Location	Reported by	Description / Location	Action Taken	Further Action Required	Endorsed by:	
						Implementing Agency	Monitoring Agency
No Accidents							
No Oil/Chemical spills							
No People Complaint							

8. Natural environment monitoring: Will be implemented when the mangrove replanting program being carried out

Mangroves and Aquatic Organism Monitoring	Date / Location	Reported by	Assessment	Action Taken	Further Action Required	Endorsed by:	
						Implementing Agency	Monitoring Agency
Mangroves Monitoring							
Total area (ha) at each site.	Mangrove areas at Binh Khanh commune (Can Gio district) and at Phuoc Khanh						
Biomass of mangroves (kg/m ²)							
Density of predominant species (individuals/m ²)							
Species diversity measured by Shannon							

Weaver index	commune (Dong Nai province)						
Average height and stem diameter							
Wild terrestrial animals (species composition and density)							
Aquatic organisms Monitoring							
Phytoplanktons: species composition, density and Bioindexes.	Long Tau river						
Zooplanktons: species composition, density and Bioindexes							
Benthos: species composition, density and Bioindexes							

9. Summary of Actions Required and Follow-up (if relevant):

Action Required	Timeframe (e.g. within one week)	Responsible Parties	Follow-up (to be completed if inspection/monitoring indicates actions are required)
None			