The Hongkong Electric Co Ltd

香港電燈有限公司



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

Report Title

Monthly EM&A Report

(November 2005)

Date

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EXECUTIVE SUMMARY

This is the fifty-sixth 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 November 2005.

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 and Intake Aux Equipment
Unit L9 Electrical, Instrumentation & Control Erection	Control Panel/Instrument Panel & Rack Installation, Cable Tray & Earthing Installation, Conduit & Instrument Piping Installation, Cable Laying & Termination and Busduct & Isolated Phase Busduct (IPB) Installation
275kV Switching Station Erection	Materials Delivery & Installation of GIS and Shunt Reactors
Transmission System	Construction of tunnel portal structure and installation of cable trough in cable tunnels 1 & 2
Gas Pipeline	Please refer to Appendix K
Miscellaneous	Slurry ash piping & filling

Environmental Monitoring Works

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 23/11/2005. The inspection result is attached in Appendix H. EPD carried out a site visit for Lamma Extension gas pipeline construction work on 11/11/2005. They had no adverse comment during the visit.

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		Issued To	Date of
		From	To		Issuance
Varied Environmental Permit	EP-071/2000/C	18/05/05	-	HEC	18/05/05
Construction Noise Permit	GW-RS0317-05	26/05/05	25/11/05	Contractor	26/05/05
Construction Noise Permit	GW-RS0318-05	26/05/05	25/11/05	Contractor	26/05/05
Construction Noise Permit	GW-RS0416-05	10/07/05	09/01/06	Contractor	30/06/05
Construction Noise Permit	GW-RS0424-05	15/07/05	14/01/06	Contractor	07/07/05
Construction Noise Permit	GW-RS0514-05	12/08/05	11/02/06	Contractor	12/08/05
Construction Noise Permit	GW-RS0584-05	20/09/05	19/03/06	Contractor	15/09/05
Construction Noise Permit	GW-RS0585-05	17/09/05	16/03/06	Contractor	15/09/05
Construction Noise Permit	GW-RS0784-05	29/11/05	19/05/06	Contractor	29/11/05
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 Chemical Waste Producer	WPN5213-912- P2781-07	11/06/04	-	Contractor	11/06/04

Description	Permit No.	Valid Period		Issued To	Date of
		From	To		Issuance
Registration of Chemical Waste Producer	WPN5213-912- K2801-03	15/09/04	-	Contractor	15/09/04
Registration of Chemical Waste Producer	WPN5517-912- T2007-02	17/03/05	-	Contractor	17/03/05
Registration of Chemical Waste Producer	WPN5213-912- W2852-09	25/01/05	-	Contractor	25/01/05
Registration of Chemical Waste Producer	WPN4111-912- M2534-09	20/06/05	-	Contractor	20/06/05
WPCO Discharge Licence	EP890/W2/XD020	22/11/04	30/11/09	Contractor	22/11/04

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

There was one general enquiry from a nearby resident of the Cyberport Landing Point site about dust and visual impact. The enquirer was satisfied after being clarified of HEC's dust suppression measures and work program.

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;

275KV Switching Station 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 November 2005.

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, and Intake Auxiliary Equipment. Construction activities for Unit L9 electrical, instrumentation & control erection were Control Panel / Instrument Panel & Rack installation, Cable Tray & Earthing installation, Conduit & Instrument Piping Installation, Cable Laying & Termination and Busduct & IPB Installation. The construction activities for 275KV Switching Station erection were materials delivery & installation of GIS and Shunt Reactors. Construction activities for Unit L9's associated transmission system were construction of tunnel portal structure and installation of cable trough in cable tunnels 1 & 2, and the dredging/excavation of submarine cable trench outside N4 Landing Point. 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 shows the dumping location in November 2005.

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	AirDust suppression measures implemented.		
		Noise General noise mitigation measures employed at all work sites throughout the construction phase.		
		Waste ManagementWaste 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.		
		Waste ManagementWaste Management Plan submitted and implemented.		
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 ManagementWaste Management Plan submitted and implemented.
7.	C.W. Culvert System & Equipment	AirDust suppression measures implemented.
	Room	Noise General noise mitigation measures employed at all work sites throughout the construction phase.
		Waste ManagementWaste 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 ManagementWaste 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 ManagementWaste Management Plan submitted and implemented.

Item	Construction Activities	Environmental 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.
Constru	iction of Transmi	ssion System
12.	Construction of tunnel portal structure and installation of	Air Quality — Dust suppression measures implemented. Noise
	cable trough in cable tunnels 1 & 2	General noise mitigation measures employed at all work sites throughout the construction phase.
		 Terrestrial Ecology Special care and close monitoring to avoid disturbances to the rare plant species. Temporary fire fighting equipment provided within the work area during construction.

Item	Construction Activities	Environmental Mitigation Measures			
Unit L9	Unit L9 Mechanical Erection				
13.	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.			
14.	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.			
15.	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.			
16.	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		
17.	Condenser 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.	Auxiliary Equipment 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. 		
19.	Air duct / Inlet Filter	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.		
20.	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		
21.	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.		
22.	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.		
23.	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.		
24.	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		
25.	Intake Aux Equipment 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.		
Unit L9	Electrical, Instr	rumentation & Control Erection		
26.	Control Panel/ Instrument Panel & Rack	Air – Dust suppression measures implemented.		
	Installation	Noise - General noise mitigation measures employed at all work sites throughout the construction phase.		
		Waste Management - Waste Management Plan submitted and implemented.		
27.	Cable Tray & Earthing 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.		
28.	Conduit & Instrument Piping	Air - Dust suppression measures implemented.		
	Installation	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		
29.	Cable Laying & Termination	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.	
30.	Busduct & IPB 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.	
275kV	Switching Station	Erection	on	
31.	Materials Delivery & Installation of	Air -	Dust suppression measures implemented.	
	GIS and Shunt Reactors	Noise -	General noise mitigation measures employed at all work sites throughout the construction phase.	
		Waste -	Management Waste Management Plan submitted and implemented.	
Miscell	aneous			
32.	Slurry ash piping & filling	Noise -	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.

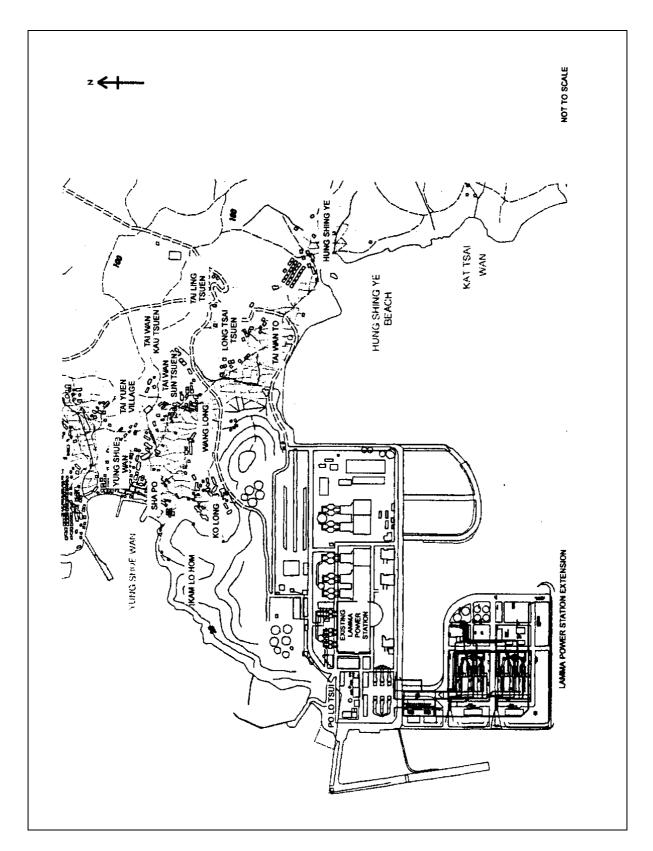


Figure 1.1 Layout of Work Site

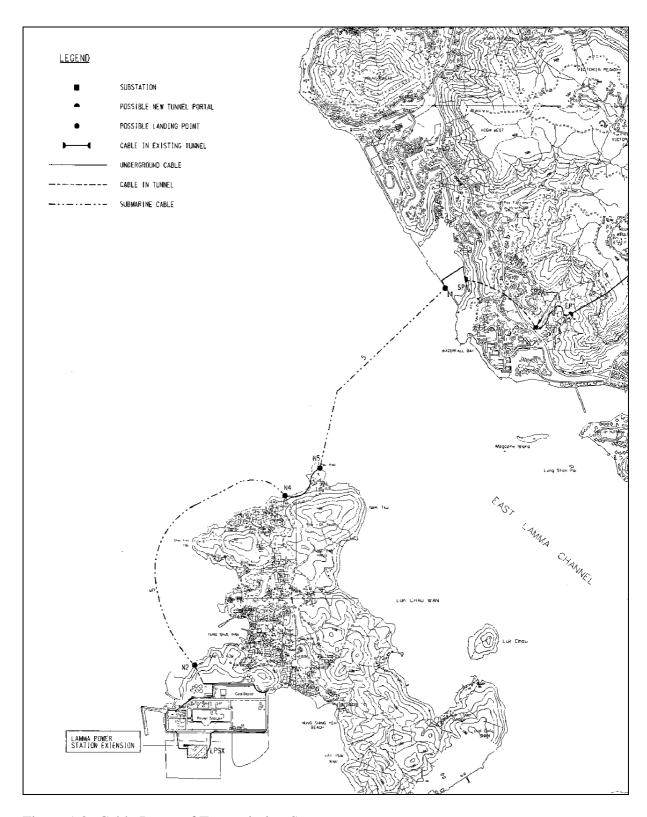


Figure 1.2 Cable Route of Transmission System

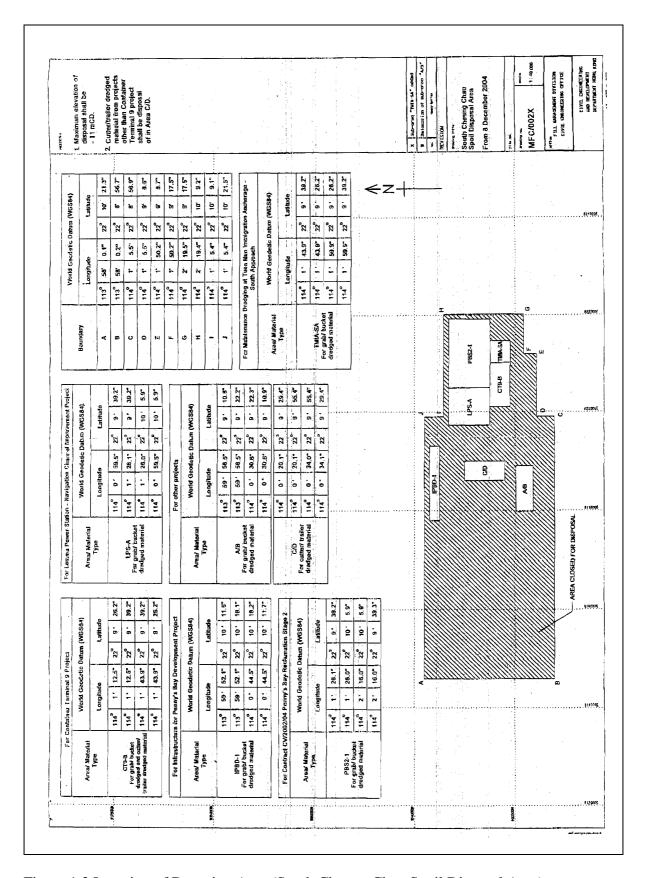


Figure 1.3 Location of Dumping Area (South Cheung Chau Spoil Disposal Area)

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
11 v AS Sampler	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
AIVIZ	24-hour TSP	24	Once every 6 days
AM3	1-hour TSP	1	3 hourly samples every 6 days
ANIS	24-hour TSP	24	Once every 6 days
AM4	24-hour TSP	24	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

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.

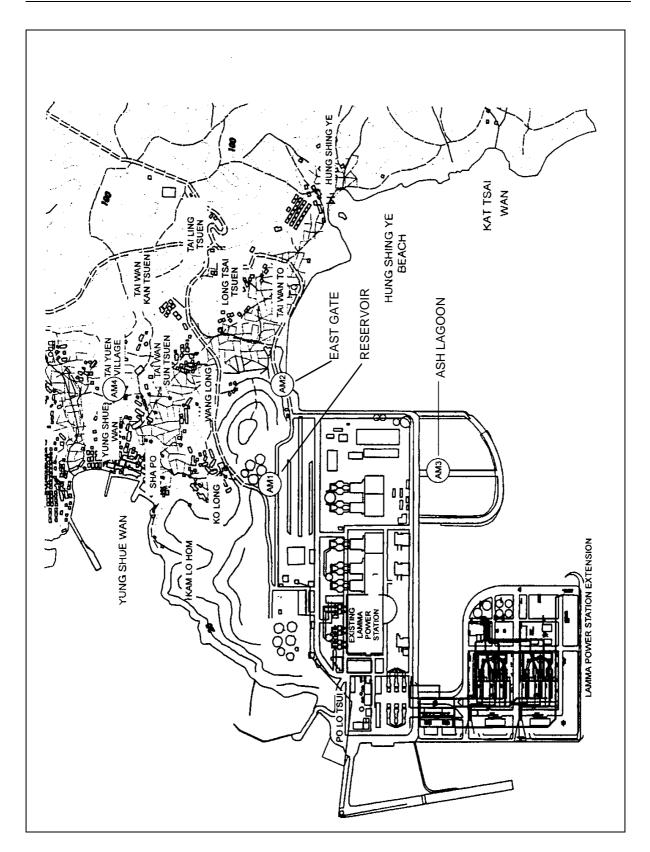


Figure 2.1 Location of Air Quality Monitoring Stations

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	Monitoring Location	
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 System		
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 _{Aeq}
Ash Lagoon Ching Lam	Evening-time & holidays: 0700-2300 hrs on holidays; and 1900-2300 hrs on all other days	Evening-time & holidays: 5 minutes	5-min L _{Aeq}
	Night-time: 2300-0700 hrs of next day	Night-time: 5 minutes	5-min L _{Aeq}
Pak Kok Tsui residences	0700-1900 hrs on normal weekdays	Twice per week	30-min L _{Aeq}

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 $L_{\rm Aeq}$ 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.

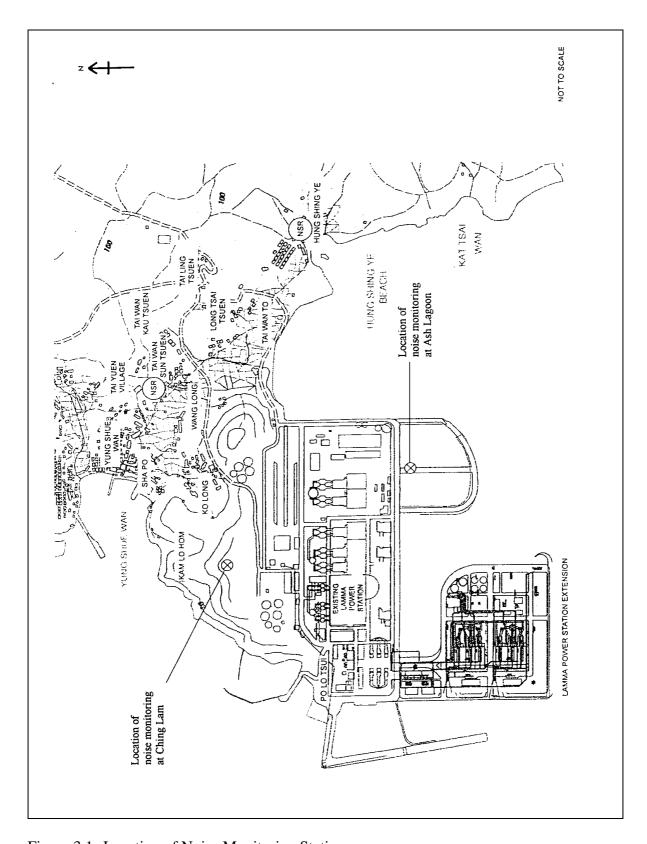


Figure 3.1 Location of Noise Monitoring Stations

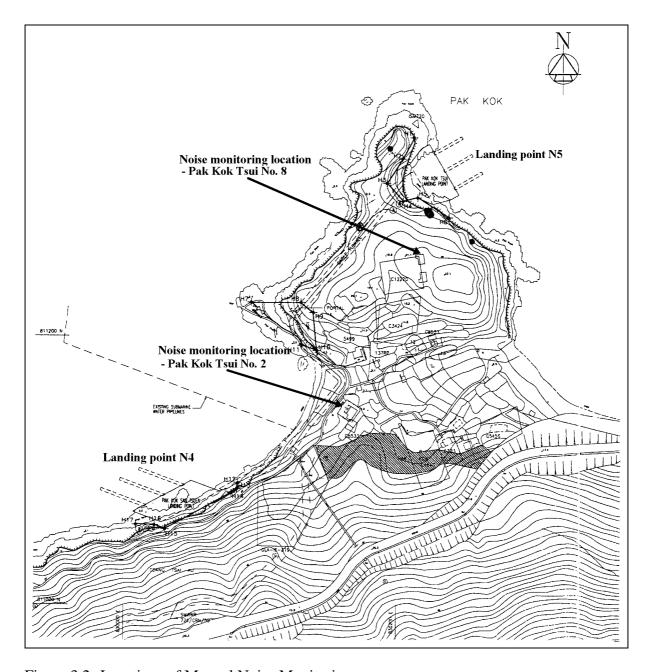


Figure 3.2 Locations of Manual Noise Monitoring

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	No. of Exceedances In		Event/Action Plan Implementation Status
			Action Level	Limit Level	and Results
Air					
1	Ambient TSP (24-hour)	01/11/05- 30/1105	0	0	
2	Ambient TSP (1-hour)	01/11/05- 30/1105	0	0	
Noise					
1	Noise level at the critical NSR's predicted by the noise alarm monitoring system	01/11/05- 30/1105	0	0	
2	Manual noise monitoring at the Pak Kok Tsui residences	01/11/05- 30/1105	0	0	

Waste Management Records

The estimated amounts of different types of waste generated in November 2005 are shown in Table 4.2.

Table 4.2 Estimated Amounts of Waste Generated in November 2005

Waste Type	Examples	Estimated Amount
Construction Waste	Concrete Waste, Used formwork, reinforcement	25.6 Tonne
	and wooden waste	188.7 m ³
General Refuse	Domestic wastes collected	30 Tonne
	on site	

4.3 Site Environmental Audit

IEC conducted a site inspection on 23/11/2005. The inspection result is attached in Appendix H. EPD carried out a site visit for Lamma Extension gas pipeline construction work on 11/11/2005. They had no adverse comment during the visit.

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-RS0317-05	26/05/05	25/11/05	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 1	Period	Highlights	Status
		From	To		
Construction Noise Permit	GW-RS0318-05	26/05/05	25/11/05	Operation of PME's allowed during the restricted hours (any day between 2300-0700 hrs on next day).	Valid
Construction Noise Permit	GW-RS0416-05	10/07/05	09/01/06	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-RS0424-05	15/07/05	14/01/06	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-RS0514-05	12/08/05	11/02/06	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-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	Permit No.	Valid 1	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
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

Description	Permit No.	Valid Period		Highlights	Status
_		From	To		
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

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 November 2005, one verbal enquiry was received as summarized in Table 4.4.

Table 4.4 Environmental Complaints / Enquiries Received in November 2005

Case Reference /	Descriptions /Actions Taken	Conclusion /
Date, Time Received /		Status
Date, Time Concerned		
Reference:	A resident at Bel-Air raised her	It was a
PD20050036	concern to HEC about the visual	general
	impact of the Cyberport Landing Point	enquiry and
Received:	site and requested HEC to review the	the enquirer
10/11/2005	reinstatement program. After careful	was satisfied
	review, it was expected that the	with HEC's
Concerned:	reinstatement work would be	clarifications.
In general	completed by end Nov 2006 and the	
	enquirer was advised accordingly. The	Case closed.
	enquirer was also concerned about dust	
	pollution from the open area. She was	
	satisfied after being clarified that there	
	were effective dust suppression	
	measures at all HEC's sites and the	
	alleged dust problem was probably	
	caused by other non-HEC's sites.	

Table 4.5 Outstanding Environmental Complaints / Enquiries Carried Over

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

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.

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275KV Switching Station 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 December 2005 to February 2006. The tentative construction programs for the next 3 months are shown in Appendix J.

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6. CONCLUSION

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. There was one general enquiry from a nearby resident of the Cyberport Landing Point site about dust and visual impact. The enquirer was satisfied after being clarified of HEC's dust suppression measures and work program. 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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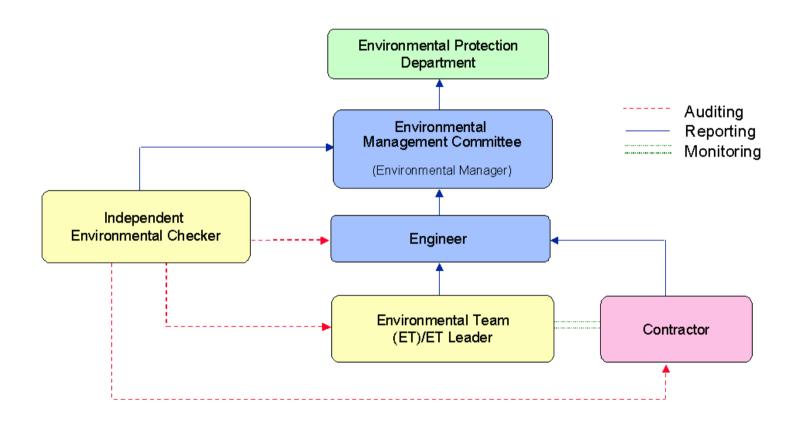


Figure A.1 Organisation of EM&A Programme at Construction Phase

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 ³	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 _{Aeq,30 min} (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 _{Aeq,5 min} 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 _{Aeq,5 min}

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 (November 2005 to February 2006)

	T
24hr TSP Monitoring	1hr TSP Monitoring
03/Nov/2005	03/Nov/2005 1500hr to 1800hr
09/Nov/2005	09/Nov/2005 1500hr to 1800hr
15/Nov/2005	15/Nov/2005 1500hr to 1800hr
21/Nov/2005	21/Nov/2005 1500hr to 1800hr
27/Nov/2005	27/Nov/2005 1500hr to 1800hr
03/Dec/2005	03/Dec/2005 1500hr to 1800hr
09/Dec/2005	09/Dec/2005 1500hr to 1800hr
15/Dec/2005	15/Dec/2005 1500hr to 1800hr
21/Dec/2005	21/Dec/2005 1500hr to 1800hr
27/Dec/2005	27/Dec/2005 1500hr to 1800hr
02/Jan/2006	02/Jan/2006 1500hr to 1800hr
08/Jan/2006	08/Jan/2006 1500hr to 1800hr
14/Jan/2006	14/Jan/2006 1500hr to 1800hr
20/Jan/2006	20/Jan/2006 1500hr to 1800hr
26/Jan/2006	26/Jan/2006 1500hr to 1800hr
01/Feb/2006	01/Feb/2006 1500hr to 1800hr
07/Feb/2006	07/Feb/2006 1500hr to 1800hr
13/Feb/2006	13/Feb/2006 1500hr to 1800hr
19/Feb/2006	19/Feb/2006 1500hr to 1800hr
25/Feb/2006	25/Feb/2006 1500hr to 1800hr

Table C.2 Manual Noise Monitoring Schedule for Transmission System Construction (November 2005 to February 2006)

Date	Monitoring Start Time
01/Nov/2005	10:00
04/Nov/2005	14:00
08/Nov/2005	10:00
11/Nov/2005	14:00
15/Nov/2005	10:00
18/Nov/2005	14:00
22/Nov/2005	10:00
25/Nov/2005	14:00
29/Nov/2005	10:00
02/Dec/2005	14:00
06/Dec/2005	10:00
09/Dec/2005	14:00
13/Dec/2005	10:00
16/Dec/2005	14:00
20/Dec/2005	10:00
23/Dec/2005	14:00
28/Dec/2005	10:00
30/Dec/2005	14:00
03/Jan/2006	10:00
06/Jan/2006	14:00
10/Jan/2006	10:00
13/Jan/2006	14:00
17/Jan/2006	10:00
20/Jan/2006	14:00
24/Jan/2006	10:00
27/Jan/2006	14:00
01/Feb/2006	10:00
03/Feb/2006	14:00
07/Feb/2006	10:00
10/Feb/2006	14:00
14/Feb/2006	10:00
17/Feb/2006	14:00
21/Feb/2006	10:00
24/Feb/2006	14:00
28/Feb/2006	10:00

APPENDIX D AIR QUALITY MONITORING RESULTS

Site: Lamma Power Station Extension

Month: November 2005

24 hour TSP Measurement:-

TSP concentration (μg/m³)					Weather Information (From Hong Kong Observatory)		
Date	Reservoir (AM1)	East Gate (AM2)	Ash Lagoon (AM3)	Tai Yuen Village (AM4)	Mean Wind Speed (km/hr)	Prevailing Wind Dir.	Mean R.H.
03/11/2005	49	56	46	72	27.1	080	76
09/11/2005	61	62	57	69	11.8	080	86
15/11/2005	45	49	41	53	35.5	020	81
21/11/2005	99	93	78	78	32.0	010	63
27/11/2005	114	106	111	132	25.4	060	78

1 hour TSP Measurement:-

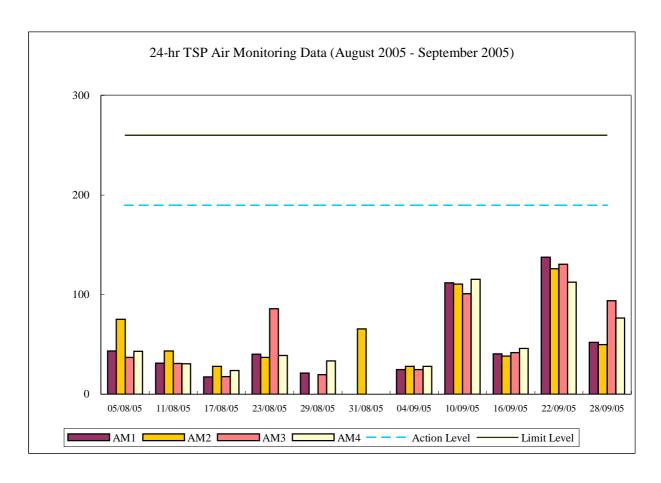
		TS	P concentration (µ	.g/m ³)
Date	Time	Reservoir (AM1)	East Gate (AM2)	Ash Lagoon (AM3)
	15:00-15:59	47	48	43
03/11/2005	16:00-16:59	55	60	59
	17:00-17:59	60	59	66
	15:00-15:59	58	58	45
09/11/2005	16:00-16:59	66	62	68
	17:00-17:59	63	62	60
	15:00-15:59	42	48	32
15/11/2005	16:00-16:59	32	58	32
	17:00-17:59	39	62	37
	15:00-15:59	77	79	76
21/11/2005	16:00-16:59	75	92	78
	17:00-17:59	73	90	117
	15:00-15:59	112	107	106
27/11/2005	16:00-16:59	104	102	97
	17:00-17:59	126	116	123

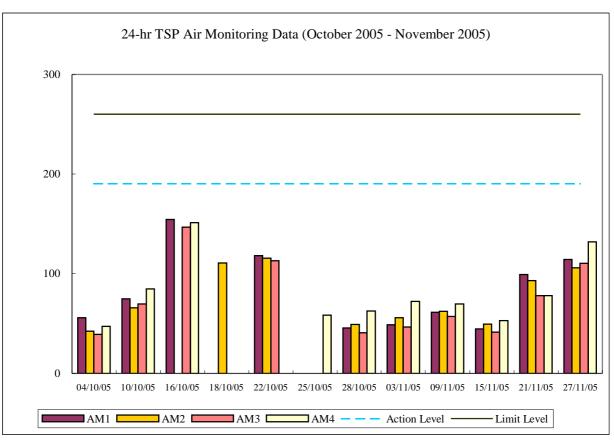
1-hr TSP	24-hr TSP
$(\mu g/m^3)$	$(\mu g/m^3)$
340	190
500	260
	(μg/m³) 340

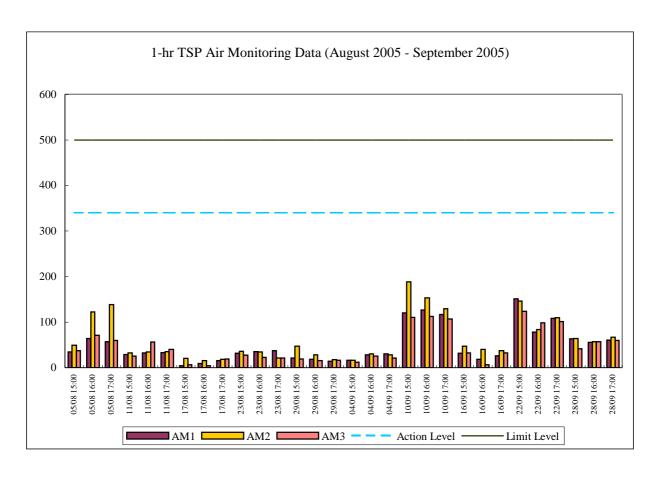
Calibration: Calibration details are shown in appendix F.

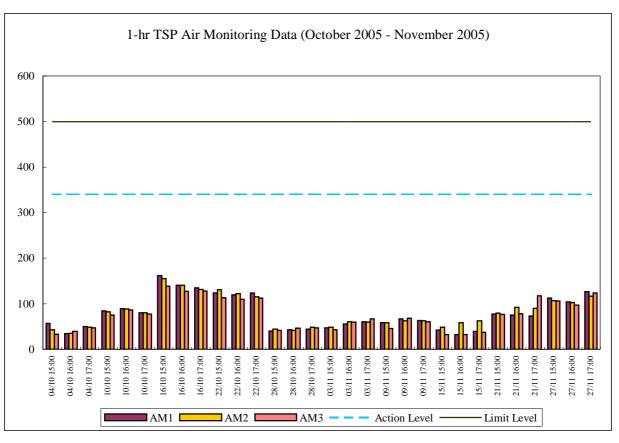
Equipment used:

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









Appendix E.1 Continuous Noise Monitoring Results for November 2005

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

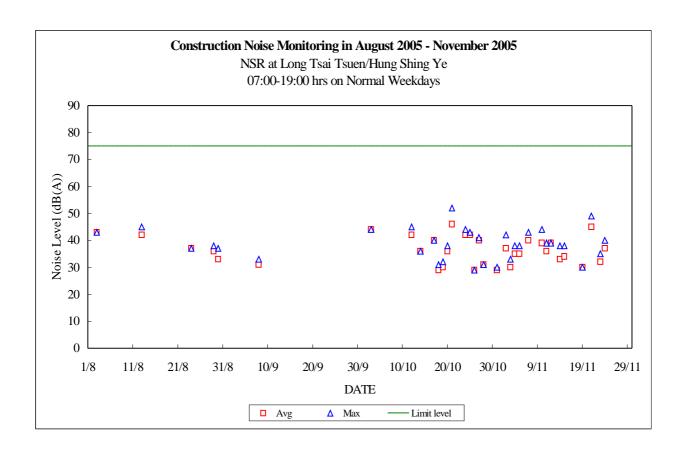
B&K 2238F sound level meter - 13/07/2004 Rion NC-74 calibrator - 17/02/2005

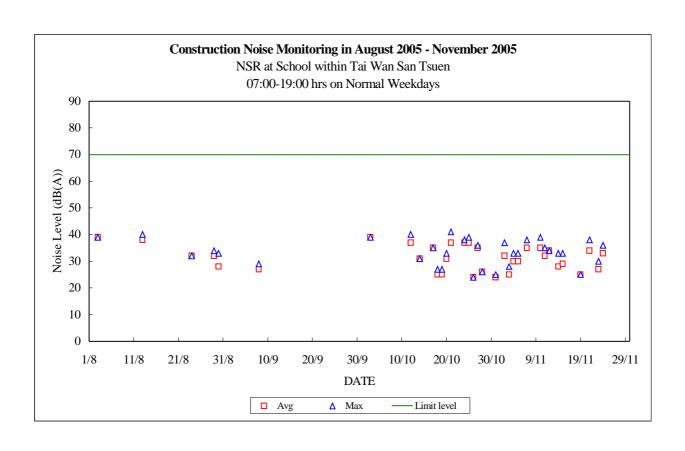
Date	Time	Calcula Noise Level a NSR at Tsai Tsuen/F Shing Y (dB(A))	at Long Hung Ke	Limit Noise Level (dB(A))	Calcula Noise Level a NSR at school within Wan Sar Tsuen (dB(A))	at the Tai	Limit Noise Level (dB(A))
01/11/2005	07:00-19:00			75			70
01/11/2005	19:00-23:00	20	20	60	15	15	60
01/11/2005	23:00-07:00	39	34	45	34	29	45
02/11/2005	07:00-19:00	42	37	75	37	32	70
02/11/2005	19:00-23:00			60			60
02/11/2005	23:00-07:00	37	31	45	32	27	45
03/11/2005	07:00-19:00	33	30	75	28	25	70
03/11/2005	19:00-23:00			60			60
03/11/2005	23:00-07:00	37	33	45	33	28	45
04/11/2005	07:00-19:00	38	35	75	33	30	70
04/11/2005	19:00-23:00	37	37	60	33	33	60
04/11/2005	23:00-07:00	45	37	45	40	32	45
05/11/2005	07:00-19:00	38	35	75	33	30	70
05/11/2005	19:00-23:00	28	28	60	23	23	60
05/11/2005	23:00-07:00	38	32	45	33	27	45
06/11/2005	07:00-23:00	47	38	60	42	33	60
06/11/2005	23:00-07:00	43	35	45	39	31	45
07/11/2005	07:00-19:00	43	40	75	38	35	70
07/11/2005	19:00-23:00	31	31	60	26	26	60
07/11/2005	23:00-07:00	35	33	45	30	28	45
08/11/2005	07:00-19:00			75			70
08/11/2005	19:00-23:00			60			60

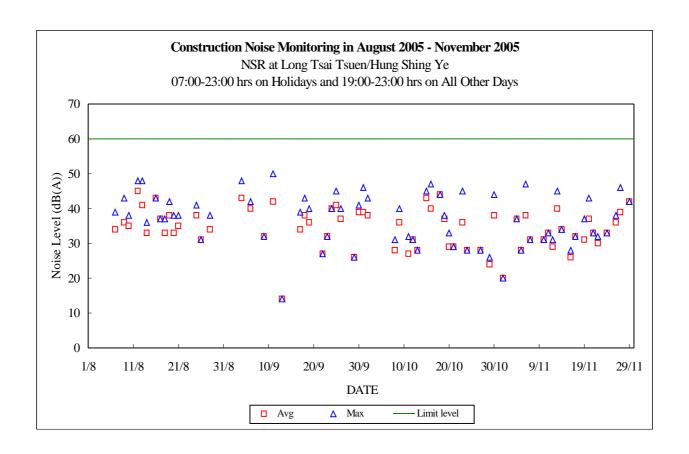
Date	Time	Calculated Noise Level at NSR at Long Tsai Tsuen/Hung Shing Ye (dB(A))		Limit Noise Level (dB(A))	Calculated Noise Level at NSR at the school within Tai Wan San Tsuen (dB(A))		Limit Noise Level (dB(A))
08/11/2005	23:00-07:00	Max 26	Avg 23	45	Max 21	Avg 18	4.5
09/11/2005	07:00-19:00	26	23	75		10	45 70
09/11/2005	19:00-23:00			60			60
09/11/2005	23:00-07:00	38	32	45	33	27	45
10/11/2005	07:00-19:00	44	39	75	39	35	70
10/11/2005	19:00-23:00	31	31	60	27	27	60
10/11/2005	23:00-07:00	35	31	45	31	26	45
11/11/2005	07:00-19:00	39	36	75	35	32	70
11/11/2005	19:00-23:00	33	33	60	28	28	60
11/11/2005	23:00-07:00	40	35	45	36	30	45
12/11/2005	07:00-19:00	39	39	75	34	34	70
12/11/2005	19:00-23:00	31	29	60	26	24	60
12/11/2005	23:00-07:00	35	30	45	30	26	45
13/11/2005	07:00-23:00	45	40	60	40	35	60
13/11/2005	23:00-07:00	43	39	45	39	35	45
14/11/2005	07:00-19:00	38	33	75	33	28	70
14/11/2005	19:00-23:00	34	34	60	29	29	60
14/11/2005	23:00-07:00	34	32	45	30	28	45
15/11/2005	07:00-19:00	38	34	75	33	29	70
15/11/2005	19:00-23:00			60			60
15/11/2005	23:00-07:00	39	32	45	34	27	45
16/11/2005	07:00-19:00			75			70
16/11/2005	19:00-23:00	28	26	60	24	21	60
16/11/2005	23:00-07:00	36	31	45	31	27	45
17/11/2005	07:00-19:00			75			70
17/11/2005	19:00-23:00	32	32	60	27	27	60
17/11/2005	23:00-07:00	39	37	45	34	32	45
18/11/2005	07:00-19:00			75			70
18/11/2005	19:00-23:00			60			60
18/11/2005	23:00-07:00	37	32	45	32	27	45
19/11/2005	07:00-19:00	30	30	75	25	25	70
19/11/2005	19:00-23:00	37	31	60	32	26	60
19/11/2005	23:00-07:00	40	33	45	35	29	45
20/11/2005	07:00-23:00	43	37	60	38	32	60
20/11/2005	23:00-07:00	45	38	45	41	33	45

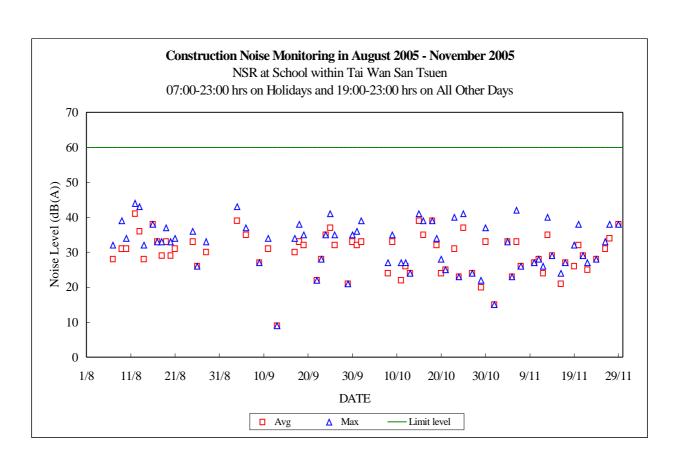
Date	Time	Calcula Noise Level a NSR at Tsai Tsuen/F Shing N (dB(A))	at Long Hung Ke	Limit Noise Level (dB(A))	Calcula Noise Level a NSR at school within Wan Sar Tsuen (dB(A))	at the Tai	Limit Noise Level (dB(A))
21/11/2005	07:00-19:00	49	45	75	38	34	70
21/11/2005	19:00-23:00	33	33	60	29	29	60
21/11/2005	23:00-07:00	36	31	45	32	27	45
22/11/2005	07:00-19:00			75			70
22/11/2005	19:00-23:00	32	30	60	27	25	60
22/11/2005	23:00-07:00	35	32	45	30	27	45
23/11/2005	07:00-19:00	35	32	75	30	27	70
23/11/2005	19:00-23:00			60			60
23/11/2005	23:00-07:00	35	31	45	30	27	45
24/11/2005	07:00-19:00	40	37	75	36	33	70
24/11/2005	19:00-23:00	33	33	60	28	28	60
24/11/2005	23:00-07:00	43	35	45	38	30	45
25/11/2005	07:00-19:00			75			70
25/11/2005	19:00-23:00			60			60
25/11/2005	23:00-07:00	38	32	45	33	28	45
26/11/2005	07:00-19:00			75			70
26/11/2005	19:00-23:00	38	36	60	33	31	60
26/11/2005	23:00-07:00	36	30	45	31	25	45
27/11/2005	07:00-23:00	46	39	60	38	34	60
27/11/2005	23:00-07:00	38	33	45	33	28	45
28/11/2005	07:00-19:00			75			70
28/11/2005	19:00-23:00			60			60
28/11/2005	23:00-07:00	35	30	45	30	25	45
29/11/2005	07:00-19:00			75			70
29/11/2005	19:00-23:00	42	42	60	38	38	60
29/11/2005	23:00-07:00	37	32	45	32	27	45
30/11/2005	07:00-19:00			75			70
30/11/2005	19:00-23:00			60			60
30/11/2005	23:00-07:00	37	31	45	32	27	45

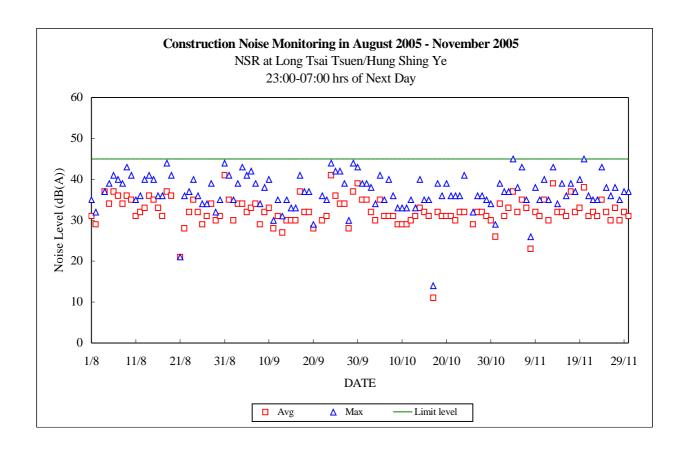
Note: "--" represents the measured noise monitoring data lower than the established notional background level/discarded under strong wind.

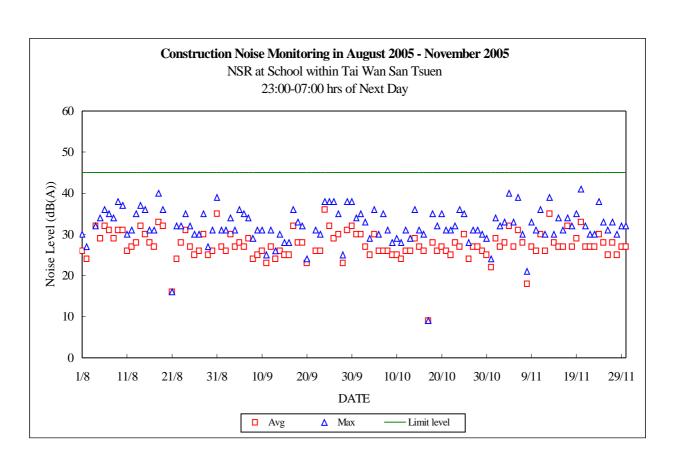












Appendix E.2 Manual Noise Monitoring Results for November 2005

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

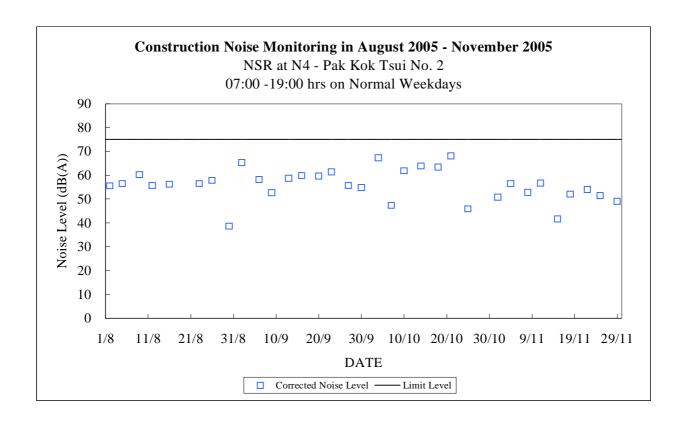
Date	Time	Measured Noise Level	Notional Background Noise Level	Corrected Noise Level	Limit Noise Level	Wind Speed (m/s)
01/11/2005	10:00-10:30	(dB(A)) 56.3	(dB(A)) 54.9	(dB(A)) 50.7	(dB(A)) 75	<5
04/11/2005	14:00-14:30	58.7	54.9	56.4	75	<5
08/11/2005	10:00-10:30	57.0	54.9	52.8	75	<5
11/11/2005	14:00-14:30	58.9	54.9	56.7	75	<5
15/11/2005	10:00-10:30	55.1	54.9	41.6	75	<5
18/11/2005	14:00-14:30	56.7	54.9	52.0	75	<5
22/11/2005	10:00-10:30	57.5	54.9	54.0	75	<5
25/11/2005	14:00-14:30	56.5	54.9	51.4	75	<5
29/11/2005	10:00-10:30	55.9	54.9	49.0	75	<5

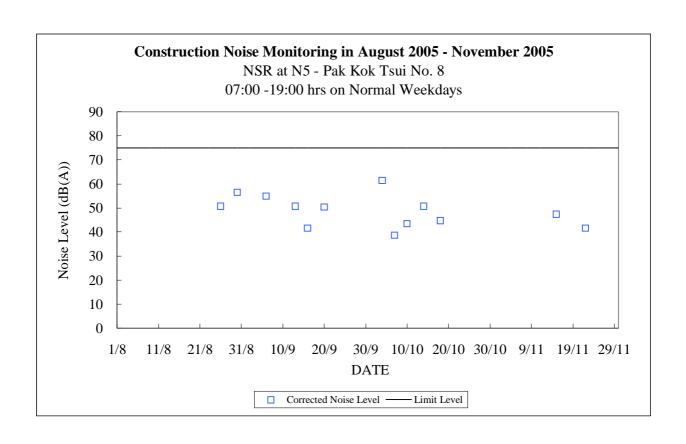
Measurement Location: N5 - Pak Kok Tsui No.8

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)
01/11/2005	10:40-11:10	53.9	54.9		75	<5
04/11/2005	14:40-15:10	52.4	54.9		75	<5
08/11/2005	10:40-11:10	52.1	54.9		75	<5
11/11/2005	14:40-15:10	53.7	54.9		75	<5
15/11/2005	10:40-11:10	55.6	54.9	47.3	75	<5
18/11/2005	14:40-15:10	53.1	54.9		75	<5
22/11/2005	10:40-11:10	55.1	54.9	41.6	75	<5
25/11/2005	14:40-15:10	53.8	54.9		75	<5
29/11/2005	10:40-11:10	53.4	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

e Name:	<u> </u>	Site No.:	11:15 2198	
te of visit:	16-11-2005	Hour of Visit:		
ff name:	W. C. MARCHE	TSANGHVAS S/N:		
ed filter paper no.:	<u> </u>	New filter paper no.:	4587	
pe of filter:	Glass-fibre			
Ambient Condition	ns			
Temperature T	-)71 - 14.4° V	Pressure, $P_a = $	loit mb	
remperature, r _a -	- CIST CT T	Pressure, $P_a = \underline{\hspace{1cm}}$	loit mb	
Correction of mon	omatar raadina			
Correction of mand	ometer reading			
Calibration orific	ee No.	Manometer reading at		
		corresponds to Q_{STD} (inch H_2C		
1535(09/200	05)	$\triangle H_a = 19.29(T_a/P_a)$	= 5.65	
Manometer readin	σ hefore calibratio	n. 5.60"		
Manometer reading Adjustment of flow	v controller (Y/N):	:		
Manometer reading				
Note: Tolerance Limit	of HVAS flow: ± 1.0 f	t ³ /min. Corresponding limits for	r manometer: ± 0.2 inch H_2 0	
General Condition	s of HVAS			
General Condition	s of HVAS			
General Condition	s of HVAS			
General Condition	s of HVAS			
General Condition	s of HVAS			
General Condition Remarks	s of HVAS			

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HIGH VOLUME AIR SAMPLER SITE VISIT LOG SHEET

E-9	Site No.:	AM 2			
16-11-2005	Hour of Visit:	1035			
W L MAK/HKT	HVAS S/N:	2195			
LSP6	New filter paper no.:	L S 8 8			
Glass-fibre	_				
S					
273+250° K	Pressure, $P_2 = 0$	1019 mb			
meter reading					
No.	Manometer reading at corresponds to Q _{STD}	$=40 \text{ ft}^3/\text{min}.$			
5)					
)	шта ту.2у(та/та)	3.07			
before calibration	: 5.7."				
controller (Y/N): after calibration:	5.70"				
		r manometer : + 0.2 inch HaO			
111110 11011 2 1.0 1	Thin. Corresponding minis to	7 manormeter . ± 0.2 men 11 ₂ 0			
of HVAS					
	Ib - 11 - 2005 W L MAK/HK7 LSP6 Glass-fibre S 273 + 25 0 K meter reading No. before calibration controller (Y/N): after calibration:	Hour of Visit: L M PK HVAS S/N: L S Pk New filter paper no.: Glass-fibre S Manometer reading at corresponds to Q_{STD} (inch H_2C) S Manometer reading Manometer reading at corresponds to Q_{STD} (inch H_2C) S Manometer reading at corresponds to Q_{STD} (inch H_2C) S Manometer reading at corresponds to Q_{STD} (inch H_2C) S Manometer reading at corresponds to Q_{STD} (inch H_2C) Manometer reading at corresponds to Q_{STD} (inch H_2C) Manometer reading at corresponds to Q_{STD} (inch H_2C) Manometer reading at corresponds to Q_{STD} (inch H_2C) Manometer reading at corresponds to Q_{STD} (inch H_2C) Manometer reading at corresponds to Q_{STD} (inch H_2C) Manometer reading at corresponds to Q_{STD} (inch H_2C) Manometer reading at corresponds to Q_{STD} (inch H_2C) Manometer reading at corresponds to Q_{STD} (inch H_2C) Manometer reading at corresponds to Q_{STD} (inch H_2C) Manometer reading at corresponds to Q_{STD} (inch H_2C) Manometer reading at corresponds to Q_{STD} (inch H_2C) Manometer reading at corresponds to Q_{STD} (inch H_2C) Manometer reading at corresponds to Q_{STD} (inch H_2C) Manometer reading at corresponds to Q_{STD} (inch H_2C) Manometer reading at corresponds to Q_{STD} (inch H_2C) Manometer reading at corresponds to Q_{STD} (inch H_2C) Manometer reading at corresponds to Q_{STD} (inch H_2C) Manometer reading at corresponds to Q_{STD} (inch H_2C)			

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PARTISOL TSP SAMPLER SITE VISIT LOG SHEET

Site Name: A L	Site Number: 4m 3
Date of Visit:	Hour of Visit:
Staff Name: WILMAK	Partisol S/N: conoß 20755 C410
Used Filter No.: Pc 8b	New Filter No.: Pc 87
Ambient temperature: 24.1°	Ambient pressure:
I. <u>General Services</u>	
1. Replace control unit Lar	ge In-line Filter X
2. Clean the sample inlet he	ead
	✓
	ead
5. Clean / Replace piston _	
1. <u>Temperature Check (Ambient to 24.2</u> °C Calibra Before	
2. <u>Pressure Check (Ambient pressure Check (Ambient pr</u>	
3. Flow Check (16.7± 1.1 litre/min)	
Hefore I/min Calibr	ration: YN After
III. <u>Remarks</u>	

MINI VOLUME AIR SAMPLER SITE VISIT LOG SHEET

Site 1	Name:	TYV	Site No.:		
Date of visit:			Hour of Visit:		
Staff	name:	H.K. TSANG	MINIVOL S/N: 33 f 3		
Used	l filter paper no.:	MH 74	New filter paper no.:	1747	
Type	Calibration is perform the SI/min set point in the Calibration is perform the Calibration in the Calibration in the Calibration is performed by the Calibration in the Calibration in the Calibration is performed by the Calibration is performed	s recommended		г	
II. General Service of Mini Vol Air Sampler 1. Clean Rotameter:					
III.	Remarks				

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

Month: November

Year: 2005

Reservoir (AM1)							
Date	Frequency (Hz) (230 – 260)	Noise (< 0.1)	Operation Mode (Mode 4)	Main Flow (1/min) (0.94 – 1.06)	Aux. Flow (l/min) (14.67 – 16.67)		
3/11/2005	256.96	0.037	4	1.0.2	15.68		
9/11/2005	256.62	0.024	4	1,00	15.68		
15/11/2005	256.50	0.042	L .	1.00	15-68		
21/11/2005	245.75	01059	u	1.00	15.68		
27/11/2005	247-66	0:037	4	100	15.68		

East Gate (AM2)							
Date	Frequency (Hz) (230 – 250)	Noise (< 0.1)	Operation Mode (Mode 4)	Main Flow (I/min) (0.94 – 1.06)	Aux. Flow (l/min) (14.67 – 16.67)		
3/11/2005	244.86	0.064	4	0.99	15.63		
9/11/2005	244.53	0.038	4	1.00	15.62		
15/11/2005	244-41	0-49	¥	2.99	15.63		
21/11/2005	244.29	0.030	4	1.00	15.63		
27/11/2005	246.38	0039	4	1.00	15.63		

Ash Lagoon (AM3)							
Date	Frequency (Hz) (240 – 270)	Noise (< 0.1)	Operation Mode (Mode 4)	Main Flow (1/min) (0.94 – 1.06)	Aux. Flow (l/min) (14.67 – 16.67)		
3/11/2005	248.57	0.045	4	1.00	15.67		
9/11/2005	248.30	0.030	4	1.00	15.67		
15/11/2005	248.19	0 34	Ų	1.00	15.67		
21/11/2005	248.01	0.058	¥	1.00	15.68		
27/11/2005	247.63	0.464	4	1.00	15.67		

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

marks:				
		_		
	2			

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Prepared by : _

Checked by:_

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

Loca	ation _.	Ash Lago	on/ Chi	ing Lam*	THE STATE OF THE S
Date	e	10-11-2005	Time	11:30	
Equ	ipment	el Meter			
Ser	ial Nu	mber -00111465/0011146	6/0011	L1467 /2343	838/2356907*
Sta	ff Att	ended w.c. Mak			
1.	Calib	ration			
	Acous	tic calibrator used		-	Rion NC-74
	Calib:	ration level before adju	ıstment	(dB(A))	94.0
	Calib	ration level after adjus	stment	(dB(A))	94
2.	Weath	er Conditions			
	a. Si	unny/ fine /cloudy/showery	/ heavy	rain *	
	b. S	crong wind /breeze/ calm*			
3.	Remar	k/Observation			

	with the same of t				
		MANAGE CONTRACTOR OF THE STATE		7.41	
					100.00

18/5/2004

Note: * - Please delete where inappropriate

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

Locat	ion		Ash Lac	oon /Chin	g Lam*			
Date		17-1	<u> </u>	Time		14:20		
	ment							
Seria	Serial Number -00111465/00111466/00111467/2343838 /2356907*							
	Staff Attended W.L. MAK ; H.K. TSANG							
1. <u>C</u> a	alibration							
A	coustic cal	.ibrato:	r used			Rion NC-74		
Ca	alibration	level }	oefore adj	ustment	(dB(A))	14.0		
	alibration							
2. <u>W</u>	eather Conc	ditions						
a	. Sunny/fi	.ne/c lo i	udy/shower	y/heavy i	rain*			
b	. Strong w	uind/bre	eeze /calm*					
3. <u>Re</u>	emark/Obser	vation						
_								

Note: * - Please delete where inappropriate

Equipment Calibration Record for November 2005

Site:

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

Noise Equipment Used:

<u>RION NL - 31</u>

Calibrator Used:

RION NC - 74

Measurement Location: N4 - Pak Kok Tsui No. 2

Date	Calibration Lovel before Measurement (dB(A))	Calibration Level after Measurement (dB(A))	Calibrated by
01/11/2005	94.0	94,0	Anthony Wong
04/11/2005	94.0	94.0	Anthony Wong
08/11/2005	94.0 :	94.0	Anthony Wong
11/11/2005	94.0	94.0	Anthony Wong
15/11/2005	94.0	94.0	Anthony Wong
18/11/2005	94.0	94.0	Anthony Wong
22/11/2005	94.0	94.0	Anthony Wong
25/11/2005	94.0	94.0	Anthony Wong
29/11/2005	94.0	94.0	Anthony Wong

Measurement Location: N5 - Pak Kok Tsui No. 8

Date	Calibration Level before Measurement (dB(A))	Calibration Level after Measurement (dB(A))	Callbrated by
01/11/2005	94.0	94.0	Anthony Wong
04/11/2005	94.0	94.0	Anthony Wong
08/11/2005	94.0	94.0	Anthony Wong
11/11/2005	94.0	94.0	Anthony Wong
15/11/2005	94.0	94.0	Anthony Wong
18/11/2005	94.0	94.0	Anthony Wong
22/11/2005	94.0:	94.0	Anthony Wong
25/11/2005	94.0	94.0	Anthony Wong
29/11/2005	94.0	94.0	Anthony Wong

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		
		of the proposed remedial measures	Notify Contractor	working days of notifications		
		Verify the implementation of the	Discuss proposed remedial actions	Implement the agreed		
		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 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 Workly Site Inspection Chaptelist

	Weekly Site Inspection Checkli	st					
Inspection d		ed By	ET:	(av	ny	Wong	
Site	LMX - Superstanture				100	1 - M	ogo wo
Weather			·-··				-
Condition	Sunny Fine Overcast Hazy		Driza	zle [] Ra	in Stor	m
Temperatu	re 16 ℃ Humidity High Moderat	te	Low	,			
Wind	Calm Light Breeze Strong					٠	
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						
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?		-				

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?

Cap311R: Sch 18

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	A				
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	····		·		
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:	Are dusty materials, except cement and dry PFA, wetted by water spray system?	/				
Λ2		ļ		+		
A2 EM&A: A2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	/				

Ref.	Checklist Condition	N/Å	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?	/				
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					
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?				<u> </u>	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)?	/				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
WDO	Has the Contractor been registered as a chemical waste producer?					
ЕМ&А: Е3	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&A: 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;					
	(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	•	•		A	
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?	7				
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?	/				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
AR A AND TO SALE. IFAB	Boring and Drilling Water			ļ <u> </u>		
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?	1/				

NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: Cl	Are working programmes sched	luled to minimize noise nuisance?		/			
EM&A: C1	Are construction works or equipolation nuisance?	oment sited to minimize noise					
EM&A: C1	Are all plant and equipment ma conditions?	intained in good operating		/			
EM&A: CI/GP	Is idle equipment turned off or t	hrottled down?					
EM&A: CI	Are methods of working devise 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	To mitigate construction noise of holidays, is either one of the folia) Mitigation by portable noise b) Rescheduling of some powers sensitive time periods?			/			
EM&A: C3	To mitigate night time construc 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			1			
NCO	Are valid noise emission labels held percussive breakers?	fixed at air compressors and hand	· ,				
	Maior roin source(s)	☐ Traffic	7	Const site	ructio	n activ	rities inside the
	Major noise source(s)	Construction activities	Others				

Abbreviation

VEP:

Varied Environmental Permit

WMP:

Waste Management Plan

Cap311R:

APC (Construction Dust) Regulation

NCO:

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

Cap311O:

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:

Unknown

Remark	ζ
1.01116111	•

Sign	ıatu	re

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 (MX - Superstantine 10:00 Inspect	са Бу	Conti	racto	r. Pan	Jong 1 Y- Rin
Weather						· · · · · · · · · · · · · · · · · · ·
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	in Storm
Temperatu	re C Humidity High Modera	e [Low	,		
Wind	Calm Light Breeze Strong					
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
	information?					-
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		/		,	
	· .					
AIR QUAL	ITY .					
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements					
Can311R:	Has the contractors notified EPD of the construction site which is					

Page 1 of 7

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

Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever

Are haul roads paved with concrete or sprayed with water to keep

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?

applicable and have it available for inspection?

the entire road wet?

Stockpiling of dusty materials

observed?

Cap311R:

Sch 12(3)

Cap311

EM&A:

Cap311R:

Seh 18

AΙ

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
And the second section is	Cement and dry pulverized fuel ash (PFA)					
Cap311R: Seh 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		<u> </u>			
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?	1				
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?	/				
	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?	/				
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: A2	Are all the conveyor transfer points totally enclosed?	/			<u> </u>	

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

l ef	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials					
VMP 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?					
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?		/	4		
WMP	Are burning of refuse at site and dumping at sea prohibited?				Ł	
	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?	7					
	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	<u> </u>				,
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				 	
PN 1794	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 : Cl	Are working programmes schedu	aled to minimize noise nuisance?					
EM&A: C1	Are construction works or equip nuisance?	ment sited to minimize noise		/			
EM&A: Cl	Are all plant and equipment mail conditions?	ntained in good operating		/			
EM&A: CI/GP	Is idle equipment turned off or the	nrottled down?		/			
EM&A: CI	Are methods of working devised nuisance?	and arranged to minimize noise		/			
EM&A: C1)	Are construction works carried on nuisance?	out in a manner to minimize noise		1			
EM&A: C2	To mitigate construction noise d holidays, is either one of the foll a) Mitigation by portable nois b) Rescheduling of some powers sensitive time periods?			/	,		
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 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 held percussive breakers?	fixed at air compressors and hand		/			
	Major noise source(s)	Traffic	Ø	Const site	ructio	n activ	vities inside the
	major noise source(s)		Other	s			

Abbreviation

VEP: WXIP: Cap3TTR: Cap3TTO: Cap3TT: 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			
V:1			
		11/2	
,			

Signatures

ET Member

Contractor's Representative

(Name in Block letters:

L. K. Wong

(Name in Block letters:

Wang Ho Hong)

11th November 2002

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

Inspection	date [b/11/05] Time [1200] Inspecto	ed By	ET:	an	y	Wong
Site	LMX - Superstructure		Conti	acto	· Par	1 - 4 9 - Rong
Weather						
Condition	Sunny Fine Overcast Hazy		Driza	ele [Ra	in Storm
Temperatu	re ♥ °C Humidity High Moderat	e	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 ElA report kept in Engineers' and Contractors' offices on site?		/		•	

AIR QUALITY

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?		/		7					
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:	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		/							
	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	<u> </u>			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					
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?		/			
	Transfer of dusty materials using a belt conveyor system	,I	L	L		L
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?	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?	/				

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?	/									
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	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?		/								
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)?	/									

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?	7						
	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?	/				e.
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					
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: Cl	Are working programmes sched	uled 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 mai conditions?	ntained in good operating		/			
EM&A: C1/GP	Is idle equipment turned off or the	nrottled down?		/			1
EM&A: C1	Are methods of working devised nuisance?	and arranged to minimize noise		/			
EM&A: C1)	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?	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 held percussive breakers?	fixed at air compressors and hand		/			
	Major noise source(s)	☐ Traffic	Ø	Const	ructio	n activ	ities inside the
	wrajor noise source(s)	Construction activities outside the site		Other	s		

Abbreviation

\ '	H	
1	100	

Varied Environmental Permit

WMP

Waste Management Plan

APC (Construction Dust) Regulation

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

Cap314R:

APC (Open Burning) Regulation

Cap311O: Cap311:

Air Pollution Control Ordinance

PN1/94:

Practice Note for Professional Persons (Construction Site Drainage)

WDO:

Unk:

Unknown

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 o	late 23/11/05 Time 10:30 Inspecto	ed By	ET:	La	rry	Way !
Site	1 nt - Signstructure	1	Conti	racio	Pòw	1-4
Weather						
Condition	Sunny Fine Overcast Hazy		Drizz	zle [Ra	in Stor
Temperatu	re \iint °C Humidity 🗌 High 🛮 Moderat	te	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?		/		•	
AIR QUAL	Checklist Condition	N/A	Yes	No	Unk	Remarks
Kei.		N/A	res	140	Ulik	Remarks
Cap311R: 3	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?		/			
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	<u></u>				·
EM&A : A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		/			
	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: 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)	ls 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?	/			ļ	
	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&Λ: Α2	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?	1/				

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	5
	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						
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?		-				Î
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	/				3. 7.	
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?						
	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"?		,			7 7 - 11		
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.	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?	7						

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?	10					
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?	1					

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Boring and Drilling Water					
PN 1794	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: CI	Are working programmes schedu	aled to minimize noise nuisance?		/			
EM&A: C1	Are construction works or equipmuisance?	ment sited to minimize noise		/			
EM&A: CI	Are all plant and equipment main conditions?	ntained in good operating		/			
EM&A: C1/GP	Is idle equipment turned off or the	nrottled down?		7			
EM&A: C1	Are methods of working devised nuisance?	and arranged to minimize noise					
EM&A: C1)	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		/				
NCO	Are valid construction noise per inspection?	mits, if required, available for		/			
NCO	Are conditions of construction neelevant part(s) of the works imp			/			
NCO	Are valid noise emission labels theld percussive breakers?	fixed at air compressors and hand		/			
	Major noise course(s)	☐ Traffie	Þ	Const site	ructio	n activ	rities inside the
	Major noise source(s)	Construction activities		Other	's		

Abbreviation		
VEP: WMP Cap311R: Cap311O: Cap311: PNI/94: Unk:	Varied Environmental Permit Waste Management Plan APC (Construction Dust) Regulation APC (Open Burning) Regulation APC (Open Burning) Regulation Air Pollution Control Ordinance Practice Note for Professional Persons (Construction Site Drainage) Unknown	
Remark		
Wi(
		<u>.</u>
Signatures	•	
ET Member	Contractor's Representative	
(Name in Block I L. K. Wa		ried out rescutative

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 30/11/25 Time 10:30 Inspect	ed By	ET:	arı	<u> </u>	Nong
Site	LMX - Superstructure	1	Conti	racto	Pa	el 7 - Ka
Veather						
Condition	Sunny Fine Overcast Hazy		Driza	zle [Ra	in Stor
Temperatu	re 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 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		<u>(</u>	 -	<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?					
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?	/	1			
	Construction Sites		L	<u> </u>	1	<u></u>
EM&A:	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?					
	Stockpiling of dusty materials					
Cap311R:	Are stockpiles of dusty materials entirely covered with impervious	17				

sheets or sheltered on the top and 3 sides or sprayed with water to

maintain the entire surface wet to prevent dust emission?

Seb 18

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized fuel ash (PFA)					
Cap311R: Seh 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: Ai	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			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)	ls 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&Λ: Λ2	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?	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	•				
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?	7		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?	/				
EM&A: E3	Are wastes disposed of at licensed sites?					
	General refuse		1			
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?		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)?	/				

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&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?	/				
	Storage, collection and transportation of waste	1		<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;	7				
	(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?	/				
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?	17	/			

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	1				
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 schedu	led to minimize noise nuisance?							
EM&A: CI	Are construction works or equipmuisance?	nent sited to minimize noise			-				
EM&A: C1	Are all plant and equipment mair conditions?	ntained 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 o nuisance?	ut in a manner to minimize noise		/					
EM&A: C2	To mitigate construction noise di holidays, is either one of the folla 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								
NCO	Are valid construction noise per 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 fi held percussive breakers?	ixed at air compressors and hand		/					
	Major poise course(s)	☐ Traffic	Ø	Const site	ructio	n activ	ities inside the		
	Major noise source(s)		Others						

Abbreviation

VEP: WMP Cap344R: Cap344O Cap344: 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 (Co	NCO: WDO:	EM&A Manual (Construction Phase Noise Control Ordinance Waste Disposal Ordinance Drainage)
Remark			
٨	1; \		
	······································		•
Signatures			
Signatures ET Member	Contractor's Repr		

(Name in Block letters:

Larry Way

(Name in Block letters:

Wong to Hong

11th November 2002

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

Inspection	n date 3 Nov 2005 Time 67:30 Inspec	ted By			W.	
Site	LMX-Muh. Evertion Area		Con	tracto	or: M	F. KWEK (TDK)
Weather			Principal (Baloy)	a Tables (PA) (Pala		
Condition	Sunny Fine Overcast Hazy		Driz	zle	R	ain Storm
Temperat	ure 25 °C Humidity High Modera	ite	Lov	N		
Wind	Calm Light Breeze Strong					
GENERAL		•			Maria de Carriana	
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 Ref.	Checklist Condition	N/A	Yes	No	Unk	Pamarka
	General Requirements	IV/A	res	No	Unk	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?	√ ·				
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?		✓			Spraying
	Stockpiling of dusty materials	L	1		B	3 1-1-
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?					

Page 1 of 7

C:\Documents and Settings\English\My Documents\U9 Safety Management\S-05 Inspection programme\Weekly Site Inspection Checklist.doc

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized fuel ash (PFA)					I
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?	~				
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.,		لــــــا		
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?	~				144
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?	✓	i			
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 Ronded By K.Y.
	Transfer of dusty materials using a belt conveyor system					13 100
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?	\[\sigma^{\gamma} \]				
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					7.50
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?	<i>\</i>				
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 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?	~				
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?	V				
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?	~				
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?		V			
WMP	Is the refuse disposed of regularly and properly?		J			
WMP	Are burning of refuse at site and dumping at sea prohibited?		IV			
	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			

Checklist Condition		1	1		
Checklist Collabora	N/A	Yes	No	Unk	Remarks
Has the Contractor been registered as a chemical waste producer?		/			
Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?		~			
Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?		v			
Is the chemical waste storage, if any, well maintained, kept closed and locked?					
Storage, collection and transportation of waste	L	1			
Are wastes transported by enclosed containers or covered trucks?		./			
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.					
Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?		/			
	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection? Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"? Is the chemical waste storage, if any, well maintained, kept closed and locked? Storage, collection and transportation of waste Are wastes transported by enclosed containers or covered trucks? 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. Are the records of the quantities of wastes generated and disposed	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection? Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"? Is the chemical waste storage, if any, well maintained, kept closed and locked? Storage, collection and transportation of waste Are wastes transported by enclosed containers or covered trucks? 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. Are the records of the quantities of wastes generated and disposed	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection? Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"? Is the chemical waste storage, if any, well maintained, kept closed and locked? Storage, collection and transportation of waste Are wastes transported by enclosed containers or covered trucks? 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. Are the records of the quantities of wastes generated and disposed	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection? Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"? Is the chemical waste storage, if any, well maintained, kept closed and locked? Storage, collection and transportation of waste Are wastes transported by enclosed containers or covered trucks? 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. Are the records of the quantities of wastes generated and disposed	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection? Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"? Is the chemical waste storage, if any, well maintained, kept closed and locked? Storage, collection and transportation of waste Are wastes transported by enclosed containers or covered trucks? 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. Are the records of the quantities of wastes generated and disposed

WATER QUALITY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off	· · · · · · · · · · · · · · · · · · ·	L	J	.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?	~				
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?	V				
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?	~				

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?	5				
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?	1				

NOISE .

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A:	Are working programmes schedul	ed to minimize noise nuisance?		/			
EM&A: C1	Are construction works or equipm nuisance?	ent 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 thr	ottled down?		1			
EM&A: C1	Are methods of working devised a nuisance?		~				
EM&A: C1)	Are construction works carried ou nuisance?	it in a manner to minimize noise		V			
EM&A: C2	To mitigate construction noise du holidays, is either one of the follo a) Mitigation by portable noise b) Rescheduling of some power sensitive time periods?	wing measures adopted?		4			
EM&A: C3	To mitigate night time construction equipped with silencers or muffle		V				
NCO	Are valid construction noise perminspection?	its, if required, available for	1				
NCO	Are conditions of construction no relevant part(s) of the works impl	ise permits, if any, for the emented accordingly?	V				
NCO	Are valid noise emission labels fi held percussive breakers?	xed at air compressors and hand					
	Maria de la constanción	□ Traffic	Ø	Constr site	uctio	n activi	ties inside the
	Major noise source(s)	☐ Construction activities outside the site		Others	S		

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

(Name in Block letters:

W.SIU

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

Inspection	date 10 Nov o3 Time 0 330 Inspect	ted By	ET:		W	. Szu (HEC)
Site	LMX- U9 Mech. Freitzen Anec.		Cont	racto	or: W	7. Kwek (70K)
Weather						
Condition	Sunny Fine Overcast Hazy		Driz	zie [R	ain Storn
Temperati	ure 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 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?		V			
AIR QUAL	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements	1	<u></u>			<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?		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			Spraying B. RY
	Stockpiling of dusty materials					3 1.7.
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?	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?	~				
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.,		L		<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?	~				
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?					Clemy Ronderd By K.Y.
	Transfer of dusty materials using a belt conveyor system	·		1		13 102
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?	✓ 				
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?	✓				·
	Concrete batching plant				l	7.00
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?	/				
		- 1	- 1	- 1		

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

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?	V								
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?	V								
	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?	V								
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				(* 8				
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	V				<u>.</u>				
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?		√			100-10-1				
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?									
	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			
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?					
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;	V				
	(2) reusable / recyclable materials;	~				
1711	(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?		✓			74.

WATER QUALITY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off	-1,		l	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?	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?	\rightarrow \tag{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?	· ✓				

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?	~				, see
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?	~		<u>"</u>		1000

NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks	
EM&A: C1	Are working programmes sched	uled to minimize noise nuisance?		V			<u> </u>	
EM&A: C1	Are construction works or equip nuisance?	oment sited to minimize noise		✓				
EM&A: C1	Are all plant and equipment mai conditions?	intained in good operating		V			1	
EM&A: C1/GP	Is idle equipment turned off or the	hrottled down?		1				
EM&A: C1	Are methods of working devised nuisance?		~					
EM&A: C1)	Are construction works carried on nuisance?	out in a manner to minimize noise		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \				
EM&A: C2	To mitigate construction noise d holidays, is either one of the foll a) Mitigation by portable nois b) Rescheduling of some powers sensitive time periods?			>				
EM&A: C3	To mitigate night time construct equipped with silencers or muffl	ion noise, is dredging equipment ers?	v					
NCO	Are valid construction noise per inspection?	mits, if required, available for	V					
NCO	Are conditions of construction n relevant part(s) of the works imp		✓					
NCO	Are valid noise emission labels f held percussive breakers?	fixed at air compressors and hand		V				
	Major noise source(s)	□ Traffic	□ ⁄ (Constru site	ıction	ction activities inside the		
	Angor noise source(s)	☐ Construction activities outside the site		Others				

Abbreviation

VEP: WMP: Cap311R: Cap311O: Cap311: PN1/94: Unk:	APC (Open Burn Air Pollution Co	ent Plan on Dust) Regulation ning) Regulation	NCO: WDO:	EM&A Manual (Construction Phase) Noise Control Ordinance Waste Disposal Ordinance Orainage)	
Remark					
		7 V v			_
			· · · · · · · · · · · · · · · · · · ·		
		·			
			······································		_
Signatures					_
ET Member		Contractor's Represe	entative		
(Name in Block		(Name/in Block lette		_	

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

Inspection	date 7 Nov c5 Time 0/32 Inspect	ed By	ET:			STu (1781			
Site	LHX - Mech. Frettim Hrec		Cont	racto	r. ω.	7, Kwale (70K			
Weather			100 distributio (12 de 1	A CONTRACTOR OF THE PARTY OF TH					
Condition	Sunny Fine Overcast Hazy		Driz	zle [R	ain Stor			
Temperatu	re C Humidity High Moderat	te v	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?								
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks			
	General Requirements	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?	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?		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?	V							
	Construction Sites		L	-	I	1			
EM&A: A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		/			Spraying By D.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?					
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: AI	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			Cleary Ainted By P.Y
	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?	<i>y</i>				
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?	✓ <u> </u>				
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?	/				
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?	1				
EM&A A2	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?	V				
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?	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?					
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	V				
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?	V				
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	V				
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?		1			
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		V			
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)?		V			

Ref	Checklist Condition	N/A	Yes	Νo	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"?		V					
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;	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?		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?	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?	<i>✓</i>				
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				
	Greundwater			<u> </u>	<u> </u>	
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?	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?	1				

NOISE -

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: C1		aled to minimize noise nuisance?		V			
EM&A: C1	Are construction works or equiponuisance?	ment sited to minimize noise		~			
EM&A: C1	Are all plant and equipment main conditions?	ntained in good operating					
EM&A: C1/GP	Is idle equipment turned off or th			V			
EM&A: C1	Are methods of working devised nuisance?						
EM&A: C1)	Are construction works carried o nuisance?		~				
EM&A: C2	To mitigate construction noise di holidays, is either one of the folloa) Mitigation by portable noise b) Rescheduling of some power sensitive time periods?		/				
EM&A: C3	To mitigate night time construction equipped with silencers or muffle		1				
NCO	Are valid construction noise per inspection?	nits, if required, available for	~				
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			
	☐ Traffic		छ	Constr site	uction	activi	ties inside th
	Major noise source(s)	Construction activities outside the site	☐ Others				

Abbreviation

VEP:

Varied Environmental Permit

WMP:

Cap311R: Cap3110: 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			
Signatures			

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

Noise Control Ordinance Waste Disposal Ordinance

ET Member

Contractor's Representative

(Napre in Block letters:

Same in Block letters:

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

Inspection	date 24 Nov 65 Time 6 330 Inspect	ed By	ET:			1 (HFC)
Site	LMX-V9 Mech Fretten Ane		Cont	racto	r: W,	t. Know 7p
Weather						
Condition	Sunny Fine Overcast Hazy		Driz	zle [R	nin Stor
Temperatu	rre \(\sum \) 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?		J			
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	····	1	J	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	1.		1		
EM&A: A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		~			Spriggs By RT
	Stockpiling of dusty materials	1	L	1	L	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 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?					

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?	V				
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			1		
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?	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?		~			Chony Powher Ry P.T.
	Transfer of dusty materials using a belt conveyor system			1		3
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?	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		1

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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					
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?	V				
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?	V				
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?	/				
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?		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)?		J			

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		1		L	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?		V			

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?	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?	/				
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				
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?					,
	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?	4				
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?	J				

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 equipanuisance?	ment sited to minimize noise		1			
EM&A: C1	Are all plant and equipment main conditions?			1			
EM&A: C1/GP	Is idle equipment turned off or the	rottled down?		1			
EM&A: C1	Are methods of working devised nuisance?		1				
EM&A: C1)	Are construction works carried o 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?			1			
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	~				
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		/			
		☐ Traffic	DZ (Constr site	uction	activi	ties inside th
	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 (Columbia)	EM&A: EM&A Manual (Construction Phase) NCO: Noise Control Ordinance WDO: Waste Disposal Ordinance sustruction Site Drainage)	
Remark			-
	•		
Signatures			-
ET Member	Contractor's Repre	esentative	
r	\		

(Name in Block letters:

W.Siv)

(Name in Block letters:

W. F. Kuch

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

Inspection	date 2 NOV 2005 Time 09: 20 Hz Inspect	ted By	ET:	7.	F. CHW	(PDG GRAHGNG (SA
Site	LMX -19 Hechraf Freath Area		LCom	ii act	" PE	GR CHGNG [SA
Veather		•-	·····			
Condition	Sunny Fine Overcast Hazy		Driz	zle	R	ain Storn
Temperatı	ıre 🗗 °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?		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	1 412		,,,,	—	
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			•	<u> </u>	
EM&A : A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		J			Water Span : Provided 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?	/				

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized fuel ash (PFA)		•	· · · · · · · · · · · · · · · · · · · ·	L	
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?	· ·				
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?	<i>V</i>				
	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?	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?		/			Wheel Ward Provided B
	Transfer of dusty materials using a belt conveyor system			<u> </u>		
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?	/				
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	·		٠.	
EM&A: A2	Are dusty materials, except cement and dry PFA, wetted by water spray system?	V			, , , ,	
EM&A:	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	V				
EM&A:	Are all the conveyor transfer points totally enclosed?					***************************************
A2				. [

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?	V				
Cap3110	Is open burning prohibited?		1			7.2.78.
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?	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?	V				
	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?	J				
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?	V				
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?		1			
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?	<u>L</u>	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 _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?	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?	/				
	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?	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?	J				
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?	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?	V				
PN1/94	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?	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?	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?	J				•

NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: C1	Are working programmes sched	uled to minimize noise nuisance?		V			7
EM&A: C1	Are construction works or equip nuisance?	ment sited to minimize noise		1			
EM&A: C1	Are all plant and equipment mail conditions?	ntained in good operating		~			
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 uisance?	out in a manner to minimize noise		V			
EM&A: C2				/			
EM&A: C3	To mitigate night time constructi equipped with silencers or muffle		V				
NCO	Are valid construction noise pen inspection?	nits, if required, available for	1				
NCO	Are conditions of construction nerelevant part(s) of the works imp		1				
NCO	Are valid noise emission labels f held percussive breakers?	ixed at air compressors and hand	1	/			
	Major noise source(s)	☐ Traffic ☐ Construction activities		Constr site		n activi	ities inside the
		outside the site	<u> </u>	Others	·		

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	EM&A: EM&A Manual (Construction Phase) NCO: Noise Control Ordinance WDO: Waste Disposal Ordinance instruction Site Drainage)
Remark		
		•• -•
		Western
		PRANA AND AND AND AND AND AND AND AND AND
	Automatical -	· ************************************
Signatures		
ET Member	Contractor's Repres	entative
D1 MICHIDE	Contractor's Repres	ionanto .

PCTUR CHENG) SANKO

12th January 2005

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

Inspection	date 9 NoV 2005 Time 915 hrs Inspect	ted By	ET:	7.7	CHIU	PPE-
Site	LMX- 19 Elabrical Frection Area		Cont	racto	or: Pela	echag / gan
Weather						·
Condition	Sunny Fine VOvercast Hazy		Driz	zle [R	ain Storn
Temperati	ıre S °C Humidity √ High Modera	te _	Lov	V		
Wind	Calm Light Breeze Strong					
GENERAL				<u> </u>		
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/			
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements	<u> </u>	<u> </u>	L	l	<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?		/			
Сар311	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	A		
EM&A: A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		V			WaterSpraying Provided By
	Stockpiling of dusty materials		•	•	•	7
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
- 0	Cement and dry pulverized fuel ash (PFA)	e e	•	•		
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?	V				
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?	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					
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?		/			Wheel Washing Provided By
	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?	V				
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?	/				
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			٠.	
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?	V				
EM&A: A2	Are all the conveyor transfer points totally enclosed?	1				
					1	1

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?	V				
Cap3110	Is open burning prohibited?	<u> </u>	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?	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?	J				
	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?	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?	ı				
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	V				
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?		v			
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?	<u> </u>	W			
	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?	ν				
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?	V				×
	Storage, collection and transportation of waste			!!	1	<u>' </u>
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				- 114
	(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?	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?	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?	✓				
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	Ī				
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"?	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

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks		
EM&A: C1	Are working programmes sched	uled to minimize noise nuisance?		V			- White to		
EM&A: C1	Are construction works or equip nuisance?								
EM&A: CI	Are all plant and equipment main conditions?								
EM&A: C1/GP	Is idle equipment turned off or the	Is idle equipment turned off or throttled down?							
EM&A: C1	Are methods of working devised and arranged to minimize noise nuisance?						· · · · · · · · · · · · · · · · · · ·		
EM&A: C1)	Are construction works carried o nuisance?		V						
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 constructi equipped with silencers or muffle		V						
NCO	Are valid construction noise perrinspection?	nits, if required, available for	V						
NCO	Are conditions of construction no relevant part(s) of the works imp		1				, , , , , , , , , , , , , , , , , , , ,		
NCO	Are valid noise emission labels fi held percussive breakers?	ixed at air compressors and hand	1	/					
	Major noise source(s)	☐ Traffic	V	ties inside the					
		Construction activities		Others					

Abbreviation				w.c.
VEP: WMP: Cap3 HR: Cap3 HO: Cap3 H: PN 1/94: Unk:	Varied Environmental Pe Waste Management Plan APC (Construction Dust) APC (Open Burning) Rej Air Pollution Control Ord Practice Note for Profess Unknown) Regulation gulation dinance	·NCO: , WDO:	EM&A Manual (Construction Phase) Noise Control Ordinance Waste Disposal Ordinance Drainage)
Remark				
				* *
				· · ·
		•		
- 	•			
Signatures				
ET Member	C	Contractor's Representati	ive	
-Chia (Name in Bloc	c letters:	Name in Block letters:		
T. F. CUIL	L)	Name in Block letters: PETER CHENG SAN		
		SAN	KO.	

12th January 2005

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

Inspection d	late 16 MAN 2005 Time 09:15 has Inspecte	ed By	ET:	T-7-(Yaw p	PUE OURG/SING
Site	LMX-L9 Herbin Condian Assea.		Cont	racto	^{г:} РП&	and Sml
Weather						
Condition	Sunny Fine Overcast Hazy		Driz:	zle [Ra	in Storm
Temperatu	re 21 °C Humidity High Moderat	e	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?		S			,
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		/			
AIR QUALI	ТҮ					
			l			

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?	/							
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?		V			NoterSprays			
	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?	/				
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?	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	•	•			
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?		/			Rheel Washing Provided R
	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?	1				
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?	/				
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?	V				
		I .	ı			

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?		/			
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?	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?	V									
	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?	V									
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?	T									
	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?		J								
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)?				•						

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?	1								
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?	U								
	Storage, collection and transportation of waste									
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					
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?	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?	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?	V				
PN1/94	Groundwater Is groundwater that pumped out of wells discharged into storm	,				
FN1/94	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?	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"?	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

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: C1	Are working programmes schedu	aled to minimize noise nuisance?		V			
EM&A: C1	Are construction works or equipanuisance?	ment sited to minimize noise		v			
EM&A: C1	Are all plant and equipment mair conditions?	ntained in good operating		J			
EM&A: C1/GP	Is idle equipment turned off or th	rottled down?		V			
EM&A: C1	Are methods of working devised nuisance?	Are methods of working devised and arranged to minimize noise nuisance?					
EM&A: C1)	Are construction works carried o nuisance?		J				
EM&A: C2	To mitigate construction noise du holidays, is either one of the folle a) Mitigation by portable noise b) Rescheduling of some power sensitive time periods?	J					
EM&A: C3	To mitigate night time constructiequipped with silencers or muffle		J				•
NCO	Are valid construction noise perminspection?	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 fixed at air compressors and hand held percussive breakers?						
	Major noise course(s)	☐ Traffic	Construction activities inside the				
	Major noise source(s)	Construction activities outside the site					

VEP: WMP: Cap311R: Cap311O: Cap311: PN1/94: Unk:	APC (Open Burni Air Pollution Conf	nt Plan n Dust) Regulation ng) Regulation	NCO: WDO:	EM&A Manual (Construction Phase) Noise Control Ordinance Waste Disposal Ordinance Orainage)
Remark				
		·		
•				**************************************
4				
Signatures				
Signatures ET Member		Contractor's Repres	sentative	
-		Contractor's Repres	sentative	
-		Contractor's Repres	sentative	
-			sentative	
-		Contractor's Repres	sentative	
ET Member	k letters:	(Name in Block lett	ers:	
ET Member	k letters:	Poten	ers:	

12th January 2005

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

Inspection	date 23NDV 2005 Time 10137 hrs Inspect	ed By	ET:	~~	CHIU,	1992
Site	LMX-19 Glechial Fretzon Area		Com	Tacto	n : [<i>E]E</i>	KC4GK SANI
Weather	/					
Condition	Sunny Fine Overcast Hazy		Driz	zle [R	ain Storm
Temperati	ure 2 °C Humidity High U Modera	le 📗	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 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
	General Requirements	l	L	<u></u>		ļ
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?		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	.1		L		
EM&A: A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?	-	V			WaterSpaying Provided By
	Stockpiling of dusty materials	· · · · · · · · · · · · · · · · · · ·	٠	····		
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?	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?	<i></i>				
•	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?	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	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?	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?		1			Wheel Wash: Provided By F
	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?	v				
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?	V				
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?	J				
	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:	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	V				

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Miscellaneous	, l.	•	·	·····	
Cap311R: Sch 16	Are completed earthworks sealed and hydrosecded and planted as soon as possible?	V				
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?	✓				
	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?	/				
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?	V				
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?	N				
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	V				
EM&A: E3	Are wastes disposed of at licensed sites?	\checkmark				- Luciano (m.
	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			MT.
WMP	Is the refuse disposed of regularly and properly?		V			
WMP	Are burning of refuse at site and dumping at sea prohibited?	<u> </u>	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?	1				***			
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?	1							
	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?	V				-			
	(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?	V	5						

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?	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?	J				
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?	ſ				`
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?	/				
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?	V				

NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks	
EM&A: Cl	Are working programmes sched	uled to minimize noise nuisance?		v				
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		J				
EM&A: C1/GP	Is idle equipment turned off or the	nrottled down?		V				
EM&A: CI	Are methods of working devised nuisance?		V					
EM&A: C1)	Are construction works carried on nuisance?		/					
EM&A: C2			\ \					
EM&A: C3	To mitigate night time construct equipped with silencers or muffl		v					
NCO	Are valid construction noise pen inspection?	nits, if required, available for	V					
NCO	Are conditions of construction no relevant part(s) of the works imp		V					
NCO	Are valid noise emission labels fi held percussive breakers?	ixed at air compressors and hand	V	v				
•	Major noise source(s)	Traffic	ए	ities inside the				
		Construction activities outside the site						

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

)

12th January 2005

(Name in Block letters:

TECHIU

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

Inspection	date 30 NOV 2025 Time 09-15/hrs Inspect	ted By	ET:	Tracto	F.CH	in / PDE
Site	LMX-L9 ELECTRICAL ERECTION AREA		Com	iracic	. <u> </u>	מדיו א בא מ
Veather	,					
Condition	Sunny Fine Overcast Hazy		Driz	zle [R	ain Storm
Temperati	re 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 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?		V			
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements	<u>l.</u>		l	ļ. <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?	/				
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		••••			J
EM&A: Al	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		· •			Waterspraying Provided 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?					

* •	0		١	1		
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?	V				
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?	V				
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?	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					
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?	\checkmark				
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 Wash Serves Pro By Part Y.
	Transfer of dusty materials using a belt conveyor system					0
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?	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?	/				
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?	/				
	Concrete batching plant		Į.		Į.	
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:	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	V				
EM&A: A2	Are all the conveyor transfer points totally enclosed?	V				

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?	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?	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?	S				
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?	V				
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?	/				
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?		1			
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		✓		٠.	
WMP	Is the refuse disposed of regularly and properly?		V			,
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)?	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"?	V				
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?		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?	V				

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?	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?	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?	5				
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		-		•
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?	o/				
	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"?	1				
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 schede	uled to minimize noise nuisance?		V				
EM&A: Cl	Are construction works or equip nuisance?	ment sited to minimize noise		V				
EM&A: C1	Are all plant and equipment mail conditions?	ntained in good operating	-	٧				
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	-	v			, , , , , , , , , , , , , , , , , , , ,	
EM&A: C1)	Are construction works carried o nuisance?	out in a manner to minimize noise		1				
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?	owing measures adopted?	\ \					
EM&A: C3	To mitigate night time construction equipped with silencers or muffle		/		-		¥ 1000	
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		1					
NCO	Are valid noise emission labels f held percussive breakers?	ixed at air compressors and hand	1					
	Major noise source(s)	☐ Traffic	Ø.	Constr site	uction	activi	ties inside the	
	intalor horse source(2)	Construction activities outside the site		Others				



VEP: Varied Environmental Permit WMP: Waste Management Plan EM&A: EM&A Manual (Construction Cap311R: APC (Construction Dust) Regulation NCO: Noise Control 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	Abbreviation			·•
Signatures	WMP: Cap311R: Cap311O: Cap311: PN1/94:	Waste Management Plan APC (Construction Dust) Regula APC (Open Burning) Regulation Air Pollution Control Ordinance Practice Note for Professional Pe	tion NCO: WDO:	EM&A Manual (Construction Phas Noise Control Ordinance Waste Disposal Ordinance
	Remark			
				-

	-			
ET Member Contractor's Representative	Signatures			
Mr. A.	ET Member	Contracto	or's Representative	
		\	11-	
(Name in Block letters: (Name in Block letters:	- Chat		(Je)	<u>_</u>

12th January 2005

TECHUL)

CIMILO) SAWKO.

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

Inspection of	late 3/11/2025 Time /0:20 Inspect	ed By				cilpos	
Site	LMX 275 kV S/S ERECTION CONTRACT		Conti	racto	r: <i>Sh</i>	SURDS / MA	\$H.K
Weather							
Condition	Sunny Fine Overcast Hazy		Driza	zle [Ra	nin Stor	m
Temperatu	re 6°C Humidity High Moderat	te	Low	,			
Wind	Calm Light Breeze Strong						
ENERAL							
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?		V				
IR QUALI	TY				••••		-
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks]
	General Requirements	1 1,12		1,0			-
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?	/					<u></u>
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?					PROVIDED PROVIDED	3P.N.
	Stockpiling of dusty materials	•^				(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?		,				

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?		/			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?	/				
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: 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?	/				
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?	V				
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?	/				
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?		/			
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			1		
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?			Y		
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?					
PN1/94	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?	/				

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 equipm nuisance?	nent sited to minimize noise		/			
EM&A: C1	Are all plant and equipment main conditions?			/			
EM&A: C1/GP	Is idle equipment turned off or the	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 folloa Mitigation by portable noise b) Rescheduling of some powe sensitive time periods?	wing measures adopted?					
EM&A: C3	To mitigate night time construction 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 impl		/				
NCO	Are valid noise emission labels fi held percussive breakers?	xed at air compressors and hand	/				
	Major noise source(s)	☐ Traffic	Ø.	Constr site	uctior	activi	ties inside the
	irajoi noise source(s)	☐ Construction activities outside the site		Others	! <u> </u>		

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

(Name in Block letters:

U.LU)

(Name in Block letters:

SHERR

12th January 2005

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

Inspection of	late 10/11/2005 Time 10:10 Inspect	ed By	ET:	٠.	L. C	1 / POE
			Cont	racto	r: SH	1 / POE SNEW /ME
Site	LMX 2/3-KV S/S ERECTION CONTRACT					
Weather						
Condition	Sunny Fine Overcast Hazy		Drizz	zle [Ra	nin Stor
Temperatu	re 26°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 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
	General Requirements	1			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		1		L	•
EM&A: A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		/			PAUL 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?	/				
	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?		/			PACILITIES PROVIDED BY PAUL Y
	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		·	٠		
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: A2	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			•		
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?	/				
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?	<u></u>				
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?	L				<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?		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				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.					
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?	/				
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?					

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 scheduled to minimize noise nuisance?			/				
EM&A: C1	Are construction works or equipment sited to minimize noise nuisance?			/				
EM&A: C1	Are all plant and equipment maintained in good operating conditions?			/				
EM&A: C1/GP	Is idle equipment turned off or throttled down?							
EM&A: C1	Are methods of working devised and arranged to minimize noise nuisance?			/				
EM&A: C1)	Are construction works carried out in a manner to minimize noise 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 construction noise, is dredging equipment equipped with silencers or mufflers?							
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?							
	- Major noise source(s)	☐ Traffic	Ø.	Construction activities inside the site				
		Construction activities outside the site		Others				

Abbreviation				
VEP: WMP: Cap311R: Cap311O: Cap311: PN1/94: Unk:	Varied Environmental Per Waste Management Plan APC (Construction Dust) APC (Open Burning) Reg Air Pollution Control Ord Practice Note for Professi Unknown	Regulation gulation linance	NCO: WDO:	EM&A Manual (Construction Phase) Noise Control Ordinance Waste Disposal Ordinance Orainage)
Remark				
Signatures				
ET Member	C	ontractor's Representat	ive	
1	Ź	Lu		
(Name in Block I	etters: (N	Name in Block letters:		
W. C.	ω ₎	SHSUTEN	:	

12th January 2005

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

Inspection of	date 18/11/2005 Time (0:00) Inspect	ed By			L 4]
Site	LMX 275 KU S/S EREUTION CONTRACT		Cont	racto	r: S A	1 Snew/m	\$HK
Weather							
Condition	Sunny Fine Overcast Hazy		Driz:	zle [R	nin Stor	m
Temperatu	re C Humidity High Modera	te	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?		/			1-10	
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		/				_
AIR QUALI Ref.	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?					,	TO PROGRAMA
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?		/			PROVIDED 6	x 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
	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?					HEER WAS FACILITIES PROJUED E PANL Y
	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?					A STATE OF THE STA
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	-lu				1
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?	V				
EM&A:	Are all the conveyor transfer points totally enclosed?	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?	/				
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									
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?	/				***************************************				
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?					194449494				
	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?		N			-
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	1	1		1	•
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;					
and the second	(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?	/				
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	1	
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?	/				

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 equipm nuisance?	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 the	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?	at 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 power sensitive time periods?	wing measures adopted?		/			
EM&A: C3	To mitigate night time construction equipped with silencers or muffle		/				
NCO	Are valid construction noise pern inspection?	nits, if required, available for	/				
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					
	Major paice convec(a)	☐ Traffic		/ Constr site	uction	ı activi	ities inside the
	Major noise source(s)	Construction activities outside the site		Others	i		

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

12th January 2005

(Name in Block letters:

W.L.U)

(Name in Block letters:

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

Inspection	date 23/11/2001 Time 10:38 hrs Inspect	ed By	ET:	بر.	L. L	1 / PDE 1 SUBD/NIEHK
Site	LMX 2/5KU S/S ERECTION CONTRACT		Conti	racto	r: 2 ,	1 SUBY/NEHK
Sile	CONTROL SIS ENERGY CONTROL					
Weather						
Condition	Sunny Fine Overcast Hazy		Drizz	zle [Ra	nin Storm
Temperatu	re 2 °C Humidity High Modera	te	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?				***************************************	
AIR QUALI	TTY					
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	ţ.				1
EM&A: A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?					WATER SPRAYING

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?

Cap311R:

Sch 18

Stockpiling of dusty materials

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?		/			PAUL Y
	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?					
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					1
EM&Λ: 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?					

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?					

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					
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?					
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	<u></u>		1		
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				
	(1) public fill materials for on-site reuse, or disposal at public filling area;		<u> </u>			
	(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?	/				- Company of the Comp
PN1/94	Groundwater Is groundwater that pumped out of wells discharged into storm	 				
1111/74	drains after the removal of silt in silt removal facilities?	$ \checkmark $				

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?	/				

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 equiponuisance?	nent sited to minimize noise					
EM&A: C1	Are all plant and equipment main conditions?	stained 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 of 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?		/			
EM&A: C3	To mitigate night time construction 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 implementations of the construction and the conditions of condit		/				
NCO	Are valid noise emission labels fi held percussive breakers?	xed at air compressors and hand	/				
	Major noise source(s)	☐ Traffic	Ø.	Constr site	uction	activi	ties inside the
	major noise source(s)	Construction activities outside the site		Others			

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 (Unknown	NCO: WDO:	EM&A Manual (Construction Phase) Noise Control Ordinance Waste Disposal Ordinance Orainage)
Remark			
	and the second s		

	and before the second of the s	incense kannanna kikidoppi seeraneesive mis ee taa sassa kannan	adianumuning yaqidigi qiyaliridda ayosinda babirilgan ilmin yirarda hokeye e
Signatures ET Member			
E I Member	Contractor's Re	presentative	IEC's Representative This site inspection was carried out in the presence of IEC's representati
	<i>,</i>		Tr IN.
Z		¬	Name in Block Letters:
(Name in Block	•		Chan The M
W. L.	U) SHSVI	J)	

12th January 2005

Abbreviation

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

Inspection d	late 2fel vov., so Time /000 Inspect	ed By	ET: (. ل <u>ر.</u>	L. L	1/PDE 1 SUBN/M	
Site	LMX 275KU E/S ERECTON CONTRACT]	Com	acto	1.52	M/ CENZ /M	F4/C
Weather							
Condition	Sunny Fine Overcast Hazy		Drizz	ele [Ra	in Storr	n
Temperatu	re	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?		V				
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	
Ker.	General Requirements	14/11	163	110		Kemarks	
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, 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?		/			PROVIDED PANY	RAYING 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?						

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			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?	/				
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?					PROLIFIED B
	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?	/			- 110	
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: A2	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?	/	,			
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								
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?	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?								
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?		/			
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	1		1		
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?	6/							
PN1/94	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?	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?	/				

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 equipmuisance?	nent sited to minimize noise		/			
EM&A: C1	Are all plant and equipment main conditions?						
EM&A: C1/GP	Is idle equipment turned off or the	rottled down?					
EM&A: C1	Are methods of working devised nuisance?	,		/			
EM&A: C1)	Are construction works carried or nuisance?		_/				
EM&A: C2	To mitigate construction noise du holidays, is either one of the folloa Mitigation by portable noise Bescheduling of some powe sensitive time periods?		/				
EM&A: C3	To mitigate night time construction 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 impl		/				
NCO	Are valid noise emission labels fi held percussive breakers?	xed at air compressors and hand	/				
	Major noise source(s)	☐ Traffic		Construction activities inside t			
	major noise source(s)	☐ Construction activities outside the site	Others				

Abbreviation VEP: Varied Environmental Permit Waste Management Plan WMP: EM&A: EM&A Manual (Construction Phase) APC (Construction Dust) Regulation APC (Open Burning) Regulation Noise Control Ordinance Cap311R: NCO: 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:

12th January 2005

(Name in Block letters:

63 LU)

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

Inspection date 02/11/05 Time 10:30 Inspected by ET: Hendry Ho						
-			Cont	racto	r: Kie	•
Site	Transmission Route (Civil Work)					
Weather						
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	ain Sto
Temperatu	rre 27 °C Humidity High Moderat	e 🗸	Lov	V		
Wind	Calm Light Breeze Strong					
GENERAL					<u> </u>	
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 QUAL	1	N/A	Yes	No	Unk	Remarks
Ref.	Checklist Condition	14/74	163	140	CHK	Remarks
	General Requirements	1	1	_	-	
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?	*				
	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?		1			
	Use of vehicles	l	<u> </u>	J	L	1
Cap311R: Sch 21(2)	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	✓				
	Miscellaneous	L	· . <u>-</u>			
Cap311R:	Are completed earthworks sealed and hydroseeded and planted as					

Sch 16

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?	i	✓			· ·

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									
Сар354	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								
	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?		*							
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?	*				

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			N4, N2, LPS sites
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?		✓			

TERRESTRIAL ECOLOGY

Ref	Checklist Condition		N/A	Yes	Remarks			
EM&A: O1	Are the construction activities at la monitored to avoid impact on the u species Celtis biondii, Pteris dispa restricted plants Vitis balansaeana, and Rhapis excellsa?	ncommon and rare plant rand Ardicia pusilla, and the		~				
EM&A: O2	Are fences erected in accordance win good condition along the bound prevent tipping, vehicle movement personnel into adjacent wooded are uncommon and restricted plant spe	ary of construction sites to s, and encroachment of eas, particularly where the rare,		√				
EM&A: Q3	Has regular checking been perform boundaries are not exceeded and the surrounding areas?			√				
EM&A: Q4	Is open fire prohibited and prevent boundary during construction? Is to equipment provided in the work are	emporary fire fighting		√	/			
		Traffic	✓	Con:		uction activities inside		
	Major noise source(s)	Construction activities outside the site		Othe	ers:			

Abbreviation

VEP: Varied Environmental Permit
Cap311R: APC (Construction Dust) Regulation
Cap311O: APC (Open Burning) Regulation

Cap311: Air Pollution Control Ordinance
Cap466: Dumping at Sea Ordinance

t) Regulation NCO: Noise Control Ordinance egulation Cap354: Waste Disposal Ordinance

Cap354c: WDO (Chemical Waste) (General) Regulation

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

Unk: Unknown

Remark	· · · · · · · · · · · · · · · · · · ·		
<u>-</u>			

Signatures

ET Member

Contractor's Representative

Name in Block letters:

20th December 2001

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

Inspection d	ate 09/11/05 Time 11:00 Inspect	ed by			ry Ho r: Kier		$\frac{1}{2}$
Site	Transmission Route (Civil Work)						_ _
Weather							_
Condition	Sunny Fine Overcast Hazy		Driza	zle [Ra	in Sto	гm
Temperatu	re 26 °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?		4				
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		1				

AIR QUALITY

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?	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?		*						
	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
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?		1			1.42
	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				
	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)?	•				
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?	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?	1	•			
NCO	Are valid construction noise permits, if required, available for inspection?		1			N4, N2, LPS sites
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?		~			

TERRESTRIAL ECOLOGY

Ref	Checklist Condition		N/A	Yes No Unk Remar				
EM&A: Ol	monitored to avoid impact on the uspecies Celtis biondii, Pteris dispa	•						
EM&A: O2	Are fences erected in accordance win good condition along the bound prevent tipping, vehicle movement personnel into adjacent wooded are uncommon and restricted plant spe		*					
EM&A: Q3	Has regular checking been perform boundaries are not exceeded and the 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	·	Con the		ion act	ivities inside	
	Major noise source(s)	Construction activities outside the site		Oth	ers:			

Abbreviation

VEP:

Varied Environmental Permit

Cap311R: Cap311O:

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

Cap311:

Air Pollution Control Ordinance

Cap466:

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			
, , , , , , , , , , , , , , , , , , , ,		 	
		 . <u></u> . ,	

Signatures

ET Member

Contractor's Representative

(Name in Block letters:

(Name in Block letters:

(Name in Block letters.

20th December 2001

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

Inspected by ET: Hendry Ho

Time 14:00

16/11/05

Miscellaneous

soon as possible?

Cap311R: Sch 16

Inspection d	ate 16/11/05 Time 14:00 Inspect	ed by	ET: I	lendi	ry Ho			
F			Contractor: Kier					
Site	Transmission Route (Civil Work)				•			
<u>.</u>						···		
eather								
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	in S		
Temperatu	re 22 °C Humidity High Moderat	e 🗸	Low	7				
Wind	Calm Light Breeze Strong							
ENERAL			•					
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks		
/EP 1.5	Has a copy of the most updated Environmental Permit been displayed at all vehicular site entrances/exits for public information?		√					
/EP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		1					
IR QUALI	ТҮ							
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?	✓						
	Stockpiling of dusty materials			<u>.</u>		-		
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?		1					
-	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						

Are completed earthworks sealed and hydroseeded and planted as

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
Cap311O	Is open burning prohibited?		1			
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?	1								
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"?	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?	~				
EM&A: L2~1.5	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			N4, N2, LPS sites
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?		~			

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 u species Celtis biondii, Pteris dispa- restricted plants Vitis balansaeana, and Rhapis excellsa?	incommon and rare plant rand Ardicia pusilla, and the		1			
EM&A: O2	Are fences erected in accordance we 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 s, and encroachment of eas, particularly where the rare,		,			
EM&A: Q3	Has regular checking been perform boundaries are not exceeded and the surrounding areas?	ned to ensure that the work site nat no damage occurs to		1			
EM&A: Q4	Is open fire prohibited and prevent boundary during construction? Is t equipment provided in the work ar	emporary fire fighting		1			
		Traffic	·	Con		ion act	tivities inside
	Major noise source(s)	Construction activities outside the site		Oth	ers:		

Abbreviation

VEP:

Varied Environmental Permit

Cap311R: Cap311O:

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 Member

(Name in Block letters:

Hendry, ST Ho

Agginger Engineer

Contractor's Representative

(Name 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 23/11/05 Time 14:00 Inspec	ted by			lry Ho or: Kie	
Site	Transmission Route (Civil Work)		Com		71. ICIC:	
Weather			•	·		
Condition	Sunny Fine Overcast Hazy		Driz	zle [R	ain S
Temperate	ure 25 °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			
			<u> </u>			1
AIR QUAL	ITY	·				
AIR QUAL	Checklist Condition	N/A	Yes	No	Unk	Remarks
	·	N/A	Yes	No	Unk	Remarks
	Checklist Condition	N/A	Yes	No	Unk	Remarks
Ref.	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? If yes, did the contractors notify EPD of the		Yes	No	Unk	Remarks
Ref. Cap311R: 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 change in the notice? If yes, did 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.		Yes	No	Unk	Remarks
Ref. Cap311R: 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 change in the notice? If yes, did 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. Has this been observed?		Yes	No	Unk	Remarks
Cap311R: Cap311R: Sch 12(3) Cap311R: Sch 18	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? If yes, did 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. Has this been observed? Stockpiling of dusty materials Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to			No	Unk	Remarks
Ref. Cap311R: Cap311R: Sch 12(3) Cap311R: Sch 18	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? If yes, did 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. Has this been observed? Stockpiling of dusty materials 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?			No	Unk	Remarks
Ref. Cap311R: Cap311R: Sch 12(3) Cap311R: Sch 18 EM&A:J1 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 change in the notice? If yes, did 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. Has this been observed? Stockpiling of dusty materials 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 Is every load of dusty material on the vehicles leaving the	·		No	Unk	Remarks

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						Г
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?		✓				
Cap354C	Is chemical waste handled according to the "Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?	V					

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?	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?	✓		 :		
NCO	Are valid construction noise permits, if required, available for inspection?		✓			N4, N2, LPS sites
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?		~			

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 dispa restricted plants Vitis balansaeana and Rhapis excellsa?	ncommon and rare plant rand Ardicia pusilla, and the		1					
EM&A: O2	Are fences erected in accordance win good condition along the bound prevent tipping, vehicle movement personnel into adjacent wooded are uncommon and restricted plant spe	ary of construction sites to s, and encroachment of eas, particularly where the rare,		~					
EM&A: Q3	Has regular checking been perform boundaries are not exceeded and the surrounding areas?	ed to ensure that the work site at no damage occurs to		~					
EM&A: Q4	Is open fire prohibited and prevent boundary during construction? Is to equipment provided in the work are	emporary fire fighting		√					
		Traffic	✓	Construction activities inside the site					
	Major noise source(s)	Construction activities outside the site		Oth					

Abbreviation

VEP:

Varied Environmental Permit

Cap311R: Cap311O:

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

Unk: Unknown

Remark	

Signatures

ET Member

Contractor's Representative

(Name in Block letters:

Hadry, ST Ho

Name in Block letters:

20th December 2001

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

Inspection of	late 30/11/05 Time 11:00 Inspect	ed by			ry Ho	
: Site			Cont	racto	r: Kier	
	Transfer 100 (Control of the Control					
Veather						
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	uin St
Femp e ratu	re 21 °C Humidity High Moderat	te 🗸	Lov	v		•
ENERAL						
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	displayed at all vehicular site entrances/exits for public	,	¥			
VEP 1.6			V			
AIR QUAL	TY				1.	
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	*					
Cap311R:	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				
	from any vehicle, equipment, other materials or person.	*				
	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?		1			
	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		1	. 1	•	
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?		✓			:

WASTE/CHEMICAL WASTE MANAGEMENT

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?		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?		/						
Cap354C	Is chemical waste handled according to the "Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?	1							

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?	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?	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?	1				
NCO	Are valid construction noise permits, if required, available for inspection?		~			N4, LPS sites
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?		~			

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 disparrestricted plants Vitis balansaeana, and Rhapis excellsa?	ncommon and rare plant rand Ardicia pusilla, and the		1			:
EM&A: O2	Are fences erected in accordance w 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 s, and encroachment of eas, particularly where the rare,		*			
EM&A: Q3	Has regular checking been perform boundaries are not exceeded and the surrounding areas?			1			
EM&A: Q4	Is open fire prohibited and prevent boundary during construction? Is to equipment provided in the work ar	emporary fire fighting		√			
		Traffic	V	Con		ion act	tivities inside
" -	Major noise source(s)	Construction activities outside the site		Oth	ers:		

Abbreviation

VEP:

Varied Environmental Permit

Cap311R: Cap311O:

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

Cap311:

Air Pollution Control Ordinance

Cap466:

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 Member

Contractor's Representative

(Name in Block letters:

20th December 2001

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

Inspection d	late 4/11/05 Time 12:00 Inspect	ted by	ET:	K	LLA	ru -
Site	SWEEPING & PREPARATION WORK (N.	5 R	Cont	racto	r: <i>J-1</i>	PONER SY
Veather						
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	ain Stor
Temperatu	re 26 °C Humidity High Moderat	te	Low	7		
Wind	Calm Light Breeze Strong					
ENERAL						
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	<u>.</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?	/				
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	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?	/				

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				

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?		V					
Cap466	Are wastes disposed of at licensed sites?		V		<u> </u>			
	Construction Waste and Excavated Materials	<u> </u>	•			<u> </u>		
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)?	V						
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						

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: 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?	/				
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	monitored to avoid impact on the species Celtis biondii, Pteris disp		V				
EM&A: O2	in good condition along the bour prevent tipping, vehicle moveme	nts, and encroachment of areas, particularly where the rare,	V				
EM&A: Q3	Has regular checking been perfor boundaries are not exceeded and surrounding areas?	rmed to ensure that the work site that no damage occurs to	V				
EM&A: Q4	Is open fire prohibited and preve boundary during construction? Is equipment provided in the work	temporary fire fighting	V				
		ГП	 				
	Major poigo sopres(s)	Traffic		Consti site	ructio	n activ	ities inside the
	Major noise source(s)	Construction activities outside the site		Others	<u> </u>		

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

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

Inspection d	ate	ted by	ET:	CK	wo.	NG POWERSY	
Site	Outside Landing Point II &N 4		Cont	racto	r: <i>J-F</i>	OWER ST	\$1 61
eather							•
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	ain Stori	n
Temperatu	re 24 °C Humidity High ✓ Moderat	te	Lov	V			
Wind	Calm Light Breeze Strong						
ENERAL							
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				
/EP 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					<u> </u>	1
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?	~					
	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?	V					
	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
Cap311O	Is open burning prohibited?	V				
Cap311	Is black smoke emission from plant/equipment avoided?	V				

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?		✓			
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?	V				
Cap354	Are wastes disposed of at licensed sited?	V				
	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)?	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"?	V			_	

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?					

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- 1		1		7			١

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?	/				
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?	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 disp	-	/				
EM&A: O2	in good condition along the bour prevent tipping, vehicle movement	ents, and encroachment of areas, particularly where the rare,	V				
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? Is equipment provided in the work	s temporary fire fighting	V				
		☐ Traffic	d	Const	ructio	n activ	ities inside the
	Major noise source(s)	Construction activities		site Other	s		

Abbreviation		
VEP: Cap311R: Cap311O: Cap311: Cap466:	Varied Environmental Permit APC (Construction Dust) Regulation 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 Unk: Unknown
Remark		
N	(A	
Signatures		
ET Member	Contractor's Repre	sentative
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(Name in Block letters:

BTRY YUTI)

(Name in Block letters:

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

inspection of	$\frac{23 \left[1 \right] \left[3 \right]}{1 \text{ Ime}} \frac{1}{1 \cdot 2 \cdot 0} Inspect$	еа ву	Cont	/<	<i>I_L</i> .	A I COWIRSYST
Site	Outside Landy Part NA, II-NO	5	Come	-		uuqca/sy.
Weather						
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	nin Storm
Temperatu	re 23°C Humidity High Moderat	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?		V		1	
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		1/			
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements	<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?					
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?	~				
	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?	V				
	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
Cap311O	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	•		·		<u> </u>
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			<u> </u>		·
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?	~				
Cap354C	Is chemical waste handled according to the "Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?					

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?	V				· · · · · · · · · · · · · · · · · · ·

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?	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?	V				

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: O1	monitored to avoid impact on the species Celtis biondii, Pteris disp		/				
EM&A: O2	in good condition along the bour prevent tipping, vehicle moveme	ents, and encroachment of areas, particularly where the rare,	V				
EM&A: Q3	Has regular checking been perform boundaries are not exceeded and surrounding areas?	rmed to ensure that the work site that no damage occurs to	V	i i			
EM&A: Q4	Is open fire prohibited and preve boundary during construction? Is equipment provided in the work	s temporary fire fighting	/	F			
			ाष	<u> </u>	4.		
	16.2	│	🖵	Const site	ructio	n activ	ities inside the
	Major noise source(s)	Construction activities outside the site		Other	s		

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

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(Name in Block letters:

LAI KA YIN)

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 ³ day ⁻¹ , and 2 large grab dredgers, each with rates of working of 12,000 m ³ day ⁻¹	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
	 reducing the number of dredgers working at any one time; reducing the rate of working of the dredgers; temporary suspension of operations; phasing of the works so that dredging / filling is only undertaken at certain stages of the tidal cycle. 	
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.	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;	N/A		
	 Segregate and sort the waste materials into 3 categories: public fill (e.g. concrete and rubble) for re-use on-site or disposal at a public filling area; re-use and/or recycling waste (e.g. steel and other metals); waste which cannot be re-used and/or recycled (e.g. wood, glass and 	N/A		
	 plastic) for landfill disposal. 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.	8			
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 ³ 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 ³ day ⁻¹ , and 2 large grab dredgers, each with rates of working of 12,000 m ³ day ⁻¹	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.			
B5	Sand fill for the rubble mound seawalls shall be placed by controlled pumping down the trailer arm.	N/A	
В6	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	
	 reducing the number of dredgers working at any one time; reducing the rate of working of the dredgers; temporary suspension of operations; phasing of the works so that dredging / filling is only undertaken at certain stages of the tidal cycle. 		
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
	 Segregate and sort the waste materials into 3 categories: public fill (e.g. concrete and rubble) for re-use on-site or disposal at a public filling area; re-use and/or recycling waste (e.g. steel and other metals); 	С
	 waste which cannot be re-used and/or recycled (e.g. wood, glass and plastic) for landfill disposal. 	
	• 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 ³ 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 ³ day ⁻¹ , and 2 large grab dredgers, each with rates of working of 12,000 m ³ day ⁻¹	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
	 reducing the number of dredgers working at any one time; reducing the rate of working of the dredgers; temporary suspension of operations; phasing of the works so that dredging / filling is only undertaken at certain stages of the tidal cycle. 	
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
	 Segregate and sort the waste materials into 3 categories: public fill (e.g. concrete and rubble) for re-use on-site or disposal at a public filling area; re-use and/or recycling waste (e.g. steel and other metals); 	С
	 waste which cannot be re-used and/or recycled (e.g. wood, glass and plastic) for landfill disposal. 	
	• 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 ³ 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. Power Station – 275kV Switching Station Erection (Part B of EIA Report)

 Table I.4
 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.	N/A
	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 m ³ day ⁻¹ and 8,000 m ³ 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 ³ day ⁻¹ , and 2 large grab dredgers, each with rates of working of 12,000 m ³ day ⁻¹	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
	 reducing the number of dredgers working at any one time; reducing the rate of working of the dredgers; temporary suspension of operations; phasing of the works so that dredging / filling is only undertaken at certain stages of the tidal cycle. 	
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
	 Segregate and sort the waste materials into 3 categories: public fill (e.g. concrete and rubble) for re-use on-site or disposal at a public filling area; re-use and/or recycling waste (e.g. steel and other metals); 	С
	 waste which cannot be re-used and/or recycled (e.g. wood, glass and plastic) for landfill disposal. 	
	• 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 ³ 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.5. Transmission System – Civil Works (Part C of EIA Report)

Table I.5 Construction Phase Mitigation Measures and their Implementation

ion Measures	Implementation Status
JALITY	
gate potential construction related dust impacts, the dust control measures d under the Air Pollution Control (Construction Dust) Regulation shall be d with, such as:	
debris or materials shall be either covered or stored in a debris sheltered ection area;	С
or to any material handling, all dusty material shall be sprayed with water.	С
R QUALITY	
gation measures are considered necessary.	N/A
Cable Route n and use of quiet PMEs, or use of modest source noise controls with PMEs	С
ling Point n and use of quiet PMEs (particularly the barge-mounted crane), or use of ably effective source noise controls with the PMEs;	С
percussive piling – use of equipment with a SWL of 113 dB(A) or less if no programme overlap of the piling with the site formation works, se offsetting source noise controls shall be required.	N/A
ussive piling – use of equipment with a SWL of 115 dB(A) or less, se, offsetting source noise controls shall be required.	N/A
ercussive piling and site formation activities are to be carried out neously then careful equipment selection and source controls shall be for both activities to reduce each by approximately 3 dB(A).	N/A
E ECOLOGY	
ction of rubble mound seawalls for the landing and launching points at Island.	С
RIES	
ries-specific mitigation measures are required during the construction	N/A
	pecific mitigation measures are required during the construction

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
	 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. 	N/A

Remarks:

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

N/A -

I.6. Transmission System – Cable Laying (Part C of EIA Report)

 Table I.6
 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
	 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. 	N/A

Remarks:

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

N/A -

Appendix J

Tentative Construction Programme

· · · · · · · · · · · ·		-		De	cembe				Januar	У			Fe	bruary			M
ID	Task Name	Start	Finish	27/11	4/12	11/12	18/12	25/12	1/1	8/1	15/1	22/1	29/1	5/2	12/2	19/2	26/2
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	7777	7/7/	7777	7777	.7777	77777	7777	1777	7777	ZZ				
8																	:
9	Yung Shue Wan South																
10	Construction of Cable Landing Point	Mon 12/7/04	Sat 31/12/05	7777	777	7777		7777	3								1
11	Construction of Cable Duct South Portal	Mon 12/7/04	Tue 31/1/06	7777	777	7777	777			7777	/////	,,,,,,	ZZ				
12				1													
13	Pak Kok San Tsuen			1													
14	Construction of Cable Landing Point	Tue 24/8/04	Fri 14/10/05	1													
15	Construction of Cable Trenches	Sat 30/7/05	Sat 31/12/05	7777	7777	7777	7777	77777	ו								
16	Construction of Cable Duct	Thu 25/11/04	Fri 30/9/05														
17	Construction of Cable Duct South Portal	Wed 25/8/04	Sat 31/12/05	7777	777		7777	/////	ם								
18																	
19	Pak Kok Tsui			1													
20	Construction of Cable Landing Point	Mon 12/7/04	Wed 14/9/05														
21	Construction of Cable Duct North Portal	Mon 12/7/04	Sat 31/12/05	ZZZZ	7777	////		<i></i>	J						,		

Additional Transmission System for Lamma Power Station 275kV Cable Route from Lamma Island to Cyberport 3-Month Programme (Rev. G)

Task
Split
Progress

Milestone
Summary
Project Summary

External Tasks

External Milestone

Deadline

ID.	Activities	Duration	Start	Finish	30 03 06 09 12 15 18 21 24 27 30 02 05 08 11 14 17 20 23 26 29 01 04 07 10 13 16 19 22 25 28
1	Main Station Bidg. and HRSG	701 days	02 Apr '04	03 Mar '06	25 THE RESERVE THE PROPERTY OF
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 '06	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 105	31 Jul '05	
13	Deferred works - South	45 days	15 Oct '05	28 Nov '05	
14	Deferred works - Air inlet	31 days	01 Jan '06	31 Jan '06	
15	Deferred works - North	30 days	01 Feb '06	02 Mar '06	
16	Deferred works - Tiling at +16.15	90 days	15 Nov '05	12 Feb '06	
17	Deferred works - Firewall at Transformer Bay	46 days	20 Jul '05	03 Sap '05	
18	Deferred works - Metal Fence at Transformer Bey	62 days	01 Jan '06	03 Mar '06	
19		0.000.000	000000000		
20	275kV Bidg.	621 days	03 May '04	13 Jan '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 104	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 105	
27	Roof construction	45 days	12 Jan '05	25 Feb '05	
28	Surrounding Cable Trench	120 days	15 Apr 106	12 Aug '05	
29	Surrounding Edemal works	60 days	15 Nov '05	13 Jan 106	
30		0.277.2597.0			
31	No. 4 Chimney	604 days	30 Jun '04	23 Feb '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	
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	VANDAWO(MARKETS VA	07/07/07/5	100000000000000000000000000000000000000	AUTO TO THE	
37	Road & Drainage Works	574 days	05 Jul '04	29 Jan '06	
38	Along Loading and Unloading Area	88 days	05 Jul '04	30 Sep '04	
39	Breaking up the road concrete	10 days	05 Jul '04	14 Jul '04	
40	Pipe installation	48 days	15 Jul '04	31 Aug '04	
41	Testing	7 days	01 Sep '04	07 Sep '04	
			2000000000	5,500,500	
	a Power Station Extension - Unit 9 Civil and E th Programme	sulding Work	Scheduled Ar	tivity	
_					Page 1 Revision

12 13 14 15 16 17 18 19 10 11 12 13 14 15 16 16 17 18 19 10 11 10 11 10 11 10 11 10 11 10 11 10 11 10 1	tivities Haunching and Road making good North Seafront Road Excavation Pipe installation Testing Haunching and Road making good External Utility Work and Ground Finish East Bridge Road	Duration 23 days 570 days 84 days 120 days 45 days 200 days	Start 08 Sep '04 09 Jul '04 09 Jul '04 01 Oct '04	Finish 30 Sep '04 29 Jan '06 30 Sep '04 26 Jan '05	
14 15 16 17 18 18 19 19 10 10 11 15 15 16 16 17 17 18 18 19 19 10 11 11 11 11 11 11 11 11 11 11 11 11	North Seafront Road Excavation Pipe installation Testing Haunching and Road making good External Utility Work and Ground Finish	570 days 84 days 120 days 45 days	09 Jul '04 09 Jul '04 01 Oct '04	29 Jan '06 30 Sep '04	
15 16 17 18 18 19 19 10 10 11 12 2 15 18 19 10 11 12 12 15 15 15 15 15 15 15 15 15 15 15 15 15	Pipe installation Testing Haunching and Road making good External Utility Work and Ground Finish	84 days 120 days 45 days	09 Jul '04 01 Oct '04	30 Sep '04	
16 177 188 199 190 191 191 191 191 191 191 191 191	Testing Haunching and Road making good External Utility Work and Ground Finish	120 days 45 days	01 Oct '04		
17 18 19 19 10 10 10 10 10 10 10 10 10 10 10 10 10	Testing Haunching and Road making good External Utility Work and Ground Finish	45 days			
18 19 10 10 10 10 10 10 10 10 10 10 10 10 10	Haunching and Road making good External Utility Work and Ground Finish		05 Feb '05	21 Mar '05	
18 19 10 10 10 10 10 10 10 10 10 10 10 10 10	External Utility Work and Ground Finish		22 Oct '04	09 May '05	
60 61 62 63 64 65 66 67 68 69 0 11 22 C W		90 days	01 Nov '05	29 Jan '06	
50 51 52 53 54 55 66 77 8 8 9 0 11 52 CW		452 days	28 Oct '04	22 Jan '06	
22 33 44 55 66 77 88 99 00 11 22 CW	Excavation	30 days	28 Oct '04	26 Nov '04	
22 33 44 55 66 77 88 99 00 11 22 CW	Pipe installation	90 days	27 Nov '04	24 Feb '05	
64 65 66 67 88 99 00 11	Testing	14 days	04 Mar '05	17 Mar '05	
5 6 7 8 9 0 1 1 2 CW	Haunching and Road making good	120 days	11 Mar '05	08 Jul '05	
6 7 8 9 0 1 1 2 C W	External Utility Work and Ground Finish	100 days	15 Oct '05	22 Jan '06	
6 7 8 9 0 1 1 2 C W	Chimney Road	436 days	08 Nov '04	17 Jan '06	
7 8 9 0 1 2 CW	Excavation	30 days	08 Nov '04	07 Dec '04	
6 9 0 1 2 CW	Pipe installation	90 days	08 Dec '04	07 Mar '05	
9 0 1 2 CW	Testing	30 days	15 Mar '05	13 Apr '05	
1 2 CW	Haunching and Road making good	120 days	22 Mar '05	19 Jul '05	
2 C W	External Utility Work and Ground Finish	90 days	20 Oct '05	17 Jan '06	
0.00		0.37	SIGNA	(30)22(1)36	
0.00	V Cuivert System	530 days	15 Aug '04	26 Jan '06	
3	Outlet Section	392 days	15 Aug '04	10 Sep '05	
2011	Inlet Section	152 days	13 Oct '04	13 Mar '05	
3		0.77 (7.75)	112/22/19/	1150000	
4	C W Pump Equipment Room	115 days	15 Jul '05	06 Nov '05	
5	Excavation	4 days	15 Jul '05	18 Jul 105	
6	Substructure	21 days	19 Jul '05	98 Aug '05	
7	Superstructure	30 days	09 Aug '05	07 Sep '05	
8	Finishing	60 days	08 Sep '05	06 Nov '05	
9	1000 (0.500)	0.00000	2001000000	00000010100	
0 1	Pipe & Cable Rack	249 days	23 May '05	26 Jan '06	
1	Excavation	21 days	23 May '05	12 Jun '05	
2	Footing	30 days	13 Jun 105	12 Jul '05	
3	Stool Work	50 days	13 Jul '05	31 Aug '05	
4	Walkway and Catladder	60 days	28 Nov '05	26 Jan '06	
5					
8 (Gas Receiving Station	161 days	15 Jul '05	22 Dec '05	
7	Excavation	90 days	15 Jul '05	12 Oct '05	
8	RC Structure and finishing work	80 days	05 Aug 105	23 Oct '05	
9	Drainage and Road Work	60 days	24 Oct '05	22 Dec \05	
nma Po	Urainage and Road Work			53000000000	
Month Pr	ower Station Extension - Unit 9 Civil and	Building Work	Scheduled Ad	divity	

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

Item	Description	Start	Finish	Dec			Jan			Feb	
		Start	ГШЫП	1 10 2	0 3	1 1	0 2	0 3	1 1	0 2	0 29
1	HRSG erection	28 Mar,05	Cont								
2	Steam turbine erection	01 Mar,05	Cont								
3	Gas turbine erection	15 Mar,05	Cont								
4	Generator erection	15 Mar,05	Cont								
		45.5.1.05	0 1								
5	Condenser erection	15 Feb,05	Cont								
6	Aux aguinment areation	01 Apr 05	Cont								
0	Aux equipment erection	01 Apr,05	Cont								
7	Air duct / Inlet filter	25 Apr,05	Cont								
	All duct / lillet lilter	23 Apr,03	Cont								
8	HRSG inlet duct	21 May,05	Cont								
	Three micrador	21 May,00	Cont								
9	Piping support / Piping erection	01 Jun,05	Cont								
	- Thing cappears in thing creation										
10	Insulation work	23 Feb,05	Cont								
		·									
11	Platform installation	11 Apr, 05	Cont								
12	Pipe rack installation	26 Aug, 05	Cont								
13	Intake aux equipment installation	08 Aug, 05	Cont								
15	GRS piping installation	20 Dec, 05	Cont								

MITSUBISHI ELECTRIC (H.K.) LTD.

CONTRACT NO. 02/9006 LAMMA EXTENSION SWITCHING STATION COMPLETE ERECTION, TESTING & COMMISSIONING OF 275kV GIS & SHUNT REACTORS AND ASSOCIATED EQUIPMENT

3 MONTH PROGRAMME (DECEMBER 2005 TO FEBRUARY 2006)

	m 1 v	G			DECE		1		ANUARY				FEBR		
ID 1	Task Name GIS ERECTION	Start	Finish	4/12	11/12	18/12 25/12	2 1/1	8/1	15/1	22/1	29/1	5/2	12/2	19/2	26/2
1.1	GIS Installation	03/05/2005	10/08/2005												
1.2	Control Panel Installation	17/05/2005	25/06/2005												
1.3	Control Cabling Work	30/05/2005	27/08/2005												
1.4	Gas Work for GIS	27/06/2005	20/08/2005												
1.5	Inspection & Testing	04/07/2005	26/11/2005												
1.6	Interfacing Work with Power Cable	12/09/2005	15/07/2006												
	GIS ENERGISATION	29/11/2005													
2	SHUNT REACTOR ERECTION				•										
2.1	Interfacing Work with Power Cable	09/09/2005	08/12/2005		1										
2.2	SHUNT REACTOR 1 ENERGISATION	1/12/2005		▼											
2.3	SHUNT REACTOR 3 ENERGISATION	10/12/2005			*										
2.4															
2.5															
2.6															

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 (DECEMBER 2005 TO FEBRUARY 2006)

					Ι	Decemb	ber			Ja	nuary			Fe	bruary	
ID	Task Name	Start	Finish	1/12 8	1/12 1	5/12	22/12 29	9/12	5/1	12/1	19/1	26/1	3/2	10/2	17/2	24/2
1																
2	L9 Electrical Erection	Thu 1/12/05	Tue 28/2/06													
3	Busduct Installation	Thu 1/12/05	Tue 28/2/06													
4	IPB Installation	Thu 1/12/05	Tue 28/2/06					\rightarrow								
5	Control Panel Installation	Thu 1/12/05	Tue 28/2/06					$\overline{}$								
6	Instrument Panel & Piping Installation	Thu 1/12/05	Tue 28/2/06													
7	Cable Tray & Earthing Installation	Thu 1/12/05	Tue 28/2/06													
8	Conduit Installation	Thu 1/12/05	Tue 28/2/06					_								
9	Cable Laying	Thu 1/12/05	Tue 28/2/06													
10	Cable Termination	Thu 1/12/05	Tue 28/2/06					+					I			

					December			Ja	anuary			⊦e	bruary			M
D _	Task Name	Start	Finish	27/11	1 4/12	11/12	18/12	25/12 1/	1 8/1	15/1	22/1	29/1	5/2	12/2	19/2	26/2
1																
2	Pipeline Installation	Thu 1/12/05	Tue 28/2/06													
3																
4	Rock Dumping	Thu 1/12/05	Tue 28/2/06													
			Tack				Mil	lestone.			Fyternal	Tasks				
mma	Power Station Extension	Pingling	Task					lestone	<u>◆</u>		External					
mma pply :	Power Station Extension and Installation of Submarine Gas I	Pipeline	Task Split				Su	lestone	♦			Tasks Milestone	e 🄷			
nma yply : lonth	Power Station Extension and Installation of Submarine Gas I	Pipeline					Su		*			Milestone	e •			

J-Power Systems Corp.

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: 18 Date: 30-Nov-05

Date										er, 20																		ry, 2										ebru	ıary,	200)6													_
Item	1 2	3 4	5	6 7	8 9	10 1	1 12	13 14	15 16	17 18	19 20	21 2	22 23 2	24 25	26 27	7 28 2	29 30	31	1 2	3	4 5	6 7	8 9	10 1	11 12	13 14	1 15	16 17	18 19	20 2	21 22	23 24	4 25	26 27	28 2	9 30	31 1	2 :	3 4	5 6	7	8 9	10 1	11 12	13 1	14 15	16 1	17 18	3 19 2	20 21	22 2	3 24	25 26	27 2
Dredging/Excavation of Submarine Cable																																																						
Trench outside N2 Landing Point						\prod																																																
Dredging/Excavation of Submarine Cable																																																						
Trench outside N4 Landing Point																																																						.
Dredging/Excavation of Submarine Cable																																																						
Trench outside N5 Landing Point (Completed)																																																						
Dredging/Excavation of Submarine Cable																																																						
4 Trench outside I1 Landing Point (Completed)																																																						1
Removing Seabed Obstructions and																																																						
subsequently backfilling between N2 & N4 Landing Points																																																						
Sweeping on the seabed between N5 & I	1					\prod																		\prod																														
Landing Points (Completed)																																																						
Sweeping on the seabed between N2 &																																																						
N4 Landing Points																																																						Į.
Preparation & Installation of Submarine	ШШ																	Ш																																				,
Cables between N5 & I1																																																						
Preparation & Installation of Submarine																			Pı	repa	aratio	on	┸	L		╽┕		. _			. _							I	nsta	llatio	on													
Cables between N2 & N4																					╹╽ͳ		IT	▮																														
Backfilling & Cable Protection outside N2 Landing Point																																																						
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Backfilling & Cable Protection outside N5 Landing Point																								H																														
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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 November 2005

1	06/12/05	Issued for Approval	WK	WB	MAM	
0	30/11/05	Issued for Comments	WK	WB	AM	
REV	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED	PURCHASER

STATUS CODE: A = Issued for comments - B = Issued for approval - C = Approved for Construction

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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

Doc. No.:	LTLD-32-1-138-G	REVISION	STATUS
DOC. NO	E1ED-32-1-130-G	1	В





Saipem

Doc. Title: Environmental Monitoring and Audit Report (November 05)

Page i

TABULATION OF REVISED PAGES

PAGE	REVISIONS					PAGE	REVISIONS												
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LAMMA POWER STATION EXTENTION; Contract 03/9008 Doc No.

Doc No. : LTLD-32-1-138-G Revision : 1

Date : 06.12.2005





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Doc. Title: Environmental Monitoring and Audit Report (November 05)

Page ii

Saipem Asia Sdn. Bhd

Lamma Power Station ExtensionSupply and Installationof Submarine Gas Pipeline

Environmental Monitoring and Audit Report (Version 1.B)

November 2005

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

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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

 This is the tenth 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 November 2005.

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 complaint is being handled by HEC.

Future Key Issues

4. Anchor protection/rock dumping works are the major activities in the coming months. No major environmental impact is anticipated from the works.

1 INTRODUCTION

Background

- 1.1 Hong Kong Electric Holdings 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 comissioned 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 18th May 2005.
- 1.5 The Pre-Trenching works, Pipe-Lay installation and Post-Lay Trenching (Jetting) have been completed. Anchor protection/rock dumping works are the major activities in the coming months.

Project Organizations

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

Environmental Monitoring and Audit Report (November 05)

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	Ms. Winniss Kong	Coordinator	2151 2068	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 complaint is being handled by HEC.
- 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 Anchor protection/rock dumping works are the major activities in the coming months. No major environmental impact is anticipated. Ad hoc site inspection will be carried out as necessary in accordance with the EM&A Manual.

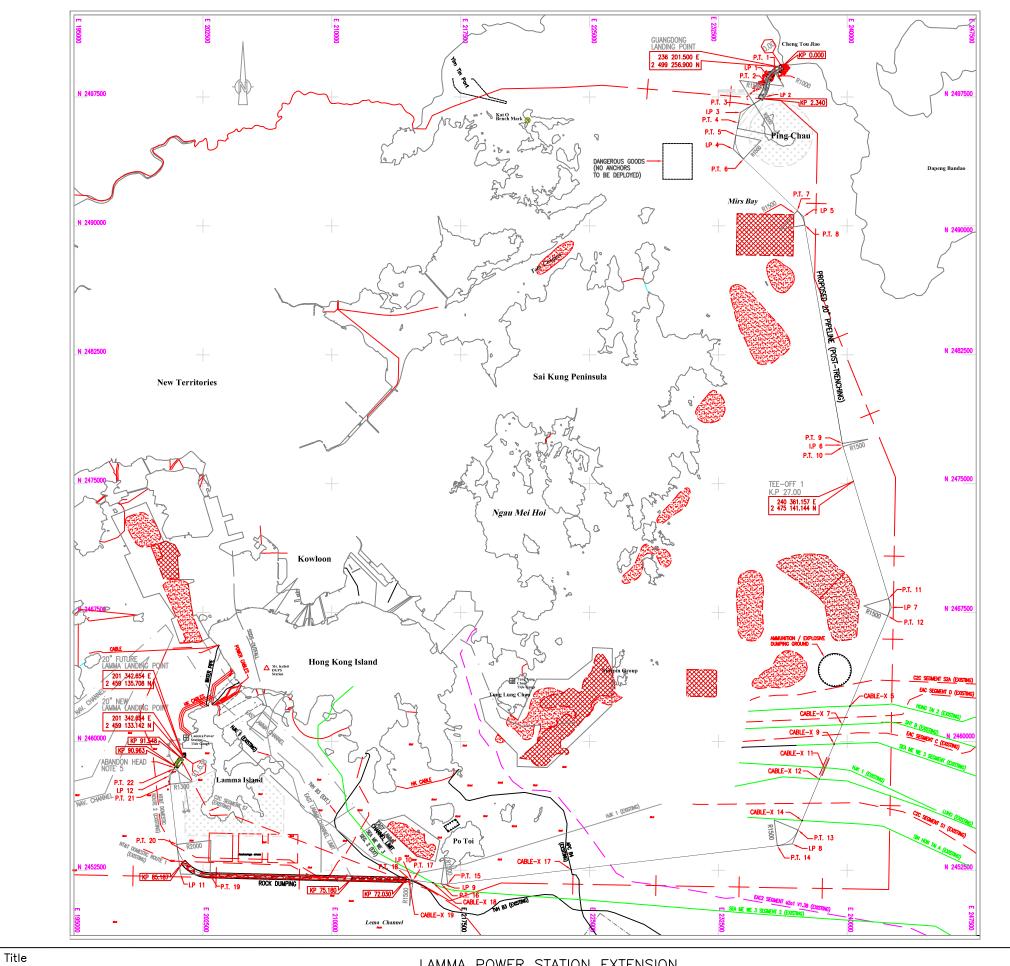
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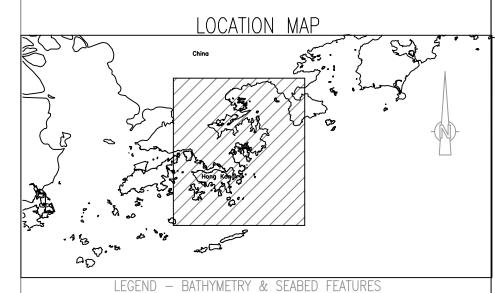
CONCLUSIONS AND RECOMMENDATIONS

Conclusions

- 5.1 No environmental monitoring and audit works were performed in the reporting month.
- 5.2 Anchor protection/rock dumping works are the major activities in the coming months. No major environmental impact is anticipated.

FIGURE





--- NEW 20" PROPOSED PIPELINE ROUTING SEABED WITH DUMPED MATERIALS PIPELINE SHOWING ALTER-COURSE POINT SOUNDING VALUE IN METRES BELOW CHART DATUM SEABED WITH HIGH REFLECTIVITY BATHYMETRIC CONTOURS IN METRES BELOW CHART DATUM SAND BODIES P.T. POINT OF TANGENCY MUD DISPOSAL AREA TEE OFF 0 GAZETTE AREA ---- SURVEY BOUNDARY POTENTIAL MARINE PARKS AMMUNITION / EXPLOSIVE DUMPING GROUND EXISTING BURIED CABLE PROPOSED SSDS ALTERNATIVE OUTFALLS HONG KONG WATER BOUNDARY SAND WAVES ANCHOR / TRAWL MARKS FLOATER SMALL TARGETS NUMEROUS TRAWL SCARS / TRAWL SCARS

GEODETIC PARAMETERS

DATUM SPHEROID

: WGS 84 : UNIVERSAL TRANSVERSE MERECATOR ZONE 50 PROJECTION

GENERAL NOTES

- ALL DIMENSIONS AND COORDINATE ARE IN METER UNLESS OTHERWISE NOTED
 POINT OF TANGENCY (P.T), INTERSECTION POINT (I.P) AND CABLES -X COORDINATES ARE PRESENTED ON PIPELINE ALIGNMENT SHEET FROM K.P 0.00 TO K.P 91.638
 K.P. 0.00 IS FROM GUANGDONG TERMINAL

- 4. PIPELINE TRENCHING IS FROM (K.P. 0.00 TO K.P. 91.596)

 5. ABANDON HEAD FOR FUTURE 20" CONNECTION

 6. 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	LOCA	TION	COORDINATES		LENGTH	REMARKS			
	52551111 11511	200/1		EASTING	NORTHING	(m)	T.EMAINS			
1	LAMMA NAVIGATION CHANNEL	START KP	91.492	201257.067	2459014.325	597	PRE-TRENCH (DREDGING METHOD)			
		END KP	90.895	200908.315	2458530.164	597				
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	EAST LAMMA CHANNEL & SOUTH	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

LAMMA POWER STATION EXTENSION

LAYOUT OF THE SUBMARINE GAS PIPELINE

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



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	Implementation Status
		AIR QUALITY	
	Q1	For the fuel gas supply system, equipment shall be chosen and measures taken, so as to prevent CH ₄ 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 ³	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

L F	₋og 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 was handled by Hong Kong Electric Holdings Ltd.	N/A