

CLP Power Hong Kong Ltd

Renewable Energy Supply on
Town Island (Construction
Phase): *17th Monthly
Environmental Site Audit Report*

August 2012

Environmental Resources Management

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Environmental Site Audit Report*

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Reference 0129569

For and on behalf of ERM-Hong Kong, Limited	
Approved by:	Frank Wan
Signed:	
Position:	Partner
Certified by :	Winnie Ko
Signed :	
Position :	Independent Environmental Checker
Date :	27 August 2012

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1 ENVIRONMENTAL SITE AUDIT

1.1 BACKGROUND

The construction works of *Renewable Energy Supply on Town Island* (the Project) commenced in March 2011.

To fulfill Condition 2.2 of the Environmental Permit (EP-397/2010) and environmental audit requirements stated in Section 5.7.1 of the approved Project Profile (PP) submitted for the direct application of an Environmental Permit under EIA Ordinance (EIAO) (PP-413/2010), monthly environmental site audits should be undertaken to ensure that the mitigation measures recommended in PP are properly implemented.

This is the seventeenth *Monthly Environmental Site Audit Report* presenting the key findings and observations of the site audit conducted on 15 August 2012.

1.2 SITE AUDIT FINDINGS AND OBSERVATIONS

The seventeenth monthly environmental site audit was conducted on 15 August 2012. The construction works undertaken during the site audit included superstructure works and the installation of photovoltaic panels at both Site 1 and Site 2. All the temporary worksites between Site 1 and Site 2 for cabling works have been reinstated back to grassland. Three observations were recorded during the site audit and are described below:

- Stagnant water was observed in the drip tray under the generator at Site 1 (*Photo 1*). The Contractor was asked to remove the stagnant water.
- Construction wastes were observed in the stream between Site 1 and Site 2. (*Photo 2*). The Contractor was asked to remove the construction wastes.
- General refuse was not properly stored at the designated area (for example the waste skip at Site 2). The Contractor was asked to store the general refuse properly at designated areas with cover.

The following remedial actions for the environmental deficiencies which were recorded during the previous reporting period have been taken and rectified during the site inspection:

- The dusty stockpile at Site 1 has been removed.
- Cement stains outside the site boundary of Site 2 have been removed.

The environmental site audit checklist is given in *Annex A*.

Photos of the site audit are given in *Annex B*.

Annex A

Environmental Site Audit Checklist



Inspection Date: Time to

Inspected By: IEC Representative : Fung Siu Chung Andrew
 CLP Representative : Raymond Ho
 Contractor : Mic Kwok (3Tech Corporate Ltd.)

Weather

Condition Sunny Fine Overcast Drizzle Rain Storm Hazy
 Temperature °C Humidity High Moderate Low
 Wind Calm Light Breeze Strong

A General	Yes	Yes, but need Improvement	No	N/A or not observed	Photo/Remarks
A1 Is the Environmental Permit displayed at the entrances / exits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

B Air Quality	Yes	Yes, but need Improvement	No	N/A or not observed	Photo/Remarks
B1 Is open burning avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
B2 Are exposed soil surfaces regularly watered to avoid generation of dust?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
B3 Are plant and equipment well maintained? (ie without black smoke from powered plant)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
B4 Are stockpiles of dusty material covered or regularly watered?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
B5 Is watering implemented during excavation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
B6 Is generation of dust avoided during loading/unloading/excavation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

C Noise	Yes	Yes, but need Improvement	No	N/A or not observed	Photo/Remarks
C1 Is the Construction Noise Permit displayed at the entrances / exits? (if any)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
C2 Are all plant and equipment well maintained and in good operating condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C3 Is idle equipment turned off or throttled down?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C4 Are powered mechanical equipment covered or shielded by acoustic materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
C5 Are silenced equipment used where practicable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C6 Is the number of construction plant being used minimized?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C7 Do air compressors have valid noise labels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
C8 Do compressors operate with doors closed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

D Water Quality	Yes	Yes, but need Improvement	No	N/A or not observed	Photo/Remarks
D1 Is wastewater discharge license, if any, available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
D2 Is drainage system adequate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
D3 Is drainage system well maintained?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
D4 Is debris and rubbish in the drainage system collected and disposed of properly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

D5	Are there temporary ditches for runoff discharge into appropriate Watercourse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	With silt retention pond?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
D6	Are there sedimentation tanks for settling runoff prior to disposal?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
D7	Is the capacity of sedimentation tank adequate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
D8	Is the sedimentation free from silt and sediment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
D9	Are the temporary stockpiles located away from stream or coastline?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
D10	Are treaching carried out for the section of cable in the vicinity of and crossing the stream between Sites 1 and 2?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
D11	Is cable trenching works scheduled to be carried out during dry season?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

E Waste/Chemical Management

	Yes	Yes, but need Improvement	No	N/A or not observed	Photo/Remarks
General refuse					
E1	Accumulation avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
E2	Receptacles (e.g. rubbish bins) available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
E3	Disposed of regularly and properly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Note 1
Chemical waste, waste oil					
E4	Is the Chemical Waste Producer Registration available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
E5	Stored properly in designated area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
E6	Labelled properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
E7	Disposed of properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
E8	Trip tickets/ chits available for inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Chemical/fuel storage area					
E9	Are all spillage containment provided for all chemicals, oils and fuels stored on site, those equipment which potentially have oil leakage and for the area where maintenance works carrying out?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
E10	Is storage area bunded?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
E11	Adequate bund capacity? (>110% of the largest tank)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
E12	Are storage areas provided with locks and located on sealed areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Construction Waste					
E13	Reused where practicable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is sorting conducted on site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
E14	Transported offsite by boat for proper disposal?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
E15	Are surplus inert materials being reused where practical as an alternative to ordering imported fill material?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Excavated Material					
E16	Appears uncontaminated? (colour, odour)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
E17	If suspected contaminated, appropriate procedures followed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
E18	Relevant license/permit/trip tickets/chits for disposal of construction waste or excavated materials available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

F General / Housekeeping

	Yes	Yes, but need Improvement	No	N/A or not observed	Photo/Remarks	
F1	Are potential stagnant pools cleared and mosquito breeding prevented?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Note 2

G Ecology

	Yes	Yes, but need Improvement	No	N/A or not observed	Photo/Remarks	
G1	Is damage and disturbance to the remaining and surrounding natural shrubby grassland and young woodland habitats avoided? (particularly those caused by filling and illegal dumping)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

- | | | | | | | |
|----|---|-------------------------------------|--------------------------|--------------------------|-------------------------------------|-------|
| G2 | Is damage to surrounding areas avoided? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| G3 | Are temporary work sites/disturbed areas reinstated? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| G4 | Is disturbance to streams avoided during works? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| G5 | Is any alternative method adopted for laying cable across stream between Sites 1 and 2? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | _____ |

Items for Inspection

- Site 1 construction site.
- Site 2 construction site.

Notes / Issues Recorded On Site

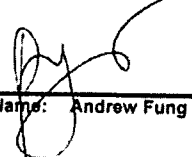
- 1) Construction wastes were observed in the stream between Site 1 and Site 2. Also general refuse was not properly stored at the designated area for example waste skip at Site 2.
- 2) Stagnant water was observed in the drip tray under the generator at Site 1.

Corrective Actions

- 1) The Contractor was asked to remove the construction wastes from stream and to store the general refuse properly at designated area with cover.
- 2) The Contractor was asked to remove the stagnant water properly.


Signatures:

IEC Representative :



 (Name: Andrew Fung)

CLP Representative :



 (Name: Raymond Ho)

Contractor : 3TECH



 (Name: Mic Kwok)

Annex B

Photo Records

Photo Records on 15 August 2012



Photo 1 – Stagnant water in the drip tray under the generator at Site 1.



Photo 2 – Construction waste in the stream between Site 1 and Site 2.



Photo 2 – General refuse was not properly stored at the designated area.