# The Hongkong Electric Co Ltd

香港電燈有限公司



# ENVIRONMENTAL IMPACT ASSESSMENT (EIA) ORDINANCE, CAP. 499

# **ENVIRONMENTAL PERMIT NO. EP-071/2000/C**

# LAMMA POWER STATION EXTENSION ENVIRONMENTAL MONITORING & AUDIT PROGRAMME AT CONSTRUCTION PHASE

Report Title

Environmental Monitoring and Audit Report

(March 2006)

Date

13/04/2006

Certified by

(Mr. IP Tat-Yan, Environmental Team Leader)

Verified by

(Hong Kong Productivity Council, Independent Environmental Checker)

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#### **EXECUTIVE SUMMARY**

This is the sixtieth monthly Environmental Monitoring and Audit (EM&A) report for the Project "Construction of Lamma Power Station Extension" prepared by the Environmental Team (ET). This report presents the results of impact monitoring on air quality and noise for the said project in March 2006.

After successful completion of post-project monitoring in September 2002, no further marine water quality monitoring for the reclamation works would be required.

Air and noise monitoring were performed. The results were checked against the established Action/Limit (AL) levels. An on-site audit was conducted once per week. The implementation status of the environmental mitigation measures, Event/Action Plan and environmental complaint handling procedures were also checked.

A separate monthly EM&A report for submarine pipeline prepared by the consultant, as one of ET members, is shown in Appendix K.

#### **Construction Activities Undertaken**

Construction activities for Lamma Extension during the reporting month are tabulated as follows:

Item	Construction Activities			
Unit L9 Civil and Building Works	Main Station Building, 275kV Switching Station Building, Shunt Reactor, Chimney, Drainage & Road, Fire Services Water Tank and Fire Pump House, C.W. Culvert System & Equipment Room, C.W. Pump Equipment Room, Gas Receiving Station, Pipe & Cable Rack and Lamma Power Station Addition and Alteration (LPS A&A) Works			
Unit L9 Mechanical Erection	Erection of HRSG, Steam Turbine, Gas Turbine, Generator, Condenser, Aux Equipment, Air duct / Inlet Filter, HRSG Inlet Duct and Piping Support / Piping Erection; Insulation Work; and Installation of Platform, Pipe Rack, Intake Aux Equipment, Bop piping and GRS piping			
Unit L9 Electrical, Instrumentation & Control Erection	Cable Tray & Earthing Installation, Conduit & Instrument Piping Installation and Cable Laying & Termination			
Transmission System	Backfilling above portal structure for Cable Duct 2, installation of submarine cables between N2 & N4 and backfilling & cable protection			
Gas Pipeline	Please refer to Appendix K			
Miscellaneous	Slurry ash piping & filling			

#### **Environmental Monitoring Works**

One (1) dust monitoring work was re-scheduled in the reporting month as shown in the following table:

Monitoring work Monitoring		Original	Makeup	Reasons
	Location	Schedule	Sampling	
24 hour TSP sampling	AM1	15/03/2006	17/03/2006	Failure of TSP sampler.

Apart from the above incident, all monitoring work at designated stations was performed as scheduled satisfactorily.

#### Air Quality

No exceedance of Action/Limit levels on 1-hour TSP and 24-hour TSP for air quality was recorded in the month.

#### Noise

Construction work for Lamma Extension was carried out during the restricted hours including evening-time, holidays and night-time under valid Construction Noise Permits. No exceedance of Action and Limit levels for noise arising from the construction of Lamma Extension and transmission system was recorded in the month.

#### **Site Environmental Audit**

Independent Environmental Checker (IEC) conducted a site inspection on 15/03/2006. The inspection result is attached in Appendix H.

Site audits were carried out on a weekly basis to monitor environmental issues on the construction site. The site conditions were generally satisfactory. All required mitigation measures were implemented.

**Environmental Licensing and Permitting** 

Description	Permit No.	Valid Period		<b>Issued To</b>	Date of
		From	To		Issuance
Varied Environmental	EP-071/2000/C	18/05/05	-	HEC	18/05/05
Permit					
Construction Noise	GW-RS0584-05	20/09/05	19/03/06	Contractor	15/09/05
Permit					
Construction Noise	GW-RS0585-05	17/09/05	16/03/06	Contractor	15/09/05
Permit					
Construction Noise	GW-RS0784-05	29/11/05	19/05/06	Contractor	29/11/05
Permit					
Construction Noise	GW-RS0719-05	01/12/05	31/05/06	Contractor	09/11/05
Permit					
Construction Noise	GW-RE0363-05	01/01/06	31/05/06	Contractor	24/11/05
Permit					
Construction Noise	GW-RS0008-06	24/01/06	30/06/06	Contractor	20/01/06
Permit					

Description	Permit No.	Valid Period		<b>Issued To</b>	Date of
_		From	To		Issuance
Construction Noise	GW-RS0032-06	11/02/06	10/08/06	Contractor	27/01/06
Permit					
Construction Noise	GW-RS0138-06	24/03/06	21/09/06	Contractor	24/03/06
Permit					
Construction Noise	GW-RS0154-06	04/04/06	30/06/06	Contractor	31/03/06
Permit					
Dumping Permit	EP/MD/06-031	05/09/05	04/03/06	Contractor	02/09/05
Dumping Permit	EP/MD/06-032	05/09/05	04/03/06	Contractor	02/09/05
Registration of	WPN5213-912-	11/06/04	-	Contractor	11/06/04
Chemical Waste	P2781-07				
Producer					
Registration of	WPN5213-912-	15/09/04	-	Contractor	15/09/04
Chemical Waste	K2801-03				
Producer					
Registration of	WPN5517-912-	17/03/05	-	Contractor	17/03/05
Chemical Waste	T2007-02				
Producer					
Registration of	WPN5213-912-	25/01/05	-	Contractor	25/01/05
Chemical Waste	W2852-09				
Producer					
Registration of	WPN4111-912-	20/06/05	-	Contractor	20/06/05
Chemical Waste	M2534-09				
Producer					
WPCO Discharge	EP890/W2/XD020	22/11/04	30/11/09	Contractor	22/11/04
Licence					
WPCO Discharge	EP890/W2/XD021	03/02/05	28/02/10	Contractor	03/02/05
Licence					

# **Implementation Status of Environmental Mitigation Measures**

Environmental mitigation measures for the construction activities as recommended in the EM&A manual were implemented in the reporting month.

#### **Environmental Complaints**

One follow-up enquiry from EPD about the February case was received in the reporting month and EPD was replied accordingly. Besides this, no complaint against the construction activities was received.

#### **Future Key Issues**

The future key issues to be considered in the coming month are as follows:

## **Unit L9 Civil and Building Works**

- to continue monitoring the noise level during construction and to ensure compliance with the CNP's already obtained;
- to continue executing the preventive measures for avoiding noise exceedance and keep monitoring/ reviewing the performance;
- to monitor and review the sufficiency of the dust suppression measures provided and increase the resources accordingly if necessary;

#### Unit L9 Mechanical Erection

- to continue monitoring the noise level during construction
- to continue executing the preventive measures for avoiding noise exceedance and keep monitoring/ reviewing the performance;
- to monitor and review the sufficiency of the dust suppression measures provided and increase the resources accordingly if necessary;

# **Unit L9 Electrical Erection**

- to continue monitoring the noise level during construction
- to continue executing the preventive measures for avoiding noise exceedance and keep monitoring/ reviewing the performance;
- to monitor and review the sufficiency of the dust suppression measures provided and increase the resources accordingly if necessary;

# **Transmission System**

- to continue monitoring the noise level during construction;
- to continue executing the preventive measures for avoiding noise exceedance and keep monitoring/ reviewing the performance;
- to monitor and review the sufficiency of the dust suppression measures provided and increase the resources accordingly if necessary;
- to closely monitor the construction activities in order to avoid disturbance to the rare plants;
- to provide temporary fire fighting equipment for prevention of fire within the work sites.

#### **Concluding Remarks**

The environmental performance of the project was generally satisfactory.

#### 1. INTRODUCTION

#### 1.1 Background

The Environmental Team (hereinafter called the "ET") was formed within the Hongkong Electric Co. Ltd (HEC) to undertake Environmental Monitoring and Audit for "Construction of Lamma Power Station Extension" (hereinafter called the "Project"). Under the requirements of Section 6 of Environmental Permit EP-071/2000/C, an EM&A programme for impact environmental monitoring set out in the EM&A Manual (Construction Phase) is required to be implemented. In accordance with the EM&A Manual, environmental monitoring of air quality, noise and water quality and regular environmental audits are required for the Project. As the post-project marine water monitoring was successfully completed in September 2002, no further water quality monitoring for the reclamation works would be required.

The Project involves the construction of a gas-fired power station employing combined cycled gas turbine technology, forming an extension to the existing Lamma Power Station. The key elements of the Project including the construction activities associated with the transmission system and submarine gas pipeline are outlined as follows.

- dredging and reclamation to form approximately 22 hectares of usable area;
- construction of six 300MW class gas-fired combined cycle units;
- construction of a gas receiving station;
- construction of a new transmission system linking the Lamma Extension to load centres on Hong Kong Island;
- laying of a gas pipeline for the supply of natural gas to the new power station

This report summarizes the environmental monitoring and audit work for the Project for the month of 2006.

#### 1.2 Project Organisation

An Environmental Management Committee (EMC) has been set up in HEC to oversee the Project. The management structure includes the following:

- Environmental Protection Department (The Authority);
- Environmental Manager (The Chairman of the Environmental Management Committee);
- Engineer;
- Independent Environmental Checker (IEC);
- Environmental Team (ET);
- · Contractor.

The project organisation chart for the construction EM&A programme is shown in Appendix A.

#### 1.3 Construction Works undertaken during the Reporting Month

Construction activities for Unit L9 civil and building works were for the Main Station Building, 275kV Switching Station Building, Shunt Reactor, Chimney, Drainage & Road, Fire Services Water Tank and Fire Pump House, C.W. Culvert System & Equipment Room, C.W. Pump Equipment Room, Gas Receiving Station, Pipe & Cable Rack and LPS A&A Works. Construction activities for Unit L9 mechanical works were the erection of HRSG, Steam Turbine, Gas Turbine, Generator, Condenser, Auxiliary Equipment, Air duct / Inlet Filter, HRSG Inlet Duct, Piping Support / Piping, Insulation Work, and installation of Platform, Pipe Rack, Intake Auxiliary Equipment, Bop piping and GRS piping. Construction activities for Unit L9 electrical, instrumentation & control erection were Cable Tray & Earthing installation, Conduit & Instrument Piping Installation and Cable Laying & Termination. Construction activities for Unit L9's associated transmission system were backfilling above portal structure for Cable Duct 2, installation of submarine cables between N2 & N4 and backfilling & cable protection. A separate monthly EM&A report for submarine pipeline prepared by the consultant, as one of ET members, is shown in Appendix K. Layout plans for construction site and transmission system are shown in Figure 1.1 and Figure 1.2 respectively. Uncontaminated materials were dumped at the assigned location within the South Cheung Chau Spoil Disposal Area. Figure 1.3 and shows the dumping location in March 2006.

The main construction activities carried out during the reporting month and the corresponding environmental mitigation measures are summarized in Table 1.1. The implementation of major mitigation measures in the month is provided in Appendix I.

Table 1.1 Construction Activities and Their Corresponding Environmental Mitigation Measures

Item	Construction Activities	Environmental Mitigation Measures
Unit L9	Civil and Buildin	ng Works
1.	Main Station Building	Air  Dust suppression measures implemented.  Noise  General noise mitigation measures employed at all work sites throughout the construction phase.
		Waste Management  - Waste Management Plan submitted and implemented.

Item	Construction Activities	Environmental Mitigation Measures
2.	275kV Switching Station Building	Air  Dust suppression measures implemented.  Noise  General noise mitigation measures employed at all work sites throughout the construction phase.
		Waste Management  - Waste Management Plan submitted and implemented.
3.	Shunt Reactor	Air  - Dust suppression measures implemented.
		Noise  - General noise mitigation measures employed at all work sites throughout the construction phase.
		Waste Management  - Waste Management Plan submitted and implemented.
4.	Chimney	Air  – Dust suppression measures implemented.
		Noise  - General noise mitigation measures employed at all work sites throughout the construction phase.
		<ul> <li>Waste Management</li> <li>Waste Management Plan submitted and implemented.</li> </ul>
5.	Drainage & Road Works	Air  - Dust suppression measures implemented.
		Noise  - General noise mitigation measures employed at all work sites throughout the construction phase.
		Waste Management  - Waste Management Plan submitted and implemented.

Item	Construction Activities	Environmental Mitigation Measures
6.	Fire Services Water Tank and Fire Pump House	Air  — Dust suppression measures implemented.  Noise  — General noise mitigation measures employed at
		all work sites throughout the construction phase.  Waste Management
		<ul> <li>Waste Management Plan submitted and implemented.</li> </ul>
7.	C.W. Culvert System & Equipment	Air  — Dust suppression measures implemented.
	Room	Noise  General noise mitigation measures employed at all work sites throughout the construction phase.
		Waste Management  — Waste Management Plan submitted and implemented.
8.	C.W. Pump Equipment Room	Air  — Dust suppression measures implemented.
		Noise  General noise mitigation measures employed at all work sites throughout the construction phase.
		Waste Management  - Waste Management Plan submitted and implemented.
9.	Gas Receiving Station	Air  — Dust suppression measures implemented.
		Noise  General noise mitigation measures employed at all work sites throughout the construction phase.
		Waste Management  — Waste Management Plan submitted and implemented.

Item	Construction Activities	Enviro	onmental Mitigation Measures
10.	Pipe & Cable Rack	Air -	Dust suppression measures implemented.
		Noise -	General noise mitigation measures employed at all work sites throughout the construction phase.
		Waste -	Management Waste Management Plan submitted and implemented.
11.	LPS A&A Works	Air -	Dust suppression measures implemented.
		Noise -	General noise mitigation measures employed at all work sites throughout the construction phase.
		Waste -	Management Waste Management Plan submitted and implemented.
Constr	uction of Transmi	ssion S	ystem
12.	Backfilling above portal structure for Cable Duct 2	Terres	Special care and close monitoring to avoid disturbances to the rare plant species.  Temporary fire fighting equipment provided within the work area during construction.
13.	Installation of Submarine Cables between N2 & N4	Noise -	General noise mitigation measures employed at all work sites throughout the construction phase.
14.	Backfilling & Cable Protection	Noise -	General noise mitigation measures employed at all work sites throughout the construction phase.

Item	Construction Activities	Environmental Mitigation Measures		
Unit L9 Mechanical Erection				
15.	HRSG Erection	Air  – Dust suppression measures implemented.		
		Noise  General noise mitigation measures employed at all work sites throughout the construction phase.		
		Waste Management  - Waste Management Plan submitted and implemented.		
16.	Steam Turbine Erection	Air  — Dust suppression measures implemented.		
		Noise  - General noise mitigation measures employed at all work sites throughout the construction phase.		
		Waste Management  - Waste Management Plan submitted and implemented.		
17.	Gas Turbine Erection	Air  — Dust suppression measures implemented.		
		Noise  General noise mitigation measures employed at all work sites throughout the construction phase.		
		Waste Management  - Waste Management Plan submitted and implemented.		
18.	Generator Erection	Air  - Dust suppression measures implemented.		
		Noise  - General noise mitigation measures employed at all work sites throughout the construction phase.		
		Waste Management  - Waste Management Plan submitted and implemented.		

Item	Construction Activities	Environmental Mitigation Measures		
19.	Condenser Erection	Air  – Dust suppression measures implemented.		
		Noise  General noise mitigation measures employed at all work sites throughout the construction phase.		
		<ul><li>Waste Management</li><li>Waste Management Plan submitted and implemented.</li></ul>		
20.	Auxiliary Equipment Erection	Air  – Dust suppression measures implemented.		
		Noise  General noise mitigation measures employed at all work sites throughout the construction phase.		
		<ul><li>Waste Management</li><li>Waste Management Plan submitted and implemented.</li></ul>		
21.	Air duct / Inlet Filter	Air  – Dust suppression measures implemented.		
		Noise  General noise mitigation measures employed at all work sites throughout the construction phase.		
		<ul><li>Waste Management</li><li>Waste Management Plan submitted and implemented.</li></ul>		
22.	HRSG Inlet Duct	Air  – Dust suppression measures implemented.		
		Noise  General noise mitigation measures employed at all work sites throughout the construction phase.		
		Waste Management  - Waste Management Plan submitted and implemented.		

Item	Construction Activities	Environmental Mitigation Measures		
23.	Piping Support / Piping Erection	Air  — Dust suppression measures implemented.		
		Noise  General noise mitigation measures employed at all work sites throughout the construction phase.		
		Waste Management  — Waste Management Plan submitted and implemented.		
24.	Insulation Work	Air  — Dust suppression measures implemented.		
		Noise  General noise mitigation measures employed at all work sites throughout the construction phase.		
		Waste Management  — Waste Management Plan submitted and implemented.		
25.	Platform Installation	Air  — Dust suppression measures implemented.		
		Noise  General noise mitigation measures employed at all work sites throughout the construction phase.		
		Waste Management  — Waste Management Plan submitted and implemented.		
26.	Pipe Rack Installation	Air  — Dust suppression measures implemented.		
		Noise  General noise mitigation measures employed at all work sites throughout the construction phase.		
		Waste Management  - Waste Management Plan submitted and implemented.		

Item	Construction Activities	Environmental Mitigation Measures		
27.	Intake Aux Equipment Installation	Air  — Dust suppression measures implemented.  Noise		
		<ul> <li>General noise mitigation measures employed at all work sites throughout the construction phase.</li> </ul>		
		<ul><li>Waste Management</li><li>Waste Management Plan submitted and implemented.</li></ul>		
28.	Bop piping installation	Air  Dust suppression measures implemented.		
		Noise  General noise mitigation measures employed at all work sites throughout the construction phase.		
		Waste Management  - Waste Management Plan submitted and implemented.		
29.	GRS piping installation	<ul><li>Air</li><li>Dust suppression measures implemented.</li></ul>		
		Noise  General noise mitigation measures employed at all work sites throughout the construction phase.		
		<ul><li>Waste Management</li><li>Waste Management Plan submitted and implemented.</li></ul>		
Unit L9	Electrical, Instru	mentation & Control Erection		
30.	Cable Tray & Earthing Installation	Air  – Dust suppression measures implemented.		
		Noise  General noise mitigation measures employed at all work sites throughout the construction phase.		
		<ul><li>Waste Management</li><li>Waste Management Plan submitted and implemented.</li></ul>		

Item	Construction Activities	Enviro	nmental Mitigation Measures
31.	Conduit & Instrument Piping	Air -	Dust suppression measures implemented.
	Installation	Noise -	General noise mitigation measures employed at all work sites throughout the construction phase.
		_	Management Waste Management Plan submitted and implemented.
32.	Cable Laying & Termination	Air -	Dust suppression measures implemented.
		Noise -	General noise mitigation measures employed at all work sites throughout the construction phase.
		_	Management Waste Management Plan submitted and implemented.
Miscella	aneous		
33.	Slurry ash piping & filling		General noise mitigation measures implemented and silent type equipment deployed.

# 1.4 Summary of EM&A Requirements

The EM&A program requires environmental monitoring for air, noise and water quality. As the post-project marine water monitoring was successfully completed in September 2002, no further water quality monitoring for the reclamation works would be required. The detailed EM&A monitoring work for air quality and noise are described in Sections 2 and 3 respectively. Regular environmental site audits for air quality, noise, water quality and waste management were carried out.

The following environmental audits are summarized in Section 4 of this report:

- Environmental monitoring results;
- Waste Management Records;
- Weekly site audit results;
- The status of environmental licensing and permits for the Project;

• The implementation status of environmental protection and pollution control/mitigation measures.

Future key issues will be reported in Section 5 of this report.

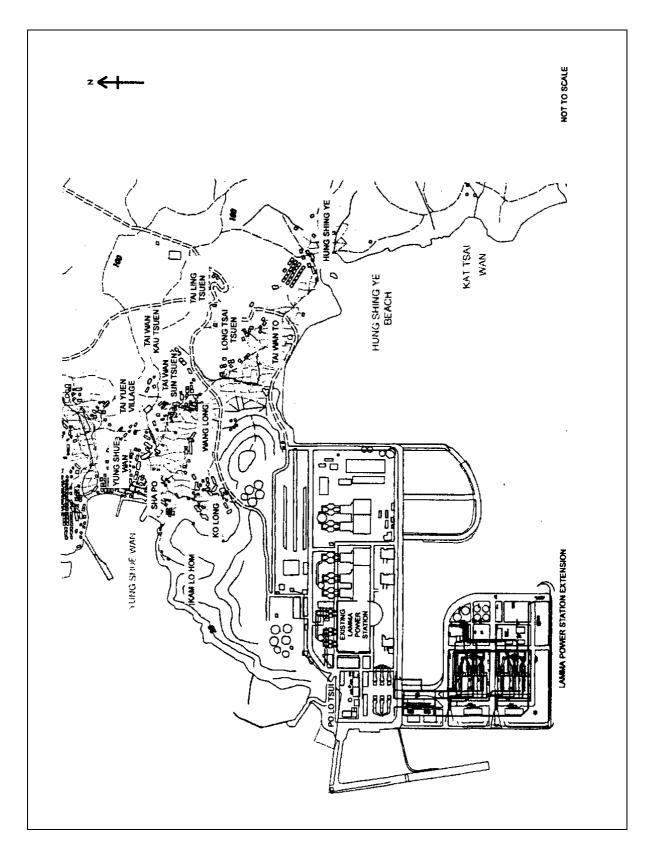
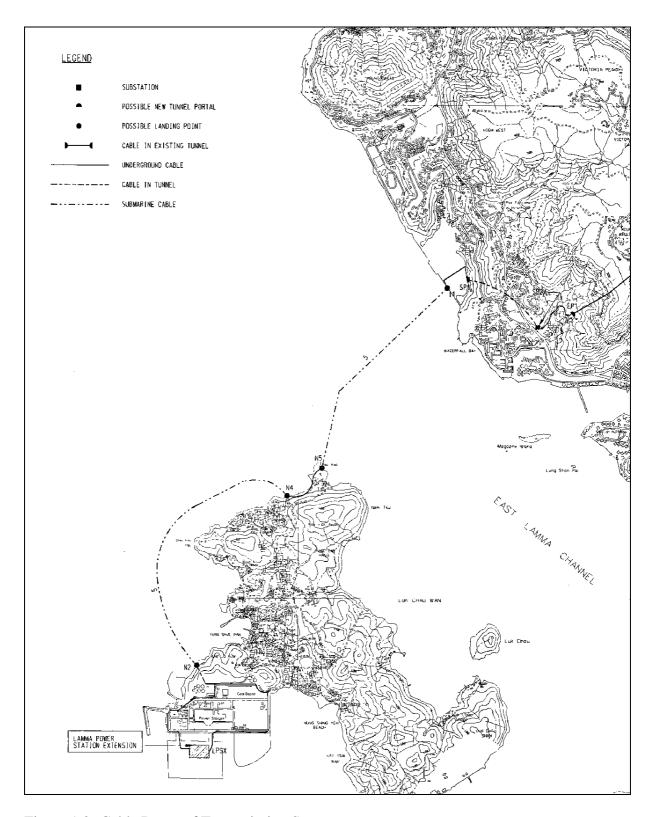


Figure 1.1 Layout of Work Site



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Figure 1.2 Cable Route of Transmission System

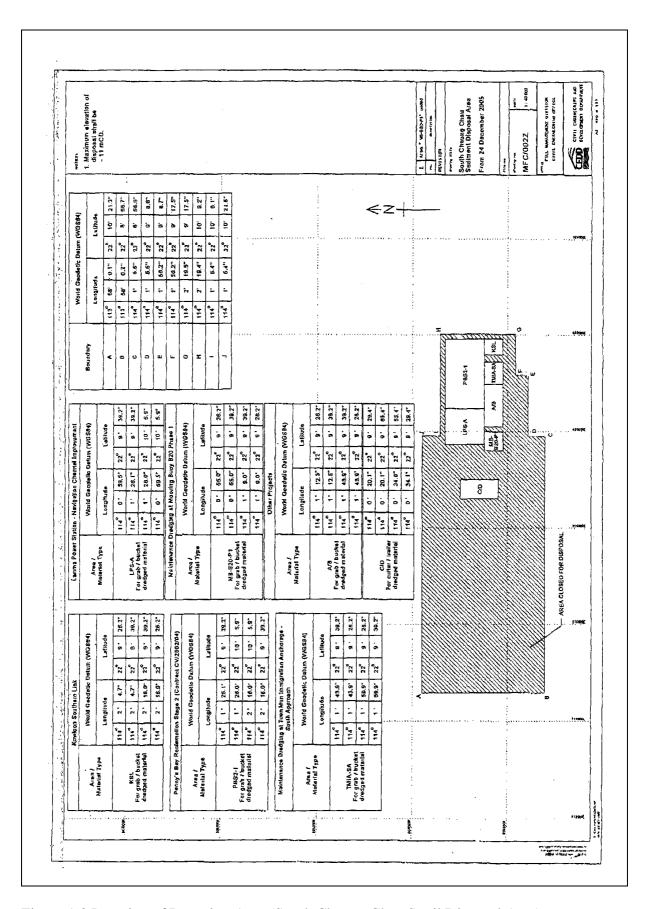


Figure 1.3 Location of Dumping Area (South Cheung Chau Spoil Disposal Area)

# 2. AIR QUALITY

## 2.1 Monitoring Requirements

1-hour and 24-hour TSP monitoring at agreed frequencies were conducted to monitor air quality. The impact monitoring data were checked against the Action/Limit Levels as determined in the Baseline Monitoring Report (Construction Phase). Appendix B shows the established Action/Limit Levels for Air Quality.

# 2.2 Monitoring Locations

Three dust monitoring locations were selected for 1-hour TSP sampling (AM1, AM2 & AM3) while four monitoring locations were selected for 24-hour TSP sampling (AM1, AM2, AM3 and AM4). Table 2.1 tabulates the monitoring stations. The locations of the monitoring stations are shown in Figure 2.1.

Table 2.1 Air Quality Monitoring Locations

Location I.D.	Description	
AM1	Reservoir	
AM2	East Gate	
AM3	Ash Lagoon	
AM4	Tai Yuen Village	

#### 2.3 Monitoring Equipment

Continuous 24-hour TSP air quality monitoring was performed using the GS2310 High Volume Air Samplers (HVAS), Partisol Model 2000 Sampler and the MINIVOL Portable Sampler at AM1&2, AM3 and AM4 respectively. TEOM Model 1400a continuous dust monitors were used to carry out 1-hour TSP monitoring at AM1, AM2 and AM3. Table 2.2 summarises the equipment used in dust monitoring.

Table 2.2 Air Quality Monitoring Equipment

Equipment	Model and Make
24-hour sampling: HVAS Sampler	Model GS2310
1	Anderson Instruments Inc.
Partisol Air Sampler	Partisol Model 2000 Rupprecht & Patashnick
MINIVOL Portable Sampler	AIRMETRICS
1-hour sampling:	
Continuous TSP Dust Meter	TEOM Model 1400a
	Rupprecht & Patashnick

# 2.4 Monitoring Parameters, Frequency and Duration

Table 2.3 summarises the monitoring parameters, duration and frequency of air quality monitoring. The monitoring schedule for the reporting month is shown in Appendix C.

Table 2.3 Air Quality Monitoring Parameter, Duration and Frequency

Monitoring Stations	Parameter	Duration	Frequency	
AM1	1-hour TSP	1	3 hourly samples every 6 days	
AWII	24-hour TSP	24	Once every 6 days	
AM2	1-hour TSP	1	3 hourly samples every 6 days	
AWIZ	24-hour TSP	24	Once every 6 days	
AM3	1-hour TSP	1 3 hourly samples every		
AIVIS	24-hour TSP	24	Once every 6 days	
AM4	24-hour TSP 24 Once every 6		Once every 6 days	

# 2.5 Monitoring Procedures and Calibration Details

#### 24- hour TSP Monitor:

Preparation of Filter Papers

- Visual inspection of filter papers was carried out to ensure that there were no pinholes, tears and creases;
- The filter papers were then labeled before sampling.
- The filter papers were equilibrated at room temperature and relative humidity < 50% for at least 24 hours before weighing.

## Field Monitoring

- During collection of the sampled filter paper, the information on the elapse timer was logged. Site observations around the monitoring stations, which might have affected the monitoring results, were also recorded. Major pollution sources, if any, would be identified and reported. The flow record chart for the previous sampling was checked to see if there was any abnormality.
- The post-sampling filter papers were removed carefully from the filter holder and folded to avoid loss of fibres or dust particles from the filter papers;
- The filter holder and its surrounding were cleaned;
- A pre-weighed blank filter paper for the next sampling was put in place and aligned carefully. The filter holder was then tightened firmly to avoid leakage;
- A new flow record chart was loaded into the flow recorder;
- The programmable timer was set for the next 24 hrs sampling period,  $\pm 1/2$  hr;
- The post-sampling filter papers were equilibrated at room temperature and relative humidity < 50% for at least 24 hours before weighing.

#### 1- hour TSP Monitor:

- The following parameters of the TEOM model dust meters are regularly checked to ensure proper functionality:
  - o Mass concentration;
  - o Total mass;
  - o Frequency of the tapered element;
  - o Electrical noise;
  - o Main flow;
  - o Auxiliary flow.

#### Maintenance & Calibration

- The monitoring equipment and their accessories are maintained in good working conditions.
- Monitoring equipment is calibrated at monthly intervals. Calibration details are shown in Appendix F.

#### 2.6 Results and Observations

One (1) dust monitoring event was re-scheduled in the reporting month as shown in the following table:

Monitoring work	Monitoring	Original	Makeup	Reasons
	Location	Schedule	Sampling	
24 hour TSP sampling	AM1	15/03/2006	17/03/2006	Failure of TSP sampler.

Apart from the above incident, all dust monitoring works were conducted on schedule. All monitoring data and graphical presentation of the monitoring results are provided in Appendix D. Key findings and observations are provided below:

1-hour TSP

No exceedance of 1-hour TSP Action/Limit Level was recorded in the month.

24-hour TSP

No exceedance of 24-hour TSP Action/Limit Level was recorded in the month.

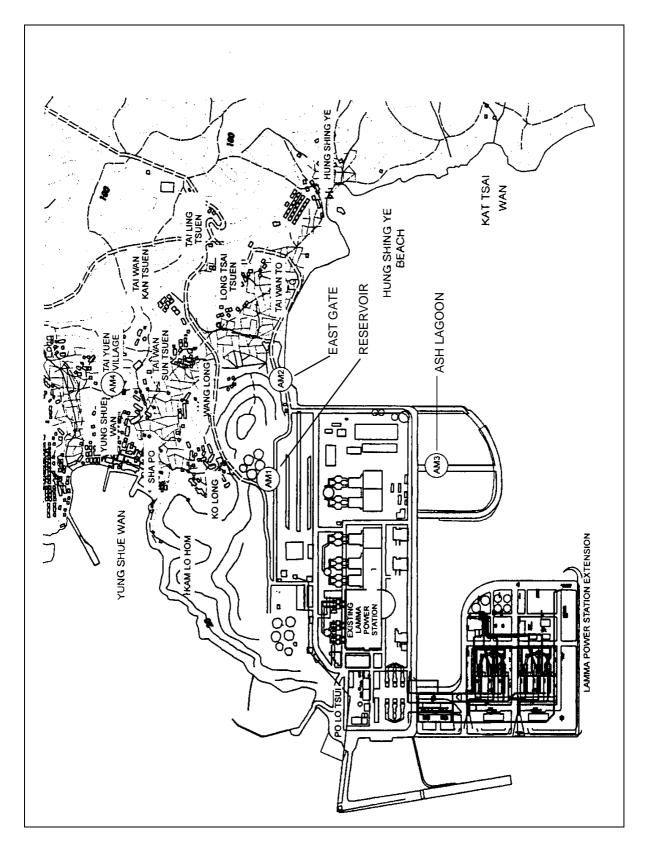


Figure 2.1 Location of Air Quality Monitoring Stations

#### 3. NOISE

#### 3.1 Monitoring Requirements

Continuous noise alarm monitoring at Ash Lagoon/Ching Lam were carried out to calculate the noise contributed by the construction activities at the two critical NSR's, viz. Long Tsai Tsuen/Hung Shing Ye and the school within the village of Tai Wan San Tsuen. The impact monitoring data for construction noise were checked against the limit levels specified in the EM&A Manual. With the availability of the construction noise permits, impact monitoring for the construction work during the restricted hours was also carried out. Section 4 presents the details of the construction noise permits.

Manual noise measurements at Pak Kok Tsui residences were carried out for the construction work of Transmission System in this reporting month. The impact noise monitoring data were checked against the limit levels specified in the EM&A Manual. Appendix B shows the established Action/Limit Levels for noise.

## 3.2 Monitoring Locations

In accordance with the EM&A manual, the identified noise monitoring locations are listed in Table 3.1 and shown in Figure 3.1 and Figure 3.2.

Table 3.1 Noise Monitoring Locations

Purpose of noise monitoring	<b>Monitoring Location</b>	
Lamma Extension	Ash Lagoon	
Lamma Extension	Ching Lam	
Transmission System	Pak Kok Tsui residences (No.2 and No.8)	

## 3.3 Monitoring Equipment

The sound level meters used for noise monitoring complied with International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1). The noise monitoring equipment used is shown in Table 3.2.

Table 3.2 Noise Monitoring Equipment

Equipment	Model		
Equipment	Lamma Extension Transmission S		
Sound level meter	Rion NA-27/ B&K 2238F	Rion NL-31	
Sound level calibrator	Rion NC-74	Rion NC-74	

#### 3.4 Monitoring Parameters, Frequency and Duration

Continuous alarm monitoring of A-weighted Leq levels was carried out at Ash Lagoon and Ching Lam while manual noise monitoring was conducted at Pak Kok Tsui residences. The measurement duration and parameter of noise monitoring were presented in Table 3.3 as follows:

Table 3.3 Noise Monitoring Duration and Parameter

Location	Time Period	Frequency	Parameter
	Daytime: 0700-1900 hrs on normal weekdays	Daytime: 30 minutes	30-min L <sub>Aeq</sub>
Ash Lagoon	•		
	Evening-time & holidays: 0700-2300 hrs on holidays; and 1900-2300 hrs on all	Evening-time & holidays: 5 minutes	5-min L <sub>Aeq</sub>
Ching Lam	other days		
	Night-time: 2300-0700 hrs of next day	Night-time: 5 minutes	5-min L <sub>Aeq</sub>
Pak Kok Tsui residences	0700-1900 hrs on normal weekdays	Twice per week	30-min L <sub>Aeq</sub>

#### 3.5 Monitoring Procedures and Calibration Details

Monitoring Procedures

Continuous Noise Monitoring for Lamma Extension Construction

The measured noise levels (MNL's) were collected at the noise alarm monitoring stations at Ash Lagoon and Ching Lam. The notional background noise levels (viz. baseline noise data at Ash Lagoon and Ching Lam) were applied to correct the corresponding MNL's in 30-min/5-min  $L_{Aeq}$ .

A wind speed sensor was installed at Station Building Rooftop. The wind speed signal was used to determine whether the data from Ash Lagoon and Ching Lam noise alarm monitoring stations were affected. The instantaneous data was discarded in case the instantaneous wind speed exceeded 10~m/s. The 30-min/5-min  $L_{\text{Aeq}}$  was considered valid only if the amount of valid data was equal to or above 70%.

When calibrating the noise measuring equipment, all observations around the monitoring stations, which might have affected the monitoring results, were recorded.

# Manual Noise Monitoring for Transmission System Construction

Manual noise measurements were carried out at the Pak Kok Tsui residences in accordance with standard acoustical principles and practices for checking the impact of noise related to construction of the Transmission System.

Hand-held anemometer was used to measure the wind speed while taking noise measurements. If the wind speed is excessive, noise data will be discarded and remeasured.

#### **Equipment Calibration**

The sound level meters and calibrators have been verified by the manufacturer or accredited laboratory. Equipment for continuous noise monitoring was calibrated at site on a monthly basis.

The sound level meters used for manual noise measurement were calibrated with a sound level calibrator immediately before and after noise measurement in accordance with the relevant Technical Memoranda under the Noise Control Ordinance. Calibration details are shown in Appendix F.

#### 3.6 Results and Observations

Continuous noise monitoring was conducted at the two monitoring stations at Ash Lagoon and Ching Lam while manual noise monitoring was carried out at the Pak Kok Tsui residences.

All monitoring results and their graphical presentations are provided in Appendix E. No exceedance of noise Action/Limit Level was recorded in the month.

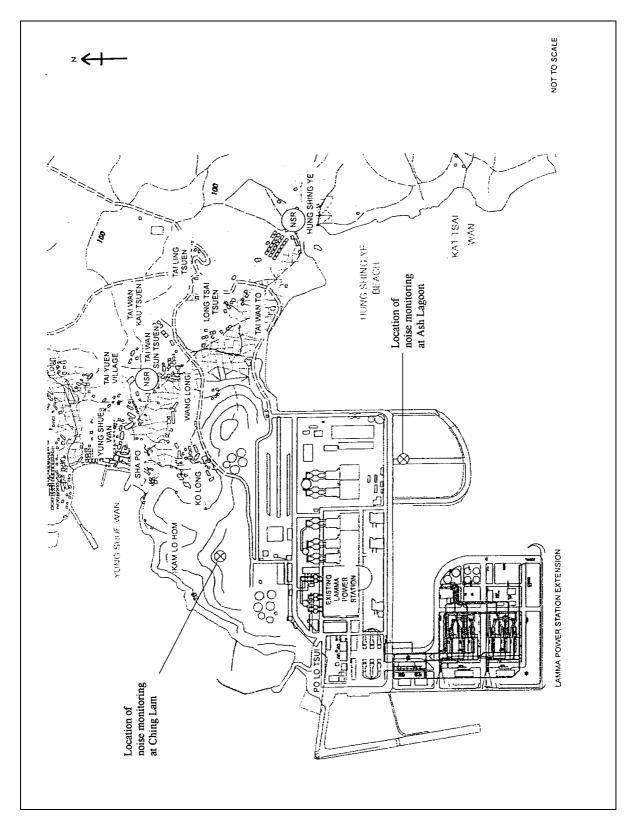


Figure 3.1 Location of Noise Monitoring Stations

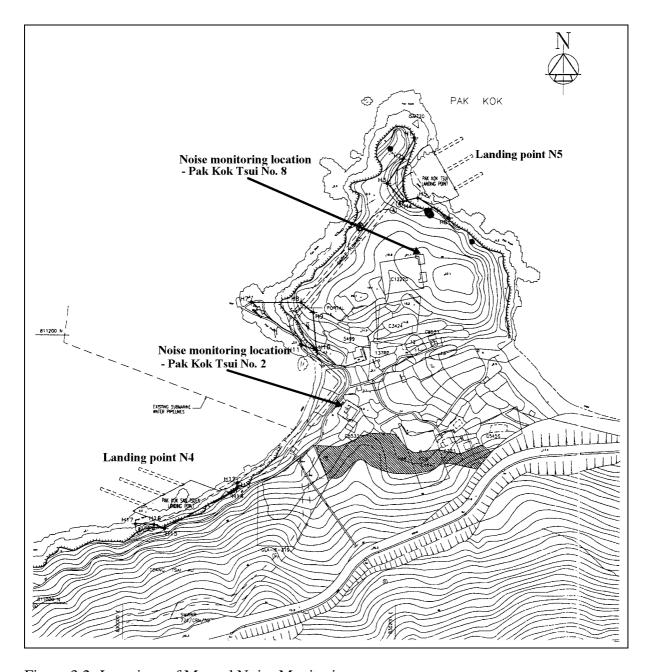


Figure 3.2 Locations of Manual Noise Monitoring

#### 4. ENVIRONMENTAL AUDIT

## 4.1 Review of Environmental Monitoring Procedures

The environmental monitoring procedures were regularly reviewed by the Environmental Team. No modification to the existing monitoring procedures was recommended.

# 4.2 Assessment of Environmental Monitoring Results

Monitoring results for Air Quality and Noise

The environmental monitoring results for Air Quality and Noise in the reporting month presented in sections 2, 3 and 4 respectively are summarized in Table 4.1.

Table 4.1 Summary of AL Level Exceedances on Monitoring Parameters

Item	Parameter Monitored	Monitoring Period		. of ances In	Event/Action Plan Implementation Status
			Action Level	Limit Level	and Results
Air					
1	Ambient TSP (24-hour)	01/03/06- 31/03/06	0	0	
2	Ambient TSP (1-hour)	01/03/06- 31/03/06	0	0	
Noise					
1	Noise level at the critical NSR's predicted by the noise alarm monitoring system	01/03/06- 31/03/06	0	0	
2	Manual noise monitoring at the Pak Kok Tsui residences	01/03/06- 31/03/06	0	0	

Waste Management Records

The estimated amounts of different types of waste generated in March 2006 are shown in Table 4.2.

Table 4.2 Estimated Amounts of Waste Generated in March 2006

Waste Type	Examples	<b>Estimated Amount</b>
Construction Waste	Concrete Waste, Used formwork, reinforcement	3 Tonne
	and wooden waste	137 m <sup>3</sup>
General Refuse	Domestic wastes collected	25 m <sup>3</sup>
	on site	

#### **4.3** Site Environmental Audit

IEC conducted a site inspection on 15/03/2006. The inspection result is attached in Appendix H.

Site audits were carried out by ET on a weekly basis to monitor environmental issues at the construction sites to ensure that all mitigation measures were implemented timely and properly. The site conditions were generally satisfactory. All required mitigation measures were implemented. The weekly site inspection results are attached in Appendix H.

## 4.4 Status of Environmental Licensing and Permitting

All permits/licenses obtained for the project are summarised in Table 4.3.

Table 4.3 Summary of Environmental Licensing and Permit Status

Description	Permit No.	Valid Period		Highlights	Status
		From	To		
Varied Environmental Permit	EP-071/2000/C	18/05/05	-	The whole construction work site	Valid
Construction Noise Permit	GW-RS0584-05	20/09/05	19/03/06	Operation of PME's allowed during the restricted hours (any day between 2300-0700 hrs on next day).	Valid

Description	tion   Permit No.   Valid Period		Period	Highlights Status	
_		From	To		
Construction Noise Permit	GW-RS0585-05	17/09/05	16/03/06	Operation of PME's allowed during the restricted hours (general holidays including Sundays between 0700-2300 hrs and any day not being a general holiday between 1900-2300 hrs).	Valid
Construction Noise Permit	GW-RS0784-05	29/11/05	19/05/06	Operation of PME's allowed during the restricted hours (general holidays including Sundays between 0700-1900 hrs and any day not being a general holiday between 1900-2100 hrs).	Valid
Construction Noise Permit	GW-RS0719-05	01/12/05	31/05/06	Operation of PME's allowed during the restricted hours (general holidays including Sundays between 0700-0700 hrs on next day and any day not being a holiday between 1900-0700 hrs on next day).	Valid
Construction Noise Permit	GW-RE0363-05	01/01/06	31/05/06	Operation of PME's allowed during the restricted hours (general holidays including Sundays between 0700-0700 hrs on next day and any day not being a general holiday between 1900-0700 hrs on next day).	Valid

Description	Permit No.	Valid Period		Highlights	Status
		From	To		
Construction Noise Permit	GW-RS0008-06	24/01/06	30/06/06	Operation of PME's allowed during the restricted hours (general holidays including Sundays between 0700-2300 hrs and any day not being a general holiday between 1900-2300 hrs).	Valid
Construction Noise Permit	GW-RS0032-06	11/02/06	10/08/06	Operation of PME's allowed during the restricted hours (general holidays including Sundays between 0700-0700 hrs on next day and any day not being a general holiday between 1900-0700 hrs on next day).	Valid
Construction Noise Permit	GW-RS0138-06	24/03/06	21/09/06	Operation of PME's allowed during the restricted hours (general holidays including Sundays between 0700-0700 hrs on next day and any day not being a general holiday between 1900-0700 hrs on next day).	Valid
Construction Noise Permit	GW-RS0154-06	04/04/06	30/06/06	Operation of PME's allowed during the restricted hours (general holidays including Sundays between 0700-2300 hrs and any day not being a general holiday between 1900-2300 hrs).	Valid

Description	Permit No.	Valid Period		Highlights	Status
•		From To			
Dumping Permit	EP/MD/05-031	05/09/05	04/03/06	Dumping at South Cheung Chau Disposal Area; Supply and Installation of Submarine and Land Cables	Valid
Dumping Permit	EP/MD/05-032	05/09/05	04/03/06	Dumping at South Cheung Chau Disposal Area; Supply and Installation of Submarine and Land Cables	Valid
Registration of Chemical Waste Producer	WPN5213-912- P2781-07	11/06/04	-	Major Chemical Waste Type: Spent lubrication oil, waste car battery, paint or thinner contaminated container	Valid
Registration of Chemical Waste Producer	WPN5213-912- K2801-03	15/09/04	-	Major Chemical Waste Type: Spent lubricating oil, spent battery, contaminated soil with spent flammable liquid	Valid
Registration of Chemical Waste Producer	WPN5517-912- T2007-02	17/03/05	-	Major Chemical Waste Type for the construction work: asbestos waste, spent lubricating lubrication oil	Valid
Registration of Chemical Waste Producer	WPN5213-912- W2852-09	25/01/05	-	Major Chemical Waste Type: spent mineral oil/ lubricating oil, spent solvents, spent batteries and surplus paint	Valid
Registration of Chemical Waste Producer	WPN4111-912- M2534-09	20/06/05	-	Major Chemical Waste Type: spent insulation oil for transformer	Valid
WPCO Discharge Licence	EP890/W2/XD020	22/11/04	30/11/09	Toilet for LMX construction site	Valid

Description	Permit No.	Valid Period		Highlights	Status
		From	To		
WPCO	EP890/W2/XD021	03/02/05	28/02/10	Toilet for LMX	Valid
Discharge				construction site	
Licence					

#### **4.5** Implementation Status of Environmental Mitigation Measures

Mitigation measures detailed in the permits and the EM&A Manual (Construction Phase) are required to be implemented. An updated summary of the Environmental Mitigation Implementation Schedule (EMIS) is presented in Appendix I.

#### 4.6 Implementation Status of Event/Action Plans

The Event/Action Plans extracted from the EM&A Manual (Construction Phase) are presented in Appendix G.

#### 4.7 Implementation Status of Environmental Complaint Handling Procedures

In March 2006, one follow-up enquiry from EPD about the February case was received as mentioned in Table 4.5. Besides this, no complaint against the construction activities was received.

Table 4.4 Environmental Complaints / Enquiries Received in March 2006

Case Reference / Date, Time Received / Date, Time Concerned	Descriptions /Actions Taken	Conclusion / Status
Nil	N/A	N/A

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Table 4.5 Outstanding Environmental Complaints / Enquiries Carried Over

Case Reference / Date, Time Received / Date, Time Concerned	Descriptions /Actions Taken	Conclusion / Status
Reference: PD20060005 Received: 20/02/2006 Concerned: 17/02/2006	On 17/02/2006, EPD found the contractor of HEC's site at Cyberport Landing Point operating a generator beyond 19:00 without a CNP. EPD then requested HEC for details of the contractor and the work. Actually, the work was an emergency repair of a newly installed 275kV fluid-filled cable joint to avoid ingress of air to the cable which would have detrimental effect on the cable insulation. HEC has explained the incident to EPD by letter dated 22/02/2006 accordingly.	The incident was related to an emergency work and EPD was replied accordingly.
	In response to EPD's further enquiry on 25/03/2006, another letter was issued to EPD by HEC on 06/04/2006 to explain the contractor's decision of carrying out the emergency work.	Pending EPD's further advice, if any.

#### 5. FUTURE KEY ISSUES

#### 5.1 Status of Natural Gas supply

Based on current project schedule, HEC anticipates there is no delay in the supply of natural gas.

#### 5.2 Key Issues for the Coming Month

Key issues to be considered in the coming month include:

#### Unit L9 Civil and Building Works

#### Noise Impact

- To continue monitoring the noise level during construction and to ensure compliance with the CNP's already obtained.
- To continue executing the preventive measures for avoiding noise exceedance and keep monitoring/ reviewing the noise performance.

#### Air Impact

• To monitor and review the sufficiency of the dust suppression measures provided and increase the resources accordingly if necessary.

#### **Unit L9 Mechanical Erection**

#### Noise Impact

- To continue monitoring the noise level during construction.
- To continue executing the preventive measures for avoiding noise exceedance and keep monitoring/ reviewing the noise performance.

#### Air Impact

• To monitor and review the sufficiency of the dust suppression measures provided and increase the resources accordingly if necessary.

#### Unit L9 Electrical, Instrumentation & Control Erection

#### Noise Impact

- To continue monitoring the noise level during construction.
- To continue executing the preventive measures for avoiding noise exceedance and keep monitoring/ reviewing the noise performance.

#### Air Impact

• To monitor and review the sufficiency of the dust suppression measures provided and increase the resources accordingly if necessary.

#### **Transmission System**

#### Noise Impact

- To continue monitoring the noise level during construction.
- To continue executing the preventive measures for avoiding noise exceedance and keep monitoring/ reviewing the performance.

#### Air Impact

• To monitor and review the sufficiency of the dust suppression measures provided and increase the resources accordingly if necessary.

#### Terrestrial Ecology Impact

- To closely monitor the construction activities in order to avoid disturbance to the rare plants.
- To provide temporary fire fighting equipment for prevention of fire within the work sites.

#### 5.3 Monitoring Schedules for the Next 3 Months

With the completion of post-project monitoring, no further marine water quality monitoring for the reclamation works is required.

The tentative environmental monitoring schedules for the next 3 months are shown in Appendix C.

#### **5.4** Construction Program for the Next 3 Months

The period of construction activity of slurry ash piping & filling is tentatively from April 2006 to June 2006. The tentative construction programs for the next 3 months are shown in Appendix J.

The commissioning of Unit L9, the first 300MW class gas-fired unit at Lamma Extension, is scheduled to commence on 15 May 2006.

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#### 6. CONCLUSION

One (1) TSP sample was rescheduled owing to the breakdown of TSP sampler. Other than this, all monitoring work at designated stations was performed as scheduled satisfactorily. The environmental monitoring works and site inspection were performed as scheduled in the reporting month. All monitoring results were checked and reviewed.

No Action/Limit level exceedance on 1-hour and 24-hour TSP level was recorded in the reporting month.

No Action/Limit level exceedance on noise was recorded in the reporting month.

Environmental mitigation measures recommended in the EM&A manual for the construction activities were implemented in the reporting month. One follow-up enquiry from EPD about the February case was received in the reporting month. It was related to an emergency work and EPD was replied accordingly. Besides this, no complaint against the construction activities was received. No prosecution was received for this Project in the reporting period.

A separate monthly EM&A report for submarine pipeline prepared by the consultant, as one of ET members, is shown in Appendix K.

The environmental performance of the Project was generally satisfactory.

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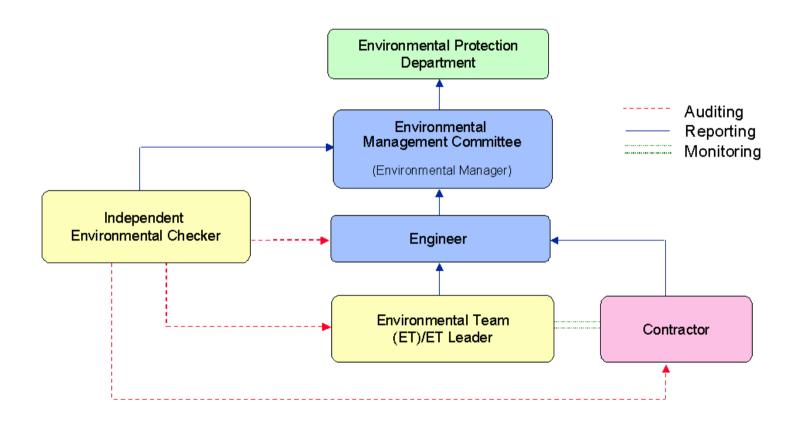


Figure A.1 Organisation of EM&A Programme at Construction Phase

#### Appendix B Action and Limit Levels for Air Quality and Noise Monitoring

#### B.1. Air

Table B.1 Action and Limit Levels for 1-hour and 24-hour TSP

	Action Level, μg/m <sup>3</sup>	Limit Level, µg/m³
1-hour TSP*	340	500
24-hour TSP	190	260

\* No Action/Limit Level for 1-hour TSP is applied to AM4 where no real time dust monitor is installed.

#### **B.2.** Noise

Table B.2 presents the Action and Limit (AL) levels for construction noise other than percussive piling.

Table B.2 AL Levels for Construction Noise (Other than Percussive Piling)

Parameters	Action	Limit
Noise Levels at the NSR's at Long Tsai Tsuen/Hung Shing Ye and school within the village of Tai Wan San	When one or more documented complaints are received	a. 75 dB(A) in L <sub>Aeq,30 min</sub> (07:00-19:00 hrs on normal weekdays) (Note 1)
Tsuen predicted by the noise alarm monitoring system	received	b. subject to statutory control under the Noise Control Ordinance (07:00-23:00 hrs on holidays and 19:00-23:00 hrs on all other days). Set to 60
Manual noise monitoring at the nearest Pak Kok Tsui residences to cable landing points N4 and N5		dB(A) in L <sub>Aeq,5 min</sub> c. subject to statutory control under the Noise Control Ordinance (23:00-07:00 hrs of next day). Set to 45 dB(A) in L <sub>Aeq,5 min</sub>

#### Note:

1. For educational institution, the limit level shall be 70 dB(A), reduced to 65 dB(A) during examination periods.

#### Appendix C Environmental Monitoring Schedule

Table C.1 Monitoring schedule for 24hr and 1hr TSP monitoring for Lamma Extension Construction (March 2006 to June 2006)

24hr TSP Monitoring	1hr TSP Monitoring
03/Mar/2006	03/Mar/2006 1500hr to 1800hr
09/Mar/2006	09/Mar/2006 1500hr to 1800hr
15/Mar/2006	15/Mar/2006 1500hr to 1800hr
21/Mar/2006	21/Mar/2006 1500hr to 1800hr
27/Mar/2006	27/Mar/2006 1500hr to 1800hr
02/Apr/2006	02/Apr/2006 1500hr to 1800hr
08/Apr/2006	08/Apr/2006 1500hr to 1800hr
14/Apr/2006	14/Apr/2006 1500hr to 1800hr
20/Apr/2006	20/Apr/2006 1500hr to 1800hr
26/Apr/2006	26/Apr/2006 1500hr to 1800hr
02/May/2006	02/May/2006 1500hr to 1800hr
08/May/2006	08/May/2006 1500hr to 1800hr
14/May/2006	14/May/2006 1500hr to 1800hr
20/May/2006	20/May/2006 1500hr to 1800hr
26/May/2006	26/May/2006 1500hr to 1800hr
01/Jun/2006	01/Jun/2006 1500hr to 1800hr
07/Jun/2006	07/Jun/2006 1500hr to 1800hr
13/Jun/2006	13/Jun/2006 1500hr to 1800hr
19/Jun/2006	19/Jun/2006 1500hr to 1800hr
25/Jun/2006	25/Jun/2006 1500hr to 1800hr

Table C.2 Manual Noise Monitoring Schedule for Transmission System Construction (March 2006 to June 2006)

Date	Monitoring Start Time
03/Mar/2006	14:00
07/Mar/2006	10:00
10/Mar/2006	14:00
14/Mar/2006	10:00
17/Mar/2006	14:00
21/Mar/2006	10:00
24/Mar/2006	14:00
28/Mar/2006	10:00
31/Mar/2006	14:00
04/Apr/2006	10:00
07/Apr/2006	14:00
11/Apr/2006	10:00
13/Apr/2006	14:00
18/Apr/2006	10:00
21/Apr/2006	14:00
25/Apr/2006	10:00
28/Apr/2006	14:00
02/May/2006	10:00
04/May/2006	14:00
09/May/2006	10:00
12/May/2006	14:00
16/May/2006	10:00
19/May/2006	14:00
23/May/2006	10:00
26/May/2006	14:00
30/May/2006	10:00
02/Jun/2006	14:00
06/Jun/2006	10:00
09/Jun/2006	14:00
13/Jun/2006	10:00
16/Jun/2006	14:00
20/Jun2006	10:00
23/Jun/2006	14:00
27/Jun/2006	10:00
30/Jun/2006	14:00

#### APPENDIX D AIR QUALITY MONITORING RESULTS

Site: Lamma Power Station Extension

Month: March 2006

#### 24 hour TSP Measurement:-

		TSP concentr	ration ( $\mu g/m^3$ )	Weather Information (From Hong Kong Observatory)			
Date	Reservoir	East Gate	Ash Lagoon	Tai Yuen Village	Mean Wind Speed	Prevailing Wind Dir.	Mean R.H.
	(AM1)	(AM2)	(AM3)	(AM4)	(km/hr)	(°)	(%)
03/03/2006	60	54	63	63	23.6	070	74
09/03/2006	94	68	74	85	8.3	030	87
15/03/2006	*	57	67	81	23.4	050	82
17/03/2006	82	-	-	-	18.3	030	91
21/03/2006	124	111	124	143	17.3	040	91
27/03/2006	50	42	41	54	21.5	040	96

#### 1 hour TSP Measurement:-

		TSP concentration (μg/m <sup>3</sup> )				
Date	Time	Reservoir (AM1)	East Gate (AM2)	Ash Lagoon (AM3)		
	15:00-15:59	53	57	43		
03/03/2006	16:00-16:59	59	62	53		
	17:00-17:59	41	37	54		
	15:00-15:59	76	78	56		
09/03/2006	16:00-16:59	96	83	58		
	17:00-17:59	113	91	66		
	15:00-15:59	62 71		60		
15/03/2006	16:00-16:59	60	69	61		
	17:00-17:59	Reservoir (AM1)         East Gate (AM2)           9         53         57           9         59         62           9         41         37           9         76         78           9         96         83           9         113         91           9         62         71           9         60         69           9         72         77           9         117         120           9         142         144           9         161         152           9         31         43           9         46         51	68			
	15:00-15:59	117	120	120		
21/03/2006	16:00-16:59	142	144	146		
	17:00-17:59	161	152	165		
	15:00-15:59	31	43	33		
27/03/2006	16:00-16:59	46	51	46		
	17:00-17:59	64	59	57		

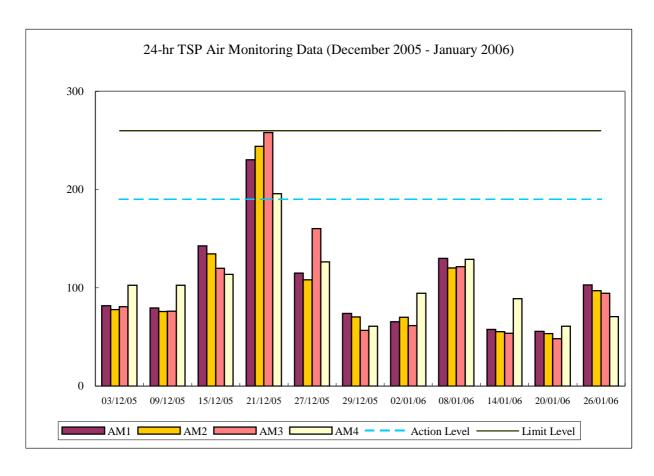
<sup>\* - 24-</sup>hr TSP sampler at AM1 (Reservoir) was found defective on 16/03/2006, during the collection of filter sample. Defect was rectified on the same day. A 24-hr TSP make-up sampling was conducted on 17/03/2006.

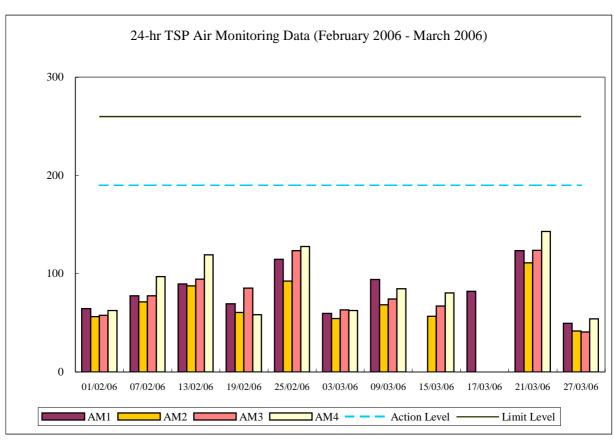
1 111 151	24-hr TSP
$(\mu g/m^3)$	$(\mu g/m^3)$
340	190
500	260
	340

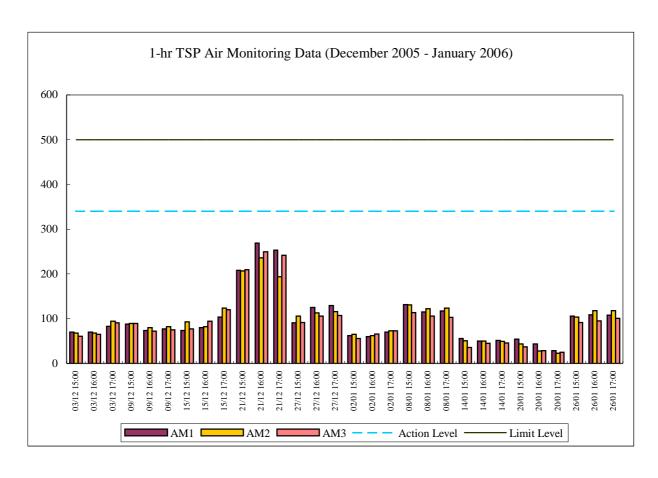
Calibration: Calibration details are shown in appendix F.

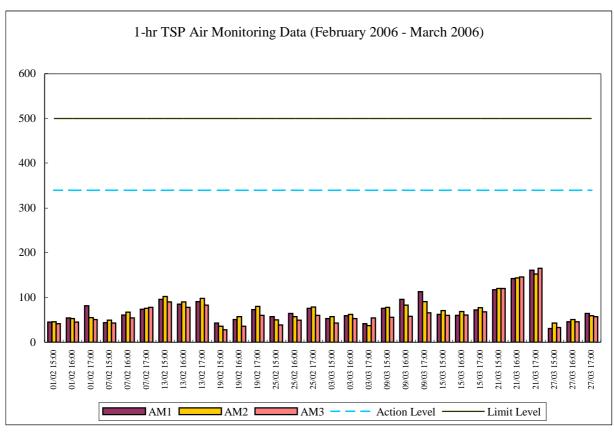
Equipment used:

Equipment used.						
Location	1-hr TSP	24-hr TSP				
Reservoir and East Gate	TEOM 1400a	High Volume Air Sampler				
Ash Lagoon	1EOM 1400a	Partisol Model 2000 Sampler				
Tai Yuen Village	-	MINIVOL Portable Sampler				









#### **Appendix E.1** Continuous Noise Monitoring Results for March 2006

Site: Lamma Power Station Extension - Superstructure

and E&M Works

Measurement Location: Ash Lagoon and Ching Lam

Measurement Parameter: 30-min Leq (07:00-19:00 hrs on normal weekdays)

5-min Leq (07:00-23:00 hrs on holidays and 19:00-23:00 hrs on all other days, and 23:00-

07:00 hrs of next day)

Noise Equipment Used: Rion NA-27 (Ash Lagoon) and B&K 2238F (Ching

Lam) sound level meters and Rion NC-74 sound

level calibrator

Last Calibration Date: Rion NA-27 sound level meter - 17/02/2005

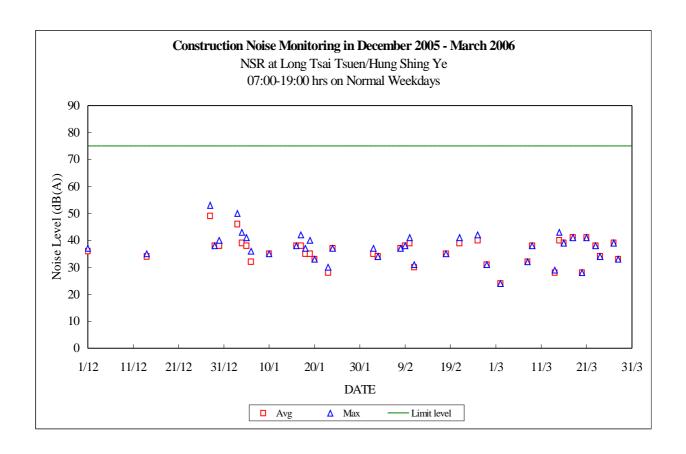
B&K 2238F sound level meter - 13/07/2004 Rion NC-74 calibrator - 13/03/2006

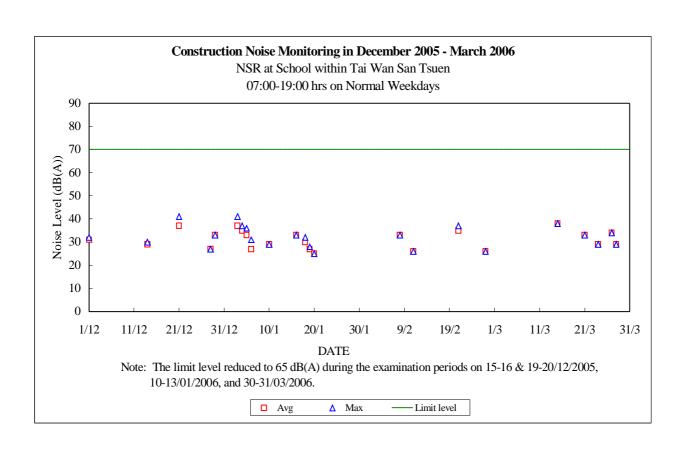
Date	Time	Calculated Noise Level at NSR at Long Tsai Tsuen/Hung Shing Ye (dB(A))		Calculated Noise Level at NSR at the School Level within Tai (dB(A)) Wan San Tsuen (dB(A))		Limit Noise Level (dB(A))	
01/00/0006	05 00 10 00	Max	Avg		Max	Avg	<b>5</b> 0
01/03/2006	07:00-19:00			75			70
01/03/2006	19:00-23:00	35	32	60			60
01/03/2006	23:00-07:00	38	34	45	34	30	45
02/03/2006	07:00-19:00	24	24	75			70
02/03/2006	19:00-23:00	22	20	60			60
02/03/2006	23:00-07:00	37	33	45	32	28	45
03/03/2006	07:00-19:00			75			70
03/03/2006	19:00-23:00			60			60
03/03/2006	23:00-07:00	40	34	45	35	29	45
04/03/2006	07:00-19:00			75			70
04/03/2006	19:00-23:00			60			60
04/03/2006	23:00-07:00	27	25	45			45
05/03/2006	07:00-23:00	36	33	60			60
05/03/2006	23:00-07:00	42	37	45	33	29	45
06/03/2006	07:00-19:00			75			70
06/03/2006	19:00-23:00	32	32	60			60
06/03/2006	23:00-07:00	32	29	45			45
07/03/2006	07:00-19:00			75			70
07/03/2006	19:00-23:00	36	33	60	32	30	60
07/03/2006	23:00-07:00	40	34	45	35	30	45
08/03/2006	07:00-19:00	32	32	75			70
08/03/2006	19:00-23:00	30	27	60			60

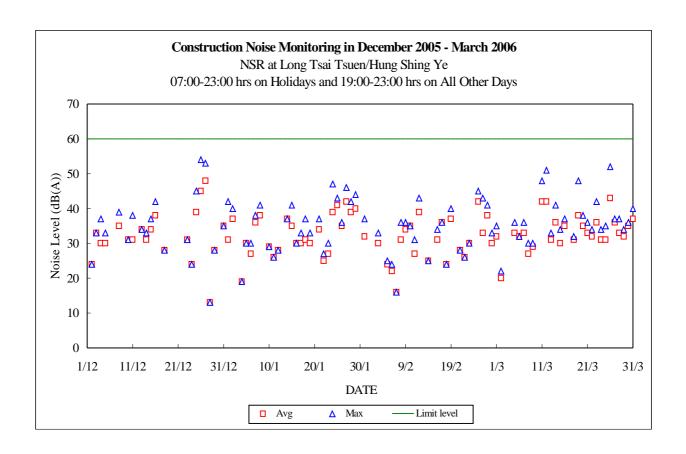
Date	Time	Calcula Noise Level a NSR at Tsai Tsuen/F Shing N (dB(A))	at Long Hung Ke	Limit Noise Level (dB(A))	Calcula Noise Level a NSR at school within Wan Sar Tsuen (dB(A))	at the Tai n	Limit Noise Level (dB(A))
		Max	Avg		Max	Avg	
08/03/2006	23:00-07:00	37	32	45	32	28	45
09/03/2006	07:00-19:00	38	38	75			70
09/03/2006	19:00-23:00	30	29	60	25	25	60
09/03/2006	23:00-07:00	40	34	45	35	29	45
10/03/2006	07:00-19:00			75			70
10/03/2006	19:00-23:00			60			60
10/03/2006	23:00-07:00	44	36	45	32	29	45
11/03/2006	07:00-19:00		4.2	75		20	70
11/03/2006	19:00-23:00	48	42	60	28	28	60
11/03/2006	23:00-07:00	41	35	45	35	32	45
12/03/2006	07:00-23:00	51	42	60	38	34	60
12/03/2006	23:00-07:00	45	38	45			45
13/03/2006	07:00-19:00			75			70
13/03/2006	19:00-23:00	33	31	60			60
13/03/2006	23:00-07:00	38	31	45	34	30	45
14/03/2006	07:00-19:00	29	28	75			70
14/03/2006	19:00-23:00	41	36	60	36	32	60
14/03/2006	23:00-07:00	37	34	45	32	29	45
15/03/2006	07:00-19:00	43	40	75	38	38	70
15/03/2006	19:00-23:00	34	30	60			60
15/03/2006	23:00-07:00	39	34	45	34	32	45
16/03/2006	07:00-19:00	39	39	75			70
16/03/2006	19:00-23:00	37	35	60			60
16/03/2006	23:00-07:00	36	31	45	31	29	45
17/03/2006	07:00-19:00			75			70
17/03/2006	19:00-23:00			60			60
17/03/2006	23:00-07:00	39	34	45	34	32	45
18/03/2006	07:00-19:00	41	41	75			70
18/03/2006	19:00-23:00	32	31	60			60
18/03/2006	23:00-07:00	42	35	45	35	34	45
19/03/2006	07:00-23:00	48	38	60	39	33	60
19/03/2006	23:00-07:00	43	36	45	38	32	45
20/03/2006	07:00-19:00	28	28	75			70
20/03/2006	19:00-23:00	38	35	60	33	31	60
20/03/2006	23:00-07:00	39	32	45	34	28	45

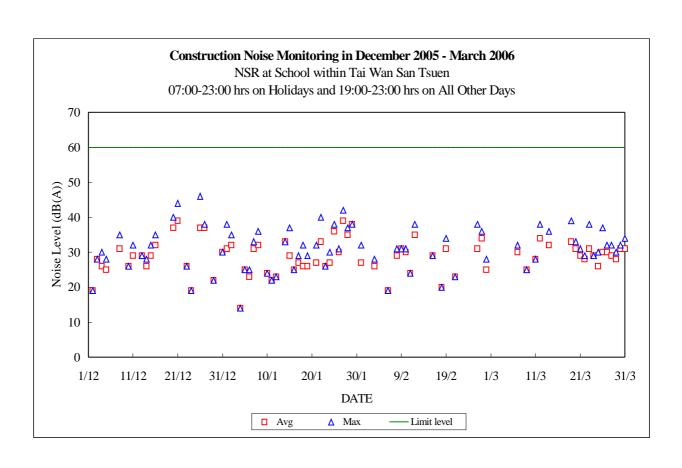
Date	Time	Calcula Noise Level a NSR at Tsai Tsuen/F Shing N (dB(A))	at Long Hung Ke	Limit Noise Level (dB(A))	Calcula Noise Level a NSR at school within Wan San Tsuen (dB(A))	at the Tai	Limit Noise Level (dB(A))
21/03/2006	07:00-19:00	41	41	75	33	33	70
21/03/2006	19:00-23:00	36	33	60	31	29	60
21/03/2006	23:00-07:00	32	30	45	27	25	45
22/03/2006	07:00-19:00			75			70
22/03/2006	19:00-23:00	34	32	60	29	28	60
22/03/2006	23:00-07:00	40	35	45	36	31	45
23/03/2006	07:00-19:00	38	38	75			70
23/03/2006	19:00-23:00	42	36	60	38	31	60
23/03/2006	23:00-07:00	45	38	45	41	33	45
24/03/2006	07:00-19:00	34	34	75	29	29	70
24/03/2006	19:00-23:00	34	31	60	29	29	60
24/03/2006	23:00-07:00	42	36	45	37	31	45
25/03/2006	07:00-19:00			75			70
25/03/2006	19:00-23:00	35	31	60	30	26	60
25/03/2006	23:00-07:00	38	30	45	30	24	45
26/03/2006	07:00-23:00	52	43	60	37	30	60
26/03/2006	23:00-07:00	33	30	45	29	25	45
27/03/2006	07:00-19:00	39	39	75	34	34	70
27/03/2006	19:00-23:00	37	36	60	32	30	60
27/03/2006	23:00-07:00	38	32	45	33	28	45
28/03/2006	07:00-19:00	33	33	75	29	29	70
28/03/2006	19:00-23:00	37	33	60	32	29	60
28/03/2006	23:00-07:00	37	31	45	32	26	45
29/03/2006	07:00-19:00			75			70
29/03/2006	19:00-23:00	34	32	60	30	28	60
29/03/2006	23:00-07:00	41	33	45	36	29	45
30/03/2006	07:00-19:00			75			65
30/03/2006	19:00-23:00	36	35	60	32	31	60
30/03/2006	23:00-07:00	39	31	45	35	27	45
31/03/2006	07:00-19:00			75			65
31/03/2006	19:00-23:00	40	37	60	34	31	60
31/03/2006	23:00-07:00	38	32	45	34	28	45

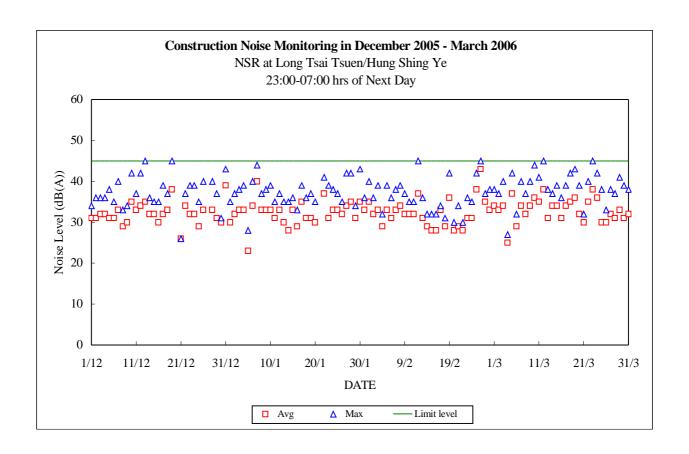
Note: "--" represents the measured noise monitoring data lower than the established notional background level/discarded under strong wind.

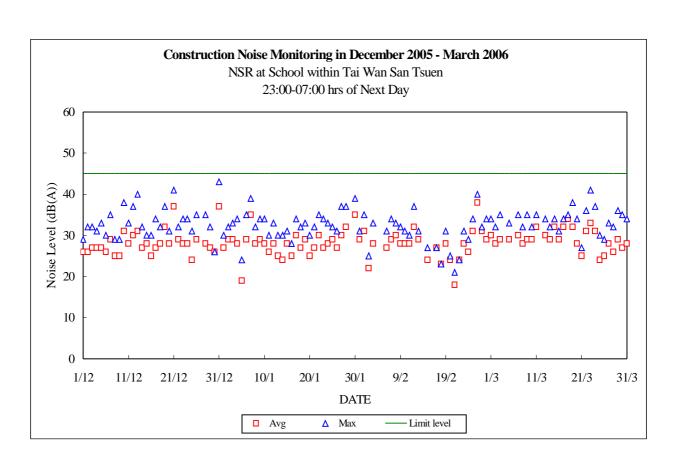












#### Appendix E.2 Manual Noise Monitoring Results for March 2006

Lamma Power Station Extension - Transmission System

Measurement Parameter: 30-min Leq (07:00-19:00 hrs on normal weekdays) Noise Equipment Used: Rion NL-31 sound level meter and Rion NC-74 sound

level calibrator

Wind Speed Equipment: Extech Instruments 45118

Last Calibration Date: Rion NL-31 sound level meter - 08/08/2005 Rion NC-74 sound level calibrator - 04/10/2005

Measurement Location: N4 - Pak Kok Tsui No.2

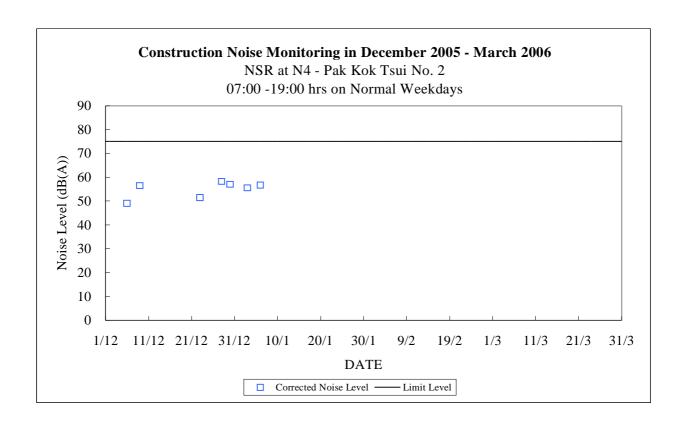
Date	Time	Measured Noise Level (dB(A))	Notional Background Noise Level (dB(A))	Corrected Noise Level (dB(A))	Limit Noise Level (dB(A))	Wind Speed (m/s)
03/03/2006	14:00-14:30	53.8	54.9		75	<5
07/03/2006	10:00-10:30	53.3	54.9		75	<5
10/03/2006	14:00-14:30	53.1	54.9		75	<5
14/03/2006	10:00-10:30	53.7	54.9		75	<5
17/03/2006	14:00-14:30	52.3	54.9		75	<5
21/03/2006	10:00-10:30	52.1	54.9		75	<5
24/03/2006	14:00-14:30	51.7	54.9		75	<5
28/03/2006	10:00-10:30	52.7	54.9		75	<5
31/03/2006	14:00-14:30	51.5	54.9		75	<5

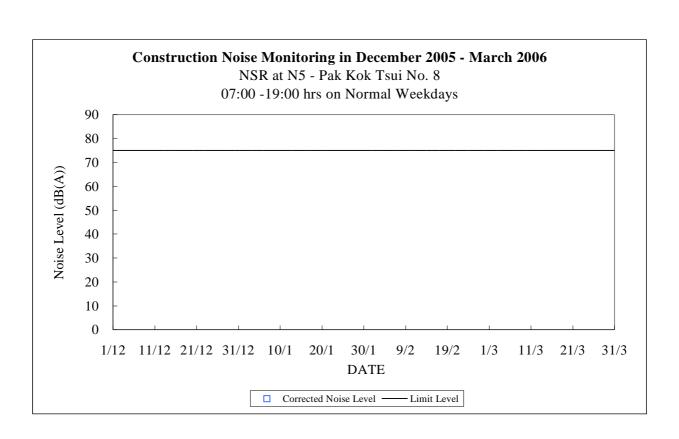
Measurement Location: N5 - Pak Kok Tsui No.8

Date	Time	Measured Noise Level (dB(A))	Notional Background Noise Level (dB(A))	Corrected Noise Level (dB(A))	Limit Noise Level (dB(A))	Wind Speed (m/s)
03/03/2006	14:40-15:10	51.2	54.9		75	<5
07/03/2006	10:40-11:10	48.6	54.9		75	<5
10/03/2006	14:40-15:10	50.1	54.9		75	<5
14/03/2006	10:40-11:10	48.9	54.9		75	<5
17/03/2006	14:40-15:10	49.3	54.9		75	<5
21/03/2006	10:40-11:10	50.9	54.9		75	<5
24/03/2006	14:40-15:10	50.7	54.9		75	<5
28/03/2006	10:40-11:10	49.9	54.9		75	<5
31/03/2006	14:40-15:10	51.7	54.9		75	<5

#### Note:

- The noise generated from local noisy events (e.g. dog barking, passingby pedestrians, motor vehicle, aeroplane, helicopter, etc.) was manually removed during measurement as far as practicable.
- 2. "--" represents the measured noise monitoring data lower than the established notional background level.





## Appendix F

The QA/QC Procedures and Results

## HIGH VOLUME AIR SAMPLER SITE VISIT LOG SHEET

Site N	ame:	R.E	Site No.:	Ами
Date o	of visit:	16-3-06	Hour of Visit:	10:00
Staff n	name:	H.K. TSANG	HVAS S/N:	2198
Used f	îlter paper no.:	LT 27	New filter paper no.:	LT 29
Туре	of filter:	Glass-fibre	_	
I.	Ambient Conditions $Temperature, T_a =$	22.6+273	Pressure, P <sub>a</sub> =	lulo mb
II.	Correction of manor	meter reading		
	Calibration orifice	No.	Manometer reading at six corresponds to $Q_{STD} =$ (inch $H_2O$ )	
	1535(09/2005	5)	$\triangle H_a = 19.29(T_a/P_a) =$	= 5.65
	Manometer reading Adjustment of flow Manometer reading Note: Tolerance Limit of	controller (Y/N): after calibration:	3/min. Corresponding limits for n	nanometer: $\pm$ 0.2 inch $\mathrm{H}_2\mathrm{O}$
III.	General Conditions	of HVAS		
IV.	Remarks			

File Name: C:\monitor\ambient\hvprical\HVASCAL05.doc

#### HIGH VOLUME AIR SAMPLER SITE VISIT LOG SHEET

Site Na	ame:	Ē	6	Site No.:	AM2
Date of	f visit:	16 -	3-06-	Hour of Visit:	15:10
Staff n	ame:	H.1	<. TSANG	HVAS S/N:	2195
Used fi	ilter paper no.:		28	New filter paper no.:	LT30
Туре о	f filter:	Glass-fibr	·e		
I.	Ambient Conditions Temperature, T <sub>a</sub> =	24+2		essure, $P_a = $	<u>u u m</u> b
Π.	Correction of manor	meter rea	ding		
	Calibration orifice	No.		Manometer reading at sit corresponds to $Q_{STD} = Q_{STD}$ (inch $H_2O$ )	
	1535(09/2005	5)		$\triangle H_a = 19.29(T_a/P_a) =$	5.67
	Manometer reading Adjustment of flow Manometer reading Note: Tolerance Limit of	controlle after cali	r (Y/N): _bration: _	5.6 Ain. Corresponding limits for n	nanometer: $\pm$ 0.2 inch $\mathrm{H}_2\mathrm{O}$
III.	General Conditions	of HVAS	3		
IV.	Remarks				

File Name: C:\monitor\ambient\hvprical\HVASCAL05.doc

## PARTISOL TSP SAMPLER SITE VISIT LOG SHEET

Site Name: _	Ach Lagron	Site Number:	AM3
Date of Visit:	10-3-06	Hour of Visit:	10:30
Staff Name: _	WA. MAK . H.K.TSAN'H	Partisol S/N:	2000 B 207 23 041
Used Filter N	(o.:	New Filter No	D.: PD [ ] -
Ambient tem	perature: 20°C	Ambient press	sure: 1010 m ha
I. <u>G</u>	eneral Services		
1.	Replace control unit Larg	ge In-line Filter	X
2.	1		
3.	Clean sample tube		$\checkmark$
4.			
5.	Clean / Replace piston _		<u> </u>
1.	Temperature Check (Ambient to  L \ C Calibr  Before	_	<u> </u>
2.	Pressure Check (Ambient pressur	e ± 20 mbar)(factor =	0.000987)
	Before Calibr	ation: YN	After to 16 mbar
3.	Flow Check (16.7± 1.1 litre/min)		
	Hefore I/min Calibr	ation: Y/N	After 1/min
III. Rema	<u>ırks</u>		
		······································	
***********			·····

## MINI VOLUME AIR SAMPLER SITE VISIT LOG SHEET

Site Name:		TYV	Site No.:	AM4
Date of visit:		16-3-06	Hour of Visit:	16:10
Staff name:		H. K. TSAN	MINIVOL S/N:	3393
Used filter paper	no.:	MH 95	New filter paper no.:	MH96
Type of filter:		Cellulose / Glass (Delete as appropri	riate)	
			cal DC-2 Flow Calibrator	
	_	s recommended		
5	ī. <b>U</b>	Before	<u> 50</u> Afte	T
		ini Vol Air Sampler meter:		t
		ace Pump Valves:		
	_		ms: X	
	_	ction Inlet:		
			months: $\times$	
	_			
	•			·
III. Remarks				
<del> </del>				

# THE HONGKONG ELECTRIC CO., LTD. LAMMA POWER STATION EXTENSION TEOM 1400A CONTINUOUS DUST MONITOR DATA QUALITY ASSURANCE LOG SHEET

Month: March Year: 2006

	Reservoir (AM1)								
Date	Frequency (Hz) (230 – 260)	Noise (< 0.1)	Operation Mode (Mode 4)	Main Flow (l/min) (0.94 – 1.06)	Aux. Flow (1/min) (14.67 – 16.67)				
3/3/2006	257-15	0.032	4	1-00	15-68				
9/3/2006	236.86	8-250	4	1.20	18.68				
15/3/2006	256.61	0.044	<u> </u>	1.00	14-68				
21/3/2006	236-01	0021	Y	1.00	15-68				
27/3/2006	255.77	0-057	Ψ	100	15.68				

	East Gate (AM2)								
Date	Frequency (Hz) (230 – 250)	Noise (< 0.1)	Operation Mode (Mode 4)	Main Flow (l/min) (0.94 – 1.06)	Aux. Flow (1/min) (14.67 – 16.67)				
3/3/2006	245.52	0054	4	0.49	15.64				
9/3/2006	245-23	0.040	¥	0.99	15-62				
15/3/2006	244.99	0.013	i,	0-94	13.62				
21/3/2006	244.40	8-055	4	0-99	15.64				
27/3/2006	244-15	0.043	4	0.49	13-63				

	Ash Lagoon (AM3)								
Date	Frequency (Hz) (240 – 270)	Noise (< 0.1)	Operation Mode (Mode 4)	Main Flow (I/min) (0.94 – 1.06)	Aux. Flow (1/min) (14.67 – 16.67)				
3/3/2006	247.68	0.061	¥	0.99	15.67				
9/3/2006	247-43	0.042	Ψ	1.00	15-20				
15/3/2006	248.01	2.030	Ų	100	15.66				
21/3/2006	247.64	0.037	4	100	15.67				
27/3/2006	247.42	6-275	4	1.00	15.68				

Maintenance Record									
	Reservoir	East Gate	Ash Lagoon						
TEOM Filter Exchange	ν	V	V						
Clean TSP Inlet	✓	$\checkmark$	/						
Replace flow in-line filter									
Pump Repair									
Leak Check									
Flow Audit	V	<b>✓</b>	✓						
Flow Controller Calibration									
A/C filter cleaning	✓								

Remarks:		
·	 	 

Prepared by : \_\_\_\_\_\_\_Checked by : \_\_\_\_\_\_

## THE HONGKONG ELECTRIC CO., LTD. LAMMA POWER STATION EXTENSION NOISE MONITORING STATION SITE VISIT LOG SHEET

Loca	ation		Ash Lagoon/ <del>Chi</del>	ng Lam*	
Date	e	14-3-06	Time		16:00
Equ:	ipment	Rion	NA-27/ <del>B&amp;K-2238F*</del>	Sound Lev	vel Meter
Ser	ial Numbe	r <u>00111</u>	<del>.465/00111466</del> /0011	1467/2343	8838/2356907*
Sta	ff Attend	ed	U.L.MAK	H. K. TSAN	h
			, , ,		
1.	Calibrat	ion			
	Acoustic	calibrato	or used		Rion NC-74
	Calibrat	ion level	before adjustment	(dB(A))	P4.0
	Calibrat	ion level	after adjustment	(dB(A))	94
2.	Weather	Conditions	<u> </u>		
	a. Sunn	y/fine/c <del>lc</del>	udy/showery/heavy	rain*	
	b. stro	ng_wind/br	<del>ce</del> ze/calm*		
3.	Remark/O	bservation	<u>1</u>		

Note: \* - Please delete where inappropriate

# THE HONGKONG ELECTRIC CO., LTD. LAMMA POWER STATION EXTENSION NOISE MONITORING STATION SITE VISIT LOG SHEET

Loca	ation		Ash I	<del>.agoon</del> /Chi	.ng Lam*	
Date	e	20-3	-06	Time		10:30
Equ:	ipment	-Rion	<del>NA-27</del> /B8	K 2238F*	Sound Lev	el Meter
Ser	ial Number	· <del>00111</del>	<del>465/001</del> 1	1466/0011	<del>1467</del> /2343	838/ <del>2356907*</del>
Sta	ff Attended <sub>-</sub>	11/200		W.L.MAK	, н.к.	TSANTO
1.	Calibration					
	Acoustic cal	librato:	r used			Rion NC-74
	Calibration	level	before a	ıdjustment	(dB(A))	94.0
	Calibration	level	after ad	ljustment	(dB(A))	94
2.	Weather Cond	ditions				
	a. <del>Sunny/fi</del>	ine/clo	udy/ <del>show</del>	ery/heavy	rain*	
	b. Strong v	vind/br	<del>eeze</del> /cal	.m*		
3.	Remark/Obse	cvation				
					AND THE RESERVE AND THE PARTY	
		1.0016		- Trajase		
	*****	Will be a	(Access		100000	
			A. C.	V 98 (1-2.		
	-					

Note: \* - Please delete where inappropriate

#### **Equipment Calibration Record for March 2006**

Site: Civil works for 275kV Cable Route from Lamma Island to Cyberport

Noise Equipment Used: RION NL -31Calibrator Used: RION NC -74

Measurement Location: N4 - Pak Kok Tsui No. 2

Date	Calibration Level before Measurement (dB(A))	Calibration Level after Measurement (dB(A))	Calibrated by
03/03/2006	94.0	94.0	C K Law
07/03/2006	94.0	94.0	C K Law
10/03/2006	94.0	94.0	C K Law
14/03/2006	94.0	94.0	C K Law
17/03/2006	94.0	94.0	C K Law
21/03/2006	94.0	94.0	C K Law
24/03/2006	94.0	94.0	C K Law
28/03/2006	94.0	94.0	C K Law
31/03/2006	94.0	94.0	CK Law

Measurement Location: N5 - Pak Kok Tsui No. 8

Date	Calibration Level before	Calibration Level after	Calibrated by
	Measurement (dB(A))	Measurement (dB(A))	
03/03/2006	94.0	94.0	C K Law
07/03/2006	94.0	94.0	C K Law
10/03/2006	94.0	94.0	C K Law
14/03/2006	94.0	94.0	C K Law
17/03/2006	94.0	94.0	C K Law
21/03/2006	94.0	94.0	C K Law
24/03/2006	94.0	94.0	C K Law
28/03/2006	94.0	94.0	C K Law
31/03/2006	94.0	94.0	C K Law

Note: Measurement accepted as valid only if the calibration levels from before and after the noise measurement agreed to within 1.0 dB.

#### Appendix G Event/Action Plans

Table G.1 Event and Action Plans for Air Quality

Event	Monitoring		Action			
	ET Leader	IEC	Engineer	Contractor		
Action Level						
Exceedance of one sample	Identify source Inform Engineer and IEC verbally Repeat measurement to confirm finding	Check monitoring data submitted by ET and advise Engineer.	Notify Contractor Checking monitoring data and contractor's working methods	Rectify any unacceptable practice amend any working methods if appropriate		
Exceedance of two or more consecutive samples	Identify source Inform Engineer and IEC verbally Repeat measurement to confirm finding Increase monitoring frequency Discuss with Engineer and Contractor on remedial actions required If exceedance continues, arrange meeting with Engineer If exceedance stops, discontinue additional monitoring	Check monitoring data submitted by ET and advise Engineer. Provide feedback to the Engineer on the remedial actions proposed by the ET / Contractor Advise Engineer on the effectiveness of the proposed remedial measures Verify the implementation of the remedial measures	Confirm receipt of notification of failure in writing Notify contractor Checking monitoring data and contractor's working methods Discuss proposed remedial actions with the ET and Contractor Ensure remedial actions properly implemented	Submit proposals for remedial actions to Engineer within 3 working days of notifications Implement the agreed proposals Amend proposal if appropriate		
Limit level						
Exceedance of one sample	Repeat measurement to confirm finding. Identify the source(s) of the impact. If the exceedance is found to be valid and due to the Construction works, verbally advise the Contractor, Engineer and IEC, and inform the EPD of the exceedance, as soon as practicable. Increase monitoring frequency to daily Assess the effectiveness of the contractor's remedial actions and keep Engineer, IEC and EPD informed of the results	Check monitoring data submitted by ET and advise Engineer Provide feedback to the Engineer on the remedial actions proposed by the ET / Contractor Advise Engineer on the effectiveness of the proposed remedial measures Verify the implementation of the remedial measures	Confirm receipt of notification of failure in writing Notify Contractor Checking monitoring data and Contractor's working method Discuss with ET and Contractor on remedial actions to be provided Ensure remedial measures properly implemented	Take immediate action to avoid further exceedance Submit proposals for remedial actions to Engineer within 3 working days of notifications Implement the agreed proposals Amend proposal if appropriate		

Event	Monitoring		Action			
	ET Leader	IEC	Engineer	Contractor		
Exceedance of	Identify source	Provide feedback to the Engineer on	Confirm receipt of notification of	Take immediate action to		
two or more	If the exceedance is found to be valid	the remedial actions proposed by the	failure in writing	avoid further exceedance		
consecutive	and due to the construction works,	ET / Contractor	Checking monitoring data and	Submit proposals for remedial		
samples	verbally advise the Contractor, Engineer	Advise Engineer on the effectiveness	Contractor's working methods	actions to Engineer within 3		
	and IEC, and inform the EPD of the	of the proposed remedial measures	Notify Contractor	working days of notifications		
	exceedance as soon as practicable.	Verify the implementation of the	Discuss proposed remedial actions	Implement the agreed		
	Repeat measurement to confirm finding	remedial measures	with ET and Contractor	proposals		
	Increase monitoring frequency to daily		Ensure remedial measures properly	Resubmit proposals if problem		
	Carry out analysis of Contractor's		implemented	still not under control		
	working procedures to determine		If exceedance continues, consider	Stop the relevant portion of		
	possible mitigation to be implemented		what portion of the work is	works as determined by the		
	Arrange meeting with Engineer and		responsible and instruct the	Engineer until the exceedance		
	Contractor to discuss the remedial		Contractor to stop the portion of work	is abated		
	actions to be taken		until the exceedance is abated			
	If exceedance stops, discontinue					
	additional monitoring					

Table G.2 Event and Action Plans for Construction Noise

Exceedance	ET Leader	IEC	Engineer	Contractor
Action Level	Undertake noise measurement/check monitoring data to establish validity of complaint.	Review the analysed results submitted by the ET.	Notify Contractor of the complaint if proven.	Submit proposals for remedial actions to Engineer.
	If the complaint is valid, inform Engineer and IEC verbally.	Review the remedial measures proposed by the Contractor and advise the Engineer and ET accordingly.	Check Contractor's working methods and advise IEC and ET accordingly.	Amend proposals if required by the Engineer.
	Identify the source(s) of the noise.	Verify the implementation of the remedial measures.	Remind the Contractor of his contractual obligations and discuss remedial actions.	Implement the remedial actions immediately upon instruction from the Engineer.
	Discuss remedial actions required with Contractor and Engineer.		Keep the Contractor informed of the efficacy of remedial actions.	Liaise with the Engineer to optimise the effectiveness of the agreed mitigation.
	Increase manual monitoring frequency to assess efficacy of remedial measures.			
	If exceedance continues, review implementation of appropriate mitigation measures.			
Limit Level	Repeat manual measurement/check monitoring data to confirm findings.	Agree potential remedial actions with Engineer, ET and Contractor.	Notify Contractor of exceedance.	Take immediate action to avoid further exceedance.
	Identify the source(s) of the impact. If the exceedance is found to be valid and due to	Review Contractor's remedial actions / measures to ensure their effectiveness	Check Contractor's working methods and advise IEC and ET accordingly.	Submit proposals for remedial actions to Engineer.
	the Construction works, verbally advise the Contractor, Engineer and IEC, and inform the EPD of the exceedance, as soon as practicable.	and advise the Engineer and ET accordingly.	Discuss with Contractor the remedial actions to be implemented.	Amend proposals if required by the Engineer.
		Verify the implementation of the remedial measures	Keep the Contractor informed of the efficacy of remedial actions.	Implement remedial actions immediately
	Discuss remedial actions required with Engineer.		If the exceedance continues, consider	upon instruction from the Engineer.
	Increase manual monitoring frequency to assess efficacy of remedial measures.		what portion of the work is responsible and instruct the Contractor to stop the portion of work until the exceedance is abated	If the exceedance continues, consider what portion of the work is responsible and, as instructed by the Engineer, stop the portion of work until the exceedance is abated

Table G.3 Event and Action Plans for Water Quality

Exceedance	ET Leader	IEC	Engineer	Contractor
Action level exceeded on one sampling day	Verbally inform the Contractor, and IEC. Repeat in-situ measurement to confirm findings; Identify source(s) of impact; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with Engineer and Contractor; Repeat measurement on next day of exceedance.	Provide feedback to the Engineer on the remedial actions proposed by the ET / Contractor  Advise Engineer on the effectiveness of the proposed remedial measures  Verify the implementation of the remedial measures	Discuss with Contractor the proposed mitigation measures; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures.	Inform the Engineer and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Propose and discuss mitigation measures with Engineer; Implement the agreed mitigation measures.
Action level exceeded on more than one consecutive sampling day	Repeat in-situ measurements to confirm findings; Identify source(s) of impact; Inform Contractor and IEC; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measure with Engineer and Contractor; Ensure mitigation measures are implemented; Prepare to increase the monitoring frequency to daily; Repeat measurement on next day of exceedance.	Provide feedback to the Engineer on the remedial actions proposed by the ET / Contractor  Advise Engineer on the effectiveness of the proposed remedial measures  Verify the implementation of the remedial measures	Discuss with ET and Contractor on the proposed mitigation measures; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures.	Inform the Engineer and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Propose mitigation measures to Engineer within 3 working days and discuss with ET and Engineer; Implement the agreed mitigation measures.

Exceedance	ET Leader	IEC	Engineer	Contractor
Limit level exceeded on one sampling day	Verbally inform the Contractor, IEC and the EPD of the exceedance; Repeat in-situ measurement to confirm findings; Identify source(s) of impact; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measure with Engineer and Contractor; Ensure mitigation measures are implemented; Increase the monitoring frequency to daily until no exceedance of Limit level.	Provide feedback to the Engineer on the remedial actions proposed by the ET / Contractor  Advise Engineer on the effectiveness of the proposed remedial measures  Verify the implementation of the remedial measures	Discuss with Contractor on the proposed mitigation measures; Request Contractor to critically review the working methods; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures.	Inform the Engineer and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Propose mitigation measures to Engineer within 3 working days and discuss with Engineer; Implement the agreed mitigation measures.
Limit level exceeded by more than one consecutive sampling day	Repeat in-situ measurement to confirm findings; Identify source(s) of impact; Inform Contractor, IEC and EPD; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measure with Engineer and Contractor; Ensure mitigation measures are implemented; Increase the monitoring frequency to daily until no exceedance of Limit level for two consecutive days.	Provide feedback to the Engineer on the remedial actions proposed by the ET / Contractor  Advise Engineer on the effectiveness of the proposed remedial measures  Verify the implementation of the remedial measures	Discuss with Contractor on the proposed mitigation measures; Request Contractor to critically review the working methods; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures; Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the marine works until no exceedance of the Limit Level.	Inform the Engineer and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Propose mitigation measures to Engineer within 3 working days and discuss with Engineer; Implement the agreed mitigation measures As directed by the Engineer, to slow down or to stop all or part of the marine work

### Appendix H

### Site Audit Summary

(In order to save paper, the weekly inspection checklists are provided only in electronic format in the CD-ROM enclosed.)

## The Hongkong Electric Co. Ltd. Lamma Power Station Extension – Site Formation, Piling Works and Superstructure Works

Weekly Site Inspection Checklist

Inspection t	late Time (0 250 Inspecte	ed By	ET:	10V	ng Ba	Why
Site	LMx- Superstructure		Conti	acto	<u> K</u> n	go, Po
Veather						
Condition	Sunny Fine Overcast Hazy		Drizz	zle [	Ra	in Sto
Temperatu	rre[[]C Humidity High Moderat	е [	Low	,		
Wind	Calm Light Breeze Strong					
GENERAL						
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		/			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		/		•	
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
						/ Cinarks
Cap311R:	General Requirements     Has the contractors notified EPD of the construction site which is	1	Γ	Γ-		
3	classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?		/			
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?		/			
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	/				
	Construction Sites	1				L
ЕМ&A : Л1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		/			
	Stockpiling of dusty materials					
Cap311R: Seh 18	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wer to prevent dust emission?	/				

Ref.	Checklist Canditian	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized fuel ash (PFA)					
Cap311R: Set: 15(3)	Are the storage silos for cement or dry PFA prevented from overfilling?					
Cap311R: Sch 15(4)	Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system?					
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level atarm?	/				
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?					
	Loading, unloading or transfer of dusty materials					
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?	1				
EM&A: Al	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?					
	Use of vehicles					
Cap311R: Sch 21(2) EM&A:	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	/				
Cap311R: Sch 21(1)	Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?		/			
	Transfer of dusty materials using a belt conveyor system					1
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?	1				
Cap311R: Sch 20(2)	Is every transfer point between any two-belt conveyors totally enclosed?	1				
Cap311R: Sch 20(3)	Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?	/				
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?	/				., .,
	Concrete batching plant					
ЕМ&Л: Л2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?	1				
EM&A: A2	Are dusty materials, except cement and dry PFA, wetted by water spray system?	/				
EM&A: A2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	/				
EM&A:	Are all the conveyor transfer points totally enclosed?	/				·

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Miscellaneous	,				
Cap311R: Sch 16	Are completed earthworks scaled and hydroseeded and planted as soon as possible?	-				
Cap3110	Is open burning prohibited?					
Cap311	Is black smoke emission from plant/equipment avoided?		/			

#### WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials					
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	/				·
WMP . EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	/				
EM&A: E3	Are wastes disposed of at licensed sites?	/				
	Construction Waste and Excavated Materials	.1				
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	/				
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	/		:		
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?		1			
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?		/			
VMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	/				
EM&A: E3	Are wastes disposed of at licensed sites?	/				
	General refuse					
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		/			
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		/			
VAIP	Is the refuse disposed of regularly and properly?		/			
WMP	Are burning of refuse at site and dumping at sea prohibited?		/			
	Chemical Waste					
EM&A: E3	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?					

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks	
WDO	Has the Contractor been registered as a chemical waste producer?	/					
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?						
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging. Handling and Storage of Chemical Waste**?	/					
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?	/					
	Storage, collection and transportation of waste						
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?	/					
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?						
	(1) public fill materials for on-site reuse, or disposal at public filling area;	/					
	(2) reusable / recyclable materials;	/					
	(3) un-reusable / non-recyclable waste for landfill disposal.	/					
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?	/					

### WATER QUALITY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off					
PN1/94	Are the silt removal facilities, channels and manholes maintained and the deposited silt and grit removed regularly?	/				
PN1/94	Are earthworks final surfaces well compacted and the subsequent permanent work or surface protection carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms? Is appropriate drainage like intercepting channels provided where necessary?					
PN1/94	Are measures taken to minimize the ingress of rainwater into trenches? Is rainwater pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?	1				
PN1/94	Are open stockpiles of construction materials (e.g., aggregates, sand and fill material) on site covered with tarpaulin or similar fabric during rainstorms? Are measures taken to prevent the washing away of construction materials, soil, silt or debris into the drainage system?	1				
PN1/94	Are manholes (including newly constructed ones) adequately covered and temporarily scaled so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers?	1				
PN 1/94	Groundwater Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?	7				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Boring and Driffing Water				İ	
PN1/94	Is water that used in ground boring and drilling for site investigation or rock/soil anchoring recirculated as far as possible after sedimentation? If there is a need for final disposal, is the wastewater discharged into storm drains via silt removal facilities?					
	Wheel Washing Water	T				
PN 1/94	Is a wheel-washing bay provided at every exit if practicable and is the silt removed from wash-water before discharging into storm drains?					

#### MARINE ECOLOGY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: G1	Are all percussive piling works conducted on reclaimed land to avoid noise impact to marine mammals?	/				
EM&A: G2	Do the marine vessels moving to and from the construction site strictly follow the routes stated in the "Plan for Dredging & Reclamation, Routing of Construction Related Marine Vessels, and Installation of Silt Curtain"?	/				
EM&A: G3	Is rubble mound seawall constructed to the south and west edges of the reclamation to enhance recolonisation of marine organisms?	/				

#### NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: CI	Are working programmes sched	uled to minimize noise nuisance?					
EM&A: CI	Are construction works or equip nuisance?	oment sited to minimize noise		/			
EM&A: C1	Are all plant and equipment mai conditions?	ntained in good operating		/			
EM&A: CI/GP	Is idle equipment turned off or the	hrottled down?		/			
EM&A: CI	Are methods of working devised nuisance?	f and arranged to minimize noise		/			
EM&A: CI)	Are construction works carried on nuisance?	out in a manner to minimize noise		/			
EM&A: C2				/			
EM&A: C3	To mitigate night time construct equipped with silencers or muffl	ion noise, is dredging equipment ers?					
NCO	Are valid construction noise per inspection?	mits, if required, available for		/			<del></del>
NCO	Are conditions of construction no relevant part(s) of the works imp			/			!
NCO	Are valid noise emission labels f held percussive breakers?	fixed at air compressors and hand		/			
	Major noise source(s)	Traffic	Ø	Constr site	uction	activi	ties inside the
	inagor noise source(s)	Construction activities outside the site		Others			

#### Abbreviation

EP:	Varied Environmental Permit			
MP	Waste Management Plan	EM&A:	EM&A Manual (Constructi	on Phase)
ap311R:	APC (Construction Dust) Regulation	NCO:	Noise Control Ordinance	
ap311O.	APC (Open Burning) Regulation	WDO:	Waste Disposal Ordinance	
ap311:	Air Pollution Control Ordinance			!
N1/94:	Practice Note for Professional Persons (Con	nstruction Site I	Drainage)	
Ink:	Unknown			
emark				

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	^-		
,			

Signatures

ET Member

Contractor's Representative

(Name in Block letters:

L.K. Wong

(Name in Block letters:

11th November 2002

# The Hongkong Electric Co. Ltd. Lamma Power Station Extension – Site Formation, Piling Works and Superstructure Works Weekly Site Inspection Checklist

Inspection (	tate 8/3/06 Time Dock Inspect	ed By	ET:	le	m	worg
Site	LMX- Superstructure		Com		· KAV	yo, kul
Weather						· ··· -   · · · · · · · · · · · · · · ·
Condition	Sunny Fine Overcast Hazy		Driz	zie [	Ra	ain Stor
Temperatu	re C Humidity High Modera	te /	Lov	,		•
Wind	Calm Light Breeze Strong					
GENERAL					· · · · · · · · · · · · · · · · · · ·	
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		1			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?				٠	
AIR QUALI	TY .		,			
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements					
Cap311R: 3	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?					
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?					
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	/				
	Construction Sites	I	<u> </u>			L
1&A:	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		/			·
	Stockpiling of dusty materials	L		·		

Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to

maintain the entire surface wet ... prevent dust emission?

Cap311R:

Sch 🖂

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized fuel ash (PFA)					
Cap311R: Sch 15(3)	Are the storage silos for cement or dry PFA prevented from overfilling?			ļ		:
Cap311R: Sch 15(4)	Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system?	/				
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?	/				
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?					
	Loading, unloading or transfer of dusty materials					· !
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?					
EM&A: Al	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?					
	Use of vehicles					
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	/				
Cap311R: Sch 21(1)	Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?		/			+
	Transfer of dusty materials using a belt conveyor system					
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?	/				
Cap311R: Sch 20(2)	Is every transfer point between any two-belt conveyors totally enclosed?	/				:
Cap311R: Sch 20(3)	Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?	/				
Cap311R; Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?					-
	Concrete batching plant	<u></u>				
EM&A: A2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?	/				· · · · · · · · · · · · · · · · · · ·
EM&Λ: Λ2	Are dusty materials, except cement and dry PFA, wetted by water spray system?	/				!
ЕМ&Л: ,\2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?					

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Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
A service of the service of	Miscellaneous		,	·		
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as suon as possible?	/	-			
Cap311O	Is open burning prohibited?		/			
Cap311	Is black smoke emission from plant/equipment avoided?		/			

### WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials					
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?					:
WNIP . EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?					:
EM&A: E3	Are wastes disposed of at licensed sites?					
	Construction Waste and Excavated Materials					!
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	1				:
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	/				
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?		1			:
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?		/			:
VMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	/				
EM&A: E3	Are wastes disposed of at licensed sites?	/				:
	General refuse					
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		/		i	
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		/		:	
WAIP	Is the refuse disposed of regularly and properly?		1			
WMP	Are burning of refuse at site and dumping at sea prohibited?		/			
	Chemical Waste				:	
EM&A: E3	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?				:	

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
WDO	Has the Contractor been registered as a chemical waste producer?					
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?	/				
ЕМ&л: E4	Is chemical waste handled according to the Code of Practice on the Packaging. Handling and Storage of Chemical Waste'?					
ем&л: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?					
	Storage, collection and transportation of waste	·				
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?	/				
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?		,			
	(1) public fill materials for on-site reuse, or disposal at public filling area;	/				
	(2) reusable / recyclable materials;	/				
	(3) un-reusable / non-recyclable waste for landfill disposal.	/				
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?					

### WATER QUALITY

Ref	Checklist Condition	N/A	Yes	No	Unk	Rer	narks
	Surface Run-off						
PN1/94	Are the silt removal facilities, channels and manholes maintained and the deposited silt and grit removed regularly?	/					
PN1/94	Are earthworks final surfaces well compacted and the subsequent permanent work or surface protection carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms? Is appropriate drainage like intercepting channels provided where necessary?						
PN 1/94	Are measures taken to minimize the ingress of rainwater into trenches? Is rainwater pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?	/					
PN1/94	Are open stockpiles of construction materials (e.g., aggregates, sand and fill material) on site covered with tarpaulin or similar fabric during rainstorms? Are measures taken to prevent the washing away of construction materials, soil, silt or debris into the drainage system?					:	8107
PN1/94	Are manholes (including newly constructed ones) adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers?	/					***************************************
PN 1/94	Groundwater  Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?						

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Boring and Drilling Water					
PN1/94	Is water that used in ground boring and drilling for site investigation or rock/soil anchoring recirculated as far as possible after sedimentation? If there is a need for final disposal, is the wastewater discharged into storm drains via silt removal facilities?					
	Wheel Washing Water					
PN1/94	Is a wheel-washing bay provided at every exit if practicable and is the silt removed from wash-water before discharging into storm drains?		/			

#### MARINE ECOLOGY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: G1	Are all percussive piling works conducted on reclaimed land to avoid noise impact to marine mammals?	/				
EM&A: G2	Do the marine vessels moving to and from the construction site strictly follow the routes stated in the "Plan for Dredging & Reclamation, Routing of Construction Related Marine Vessels, and Installation of Silt Curtain"?					
EM&A: G3	Is rubble mound seawall constructed to the south and west edges of the reclamation to enhance recolonisation of marine organisms?					

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NOISE

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	Checklist Condition		N/A	Yes	No	Unk	Remarks
Ref			1477			,	
EM&A: Cl		iled to minimize noise nuisance?		/			
EM&A: CI	Are construction works or equip- nuisance?	ment sited to minimize noise		/			
EM&A: C1	Are all plant and equipment main conditions?	ntained in good operating			,		
EM&A: CI/GP	Is idle equipment turned off or the	s idle equipment turned off or throttled down?					
EM&A: C1	Are methods of working devised nuisance?		/			•	
EM&A: CI)	Are construction works carried on nuisance?						
EM&A: C2				/	٠		
EM&A: C3	To mitigate night time construct equipped with silencers or muffl	on noise, is dredging equipment ers?	/				
NCO	Are valid construction noise pen inspection?	nits, if required, available for		/			
NCO	Are conditions of construction neelevant part(s) of the works imp			/			
NCO	Are valid noise emission labels fi held percussive breakers?	ixed at air compressors and hand		/			
	Major noise source(s)	☐ Traffic	Ø	Consti	ructio	n activ	ities inside the
	(viajor noise source(s)	Construction activities outside the site		Other	s		

#### Abbreviation

VEP:

Varied Environmental Permit

TAR

Waste Management Plan

EM&A: EM&A Manual (Construction Phase)

Cap344R: Cap311O

APC (Construction Dust) Regulation APC (Open Burning) Regulation

NCO: WDO:

Noise Control Ordinance Waste Disposal Ordinance

Cap311:

Air Pollution Control Ordinance

PN1/94:

Practice Note for Professional Persons (Construction Site Drainage)

Unk:

Unknown

Remark

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``	gn:	ลทา	res

ET Member

Contractor's Representative

(Name in Block letters:

11th November 2002

## The Hongkong Electric Co. Ltd. Lamma Power Station Extension – Site Formation, Piling Works and Superstructure Works

#### Weekly Site Inspection Checklist

Inspection o	late 15/3/06 Time 10-20 Inspecto	ed By	ET:	le	my	hley.
Site	[LMX - Ruperometure]	١	Conti	acto	/Ch	fo, Pa
Veather						<del></del>
Condition	Sunny Fine Overcast Hazy		Driz	zle [	Ra	ain S
Temperatu	re °C Humidity High Moderat	te _	Lov	,		
Wind	Calm Light Breeze Strong					
GENERAL			<del></del>			
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		1			:
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		/			
AIR QUAL Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements			1	L	L
Cap311R: 3	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?		/			
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?		/			
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	/				
	Construction Sites	l		·		
EM&A : Л	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		/			
	Stockpiling of dusty materials	·		L	1	<del></del>
Cap311R: Sch 18	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to	/				

Ref.	Checklist Condition .	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized fuel ash (PFA)					
Cap311R: Sch 15(3)	Are the storage silos for cement or dry PFA prevented from overfilling?					
Cap311R: Sch 15(4)	Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system?	/				
Cap311R: Sch 15(2)	is bulk cement or dry PFA stored in a closed silo fitted with a high-level atarm?					
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	/				
. 1	Loading, unloading or transfer of dusty materials					
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?	1				
EM&A:	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?	/				
	Use of vehicles					
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?				·	
Cap311R: Sch 21(1)	Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?		/			
	Transfer of dusty materials using a belt conveyor system		·	•		-
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?					
Cap311R: Sch 20(2)	ls every transfer point between any two-belt conveyors totally enclosed?	/				
Cap311R: Sch 20(3)	ls a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?	/				
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?	1				
	Concrete batching plant					
ЕМ&Л: Л2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?	1				
EM&л: Л2	Are dusty materials, except cement and dry PFA, wetted by water spray system?	/				<del></del>
EM&A: A2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	1				
	Are all the conveyor transfer points totally enclosed?	L/		i		4

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Miscellaneous					i
Cap311R; Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?					!
Cap311O	Is open burning prohibited?		/			
Cap311	Is black smoke emission from plant/equipment avoided?		/			

#### WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials					
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?					
WMIP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	/				
EM&A: E3	Are wastes disposed of at licensed sites?	/				
	Construction Waste and Excavated Materials					
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?					
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?					
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?					
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?		/			
VMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	/				
EM&A: E3	Are wastes disposed of at licensed sites?	1				
	General refuse					
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		/			
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		/			
WAIP	Is the refuse disposed of regularly and properly?		/			
WMP	Are burning of refuse at site and dumping at sea prohibited?		/			
	Chemical Waste		•			
EM&A: E3	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?	/				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
WDO	Has the Contractor been registered as a chemical waste producer?	/				
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?	/	-		<del></del>	
ЕМ&Л: E4	Is chemical waste handled according to the Code of Practice on the Packaging. Handling and Storage of Chemical Waste"?	/				
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?					
	Storage, collection and transportation of waste		1	<u> </u>	L	
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?	/				
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?					
	(1) public fill materials for on-site reuse, or disposal at public filling area;			<del>                                     </del>		
	(2) reusable / recyclable materials;	/				
	(3) un-reusable / non-recyclable waste for landfill disposal.	/				
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?	/				

### WATER QUALITY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off					
PN1/94	Are the silt removal facilities, channels and manholes maintained and the deposited silt and grit removed regularly?	/				
PN1/94	Are earthworks final surfaces well compacted and the subsequent permanent work or surface protection carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms? Is appropriate drainage like intercepting channels provided where necessary?	1				
PN1/94	Are measures taken to minimize the ingress of rainwater into trenches? Is rainwater pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?					
PN1/94	Are open stockpiles of construction materials (e,g, aggregates, sand and fill material) on site covered with tarpaulin or similar fabric during rainstorms? Are measures taken to prevent the washing away of construction materials, soil, silt or debris into the drainage system?	/				
PN1/94	Are manholes (including newly constructed ones) adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers?	1				
<b>Shirin</b>	Groundwater					
PN1/94	Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?					

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
— — — —	Boring and Drilling Water					
PN1/94	Is water that used in ground boring and drilling for site investigation or rock/soil anchoring recirculated as far as possible after sedimentation? If there is a need for final disposal, is the wastewater discharged into storm drains via silt removal facilities?		aber-			
	Wheel Washing Water	1				******
PN1/94	Is a wheel-washing bay provided at every exit if practicable and is the silt removed from wash-water before discharging into storm drains?		/			

#### MARINE ECOLOGY

Ref	Checklist Condition	N/A	Yes	No	Unk	Ren	narks
EM&A: GI	Are all percussive piling works conducted on reclaimed land to avoid noise impact to marine mammals?						
EM&A: G2	Do the marine vessels moving to and from the construction site strictly follow the routes stated in the "Plan for Dredging & Reclamation, Routing of Construction Related Marine Vessels, and Installation of Silt Curtain"?	/					_
EM&A: G3	Is rubble mound seawall constructed to the south and west edges of the reclamation to enhance recolonisation of marine organisms?	/					

#### NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A:	Are working programmes sched	uled to minimize noise nuisance?		/			
EM&A: C1	Are construction works or equip nuisance?	ment sited to minimize noise					
EM&A: CI	Are all plant and equipment mai conditions?	ntained in good operating		/			
EM&A: CI/GP	Is idle equipment turned off or the	hrottled down?		1			
EM&A: CI	Are methods of working devised nuisance?	l and arranged to minimize noise		/			
EM&A: C1)	Are construction works carried on nuisance?	out in a manner to minimize noise		/			
EM&A: C2		uring Sunday's and public owing measures adopted? e barriers at noise sources or ered mechanical equipment to less		/			
EM&A: C3	To mitigate night time construct equipped with silencers or muffl	ion noise, is dredging equipment ers?	/	-			
NCO	Are valid construction noise per inspection?	. ,		/			
NCO	Are conditions of construction na relevant part(s) of the works imp	lemented accordingly?		/			
NCO	Are valid noise emission labels f held percussive breakers?	ixed at air compressors and hand		/			
	Major noise source(s)	☐ Traffic	Z	Constr site	uction	activi	ties inside the
	,	Construction activities		Others			

#### Abbreviation

VEP: VMP Cap341R: Cap344O, Cap344: PN1/94: Unk:	Varied Environmental P. Waste Management Plan APC (Construction Dust APC (Open Burning) Re Air Pollution Control Or Practice Note for Profess Unknown	i ) Regulation gulation dinance	NCO: WDO:	. EM&A Manual (Construction Noise Control Ordinance Waste Disposal Ordinance Orainage)	on Phase)
Remark					
NIT					
		٠			
		•			
	400				
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
Signatures				-	
ET Member	•	Contractor's Represent	ative	IEC's Representative This site inspection w in the presence of IEC	as carried out
	J-/	La		THU	
(Name in Block)	etters: /	Name in Block letters: Wong blo Hong R		- Name in Block Letters:	)

11th November 2002

## The Hongkong Electric Co. Ltd. Lamma Power Station Extension – Site Formation, Piling Works and Superstructure Works

Weekly Site Inspection Checklist

Inspection o	LMX- Superstructure Inspector	d By	ET:(	actor	7 les	long	, Pr
Site	2Mx-Superstructure	'				13,	ų.co
Veather							
Condition	Sunny Fine Overcast Hazy		Drizz	zle [	Ra	in _	Sto
Temperatu	re[7°C Humidity High Moderat	e [	Low	,			
Wind	Calm Light Breeze Strong						
GENERAL							
Ref.	Checklist Condition	N/A	Yes	No	Unk	Rem	arks
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		1				
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		/				
AIR QUAL	Checklist Condition	N/A	Yes	No	Unk	Rem	arks
	General Requirements					L	
Cap311R: 3	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?		/				
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?						
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?						:
	Construction Sites	I	J	<u></u>			
EM&A:	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		/				
	Stockpiling of dusty materials	A	-/	<b>-</b>			
Cap311R: Sch 18	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?	/					

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J. 19 N. CACHANGI Amaja L. Osiykisi dikta ji 37 Se

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized (net ash (PFA)					
Cap311R: Sch 15(3)	Are the storage silos for cement or dry PFA prevented from overfilling?	/				
Cap311R: Sch 15(4)	Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system?	/				
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?					
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?					
	Loading, unloading or transfer of dusty materials					
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?					
EM&A: A1	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?	/				
	Use of vehicles					
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?					
Cap311R: Sch 21(1)	Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?		/			
	Transfer of dusty materials using a belt conveyor system	J		<b></b>	I	
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?	/				
Cap311R: Sch 20(2)	Is every transfer point between any two-belt conveyors totally enclosed?	/				
Cap311R: Sch 20(3)	Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?	1.				
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?	/	7			
	Concrete batching plant	·	4	*		
EM&A: A2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?	/				
EM&Λ: Λ2	Are dusty materials, except cement and dry PFA, wetted by water spray system?	/				
EM&A: A2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	1				
EM&A:	Are all the conveyor transfer points totally enclosed?					

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Ref.	Checklist Condition	N/A	Yes	No	Unk	Remar	ks
	Miscellancous						
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?						
Cap311O	Is open burning prohibited?						
Cap311	Is black smoke emission from plant/equipment avoided?						

#### WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Condition	N/A	Yes	No	Unk	Re	marks
	Dredged Materials						
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	/					
WNIP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	/					
EM&A: E3	Are wastes disposed of at licensed sites?	/					
	Construction Waste and Excavated Materials						
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?						
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?						-
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?		/				*****
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?		/				
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	1					
EM&A: E3	Are wastes disposed of at licensed sites?	/					
	General refuse	<u></u>					
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		/				
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		/				
WAIP	Is the refuse disposed of regularly and properly?						
WMP	Are burning of refuse at site and dumping at sea prohibited?		/				
	Chemical Waste						
EM&A: E3	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?						

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
WDO	Has the Contractor been registered as a chemical waste producer?					
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?					
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging. Handling and Storage of Chemical Waste'?	/				
EM&Λ: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?	/				
	Storage, collection and transportation of waste	<u> </u>		<u> </u>		L
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?	/				
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?					
	(1) public fill materials for on-site reuse, or disposal at public filling area;	-				
	(2) reusable / recyclable materials;					
	(3) un-reusable / non-recyclable waste for landfill disposal.	/				
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?	/				

#### WATER QUALITY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off					
PN1/94	Are the silt removal facilities, channels and manholes maintained and the deposited silt and grit removed regularly?	/				
PN1/94	Are earthworks final surfaces well compacted and the subsequent permanent work or surface protection carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms? Is appropriate drainage like intercepting channels provided where necessary?					
PN1/94	Are measures taken to minimize the ingress of rainwater into trenches? Is rainwater pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?	/				
PN1/94	Are open stockpiles of construction materials (e,g, aggregates, sand and fill material) on site covered with tarpaulin or similar fabric during rainstorms? Are measures taken to prevent the washing away of construction materials, soil, silt or debris into the drainage system?	/				
PN1/94	Are manholes (including newly constructed ones) adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers?	/				
DALL 10.1	Groundwater					
PN 1/94	Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?					

Ref	Checklist Condition	N/A	Yes	No	Unk	Re	narks
	Boring and Drilling Water	1					• • • • • • • • • • • • • • • • • • • •
PN1/94	Is water that used in ground boring and drilling for site investigation or rock/soil anchoring recirculated as far as possible after sedimentation? If there is a need for final disposal, is the wastewater discharged into storm drains via silt removal facilities?						
	Wheel Washing Water	1		,			
PN1/94	Is a wheel-washing bay provided at every exit if practicable and is the silt removed from wash-water before discharging into storm drains?		/				

#### MARINE ECOLOGY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: G1	Are all percussive piling works conducted on reclaimed land to avoid noise impact to marine mammals?					
EM&Λ: G2	Do the marine vessels moving to and from the construction site strictly follow the routes stated in the "Plan for Dredging & Reclamation, Routing of Construction Related Marine Vessels, and Installation of Silt Curtain"?	/				
EM&A: G3	Is rubble mound seawall constructed to the south and west edges of the reclamation to enhance recolonisation of marine organisms?	/				

NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A:	Are working programmes schedu	iled to minimize noise nuisance?		/			
EM&A: C1	Are construction works or equipa nuisance?	ment sited to minimize noise		1			
EM&A: Cl	Are all plant and equipment mair conditions?	ntained in good operating		1			
EM&A: C1/GP	Is idle equipment turned off or th	rottled down?		/			
EM&A: Cl	Are methods of working devised nuisance?	and arranged to minimize noise		/			
EM&A: CI)	Are construction works carried o nuisance?	ut in a manner to minimize noise					
EM&A: C2				/			
EM&A: C3	To mitigate night time constructi equipped with silencers or muffle	on noise, is dredging equipment ers?					
NCO	Are valid construction noise perminspection?	nits, if required, available for					
NCO	Are conditions of construction no relevant part(s) of the works imp	lemented accordingly?					
NCO	Are valid noise emission labels fi held percussive breakers?	ixed at air compressors and hand					
	Major noise source(s)	☐ Traffic	Ø	Consti site	ructio	n activi	ities inside the
	,	Construction activities		Others	s —		

## Abbreviation Varied Environmental Permit VEP: Waste Management Plan EM&A: EM&A Manual (Construction Phase) 35MCNoise Control Ordinance APC (Construction Dust) Regulation NCO: Cap314R: Waste Disposal Ordinance APC (Open Burning) Regulation WDO: Cap311O. Air Pollution Control Ordinance Cap311: Practice Note for Professional Persons (Construction Site Drainage) PN1/94: Unknown Unk: Remark Signatures ET Member Contractor's Representative (Name in Block letters (Name in Block letters:

11th November 2002

## The Hongkong Electric Co. Ltd. Lamma Power Station Extension – Site Formation, Piling Works and Superstructure Works

Weekly Site Inspection Checklist

Inspection of	late 3/3/06 Time Lo:00 Inspects		Cont	racto	r: Es	re,	ins
Site	Mx - Syperstructure	<u> </u>				0	
Veather							
Condition	Sunny Fine Overcast Hazy		Driz	zle [	R	ain 📗	St
Temperatu	re VV °C Humidity High . Moderat	te	Lov	v			
Wind	Calm Light Breeze Strong						
SENERAL							
Ref.	Checklist Condition	N/A	Yes	No	Unk	Rem	arks
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		/				
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		/		·		
IR OUAL	ITY	<u> </u>		·			
	Checklist Condition	N/A	Yes	No	Unk	Rem	arks
IR QUAL	T	N/A	Yes	No	Unk	Rem	arks
Ref.	Checklist Condition	N/A	Yes	No	Unk	Rem	arks
Ref. Cap311R: 3 Cap311R:	Checklist Condition  General Requirements  Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any	N/A	Yes	No	Unk	Rem	arks
Ref. Cap311R: 3 Cap311R: Sch 12(3)	Checklist Condition  General Requirements  Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?  A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this	N/A	Yes	No	Unk	Rem	arks
Ref. Cap311R: 3 Cap311R: Sch 12(3)	Checklist Condition  General Requirements  Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?  A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?  Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever	N/A	Yes	No	Unk	Rem	arks
Ref. Cap311R: 3 Cap311R: Sch 12(3) Cap311	Checklist Condition  General Requirements  Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?  A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?  Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	N/A	Yes	No	Unk	Rem	arks
	Checklist Condition  General Requirements  Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?  A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?  Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?  Construction Sites  Are haul roads paved with concrete or sprayed with water to keep	N/A	Yes	No	Unk	Rem	arks

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Consent and dry putverized fuel ash (PFA)					
Cap311R: Sch 15(3)	Are the storage silos for cement or dry PFA prevented from overfilling?	/				
Cap311R: Sch 15(4)	Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system?	/				
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?	/				
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	/				
	Loading, unloading or transfer of dusty materials					
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?					
EM&A: Al	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?	/				
	Use of vehicles					
Cap311R: Sch 21(2) EM&A: AI	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	/				
Cap311R: Sch 21(1)	Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?		/			
	Transfer of dusty materials using a belt conveyor system	J		·		
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?	1				
Cap311R: Sch 20(2)	Is every transfer point between any two-belt conveyors totally enclosed?	/				
Cap311R: Sch 20(3)	Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?	/				
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?	/				
	Concrete batching plant				•	
EM&A: A2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?					
EM&A: A2	Are dusty materials, except cement and dry PFA, wetted by water spray system?	/				
EM&A: A2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	/				
EM&A:	Are all the conveyor transfer points totally enclosed?	/		<del>-</del>		

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remark	s
	Miscellaneaus						
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?						
Cap311O	Is open burning prohibited?						
Cap311	Is black smoke emission from plant/equipment avoided?						

#### WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Condition	N/A	Yes	No	Unk	Rer	narks
	Dredged Materials						
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	/					
WNIP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	/					
EM&A: E3	Are wastes disposed of at licensed sites?	/					
	Construction Waste and Excavated Materials						
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?						
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?						
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?		1				
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?		/				
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	/					
EM&A: E3	Are wastes disposed of at licensed sites?						
	General refuse						
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		/				
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		/				
WAIP	Is the refuse disposed of regularly and properly?		7				
VMP	Are burning of refuse at site and dumping at sea prohibited?						
	Chemical Waste						
EM&A: E3	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?						

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
WDO	Has the Contractor been registered as a chemical waste producer?					
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?					
ЕМ&Л: E4	Is chemical waste handled according to the Code of Practice on the Packaging. Handling and Storage of Chemical Waste**?	/				
EM&Λ: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?					
	Storage, collection and transportation of waste	J				
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?	/				
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?					
	(1) public fill materials for on-site reuse, or disposal at public filling area;	1				
	(2) reusable / recyclable materials;					
	(3) un-reusable / non-recyclable waste for landfill disposal.					<u> </u>
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?					

### WATER QUALITY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off					
PN1/94	Are the silt removal facilities, channels and manholes maintained and the deposited silt and grit removed regularly?	/				
PN1/94	Are earthworks final surfaces well compacted and the subsequent permanent work or surface protection carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms? Is appropriate drainage like intercepting channels provided where necessary?	/				
PN 1/94	Are measures taken to minimize the ingress of rainwater into trenches? Is rainwater pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?	/				
PN 1/94	Are open stockpiles of construction materials (e,g, aggregates, sand and fill material) on site covered with tarpaulin or similar fabric during rainstorms? Are measures taken to prevent the washing away of construction materials, soil, silt or debris into the drainage system?					
PN1/94	Are manholes (including newly constructed ones) adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers?	/				
PN 1/94	Groundwater  Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?	7				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Boring and Drilling Water					
PN1/94	Is water that used in ground boring and drilling for site investigation or rock/soil anchoring recirculated as far as possible after sedimentation? If there is a need for final disposal, is the wastewater discharged into storm drains via silt removal facilities?					
	Wheel Washing Water					
PN1/94	Is a wheel-washing bay provided at every exit if practicable and is the silt removed from wash-water before discharging into storm drains?					

#### MARINE ECOLOGY

Ref	Checklist Condition	N/A	Yes	No	Unk	Re	marks
EM&A: GI	Are all percussive piling works conducted on reclaimed land to avoid noise impact to marine mammals?						
EM&A: G2	Do the marine vessels moving to and from the construction site strictly follow the routes stated in the "Plan for Dredging & Reclamation, Routing of Construction Related Marine Vessels, and Installation of Silt Curtain"?	/					
EM&A: G3	Is rubble mound seawall constructed to the south and west edges of the reclamation to enhance recolonisation of marine organisms?	/					

### NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remark	S
EM&A:	Are working programmes sched	uled to minimize noise nuisance?		/				
EM&A: CI	Are construction works or equipout nuisance?	oment sited to minimize noise		/				
EM&A: CI	Are all plant and equipment ma conditions?	intained in good operating		/				
EM&A: C1/GP	Is idle equipment turned off or t	hrottled down?		/				
EM&A: C1	Are methods of working devised nuisance?	d and arranged to minimize noise		/				
EM&A: C1)	Are construction works carried nuisance?	out in a manner to minimize noise		/				
EM&A: C2				/				
EM&A: C3	To mingate night time construct equipped with silencers or muff	tion noise, is dredging equipment lers?	/					
NCO	Are valid construction noise per inspection?	mits, if required, available for		/				
NCO	Are conditions of construction relevant part(s) of the works im			/				
NCO	Are valid noise emission labels held percussive breakers?	fixed at air compressors and hand		/				
	Major noise source(s)	☐ Traffic	Ø	Consti site	ructio	n activ	ities inside	the
	(Hajor noise source(s)	Construction activities		Others	s			

#### Abbreviation

١	EP:
٠,	MP

Varied Environmental Permit

Waste Management Plan

FM&A: EM&A Manual (Construction Phase)

Cap3TTR:

APC (Construction Dust) Regulation APC (Open Burning) Regulation

Noise Control Ordinance NCO: Waste Disposal Ordinance WDO:

Cap311O Cap311:

Air Pollution Control Ordinance

PN1/94: Unk:

Practice Note for Professional Persons (Construction Site Drainage) Unknown

Remark	
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-31	enau	ıres

ET Member

Contractor's Representative

Warne in Blook letters:

(Name in Block letters:

11th November 2002

# The Hongkong Electric Co. Ltd. Lamma Power Station Extension – E&M Works Weekly Site Inspection Checklist •

Inspection d	late $2 \frac{Ma_v}{2006}$ Time $930$ Inspect	ed By	ET:		N. S70	
Site	LMX Frester from L9-Mad		Cont	racto	r. h). 7.	Unik (70K)
Weather						
Condition	Sunny Fine Overcast Hazy		Driz	zle [	Ra	in Storm
Temperatu	re / C Humidity . High Moderat	e _	Low	7		
Wind	Calm Light Breeze Strong					
GENERAL						
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		/			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?					
AIR QUALI	TY Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements					
Cap311R: 3	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?	/				
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?		/			
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	/				
	Construction Sites	1				
EM&A: A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		/			Any-1 Ry PY.
	Stockpiling of dusty materials					J
Cap311R: Sch 18	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?	/				

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized fuel ash (PFA)	'	•			
Cap311R: Sch 15(3)	Are the storage silos for cement or dry PFA prevented from overfilling?	(				
Cap311R: Sch 15(4)	Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system?	/				
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?	1				
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	/				
	Loading, unloading or transfer of dusty materials			<del> </del>		
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?	/				
EM&A: A1	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?	/				
	Use of vehicles					
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?					
Cap311R: Sch 21(1)	Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?		/			Clury Durted By P.Y.
	Transfer of dusty materials using a belt conveyor system					<del></del>
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?	(				
Cap311R: Sch 20(2)	Is every transfer point between any two-belt conveyors totally enclosed?	/	-			
Cap311R: Sch 20(3)	Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?					
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?	1				
	Concrete batching plant	•	•	•	•	
EM&A: A2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?	1				
EM&A: A2	Are dusty materials, except cement and dry PFA, wetted by water spray system?	1				
EM&A: A2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	/				
EM&A: A2	Are all the conveyor transfer points totally enclosed?					

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Miscellaneous					
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?	1				
Cap3110	Is open burning prohibited?		/			
Cap311	Is black smoke emission from plant/equipment avoided?		/			

# WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks			
	Dredged Materials	•							
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	1							
WMP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	/							
EM&A: E3	Are wastes disposed of at licensed sites?								
	Construction Waste and Excavated Materials								
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	(							
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	1							
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?	/							
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?	/							
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	1							
EM&A: E3	Are wastes disposed of at licensed sites?	1							
	General refuse								
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		1						
WMP	Is general refuse stored within receptacles and separated from chemical wastes?								
WMP	Is the refuse disposed of regularly and properly?								
WMP	Are burning of refuse at site and dumping at sea prohibited?		1			<u> </u>			
	Chemical Waste								
EM&A: E3	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?		/						

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
WDO	Has the Contractor been registered as a chemical waste producer?					
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?		/			
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?		/			
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?		1			
	Storage, collection and transportation of waste	-L	I			
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?		/			
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?					
	(1) public fill materials for on-site reuse, or disposal at public filling area;					
	(2) reusable / recyclable materials;	/				
	(3) un-reusable / non-recyclable waste for landfill disposal.		1			
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?		/			

# WATER QUALITY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off					
PN1/94	Are the silt removal facilities, channels and manholes maintained and the deposited silt and grit removed regularly?	(				
PN1/94	Are earthworks final surfaces well compacted and the subsequent permanent work or surface protection carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms? Is appropriate drainage like intercepting channels provided where necessary?					
PN1/94	Are measures taken to minimize the ingress of rainwater into trenches? Is rainwater pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?					
PN1/94	Are open stockpiles of construction materials (e,g, aggregates, sand and fill material) on site covered with tarpaulin or similar fabric during rainstorms? Are measures taken to prevent the washing away of construction materials, soil, silt or debris into the drainage system?	/				
PN1/94	Are manholes (including newly constructed ones) adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers?	1				
	Groundwater					
PN1/94	Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?	/				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Boring and Drilling Water	l				·
PN1/94	Is water that used in ground boring and drilling for site investigation or rock/soil anchoring recirculated as far as possible after sedimentation? If there is a need for final disposal, is the wastewater discharged into storm drains via silt removal facilities?	(				
	Wheel Washing Water					
PN1/94	Is a wheel-washing bay provided at every exit if practicable and is the silt removed from wash-water before discharging into storm drains?					

# MARINE ECOLOGY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: G1	Are all percussive piling works conducted on reclaimed land to avoid noise impact to marine mammals?		-			
EM&A: G2	Do the marine vessels moving to and from the construction site strictly follow the routes stated in the "Plan for Dredging & Reclamation, Routing of Construction Related Marine Vessels, and Installation of Silt Curtain"?	/				
EM&A: G3	Is rubble mound seawall constructed to the south and west edges of the reclamation to enhance recolonisation of marine organisms?					

# NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: C1	Are working programmes schedu	led to minimize noise nuisance?					
EM&A: C1	Are construction works or equiprinuisance?	nent sited to minimize noise		(			
EM&A: C1	Are all plant and equipment main conditions?	tained in good operating		(			
EM&A: C1/GP	Is idle equipment turned off or th	rottled down?					***************************************
EM&A: C1	Are methods of working devised nuisance?	and arranged to minimize noise		(			
EM&A: C1)	Are construction works carried or nuisance?	ut in a manner to minimize noise		(			
EM&A: C2	To mitigate construction noise du holidays, is either one of the follo a) Mitigation by portable noise b) Rescheduling of some powe sensitive time periods?	wing measures adopted?		1			
EM&A: C3	To mitigate night time construction equipped with silencers or muffle		1				
NCO	Are valid construction noise pern inspection?	nits, if required, available for	1				4.44
NCO	Are conditions of construction no relevant part(s) of the works impl		/				
NCO	Are valid noise emission labels fi held percussive breakers?	xed at air compressors and hand		/			
	W.:	☐ Traffic	<b>1 1 1</b>	Constr site	uction	activi	ties inside the
	Major noise source(s)	☐ Construction activities outside the site	<b>-</b>	Others			

# VEP: Varied Environmental Permit WMP: Waste Management Plan EM&A: EM&A Manual (Construction Phase) Cap311R: APC (Construction Dust) Regulation NCO: Noise Control Ordinance Cap3110: APC (Open Burning) Regulation WDO: Waste Disposal Ordinance Cap311: Air Pollution Control Ordinance PNI/94: Practice Note for Professional Persons (Construction Site Drainage) Unk: Unknown Remark Signatures ET Member Contractor's Representative

(Name in Block letters:

(Name in Block letters:

# C/N: 04/9012 The Hongkong Electric Co. Ltd. Lamma Power Station Extension – E&M Works Weekly Site Inspection Checklist

Inspection	date 9 Mar 2006 Time 900 0 930 Inspected	Ву	ET: W				
Site	LMX - Unit & Mech. Freetin Anen	L	Contra	ctor:\	W.F.K	wok(TDK)	ا
Weather							
Condition	Sunny Fine Overcast Hazy		Driz	zle [	Ra	nin Sto	rm
Temperati	ure 21°C Humidity High Moderat	te [	Lov	v			
Wind	Calm Light Breeze Strong						
GENERAL							
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks	
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		/				
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		/				
							_

# AIR QUALITY

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks		
	General Requirements							
Cap311R: 3	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?	/						
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?		/					
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	/						
	Construction Sites							
EM&A: A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		/			Sprayzy By P.Y.		
	Stockpiling of dusty materials							
Cap311R: Sch 18	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?	/	-					

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized fuel ash (PFA)					
Cap311R: Sch 15(3)	Are the storage silos for cement or dry PFA prevented from overfilling?					
Cap311R: Sch 15(4)	Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system?	/				
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?	/				
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	/				
	Loading, unloading or transfer of dusty materials					
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?					
EM&A: A1	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?	1				
	Use of vehicles					
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?					
Cap311R: Sch 21(1)	Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?		/			Cleany Promoted By P.Y.
	Transfer of dusty materials using a belt conveyor system					3
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?	(				
Cap311R: Sch 20(2)	Is every transfer point between any two-belt conveyors totally enclosed?	/				
Cap311R: Sch 20(3)	Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?	/				
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?	1				
	Concrete batching plant					
EM&A: A2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?	1				
EM&A: A2	Are dusty materials, except cement and dry PFA, wetted by water spray system?					
EM&A: A2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	1				
EM&A:	Are all the conveyor transfer points totally enclosed?					

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Miscellaneous					
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?	/				
Cap311O	Is open burning prohibited?		/			
Cap311	Is black smoke emission from plant/equipment avoided?		/			

## WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks			
	Dredged Materials				•				
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	1							
WMP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	/							
EM&A: E3	Are wastes disposed of at licensed sites?	/							
	Construction Waste and Excavated Materials								
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	/							
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	/							
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?	/							
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?	1							
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	1							
EM&A: E3	Are wastes disposed of at licensed sites?	7							
	General refuse								
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		/						
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		/						
WMP	Is the refuse disposed of regularly and properly?		/						
WMP	Are burning of refuse at site and dumping at sea prohibited?		/						
	Chemical Waste								
EM&A: E3	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?		/						

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
WDO	Has the Contractor been registered as a chemical waste producer?		1			
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?		/			
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?		1			
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?		/			
	Storage, collection and transportation of waste					<u> </u>
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?		/			
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?					
	(1) public fill materials for on-site reuse, or disposal at public filling area;	/				
	(2) reusable / recyclable materials;	/				
	(3) un-reusable / non-recyclable waste for landfill disposal.		/			
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?		/			

# WATER QUALITY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off	•	,			
PN1/94	Are the silt removal facilities, channels and manholes maintained and the deposited silt and grit removed regularly?	/				
PN1/94	Are earthworks final surfaces well compacted and the subsequent permanent work or surface protection carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms? Is appropriate drainage like intercepting channels provided where necessary?	1				
PN1/94	Are measures taken to minimize the ingress of rainwater into trenches? Is rainwater pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?	1				
PN1/94	Are open stockpiles of construction materials (e,g, aggregates, sand and fill material) on site covered with tarpaulin or similar fabric during rainstorms? Are measures taken to prevent the washing away of construction materials, soil, silt or debris into the drainage system?	/				
PN1/94	Are manholes (including newly constructed ones) adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers?	1				
	Groundwater					
PN1/94	Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?	/				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Boring and Drilling Water					
PN1/94	Is water that used in ground boring and drilling for site investigation or rock/soil anchoring recirculated as far as possible after sedimentation? If there is a need for final disposal, is the wastewater discharged into storm drains via silt removal facilities?	1				
	Wheel Washing Water					
PN1/94	Is a wheel-washing bay provided at every exit if practicable and is the silt removed from wash-water before discharging into storm drains?	/				

# MARINE ECOLOGY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: G1	Are all percussive piling works conducted on reclaimed land to avoid noise impact to marine mammals?	1				
EM&A: G2	Do the marine vessels moving to and from the construction site strictly follow the routes stated in the "Plan for Dredging & Reclamation, Routing of Construction Related Marine Vessels, and Installation of Silt Curtain"?	1				
EM&A: G3	Is rubble mound seawall constructed to the south and west edges of the reclamation to enhance recolonisation of marine organisms?	/				

# NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: C1	Are working programmes schedu	led to minimize noise nuisance?		/			
EM&A: C1	Are construction works or equipr nuisance?	nent sited to minimize noise		1			
EM&A: C1	Are all plant and equipment main conditions?	tained in good operating		1			
EM&A: C1/GP	Is idle equipment turned off or th	rottled down?		1			
EM&A: C1	Are methods of working devised nuisance?	and arranged to minimize noise		1			-
EM&A: C1)	Are construction works carried or nuisance?	ut in a manner to minimize noise		/			
EM&A: C2	To mitigate construction noise du holidays, is either one of the folloa) Mitigation by portable noise b) Rescheduling of some power sensitive time periods?	owing measures adopted?		1			
EM&A: C3	To mitigate night time construction equipped with silencers or muffle	on noise, is dredging equipment ers?	1				
NCO	Are valid construction noise pern inspection?	nits, if required, available for	/				
NCO	Are conditions of construction no relevant part(s) of the works imple		1				
NCO	Are valid noise emission labels fi held percussive breakers?	xed at air compressors and hand		1			
	Major noise source(s)	☐ Traffic	Ø	Constr site	uction	activi	ties inside the
	iviajoi noise source(s)	Construction activities outside the site	0				

# Abbreviation

VEP:

WMP: Cap311R: Cap3110: Cap311: PN1/94:

EM&A: EM&A Manual (Construction Phase)
NCO: Noise Control Ordinance

Waste Disposal Ordinance

Unk:

Unknown

Varied Environmental Permit

Waste Management Plan

APC (Construction Dust) Regulation

APC (Open Burning) Regulation

Air Pollution Control Ordinance

Practice Note for Professional Persons (Construction Site Drainage)

Remark		
	WA 41 (4)	
W-44-11-		
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Signatures

ET Member

Contractor's Representative

(Name in Block letters:

W.CIV

(Name in Block letters:

# The Hongkong Electric Co. Ltd. Lamma Power Station Extension – E&M Works Weekly Site Inspection Checklist

inspection	date [1/13/2306 Time [102/0] Inspect	ea By	Cont	racto	7/	CT Chin
Site	Lamona Power Poten Extension U9		L	·acic		Cilain
Weather						<del></del>
Condition	Sunny Fine Overcast Hazy		Driz	zle [	R	ain Storm
Temperatu	ure 18 °C Humidity High Modera	tc [	Lov	v		•
Wind	Calm Light Breeze Strong					
GENERAL						
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		/			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?					
AIR QUAL	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements					
Cap311R: 3	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?					
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?		/			
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?					
	Construction Sites					
EM&A: A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?					Spray by
	Stockpiling of dusty materials		/			
Cap311R: Sch 18	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?					

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Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized fuel ash (PFA)	•				•
Cap311R: Sch 15(3)	Are the storage silos for cement or dry PFA prevented from overfilling?	/				
Cap311R: Sch 15(4)	Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system?	/	**************************************			
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?					
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?					
	Loading, unloading or transfer of dusty materials			L		
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?					
EM&A: A1	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?					
	Use of vehicles	·		1		
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?					
Cap311R: Sch 21(1)	Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?		J			Clean by
	Transfer of dusty materials using a belt conveyor system			1,		
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?		•			
Cap311R: Sch 20(2)	Is every transfer point between any two-belt conveyors totally enclosed?	1			,	
Cap311R: Sch 20(3)	Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?	1				
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?					
	Concrete batching plant					
EM&A: A2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?	/				
EM&A: A2	Are dusty materials, except cement and dry PFA, wetted by water spray system?					
EM&A: A2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	0				
EM&A: A2	Are all the conveyor transfer points totally enclosed?					

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Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Miscellaneous					
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?					
Cap3110	Is open burning prohibited?					
Сар311	Is black smoke emission from plant/equipment avoided?		1			-

## WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials					
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	/				
WMP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?					
EM&A: E3	Are wastes disposed of at licensed sites?					
	Construction Waste and Excavated Materials	1		L		····
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?					
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?					
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?					
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?	1				
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?		,			
EM&A: E3	Are wastes disposed of at licensed sites?	1				
	General refuse					
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		/			
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		/			
WMP	Is the refuse disposed of regularly and properly?		7			
WMP	Are burning of refuse at site and dumping at sea prohibited?					
	Chemical Waste			/		
EM&A: E3	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?		/			

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Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
WDO	Has the Contractor been registered as a chemical waste producer?		V			
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?				, , ,	
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?		1			
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?		/			
	Storage, collection and transportation of waste					
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?		/			
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?	ì				
	(1) public fill materials for on-site reuse, or disposal at public filling area;	1				
	(2) reusable / recyclable materials;	1				
	(3) un-reusable / non-recyclable waste for landfill disposal.		/	,		
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?					

# WATER QUALITY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off		/			
PN1/94	Are the silt removal facilities, channels and manholes maintained and the deposited silt and grit removed regularly?					
PN1/94	Are earthworks final surfaces well compacted and the subsequent permanent work or surface protection carried out immediately after the final surfaces are formed to prevent crosion caused by rainstorms? Is appropriate drainage like intercepting channels provided where necessary?					
PN1/94	Are measures taken to minimize the ingress of rainwater into trenches? Is rainwater pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?	1				·
PN1/94	Are open stockpiles of construction materials (e,g, aggregates, sand and fill material) on site covered with tarpaulin or similar fabric during rainstorms? Are measures taken to prevent the washing away of construction materials, soil, silt or debris into the drainage system?	1				
PN1/94	Are manholes (including newly constructed ones) adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers?	1	1			
DNI4 (0.4	Groundwater					
PN1/94	Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?					

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Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Boring and Drilling Water					
PN1/94	Is water that used in ground boring and drilling for site investigation or rock/soil anchoring recirculated as far as possible after sedimentation? If there is a need for final disposal, is the wastewater discharged into storm drains via silt removal facilities?					
	Weel Washing Water					
PN1/94	Is a wheel-washing bay provided at every exit if practicable and is the silt removed from wash-water before discharging into storm drains?					

#### MARINE ECOLOGY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: G1	Are all percussive piling works conducted on reclaimed land to avoid noise impact to marine mammals?	1				• • • • • • • • • • • • • • • • • • • •
EM&A: G2	Do the marine vessels moving to and from the construction site strictly follow the routes stated in the "Plan for Dredging & Reclamation, Routing of Construction Related Marine Vessels, and Installation of Silt Curtain"?		/			
EM&A: G3	Is rubble mound seawall constructed to the south and west edges of the reclamation to enhance recolonisation of marine organisms?	1				

# NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A : C1	Are working programmes schedu	uled to minimize noise nuisance?		7			
EM&A: C1	Are construction works or equipmuisance?	ment sited to minimize noise		/			
EM&A: Cl	Are all plant and equipment main conditions?	ntained in good operating		/			
EM&A: C1/GP	Is idle equipment turned off or the	Is idle equipment turned off or throttled down?					
EM&A: Cl	Are methods of working devised nuisance?		/				
EM&A: C1)	Are construction works carried o nuisance?		/				
EM&A: C2	To mitigate construction noise du holidays, is either one of the folka) Mitigation by portable noise b) Rescheduling of some power sensitive time periods?	owing measures adopted?					
EM&A: C3	To mitigate night time constructi equipped with silencers or muffle		/				
NCO	Are valid construction noise perminspection?	nits, if required, available for	/				
NCO	Are conditions of construction no relevant part(s) of the works imp		/				
NCO	Are valid noise emission labels fi held percussive breakers?	ixed at air compressors and hand					
		☐ Traffic	Ø (	Constr site	uction	activi	ties inside the
	Major noise source(s)	Construction activities outside the site	Others				

# Abbreviation VEP: Varied Environmental Permit WMP: Waste Management Plan EM&A: EM&A Manual (Construction Phase) Cap311R: Cap311O: APC (Construction Dust) Regulation Noise Control Ordinance APC (Open Burning) Regulation Waste Disposal Ordinance Cap311: Air Pollution Control Ordinance Practice Note for Professional Persons (Construction Site Drainage) PN 1/94: Unk: Unknown Remark Signatures ET Member Contractor's Representative IEC's Representative This site inspection was carried out in the presence of IEC's representative (Name in Block letters: (Name in Block letters: :)

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# C/N : 04/9012 The Hongkong Electric Co. Ltd. Lamma Power Station Extension – E&M Works Weekly Site Inspection Checklist

Inspection	date 23 Mar 06 Time 0930 Inspect	ed By	ET:	W)	. Siy	
Site	LMX, Unit 9 - Med. Enertism Anea.		Cont	racto	L: M) 1	Knok (TX
Weather				No. of the State o		and the state of t
Condition	Sunny Fine Overcast Hazy		Driz	zle [	Ra	nin Stor
Temperatu	re 2) °C Humidity High Modera	te	Lov	v		
Wind	Calm Light Breeze Strong					
GENERAL						
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		~			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?					,
AIR QUAL	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements					
Cap311R: 3	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?	/				
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?		1			
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	/				
	Construction Sites	1	·			
EM&A: A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		1			Projety Bu P.Y.
	Stockpiling of dusty materials			A		J
Cap311R: Sch 18	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?	/				

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Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized fuel ash (PFA)		·			
Cap311R: Sch 15(3)	Are the storage silos for cement or dry PFA prevented from overfilling?	(				
Cap311R: Sch 15(4)	Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system?	1				
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?	1				
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	/				
	Loading, unloading or transfer of dusty materials			1t		1
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?	1				
EM&A: A1	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?	1				
	Use of vehicles					L , _ , _ , _ , _ , _ , _ , _ , _ , _ ,
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	1				
Cap311R: Sch 21(1)	Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?		J			Cleaning Provided By P.Y.
	Transfer of dusty materials using a belt conveyor system			ll		731.
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?	1				
Cap311R: Sch 20(2)	Is every transfer point between any two-belt conveyors totally enclosed?	/				
Cap311R: Sch 20(3)	Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?	/	-			
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?	1				
· · · · · · · · · · · · · · · · · · ·	Concrete batching plant			لـــــــــــ		
EM&A: A2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?	1				
EM&A: A2	Are dusty materials, except cement and dry PFA, wetted by water spray system?	1				
EM&A: A2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	7				
EM&A: A2	Are all the conveyor transfer points totally enclosed?	7				

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Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Miscellaneous					
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?	/				
Cap3110	Is open burning prohibited?		-			
Cap311	Is black smoke emission from plant/equipment avoided?		/			

## WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials	***************************************				
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	/				
WMP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	1				
EM&A: E3	Are wastes disposed of at licensed sites?	/				
	Construction Waste and Excavated Materials	,				
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	(				
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	/				
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?	/				
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?	/				
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	/				
EM&A: E3	Are wastes disposed of at licensed sites?	1				
	General refuse					
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		/			
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		1			
WMP	Is the refuse disposed of regularly and properly?		1			
WMP	Are burning of refuse at site and dumping at sea prohibited?					
	Chemical Waste					
EM&A: E3	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?		]			

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Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
WDO	Has the Contractor been registered as a chemical waste producer?		1			
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?		1			
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?		(			
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?					
	Storage, collection and transportation of waste			<u> </u>		
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?		/			
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?					
	(1) public fill materials for on-site reuse, or disposal at public filling area;	(				
	(2) reusable / recyclable materials;	/				
	(3) un-reusable / non-recyclable waste for landfill disposal.		-			
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?		_			

# WATER QUALITY

)

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off					
PN1/94	Are the silt removal facilities, channels and manholes maintained and the deposited silt and grit removed regularly?	ſ				
PN1/94	Are earthworks final surfaces well compacted and the subsequent permanent work or surface protection carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms? Is appropriate drainage like intercepting channels provided where necessary?	/				
PN1/94	Are measures taken to minimize the ingress of rainwater into trenches? Is rainwater pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?	(				
PN1/94	Are open stockpiles of construction materials (e,g, aggregates, sand and fill material) on site covered with tarpaulin or similar fabric during rainstorms? Are measures taken to prevent the washing away of construction materials, soil, silt or debris into the drainage system?	/				
PN1/94	Are manholes (including newly constructed ones) adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers?	/				
PN1/94	Groundwater  Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?	/				

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Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Boring and Drilling Water					
PN1/94	Is water that used in ground boring and drilling for site investigation or rock/soil anchoring recirculated as far as possible after sedimentation? If there is a need for final disposal, is the wastewater discharged into storm drains via silt removal facilities?	1				
	Wheel Washing Water					
PN1/94	Is a wheel-washing bay provided at every exit if practicable and is the silt removed from wash-water before discharging into storm drains?					

# MARINE ECOLOGY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: G1	Are all percussive piling works conducted on reclaimed land to avoid noise impact to marine mammals?	1				
EM&A: G2	Do the marine vessels moving to and from the construction site strictly follow the routes stated in the "Plan for Dredging & Reclamation, Routing of Construction Related Marine Vessels, and Installation of Silt Curtain"?	/				
EM&A: G3	Is rubble mound seawall constructed to the south and west edges of the reclamation to enhance recolonisation of marine organisms?	/				

#### NOISE ·

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: C1	Are working programmes schedu	led to minimize noise nuisance?		1			
EM&A: C1	Are construction works or equiprinuisance?	nent sited to minimize noise		1			
EM&A: C1	Are all plant and equipment main conditions?	ntained in good operating		1			
EM&A: C1/GP	Is idle equipment turned off or th	rottled down?		/			
EM&A: C1	Are methods of working devised nuisance?		1				
EM&A: C1)	Are construction works carried or nuisance?	ut in a manner to minimize noise		1			
EM&A: C2	To mitigate construction noise du holidays, is either one of the folka) Mitigation by portable noise b) Rescheduling of some power sensitive time periods?	owing measures adopted?		/			
EM&A: C3	To mitigate night time construction equipped with silencers or muffle		1				
NCO	Are valid construction noise perm inspection?	nits, if required, available for	1				
NCO	Are conditions of construction no relevant part(s) of the works imp		1				
NCO	Are valid noise emission labels fi held percussive breakers?	xed at air compressors and hand		/			
		☐ Traffic		Constr site	uction	activi	ties inside the
	Major noise source(s)	☐ Construction activities outside the site	Others				

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Abbreviation				
VEP: WMP: Cap311R: Cap311O: Cap311: PN1/94: Unk:	Varied Environmer Waste Managemen APC (Construction APC (Open Burnin Air Pollution Contr Practice Note for P. Unknown	t Plan Dust) Regulation g) Regulation	NCO: WDO:	EM&A Manual (Construction Phase) Noise Control Ordinance Waste Disposal Ordinance Orainage)
Remark		A CANADA CANADA CANADA SAN CANADA	CONTRACTOR SECURITIES	DELETER MANNE A DELETER MENTEN MENTEN MENTEN PAR PROPERTY AND THE ABSOLUTE AND THE CHARLES AND
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Signatures				
ET Member		Contractor's Repre	sentative	
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# C/N: 04/9012 The Hongkong Electric Co. Ltd. Lamma Power Station Extension – E&M Works Weekly Site Inspection Checklist

Inspection d	ate So May of Time 09:30 Inspect	ed By	ET:	W.	Sin	K )
Site	LMX - L9 Mech. Freeton Area.		Cont	acto	<u>'·W)-</u> †	Kwok (7AX)
Weather			-			
Condition	Sunny Fine Overcast Hazy	يا ا	Driz	zle [	Ra	in Storm
Temperatu	re 9 °C Humidity High Moderate	e _	Lov	V		
Wind	Calm Light Breeze Strong					
GENERAL						
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
Ref. VEP 1.5	Checklist Condition  Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?	N/A	Yes	No	Unk	Remarks
	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public	N/A		No	Unk	Remarks

#### **AIR QUALITY**

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements					
Cap311R: 3	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?	✓	-			
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?		~			
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	~				
	Construction Sites		L			
EM&A: A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		<i>-</i>			Sprengry By P.T.
	Stockpiling of dusty materials					0
Cap311R: Sch 18	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?	~				

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized fuel ash (PFA)			***************************************		
Cap311R: Sch 15(3)	Are the storage silos for cement or dry PFA prevented from overfilling?					
Cap311R: Sch 15(4)	Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system?	/				
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?	1				
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	/				
	Loading, unloading or transfer of dusty materials	•				<del></del>
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?	/				
EM&A: A1	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?	/				
	Use of vehicles					
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	/				
Cap311R: Sch 21(1)	Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?		(			Claring Probled B. P. T
	Transfer of dusty materials using a belt conveyor system					3
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?	(				
Cap311R: Sch 20(2)	Is every transfer point between any two-belt conveyors totally enclosed?	/				
Cap311R: Sch 20(3)	Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?	/				
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?	/				
	Concrete batching plant	·				
EM&A: A2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?	/				
EM&A: A2	Are dusty materials, except cement and dry PFA, wetted by water spray system?	/ 1				
EM&A: A2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?					
EM&A:	Are all the conveyor transfer points totally enclosed?	1				

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Miscellaneous					
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?	/			_	
Cap311O	Is open burning prohibited?		/			
Cap311	Is black smoke emission from plant/equipment avoided?		/		***	

# WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials			<u> </u>		
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	/				
WMP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	/				-
EM&A: E3	Are wastes disposed of at licensed sites?	/				
	Construction Waste and Excavated Materials					
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	/				
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	1				
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?	1			-	
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?	1				
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	/				
EM&A: E3	Are wastes disposed of at licensed sites?	1				
	General refuse	•				
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		/			***************************************
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		/			
WMP	Is the refuse disposed of regularly and properly?				-	
WMP	Are burning of refuse at site and dumping at sea prohibited?		/			
	Chemical Waste					
EM&A: E3	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?		/			

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
WDO	Has the Contractor been registered as a chemical waste producer?		/			
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?		/			
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?		/			
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?		/	-		
	Storage, collection and transportation of waste		•			
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?		/			
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?					
	(1) public fill materials for on-site reuse, or disposal at public filling area;	1				
	(2) reusable / recyclable materials;	1				
	(3) un-reusable / non-recyclable waste for landfill disposal.		1			
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?		1			

# WATER QUALITY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off	<b>L</b>	-			
PN1/94	Are the silt removal facilities, channels and manholes maintained and the deposited silt and grit removed regularly?	1				
PN1/94	Are earthworks final surfaces well compacted and the subsequent permanent work or surface protection carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms? Is appropriate drainage like intercepting channels provided where necessary?	-				
PN1/94	Are measures taken to minimize the ingress of rainwater into trenches? Is rainwater pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?	1				
PN1/94	Are open stockpiles of construction materials (e,g, aggregates, sand and fill material) on site covered with tarpaulin or similar fabric during rainstorms? Are measures taken to prevent the washing away of construction materials, soil, silt or debris into the drainage system?	/				
PN1/94	Are manholes (including newly constructed ones) adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers?	/				
	Groundwater					
PN1/94	Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?	/				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Boring and Drilling Water					· · · · ·
PN1/94	Is water that used in ground boring and drilling for site investigation or rock/soil anchoring recirculated as far as possible after sedimentation? If there is a need for final disposal, is the wastewater discharged into storm drains via silt removal facilities?	(				
	Wheel Washing Water			}		
PN1/94	Is a wheel-washing bay provided at every exit if practicable and is the silt removed from wash-water before discharging into storm drains?	1				

# MARINE ECOLOGY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: G1	Are all percussive piling works conducted on reclaimed land to avoid noise impact to marine mammals?	1				
EM&A: G2	Do the marine vessels moving to and from the construction site strictly follow the routes stated in the "Plan for Dredging & Reclamation, Routing of Construction Related Marine Vessels, and Installation of Silt Curtain"?	~				
EM&A: G3	Is rubble mound seawall constructed to the south and west edges of the reclamation to enhance recolonisation of marine organisms?					- 11.4.

# NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: C1	Are working programmes schedu	uled to minimize noise nuisance?		./			
EM&A: C1	Are construction works or equipmuisance?	Are construction works or equipment sited to minimize noise nuisance?					
EM&A: C1	Are all plant and equipment main conditions?		/				
EM&A: C1/GP	Is idle equipment turned off or th	nrottled down?		/			
EM&A: Cl	Are methods of working devised nuisance?	and arranged to minimize noise		/			
EM&A: C1)	Are construction works carried out in a manner to minimize noise nuisance?						
EM&A: C2	To mitigate construction noise di holidays, is either one of the folla) Mitigation by portable noise b) Rescheduling of some power sensitive time periods?		/		:		
EM&A: C3	To mitigate night time constructi equipped with silencers or muffle		/				
NCO	Are valid construction noise per inspection?	nits, if required, available for	1				
NCO		Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?					
NCO	Are valid noise emission labels f held percussive breakers?	ixed at air compressors and hand		1			
	Major noise source(s)	☐ Traffic		site		activi	ties inside the
		<ul> <li>Construction activities outside the site</li> </ul>		Others			_

#### Abbreviation

VEP:

Varied Environmental Permit

WMP:

Waste Management Plan

Cap311R: Cap311O: Cap311: PN1/94: Unk:

APC (Construction Dust) Regulation NCO: Noise Co APC (Open Burning) Regulation WDO: Waste Di Air Pollution Control Ordinance Practice Note for Professional Persons (Construction Site Drainage) Unknown

Remark		
		****
		100
Signatures	 	

EM&A: EM&A Manual (Construction Phase)

Noise Control Ordinance Waste Disposal Ordinance

ET Member

Contractor's Representative

(Name in Block letters:

WISIU

(Name in Block letters:

# The Hongkong Electric Co. Ltd. Lamma Power Station Extension – E&M Works **Weekly Site Inspection Checklist**

Inspection	date MARCH 2006 Time 09=35 hrs Inspect	ed By	ET:		F CHI	U/POZ- RCHENG/SHARD
Site	LMX-L9 CHETRICAL ERECTION AREA				<u>PE</u> [E	ROHENG ISHMEU
Veather						
Condition	Sunny Fine Overcast Hazy		Driz	zle [	R	ain Storm
Temperati	rre 10 °C Humidity High Moderat	te 🗌	Lov	v		
Wind	Calm Light Breeze Strong					
SENERAL						
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		V			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		/			
AIR QUAL Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements	1				
Cap311R: 3	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?	V	1			
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?		/			
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	V				
	Construction Sites		•		·	
EM&A : A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		/			WIFTER SPRAYING PROVIDED BY PAU
	Stockpiling of dusty materials	_				
Cap311R: Sch 18	Are stockpiles of dusty materials entirely covered with impervious	1	1			1.

	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized fuel ash (PFA)					
Cap311R: Sch 15(3)	Are the storage silos for cement or dry PFA prevented from overfilling?	~				
Cap311R: Sch 15(4)	Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system?	V				
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?	1				
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	<b>V</b>				
	Loading, unloading or transfer of dusty materials					
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?	V				
EM&A: A1	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?	<b>V</b>				
	Use of vehicles					
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	V				
Cap311R: Sch 21(1)	Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?		<b>✓</b>		·	LINGEL IJASH CERVICES PROV TABLY
	Transfer of dusty materials using a belt conveyor system					11M+1-1
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?	V				
Cap311R: Sch 20(2)	Is every transfer point between any two-belt conveyors totally enclosed?	<b>V</b>				
Cap311R: Sch 20(3)	Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?	✓				
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?	V				
	Concrete batching plant				,-	•
EM&A: A2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?	/				
n4	Are dusty materials, except cement and dry PFA, wetted by water					
EM&A: A2 `	spray system?	<b>V</b>				
EM&A:		V				

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Miscellaneous					
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?	V				
Cap3110	Is open burning prohibited?		V			
Cap311	Is black smoke emission from plant/equipment avoided?		/			

#### WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks	
	Dredged Materials						
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	1					
WMP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	<b>V</b>					
EM&A: E3	Are wastes disposed of at licensed sites?		·				
	Construction Waste and Excavated Materials						
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	v				7000L-	
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	J					
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?	1					
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?	/					
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	1				-	
EM&A: E3	Are wastes disposed of at licensed sites?	1				WHITE THERE IS NOT THE THE THE THE THE THE THE THE THE TH	
	General refuse						
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		V				
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		v		***************************************		
WMP	Is the refuse disposed of regularly and properly?		V				
WMP	Are burning of refuse at site and dumping at sea prohibited?						
	Chemical Waste						
EM&A: E3	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?	V					

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
WDO	Has the Contractor been registered as a chemical waste producer?	V				
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?	V				
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?	1				
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?	/				
	Storage, collection and transportation of waste			I J		
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?		V			· · · · <u>· · · · · · · · · · · · · · · </u>
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?	1				
	(1) public fill materials for on-site reuse, or disposal at public filling area;					•
	(2) reusable / recyclable materials;					.,
	(3) un-reusable / non-recyclable waste for landfill disposal.					
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?	/				

# WATER QUALITY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off		ı			
PN1/94	Are the silt removal facilities, channels and manholes maintained and the deposited silt and grit removed regularly?	V				,
PN1/94	Are earthworks final surfaces well compacted and the subsequent permanent work or surface protection carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms? Is appropriate drainage like intercepting channels provided where necessary?	V				
PN1/94	Are measures taken to minimize the ingress of rainwater into trenches? Is rainwater pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?	V				
PN1/94	Are open stockpiles of construction materials (e.g. aggregates, sand and fill material) on site covered with tarpaulin or similar fabric during rainstorms? Are measures taken to prevent the washing away of construction materials, soil, silt or debris into the drainage system?	<b>✓</b>				
PN1/94	Are manholes (including newly constructed ones) adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers?	V				
	Groundwater					
PN1/94	Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?	V				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Boring and Drilling Water	1				
PN1/94	Is water that used in ground boring and drilling for site investigation or rock/soil anchoring recirculated as far as possible after sedimentation? If there is a need for final disposal, is the wastewater discharged into storm drains via silt removal facilities?	V				
	Wheel Washing Water					
PN1/94	Is a wheel-washing bay provided at every exit if practicable and is the silt removed from wash-water before discharging into storm drains?	V				

### MARINE ECOLOGY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: G1	Are all percussive piling works conducted on reclaimed land to avoid noise impact to marine mammals?	V				
EM&A: G2	Do the marine vessels moving to and from the construction site strictly follow the routes stated in the "Plan for Dredging & Reclamation, Routing of Construction Related Marine Vessels, and Installation of Silt Curtain"?	✓				
EM&A: G3	Is rubble mound seawall constructed to the south and west edges of the reclamation to enhance recolonisation of marine organisms?	/				100

### NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: C1	Are working programmes schedu	uled to minimize noise nuisance?		1			
EM&A: C1	Are construction works or equiponuisance?	ment sited to minimize noise		V			
EM&A: C1	Are all plant and equipment main conditions?	ntained in good operating		v			
EM&A: C1/GP	Is idle equipment turned off or th	rottled down?		1			
EM&A: C1	Are methods of working devised nuisance?	and arranged to minimize noise		/			
EM&A: C1)	Are construction works carried o nuisance?	ut in a manner to minimize noise		<b>V</b>			
EM&A: C2	To mitigate construction noise de holidays, is either one of the folle a) Mitigation by portable noise b) Rescheduling of some power sensitive time periods?	owing measures adopted?		✓			
EM&A: C3	To mitigate night time constructi equipped with silencers or muffle		V				
NCO	Are valid construction noise perminspection?	nits, if required, available for	V				
NCO	Are conditions of construction no relevant part(s) of the works imp		<b>V</b>				
NCO	Are valid noise emission labels fi held percussive breakers?	ixed at air compressors and hand	<b>V</b>				
<del></del>		☐ Traffic	卤	Consti	uction	activ	ities inside the
	Major noise source(s)  Construction activities  Others  outside the site						

#### Abbreviation

	mn	
`	- V	
v	Lil.	

Varied Environmental Permit

WMP:

Waste Management Plan

NCO:

EM&A: EM&A Manual (Construction Phase)

Cap311R: Cap3110: APC (Construction Dust) Regulation APC (Open Burning) Regulation

WDO:

Noise Control Ordinance Waste Disposal Ordinance

Cap311:

Air Pollution Control Ordinance

PN1/94:

Practice Note for Professional Persons (Construction Site Drainage)

Unk:

Remark			
		<del></del>	
		• • • • • • • • • • • • • • • • • • • •	
		•	
*			
Signatures			

ET Member

Contractor's Representative

12th January 2005

# The Hongkong Electric Co. Ltd. Lamma Power Station Extension – E&M Works Weekly Site Inspection Checklist

Inspection	date 8 MAR 2006 Time 11:45 AM. Inspec	ted By		丁	F. СНІ	u/PDE	]
Site	LMX-L9 ELECTRICH ERECTION AREA.		Con	tracte	or: <i>P</i> E	TER CHENG / S	inko.
Weather							=
Condition	Sunny Fine Overcast Hazy		Driz	zle	R	ain Sto	гm
Temperat	ure Humidity High Modera	ate _	Lov	w			
Wind	Calm Light . Breeze Strong						
GENERAL							_
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks	7
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		1				
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		/			1	<u> </u>
AIR QUALI	TY Checklist Condition	N/A	Yes	No	 Unk	Remarks	]
····	General Requirements						
Cap311R: 3	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?	/					
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?		V				
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	/					
	Construction Sites		!		J		
EM&A: A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		1			WATER SPRAY PROVIDED BY	
	Stockpiling of dusty materials						TANL 1.
Cap311R: Sch 18	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?	/					  -

Sch 21(2) construction site covered entirely by clean impervious sheeting?  M1  Cap311R: Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?  Transfer of dusty materials using a belt conveyor system  Cap311R: Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?  Cap311R: Is every transfer point between any two-belt conveyors totally enclosed?  Cap311R: Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?  Cap311R: Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?  Concrete batching plant  EM&A: Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?  Are dusty materials, except cement and dry PFA, wetted by water spray system?  Are all the receiving hoppers enclosed on three (3) sides up to 3m above unloading point?	Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks	
Sch 15(3) overfilling?  Cap311R: Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system?  Cap311R: Are the cement, dry PFA stored in a closed silo fitted with a high-level alarm?  Cap311R: Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?  Loading, unloading or transfer of dusty materials  Cap311R: Sch 19  Loading, unloading or transfer of dusty materials  Cap311R: Sch 20  Loading, unloading or transfer of dusty materials  Cap311R: Sch 19  Use of vehicles  Cap311R: Severy load of dusty materials controlled to a practical level to minimize fugitive dust emission?  Use of vehicles  Cap311R: Severy load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?  EMMAA: All Cap311R: Is every load of dusty materials troin its body and wheels before leaving the construction site?  Transfer of dusty materials using a belt conveyor system  Cap311R: Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?  Transfer of dusty materials using a belt conveyor system  Cap311R: Severy load of transfer of dusty materials covered on the top and 2 sides?  Cap311R: Severy load of transfer of dusty materials covered on the top and 2 sides?  Cap311R: Severy load of transfer of dusty materials covered on the top and 2 sides?  Cap311R: Severy load of transfer of dusty materials from the return belts?  Cap311R: Are belt conveyors late device installed at the head pulley of exclosed?  Cap311R: Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?  Concrete batching plant  Cap32 Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?  Cap33 Are dusty materials except cement and dry PFA, wetted by water system?  Are dusty materials carried out		Cement and dry pulverized fuel ash (PFA)						$\dashv$
Seh 15(4)  Seystem equipped with air pollution control equipment at the vent of the system?  Cap311R: She 15(2)  Cap311R: She the cement, dry PFA stored in a closed silo fitted with a high-level alarm?  Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?  Loading, unloading or transfer of dusty materials  Cap311R: She 19  Loading, unloading or transfer of dusty materials  Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?  Loading unloading or transfer of dusty materials  Cap311R: She 21(1)  Los of vehicles  Cap311R: Ste very load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?  Loadill: She 21(1)  Los every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?  Transfer of dusty materials using a belt conveyor system  Cap311R: She 20(1)  Transfer of dusty materials using a belt conveyor system  Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?  Cap311R: She 20(1)  She 20(3)  Cap311R: She very transfer point between any two-belt conveyors totally enclosed?  Cap311R: She 20(3)  Are stoekpiling conveyors equipped with bottom plates or similar means to prevent falling of materials from the return belts?  Cap311R: Are stoekpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?  Concrete batching plant  Are the loading, unloading, handling, transfer or storage of any dusty materials except cement and dry PFA, wetted by water spray system?  Are all the receiving hoppers enclosed on three (3) sides up to 3m above unloading point?  V		Are the storage silos for cement or dry PFA prevented from overfilling?	V					
Sch 15(2) high-level alarm?  Cap311R: Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?  Loading, unloading or transfer of dusty materials  Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?  EM&A: Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?  Use of vehicles  Cap311R: Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting? EM&A: At Cap311R: Set 21(2)  EM&A: As every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?  Transfer of dusty materials using a belt conveyor system  Cap311R: Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?  Cap311R: Is every transfer point between any two-belt conveyors totally enclosed?  Cap311R: Set 20(3)  Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?  Cap311R: Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?  Cap311R: Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?  Concrete batching plant  Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?  EM&A: Are all the receiving hoppers enclosed on three (3) sides up to 3 m above unloading point?		system equipped with air pollution control equipment at the vent	1					
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water immediately prior to any loading, unloading or transfer operation?  EM&A: Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?  Use of vehicles Sch 21(2) EM&A: AI Cap311R: Sch 21(1) Sch 21(1) Sch 21(1) Sch 21(1)  Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?  Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?  Transfer of dusty materials using a belt conveyor system  Cap311R: Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?  Cap311R: Is every transfer point between any two-belt conveyors totally enclosed?  Cap311R: Sch 20(3) Sch 20(2)  Cap311R: Are stockpiling conveyors equipped with bottom plates or similar means to prevent falling of materials from the return belts?  Cap311R: Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?  Concrete batching plant  Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?  EM&A: Are dusty materials, except cement and dry PFA, wetted by water spray system?  EM&A: Are all the receiving hoppers enclosed on three (3) sides up to 3m above unloading point?		Loading, unloading or transfer of dusty materials	· .	. <b></b>	1			$\dashv$
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Concrete batching plant  EM&A: Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?  EM&A: Are dusty materials, except cement and dry PFA, wetted by water spray system?  EM&A: Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?		every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return	<b>~</b>			,		
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dusty materials carried out in a totally enclosed system?  EM&A: Are dusty materials, except cement and dry PFA, wetted by water spray system?  EM&A: Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?		Concrete batching plant					···	1
A2 spray system?  EM&A: Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?		Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?	v				10-1	7
above unloading point?		Are dusty materials, except cement and dry PFA, wetled by water spray system?	и				27.	
EM&A: Are all the conveyor transfer points totally enclosed?		Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	ν				~	-
A2	EM&Λ: Λ2	Are all the conveyor transfer points totally enclosed?	V					1

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Miscellaneous			·	L	I
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?	/				
Cap311O	Is open burning prohibited?		V			
Cap311	Is black smoke emission from plant/equipment avoided?		1			

#### WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials		•	·		
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	V				
WMP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	1				
EM&A: E3	Are wastes disposed of at licensed sites?	1				
	Construction Waste and Excavated Materials					
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	V				
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	1				
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?	1				
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?	V				
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	1				
EM&A: E3	Are wastes disposed of at licensed sites?	1				
	General refuse	<del>'</del>				
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		7			
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		✓			****
WMP	Is the refuse disposed of regularly and properly?		V			
WMP	Are burning of refuse at site and dumping at sea prohibited?					
	Chemical Waste					
EM&A: E3	Has the contractor obtained the necessary disposal permits from the relevant authority. if required, according to Waste Disposal (Chemical Waste) (General Regulation)?	1				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
WDO	Has the Contractor been registered as a chemical waste producer?	V				
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?	v				
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?	<b>V</b>				
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?	1				
	Storage, collection and transportation of waste	1		II		
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?		V			
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?	/			_	
	(1) public fill materials for on-site reuse, or disposal at public filling area;					
	(2) reusable / recyclable materials;					
	(3) un-reusable / non-recyclable waste for landfill disposal.					
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?					

# WATER QUALITY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off					·
PN1/94	Are the silt removal facilities, channels and manholes maintained and the deposited silt and grit removed regularly?	V				
PN1/94	Are earthworks final surfaces well compacted and the subsequent permanent work or surface protection carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms? Is appropriate drainage like intercepting channels provided where necessary?	~				
PN1/94	Are measures taken to minimize the ingress of rainwater into trenches? Is rainwater pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?	V				
PN1/94	Are open stockpiles of construction materials (e,g, aggregates, sand and fill material) on site covered with tarpaulin or similar fabric during rainstorms? Are measures taken to prevent the washing away of construction materials, soil, silt or debris into the drainage system?	V				
PN1/94	Are manholes (including newly constructed ones) adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers?	<b>V</b>				
PN1/94	Groundwater  Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?	V				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Boring and Drilling Water					
PN1/94	Is water that used in ground boring and drilling for site investigation or rock/soil anchoring recirculated as far as possible after sedimentation? If there is a need for final disposal, is the wastewater discharged into storm drains via silt removal facilities?	V				
	Wheel Washing Water	1				
PN1/94	Is a wheel-washing bay provided at every exit if practicable and is the silt removed from wash-water before discharging into storm drains?	1				

#### MARINE ECOLOGY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: G1	Are all percussive piling works conducted on reclaimed land to avoid noise impact to marine mammals?	~				
EM&A: G2	Do the marine vessels moving to and from the construction site strictly follow the routes stated in the "Plan for Dredging & Reclamation, Routing of Construction Related Marine Vessels, and Installation of Silt Curtain"?	V				
EM&A: G3	Is rubble mound seawall constructed to the south and west edges of the reclamation to enhance recolonisation of marine organisms?	<b>V</b>				

# NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks	
EM&A: Cl	Are working programmes sched	luled to minimize noise nuisance?		V				
EM&A: Cl	Are construction works or equipulisance?	oment sited to minimize noise		1				
EM&A: C1	Are all plant and equipment mai conditions?	intained in good operating		1				
EM&A: C1/GP	Is idle equipment turned off or t	hrottled down?		J				
EM&A: C1	Are methods of working devised nuisance?	d and arranged to minimize noise		J				
EM&A: C1)	Are construction works carried on nuisance?	out in a manner to minimize noise		1				
EM&A: C2				J				
EM&A: C3	To mitigate night time construct equipped with silencers or muffl	ion noise, is dredging equipment ers?	1					
NCO	Are valid construction noise pen inspection?	mits, if required, available for	1				VIII (A.V.)	
NCO	Are conditions of construction nelevant part(s) of the works imp		~					
NCO	Are valid noise emission labels f held percussive breakers?	ixed at air compressors and hand	1					
	Major noise source(s)	☐ Traffic	Construction activities inside the					
		Construction activities outside the site		Others	<u> </u>			

# Abbreviation VEP: Varied Environmental Permit WMP: Waste Management Plan EM&A: EM&A Manual (Construction Phase) Cap311R: APC (Construction Dust) Regulation APC (Open Burning) Regulation NCO: Noise Control Ordinance Cap3110: WDO: Waste Disposal Ordinance Cap311: Air Pollution Control Ordinance PN1/94: Practice Note for Professional Persons (Construction Site Drainage) Unk: Unknown Remark Signatures ET Member Contractor's Representative

(Name in Block letters:

I.F. CHIN

PDE

(Name in Block letters:

PETER CHENG

>4×/CO

12th January 2005

# The Hongkong Electric Co. Ltd. Lamma Power Station Extension – E&M Works Weekly Site Inspection Checklist

Inspection	n date K HAR 2006 Time 10:38 hrs Inspec	cted By				CHIN /PDE
Site	LMX -L9 ELETTRICAL ERETTIME ARZA.		Con	tract	or:PE/	recheng Am
Weather						-
Condition	Sunny Fine Overcast Hazy		Dri	zle	R	ain Storm
Tempera	ture   C Humidity   High   Modera	ate [	Lo	w		
Wind	Calm Light Breeze Strong					
GENERAI						
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		N			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?					-
AIR QUAL Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements	1,772	103		Olik	Remarks
Cap311R: 3	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?	V				
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?		✓ <b> </b>		-	
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	/				
	Construction Sites	<u> </u>		1	1	
EM&A: A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		V			WATER SPRACING
	Stockpiling of dusty materials				,]_	PROMOTORY PAU
Cap311R: Sch 18	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?	/				

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized fuel ash (PFA)		1	<u> </u>		<u> </u>
Cap311R: Sch 15(3)	Are the storage silos for cement or dry PFA prevented from overfilling?	1				
Cap311R: Sch 15(4)	Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system?	1				
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?	/				
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	1				
,	Loading, unloading or transfer of dusty materials	1	.I	Ll		
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?	/				
EM&A: A1	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?	1				
	Use of vehicles					
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	/				
Cap311R: Sch 21(1)	Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?		/			WHEEL DACK CERVICES PRE
	Transfer of dusty materials using a belt conveyor system			,L	ل <del>س.</del>	1 1 1 10 (+ 1
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?	v				
Cap311R; Sch 20(2)	Is every transfer point between any two-belt conveyors totally enclosed?	1/				,,,,,,,
Cap311R: Sch 20(3)	Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?	S				
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?	1			-	
	Concrete batching plant	ı		L_		
EM&A: A2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?	V				
EM&A:	Are dusty materials, except cement and dry PFA, wetted by water spray system?	V				
A2						
EM&A:	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	V				
A2 EM&A: A2 EM&A:		V				37.

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Miscellaneous			J 1		<u> </u>
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?	1				
Cap311O	Is open burning prohibited?		1			
Cap311	Is black smoke emission from plant/equipment avoided?		1			

#### WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials			. <b>i</b>		<u> </u>
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	1				
WMP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	1				
EM&A: E3	Are wastes disposed of at licensed sites?	1				
	Construction Waste and Excavated Materials	•	<b>'</b>			
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	1				
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	1				117 Mar 2
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?	J				
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?	1			~-	
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	1				
EM&A: E3	Are wastes disposed of at licensed sites?	1				
	General refuse	<del>'</del>	•	<u>1</u>		7.44.
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		1			
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		V			<del></del>
WMP	Is the refuse disposed of regularly and properly?		~			
WMP	Are burning of refuse at site and dumping at sea prohibited?		V			
	Chemical Waste					
EM&A: E3	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?	/				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
WDO	Has the Contractor been registered as a chemical waste producer?	V				<u> </u>
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?	V				
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?	V				
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?	1				
	Storage, collection and transportation of waste			l I		
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?		V			
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?	1				
	(1) public fill materials for on-site reuse, or disposal at public filling area;					
	(2) reusable / recyclable materials;					
	(3) un-reusable / non-recyclable waste for landfill disposal.					
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?					

### WATER QUALITY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off		·	ı		
PN1/94	Are the silt removal facilities, channels and manholes maintained and the deposited silt and grit removed regularly?	1				
PN1/94	Are earthworks final surfaces well compacted and the subsequent permanent work or surface protection carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms? Is appropriate drainage like intercepting channels provided where necessary?	V				
PN1/94	Are measures taken to minimize the ingress of rainwater into trenches? Is rainwater pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?	٢				
PN1/94	Are open stockpiles of construction materials (e.g., aggregates, sand and fill material) on site covered with tarpaulin or similar fabric during rainstorms? Are measures taken to prevent the washing away of construction materials, soil, silt or debris into the drainage system?	~				
PN1/94	Are manholes (including newly constructed ones) adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers?	1				
	Groundwater	,				
PN1/94	Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?					

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Boring and Drilling Water	1				
PN1/94	Is water that used in ground boring and drilling for site investigation or rock/soil anchoring recirculated as far as possible after sedimentation? If there is a need for final disposal, is the wastewater discharged into storm drains via silt removal facilities?	V				
	Wheel Washing Water					
PN1/94	Is a wheel-washing bay provided at every exit if practicable and is the silt removed from wash-water before discharging into storm drains?	~				

### MARINE ECOLOGY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: G1	Are all percussive piling works conducted on reclaimed land to avoid noise impact to marine mammals?	1				
EM&A: G2	Do the marine vessels moving to and from the construction site strictly follow the routes stated in the "Plan for Dredging & Reclamation, Routing of Construction Related Marine Vessels, and Installation of Silt Curtain"?	<b>V</b>				
EM&A: G3	Is rubble mound seawall constructed to the south and west edges of the reclamation to enhance recolonisation of marine organisms?	/				

### NOISE

 $\bigcirc$  , ;

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks		
EM&A: C1	Are working programmes sched	uled to minimize noise nuisance?		1					
EM&A: CI	Are construction works or equip nuisance?	ment sited to minimize noise		V					
EM&A: C1	Are all plant and equipment mai conditions?	ntained in good operating		V					
EM&A: C1/GP	Is idle equipment turned off or the	nrottled down?		1					
EM&A: Cl	Are methods of working devised nuisance?	and arranged to minimize noise		1					
EM&A: C1)	Are construction works carried on nuisance?	out in a manner to minimize noise		/			***		
EM&A: C2	To mitigate construction noise di holidays, is either one of the follo a) Mitigation by portable noise b) Rescheduling of some power sensitive time periods?	owing measures adopted?		J					
EM&A: C3	To mitigate night time constructi equipped with silencers or muffle		1						
NCO	Are valid construction noise perr inspection?	nits, if required, available for	V						
NCO	Are conditions of construction no relevant part(s) of the works imp		~						
NCO	Are valid noise emission labels fixed at air compressors and hand held percussive breakers?						100-100-00		
	Moior raine source(s)		Constr site	uction	activi	ties inside the			
	Major noise source(s)  Construction activities outside the site			Others					

Abbreviation			
VEP: WMP: Cap311R: Cap311O: Cap311: PN1/94: Unk:	Varied Environmental Permit Waste Management Plan APC (Construction Dust) Regulation APC (Open Burning) Regulation Air Pollution Control Ordinance Practice Note for Professional Persons (Cor Unknown	NCO: WDO:	EM&A Manual (Construction Phase) Noise Control Ordinance Waste Disposal Ordinance  Orainage)
Remark			
	•		
Signatures			
ET Member	Contractor's Represe	entative	IEC's Representative  This site inspection was carried or in the presence of IEC's representation.
			mo brossmo de traca a salecantin

T. F. CHIU )

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12th January 2005

# The Hongkong Electric Co. Ltd. Lamma Power Station Extension – E&M Works Weekly Site Inspection Checklist

Inspection	date DMAR 2006 Time 09:20 hc Inspect	ed By	ET: Cont	ر racto	F.C4 r: 10E	ILL /PDZ	SANKO.
Site	IMX-19 ELECTRICAL ERECTION AREA.					TENC CHOCK	
Weather	/			•			•
Condition	Sunny Fine Overcast V Hazy		Driz	zle [	R	ain Stor	m
Temperatu	re⊋3°C Humidity ✓ High Modera	le 🗌	Low	v			
Wind	Calm Light Breeze Strong						
GENERAL							
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks	
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		N				
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		/				
AIR QUAL	Checklist Condition	N/A	Yes	No	Unk	Remarks	]
	General Requirements	Į.					
Cap311R: 3	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?	V					
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?		レ				
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	/					
	Construction Sites					I	
EM&A: A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		V			WATER SPRAI	(ING)
	Stockpiling of dusty materials					•	
Cap311R: Sch 18	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?	/					

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized fuel ash (PFA)	1		1		
Cap311R: Sch 15(3)	Are the storage silos for cement or dry PFA prevented from overfilling?	V				
Cap311R: Sch 15(4)	Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system?	V	,			
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?	1				
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	/				
	Loading, unloading or transfer of dusty materials	<u> </u>	***************************************			
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?	v				
EM&A: A1	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?	/				
	Use of vehicles	<del>1</del>		J		
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?				,	
Cap311R: Sch 21(1)	Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?	= = = = = = = = = = = = = = = = = = = =	/			WHEEL LAS SERVICES PEN PAULY.
1	Transfer of dusty materials using a belt conveyor system					<del>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</del>
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?					
Cap311R: Sch 20(2)	Is every transfer point between any two-belt conveyors totally enclosed?	1				
Cap311R: Sch 20(3)	Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?	/				1 10000000
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?	/			•	
	Concrete batching plant					'
EM&A: A2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?	V				
EM&A: A2	Are dusty materials, except cement and dry PFA, wetted by water spray system?	V				
EM&A: A2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	1				
EM&A: A2	Are all the conveyor transfer points totally enclosed?	N				

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Miscellaneous					
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?	<u></u>	-			·
Cap3110	Is open burning prohibited?		>			
Cap311	Is black smoke emission from plant/equipment avoided?		>			

#### WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks					
	Dredged Materials				•						
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	1									
WMP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	v									
EM&A: E3	Are wastes disposed of at licensed sites?	~									
	Construction Waste and Excavated Materials										
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	1									
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	1									
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?	1				**************************************					
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?	/									
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	,									
EM&A: E3	Are wastes disposed of at licensed sites?	J									
	General refuse	•			•						
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		J								
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		<b>√</b>								
WMP	Is the refuse disposed of regularly and properly?		V								
WMP	Are burning of refuse at site and dumping at sea prohibited?		J								
	Chemical Waste										
EM&A: E3	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?	J									

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks			
WDO	Has the Contractor been registered as a chemical waste producer?	Ų							
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?	J							
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?	1							
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?	1							
	Storage, collection and transportation of waste								
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?		J						
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?	1							
	(1) public fill materials for on-site reuse, or disposal at public filling area;								
	(2) reusable / recyclable materials;								
	(3) un-reusable / non-recyclable waste for landfill disposal.								
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?	1	,						

# WATER QUALITY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off					
PN1/94	Are the silt removal facilities, channels and manholes maintained and the deposited silt and grit removed regularly?	v				
PN1/94	Are earthworks final surfaces well compacted and the subsequent permanent work or surface protection carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms? Is appropriate drainage like intercepting channels provided where necessary?					
PN1/94	Are measures taken to minimize the ingress of rainwater into trenches? Is rainwater pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?	/				
PN1/94	Are open stockpiles of construction materials (e.g., aggregates, sand and fill material) on site covered with tarpaulin or similar fabric during rainstorms? Are measures taken to prevent the washing away of construction materials, soil, silt or debris into the drainage system?	U				
PN1/94	Are manholes (including newly constructed ones) adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers?	~				
PN1/94	Groundwater  Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?	V				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Boring and Drilling Water					
PN1/94	Is water that used in ground boring and drilling for site investigation or rock/soil anchoring recirculated as far as possible after sedimentation? If there is a need for final disposal, is the wastewater discharged into storm drains via silt removal facilities?	V				
	Wheel Washing Water					
PN1/94	Is a wheel-washing bay provided at every exit if practicable and is the silt removed from wash-water before discharging into storm drains?	1				

### MARINE ECOLOGY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: G1	Are all percussive piling works conducted on reclaimed land to avoid noise impact to marine mammals?	✓				
EM&A: G2	Do the marine vessels moving to and from the construction site strictly follow the routes stated in the "Plan for Dredging & Reclamation, Routing of Construction Related Marine Vessels, and Installation of Silt Curtain"?	V				
EM&A: G3	Is rubble mound seawall constructed to the south and west edges of the reclamation to enhance recolonisation of marine organisms?	<b>/</b>				

# NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks	
EM&A: Cl	Are working programmes schedu	uled to minimize noise nuisance?		رب ب				
EM&A: C1	Are construction works or equiponuisance?	ment sited to minimize noise		v.				
EM&A: C1	Are all plant and equipment main conditions?	ntained in good operating		V				
EM&A: C1/GP	Is idle equipment turned off or th	rottled down?		/				
EM&A: C1	Are methods of working devised nuisance?	and arranged to minimize noise		ď		i		
EM&A: C1)	Are construction works carried o nuisance?	ut in a manner to minimize noise		.✓			·	
EM&A: C2	To mitigate construction noise di holidays, is either one of the folla) Mitigation by portable noise b) Rescheduling of some power sensitive time periods?		1					
EM&A: C3	To mitigate night time constructi equipped with silencers or muffle		1					
NCO	Are valid construction noise perminspection?	nits, if required, available for	~				AUTOPA	
NCO	Are conditions of construction no relevant part(s) of the works imp		1					
NCO	Are valid noise emission labels fixed at air compressors and hand held percussive breakers?			,				
	Major noise source(s)	☐ Traffic	U	Construction activities inside the site				
	major noise source(s)	Construction activities outside the site	Others					

#### Abbreviation

VEP:

Varied Environmental Permit

WMP:

Waste Management Plan

NCO:

EM&A: EM&A Manual (Construction Phase)

Cap311R: Cap3110:

APC (Construction Dust) Regulation APC (Open Burning) Regulation

Noise Control Ordinance

Cap311:

Air Pollution Control Ordinance

WDO:

Waste Disposal Ordinance

PN1/94: Unk:

Practice Note for Professional Persons (Construction Site Drainage)

			w		
Remark					
		• •		*****	· · · · · · · · · · · · · · · · · · ·
	•				
0.					
Signatures					

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7. F. CHUU

PDE

ET Member

Contractor's Representative

12th January 2005

# The Hongkong Electric Co. Ltd. Lamma Power Station Extension – E&M Works Weekly Site Inspection Checklist

Inspection	date 20 Mark 2006 Time 15:00 hrs Inspec	ted By	<del></del>	7.	F. Chi	u /10E	
Site	LMX-18 GETIFICAL EROTION ARCA		Con	tracto	эг: <u>Э</u> ट	TER CHEVE	YSANED.
Weather							-
Condition	Sunny Fine V Overcast Hazy		Driz	zle	R	ain Stor	m
Temperat	ure 23 °C Humidity √ High Modera	ate	Lov	.v			
Wind	Calm Light . Breeze Strong	-					
GENERAL							
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks	
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		V				
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		1				
AIR QUAL	Checklist Condition	N/A	Yes	No	Unk	Remarks	
	General Requirements	<u> </u>					
Cap311R: 3	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?	V					
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?		/				
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	/					
	Construction Sites	لــــــــــــــــــــــــــــــــــ	1				
EM&A : Λ1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		1	T		WATERSPRAY PROVIDED BY	NG
**	Stocknilling of dusty motorists					PROVIDED BY	PAUL Y.
Cap311R:	Stockpiling of dusty materials  Are stockpiles of dusty materials entirely covered with impervious				r		
Sch 18	sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?	/					

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized fuel ash (PFA)			1 .		
Cap311R: Sch 15(3)	Are the storage silos for cement or dry PFA prevented from overfilling?	V				
Cap311R: Sch 15(4)	Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system?	1				
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?	1				
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	V				
	Loading, unloading or transfer of dusty materials		·	11		
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?	V			<u> </u>	
EM&A: A1	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?	1				
	Use of vehicles		· <u>-</u>	LI		
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	/				
Cap311R: Sch 21(1)	Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?		1			WHEET LIACHIA SERVICES PEO PAULY
	Transfer of dusty materials using a belt conveyor system				!	774.
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?	0				
Cap311R: Sch 20(2)	Is every transfer point between any two-belt conveyors totally enclosed?	v				
Cap311R: Sch 20(3)	Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?	1				
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?	7				
	Concrete batching plant	<u> </u>	L			
EM&A: A2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?					
EM&A: A2	Are dusty materials, except cement and dry PFA, wetted by water spray system?	0	110			
EM&A:	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	····				
A2	above unroading point.	V	- 1		ļ	

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks	
	Miscellaneous						
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?	\ \ \					
Cap3110	Is open burning prohibited?		V				
Cap311	Is black smoke emission from plant/equipment avoided?		1				

#### WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks						
	Dredged Materials	·	·									
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	V										
WMP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	V										
EM&A: E3	Are wastes disposed of at licensed sites?	1										
	Construction Waste and Excavated Materials											
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	J										
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	J										
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?	/										
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?	ν										
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	✓										
EM&A: E3	Are wastes disposed of at licensed sites?	7										
	General refuse	**************************************										
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		٧	j								
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		1									
WMP	Is the refuse disposed of regularly and properly?		/			~~~~						
WMP	Are burning of refuse at site and dumping at sea prohibited?											
	Chemical Waste											
EM&A: E3	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?	J										

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks		
WDO	Has the Contractor been registered as a chemical waste producer?	V						
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?	V						
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?	V						
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?	V						
	Storage, collection and transportation of waste							
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?		J					
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?	1						
	(1) public fill materials for on-site reuse, or disposal at public filling area;							
	(2) reusable / recyclable materials;							
	(3) un-reusable / non-recyclable waste for landfill disposal.							
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?							

# WATER QUALITY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off	1				***************************************
PN1/94	Are the silt removal facilities, channels and manholes maintained and the deposited silt and grit removed regularly?	V				
PN1/94	Are earthworks final surfaces well compacted and the subsequent permanent work or surface protection carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms? Is appropriate drainage like intercepting channels provided where necessary?	/				
PN1/94	Are measures taken to minimize the ingress of rainwater into trenches? Is rainwater pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?	V				
PN1/94	Are open stockpiles of construction materials (e.g. aggregates, sand and fill material) on site covered with tarpaulin or similar fabric during rainstorms? Are measures taken to prevent the washing away of construction materials, soil, silt or debris into the drainage system?	1				
PN1/94	Are manholes (including newly constructed ones) adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers?	J				
PN1/94	Groundwater  Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?	1				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Boring and Drilling Water					
PN1/94	Is water that used in ground boring and drilling for site investigation or rock/soil anchoring recirculated as far as possible after sedimentation? If there is a need for final disposal, is the wastewater discharged into storm drains via silt removal facilities?	V				
	Wheel Washing Water					
PN1/94	Is a wheel-washing bay provided at every exit if practicable and is the silt removed from wash-water before discharging into storm drains?	/				

#### MARINE ECOLOGY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: G1	Are all percussive piling works conducted on reclaimed land to avoid noise impact to marine mammals?	V				
EM&A: G2	Do the marine vessels moving to and from the construction site strictly follow the routes stated in the "Plan for Dredging & Reclamation, Routing of Construction Related Marine Vessels, and Installation of Silt Curtain"?	V				
EM&A: G3	Is rubble mound seawall constructed to the south and west edges of the reclamation to enhance recolonisation of marine organisms?	V				

### NOISE

0.:

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: Ci	Are working programmes schedu	led to minimize noise nuisance?		1			
EM&A: Cl	Are construction works or equipr nuisance?	ment sited to minimize noise		V			
EM&A: C1	Are all plant and equipment mair conditions?	ntained in good operating		V			
EM&A: C1/GP	Is idle equipment turned off or th	rottled down?		1			
EM&A: C1	Are methods of working devised nuisance?	and arranged to minimize noise		V			*
EM&A: C1)	Are construction works carried or nuisance?						
EM&A: C2	To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted?  a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods?			J			
EM&A: C3	To mitigate night time construction equipped with silencers or muffle		V				
NCO	Are valid construction noise perm inspection?	nits, if required, available for	~				
NCO	Are conditions of construction no relevant part(s) of the works impl		1				
NCO	Are valid noise emission labels fixed at air compressors and hand held percussive breakers?						
		☐ Traffic	<u>प</u>		uctio	activi	ties inside the
	Major noise source(s)	Construction activities	Others				
	Major noise source(s)  Construction activities outside the site			site Others	i		

#### Abbreviation

VEP:

Varied Environmental Permit

WMP:

Waste Management Plan

Cap311R:

APC (Construction Dust) Regulation APC (Open Burning) Regulation

NCO: WDO:

EM&A: EM&A Manual (Construction Phase) Noise Control Ordinance

Waste Disposal Ordinance

Cap3110:

Air Pollution Control Ordinance

Cap311: PN1/94:

Practice Note for Professional Persons (Construction Site Drainage)

Unk: Unknown

Remark			
	•	 	
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		 	, 10000
in atoms		 	

Signatures

ET Member

Contractor's Representative

PETER CHENG )

Savko.

12th January 2005

# The Hongkong Electric Co. Ltd. Lamma Power Station Extension – E&M Works Weekly Site Inspection Checklist

Inspection	date 3 May 06 Time 0 975 Inspect	ed By	ET:	り、		Ynen (HBV)
Site	LMX - GR& Ana		Cont	iacio	٠. ني) ر	7. L. L. MON
Weather						
Condition	Sunny Fine Overcast Hazy		Driz	zle [	Ra	in Stor
Temperat	ure Humidity High Moderat	e _	Lov	v		
Wind	Calm Light Breeze Strong					
GENERAL						
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		/			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		/			

### AIR QUALITY

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks			
	General Requirements					•			
Cap311R: 3	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?	/							
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?		1						
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	/							
	Construction Sites								
EM&A: A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?					Spray-s By PY			
	Stockpiling of dusty materials								
Cap311R: Sch 18	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?	/							

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
-	Cement and dry pulverized fuel ash (PFA)					
Cap311R: Sch 15(3)	Are the storage silos for cement or dry PFA prevented from overfilling?				-	
Cap311R: Sch 15(4)	Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system?					
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?					
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	(				
	Loading, unloading or transfer of dusty materials					
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?	(				
EM&A: A1	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?	/				
	Use of vehicles					
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	/				
Cap311R: Sch 21(1)	Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?		✓			Cleaning Priviled By P-Y
	Transfer of dusty materials using a belt conveyor system	d				1
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?	1				
Cap311R: Sch 20(2)	Is every transfer point between any two-belt conveyors totally enclosed?	1				
Cap311R: Sch 20(3)	Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?	(				
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within I m?	/				
	Concrete batching plant					
EM&A: A2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?					
EM&A: A2	Are dusty materials, except cement and dry PFA, wetted by water spray system?	/				
EM&A: A2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	/	W-12			
EM&A: A2	Are all the conveyor transfer points totally enclosed?					

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Miscellaneous		-			
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?	1				
Cap3110	Is open burning prohibited?		/			:
Cap311	Is black smoke emission from plant/equipment avoided?		/			

#### WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials		L.,	I		ı
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	(				
WMP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	1				
EM&A: E3	Are wastes disposed of at licensed sites?	/				
	Construction Waste and Excavated Materials	<del></del>				
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	(				
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	1				
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?	1				
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?	/				
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	1				
EM&A: E3	Are wastes disposed of at licensed sites?	1				
	General refuse					
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		/			
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		/			
WMP	Is the refuse disposed of regularly and properly?					
WMP	Are burning of refuse at site and dumping at sea prohibited?		7			
	Chemical Waste					
EM&A: E3	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?					

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
WDO	Has the Contractor been registered as a chemical waste producer?		/			
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?					
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?		1			
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?		/			
	Storage, collection and transportation of waste					
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?		/			
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?					
	(1) public fill materials for on-site reuse, or disposal at public filling area;	-				
	(2) reusable / recyclable materials;					
	(3) un-reusable / non-recyclable waste for landfill disposal.					
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?		/			

# WATER QUALITY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off	•				
PN1/94	Are the silt removal facilities, channels and manholes maintained and the deposited silt and grit removed regularly?	/				
PN1/94	Are earthworks final surfaces well compacted and the subsequent permanent work or surface protection carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms? Is appropriate drainage like intercepting channels provided where necessary?	/				
PN1/94	Are measures taken to minimize the ingress of rainwater into trenches? Is rainwater pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?	/				
PN1/94	Are open stockpiles of construction materials (e,g, aggregates, sand and fill material) on site covered with tarpaulin or similar fabric during rainstorms? Are measures taken to prevent the washing away of construction materials, soil, silt or debris into the drainage system?	/				
PN1/94	Are manholes (including newly constructed ones) adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers?	/				
	Groundwater				-	
PN1/94	Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?					

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Boring and Drilling Water					
PN1/94	Is water that used in ground boring and drilling for site investigation or rock/soil anchoring recirculated as far as possible after sedimentation? If there is a need for final disposal, is the wastewater discharged into storm drains via silt removal facilities?					
	Wheel Washing Water					
PN1/94	Is a wheel-washing bay provided at every exit if practicable and is the silt removed from wash-water before discharging into storm drains?					

#### MARINE ECOLOGY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: G1	Are all percussive piling works conducted on reclaimed land to avoid noise impact to marine mammals?	/				
EM&A: G2	Do the marine vessels moving to and from the construction site strictly follow the routes stated in the "Plan for Dredging & Reclamation, Routing of Construction Related Marine Vessels, and Installation of Silt Curtain"?	/				
EM&A: G3	Is rubble mound seawall constructed to the south and west edges of the reclamation to enhance recolonisation of marine organisms?					

## NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: C1	Are working programmes schedu	aled to minimize noise nuisance?		/			
EM&A: C1	Are construction works or equipmuisance?	ment sited to minimize noise		1			
EM&A: C1	Are all plant and equipment main conditions?	ntained in good operating		1			
EM&A: C1/GP	Is idle equipment turned off or th	nrottled down?		1			***************************************
EM&A: C1	Are methods of working devised nuisance?	and arranged to minimize noise		1			
EM&A: C1)	Are construction works carried o nuisance?	ut in a manner to minimize noise		1			·
EM&A: C2	To mitigate construction noise di holidays, is either one of the followally. Mitigation by portable noise b) Rescheduling of some powers sensitive time periods?	owing measures adopted?		/			
EM&A: C3	To mitigate night time constructi equipped with silencers or muffle		(				
NCO	Are valid construction noise perrinspection?	nits, if required, available for	/				
NCO	Are conditions of construction no relevant part(s) of the works imp		V	1:			
NCO	Are valid noise emission labels f held percussive breakers?	ixed at air compressors and hand		<b>V</b>			
	Major noise source(s)	☐ Traffic ☐ Construction activities outside the site	<u> </u>	Constr site Others		activi	ties inside the

#### Abbreviation

VEP:

Varied Environmental Permit

WMP:

Cap311R: Cap311O: Cap311: PN1/94: Unk:

Waste Management Plan
APC (Construction Dust) Regulation
APC (Open Burning) Regulation
Air Pollution Control Ordinance
Practice Note for Professional Persons (Construction Site Drainage)

Unknown

Remark		
CONTRACTOR AND	 	
-		
Signatures		

EM&A: EM&A Manual (Construction Phase)
NCO: Noise Control Ordinance
WDO: Waste Disposal Ordinance

ET Member

Contractor's Representative

(Name in Block letters:

(Name in Block letters:

#### C/N: 04/9018

# The Hongkong Electric Co. Ltd. Lamma Power Station Extension – E&M Works Weekly Site Inspection Checklist

Inspection of	late 10 Mar 2000 Time a 9 130 Inspected	· · -	ET: W			
Site	Line A. D. Chr.		Contrac	ctor:\	W.F.K	wok(TDK)
Site	LMX- Res Receiving Station					
Weather						
Condition	Sunny Fine Overcast Hazy		Driz	zle [	Ra	ain Storm
Temperatu	re 22 °C Humidity / High Moderat	te	Lov	v		
Wind	Calm Light Breeze Strong					
GENERAL						
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		/			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		1			
AIR QUALI	ТҮ					
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements			<del></del>		
Cap311R: 3	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?	/				
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?		1			
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	/				
	Construction Sites					
EM&A: A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		1			Songray By P.Y.
	Stockpiling of dusty materials					J .
Cap311R: Sch 18	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?					

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized fuel ash (PFA)				.,	
Cap311R: Sch 15(3)	Are the storage silos for cement or dry PFA prevented from overfilling?	/				·
Cap311R: Sch 15(4)	Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system?	/				
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?	/				
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	/				
	Loading, unloading or transfer of dusty materials			•		
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?	1				·
EM&A: A1	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?	1				
	Use of vehicles					
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	/				
Cap311R: Sch 21(1)	Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?		/			Cleanly Provided By P.T.
	Transfer of dusty materials using a belt conveyor system					
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?	/				
Cap311R: Sch 20(2)	Is every transfer point between any two-belt conveyors totally enclosed?	/				
Cap311R: Sch 20(3)	Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?	/				
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?	/				
·	Concrete batching plant					
EM&A: A2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?					
EM&A: A2	Are dusty materials, except cement and dry PFA, wetted by water spray system?	/				
EM&A:	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	/				
A2	above unloading point:	/				

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Miscellaneous					
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?	(				
Cap311O	Is open burning prohibited?		1			
Cap311	Is black smoke emission from plant/equipment avoided?		1			

#### WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials				*	
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	/				
WMP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	1				
EM&A: E3	Are wastes disposed of at licensed sites?	/				
	Construction Waste and Excavated Materials					
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	/				
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	/				
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?	1				
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?	1				
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	1				
EM&A: E3	Are wastes disposed of at licensed sites?					
	General refuse					
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		/			
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		/			
WMP	Is the refuse disposed of regularly and properly?		/			
WMP	Are burning of refuse at site and dumping at sea prohibited?					
	Chemical Waste					
EM&A: E3	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?		/			

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
WDO	Has the Contractor been registered as a chemical waste producer?		1			
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?		/			
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?		/			
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?		/			
	Storage, collection and transportation of waste					
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?		/			
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?					
	(1) public fill materials for on-site reuse, or disposal at public filling area;	(				
	(2) reusable / recyclable materials;					
	(3) un-reusable / non-recyclable waste for landfill disposal.					
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?		/			

## WATER QUALITY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off					
PN1/94	Are the silt removal facilities, channels and manholes maintained and the deposited silt and grit removed regularly?					
PN1/94	Are earthworks final surfaces well compacted and the subsequent permanent work or surface protection carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms? Is appropriate drainage like intercepting channels provided where necessary?	/				
PN1/94	Are measures taken to minimize the ingress of rainwater into trenches? Is rainwater pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?	/				
PN1/94	Are open stockpiles of construction materials (e,g, aggregates, sand and fill material) on site covered with tarpaulin or similar fabric during rainstorms? Are measures taken to prevent the washing away of construction materials, soil, silt or debris into the drainage system?					
PN1/94	Are manholes (including newly constructed ones) adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers?					
	Groundwater					
PN1/94	Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?	/				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Boring and Drilling Water					
PN1/94	Is water that used in ground boring and drilling for site investigation or rock/soil anchoring recirculated as far as possible after sedimentation? If there is a need for final disposal, is the wastewater discharged into storm drains via silt removal facilities?					
	Wheel Washing Water					
PN1/94	Is a wheel-washing bay provided at every exit if practicable and is the silt removed from wash-water before discharging into storm drains?	/				

#### MARINE ECOLOGY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: G1	Are all percussive piling works conducted on reclaimed land to avoid noise impact to marine mammals?	1				
EM&A: G2	Do the marine vessels moving to and from the construction site strictly follow the routes stated in the "Plan for Dredging & Reclamation, Routing of Construction Related Marine Vessels, and Installation of Silt Curtain"?	1				
EM&A: G3	Is rubble mound seawall constructed to the south and west edges of the reclamation to enhance recolonisation of marine organisms?	/				

#### NOISE

Checklist Condition	N/A	Yes	No	Unk	Remarks	
Are working programmes sched	uled to minimize noise nuisance?	-	/			
Are construction works or equip nuisance?	ment sited to minimize noise		1			
Are all plant and equipment mai conditions?	ntained in good operating		1			
Is idle equipment turned off or the	nrottled down?		1			
Are methods of working devised nuisance?		1				
Are construction works carried on nuisance?		1				
holidays, is either one of the foll a) Mitigation by portable nois						
		1				
Are valid construction noise per inspection?	mits, if required, available for	(				
	/					
Are valid noise emission labels fi held percussive breakers?	fixed at air compressors and hand		(			
Major noise source(s)	☐ Traffic ☐ Construction activities		Constr site Others		activi	ties inside the
	Are construction works or equip nuisance?  Are all plant and equipment mai conditions?  Is idle equipment turned off or the Are methods of working devised nuisance?  Are construction works carried on nuisance?  To mitigate construction noise of holidays, is either one of the foll a) Mitigation by portable noise b) Rescheduling of some powers sensitive time periods?  To mitigate night time construction noise perions with the conditions of construction noise perions pection?  Are conditions of construction noise perions perions of the works important part(s) of the works important part(s) of the works important perions per perions perions of construction noise perions perions perions of construction noise perions perions perions of construction noise perions perions perions perions of construction noise perions perio	Are working programmes scheduled to minimize noise nuisance?  Are construction works or equipment sited to minimize noise nuisance?  Are all plant and equipment maintained in good operating conditions?  Is idle equipment turned off or throttled down?  Are methods of working devised and arranged to minimize noise nuisance?  Are construction works carried out in a manner to minimize noise nuisance?  To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted?  a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods?  To mitigate night time construction noise, is dredging equipment equipped with silencers or mufflers?  Are valid construction noise permits, if required, available for inspection?  Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?  Are valid noise emission labels fixed at air compressors and hand held percussive breakers?	Are working programmes scheduled to minimize noise nuisance?  Are construction works or equipment sited to minimize noise nuisance?  Are all plant and equipment maintained in good operating conditions?  Is idle equipment turned off or throttled down?  Are methods of working devised and arranged to minimize noise nuisance?  Are construction works carried out in a manner to minimize noise nuisance?  To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted?  a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods?  To mitigate night time construction noise, is dredging equipment equipped with silencers or mufflers?  Are valid construction noise permits, if required, available for inspection?  Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?  Are valid noise emission labels fixed at air compressors and hand held percussive breakers?	Are working programmes scheduled to minimize noise nuisance?  Are construction works or equipment sited to minimize noise nuisance?  Are all plant and equipment maintained in good operating conditions?  Is idle equipment turned off or throttled down?  Are methods of working devised and arranged to minimize noise nuisance?  Are construction works carried out in a manner to minimize noise nuisance?  To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted?  a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods?  To mitigate night time construction noise, is dredging equipment equipped with silencers or mufflers?  Are valid construction noise permits, if required, available for inspection?  Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?  Are valid noise emission labels fixed at air compressors and hand held percussive breakers?	Are working programmes scheduled to minimize noise nuisance?  Are construction works or equipment sited to minimize noise nuisance?  Are all plant and equipment maintained in good operating conditions?  Is idle equipment turned off or throttled down?  Are methods of working devised and arranged to minimize noise nuisance?  Are construction works carried out in a manner to minimize noise nuisance?  To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted?  a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods?  To mitigate night time construction noise, is dredging equipment equipped with silencers or mufflers?  Are valid construction noise permits, if required, available for inspection?  Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?  Are valid noise emission labels fixed at air compressors and hand held percussive breakers?  Traffic  Construction site	Are working programmes scheduled to minimize noise nuisance?  Are construction works or equipment sited to minimize noise nuisance?  Are all plant and equipment maintained in good operating conditions?  Is idle equipment turned off or throttled down?  Are methods of working devised and arranged to minimize noise nuisance?  Are construction works carried out in a manner to minimize noise nuisance?  To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted?  a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods?  To mitigate night time construction noise, is dredging equipment equipped with silencers or mufflers?  Are valid construction noise permits, if required, available for inspection?  Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?  Are valid noise emission labels fixed at air compressors and hand held percussive breakers?    Construction activi site

#### Abbreviation

VEP:

Varied Environmental Permit

WMP:

Waste Management Plan

Cap311R: Cap311O: Cap311: PN1/94:

APC (Construction Dust) Regulation NCO: Noise Co APC (Open Burning) Regulation WDO: Waste Down Pollution Control Ordinance Practice Note for Professional Persons (Construction Site Drainage) Unknown

EM&A: EM&A Manual (Construction Phase) Noise Control Ordinance Waste Disposal Ordinance

Unk:

Remark

	···	

Signatures

ET Member

Contractor's Representative

(Name in Block letters:

(Name in Block letters:

#### The Hongkong Electric Co. Ltd. Lamma Power Station Extension - E&M Works Weekly Site Inspection Checklist

Inspection	date [15/3/2006] Time [0:30] Inspect	ed By	ET:		4	n Chin T Chin
Site	Lamma lover Kation Betinion - G. RS		Cont	racto	or: C	.7 Chin
Weather						
Condition	Sunny Fine Overcast Hazy		Driz	zle [	R	ain Stor
Temperatu	ure C Humidity High Moderat	te	Lov	v		·.
Wind	Calm Light Breeze Strong				4	
GENERAL						
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		ノ			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		1			
AIR QUAL	1		T.,,			<u> </u>
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements					
Cap311R: 3	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?					
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?		J			
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	1				-
	Construction Sites					
EM&A: A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?	-	1			Spray by
	Stockpiling of dusty materials					•
Cap311R: Sch 18	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?					

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Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized fuel ash (PFA)	•		•		
Cap311R: Sch 15(3)	Are the storage silos for cement or dry PFA prevented from overfilling?	/				
Cap311R: Sch 15(4)	Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system?	/				
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?	/				
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?					
	Loading, unloading or transfer of dusty materials					
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?					
EM&A: A1	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?	J				
	Use of vehicles			•		
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?					
Cap311R: Sch 21(1)	Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?					Clean by
	Transfer of dusty materials using a belt conveyor system		L	1	L	i
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?	1				
Cap311R: Sch 20(2)	Is every transfer point between any two-belt conveyors totally enclosed?					
Cap311R: Sch 20(3)	Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?	1				•,
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?	1				
	Concrete batching plant			•		
EM&A: A2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?	1				
EM&A: A2	Are dusty materials, except cement and dry PFA, wetted by water spray system?	1				
EM&A: A2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?					
EM&A: A2	Are all the conveyor transfer points totally enclosed?	1				

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Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Miscellaneous			I	L	
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?	/				
Cap3110	Is open burning prohibited?		/			
Сар311	Is black smoke emission from plant/equipment avoided?					

#### WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials	1		L	1	I
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	1				
WMP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	1	,			
EM&A: E3	Are wastes disposed of at licensed sites?	1				
	Construction Waste and Excavated Materials					
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	/				
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?		1			
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?					
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?					
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	1	/			
EM&A: E3	Are wastes disposed of at licensed sites?					
	General refuse					
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		/			
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		/			
WMP	Is the refuse disposed of regularly and properly?		ノ			
WMP	Are burning of refuse at site and dumping at sea prohibited?		1			
	Chemical Waste					
EM&A: E3	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?					

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Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
WDO	Has the Contractor been registered as a chemical waste producer?		1/			
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?		/			
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?		1			34
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?		/			
	Storage, collection and transportation of waste					,
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?					
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?					
	(1) public fill materials for on-site reuse, or disposal at public filling area;					
	(2) reusable / recyclable materials;	/				
	(3) un-reusable / non-recyclable waste for landfill disposal.					
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?		/			

#### WATER QUALITY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off	-1				
PN1/94	Are the silt removal facilities, channels and manholes maintained and the deposited silt and grit removed regularly?					
PN1/94	Are earthworks final surfaces well compacted and the subsequent permanent work or surface protection carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms? Is appropriate drainage like intercepting channels provided where necessary?					
PN1/94	Are measures taken to minimize the ingress of rainwater into trenches? Is rainwater pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?	/				
PN1/94	Are open stockpiles of construction materials (e,g, aggregates, sand and fill material) on site covered with tarpaulin or similar fabric during rainstorms? Are measures taken to prevent the washing away of construction materials, soil, silt or debris into the drainage system?		/			
PN1/94	Are manholes (including newly constructed ones) adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers?		,			
	Groundwater			/		
PN1/94	Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?		/			

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Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Boring and Drilling Water	1	<b></b>		<b>†</b>	
PN1/94	Is water that used in ground boring and drilling for site investigation or rock/soil anchoring recirculated as far as possible after sedimentation? If there is a need for final disposal, is the wastewater discharged into storm drains via silt removal facilities?	/				
	Weel Washing Water					
PN1/94	Is a wheel-washing bay provided at every exit if practicable and is the silt removed from wash-water before discharging into storm drains?					

#### MARINE ECOLOGY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: G1	Are all percussive piling works conducted on reclaimed land to avoid noise impact to marine mammals?	1				• ,
EM&A: G2	Do the marine vessels moving to and from the construction site strictly follow the routes stated in the "Plan for Dredging & Reclamation, Routing of Construction Related Marine Vessels, and Installation of Silt Curtain"?	1				
EM&A: G3	Is rubble mound seawall constructed to the south and west edges of the reclamation to enhance recolonisation of marine organisms?		/			

#### NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: C1	Are working programmes sched	uled to minimize noise nuisance?					
EM&A: C1	Arc construction works or equip nuisance?	ment sited to minimize noise		1			
EM&A: C1	Are all plant and equipment mai conditions?	ntained in good operating		0	<del></del>		
EM&A: C1/GP	Is idle equipment turned off or the	nrottled down?		1			2.000.000.000.000.000
EM&A: C1	Are methods of working devised nuisance?	and arranged to minimize noise		/			
EM&A: C1)	Are construction works carried on nuisance?		/				
EM&A: C2	To mitigate construction noise di holidays, is either one of the folla) Mitigation by portable noise b) Rescheduling of some power sensitive time periods?		/				
EM&A: C3	To mitigate night time constructi equipped with silencers or muffl	on noise, is dredging equipment ers?	1				-
NCO	Are valid construction noise perr inspection?	nits, if required, available for	1				
NCO	Are conditions of construction no relevant part(s) of the works imp						
NCO	Are valid noise emission labels f held percussive breakers?	ixed at air compressors and hand					:
		☐ Traffic	Ø (	Constr	uction	activi	ties inside the
	Major noise source(s)	Construction activities outside the site	Others				

Abbreviation					
VEP: WMP: Cap311R: Cap311O: Cap311: PN1/94: Unk:	Varied Environmen Waste Management APC (Construction APC (Open Burning Air Pollution Contra Practice Note for Pr Unknown	Plan Dust) Regulation g) Regulation	NCO: WDO:	EM&A Manual (Cons Noise Control Ordinan Waste Disposal Ordina rainagc)	ice
Remark					
			1.00.001		
					:
		·			
		·			
					<u>.</u> :
Signatures					
ET Member		Contractor's Represe	entative		
•		1		IEC's Representat This site inspectio in the presence of	n was carried out IEC's representative
Yull-				To	M
(Name in Block I YM Chin		(Name in Block letter Chin chin Ty		Name in Block Let	(m M.)

# C/M: 04/9016 The Hongkong Electric Co. Ltd. Lamma Power Station Extension – E&M Works Weekly Site Inspection Checklist

Inspection	date 24 Mar ob Time 09:30 Inspect	ed By	ET:	W.	2	Yuen
Site	LMX - Bas Revenuting Area		Com	iacto	1. W. K	E KLOCK (TDK)
Weather				rodern Produc	P-browningdale	
Condition		$\overline{\Box}$	Driz	zle [	Re	ain Storm
Temperat	ure C Humidity High Moderat	e _	Lov	v		
Wind	Calm Light Breeze Strong					
GENERAL				-Cristing pages		
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		~			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		~		7	
						,
AIR QUAL	JTY					
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements					-
Cap311R: 3	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?	✓ ·				
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?		~			
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	/				
	Construction Sites					
EM&A: A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		~			Spraying By P.Y.
	Stockpiling of dusty materials					J
Cap311R: Sch 18	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?	/				

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		,				
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized fuel ash (PFA)					
Cap311R: Sch 15(3)	Are the storage silos for cement or dry PFA prevented from overfilling?					
Cap311R: Sch 15(4)	Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system?	(				
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?	1				
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	/				
	Loading, unloading or transfer of dusty materials	<u> </u>			L	L
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?	1				
EM&A: A1	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?	/				
	Use of vehicles					
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	1				
Cap311R: Sch 21(1)	Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?		/			Clemy Provided
	Transfer of dusty materials using a belt conveyor system					7
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?	1				
Cap311R: Sch 20(2)	Is every transfer point between any two-belt conveyors totally enclosed?	1				
Cap311R: Sch 20(3)	Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?	/				
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?	/				
	Concrete batching plant					
EM&A: A2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?	1				
EM&A: A2	Are dusty materials, except cement and dry PFA, wetted by water spray system?	/				
EM&A: A2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	1				
EM&A: A2	Are all the conveyor transfer points totally enclosed?	/				

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Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Miscellaneous					
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?	/				
Cap3110	Is open burning prohibited?		1			
Cap311	Is black smoke emission from plant/equipment avoided?		/			

#### WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials	•		1		L
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?					-
WMP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	1				-
EM&A: E3	Are wastes disposed of at licensed sites?	1				
	Construction Waste and Excavated Materials					
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	(				
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	/				
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?	/				71.0
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?	1.				
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	1				
EM&A: E3	Are wastes disposed of at licensed sites?	1				
	General refuse					
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		1			
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		/			
WMP	Is the refuse disposed of regularly and properly?		1			
WMP	Are burning of refuse at site and dumping at sea prohibited?					
	Chemical Waste					
EM&A: E3	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?		/			

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Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
WDO	Has the Contractor been registered as a chemical waste producer?		1			
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?		1			
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?		1			
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?		/			
	Storage, collection and transportation of waste				L.,	\ <u></u>
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?		/			
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?					
-	(1) public fill materials for on-site reuse, or disposal at public filling area;	-				
	(2) reusable / recyclable materials;	/				
	(3) un-reusable / non-recyclable waste for landfill disposal.		(			
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?		1			

#### WATER QUALITY

)

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off					
PN1/94	Are the silt removal facilities, channels and manholes maintained and the deposited silt and grit removed regularly?	(				
PN1/94	Are earthworks final surfaces well compacted and the subsequent permanent work or surface protection carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms? Is appropriate drainage like intercepting channels provided where necessary?	/				
PN1/94	Are measures taken to minimize the ingress of rainwater into trenches? Is rainwater pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?	/				
PN1/94	Are open stockpiles of construction materials (e,g, aggregates, sand and fill material) on site covered with tarpaulin or similar fabric during rainstorms? Are measures taken to prevent the washing away of construction materials, soil, silt or debris into the drainage system?	/				
PN1/94	Are manholes (including newly constructed ones) adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers?	/				
	Groundwater	1		-	-	
PN1/94	Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?					

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Ref	Checklist Condition	.N/A	Yes	No	Unk	Remarks
	Boring and Drilling Water					
PN1/94	Is water that used in ground boring and drilling for site investigation or rock/soil anchoring recirculated as far as possible after sedimentation? If there is a need for final disposal, is the wastewater discharged into storm drains via silt removal facilities?					
	Wheel Washing Water					
PN1/94	Is a wheel-washing bay provided at every exit if practicable and is the silt removed from wash-water before discharging into storm drains?	/				

#### MARINE ECOLOGY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: G1	Are all percussive piling works conducted on reclaimed land to avoid noise impact to marine mammals?	-				
EM&A: G2	Do the marine vessels moving to and from the construction site strictly follow the routes stated in the "Plan for Dredging & Reclamation, Routing of Construction Related Marine Vessels, and Installation of Silt Curtain"?	/				
EM&A: G3	Is rubble mound seawall constructed to the south and west edges of the reclamation to enhance recolonisation of marine organisms?	/				

#### NOISE ·

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: C1	Are working programmes schedu	led to minimize noise nuisance?		1			
EM&A: C1	Are construction works or equiprinuisance?	nent sited to minimize noise		1			
EM&A: C1	Are all plant and equipment main conditions?	tained in good operating		/			
EM&A: C1/GP	Is idle equipment turned off or th	rottled down?		1			
EM&A: C1	Are methods of working devised nuisance?						
EM&A: C1)	Are construction works carried or nuisance?		1				
EM&A: C2	To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted?  a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods?			1			
EM&A: C3	To mitigate night time construction equipped with silencers or muffle		1				
NCO	Are valid construction noise perminspection?	nits, if required, available for	1				·
NCO	Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?						
NCO	Are valid noise emission labels fi held percussive breakers?	ixed at air compressors and hand		1			
		☐ Traffic	1	Constr site	uction	activi	ties inside the
	- Major noise source(s)	☐ Construction activities outside the site		Others			

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### Abbreviation

VEP:

WMP: Cap311R: Cap3110: Cap311: PN1/94:

Varied Environmental Permit Waste Management Plan APC (Construction Dust) Regulation

APC (Open Burning) Regulation

Air Pollution Control Ordinance

Practice Note for Professional Persons (Construction Site Drainage)

EM&A: EM&A Manual (Construction Phase)
NCO: Noise Control Ordinance

Waste Disposal Ordinance

WDO:

Unk:

Unknown

Remark

Signatures

ET Member

Contractor's Representative

(Name in Block letters:

Filmok)

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# C/N: 64/901 P The Hongkong Electric Co. Ltd. Lamma Power Station Extension – E&M Works Weekly Site Inspection Checklist

Inspection	date 31 Mar cb Time 69130 Inspect	ed By	_	:	1. <b>S.</b>	YUEN
Site	LMX- Gas Receiving Status		Com	acto	·W-	+ 1h h (7m)
Weather						
Condition	Sunny Fine Overcast Hazy	i	Driz	zle [	Ra	in Storm
Temperati	re 22 °C Humidity ✓ High Moderat	ie	Lov	v		
Wind	Calm Light Breeze Strong					
GENERAL						
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		/			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		<b>/</b>			
				•	-	
AIR QUAL	ITY					

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks			
	General Requirements								
Cap311R: 3	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?	\ \( \sigma \)							
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?		V						
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	✓							
	Construction Sites								
EM&A:	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		V			Spray-y By P.T.			
	Stockpiling of dusty materials					J			
Cap311R: Sch 18	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?	V							

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
······································	Cement and dry pulverized fuel ash (PFA)		•			
Cap311R: Sch 15(3)	Are the storage silos for cement or dry PFA prevented from overfilling?	/				
Cap311R: Sch 15(4)	Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system?	/				
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?	/				
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	1				
	Loading, unloading or transfer of dusty materials					I
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?	1				
EM&A: A1	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?	/			-	
	Use of vehicles	•	•		·	•
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	(				
Cap311R: Sch 21(1)	Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?		1			Clemy Printed Ry PY
	Transfer of dusty materials using a belt conveyor system					-3
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?	/				
Cap311R: Sch 20(2)	Is every transfer point between any two-belt conveyors totally enclosed?	/				
Cap311R: Sch 20(3)	Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?	/				
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?	/				
, ,	Concrete batching plant	·	····	<del></del>	•	•
EM&A: A2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?	1				
EM&A: A2	Are dusty materials, except cement and dry PFA, wetted by water spray system?	1				
EM&A: A2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	/				
EM&A:	Are all the conveyor transfer points totally enclosed?			<del> </del>	<del> </del>	

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Miscellaneous					
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?	/				
Cap3110	Is open burning prohibited?		1			
Cap311	Is black smoke emission from plant/equipment avoided?		/			

#### WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials					
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	/				
WMP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	1				
EM&A: E3	Are wastes disposed of at licensed sites?	/				
	Construction Waste and Excavated Materials					
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	/				
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	/				
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?	(				
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?	/				
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	/				
EM&A: E3	Are wastes disposed of at licensed sites?	/				
	General refuse					
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		(			
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		/			
WMP	Is the refuse disposed of regularly and properly?		/			
WMP	Are burning of refuse at site and dumping at sea prohibited?		/			
	Chemical Waste					
EM&A: E3	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?					

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
WDO	Has the Contractor been registered as a chemical waste producer?		1			
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?		/			
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?		1			
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?		/			
	Storage, collection and transportation of waste	•	•			
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?		1			
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?					
	(1) public fill materials for on-site reuse, or disposal at public filling area;	(				
	(2) reusable / recyclable materials;	(				
	(3) un-reusable / non-recyclable waste for landfill disposal.		1			
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?		/			

## WATER QUALITY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off			1		
PN1/94	Are the silt removal facilities, channels and manholes maintained and the deposited silt and grit removed regularly?	1				
PN1/94	Are earthworks final surfaces well compacted and the subsequent permanent work or surface protection carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms? Is appropriate drainage like intercepting channels provided where necessary?	/				
PN1/94	Are measures taken to minimize the ingress of rainwater into trenches? Is rainwater pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?	1				
PN1/94	Are open stockpiles of construction materials (e,g, aggregates, sand and fill material) on site covered with tarpaulin or similar fabric during rainstorms? Are measures taken to prevent the washing away of construction materials, soil, silt or debris into the drainage system?	1				
PN1/94	Are manholes (including newly constructed ones) adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers?	/				
	Groundwater	<u> </u>		ļ		
PN1/94	Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?	/				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Boring and Drilling Water	1				******
PN1/94	Is water that used in ground boring and drilling for site investigation or rock/soil anchoring recirculated as far as possible after sedimentation? If there is a need for final disposal, is the wastewater discharged into storm drains via silt removal facilities?	/				
	Wheel Washing Water					
PN1/94	Is a wheel-washing bay provided at every exit if practicable and is the silt removed from wash-water before discharging into storm drains?	/				

#### MARINE ECOLOGY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: G1	Are all percussive piling works conducted on reclaimed land to avoid noise impact to marine mammals?	1				
EM&A: G2	Do the marine vessels moving to and from the construction site strictly follow the routes stated in the "Plan for Dredging & Reclamation, Routing of Construction Related Marine Vessels, and Installation of Silt Curtain"?	/				
EM&A: G3	Is rubble mound seawall constructed to the south and west edges of the reclamation to enhance recolonisation of marine organisms?	1				

#### NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: C1	Are working programmes sched	uled to minimize noise nuisance?		1			
EM&A: C1	Are construction works or equip nuisance?	ment sited to minimize noise		1			
EM&A: C1	Are all plant and equipment mai conditions?	ntained in good operating		1			
EM&A: C1/GP	Is idle equipment turned off or the	nrottled down?					
EM&A: C1	Are methods of working devised nuisance?	and arranged to minimize noise		/			
EM&A: C1)	Are construction works carried on nuisance?		/				
EM&A: C2	To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted?  a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods?			(			
EM&A: C3	To mitigate night time construct equipped with silencers or muffl		1				
NCO	Are valid construction noise per inspection?	mits, if required, available for	/				
NCO	Are conditions of construction n relevant part(s) of the works imp		/				
NCO	Are valid noise emission labels fixed at air compressors and hand held percussive breakers?			/			
	Major noise source(s)	☐ Traffic ☐ Construction activities		Constr site Others		activi	ties inside the

#### Abbreviation

VEP:

Varied Environmental Permit

WMP: Cap311R: Cap311O: Cap311: PN1/94:

Waste Management Plan
APC (Construction Dust) Regulation
APC (Open Burning) Regulation

EM&A: EM&A Manual (Construction Phase) NCO: Noise Control Ordinance WDO: Waste Disposal Ordinance

Air Pollution Control Ordinance

Practice Note for Professional Persons (Construction Site Drainage)

Unk:

Unknown

Remark	 	 
Signatures		 

ET Member

Contractor's Representative

(Name in Block letters: YUEN WAI - SANC,

(Name in Block letters:

# The Hongkong Electric Co. Ltd. Lamma Power Station Extension – Construction of Transmission System Weekly Site Inspection Checklist

Inspection of	late 01/03/06 Time 09:30 Inspect	ed by	ET: I		Dai r: Kier	,	
Site	Transmission Route (Civil Work)						<u>_</u>
Weather							
Condition	Sunny Fine Overcast Hazy		Driz	zle [	Ra	ain Ste	rn
Temperatu	re 22 °C Humidity / High Moderat	e _	Lov	v			
Wind	Calm Light Breeze Strong						
GENERAL							
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks	
VEP 1.5	Has a copy of the most updated Environmental Permit been displayed at all vehicular site entrances/exits for public information?		✓				
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		1				
AIR QUALI	TY Checklist Condition	N/A	Yes	No	Unk	Remarks	٦
	General Requirements						_
Cap311R:	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change?	<b>V</b>					
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person.  Has this been observed?	<b>V</b>					
	Stockpiling of dusty materials						_
Cap311R: Sch 18 EM&A:J1	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?		<b>&gt;</b>				
	Use of vehicles						
Cap311R: Sch 21(2)	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	✓					
	Miscellaneous			, ,			
Cap311R:	Are completed earthworks sealed and hydroseeded and planted as			1			- 1

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks	
Cap3110	Is open burning prohibited?		·				
Cap311	Is black smoke emission from plant/equipment avoided?		<b>✓</b>				

#### WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks				
	Dredged Materials									
Cap466	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	<b>√</b>								
Cap466	Are wastes disposed of at licensed sites?	<b>✓</b>								
<u></u>	Construction Waste and Excavated Materials									
Cap354	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	<b>✓</b>								
Cap354	Are wastes disposed of at licensed sited?	<b>✓</b>			=					
	Chemical Waste									
Cap354C	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?	1								
Cap354C	Has the Contractor registered as a chemical waste producer?		<b>✓</b>							
Cap354C	Is chemical waste handled according to the "Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?	<b>~</b>			-					

#### MARINE ECOLOGY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: M1	Are rubble mound seawalls constructed for the landing and launching points at Lamma Island?	~				

#### NOISE

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks	
EM&A:	Are quiet PMEs or standard PMEs with modest source noise controls used at the cable route from N4 to N5?	<b>~</b>					
EM&A: L2 ~ L5	Are quiet PMEs (particularly the barge-mounted crane) or PMEs with comparably effective source noise controls used at landing point N5?	1					
NCO	Are valid construction noise permits, if required, available for inspection?	~					
NCO	Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?	~					
NCO	Are valid noise emission labels fixed at air compressors and hand held percussive breakers?	1				•	

#### TERRESTRIAL ECOLOGY

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks		
EM&A: O1	Are the construction activities at la monitored to avoid impact on the a species Celtis biondii, Pteris disparestricted plants Vitis balansaeana and Rhapis excellsa?	uncommon and rare plant or and Ardicia pusilla, and the		<b>~</b>					
EM&A: O2	Are fences erected in accordance with the Hoarding Plan and kept in good condition along the boundary of construction sites to prevent tipping, vehicle movements, and encroachment of personnel into adjacent wooded areas, particularly where the rare, uncommon and restricted plant species are located?			<b>~</b>					
EM&A: Q3	Has regular checking been performed to ensure that the work site boundaries are not exceeded and that no damage occurs to surrounding areas?			<b>√</b>					
EM&A: Q4	Is open fire prohibited and prevented within the work site boundary during construction? Is temporary fire fighting equipment provided in the work area during construction?			<b>√</b>					
		Traffic	<b>✓</b>	Construction activities insid					
	Major noise source(s)	Construction activities outside the site		Others:					

#### Abbreviation

VEP: Cap311R: Cap311O:

Varied Environmental Permit APC (Construction Dust) Regulation

Cap311: Cap466:

APC (Open Burning) Regulation Air Pollution Control Ordinance Dumping at Sea Ordinance

EM&A: EM&A Manual (Construction Phase)

NCO: Noise Control Ordinance

Cap354: Waste Disposal Ordinance Cap354c: WDO (Chemical Waste) (General) Regulation

Unknown

Remark

Signatures

Contractor's Representative

(Name in Block letters: Eric, K Y Dai

Assistant Resident Engineer

stame in Block letters:

20th December 2001

# The Hongkong Electric Co. Ltd. Lamma Power Station Extension – Construction of Transmission System Weekly Site Inspection Checklist

Inspection date 08/03/06 Time 09:30 Inspec			ed by ET: Eric Dai Contractor: Kier				
Site		Cont	racto	r: Kier			
J. Co	Transmission Route (Civil Work)						
Weather							
Condition	Sunny Fine Overcast Hazy		Driz	zle [	Ra	nin Sto	
Temperati	are 20 °C Humidity High  Modera	te	Lov	v			
Wind	Calm Light Breeze Strong						
GENERAL					•		
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks	
VEP 1.5	Has a copy of the most updated Environmental Permit been displayed at all vehicular site entrances/exits for public information?		1				
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		1				
AIR QUAL	Checklist Condition	N/A	Yes	No	Unk	Remarks	
	General Requirements						
Cap311R:	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change?	1					
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person.  Has this been observed?	<b>~</b>					
	Stockpiling of dusty materials					·	
Cap311R: Sch 18 EM&A:J1	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to		~				
	maintain the entire surface wet to prevent dust emission?			l			
	Use of vehicles	<u> </u>		J			
Cap311R: Sch 21(2)		<b>✓</b>					
	Use of vehicles  Is every load of dusty material on the vehicles leaving the	<b>*</b>					

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
Cap311O	Is open burning prohibited?		<b>√</b>			
Cap311	Is black smoke emission from plant/equipment avoided?		<b>\</b>			

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks			
	Dredged Materials	· <u> </u>							
Cap466	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	<b>~</b>							
Cap466	Are wastes disposed of at licensed sites?	1							
	Construction Waste and Excavated Materials								
Cap354	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	~							
Cap354	Are wastes disposed of at licensed sited?	1							
	Chemical Waste								
Cap354C	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?	<b>~</b>							
Cap354C	Has the Contractor registered as a chemical waste producer?		1						
Cap354C	Is chemical waste handled according to the "Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?	~							

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: M1	Are rubble mound seawalls constructed for the landing and launching points at Lamma Island?	<b>*</b>				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: L1	Are quiet PMEs or standard PMEs with modest source noise controls used at the cable route from N4 to N5?	<b>~</b>				
EM&A: L2 ~ L5	Are quiet PMEs (particularly the barge-mounted crane) or PMEs with comparably effective source noise controls used at landing point N5?	<b>~</b>				
NCO	Are valid construction noise permits, if required, available for inspection?	<b>/</b>				
NCO	Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?	<b>~</b>				
NCO	Are valid noise emission labels fixed at air compressors and hand held percussive breakers?	<b>/</b>				

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks		
EM&A: O1	monitored to avoid impact on the uspecies Celtis biondii, Pteris dispa	Are the construction activities at landing points N4 & N5 closely monitored to avoid impact on the uncommon and rare plant species Celtis biondii, Pteris dispar and Ardicia pusilla, and the estricted plants Vitis balansaeana, Pterospermum heterophyllum and Rhapis excellsa?							
EM&A: O2	Are fences erected in accordance with the Hoarding Plan and kept in good condition along the boundary of construction sites to prevent tipping, vehicle movements, and encroachment of personnel into adjacent wooded areas, particularly where the rare, uncommon and restricted plant species are located?			<b>*</b>					
EM&A: Q3	Has regular checking been performed to ensure that the work site boundaries are not exceeded and that no damage occurs to surrounding areas?			<b>√</b>					
EM&A: Q4	Is open fire prohibited and prevented within the work site boundary during construction? Is temporary fire fighting equipment provided in the work area during construction?			<b>v</b>					
		Traffic	<b>✓</b>	1	Construction activities inside				
	- Major noise source(s)	Construction activities outside the site		Oth	ers:				

### Abbreviation

VEP: Cap311R: Varied Environmental Permit APC (Construction Dust) Regulation

Cap3110:

APC (Open Burning) Regulation Air Pollution Control Ordinance

Cap311: Cap466:

Dumping at Sea Ordinance

EM&A: EM&A Manual (Construction Phase)

Noise Control Ordinance NCO:

Cap354: Waste Disposal Ordinance

Cap354c: WDO (Chemical Waste) (General) Regulation

Unknown

Remark	
<u></u>	

Signatures

ET Member

(Name in Block letters: Eric, K Y Dai

Assistant Resident Engineer

Contractor's Representative

Name in Block letters:

Inspection of	date 15/03/06 Time 09:30 Inspect	ed by					
<b></b>	T (C) TW (		Cont	racto	r: Kiei	•	
Site	Transmission Route (Civil Work)						
Weather							
Condition	Sunny Fine Overcast Hazy		Driz	zle [	Ra	ain Storr	
Temperatu	re 20 °C Humidity High  Moderat	ie _	Lov	v			
Wind	Calm Light Breeze Strong						
GENERAL					- "		
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks	
VEP 1.5	Has a copy of the most updated Environmental Permit been displayed at all vehicular site entrances/exits for public information?		1				
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		1				
AIR QUALI	Checklist Condition	N/A	Yes	No	Unk	Remarks	
	General Requirements						
Cap311R:	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change?	<b>✓</b>					
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person.  Has this been observed?	~					
	Stockpiling of dusty materials						
Cap311R: Sch 18 EM&A:J1	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?		✓				
	Use of vehicles						
Cap311R: Sch 21(2)	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	<b>~</b>					
	Miscellaneous						
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?	~					

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks	
Cap3110	Is open burning prohibited?		✓				
Cap311	Is black smoke emission from plant/equipment avoided?		✓			1	

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks			
	Dredged Materials	•							
Cap466	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	<b>✓</b>							
Cap466	Are wastes disposed of at licensed sites?	1							
	Construction Waste and Excavated Materials								
Cap354	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	~							
Cap354	Are wastes disposed of at licensed sited?	1							
	Chemical Waste								
Cap354C	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?	<b>*</b>							
Cap354C	Has the Contractor registered as a chemical waste producer?		1						
Cap354C	Is chemical waste handled according to the "Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?	<b>~</b>							

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: M1	Are rubble mound seawalls constructed for the landing and launching points at Lamma Island?	<b>/</b>				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks	
EM&A: L1	Are quiet PMEs or standard PMEs with modest source noise controls used at the cable route from N4 to N5?	<b>~</b>					
EM&A: L2 ~ L5	Are quiet PMEs (particularly the barge-mounted crane) or PMEs with comparably effective source noise controls used at landing point N5?	1					
NCO	Are valid construction noise permits, if required, available for inspection?	<b>V</b>					1
NCO	Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?	<b>*</b>					
NCO	Are valid noise emission labels fixed at air compressors and hand held percussive breakers?	<b>*</b>					

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: O1	Are the construction activities at la monitored to avoid impact on the species Celtis biondii, Pteris disparestricted plants Vitis balansaeana and Rhapis excellsa?		<b>~</b>				
EM&A: O2	Are fences erected in accordance vin good condition along the bound prevent tipping, vehicle movement personnel into adjacent wooded ar uncommon and restricted plant spe		<b>*</b>				
EM&A: Q3	Has regular checking been performed to ensure that the work site boundaries are not exceeded and that no damage occurs to surrounding areas?			<b>*</b>			
EM&A: Q4	A: Is open fire prohibited and prevented within the work site boundary during construction? Is temporary fire fighting equipment provided in the work area during construction?			<b>&gt;</b>			
		Traffic	·	Con:		ion act	ivities inside
	Major noise source(s)	Construction activities outside the site		Othe	ers:		

#### Abbreviation

VEP:

Varied Environmental Permit APC (Construction Dust) Regulation

EM&A: EM&A Manual (Construction Phase)

Cap311R: Cap3110:

APC (Open Burning) Regulation

Noise Control Ordinance Cap354: Waste Disposal Ordinance

Cap311:

Air Pollution Control Ordinance

Cap354c: WDO (Chemical Waste) (General) Regulation

Cap466:

Dumping at Sea Ordinance

Unk:

Unknown

Remark

Signatures

Contractor's Representative

(Name in Block letters:

Eric, K Y Dai

Assistant Resident Engineer

(Name in Block letters:

Inspection	spection date 22/03/06 Time 09:30 Inspected by ET: Eric Dai Contractor: Kier						
Site	Transmission Route (Civil Work)		Cont	racto	r: Kier	. !	_
Weather						· · · · · · · · · · · · · · · · · · ·	_
Condition	Sunny Fine Overcast Hazy		Driz	zle [	Ra	nin Sto	п
Temperatu	re 21 °C Humidity High ✓ Moderat	te _	Lov	٧			
Wind	Calm Light Breeze Strong					: I	
GENERAL							
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks	
VEP 1.5	Has a copy of the most updated Environmental Permit been displayed at all vehicular site entrances/exits for public information?		<b>√</b>			:	
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		<b>*</b>				_
AIR QUALI	TY					:	_
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks	
	General Requirements						
Cap311R:	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change?	<b>✓</b>					
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Has this been observed?	<b>~</b>					
	Stockpiling of dusty materials				- "		
Cap311R: Sch 18 EM&A:J1	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?		<b>√</b>			!	
	Use of vehicles						
Cap311R: Sch 21(2)	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	<b>&gt;</b>					
	Miscellaneous					i	
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?	<b>✓</b>					_

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
Cap3110	Is open burning prohibited?		✓			
Cap311	Is black smoke emission from plant/equipment avoided?		<b>*</b>			

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks			
	Dredged Materials			<del></del> -					
Cap466	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	1							
Cap466	Are wastes disposed of at licensed sites?	1							
	Construction Waste and Excavated Materials								
Cap354	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	~							
Cap354	Are wastes disposed of at licensed sited?	<b>✓</b>							
	Chemical Waste								
Cap354C	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?	1							
Cap354C	Has the Contractor registered as a chemical waste producer?		<b>√</b>			<u> </u>			
Cap354C	Is chemical waste handled according to the "Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?	1				:			

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: M1	Are rubble mound seawalls constructed for the landing and launching points at Lamma Island?	<				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks	İ
EM&A: Li	Are quiet PMEs or standard PMEs with modest source noise controls used at the cable route from N4 to N5?	<b>~</b>					
EM&A: L2 ~ L5	Are quiet PMEs (particularly the barge-mounted crane) or PMEs with comparably effective source noise controls used at landing point N5?	<b>✓</b>					
NCO	Are valid construction noise permits, if required, available for inspection?	1					1
NCO	Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?	<b>~</b>					
NCO	Are valid noise emission labels fixed at air compressors and hand held percussive breakers?	~					-

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks		
EM&A: O1	Are the construction activities at la monitored to avoid impact on the species Celtis biondii, Pteris disparestricted plants Vitis balansaeana and Rhapis excellsa?	uncommon and rare plant or and Ardicia pusilla, and the		<b>√</b>					
EM&A: O2	Are fences erected in accordance with the Hoarding Plan and kept in good condition along the boundary of construction sites to prevent tipping, vehicle movements, and encroachment of personnel into adjacent wooded areas, particularly where the rare, uncommon and restricted plant species are located?								
EM&A: Q3	Has regular checking been performed to ensure that the work site boundaries are not exceeded and that no damage occurs to surrounding areas?		boundaries are not exceeded and that no damage occurs to	daries are not exceeded and that no damage occurs to		<b>~</b>			
EM&A: Q4	Is open fire prohibited and prevented within the work site boundary during construction? Is temporary fire fighting equipment provided in the work area during construction?			<b>~</b>					
		Traffic	· ·			ion act	ivities inside		
	Major noise source(s)	Construction activities outside the site	the site  Others:						

#### Abbreviation

VEP:

Varied Environmental Permit APC (Construction Dust) Regulation

Cap311R: Cap311O: Cap311:

APC (Open Burning) Regulation

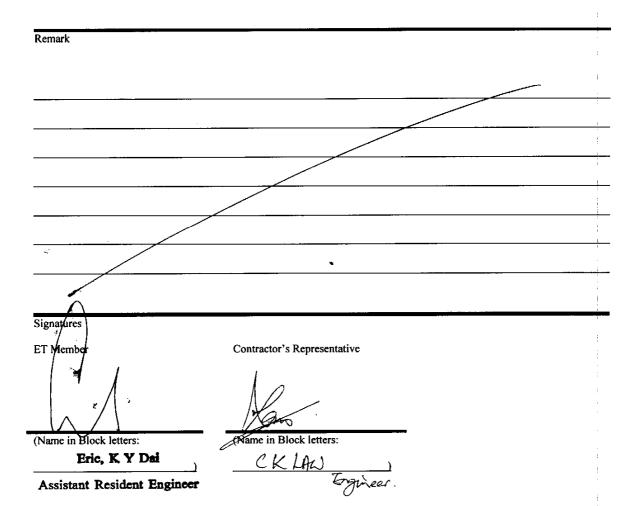
Cap466:

Air Pollution Control Ordinance Dumping at Sea Ordinance EM&A: EM&A Manual (Construction Phase)

NCO: Noise Control Ordinance

Cap354: Waste Disposal Ordinance Cap354c: WDO (Chemical Waste) (General) Regulation

Unk: Unknown



Inspection date 29/03/06 Time 09:30 Inspected by ET: Eric Dail Contractor:							
Site	Transmission Route (Civil Work)		Cont	racto	r: Kiei		
Site.	Transmission route (CTVIII VOIL)						
Weather							
Condition	Sunny Fine Overcast Hazy		Driz	zle [	Ra	ain Stori	
Temperatu	re 21 °C Humidity High Moderat	te	Lov	v			
Wind	Calm Light Breeze Strong						
GENERAL							
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks	
VEP 1.5	Has a copy of the most updated Environmental Permit been displayed at all vehicular site entrances/exits for public information?		1				
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		<b>1</b>				
AIR QUALI	Checklist Condition	N/A	Yes	No	Unk	Remarks	
- Kei.	General Requirements				L		
Cap311R:	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change?	<b>*</b>					
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person.  Has this been observed?	<b>✓</b>					
	Stockpiling of dusty materials					· ·	
Cap311R: Sch 18 EM&A:J1	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?		<b>✓</b>			i I	
	Use of vehicles						
Cap311R: Sch 21(2)	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	~				!	
	Miscellaneous						
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?	1		[			

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
Cap3110	Is open burning prohibited?		✓			
Cap311	Is black smoke emission from plant/equipment avoided?		<b>√</b>			

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks		
	Dredged Materials	•						
Cap466	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	1						
Cap466	Are wastes disposed of at licensed sites?	1						
	Construction Waste and Excavated Materials							
Cap354	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	~						
Cap354	Are wastes disposed of at licensed sited?	1						
	Chemical Waste							
Cap354C	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?	1						
Cap354C	Has the Contractor registered as a chemical waste producer?		1					
Cap354C	Is chemical waste handled according to the "Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?	1						

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: M1	Are rubble mound seawalls constructed for the landing and launching points at Lamma Island?	1				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: L1	Are quiet PMEs or standard PMEs with modest source noise controls used at the cable route from N4 to N5?	1				
EM&A: L2 ~ L5	Are quiet PMEs (particularly the barge-mounted crane) or PMEs with comparably effective source noise controls used at landing point N5?	<b>*</b>				
NCO	Are valid construction noise permits, if required, available for inspection?	1				
NCO	Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?	1				
NCO	Are valid noise emission labels fixed at air compressors and hand held percussive breakers?	1				

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: O1	Are the construction activities at la monitored to avoid impact on the uspecies Celtis biondii, Pteris disparestricted plants Vitis balansaeana and Rhapis excellsa?	ncommon and rare plant rand Ardicia pusilla, and the		<b>√</b>		:	
EM&A: O2	in good condition along the bound prevent tipping, vehicle movement personnel into adjacent wooded are	erected in accordance with the Hoarding Plan and kept addition along the boundary of construction sites to ping, vehicle movements, and encroachment of nto adjacent wooded areas, particularly where the rare, and restricted plant species are located?					
EM&A: Q3	Has regular checking been perform boundaries are not exceeded and the surrounding areas?			<b>*</b>			•
EM&A: Q4	Is open fire prohibited and prevent boundary during construction? Is t equipment provided in the work ar	emporary fire fighting		~			
41.00	Traffic		<b>~</b>	Con		ion act	ivities inside
	Major noise source(s)	Major noise source(s)  Construction activities outside the site		Oth			i

### Abbreviation Varied Environmental Permit APC (Construction Dust) Regulation EM&A: EM&A Manual (Construction Phase) VEP: Noise Control Ordinance NCO: Cap311R: Cap354: Waste Disposal Ordinance Cap311O: APC (Open Burning) Regulation Cap354c: WDO (Chemical Waste) (General) Regulation Air Pollution Control Ordinance Cap311: Unk: Unknown Cap466: Dumping at Sea Ordinance Remark Signatures Contractor's Representative ET Membe Oktine in Block letters: (Name in Block letters: Eric, K Y Dai

Assistant Resident Engineer

Inspection of	late 01/03/06 Time 09:30 Inspect	ed by	ET: I		Dai r: Kier	,	
Site	Transmission Route (Civil Work)						<u>_</u>
Weather							
Condition	Sunny Fine Overcast Hazy		Driz	zle [	Ra	ain Ste	rn
Temperatu	re 22 °C Humidity / High Moderat	e _	Lov	v			
Wind	Calm Light Breeze Strong						
GENERAL							
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks	
VEP 1.5	Has a copy of the most updated Environmental Permit been displayed at all vehicular site entrances/exits for public information?		✓				
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		1				
AIR QUALI	TY  Checklist Condition	N/A	Yes	No	Unk	Remarks	7
	General Requirements						_
Cap311R:	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change?	<b>V</b>					
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person.  Has this been observed?	<b>V</b>					
	Stockpiling of dusty materials						_
Cap311R: Sch 18 EM&A:J1	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?		<b>&gt;</b>				
	Use of vehicles						
Cap311R: Sch 21(2)	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	✓					
	Miscellaneous			, ,			
Cap311R:	Are completed earthworks sealed and hydroseeded and planted as			1			- 1

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks	
Cap3110	Is open burning prohibited?		·				
Cap311	Is black smoke emission from plant/equipment avoided?		<b>✓</b>				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials	•				
Cap466	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	<b>~</b>				
Cap466	Are wastes disposed of at licensed sites?	1				
	Construction Waste and Excavated Materials					
Cap354	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	1				
Cap354	Are wastes disposed of at licensed sited?	1				
<u> </u>	Chemical Waste			<u> </u>		
Cap354C	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?	1				
Cap354C	Has the Contractor registered as a chemical waste producer?		<b>✓</b>			
Cap354C	Is chemical waste handled according to the "Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?	1			-	

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks	
EM&A: M1	Are rubble mound seawalls constructed for the landing and launching points at Lamma Island?	<b>*</b>					

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks	
EM&A:	Are quiet PMEs or standard PMEs with modest source noise controls used at the cable route from N4 to N5?	<b>~</b>				-	
EM&A: L2 ~ L5	Are quiet PMEs (particularly the barge-mounted crane) or PMEs with comparably effective source noise controls used at landing point N5?	1					
NCO	Are valid construction noise permits, if required, available for inspection?	~					
NCO	Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?	<b>~</b>					
NCO	Are valid noise emission labels fixed at air compressors and hand held percussive breakers?	1					

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: O1	Are the construction activities at la monitored to avoid impact on the a species Celtis biondii, Pteris disparestricted plants Vitis balansaeana and Rhapis excellsa?	uncommon and rare plant or and Ardicia pusilla, and the		<b>~</b>			
EM&A: O2	Are fences erected in accordance v in good condition along the bound prevent tipping, vehicle movement personnel into adjacent wooded are uncommon and restricted plant spe	ary of construction sites to is, and encroachment of eas, particularly where the rare,		<b>~</b>			
EM&A: Q3	Has regular checking been perform boundaries are not exceeded and the surrounding areas?			<b>~</b>			
EM&A: Q4	Is open fire prohibited and prevent boundary during construction? Is t equipment provided in the work ar	emporary fire fighting		<b>~</b>			
		Traffic	<b>✓</b>	Con:		ion act	ivities inside
	- Major noise source(s)	Construction activities outside the site		Othe			

### Abbreviation

VEP: Cap311R: Cap311O:

Varied Environmental Permit APC (Construction Dust) Regulation

Cap311: Cap466:

APC (Open Burning) Regulation Air Pollution Control Ordinance Dumping at Sea Ordinance

EM&A: EM&A Manual (Construction Phase)

NCO: Noise Control Ordinance

Cap354: Waste Disposal Ordinance Cap354c: WDO (Chemical Waste) (General) Regulation

Unknown

Remark

Signatures

(Name in Block letters: Eric, K Y Dai

Assistant Resident Engineer

Contractor's Representative

stame in Block letters:

20th December 2001

Inspection	date 08/03/06 Time 09:30 Inspect	ted by	ET:				ļ
			Cont	racto	r: Kier		
Site	Transmission Route (Civil Work)						İ
Weather							
vv cather				_			
Condition	Sunny Fine Overcast Hazy		Driz	zle [	Ra	nin Sto	'n
Temperatu	rre 20 °C Humidity High  Modera	te	Lov	v			
Wind	Calm Light Breeze Strong						
GENERAL							
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks	
VEP 1.5	Has a copy of the most updated Environmental Permit been displayed at all vehicular site entrances/exits for public information?		1				
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		1				
		l		•			
AIR QUAL	ITY						
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks	
	General Requirements						
Cap311R:	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change?	1					
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person.  Has this been observed?	<b>~</b>					
	Stockpiling of dusty materials						
Cap311R: Sch 18 EM&A:J1	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?	i	<b>/</b>				
	Use of vehicles						
Cap311R: Sch 21(2)	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	~					
							1
Cap311R:	Miscellaneous  Are completed earthworks sealed and hydroseeded and planted as						

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
Cap311O	Is open burning prohibited?		<b>√</b>			
Cap311	Is black smoke emission from plant/equipment avoided?		<b>\</b>			

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials	· <u> </u>				
Cap466	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	<b>~</b>				
Cap466	Are wastes disposed of at licensed sites?	1				
	Construction Waste and Excavated Materials	•				
Cap354	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	~				
Cap354	Are wastes disposed of at licensed sited?	1				
	Chemical Waste	•				
Cap354C	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?	<b>~</b>				
Cap354C	Has the Contractor registered as a chemical waste producer?		1			
Cap354C	Is chemical waste handled according to the "Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?	~				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: M1	Are rubble mound seawalls constructed for the landing and launching points at Lamma Island?	<b>*</b>				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: L1	Are quiet PMEs or standard PMEs with modest source noise controls used at the cable route from N4 to N5?	<b>~</b>				
EM&A: L2 ~ L5	Are quiet PMEs (particularly the barge-mounted crane) or PMEs with comparably effective source noise controls used at landing point N5?	<b>/</b>				
NCO	Are valid construction noise permits, if required, available for inspection?	<b>~</b>				
NCO	Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?	<b>√</b>				
NCO	Are valid noise emission labels fixed at air compressors and hand held percussive breakers?	<b>v</b>				

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: O1	Are the construction activities at la monitored to avoid impact on the u species Celtis biondii, Pteris dispar restricted plants Vitis balansaeana, and Rhapis excellsa?	ncommon and rare plant rand Ardicia pusilla, and the		<b>~</b>			
EM&A: O2	Are fences erected in accordance win good condition along the bounds prevent tipping, vehicle movements personnel into adjacent wooded are uncommon and restricted plant spe		<b>~</b>				
EM&A: Q3	Has regular checking been performed to ensure that the work site boundaries are not exceeded and that no damage occurs to surrounding areas?			<b>~</b>			
EM&A: Q4	Is open fire prohibited and prevent boundary during construction? Is to equipment provided in the work are	emporary fire fighting		<b>v</b>			
		Traffic	<b>✓</b>	Con		ion act	ivities inside
	Major noise source(s)	Construction activities outside the site		Oth	ers:		

### Abbreviation

VEP: Cap311R: Varied Environmental Permit APC (Construction Dust) Regulation

Cap3110:

APC (Open Burning) Regulation Air Pollution Control Ordinance

Cap311: Cap466:

Dumping at Sea Ordinance

EM&A: EM&A Manual (Construction Phase)

Noise Control Ordinance NCO:

Cap354: Waste Disposal Ordinance

Cap354c: WDO (Chemical Waste) (General) Regulation

Unknown

Remark	
<u></u>	

Signatures

ET Member

(Name in Block letters: Eric, K Y Dai

Assistant Resident Engineer

Contractor's Representative

Name in Block letters:

Inspection of	date 15/03/06 Time 09:30 Inspect	ed by	ET:			
<b></b>	T (C) TW (		Cont	racto	r: Kiei	•
Site	Transmission Route (Civil Work)					
Weather						
Condition	Sunny Fine Overcast Hazy		Driz	zle [	Ra	ain Storr
Temperatu	re 20 °C Humidity High  Moderat	ie _	Lov	v		
Wind	Calm Light Breeze Strong					
GENERAL					- "	
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most updated Environmental Permit been displayed at all vehicular site entrances/exits for public information?		1			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		1			
AIR QUALI	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements					
Cap311R:	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change?	<b>✓</b>				
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person.  Has this been observed?	~				
	Stockpiling of dusty materials					
Cap311R: Sch 18 EM&A:J1	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?		✓			
	Use of vehicles					
Cap311R: Sch 21(2)	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	<b>~</b>				
	Miscellaneous					
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?	~				

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks	
Cap3110	Is open burning prohibited?		✓				
Cap311	Is black smoke emission from plant/equipment avoided?		✓				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks			
	Dredged Materials	•							
Cap466	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	<b>✓</b>							
Cap466	Are wastes disposed of at licensed sites?	1							
	Construction Waste and Excavated Materials	•							
Cap354	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	~							
Cap354	Are wastes disposed of at licensed sited?	1							
	Chemical Waste								
Cap354C	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?	<b>*</b>							
Cap354C	Has the Contractor registered as a chemical waste producer?		1						
Cap354C	Is chemical waste handled according to the "Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?	<b>~</b>							

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: M1	Are rubble mound seawalls constructed for the landing and launching points at Lamma Island?	~				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks	
EM&A: L1	Are quiet PMEs or standard PMEs with modest source noise controls used at the cable route from N4 to N5?	<b>~</b>					
EM&A: L2 ~ L5	Are quiet PMEs (particularly the barge-mounted crane) or PMEs with comparably effective source noise controls used at landing point N5?	1					
NCO	Are valid construction noise permits, if required, available for inspection?	<b>V</b>					1
NCO	Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?	<b>*</b>					
NCO	Are valid noise emission labels fixed at air compressors and hand held percussive breakers?	<b>*</b>					

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: O1	Are the construction activities at la monitored to avoid impact on the species Celtis biondii, Pteris disparestricted plants Vitis balansaeana and Rhapis excellsa?	uncommon and rare plant ar and Ardicia pusilla, and the		<b>~</b>			
EM&A: O2	Are fences erected in accordance vin good condition along the bound prevent tipping, vehicle movement personnel into adjacent wooded ar uncommon and restricted plant spe	lary of construction sites to ts, and encroachment of eas, particularly where the rare,		<b>*</b>			
EM&A: Q3	Has regular checking been performed to ensure that the work site boundaries are not exceeded and that no damage occurs to surrounding areas?			<b>*</b>			
EM&A: Q4	Is open fire prohibited and prevented within the work site boundary during construction? Is temporary fire fighting equipment provided in the work area during construction?			<b>&gt;</b>			
		Traffic	·	Con:		ion act	ivities inside
	Major noise source(s)	Major noise source(s)  Construction activities outside the site		Othe	ers:		

#### Abbreviation

VEP: Cap311R: Varied Environmental Permit

Cap3110:

APC (Construction Dust) Regulation APC (Open Burning) Regulation

Cap311: Cap466:

Air Pollution Control Ordinance
Dumping at Sea Ordinance

EM&A: EM&A Manual (Construction Phase)

NCO: Noise Control Ordinance

Cap354: Waste Disposal Ordinance

Cap354c: WDO (Chemical Waste) (General) Regulation

Unk: Unknown

Remark

Signatures

ET Membe

Contractor's Representative

(Name in Block letters:

Eric, K Y Dai

Assistant Resident Engineer

(Name in Block letters:

CKLAZI

Engineer

20th December 2001

Inspection	date 22/03/06 Time 09:30 Inspect	ted by	ET: I			i	_
Site	Transmission Route (Civil Work)		Cont	racto	r: Kier	. !	_
Weather						· · · · · · · · · · · · · · · · · · ·	_
Condition	Sunny Fine Overcast Hazy		Driz	zle [	Ra	nin Sto	п
Temperatu	re 21 °C Humidity High ✓ Moderat	te _	Lov	٧			
Wind	Calm Light Breeze Strong					: I	
GENERAL							
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks	
VEP 1.5	Has a copy of the most updated Environmental Permit been displayed at all vehicular site entrances/exits for public information?		<b>√</b>			:	
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		<b>*</b>				_
AIR QUALI	TY					:	_
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks	
	General Requirements						
Cap311R:	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change?	<b>✓</b>					
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Has this been observed?	<b>~</b>					
	Stockpiling of dusty materials				- "		
Cap311R: Sch 18 EM&A:J1	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?		<b>√</b>			!	
	Use of vehicles						
Cap311R: Sch 21(2)	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	<b>&gt;</b>					
	Miscellaneous					i	
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?	<b>✓</b>					_

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks	
Cap3110	Is open burning prohibited?		✓				
Cap311	Is black smoke emission from plant/equipment avoided?		<b>*</b>				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks			
	Dredged Materials			<del></del> -					
Cap466	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	1							
Cap466	Are wastes disposed of at licensed sites?	1							
	Construction Waste and Excavated Materials								
Cap354	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	~							
Cap354	Are wastes disposed of at licensed sited?	<b>✓</b>							
	Chemical Waste								
Cap354C	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?	1							
Cap354C	Has the Contractor registered as a chemical waste producer?		<b>√</b>			<u> </u>			
Cap354C	Is chemical waste handled according to the "Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?	1				:			

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: M1	Are rubble mound seawalls constructed for the landing and launching points at Lamma Island?	<b>*</b>				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks	İ
EM&A: Li	Are quiet PMEs or standard PMEs with modest source noise controls used at the cable route from N4 to N5?	<b>~</b>					
EM&A: L2 ~ L5	Are quiet PMEs (particularly the barge-mounted crane) or PMEs with comparably effective source noise controls used at landing point N5?	<b>✓</b>					
NCO	Are valid construction noise permits, if required, available for inspection?	1					1
NCO	Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?	<b>~</b>					
NCO	Are valid noise emission labels fixed at air compressors and hand held percussive breakers?	~					-

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks								
EM&A: O1	Are the construction activities at landing points N4 & N5 closely monitored to avoid impact on the uncommon and rare plant species Celtis biondii, Pteris dispar and Ardicia pusilla, and the restricted plants Vitis balansaeana, Pterospermum heterophyllum and Rhapis excellsa?														
EM&A: O2	Are fences erected in accordance with the Hoarding Plan and kept in good condition along the boundary of construction sites to prevent tipping, vehicle movements, and encroachment of personnel into adjacent wooded areas, particularly where the rare, uncommon and restricted plant species are located?			in good condition along the boundary of construction sites to prevent tipping, vehicle movements, and encroachment of personnel into adjacent wooded areas, particularly where the rare,		in good condition along the boundary of construction sites to prevent tipping, vehicle movements, and encroachment of personnel into adjacent wooded areas, particularly where the rare,	in good condition along the boundary of construction sites to prevent tipping, vehicle movements, and encroachment of personnel into adjacent wooded areas, particularly where the rare,		in good condition along the boundary of construction sites to prevent tipping, vehicle movements, and encroachment of personnel into adjacent wooded areas, particularly where the rare,	ndition along the boundary of construction sites to ping, vehicle movements, and encroachment of into adjacent wooded areas, particularly where the rare,	ondition along the boundary of construction sites to pping, vehicle movements, and encroachment of into adjacent wooded areas, particularly where the rare,	1	<b>/</b>		
EM&A: Q3	Has regular checking been performed to ensure that the work site boundaries are not exceeded and that no damage occurs to surrounding areas?			<b>~</b>											
EM&A: Q4	Is open fire prohibited and prevented within the work site boundary during construction? Is temporary fire fighting equipment provided in the work area during construction?			<b>~</b>											
		Traffic	· ·			ion act	ivities inside								
	Major noise source(s)  Construction activities outside the site			Others:											

#### Abbreviation

VEP:

Varied Environmental Permit APC (Construction Dust) Regulation

Cap311R: Cap311O: Cap311:

APC (Open Burning) Regulation

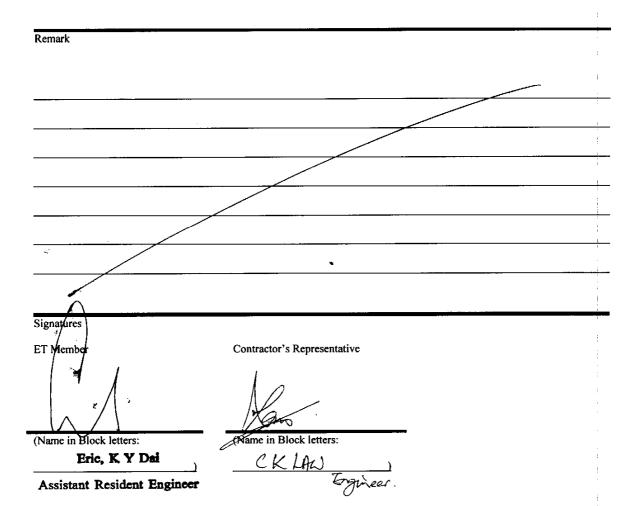
Cap466:

Air Pollution Control Ordinance Dumping at Sea Ordinance EM&A: EM&A Manual (Construction Phase)

NCO: Noise Control Ordinance

Cap354: Waste Disposal Ordinance Cap354c: WDO (Chemical Waste) (General) Regulation

Unk: Unknown



Inspection date 29/03/06 Time 09:30 Inspected by ET: Eric Dai						
Site	Transmission Route (Civil Work)		Cont	racto	r: Kier	•
Veather						
Condition	Sunny Fine Overcast Hazy		Driz	zle [	Ra	ain St
Temperati	rre 21 °C Humidity High ✓ Moderat	te	Lov	v		
Wind	Calm Light Breeze Strong		_			
GENERAL					•	::
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most updated Environmental Permit been displayed at all vehicular site entrances/exits for public information?		1			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		1			
AIR QUAL Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements	l <u></u>	<u> </u>		<u>l</u>	<u> </u>
Cap311R:	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change?	1				
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person.  Has this been observed?	<b>√</b>				
	Stockpiling of dusty materials					T"
Cap311R: Sch 18 EM&A:J1	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?		<b>✓</b>			
	Use of vehicles					
Cap311R: Sch 21(2)	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	<b>~</b>				
	Miscellaneous					
Cap311R:	Are completed earthworks sealed and hydroseeded and planted as	1				

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
Cap3110	Is open burning prohibited?		✓			
Cap311	Is black smoke emission from plant/equipment avoided?		<b>√</b>			

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks			
	Dredged Materials	•							
Cap466	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	1							
Cap466	Are wastes disposed of at licensed sites?	1							
	Construction Waste and Excavated Materials								
Cap354	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	~							
Cap354	Are wastes disposed of at licensed sited?	1							
	Chemical Waste								
Cap354C	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?	1							
Cap354C	Has the Contractor registered as a chemical waste producer?		1						
Cap354C	Is chemical waste handled according to the "Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?	1							

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: M1	Are rubble mound seawalls constructed for the landing and launching points at Lamma Island?	1				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: L1	Are quiet PMEs or standard PMEs with modest source noise controls used at the cable route from N4 to N5?	1				
EM&A: L2 ~ L5	Are quiet PMEs (particularly the barge-mounted crane) or PMEs with comparably effective source noise controls used at landing point N5?	<b>*</b>				
NCO	Are valid construction noise permits, if required, available for inspection?	1				
NCO	Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?	1				
NCO	Are valid noise emission labels fixed at air compressors and hand held percussive breakers?	1				

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks	
EM&A: O1	Are the construction activities at la monitored to avoid impact on the uspecies Celtis biondii, Pteris disparestricted plants Vitis balansaeana and Rhapis excellsa?	ncommon and rare plant rand Ardicia pusilla, and the		<b>√</b>		:		
EM&A: O2	Are fences erected in accordance with the Hoarding Plan and kept in good condition along the boundary of construction sites to prevent tipping, vehicle movements, and encroachment of personnel into adjacent wooded areas, particularly where the rare, uncommon and restricted plant species are located?			<b>~</b>				
EM&A: Q3	Has regular checking been perform boundaries are not exceeded and the surrounding areas?			<b>√</b>				
EM&A: Q4	Is open fire prohibited and prevent boundary during construction? Is t equipment provided in the work ar	emporary fire fighting		·				
11.5		Traffic		Construction activities inside the site				
	Major noise source(s)	noise source(s)  Construction activities outside the site		Oth			į	

### Abbreviation Varied Environmental Permit APC (Construction Dust) Regulation EM&A: EM&A Manual (Construction Phase) VEP: Noise Control Ordinance NCO: Cap311R: Cap354: Waste Disposal Ordinance Cap311O: APC (Open Burning) Regulation Cap354c: WDO (Chemical Waste) (General) Regulation Air Pollution Control Ordinance Cap311: Unk: Unknown Cap466: Dumping at Sea Ordinance Remark Signatures Contractor's Representative ET Membe Oktine in Block letters: (Name in Block letters: Eric, K Y Dai

Assistant Resident Engineer

Inspection	late 2006/03/03 Time 11:30 Inspected by ET: D.YUNG ('K.W.) Contractor: J. S.								
Site	Outside Landing Point I1, N2E, N4		Cont	acio	1. J	<u> </u>			
Weather		-							
Condition	Sunny Fine Overcast Hazy		Driz	zle [	Ra	ain Stor			
Temperatu	re	e _	Lov	٧					
Wind	Calm Light Breeze Strong								
GENERAL					_				
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks			
VEP 1.5	Has a copy of the most updated Environmental Permit been displayed at all vehicular site entrances/exits for public information?		/						
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		/						
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks			
	General Requirements			_					
Cap311R:	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change?	/							
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person.  Has this been observed?	<b>V</b>							
	Stockpiling of dusty materials								
Cap311R: Sch 18 EM&A:J1	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?	/							
	Use of vehicles	•		• <u>.</u>		·			
Cap311R: Sch 21(2)	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	/							
	Miscellaneous								
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?								

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
Cap3110	Is open burning prohibited?	V				
Cap311	Is black smoke emission from plant/equipment avoided?	/				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials	•		•		
Сар466	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?		/			
Cap466	Are wastes disposed of at licensed sites?					
	Construction Waste and Excavated Materials					
Cap354	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	,				
Cap354	Are wastes disposed of at licensed sited?	/				
	Chemical Waste					
Cap354C	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?					
Cap354C	Has the Contractor registered as a chemical waste producer?	1				
Cap354C	Is chemical waste handled according to the "Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?					

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: M1	Are rubble mound seawalls constructed for the landing and launching points at Lamma Island?	/				

	$\sim$	TC	- 0
N	₹,	1.7	М.

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: L1	Are quiet PMEs or standard PMEs with modest source noise controls used at the cable route from N4 to N5?	~				
EM&A: L2 ~ L5	Are quiet PMEs (particularly the barge-mounted crane) or PMEs with comparably effective source noise controls used at landing point N5?	1				
NCO	Are valid construction noise permits, if required, available for inspection?	/				
NCO	Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?	V	-	-		
NCO	Are valid noise emission labels fixed at air compressors and hand held percussive breakers?	V				

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: O1	monitored to avoid impact on the species Celtis biondii, Pteris dis						
EM&A: O2	Are fences erected in accordance in good condition along the bour prevent tipping, vehicle movement personnel into adjacent wooded uncommon and restricted plant s	V					
EM&A: Q3		Has regular checking been performed to ensure that the work site boundaries are not exceeded and that no damage occurs to surrounding areas?					
EM&A: Q4	Is open fire prohibited and preve boundary during construction? I equipment provided in the work	s temporary fire fighting	1				
		☐ Traffic	Ø	Consti	ructio	n activ	ities inside the
	Major noise source(s)	Construction activities	site ies Others				

# Abbreviation EM&A: EM&A Manual (Construction Phase) VEP: Varied Environmental Permit NCO: Noise Control Ordinance Cap354: Waste Disposal Ordinance Cap311R: Cap311O: APC (Construction Dust) Regulation APC (Open Burning) Regulation Cap354c: WDO (Chemical Waste) (General) Regulation Cap311: Air Pollution Control Ordinance Unk: Unknown Cap466: Dumping at Sea Ordinance Remark Signatures ET Member Contractor's Representative

(Name in Block letters:

D.YUNG(KW.)

## The Hongkong Electric Co. Ltd. Lamma Power Station Extension - Construction of Transmission System **Weekly Site Inspection Checklist**

Inspection of	late $\sqrt{3/ab}$ Time $\sqrt{=30}$ Inspect	ted by	ET:	CI		on Co
Site	QUÍSIDE II, NZBN4		Cont	racto	r:	towers/
Weather				-		
Condition	Sunny Fine Overcast Hazy		Driz	zle [	R	ain Stor
Temperatu	re 21 °C Humidity High Modera	te	Lov	٧		
Wind	Calm Light Breeze Strong					
GENERAL						
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most updated Environmental Permit been displayed at all vehicular site entrances/exits for public information?		V			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		<b>V</b>			
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements	<del>,</del>		····		
Cap311R:	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change?	✓				
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person.  Has this been observed?	✓				
	Stockpiling of dusty materials		•	J		•
Cap311R: Sch 18 EM&A:J1	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?	$\checkmark$				
	Use of vehicles	1			L_,	<u>.                                    </u>
Cap311R: Sch 21(2)	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	$\checkmark$				
	Miscellaneous			4		<u> </u>
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?					

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
Cap311O	Is open burning prohibited?	/				
Cap311	Is black smoke emission from plant/equipment avoided?	/				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials	`		•		
Cap466	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?		/			,
Cap466	Are wastes disposed of at licensed sites?		<b>V</b>			
	Construction Waste and Excavated Materials			•		
Cap354	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	/				
Cap354	Are wastes disposed of at licensed sited?	/				
	Chemical Waste	1				
Cap354C	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?	<u></u>				
Cap354C	Has the Contractor registered as a chemical waste producer?	1	·			<del></del>
Cap354C	Is chemical waste handled according to the "Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?					

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: M1	Are rubble mound seawalls constructed for the landing and launching points at Lamma Island?	/				

N	10	٦.	н	•	т.

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: L1	Are quiet PMEs or standard PMEs with modest source noise controls used at the cable route from N4 to N5?					
EM&A: L2 ~ L5	Are quiet PMEs (particularly the barge-mounted crane) or PMEs with comparably effective source noise controls used at landing point N5?	V				
NCO	Are valid construction noise permits, if required, available for inspection?	V				
NCO	Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?	V				,
NCO	Are valid noise emission labels fixed at air compressors and hand held percussive breakers?	/				<u> </u>

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: O1	monitored to avoid impact on the species Celtis biondii, Pteris dis	ties at landing points N4 & N5 closely on the uncommon and rare plant ris dispar and Ardicia pusilla, and the nsaeana, Pterospermum heterophyllum					
EM&A: O2	in good condition along the bour prevent tipping, vehicle movement	ents, and encroachment of areas, particularly where the rare,	~				
EM&A: Q3	Has regular checking been perfo boundaries are not exceeded and surrounding areas?	rmed to ensure that the work site that no damage occurs to					
EM&A: Q4	Is open fire prohibited and preve boundary during construction? I equipment provided in the work	s temporary fire fighting	/				
		☐ Traffic	117/	Const	ructio	n activi	ities inside the
	Major noise source(s)			site			
	(4)	Construction activities outside the site					

# EM&A: EM&A Manual (Construction Phase) NCO: Noise Control Ordinance VEP: Varied Environmental Permit APC (Construction Dust) Regulation Cap311R: Cap311O: APC (Open Burning) Regulation Cap354: Waste Disposal Ordinance Cap311: Air Pollution Control Ordinance Cap354c: WDO (Chemical Waste) (General) Regulation Cap466: Dumping at Sea Ordinance Unk: Unknown Remark Signatures

Contractor's Representative

(Name in Block letters:

Page 4 of 4

Abbreviation

ET Member

(Name in Block letters:

K Was

## The Hongkong Electric Co. Ltd. Lamma Power Station Extension - Construction of Transmission System **Weekly Site Inspection Checklist**

Inspection of	late 1713/06 Time 14:30 Inspect	ted by	ET:	K?	1 11	7 1 PowiRSYSTEM
Site	QUÍSIDE LANDING POINT II, NZ 1, N4		Com	acto	<u></u>	<u> 10 W PK &gt;</u> Y> 1 Willy
Weather						
Condition	Sunny Fine Overcast Hazy		Drizz	zle [	Ra	nin Storm
Temperatu	re 24°C Humidity High Moderat	te	Low	7		
Wind	Calm Light Breeze Strong					
GENERAL						
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most updated Environmental Permit been displayed at all vehicular site entrances/exits for public information?		V			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		/			
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
Kel.	General Requirements	L	163			Attiliarks
Cap311R:	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change?	<b>/</b>				
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Has this been observed?	1				
	Stockpiling of dusty materials					,
Cap311R: Sch 18 EM&A:J1	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?	$\overline{\mathcal{C}}$				
	Use of vehicles	• • • • • • • • • • • • • • • • • • • •				
Cap311R: Sch 21(2)	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?					
	Miscellaneous			•		
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?					

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
Cap3110	Is open burning prohibited?	~				
Cap311	Is black smoke emission from plant/equipment avoided?					

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks				
	Dredged Materials	·•		•	•					
Cap466	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?		/							
Cap466	Are wastes disposed of at licensed sites?		/							
	Construction Waste and Excavated Materials					•				
Cap354	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?									
Cap354	Are wastes disposed of at licensed sited?	~								
	Chemical Waste									
Cap354C	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?	/								
Cap354C	Has the Contractor registered as a chemical waste producer?	V								
Cap354C	Is chemical waste handled according to the "Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?	/								

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: M1	Are rubble mound seawalls constructed for the landing and launching points at Lamma Island?	V				

N		S	

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: L1	Are quiet PMEs or standard PMEs with modest source noise controls used at the cable route from N4 to N5?	/				
EM&A: L2 ~ L5	Are quiet PMEs (particularly the barge-mounted crane) or PMEs with comparably effective source noise controls used at landing point N5?	/				
NCO	Are valid construction noise permits, if required, available for inspection?	1				
NCO	Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?	1				
NCO	Are valid noise emission labels fixed at air compressors and hand held percussive breakers?	/				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: O1	Are the construction activities at landing points N4 & N5 closely monitored to avoid impact on the uncommon and rare plant species Celtis biondii, Pteris dispar and Ardicia pusilla, and the restricted plants Vitis balansaeana, Pterospermum heterophyllum and Rhapis excellsa?					
EM&A: O2	Are fences erected in accordance with the Hoarding Plan and kept in good condition along the boundary of construction sites to prevent tipping, vehicle movements, and encroachment of personnel into adjacent wooded areas, particularly where the rare, uncommon and restricted plant species are located?	/				
EM&A: Q3	Has regular checking been performed to ensure that the work site boundaries are not exceeded and that no damage occurs to surrounding areas?	1				
EM&A: Q4	Is open fire prohibited and prevented within the work site boundary during construction? Is temporary fire fighting equipment provided in the work area during construction?	/				
	☐ Traffic	पि	Const	ructio	n activ	ities inside the
	Major noise source(s)		site			mes morae the
	Construction activities outside the site		Other	s		

# Abbreviation VEP: Varied Environmental Permit EM&A: EM&A Manual (Construction Phase) APC (Construction Dust) Regulation NCO: Noise Control Ordinance Cap311R: APC (Open Burning) Regulation Air Pollution Control Ordinance Cap354: Waste Disposal Ordinance Cap354c: WDO (Chemical Waste) (General) Regulation Cap311O: Cap311: Cap466: Dumping at Sea Ordinance Unk: Unknown Remark Signatures ET Member Contractor's Representative

(Name in Block letters:

BERRY YIEV)

(Name in Block letters:

LAIKA YIND

# The Hongkong Electric Co. Ltd. Lamma Power Station Extension – Construction of Transmission System Weekly Site Inspection Checklist

Inspection	date 24(3/06) Time 10 = 30 Inspec	ted by	ET:	K		LAU
Site	OUTSIDE LANDING POINT EL, 42 & N	4	Cont	racto	r:J	Pawer S
Weather					-	
Condition	Sunny Fine Overcast Hazy		Driz	zle [	✓ Ra	ain Sto
Temperatu	re S C Humidity High Modera	te	Lov	V		
Wind	Calm Light Breeze Strong					
GENERAL						
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most updated Environmental Permit been displayed at all vehicular site entrances/exits for public information?		1			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		V			
AIR QUAL	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements	1	100	110	Cirk	Remarks
Cap311R:	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change?	V				
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person.  Has this been observed?	V				
	Stockpiling of dusty materials					
Cap311R: Sch 18 EM&A:J1	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?	V				
	Use of vehicles					

Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?

Are completed earthworks sealed and hydroseeded and planted as

Miscellaneous

soon as possible?

Cap311R: Sch 21(2)

Cap311R:

Sch 16

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
Cap3110	Is open burning prohibited?	V				
Cap311	Is black smoke emission from plant/equipment avoided?	V	Section Annual Control	PAGE 128	Christian Property	and the second second second second

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials					
Cap466	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?		/			
Cap466	Are wastes disposed of at licensed sites?		V			
	Construction Waste and Excavated Materials					
Cap354	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	/				
Cap354	Are wastes disposed of at licensed sited?	1				
	Chemical Waste					
Cap354C	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?	1				
Cap354C	Has the Contractor registered as a chemical waste producer?	1				
Cap354C	Is chemical waste handled according to the "Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?	1				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: M1	Are rubble mound seawalls constructed for the landing and launching points at Lamma Island?	/				

### NOISE

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: L1	Are quiet PMEs or standard PMEs with modest source noise controls used at the cable route from N4 to N5?	/		States Order		
EM&A: L2 ~ L5	Are quiet PMEs (particularly the barge-mounted crane) or PMEs with comparably effective source noise controls used at landing point N5?	V				
NCO	Are valid construction noise permits, if required, available for inspection?	1				
NCO	Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?	1				
NCO	Are valid noise emission labels fixed at air compressors and hand held percussive breakers?	1				

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: O1	monitored to avoid impact on the species Celtis biondii, Pteris dis		V				
EM&A: O2	Are fences erected in accordance in good condition along the bour prevent tipping, vehicle moveme personnel into adjacent wooded uncommon and restricted plant s	1					
EM&A: Q3	Has regular checking been perfo boundaries are not exceeded and surrounding areas?	rmed to ensure that the work site I that no damage occurs to					
EM&A: Q4	Is open fire prohibited and preve boundary during construction? I equipment provided in the work	s temporary fire fighting	V				
		Traffic		C	4.		ities inside the
	Main and a second ()	Li Tranic		site	ucuo	n acuv	ities inside the
	Major noise source(s)	Construction activities	ities Others _				

#### Abbreviation

VEP: Varied Environmental Permit EM&A: EM&A Manual (Construction Phase) Cap311R: Cap311O: APC (Construction Dust) Regulation APC (Open Burning) Regulation NCO: Noise Control Ordinance Cap354: Waste Disposal Ordinance Cap311: Cap466: Air Pollution Control Ordinance Cap354c: WDO (Chemical Waste) (General) Regulation Dumping at Sea Ordinance Unk: Unknown Remark Signatures ET Member Contractor's Representative (Name in Block letters: (Name in Block letters:

# The Hongkong Electric Co. Ltd. Lamma Power Station Extension – Construction of Transmission System Weekly Site Inspection Checklist

Inspection d	ate $31/2/06$ Time $0.30$ Inspect	ed by	ET:		400	
Site	OUTSIDE LANDING POINT ILVERNY	1	Cont	racto		Paula Systu
Weather						
Condition	Sunny Fine Overcast Hazy		Driz	zle [	Ra	nin Storm
Temperatu	re Humidity High Moderat	te _	Lov	V		
Wind	Calm Light Breeze Strong					
GENERAL						
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most updated Environmental Permit been displayed at all vehicular site entrances/exits for public information?		1			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		/			
AIR QUALI		N/A	Yes	No	Unk	Remarks
Ref.	Checklist Condition	14/74	103	140	Olik	Remarks
Cap311R:	General Requirements  Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change?	5				
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person.  Has this been observed?	V				
	Stockpiling of dusty materials					
Cap311R: Sch 18 EM&A:J1	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?	V				
	Use of vehicles					
Cap311R: Sch 21(2)	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	1				
	Miscellaneous					
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?					

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
Cap3110	Is open burning prohibited?	/				
Cap311	Is black smoke emission from plant/equipment avoided?	./				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials					
Cap466	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?		/			
Cap466	Are wastes disposed of at licensed sites?		1			
	Construction Waste and Excavated Materials					
Cap354	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?					
Cap354	Are wastes disposed of at licensed sited?	1				
	Chemical Waste					
Cap354C	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?					
Cap354C	Has the Contractor registered as a chemical waste producer?	/				
Cap354C	Is chemical waste handled according to the "Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?	./				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: M1	Are rubble mound seawalls constructed for the landing and launching points at Lamma Island?	1				

### NOISE

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: L1	Are quiet PMEs or standard PMEs with modest source noise controls used at the cable route from N4 to N5?	/				
EM&A: L2 ~ L5	Are quiet PMEs (particularly the barge-mounted crane) or PMEs with comparably effective source noise controls used at landing point N5?	/				
NCO	Are valid construction noise permits, if required, available for inspection?	V				
NCO	Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?	1				
NCO	Are valid noise emission labels fixed at air compressors and hand held percussive breakers?	/				

Ref	<b>Checklist Condition</b>		N/A	Yes	No	Unk	Remarks
EM&A: O1	Are the construction activities at monitored to avoid impact on the species Celtis biondii, Pteris disprestricted plants Vitis balansaean and Rhapis excellsa?	uncommon and rare plant					19
EM&A: O2	in good condition along the boun prevent tipping, vehicle movement	nts, and encroachment of areas, particularly where the rare,	es to of				
EM&A: Q3	Has regular checking been perfor boundaries are not exceeded and surrounding areas?		1				
EM&A: Q4	Is open fire prohibited and prever boundary during construction? Is equipment provided in the work	temporary fire fighting	5				la de la companya de la companya de la companya de la companya de la companya de la companya de la companya de
		☐ Traffic		Const	ructio	n activ	ities inside the
	Major noise source(s)	Construction activities outside the site	Others				

#### Abbreviation

VEP: Cap311R: Cap311O:

Varied Environmental Permit APC (Construction Dust) Regulation APC (Open Burning) Regulation

Cap311: Cap466: Air Pollution Control Ordinance

66: Dumping at Sea Ordinance

EM&A: EM&A Manual (Construction Phase)

NCO: Noise Control Ordinance Cap354: Waste Disposal Ordinance

Cap354c: WDO (Chemical Waste) (General) Regulation

Unk: Unknown

Remark		
NA		
Signatures		
ET Member	Contractor's Representative	
L	04	
(Name in Block letters:	(Name in Block letters:	
LAU KA LUND	BERRY YUEN,	

## Appendix I: Summary of EMIS

## I.1. Power Station – Unit L9 Civil and Building Works (Part B of EIA Report)

## Table I.1 Construction Phase Mitigation Measures and their Implementation

EM&A Log Ref.	Mitigation Measures	Implementation Status
	AIR QUALITY	
A1	For general construction works, the dust control measures stipulated under the Air Pollution Control (Construction Dust) Regulation shall be complied with, such as:	
	the haul roads shall be sprayed with water to keep the entire road surface wet.	С
	• the load carried by vehicle shall be covered by impervious sheeting to ensure no leakage of dusty materials from the vehicle.	С
	the heights from which fill materials are dropped shall be controlled to a practical level to minimise the fugitive dust arising from unloading.	С
A2	For the concrete batching plant, the following control measures are recommended:	
	• loading, unloading, handling, transfer or storage or any dusty materials shall be carried out in a totally enclosed system.	N/A
	The materials which may generate airborne dust emissions shall be wetted by water spray system.	N/A
	All receiving hoppers shall be enclosed on three sides up to 3m above unloading point.	N/A
	All conveyor transfer points shall be totally enclosed.	N/A
	WATER QUALITY	
B1	The following configurations and maximum rates of dredging shall be allowed:	
	3 large grab dredgers and 1 small grab dredger operating concurrently, each with rates of working of 12,000 m³ day⁻¹ and 8,000 m³ day⁻¹ respectively. During the flood phase of the tidal cycle the total number of large dredgers working shall be reduced by one, while during the ebb phase of the tidal cycle no reductions in the total number of dredgers shall be required.	N/A
	• 1 trailer dredger with a rate of working of 8,000 m <sup>3</sup> day <sup>-1</sup> , and 2 large grab dredgers, each with rates of working of 12,000 m <sup>3</sup> day <sup>-1</sup>	N/A
B2	Silt curtains shall be installed on the eastern, southern and north western sides of the reclamation site during dredging for the reclamation construction. This is a required mitigation measure for the construction works and shall be implemented prior to the commencement of bulk dredging.	N/A
В3	As a necessary operational constraint combined bulk dredging and sand filling for site formation shall not be permitted at any time. In addition, sand filling for site platform shall take place behind constructed sea walls which pierce the water surface.	N/A
B4	HEC shall ensure design to divert all storm drains away from Hung Shing Ye Bay.	С

EM&A Log Ref.	Mitigation Measures	Implementation Status
B5	Sand fill for the rubble mound seawalls shall be placed by controlled pumping down the trailer arm.	N/A
B6	EM&A shall confirm the acceptability of any impacts during construction and should any unacceptable impacts be found then one or more of the following mitigation measures shall be implemented:	N/A
	<ul> <li>reducing the number of dredgers working at any one time;</li> <li>reducing the rate of working of the dredgers;</li> <li>temporary suspension of operations;</li> <li>phasing of the works so that dredging / filling is only undertaken at certain stages of the tidal cycle.</li> </ul>	
В7	In addition to the above specific measures the following general working procedures shall be adopted.	
	fully-enclosed or watertight grabs shall be used to minimise loss of sediment during the raising of loaded grabs through the water column;	N/A
	the descent speed of grabs shall be controlled to minimise the seabed impact speed and to reduce the volume of over dredging;	N/A
	barges shall be loaded carefully to avoid splashing of material;	N/A
	all barges used for the transport of dredged materials shall be fitted with tight bottom seals in order to prevent leakage of material during loading and transport;	N/A
	all barges shall be filled to a level which ensures that material does not spill over during loading and transport to the disposal site and that adequate freeboard is maintained to ensure that the decks are not washed by wave action;	N/A
	• the speed of trailer dredgers shall be controlled to prevent propeller wash from stirring up the sea bed sediments;	N/A
	"rainbowing" sand fill from trailer dredgers shall not be permitted; and	N/A
	the works shall cause no visible foam, oil, grease or litter or other objectionable matter to be present in the water within and adjacent to the dredging site and along the route to the disposal site.	N/A
B8	Cumulative impacts shall be assessed through EM&A. Co-ordination with the EM&A consultants for other projects to determine if any exceedances are caused by the other projects or by HEC's activities. Should monitoring results indicate exceedances at sensitive receivers due to HEC's activities, then the above described mitigation measures shall be implemented until impacts reduce to acceptable levels.	N/A
	T	T
	NOISE	
C1	General noise mitigation measures shall be employed at all work sites throughout the construction phase.	С
C2	Mitigate against general construction noise during Sunday's and public holidays, either at source with portable noise barriers, or by rescheduling of some PMEs to less sensitive time periods.	С
C3	Mitigate against night time noise from dredging equipment, with silencers or mufflers.	N/A

EM&A Log Ref.	Mitigation Measures	Implementation Status			
	LANDSCAPE & VISUAL IMPACTS				
D1	The following mitigation measures shall be allowed for landscape and visual improvement:				
	Use rubble mound seawall along south and west edges of the reclamation to provide a more natural look.	С			
	Break the mass of main buildings by varying the height/division into smaller units.	С			
	Plant trees and vegetation for screening.	С			
	Adopt colour scheme to blend the buildings into the scenery.	С			
	THE CONTRACT OF THE CONTRACT O	Π			
	WASTE MANAGEMENT	_			
E1	HEC to submit a Waste Management Plan for the construction phase to EPD. The Plan shall be verified by the IEC and shall describe the arrangements for avoidance, reuse, recovery and recycling, storage, collection, treatment and disposal of different categories of waste to be generated from the construction activities and shall take into account the recommendations of the EIA report.				
	Dredging Waste				
E2	All vessels for marine transportation of dredged sediment shall be fitted with tight fitting seals to their bottom openings to prevent leakage of materials. In addition, loading of barges and hoppers shall be controlled to prevent splashing of dredged material into the surrounding water, and barges or hoppers should under no circumstances be filled to a level which shall cause the overflowing of materials or polluted water during loading or transportation	N/A			
	Storage, Collection and Transport of Waste				
E3	Minimise windblown litter and dust during transportation by either covering trucks or transporting wastes in enclosed containers.	С			
	Obtain the necessary waste disposal permits from the appropriate authorities, if they are required, in accordance with the Waste Disposal Ordinance (Cap.354), Waste Disposal (Chemical Waste) (General) Regulation (Cap.354), the Crown Land Ordinance (Cap 28), Dumping at Sea Ordinance (Cap 466) and Work Branch Technical Circular No. 22/92, Marine Disposal of Dredged Mud.	С			
	Disposal of waste at Licensed sites;	С			
	Develop procedures such as a ticketing system to facilitate tracking of marine mud and chemical waste, and to ensure that illegal disposal does not occur;	N/A			
	<ul> <li>Segregate and sort the waste materials into 3 categories:</li> <li>public fill (e.g. concrete and rubble) for re-use on-site or disposal at a public filling area;</li> <li>re-use and/or recycling waste (e.g. steel and other metals);</li> <li>waste which cannot be re-used and/or recycled (e.g. wood, glass and</li> </ul>	N/A			
	<ul> <li>plastic) for landfill disposal.</li> <li>The sorting process shall be carefully monitored to avoid missing of the 3 categories. Different types of wastes shall be stockpiled and stored in different containers or skips to enhance re-use or recycling of materials</li> </ul>				
	<ul> <li>and their proper disposal.</li> <li>Maintain records of the quantities of wastes generated and disposed off-site for each category of waste.</li> </ul>	С			

EM&A Log Ref.	Mitigation Measures	Implementation Status
E4	Chemical waste that is produced, as defined by Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, shall be handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes	N/A
	LAND CONTAMINATION	
F1	No land Contamination mitigation measures are required during the construction phase.	N/A
	MARINE ECOLOGY	
G1	All percussive piling works shall be conducted on reclaimed land to avoid noise impact to marine mammals	N/A
G2	All construction related vessels shall approach the extension site from the north and via the East Lamma Channel to avoid disturbance to the finless porpoise	С
G3	Rubble mound seawall to the south and west edges of the reclamation to enhance recolonisation of marine organisms	С
G4	Artificial Reefs of a volume not less than 400 m <sup>3</sup> shall be deployed in a location to be decided upon consultation with the Director of Agriculture and Fisheries to serve the purpose of an Additional Habitat Enhancement Measure.	С
	FISHERIES	
H1	No Fisheries-specific mitigation measures are required during the construction phase.	N/A
	RISK ASSESSMENT	
I1	No risk mitigation measures are required during the construction phase.	N/A

# **I.2.** Power Station – Unit L9 Mechanical Erection (Part B of EIA Report)

 Table I.2
 Construction Phase Mitigation Measures and their Implementation

EM&A Log Ref.	Mitigation Measures	Implementation Status
	AIR QUALITY	
A1	For general construction works, the dust control measures stipulated under the Air Pollution Control (Construction Dust) Regulation shall be complied with, such as:	
	the haul roads shall be sprayed with water to keep the entire road surface wet.	С
	the load carried by vehicle shall be covered by impervious sheeting to ensure no leakage of dusty materials from the vehicle.	N/A
	the heights from which fill materials are dropped shall be controlled to a practical level to minimise the fugitive dust arising from unloading.	N/A
A2	For the concrete batching plant, the following control measures are recommended:	
	• loading, unloading, handling, transfer or storage or any dusty materials shall be carried out in a totally enclosed system.	N/A
	The materials which may generate airborne dust emissions shall be wetted by water spray system.	N/A
	All receiving hoppers shall be enclosed on three sides up to 3m above unloading point.	N/A
	All conveyor transfer points shall be totally enclosed.	N/A
	WATER QUALITY	
B1	The following configurations and maximum rates of dredging shall be allowed:	
	3 large grab dredgers and 1 small grab dredger operating concurrently, each with rates of working of 12,000 m³ day⁻¹ and 8,000 m³ day⁻¹ respectively. During the flood phase of the tidal cycle the total number of large dredgers working shall be reduced by one, while during the ebb phase of the tidal cycle no reductions in the total number of dredgers shall be required.	N/A
	• 1 trailer dredger with a rate of working of 8,000 m <sup>3</sup> day <sup>-1</sup> , and 2 large grab dredgers, each with rates of working of 12,000 m <sup>3</sup> day <sup>-1</sup>	N/A
B2	Silt curtains shall be installed on the eastern, southern and north western sides of the reclamation site during dredging for the reclamation construction. This is a required mitigation measure for the construction works and shall be implemented prior to the commencement of bulk dredging.	N/A
В3	As a necessary operational constraint combined bulk dredging and sand filling for site formation shall not be permitted at any time. In addition, sand filling for site platform shall take place behind constructed sea walls which pierce the water surface.	N/A
B4	HEC shall ensure design to divert all storm drains away from Hung Shing Ye Bay.	N/A

EM&A Log Ref.	Mitigation Measures	Implementation Status
B5	Sand fill for the rubble mound seawalls shall be placed by controlled pumping down the trailer arm.	N/A
B6	EM&A shall confirm the acceptability of any impacts during construction and should any unacceptable impacts be found then one or more of the following mitigation measures shall be implemented:	N/A
	<ul> <li>reducing the number of dredgers working at any one time;</li> <li>reducing the rate of working of the dredgers;</li> <li>temporary suspension of operations;</li> <li>phasing of the works so that dredging / filling is only undertaken at certain stages of the tidal cycle.</li> </ul>	
В7	In addition to the above specific measures the following general working procedures shall be adopted.	
	fully-enclosed or watertight grabs shall be used to minimise loss of sediment during the raising of loaded grabs through the water column;	N/A
	the descent speed of grabs shall be controlled to minimise the seabed impact speed and to reduce the volume of over dredging;	N/A
	barges shall be loaded carefully to avoid splashing of material;	N/A
	all barges used for the transport of dredged materials shall be fitted with tight bottom seals in order to prevent leakage of material during loading and transport;	N/A
	all barges shall be filled to a level which ensures that material does not spill over during loading and transport to the disposal site and that adequate freeboard is maintained to ensure that the decks are not washed by wave action;	N/A
	• the speed of trailer dredgers shall be controlled to prevent propeller wash from stirring up the sea bed sediments;	N/A
	"rainbowing" sand fill from trailer dredgers shall not be permitted; and	N/A
	the works shall cause no visible foam, oil, grease or litter or other objectionable matter to be present in the water within and adjacent to the dredging site and along the route to the disposal site.	С
B8	Cumulative impacts shall be assessed through EM&A. Co-ordination with the EM&A consultants for other projects to determine if any exceedances are caused by the other projects or by HEC's activities. Should monitoring results indicate exceedances at sensitive receivers due to HEC's activities, then the above described mitigation measures shall be implemented until impacts reduce to acceptable levels.	N/A
	NOISE	
C1	General noise mitigation measures shall be employed at all work sites throughout the construction phase.	С
C2	Mitigate against general construction noise during Sunday's and public holidays, either at source with portable noise barriers, or by rescheduling of some PMEs to less sensitive time periods.	С
C3	Mitigate against night time noise from dredging equipment, with silencers or mufflers.	N/A

EM&A Log Ref.	Mitigation Measures	Implementation Status
	LANDSCAPE & VISUAL IMPACTS	
D1	The following mitigation measures shall be allowed for landscape and visual improvement:	
	Use rubble mound seawall along south and west edges of the reclamation to provide a more natural look.	N/A
	Break the mass of main buildings by varying the height/division into smaller units.	N/A
	Plant trees and vegetation for screening.	N/A
	Adopt colour scheme to blend the buildings into the scenery.	N/A
	THE CONTRACT OF THE CONTRACT O	Π
	WASTE MANAGEMENT	_
E1	HEC to submit a Waste Management Plan for the construction phase to EPD. The Plan shall be verified by the IEC and shall describe the arrangements for avoidance, reuse, recovery and recycling, storage, collection, treatment and disposal of different categories of waste to be generated from the construction activities and shall take into account the recommendations of the EIA report.	С
	Dredging Waste	
E2	All vessels for marine transportation of dredged sediment shall be fitted with tight fitting seals to their bottom openings to prevent leakage of materials. In addition, loading of barges and hoppers shall be controlled to prevent splashing of dredged material into the surrounding water, and barges or hoppers should under no circumstances be filled to a level which shall cause the overflowing of materials or polluted water during loading or transportation	N/A
	Storage, Collection and Transport of Waste	
E3	Minimise windblown litter and dust during transportation by either covering trucks or transporting wastes in enclosed containers.	С
	Obtain the necessary waste disposal permits from the appropriate authorities, if they are required, in accordance with the Waste Disposal Ordinance (Cap.354), Waste Disposal (Chemical Waste) (General) Regulation (Cap.354), the Crown Land Ordinance (Cap 28), Dumping at Sea Ordinance (Cap 466) and Work Branch Technical Circular No. 22/92, Marine Disposal of Dredged Mud.	С
	Disposal of waste at Licensed sites;	С
	Develop procedures such as a ticketing system to facilitate tracking of marine mud and chemical waste, and to ensure that illegal disposal does not occur;	С
	<ul> <li>Segregate and sort the waste materials into 3 categories:</li> <li>public fill (e.g. concrete and rubble) for re-use on-site or disposal at a public filling area;</li> <li>re-use and/or recycling waste (e.g. steel and other metals);</li> </ul>	С
	<ul> <li>waste which cannot be re-used and/or recycled (e.g. wood, glass and plastic) for landfill disposal.</li> </ul>	
	• The sorting process shall be carefully monitored to avoid missing of the 3 categories. Different types of wastes shall be stockpiled and stored in different containers or skips to enhance re-use or recycling of materials and their proper disposal.	
	Maintain records of the quantities of wastes generated and disposed off-site for each category of waste.	С

EM&A Log Ref.	Mitigation Measures	Implementation Status
E4	Chemical waste that is produced, as defined by Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, shall be handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes	С
	LAND CONTAMINATION	
F1	No land Contamination mitigation measures are required during the construction phase.	N/A
	MARINE ECOLOGY	
G1	All percussive piling works shall be conducted on reclaimed land to avoid noise impact to marine mammals	N/A
G2	All construction related vessels shall approach the extension site from the north and via the East Lamma Channel to avoid disturbance to the finless porpoise	N/A
G3	Rubble mound seawall to the south and west edges of the reclamation to enhance recolonisation of marine organisms	N/A
G4	Artificial Reefs of a volume not less than 400 m <sup>3</sup> shall be deployed in a location to be decided upon consultation with the Director of Agriculture and Fisheries to serve the purpose of an Additional Habitat Enhancement Measure.	N/A
	FISHERIES	
H1	No Fisheries-specific mitigation measures are required during the construction phase.	N/A
	RISK ASSESSMENT	
I1	No risk mitigation measures are required during the construction phase.	N/A

## I.3. Power Station – Unit L9 Electrical Erection (Part B of EIA Report)

**Table I.3** Construction Phase Mitigation Measures and their Implementation

EM&A Log Ref.	Mitigation Measures	Implementation Status
	AIR QUALITY	
A1	For general construction works, the dust control measures stipulated under the Air Pollution Control (Construction Dust) Regulation shall be complied with, such as:	
	• the haul roads shall be sprayed with water to keep the entire road surface wet.	С
	the load carried by vehicle shall be covered by impervious sheeting to ensure no leakage of dusty materials from the vehicle.	N/A
	the heights from which fill materials are dropped shall be controlled to a practical level to minimise the fugitive dust arising from unloading.	N/A
A2	For the concrete batching plant, the following control measures are recommended:	
	• loading, unloading, handling, transfer or storage or any dusty materials shall be carried out in a totally enclosed system.	N/A
	The materials which may generate airborne dust emissions shall be wetted by water spray system.	N/A
	All receiving hoppers shall be enclosed on three sides up to 3m above unloading point.	N/A
	All conveyor transfer points shall be totally enclosed.	N/A
	WATER QUALITY	
B1	The following configurations and maximum rates of dredging shall be allowed:	
	3 large grab dredgers and 1 small grab dredger operating concurrently, each with rates of working of 12,000 m³ day¹ and 8,000 m³ day¹ respectively. During the flood phase of the tidal cycle the total number of large dredgers working shall be reduced by one, while during the ebb phase of the tidal cycle no reductions in the total number of dredgers shall be required.	N/A
	• 1 trailer dredger with a rate of working of 8,000 m <sup>3</sup> day <sup>-1</sup> , and 2 large grab dredgers, each with rates of working of 12,000 m <sup>3</sup> day <sup>-1</sup>	N/A
B2	Silt curtains shall be installed on the eastern, southern and north western sides of the reclamation site during dredging for the reclamation construction. This is a required mitigation measure for the construction works and shall be implemented prior to the commencement of bulk dredging.	N/A
В3	As a necessary operational constraint combined bulk dredging and sand filling for site formation shall not be permitted at any time. In addition, sand filling for site platform shall take place behind constructed sea walls which pierce the water surface.	N/A
B4	HEC shall ensure design to divert all storm drains away from Hung Shing Ye Bay.	N/A

EM&A Log Ref.	Mitigation Measures	Implementation Status
B5	Sand fill for the rubble mound seawalls shall be placed by controlled pumping down the trailer arm.	N/A
B6	EM&A shall confirm the acceptability of any impacts during construction and should any unacceptable impacts be found then one or more of the following mitigation measures shall be implemented:	N/A
	<ul> <li>reducing the number of dredgers working at any one time;</li> <li>reducing the rate of working of the dredgers;</li> <li>temporary suspension of operations;</li> <li>phasing of the works so that dredging / filling is only undertaken at certain stages of the tidal cycle.</li> </ul>	
В7	In addition to the above specific measures the following general working procedures shall be adopted.	
	fully-enclosed or watertight grabs shall be used to minimise loss of sediment during the raising of loaded grabs through the water column;	N/A
	the descent speed of grabs shall be controlled to minimise the seabed impact speed and to reduce the volume of over dredging;	N/A
	barges shall be loaded carefully to avoid splashing of material;	N/A
	all barges used for the transport of dredged materials shall be fitted with tight bottom seals in order to prevent leakage of material during loading and transport;	N/A
	all barges shall be filled to a level which ensures that material does not spill over during loading and transport to the disposal site and that adequate freeboard is maintained to ensure that the decks are not washed by wave action;	N/A
	• the speed of trailer dredgers shall be controlled to prevent propeller wash from stirring up the sea bed sediments;	N/A
	"rainbowing" sand fill from trailer dredgers shall not be permitted; and	N/A
	the works shall cause no visible foam, oil, grease or litter or other objectionable matter to be present in the water within and adjacent to the dredging site and along the route to the disposal site.	N/A
B8	Cumulative impacts shall be assessed through EM&A. Co-ordination with the EM&A consultants for other projects to determine if any exceedances are caused by the other projects or by HEC's activities. Should monitoring results indicate exceedances at sensitive receivers due to HEC's activities, then the above described mitigation measures shall be implemented until impacts reduce to acceptable levels.	N/A
	T	T
	NOISE	
C1	General noise mitigation measures shall be employed at all work sites throughout the construction phase.	С
C2	Mitigate against general construction noise during Sunday's and public holidays, either at source with portable noise barriers, or by rescheduling of some PMEs to less sensitive time periods.	С
C3	Mitigate against night time noise from dredging equipment, with silencers or mufflers.	N/A

EM&A Log Ref.	Mitigation Measures	Implementation Status
	LANDSCAPE & VISUAL IMPACTS	
D1	The following mitigation measures shall be allowed for landscape and visual improvement:	
	Use rubble mound seawall along south and west edges of the reclamation to provide a more natural look.	N/A
	Break the mass of main buildings by varying the height/division into smaller units.	N/A
	Plant trees and vegetation for screening.	N/A
	Adopt colour scheme to blend the buildings into the scenery.	N/A
	THE CONTRACT OF THE CONTRACT O	Π
	WASTE MANAGEMENT	_
E1	HEC to submit a Waste Management Plan for the construction phase to EPD. The Plan shall be verified by the IEC and shall describe the arrangements for avoidance, reuse, recovery and recycling, storage, collection, treatment and disposal of different categories of waste to be generated from the construction activities and shall take into account the recommendations of the EIA report.	С
	Dredging Waste	
E2	All vessels for marine transportation of dredged sediment shall be fitted with tight fitting seals to their bottom openings to prevent leakage of materials. In addition, loading of barges and hoppers shall be controlled to prevent splashing of dredged material into the surrounding water, and barges or hoppers should under no circumstances be filled to a level which shall cause the overflowing of materials or polluted water during loading or transportation	N/A
	Storage, Collection and Transport of Waste	
E3	Minimise windblown litter and dust during transportation by either covering trucks or transporting wastes in enclosed containers.	С
	Obtain the necessary waste disposal permits from the appropriate authorities, if they are required, in accordance with the Waste Disposal Ordinance (Cap.354), Waste Disposal (Chemical Waste) (General) Regulation (Cap.354), the Crown Land Ordinance (Cap 28), Dumping at Sea Ordinance (Cap 466) and Work Branch Technical Circular No. 22/92, Marine Disposal of Dredged Mud.	С
	Disposal of waste at Licensed sites;	С
	Develop procedures such as a ticketing system to facilitate tracking of marine mud and chemical waste, and to ensure that illegal disposal does not occur;	С
	<ul> <li>Segregate and sort the waste materials into 3 categories:</li> <li>public fill (e.g. concrete and rubble) for re-use on-site or disposal at a public filling area;</li> <li>re-use and/or recycling waste (e.g. steel and other metals);</li> </ul>	С
	<ul> <li>waste which cannot be re-used and/or recycled (e.g. wood, glass and plastic) for landfill disposal.</li> </ul>	
	• The sorting process shall be carefully monitored to avoid missing of the 3 categories. Different types of wastes shall be stockpiled and stored in different containers or skips to enhance re-use or recycling of materials and their proper disposal.	
	Maintain records of the quantities of wastes generated and disposed off-site for each category of waste.	С

EM&A Log Ref.	Mitigation Measures	Implementation Status
E4	Chemical waste that is produced, as defined by Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, shall be handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes	С
	LAND CONTAMINATION	
F1	No land Contamination mitigation measures are required during the construction phase.	N/A
	MARINE ECOLOGY	
G1	All percussive piling works shall be conducted on reclaimed land to avoid noise impact to marine mammals	N/A
G2	All construction related vessels shall approach the extension site from the north and via the East Lamma Channel to avoid disturbance to the finless porpoise	N/A
G3	Rubble mound seawall to the south and west edges of the reclamation to enhance recolonisation of marine organisms	N/A
G4	Artificial Reefs of a volume not less than 400 m <sup>3</sup> shall be deployed in a location to be decided upon consultation with the Director of Agriculture and Fisheries to serve the purpose of an Additional Habitat Enhancement Measure.	N/A
	FISHERIES	
H1	No Fisheries-specific mitigation measures are required during the construction phase.	N/A
	RISK ASSESSMENT	
I1	No risk mitigation measures are required during the construction phase.	N/A

## I.4. Transmission System – Civil Works (Part C of EIA Report)

**Table I.4** Construction Phase Mitigation Measures and their Implementation

EM&A Log Ref.	Mitigation Measures	Implementation Status
	AIR QUALITY	
J1	To mitigate potential construction related dust impacts, the dust control measures stipulated under the Air Pollution Control (Construction Dust) Regulation shall be complied with, such as:	
	all debris or materials shall be either covered or stored in a debris sheltered collection area;	С
	• prior to any material handling, all dusty material shall be sprayed with water.	С
	WATER QUALITY	
K1	No mitigation measures are considered necessary.	N/A
	NOISE	
L1	N4-N5 Cable Route Selection and use of quiet PMEs, or use of modest source noise controls with standard PMEs	С
L2	N5 Landing Point Selection and use of quiet PMEs (particularly the barge-mounted crane), or use of comparably effective source noise controls with the PMEs;	С
L3	For non-percussive piling – use of equipment with a SWL of 113 dB(A) or less if there is no programme overlap of the piling with the site formation works, otherwise offsetting source noise controls shall be required.	N/A
L4	For percussive piling – use of equipment with a SWL of 115 dB(A) or less, otherwise, offsetting source noise controls shall be required.	N/A
L5	If non-percussive piling and site formation activities are to be carried out simultaneously then careful equipment selection and source controls shall be required for both activities to reduce each by approximately 3 dB(A).	N/A
	MARINE ECOLOGY	
M1	Construction of rubble mound seawalls for the landing and launching points at Lamma Island.	С
	FISHERIES	
N1	No fisheries-specific mitigation measures are required during the construction phase	N/A

EM&A Log Ref.	Mitigation Measures	Implementation Status
	TERRESTRIAL ECOLOGY	
	The following mitigation measures shall be implemented to protect the important plant species and minimizing disturbance to the surrounding environment through good construction practice, as recommended below:	
01	Avoidance of impact on the uncommon and rare plant species <i>Celtis biondii</i> , <i>Pteris dispar</i> and <i>Ardicia pusilla</i> , and the restricted plants <i>Vitis balansaeana</i> , <i>Pterospermum heterophyllum</i> and <i>Rhapis excelsa</i> , by locating the landing points N4 & N5 and the connecting cable trough in areas outside where these plant species are located (Figures 9.4b & 9.4c, Part C, Volume 2), as well as close monitoring of the construction activity.	С
O2	The erection of fences along the boundary of construction sites before the commencement of works to prevent tipping, vehicle movements, and encroachment of personnel into adjacent wooded areas, particularly where the rare, uncommon and restricted plant species are located.	С
О3	Regular checking to ensue that the work site boundaries are not exceeded and that no damage occurs to surrounding areas.	С
O4	The prohibition and prevention of open fires within the work site boundary during construction and provision of temporary fire fighting equipment in the work area during construction.	С
	LANDSCAPE AND VISUAL IMPACT	
P1	The visual impact of the Cable Landing Point I1 is considered negligible as it would have similar appearance as the existing sea wall and therefore no mitigation is required.	N/A
P2	The proposed landing points N2, N4 and N5, the following landscaping mitigation measures are recommended to minimize the potential impacts:	
	• Although the size of the landing points varies (N2 is 26x70m, N4 is 27x65m and N5 is 33x56m), each has a finished platform level at +6.00mPD. With the Low Water Level at +1.00mPD, the platforms shall be a maximum of some 5m above the water level at low tide. In order to minimize the visual impact of the landing points, the exposed sides of the platforms and the cable slipways shall be screened with irregularly arranged boulders of varying sizes to mimic the natural coastline features. The horizontal platform surface shall be finished with natural materials such as stone pavings or tiles.	С
	• The cable trough in between Landing Points N4 and N5 is 5.5m wide and 260m long. The walkway that is formed above the cable trough shall be shielded by boulders (or, where practicable, shrub planting) from potential viewers from the sea and horizontal surfaces be finished with natural materials such as stone paving.	N/A
	Appropriate compensatory landscaping shall be provided for any disruption to existing vegetation to blend in with the surrounding setting.	N/A

EM&A Log Ref.		Implementation Status
	<ul> <li>As a planning gain, parts of the landing points N4 and N5 and the cable trough between the landing points can be used for amenity and recreational purposes. Some low maintenance fixtures, matching with the natural environment, shall be built or placed on the landing points for public use. HEC shall resolve any management and maintenance requirements of the proposed mitigation measures during the processing stage of wayleave agreements. If required by Government, HEC commit to bear the management and maintenance responsibilities of these facilities.</li> </ul>	N/A

## Remarks:

Compliance with mitigation measure Non-compliance with mitigation measure Not Applicable C -NC -

N/A -

# I.5. Transmission System – Cable Laying (Part C of EIA Report)

 Table I.5
 Construction Phase Mitigation Measures and their Implementation

EM&A Log Ref.	Mitigation Measures	Implementation Status
	AIR QUALITY	
J1	To mitigate potential construction related dust impacts, the dust control measures stipulated under the Air Pollution Control (Construction Dust) Regulation shall be complied with, such as:	
	all debris or materials shall be either covered or stored in a debris sheltered collection area;	N/A
	• prior to any material handling, all dusty material shall be sprayed with water.	N/A
1		
	WATER QUALITY	
K1	No mitigation measures are considered necessary.	N/A
	NOISE	
L1	N4-N5 Cable Route Selection and use of quiet PMEs, or use of modest source noise controls with standard PMEs	N/A
L2	N5 Landing Point Selection and use of quiet PMEs (particularly the barge-mounted crane), or use of comparably effective source noise controls with the PMEs;	N/A
L3	For non-percussive piling – use of equipment with a SWL of 113 dB(A) or less if there is no programme overlap of the piling with the site formation works, otherwise offsetting source noise controls shall be required.	N/A
L4	For percussive piling – use of equipment with a SWL of 115 dB(A) or less, otherwise, offsetting source noise controls shall be required.	N/A
L5	If non-percussive piling and site formation activities are to be carried out simultaneously then careful equipment selection and source controls shall be required for both activities to reduce each by approximately 3 dB(A).	N/A
	MARINE ECOLOGY	
M1	Construction of rubble mound seawalls for the landing and launching points at Lamma Island.	N/A
	FISHERIES	
N1	No fisheries-specific mitigation measures are required during the construction phase	N/A

EM&A Log Ref.	Mitigation Measures	Implementation Status
	TERRESTRIAL ECOLOGY	
	The following mitigation measures shall be implemented to protect the important plant species and minimizing disturbance to the surrounding environment through good construction practice, as recommended below:	
O1	Avoidance of impact on the uncommon and rare plant species <i>Celtis biondii</i> , <i>Pteris dispar</i> and <i>Ardicia pusilla</i> , and the restricted plants <i>Vitis balansaeana</i> , <i>Pterospermum heterophyllum</i> and <i>Rhapis excelsa</i> , by locating the landing points N4 & N5 and the connecting cable trough in areas outside where these plant species are located (Figures 9.4b & 9.4c, Part C, Volume 2), as well as close monitoring of the construction activity.	N/A
O2	The erection of fences along the boundary of construction sites before the commencement of works to prevent tipping, vehicle movements, and encroachment of personnel into adjacent wooded areas, particularly where the rare, uncommon and restricted plant species are located.	N/A
О3	Regular checking to ensue that the work site boundaries are not exceeded and that no damage occurs to surrounding areas.	N/A
O4	The prohibition and prevention of open fires within the work site boundary during construction and provision of temporary fire fighting equipment in the work area during construction.	N/A
	LANDSCAPE AND VISUAL IMPACT	<u> </u>
P1	The visual impact of the Cable Landing Point I1 is considered negligible as it would have similar appearance as the existing sea wall and therefore no mitigation is required.	N/A
P2	The proposed landing points N2, N4 and N5, the following landscaping mitigation measures are recommended to minimize the potential impacts:	
	• Although the size of the landing points varies (N2 is 26x70m, N4 is 27x65m and N5 is 33x56m), each has a finished platform level at +6.00mPD. With the Low Water Level at +1.00mPD, the platforms shall be a maximum of some 5m above the water level at low tide. In order to minimize the visual impact of the landing points, the exposed sides of the platforms and the cable slipways shall be screened with irregularly arranged boulders of varying sizes to mimic the natural coastline features. The horizontal platform surface shall be finished with natural materials such as stone pavings or tiles.	N/A
	• The cable trough in between Landing Points N4 and N5 is 5.5m wide and 260m long. The walkway that is formed above the cable trough shall be shielded by boulders (or, where practicable, shrub planting) from potential viewers from the sea and horizontal surfaces be finished with natural materials such as stone paving.	N/A
	Appropriate compensatory landscaping shall be provided for any disruption to existing vegetation to blend in with the surrounding setting.	N/A

EM&A Log Ref.		Implementation Status
	<ul> <li>As a planning gain, parts of the landing points N4 and N5 and the cable trough between the landing points can be used for amenity and recreational purposes. Some low maintenance fixtures, matching with the natural environment, shall be built or placed on the landing points for public use. HEC shall resolve any management and maintenance requirements of the proposed mitigation measures during the processing stage of wayleave agreements. If required by Government, HEC commit to bear the management and maintenance responsibilities of these facilities.</li> </ul>	N/A

# Remarks:

Compliance with mitigation measure Non-compliance with mitigation measure Not Applicable C -NC -

N/A -

# Appendix J

Tentative Construction Programme

					April 2006   May 2006   June 2006
ID	Activities	Duration	Start	Finish	30 02 05 08 11 14 17 20 23 26 29 02 05 08 11 14 17 20 23 26 29 01 04 07 10 13 16 19 22
1	Main Station Bldg. and HRSG	863 days	02 Apr '04	12 Aug '06	
2	Pile head treatment	29 days	02 Apr '04	30 Apr '04	
3	Earthing system	30 days	11 May '04	09 Jun '04	
4	Pile cap and tie beam	110 days	16 May '04	02 Sep '04	
5	1/F construction	60 days	26 Dec '04	23 Feb '05	
6	2/F Construction	90 days	01 Dec '04	28 Feb '05	
7	3/F Construction	45 days	15 Jan '05	28 Feb '05	
8	4/F Construction	45 days	01 Feb '05	17 Mar '05	
9	5/F Construction	45 days	02 Mar '05	15 Apr '05	
10	R/F Construction	45 days	17 Mar '05	30 Apr '05	
11	Deferred works - East	50 days	21 Apr '05	09 Jun '05	
12	Deferred works - West	76 days	17 May '05	31 Jul '05	
13	Deferred works - South	45 days	15 Oct '05	28 Nov '05	
14	Deferred works - Air Inlet	50 days	01 Jan '06	19 Feb '06	
15	Deferred works - North	25 days	10 Feb '06	06 Mar '06	
16	Deferred works - Tiling at +16.15	90 days	15 May '06	12 Aug '06	
17	Deferred works - Firewall at Transformer Bay	46 days	20 Jul '05	03 Sep '05	
18	Deferred works - Metal Fence at Transformer Bay	45 days	01 Mar '06	14 Apr '06	
19					
20	275kV Bldg.	651 days	03 May '04	12 Feb '06	
21	Pile head treatment	22 days	03 May '04	24 May '04	
22	Earthing system	30 days	11 May '04	09 Jun '04	
23	Pile cap and tie beam	45 days	16 May '04	29 Jun '04	
24	1/F construction	90 days	01 Jun '04	29 Aug '04	
25	2/f construction	90 days	30 Aug '04	27 Nov '04	
26	3/f construction	45 days	28 Nov '04	11 Jan '05	
27	Roof construction	45 days	12 Jan '05	25 Feb '05	
28	Surrounding Cable Trench	120 days	15 Apr '05	12 Aug '05	
29	Surrounding External works	60 days	15 Dec '05	12 Feb '06	
30					
31	No. 4 Chimney	664 days	30 Jun '04	24 Apr '06	
32	Pile head treatment	30 days	30 Jun '04	29 Jul '04	
33	Pile cap construction	63 days	30 Aug '04	31 Oct '04	

Lamma Power Station Extension - Unit 9 Civil and Building Work 3-Month Programme

Scheduled Activity

ID	Activities	Duration	Start	Finish	April 2006   May 2006   June 2006   30   02   05   08   11   14   17   20   23   26   29   02   05   08   11   14   17   20   23   26   29   01   04   07   10   13   16   19   22   25
34	Superstructure construction	300 days	01 Nov '04	27 Aug '05	
35	Steel and Internal Works	180 days	28 Aug '05	23 Feb '06	
36	Remaining Works	60 days	24 Feb '06	24 Apr '06	
37	Tromaining vronce	oo dayo	2110000	217701 00	
38	Road & Drainage Works	694 days	05 Jul '04	29 May '06	
39	Along Loading and Unloading Area	88 days	05 Jul '04	30 Sep '04	
40	Breaking up the road concrete	10 days	05 Jul '04	14 Jul '04	
41	Pipe installation	48 days	15 Jul '04	31 Aug '04	
42	Testing	7 days	01 Sep '04	07 Sep '04	
43	Haunching and Road making good	23 days	08 Sep '04	30 Sep '04	
44	North Seafront Road	630 days	09 Jul '04	30 Mar '06	
50	East Bridge Road	579 days	28 Oct '04	29 May '06	
51	Excavation	30 days	28 Oct '04	26 Nov '04	
52	Pipe installation	90 days	27 Nov '04	24 Feb '05	
53	Testing	14 days	04 Mar '05	17 Mar '05	
54	Haunching and Road making good	120 days	11 Mar '05	08 Jul '05	
55	External Utility Work and Ground Finish	45 days	15 Apr '06	29 May '06	
56	Chimney Road	513 days	08 Nov '04	04 Apr '06	
57	Excavation	30 days	08 Nov '04	07 Dec '04	
58	Pipe installation	90 days	08 Dec '04	07 Mar '05	
59	Testing	30 days	15 Mar '05	13 Apr '05	
60	Haunching and Road making good	120 days	22 Mar '05	19 Jul '05	
61	External Utility Work and Ground Finish	80 days	15 Jan '06	04 Apr '06	
62					
63	C W Culvert System	577 days	15 Aug '04	14 Mar '06	
64	Outlet Section	392 days	15 Aug '04	10 Sep '05	
77	Inlet Section	152 days	13 Oct '04	13 Mar '05	
84					
85	C W Pump Equipment Room	115 days	15 Jul '05	06 Nov '05	
90					
91	Pipe & Cable Rack	296 days	23 May '05	14 Mar '06	
96					
97	Gas Receiving Station	236 days	15 Jul '05	07 Mar '06	

Lamma Power Station Extension - Unit 9 Civil and Building Work 3-Month Programme

Scheduled Activity

# 3 month work schedule for Lamma power station extension Unit-9

Item	Description	Start	Finish		Apr			May			Jun		
	·			1 1	) 2	0 3	0 1	0 2	0 3	1 1	0 2	0 3	30
1	HRSG erection	28 Mar,05	Cont										╛
2	Steam turbine erection	01 Mar,05	Cont										4
	Gas turbine erection	45 Max 05	Cont									<u> </u>	_
3	Gas turbine erection	15 Mar,05	Cont										=
4	Generator erection	15 Mar,05	Cont										=
- 5	Condenser erection	15 Feb,05	Cont										
3	CONTRENSE ELECTION	13 Feb,03	Cont										٦
6	Aux equipment erection	01 Apr,05	Cont										Ξ
7	Air duct / Inlet filter	25 Apr,05	Cont										_
													_
8	HRSG inlet duct	21 May, 05	Cont										Ξ
												<u> </u>	_
9	Piping support / Piping erection	01 Jun,05	Cont										=
10	Insulation work	23 Feb,05	Cont										=
		,											
11	Platform installation	11 Apr, 05	Cont										Ξ
12	Pipe rack installation	26 Aug, 05	Cont										=
13	Intake aux equipment installation	08 Aug, 05	Cont										4
14	Bop piping installation	08 Aug, 05	Cont										=
15	GRS piping installation	20 Dec, 05	Cont										$\exists$
		,											

# CONTRACT NO. 04/9013 LAMMA POWER STATION EXTENSION UNIT 9 COMPLETE ERECTION, INSPECTION, TESTING & COMMISSIONING OF POWER BLOCK ELECTRICAL, INSTRUMENTATION AND CONTROL FACITILITIES

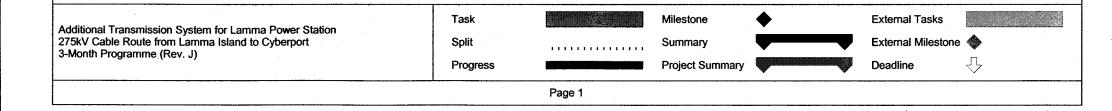
#### 3 MONTH PROGRAMME (APRIL 2006 TO JUNE 2006)

ID	T. J. M	Ct- t	Pluist.	1 //	0//	April	2274	2014	ב וב		ay	2615	216		ne	24/6
ID 1	Task Name	Start	Finish	1/4	8/4	15/4	22/4	28/4	5/5	12/5	19/5	26/5	3/6	10/6	17/6	24/6
2	L9 Electrical Erection	Sat 1/4/06	Fri 30/6/06													
3	Cable Tray & Earthing Installation	Sat 1/4/06	Fri 30/6/06										ı			
4	Instrument Piping Installation	Sat 1/4/06	Fri 30/6/06										ļ			
5	Conduit Installation	Sat 1/4/06	Fri 30/6/06										l			
6	Cable Laying	Sat 1/4/06	Fri 30/6/06													
7	Cable Termination	Sat 1/4/06	Fri 30/6/06													
'	Choic Commission	540 17 1700	111 5 57 57 50													

SANKO SETSUBI CO., LTD.

					April				May				.	June			
ID	Task Name	Start	Finish	26/3	2/4	9/4	16/4 2	23/4	30/4	7/5	14/5	21/5	28/5	4/6	11/6	18/6	25/6
1																	
2	Pipeline Installation	Sat 1/4/06	Fri 30/6/06	J	<b>—</b>												
3																	
4	Pre-commissioning	Sat 1/4/06	Mon 15/5/06														
5	Initial Charging with Gas	Thu 15/6/06	Fri 30/6/06														

				Mai						April				May				
ID	Task Name	Start	Finish	26/2	5/3	3   12	2/3 1	19/3	26/3	2/4	9/4	16/4	23/4	30/4	7/5	14/5	21/5	28
1	Civil Works																	
2			· -															
3	Site Procession & Preparation Work	Tue 25/5/04	Mon 12/7/04															
4																		
5	Within Lamma Power Station																	
6	Construction of Cable Duct	Mon 4/10/04	Thu 29/9/05															:
7	Construction of Cable Duct North Portal	Mon 12/7/04	Tue 31/1/06	1														
8	Backfilling Work inside Cable Duct after Cable Laying	Wed 1/3/06	Fri 28/4/06	ZZ	ZZ	777	777	777	777	777	777	7777	ZZZ					
9				1														
10	Yung Shue Wan South				# # #													
11	Construction of Cable Landing Point	Mon 12/7/04	Sat 31/12/05	1														
12	Construction of Cable Duct South Portal	Mon 12/7/04	Sat 31/12/05	1							_							
13				1														
14	Pak Kok San Tsuen			1														
15	Construction of Cable Landing Point	Tue 24/8/04	Fri 14/10/05	1													٠	
16	Construction of Cable Trenches	Sat 30/7/05	Sat 31/12/05															
17	Construction of Cable Duct	Thu 25/11/04	Fri 30/9/05															:
18	Construction of Cable Duct South Portal	Wed 25/8/04	Mon 16/1/06															
19	Backfilling Work inside Cable Duct after Cable Laying	Wed 1/3/06	Fri 28/4/06		777	ZZ	ZZZ	7777	777	7777	777	777.	7777					
20	Backfilling Work at Cable Trenches after Cable Laying	Wed 1/3/06	Fri 28/4/06		777		777		<u> </u>		777	777	ZZZZ					
21				1														
22	Pak Kok Tsui	-		1														
23	Construction of Cable Landing Point	Mon 12/7/04	Wed 14/9/05	1														
24	Construction of Cable Duct North Portal	Mon 12/7/04	Sat 31/12/05	1														



Contract No.: 01/9046

Project: Installation of 275kV/Communication Submarine and Land Cables with Accessories for Lamma - Cyberport Circuits

## CONSTRUCTION SCHEDULE (FORECAST FOR 3 MONTHS)

Issue: 22 Date: 30-Mar-06

										CO	เทร	KL	ICT.	IUN	SC	HEL	וטכ	LE (	(FO	KE	CAS	<u> </u>	<u>UK</u>	3 IV	<u> 1UI</u>	ıн	<u>১)</u>															[	Jate:	: 3	0-Ma	ar-U6	)	
Date							Apr	il, 20	006														Ma	ay, 20	006															June	e, 20	006						
Item	1 2 3	4	5 6	7 8 9	9 10	11 12 1	13 14	15 16	17 18	19 20	21 22	23 2	4 25 2	6 27 2	28 29 3	30 1 2	2 3	4 5	6 7	7 8	9 10	11 12	13 14	15 16	17 18	19 20	21 22	23 24	25 26	27 2	3 29 30	31 1	1 2	3 4	5 6	7 8	8 9	10 11	12 13	3 14 1	15 16	17 18	19 20	0 21 2	22 23 2	24 25	26 27	28
Dredging/Excavation of Submarine Cable 1 Trench outside N2 Landing Point (Completed)																																																
Dredging/Excavation of Submarine Cable Trench outside N4 Landing Point (Completed)																																																
Dredging/Excavation of Submarine Cable Trench outside N5 Landing Point (Completed)																																																
Dredging/Excavation of Submarine Cable Trench outside I1 Landing Point (Completed)																																																
Removing Seabed Obstructions and subsequently backfilling between N2 & N4 Landing Points (Further Excavation)																																																
Sweeping on the seabed between N5 & I1 Landing Points (Completed)																																																
Sweeping on the seabed between N2 & N4 Landing Points (Completed)																																																
Preparation & Installation of Submarine 8 Cables between N5 & I1 (Completed)																																																
9 Preparation & Installation of Submarine Cables between N2 & N4																																																
Backfilling & Cable Protection outside N2 Landing Point																																																
Backfilling & Cable Protection outside N4																																																ī
Landing Point																																																
Backfilling & Cable Protection outside N5 Landing Point																																																
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Backfilling & Cable Protection outside I1 Landing Point																$\frac{1}{1}$																																
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# Appendix K

Supply and Installation of Submarine Gas Pipeline

Monthly EM&A Report prepared by a Consultant as one of the ET Members

# LAMMA POWER STATION EXTENSION Supply and Installation of Submarine Gas Pipeline

# Environmental Monitoring and Audit Report March 2006

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#### THE HONGKONG ELECTRIC CO., LTD.

LAMMA POWER STATION EXTENSION

Supply and Installation of Submarine Gas Pipeline Contract No. 03/9008





#### Saipem

	REVISION	STATUS
<b>Doc. No.:</b> LTLD-32-1-138-G	0	Α



# THE HONGKONG ELECTRIC CO. LTD



#### Saipem

Doc. Title: Environmental Monitoring and Audit Report (March 06)

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Revision: 0

Date : 07.04.2006

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# Saipem Asia Sdn. Bhd

# Lamma Power Station ExtensionSupply and Installationof Submarine Gas Pipeline

Environmental Monitoring and Audit Report (Version 0.A)

March 2006

Approved By

(Project Director: Dr. HF Chan)

#### REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

CINOTECH accepts no responsibility for changes made to this report by third parties.

#### **CINOTECH CONSULTANTS LTD**

Room 1602-1610, Delta House, 3 On Yiu Street, Shatin, NT, Hong Kong Tel: (852) 2151 2083 Fax: (852) 3107 1388 Email: info@cinotech.com.hk

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# LIST OF ABBREVIATION

EIA	Environmental Impact Assessment
EM&A	Environmental Monitoring and Audit
ET	Environmental Team
GRS	Gas Receiving Station
HEC	Hong Kong Electric Co. Ltd
LNG	Liquefied Natural Gas

#### **EXECUTIVE SUMMARY**

#### Introduction

1. This is the fourteenth Environmental Monitoring and Audit (EM&A) Report prepared by Cinotech Consultants Limited (ET-Cinotech) for the project "Lamma Power Station Extension – Supply and Installation of Submarine Gas Pipeline" (the Project). This document reported the findings of EM&A Works conducted in March 2006.

#### **Environmental Monitoring Works**

Water Quality

2. No water quality monitoring for the Project was carried out in the reporting month.

#### **Complaints and Prosecutions**

 No environmental complaint and prosecution was received during the reporting month. As regard to the complaint raised by the local Fisherman reported in the Monthly EM&A Report (October 2005) pertaining to their concerns on the rock dumping operations of the Project. This work is now completed.

#### **Future Key Issues**

4. Pipeline discharge work is the major for coming activity. The hydrotest medium is tentatively planned to be discharged in Mainland China waters in April 2006 and a discharge license have been applied from the PRC Authorities. No environmental impact is anticipated from the works.

#### 1 INTRODUCTION

#### **Background**

- 1.1 Hong Kong Electric Co., Ltd. (HEC) proposed to develop a 1,800 MW power station in Hong Kong Special Administrative Region (HKSAR) to meet the forecast increase in electricity demand to cope with the social and economical growth of the HKSAR. The proposed power station is located at reclaimed land in the south of the existing Lamma Power Station at the western edge of Lamma Island, termed Lamma Power Station Extension.
- 1.2 The proposed Power Station will use natural gas as fuel to generate electricity. The natural gas will be supplied from Guandong Liquefied Natural Gas (GD LNG) Terminal located at Cheng Tou Jiao of Shenzen PRC via a 20 inches diameter gas submarine pipeline.
- 1.3 HEC commissioned Saipem Asia Sdn. Bhd. (hereafter called "the Contractor) for the design, engineering, supply of materials, fabrication, testing at works, delivery to site, complete erection including pre-trenching, pipe laying, rock dumping, testing and pre-commissioning at site, preservation during the Defects Liability Period of Submarine Gas Pipeline under to Project titled "Lamma Power Station Extension Supply and Installation of Submarine Gas Pipeline" (hereinafter called "the Project"). Cinotech Consultants Limited was subsequently commissioned by the Contractor as the Environmental Team (ET-Cinotech) to provide environmental consultancy services and to undertake the Environmental Monitoring and Audit (EM&A) works for the Project.
- 1.4 The Project works include Pre-Trenching works, Pipe-Lay installation, Post-Lay Trenching (Jetting) and Rock Dumping works related to the installation of 92 km of 20 inches diameter Submarine Gas Pipeline between Guandong Liquefied Natural Gas Terminal (GD LNG) and the receiving point at Gas Receiving Station (GRS) at South-West of Lamma Extension on Lamma Island of Hong Kong SAR. An Environmental Permit (EP) has been issued for the Lamma Power Station Extension project. Variations to the EP requirements have been proposed recently for the Project works and the VEP no. EP-071/2000/C was issued on 18<sup>th</sup> May 2005.
- 1.5 The Pre-Trenching works, Pipe-Lay installation, Post-Lay Trenching (Jetting) and rock dumping have been completed. Pipeline discharge work is the major forthcoming activity. The hydrotest medium is tentatively planned to be discharged in Mainland China waters in April 2006 and a discharge license have been applied from the PRC Authorities.

#### **Project Organizations**

- 1.6 Different parties with different levels of involvement in the project organization include:
  - Project Proponent –Hong Kong Electric Co., Ltd. (HEC)
  - Contractor Saipem Asia Sdn. Bhd.
  - Environmental Team (ET-Cinotech) Cinotech Consultants Limited

1.7 The responsibilities of respective parties are detailed in Section 3 of the EM&A Requirements Review (Review) and the project organization chart is presented in Figure 3.1 of the Review. The key contacts of the ET- Cinotech are shown in Table 1.1.

**Table 1.1 Key Project Contacts** 

Party	Name	Role	Phone No.	Fax No.
	Dr. Priscilla Choy	Project Manager	2151 2089	3107 1388
ET- Cinotech	Mr. Alex Ngai	Coordinator	2151 2090	3107 1388
	Mr. Henry Leung	Monitoring Team Leader	2151 2087	3107 1388

#### 2 WATER QUALITY MONITORING

2.1 No water quality monitoring was carried out in the reporting month.

#### 3 ENVIRONMENTAL AUDIT

#### **Implementation Status of Mitigation Measures**

3.1 The implementation status of mitigation measures is summarized in Appendix A.

# Summary of Non-compliance of the Environmental Quality Performance Limit

3.2 No non-compliance was recorded during the site audits in the reporting month.

#### **Summary of Complaints and Prosecution**

- 3.3 No environmental complaint and prosecution was received during the reporting month. As regard to the complaint raised by the local Fisherman reported in the Monthly EM&A Report (October 2005) pertaining to their concerns on the rock dumping operations of the Project. This work is now completed.
- 3.4 The complaint log for the Project is provided in Appendix B.

#### 4 FUTURE KEY ISSUES

#### **Key Issues for the Coming Month**

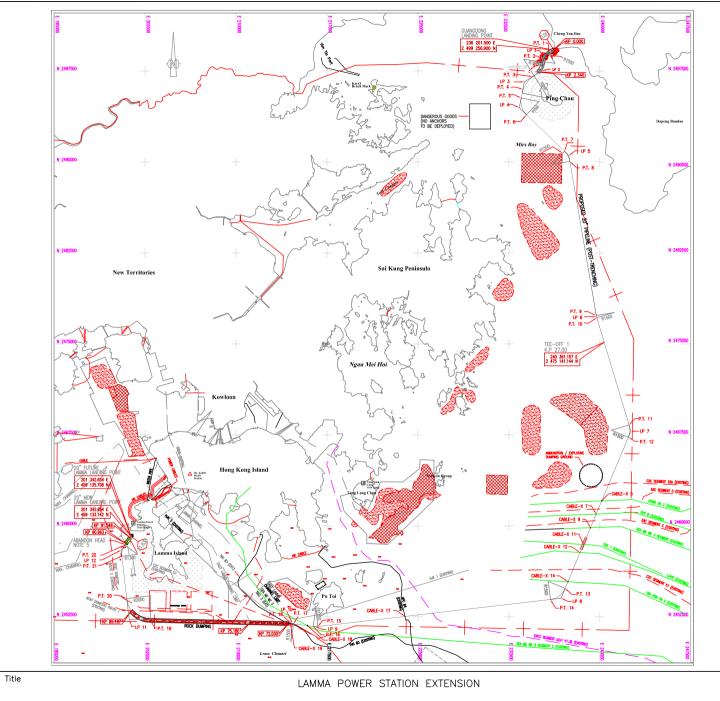
4.1 Pipeline discharge work is the major forthcoming activity. The hydrotest medium is tentatively planned to be discharged in Mainland China waters in April 2006 and a discharge license have been applied from the PRC Authorities. Ad hoc site inspection will be carried out as necessary in accordance with the EM&A Manual. In accordance with the pipeline discharge, the PRC Authorities will carry out water quality monitoring.

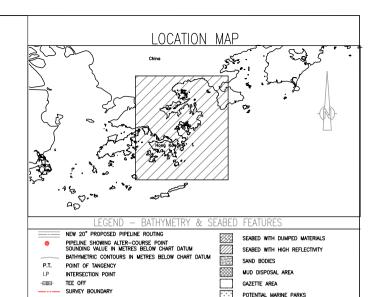
#### 5 CONCLUSIONS AND RECOMMENDATIONS

#### **Conclusions**

- 5.1 No environmental monitoring and audit works were performed in the reporting month.
- 5.2 Pipeline discharge work is the major forthcoming activity. The hydrotest medium is tentatively planned to be discharged in Mainland China waters in April 2006 and a discharge license have been applied from the PRC Authorities. No environmental impact is anticipated.

# **FIGURE**





#### GEODETIC PARAMETERS

DATUM : WGS 84 SPHEROID · WGS 84

PROJECTION : UNIVERSAL TRANSVERSE MERECATOR ZONE 50

#### GENERAL NOTES

- ALL DIMENSIONS AND COORDINATE ARE IN METER UNLESS OTHERWISE NOTED
   POINT OF TANCENCY (P.1), INTERSECTION POINT (I.P.) AND CABLES —X COORDINATES ARE PRESENTED ON
  PIPELINE ALGIMENT SHEET FROM K.P. 0.00 TO K.P. 91.638
- 3. KP. 0.00 IS FROM GUANGDONG TERMINAL

EXISTING UNBURIED CABLE

ANCHOR / TRAWL MARKS

+----+ HONG KONG WATER BOUNDARY

SMALL TARGETS

4. PIPELINE TRENCHING IS FROM (K.P 0.00 TO K.P 91.596)
5. ABANDON HEAD FOR FUTURE 20" CONNECTION

NUMEROUS TRAWL SCARS / TRAWL SCARS

- THE ROUTE HAS BEEN CHANGED SLIGHTLY TO AVOID ITEMS No. 2, 3 AND 4, WITH THE NEW ROUTE STILL WITHIN THE SURVEYED CORRIDOR.

ROCK DUMPING									
ITEM	DESCRIPTION	DESCRIPTION LOCATION		LOCATION		COORD	INATES	LENGTH	REMARKS
1111111	DESORT HOR			EASTING	NORTHING	(m)	KEMPKKS		
1	LAMMA NAVIGATION CHANNEL	START KP	91.492	201257.067	2459014.325	597	PRE-TRENCH		
		END KP	90.895	200908.315	2458530.164	597	(DREDGING METHOD)		
2	SOUTH LAMMA ANCHORAGE ZONE	START KP	85.187	201388.269	2453015.705	40000	POST-TRENCH		
		END KP	75.180	211178.791	2452029.904	10000	(JETTING METHOD)		
3		START KP	75.180	211177.747	2452029.928	3150	POST-TRENCH		
	OF PO TOI	END KP	72.030	214327.791	2451950.529	3130	(JETTING METHOD)		
4	SHENZHEN SHORE APPROACH	START KP	2.340	234934.490	2497405.926	2340	PRE-TRENCH		
		END KP	0.000	236201.500	2499256.900	2540	(DREDGING METHOD)		

	DUMPED MATERIALS (NOTE 6)							
ITEM	LOCATION	TOTAL LENGTH (m)	SEABED TYPE	BURIAL METHOD				
1	KP 0.5 - KP 1.5	475.53	SEABED WITH DUMPED MATERIALS	PRE-TRENCH				
2	KP 4 - KP 4.5	15.52	SEABED WITH DUMPED MATERIALS	POST-TRENCH				
3	KP 70 - KP 70.5	168.78	SEABED WITH HIGH REFLECTIVITY	POST-TRENCH				
4	KP 89.5 - KP 90.5	60.5	SEABED WITH DUMPED MATERIALS	POST-TRENCH				

LAYOUT OF THE SUBMARINE GAS PIPELINE

Scale Project MA4017 1 : 220 000 A3 Date Figure No. 2005 1.1



AMMUNITION / EXPLOSIVE DUMPING GROUND PROPOSED SSDS ALTERNATIVE OUTFALLS

SAND WAVES

FLOATER

APPENDIX A
CONSTRUCTION PHASE MITIGATION
MEASURES AND THEIR
IMPLEMENTATION (GAS PIPELINE)

#### Appendix A – Construction Phase Mitigation Measures and their Implementation (Gas Pipeline)

EP- 071/200 0/C	EM&A Log Ref.	Mitigation Measures	Implemen- tation Status
		AIR QUALITY	
	Q1	For the fuel gas supply system, equipment shall be chosen and measures taken, so as to prevent CH <sub>4</sub> leakage from the system. In accordance with this recommendation, HEC shall be implementing the following:	
		corrosion-preventing coatings on the pipeline;	С
		welded pipe joints; and	С
		laying of pipeline below sea bed such that it is well protected from potential damages by marine activities.	С
	Q2	HEC shall submit to EPD for review, a report of the above actions.	С
		WATER QUALITY	
3.8	R1	The following rates of dredging for the trenches at the Shenzhen and Lamma approaches and the rate of progress of the jetting shall be adopted:	
		a single small grab dredger with a maximum daily rate of working of 2,400m <sup>3</sup>	NA
		maximum forward speed of the jetting machine shall be 7 m per minute	NA
	R2	No further mitigation measures were considered necessary, however if unacceptable impacts were to be found in the course of the EM&A programme for the pipeline jetting, then the following measures shall be implemented:	
		reducing the speed of the water jetting machine; and	NA
		temporary suspension of the works.	NA
3.10	Pipeline jetting shall only be carried out in the open sea which is far away from sensitive receivers as recommended in the application document for variation of an environmental permit (the Application VEP-174/2005) and indicated in the Figure C1 at the Appendix C of the Permit during the initial jetting operation. Water quality monitoring shall be conducted during the pipeline jetting.		NA
		MARINE ECOLOGICAL IMPACTS	
3.9	S1	To avoid disruption to the <i>Neophocaena phocaenoides</i> (finless porpoise) population in the southwestern coastal waters of Lamma Island, pipeline jetting works located off the coast of southwest Lamma shall not be carried out during spring time from March to May.	С
		HAZARDS	
	T1	Detail quantitative risk study shall be conducted in accordance with the requirements in the Gas Safety Ordinance (Cap.51) to satisfy EMSD's requirements which shall ensure adequate design of the pipeline to protect against third party damage and safe operation of the pipeline system.	С
	T2	HEC shall review their existing safety management system against current best practice.	С

#### Remarks:

C - Compliance with mitigation measure NC - Non-compliance with mitigation measure

N/A - Not Applicable

# APPENDIX B COMPLAINT LOG

# **Appendix B - Complaint Log**

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
001	South of the Lamma anchorage areas	October 2005	The local fishermen raised their concerns on the rock dumping operations of the Project.	The complaint is being handled by Hong Kong Electric Co., Ltd.	N/A