The Hongkong Electric Co Ltd

香港電燈有限公司



ENVIRONMENTAL IMPACT ASSESSMENT (EIA) ORDINANCE, CAP. 499

ENVIRONMENTAL PERMIT NO. EP-071/2000/B

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

Report Title

Monthly EM&A Report

(September 2005)

Date

14/10/2005

Certified by

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

Verified by

(Hong Kong Productivity Council, Independent Environmental Checker)

TABLE OF CONTENT

EXECUTIVE SUMMARY

1.	INTRODUCTION	1
1.1 1.2 1.3 1.4	Background Project Organisation Construction Works undertaken during the Reporting Month Summary of EM&A Requirements	1 1 2 11
2.	AIR QUALITY	16
2.1 2.2 2.3 2.4 2.5 2.6	Monitoring Requirements Monitoring Locations Monitoring Equipment Monitoring Parameters, Frequency and Duration Monitoring Procedures and Calibration Details Results and Observations	16 16 16 17 17 18
3.	NOISE	20
3.1 3.2 3.3 3.4 3.5 3.6	Monitoring Requirements Monitoring Locations Monitoring Equipment Monitoring Parameters, Frequency and Duration Monitoring Procedures and Calibration Details Results and Observations	20 20 20 21 21 22
4.	ENVIRONMENTAL AUDIT	25
4.1 4.2 4.3 4.4 4.5 4.6 4.7	Review of Environmental Monitoring Procedures Assessment of Environmental Monitoring Results Site Environmental Audit Status of Environmental Licensing and Permitting Implementation Status of Environmental Mitigation Measures Implementation Status of Event/Action Plans Implementation Status of Environmental Complaint Handling Procedures	25 25 26 26 30 30 31
5.	FUTURE KEY ISSUES	32
5.1 5.2 5.3 5.4	Status of Natural Gas supply Key Issues for the Coming Month Monitoring Schedules for the Next 3 Months Construction Program for the Next 3 Months	32 32 33 33
6	CONCLUSION	3/

LIST OF TABLES

Table 1.1	Construction Activities and Their Corresponding Environmental Mitigation
	Measures
Table 2.1	Air Quality Monitoring Locations
Table 2.2	Air Quality Monitoring Equipment
Table 2.3	Air Quality Monitoring Parameter, Duration and Frequency
Table 3.1	Noise Monitoring Locations
Table 3.2	Noise Monitoring Equipment
Table 3.3	Noise Monitoring Duration and Parameter
Table 4.1	Summary of AL Level Exceedances on Monitoring Parameters
Table 4.2	Estimated Amounts of Waste Generated in September 2005
Table 4.3	Summary of Environmental Licensing and Permit Status
Table 4.4	Environmental Complaints / Enquiries Received in September 2005
Table 4.5	Outstanding Environmental Complaints / Enquiries Carried Over

LIST OF FIGURES

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)
Figure 1.4	Location of Dumping Area (East Sha Chau Contaminated Mud Disposal Site)
Figure 2.1	Location of Air Quality Monitoring Stations
Figure 3.1	Location of Noise Monitoring Stations
Figure 3.2	Location of Manual Noise Monitoring

APPENDICES

Appendix A	Organization Chart
Appendix B	Action and Limit Levels for Air Quality and Noise
Appendix C	Environmental Monitoring Schedule
Appendix D	Air Quality Monitoring Results for September 2005
Appendix E	Noise Monitoring Results for September 2005
Appendix F	The QA/QC Procedures and Results
Appendix G	Event/Action Plans
Appendix H	Site Audit Summary
Appendix I	Summary of EMIS
Appendix J	Tentative Construction Programme
Appendix K	Supply and Installation of Submarine Gas Pipeline – Monthly EM&A Report
	for September 2005 prepared by the Consultant as one of the ET Members

EXECUTIVE SUMMARY

This is the fifty-fourth 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 September 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.

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, 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 Transformer, Busduct & Isolated Phase Busduct (IPB) Installation
275kV Switching Station Erection	Materials Delivery & Installation of GIS and Shunt Reactors
Transmission System	Site formation work and tunnel excavation at the Lamma Power Station Cable Duct No.1, cable landing points N2, N4 & N5, filling of Type 2 and Type 1 rockfill at N4
Gas Pipeline	Rock Dumping
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 21/09/2005. The inspection result is attached in Appendix H.

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

Environmental Licensing and Permitting

Description	Permit No.	Valid	Period	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-RN0062-05	02/03/05	01/09/05	Contractor	01/03/05
Construction Noise Permit	GW-RS0139-05	17/03/05	16/09/05	Contractor	17/03/05
Construction Noise Permit	GW-RS0146-05	21/03/05	20/09/05	Contractor	21/03/05
Construction Noise Permit	GW-RS0242-05	29/04/05	28/09/05	Contractor	27/04/05
Construction Noise Permit	GW-RS0243-05	29/04/05	28/09/05	Contractor	27/04/05
Construction Noise Permit	GW-RS0246-05	29/04/05	09/10/05	Contractor	29/04/05
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

Description	Permit No.	Valid	Period	Issued To	Date of
		From	To		Issuance
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
Dumping Permit	EP/MD/06-025	03/08/05	02/09/05	Contractor	01/08/05
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
Dumping Permit	EP/MD/06-034	15/09/05	14/10/05	Contractor	14/09/05
Registration of Chemical Waste	WPN5213-912- P2781-07	11/06/04	-	Contractor	11/06/04
Producer					
Registration of Chemical Waste Producer	WPN5213-912- K2801-03	15/09/04	-	Contractor	15/09/04
Registration of Chemical Waste Producer	WPN5517-912- T2007-01	08/12/92	-	Contractor	08/12/92
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

No complaint against the construction activities was received in the reporting month.

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 September 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, 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 Transformer, Busduct & IPB Installation. The construction activities for 275KV Switching Station erection were materials delivery & installation of GIS and Shunt Reactors. activities for Unit L9's associated transmission system were site formation work and tunnel excavation at the Lamma Power Station Cable Duct No.1, cable landing points N2, N4 & N5, and filling of Type 2 and Type 1 rockfill at N4, and the dredging/excavation of submarine cable trench outside I1 and N5 Landing Points. 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 and contaminated materials were dumped at the assigned locations within the South Cheung Chau Spoil Disposal Area and East Sha Chau Contaminated Mud Disposal Site respectively. Figure 1.3 and Figure 1.4 show the dumping locations in September 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	Air – Dust suppression measures implemented.
		Noise - General noise mitigation measures employed at all work sites throughout the construction phase.
		Waste Management - Waste Management Plan submitted and implemented.
3.	Shunt Reactor	Air – Dust suppression measures implemented.
		Noise - General noise mitigation measures employed at all work sites throughout the construction phase.
		Waste Management - Waste Management Plan submitted and implemented.
4.	Chimney	Air – Dust suppression measures implemented.
		Noise - General noise mitigation measures employed at all work sites throughout the construction phase.
		Waste Management— Waste 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
	Tiouse	 General noise mitigation measures employed at all work sites throughout the construction phase.
		Waste Management - Waste Management Plan submitted and implemented.
7.	C.W. Culvert System & Equipment	Air - Dust suppression measures implemented.
	Room	Noise - General noise mitigation measures employed at all work sites throughout the construction phase.
		Waste Management - Waste Management Plan submitted and implemented.
8.	C.W. Pump Equipment Room	Air – Dust suppression measures implemented.
		Noise - General noise mitigation measures employed at all work sites throughout the construction phase.
		Waste Management - Waste Management Plan submitted and implemented.
9.	Gas Receiving Station	Air – Dust suppression measures implemented.
		Noise General noise mitigation measures employed at all work sites throughout the construction phase.
		Waste Management - Waste Management Plan submitted and implemented.

Item	Construction Activities	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 ManagementWaste Management Plan submitted and implemented.
Constru	uction of Transmi	sion System
12.	Site formation work and tunnel excavation at the Lamma Power	Air Quality — Dust suppression measures implemented. Noise
	Station Cable Duct No.1, cable landing points	 General noise mitigation measures employed at all work sites throughout the construction phase.
	N2, N4 & N5	 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.
13.	Filling Type 2 and Type 1 rockfill at N4	Noise General noise mitigation measures employed at all work sites throughout the construction phase.

Item	Construction Activities	Environmental Mitigation Measures					
Unit L9	Unit L9 Mechanical Erection						
14.	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.					
15.	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.					
16.	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.					
17.	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		
18.	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.		
19.	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. 		
20.	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.		
21.	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		
22.	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. 		
23.	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. 		
24.	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. 		
25.	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		
26.	Intake Aux Equipment Installation	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.		
Unit L9	Electrical, Instr	rumentation & Control Erection		
27.	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 ManagementWaste Management Plan submitted and implemented.		
28.	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.		
29.	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			
30.	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.		
31.	Transformer, 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 S	275kV Switching Station Erection				
32.	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.		
Miscella	aneous	1			
33.	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.

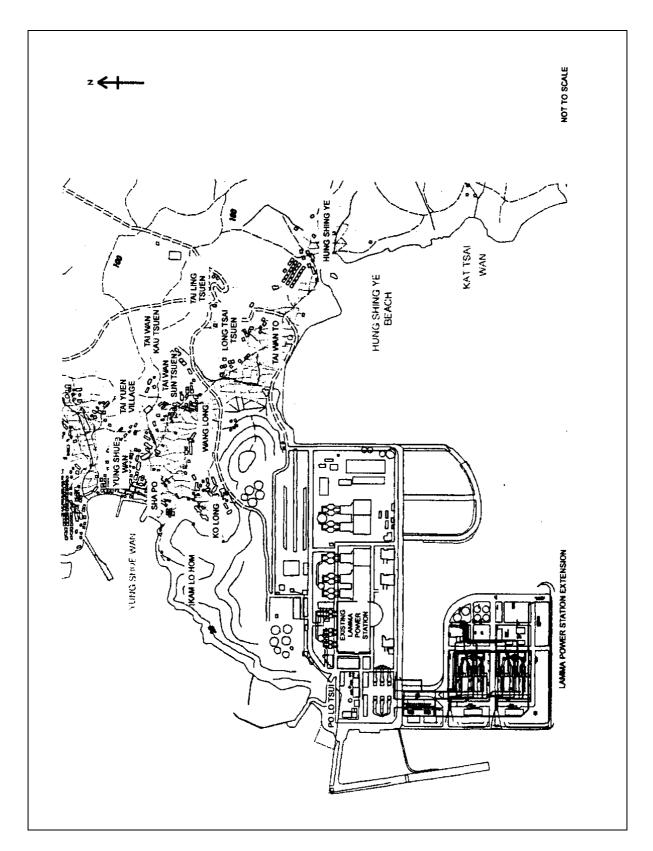


Figure 1.1 Layout of Work Site

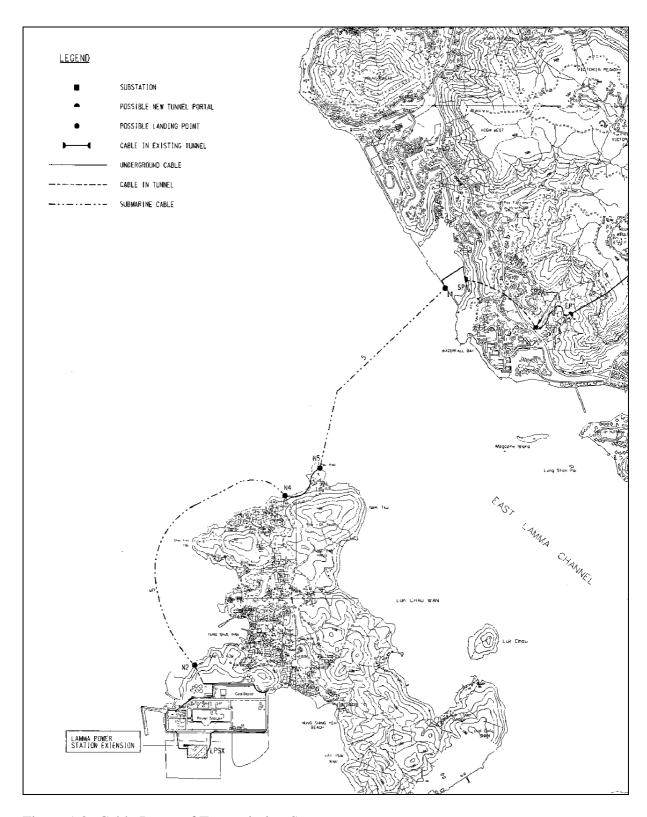


Figure 1.2 Cable Route of Transmission System

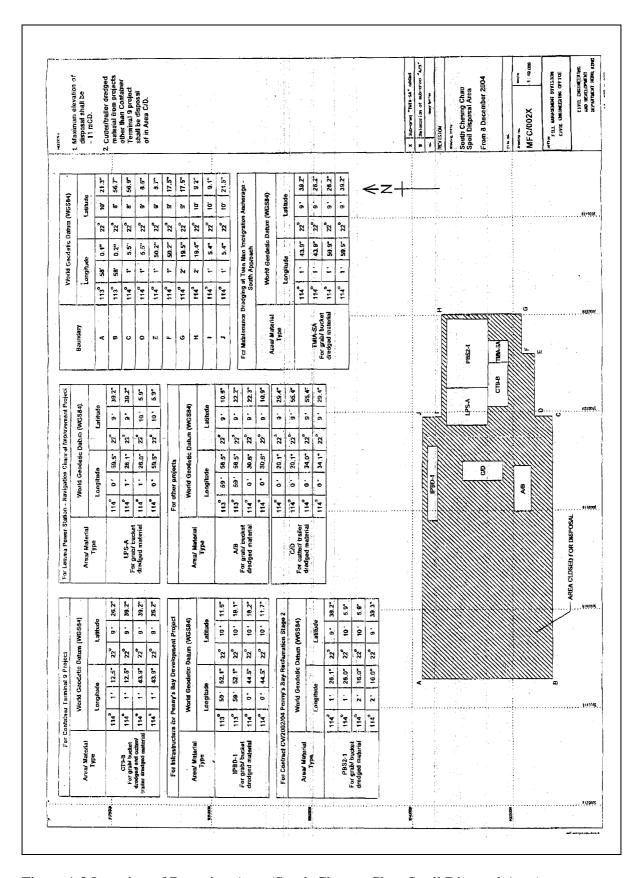


Figure 1.3 Location of Dumping Area (South Cheung Chau Spoil Disposal Area)

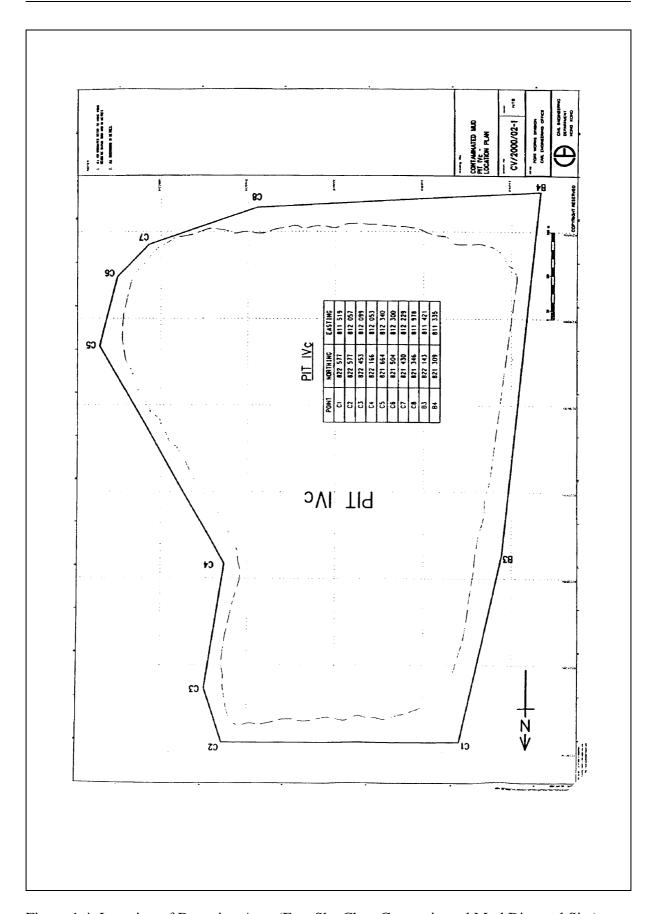


Figure 1.4 Location of Dumping Area (East Sha Chau Contaminated Mud Disposal Site)

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 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.

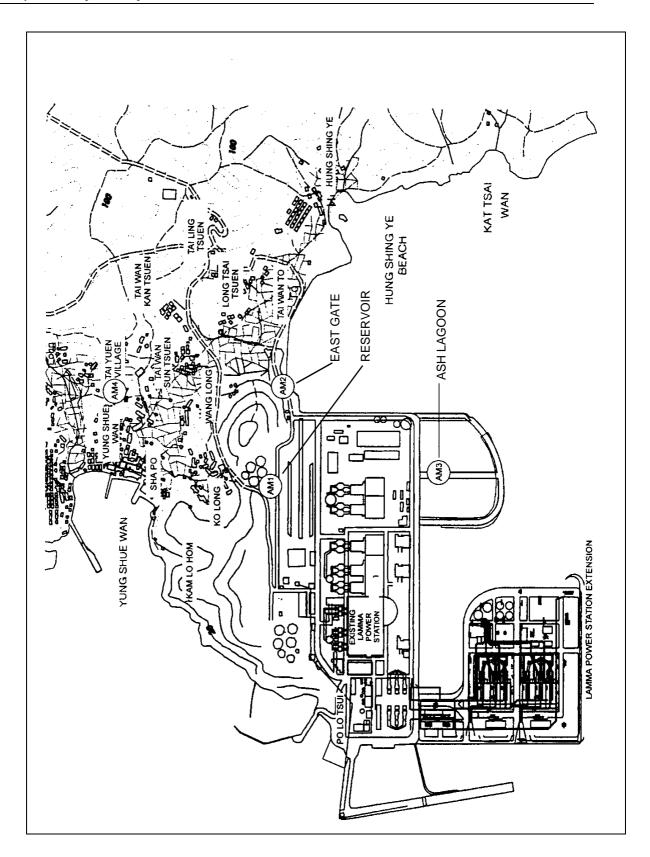


Figure 2.1 Location of Air Quality Monitoring Stations

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/ ACO 6224	
Sound level calibrator	Rion NC-74	ACO 2126	

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_{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.

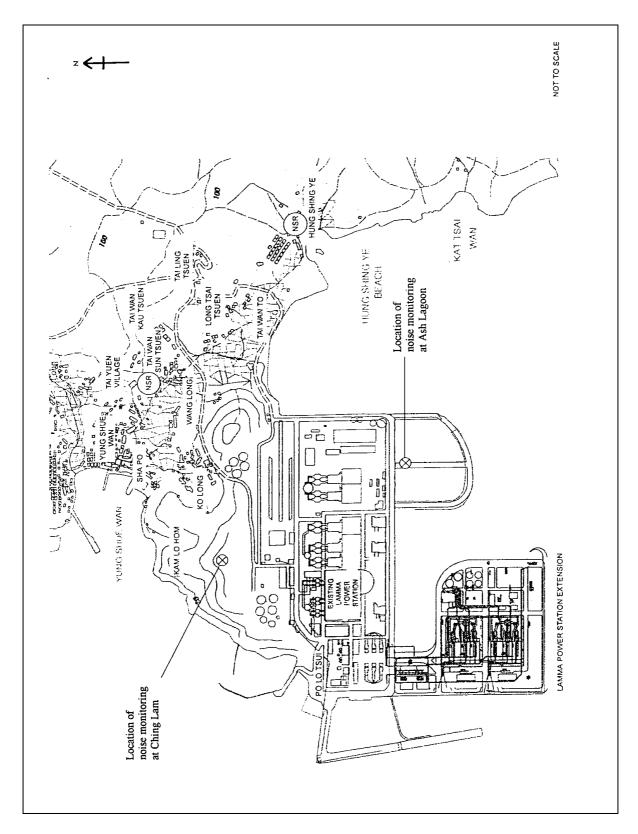


Figure 3.1 Location of Noise Monitoring Stations

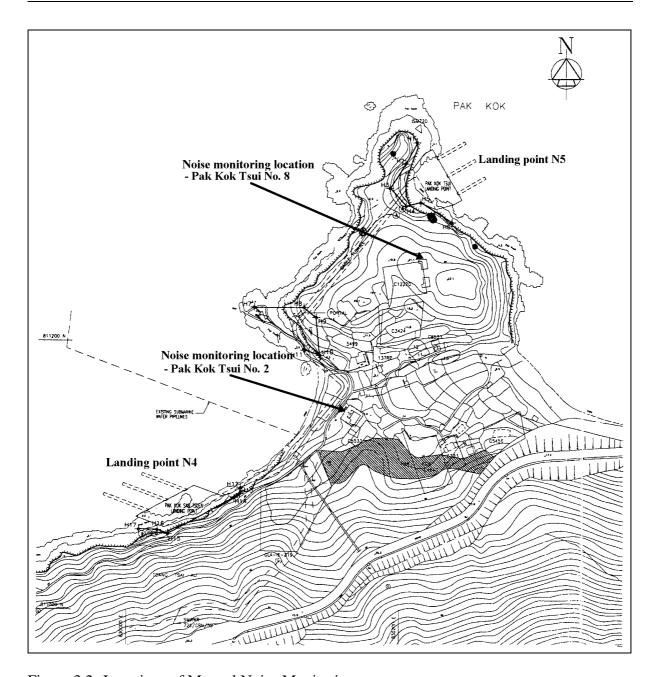


Figure 3.2 Locations of Manual Noise Monitoring

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)	01/09/05- 30/09/05	0	0	
2	Ambient TSP (1-hour)	01/09/05- 30/09/05	0	0	
Noise					
1	Noise level at the critical NSR's predicted by the noise alarm monitoring system	01/09/05- 30/09/05	0	0	
2	Manual noise monitoring at the Pak Kok Tsui residences	01/09/05- 30/09/05	0	0	

Waste Management Records

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

Table 4.2 Estimated Amounts of Waste Generated in September 2005

Waste Type	Examples	Estimated Amount
Construction Waste	Concrete Waste, Used formwork, reinforcement	32.5 Tonne
	and wooden waste	191.3 m ³
General Refuse	Domestic wastes collected	30 Tonne
	on site	

4.3 Site Environmental Audit

IEC conducted a site inspection on 21/09/2005. The inspection result is attached in Appendix H.

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

4.4 Status of Environmental Licensing and Permitting

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

Table 4.3 Summary of Environmental Licensing and Permit Status

Description	Permit No.	Valid Period		Highlights	Status
		From	To		
Varied Environmental Permit	EP-071/2000/C	18/05/05	-	The whole construction work site	Valid
Construction Noise Permit	GW-RN0062-05	02/03/05	01/09/05	Operation of PME's allowed during the restricted hours (general holiday including Sundays between 0700-0700 hrs on next day and any day not being a general holiday between 1900-0700 hrs on next day).	Valid

Description	Permit No.	Valid Period		Highlights	Status
•		From	To		
Construction Noise Permit	GW-RS0139-05	17/03/05	16/09/05	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
Construction Noise Permit	GW-RS0146-05	21/03/05	20/09/05	Operation of PME's allowed during the restricted hours (any day between 2300-0700 hrs on next day).	Valid
Construction Noise Permit	GW-RS0242-05	29/04/05	28/09/05	Operation of PME's allowed during the restricted hours (any day between 2300-0700 hrs on next day).	Valid
Construction Noise Permit	GW-RS0243-05	29/04/05	28/09/05	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
Construction Noise Permit	GW-RS0246-05	29/04/05	09/10/05	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

Description	Permit No.	Valid Period		Highlights	Status
P violi		From	To	88	
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
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

Description	Permit No.	Valid Period		Highlights	Status
		From	To		
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
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
Dumping Permit	EP/MD/06-025	03/08/05	02/09/05	Dumping at East Sha Chau Contaminated Mud Disposal Area; Supply and Installation of Submarine and Land Cables	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
Dumping Permit	EP/MD/06-034	15/09/05	14/10/05	Dumping at East Sha Chau Contaminated Mud Disposal Area; Supply and Installation of Submarine and Land Cables	Valid

Description	Permit No.	Valid 1	Period	Highlights	Status	
		From	To			
Registration of Chemical Waste Producer	WPN5213-912- P2781-07	11/06/04	-	Major Chemical Waste Type: Spent lubrication oil, waste car battery, paint or thinner contaminated container	Valid	
Registration of Chemical Waste Producer	WPN5213-912- K2801-03	15/09/04	-	Major Chemical Waste Type: Spent lubricating oil, spent battery, contaminated soil with spent flammable liquid	Valid	
Registration of Chemical Waste Producer	WPN5517-912- T2007-01	08/12/92	-	Major Chemical Waste Type for the construction work: lubrication oil and paints	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 September 2005, no complaint against the construction activities was received.

Table 4.4 Environmental Complaints / Enquiries Received in September 2005

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

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.

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 October 2005 to December 2005. With the completion of ash harvesting work in Cell 1 of Ash Lagoon, harvesting work at Cell 2 of ash Lagoon and slurry ash piping & filling are scheduled to start in mid October 2005. The tentative construction programs for the next 3 months are shown in Appendix J.

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. No complaint against the construction activities was received in the reporting month. No prosecution was received for this Project in the reporting period.

The environmental performance of the Project was generally satisfactory.

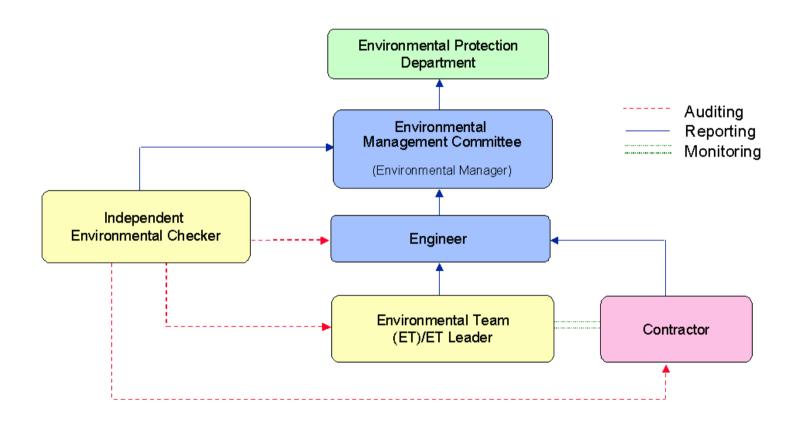


Figure A.1 Organisation of EM&A Programme at Construction Phase

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 (September 2005 to December 2005)

24hr TSP Monitoring	1hr TSP Monitoring
04/Sep/2005	04/Sep/2005 1500hr to 1800hr
10/Sep/2005	10/Sep/2005 1500hr to 1800hr
16/Sep/2005	16/Sep/2005 1500hr to 1800hr
22/Sep/2005	22/Sep/2005 1500hr to 1800hr
28/Sep/2005	28/Sep/2005 1500hr to 1800hr
04/Oct/2005	04/Oct/2005 1500hr to 1800hr
10/Oct/2005	10/Oct/2005 1500hr to 1800hr
16/Oct/2005	16/Oct/2005 1500hr to 1800hr
22/Oct/2005	22/Oct/2005 1500hr to 1800hr
28/Oct/2005	28/Oct/2005 1500hr to 1800hr
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

Table C.2 Manual Noise Monitoring Schedule for Transmission System Construction (September 2005 to December 2005)

Date	Monitoring Start Time
02/Sept/2005	14:00
06/Sept/2005	10:00
09/Sept/2005	14:00
13/Sept/2005	10:00
16/Sept/2005	14:00
20/Sept/2005	10:00
23/Sept/2005	14:00
27/Sept/2005	10:00
30/Sept/2005	14:00
04/Oct/2005	10:00
07/Oct/2005	14:00
10/Oct/2005	10:00
14/Oct/2005	14:00
18/Oct/2005	10:00
21/Oct/2005	14:00
25/Oct/2005	10:00
28/Oct/2005	14:00
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

APPENDIX D AIR QUALITY MONITORING RESULTS

Site: Lamma Power Station Extension

Month: September 2005

24 hour TSP Measurement:-

		TSP concentr	ration (µg/m³)	Weather Information (From Hong Kong Observatory)			
Date	Reservoir	East Gate	Ash Lagoon	Tai Yuen Village	Mean Wind Speed	Prevailing Wind Dir.	Mean R.H.
	(AM1)	(AM2)	(AM3)	(AM4)	(km/hr)	(°)	(%)
04/09/2005	25	28	25	28	25.9	090	93
10/09/2005	112	110	101	115	12.6	030	77
16/09/2005	40	38	42	46	24.8	070	76
22/09/2005	137	126	130	113	19.1	010	68
28/09/2005	52	50	94	76	20.7	090	85

1 hour TSP Measurement:-

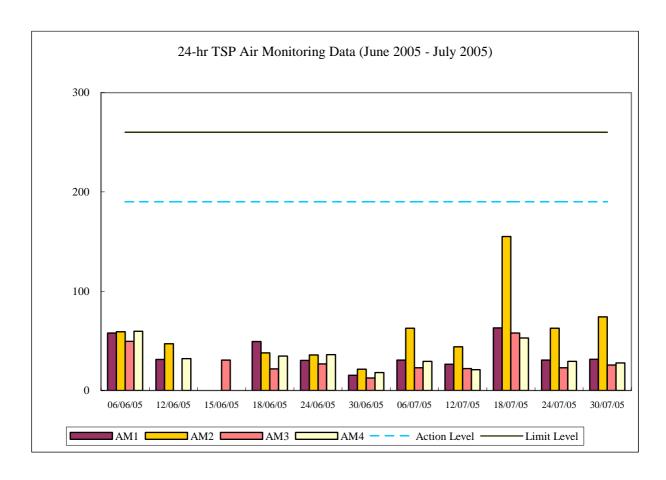
		TSP concentration (µg/m³)				
Date	Time	Reservoir (AM1)	East Gate (AM2)	Ash Lagoon (AM3)		
	15:00-15:59	16	16	12		
04/09/2005	16:00-16:59	28	30	25		
	17:00-17:59	30	28	21		
	15:00-15:59	120	188	110		
10/09/2005	16:00-16:59	126	153	112		
	17:00-17:59	116	129	107		
	15:00-15:59	31	47	32		
16/09/2005	16:00-16:59	18	40	6		
	17:00-17:59	26	37	32		
	15:00-15:59	151	146	123		
22/09/2005	16:00-16:59	78	83	98		
	17:00-17:59	108	109	101		
	15:00-15:59	63	64	41		
28/09/2005	16:00-16:59	55	57	57		
	17:00-17:59	60	66	59		

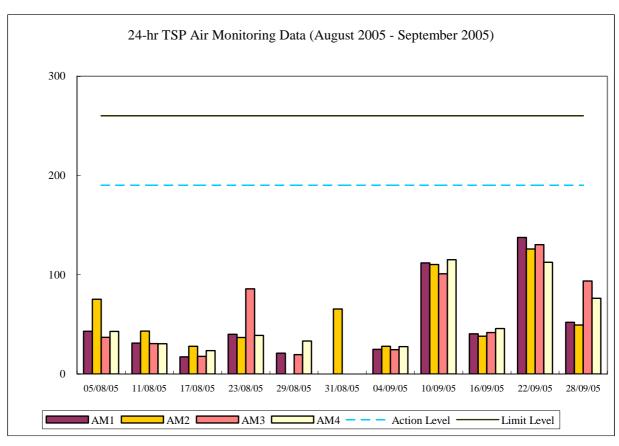
	1-hr TSP	24-hr TSP $(\mu g/m^3)$	
	$(\mu g/m^3)$		
Action Level	340	190	
Limit Level	500	260	

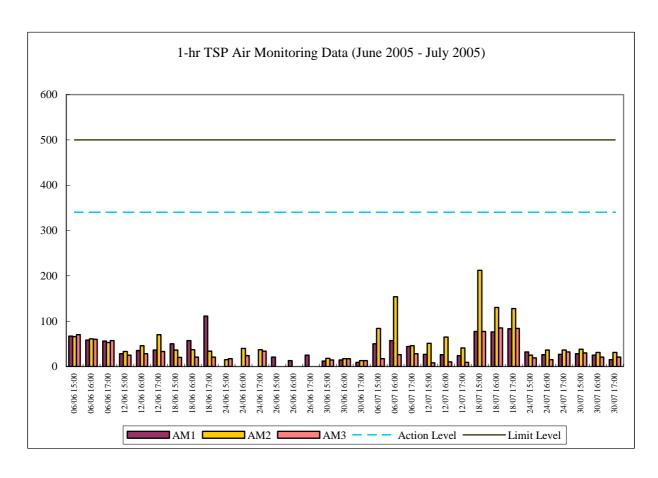
Calibration: Calibration details are shown in appendix F.

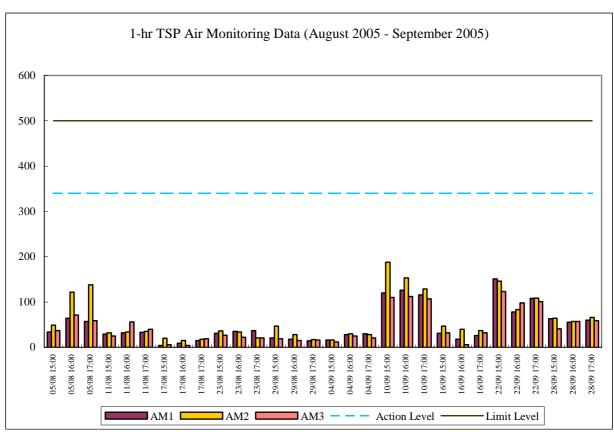
Equipment used:

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









Appendix E.1 Continuous Noise Monitoring Results for September 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

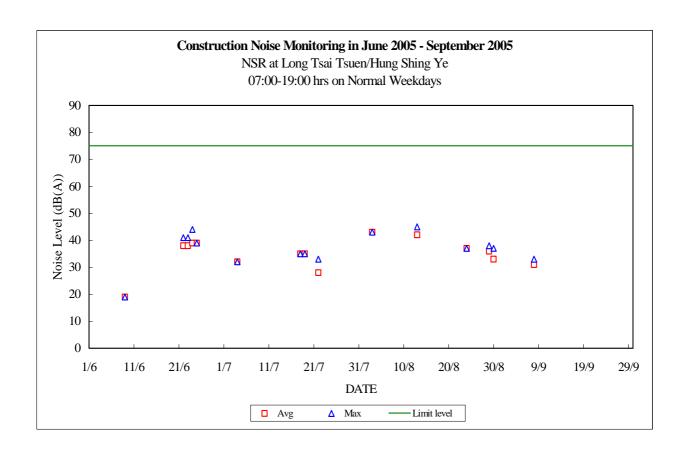
B&K 2238F sound level meter - 13/07/2004 Rion NC-74 calibrator - 17/02/2005

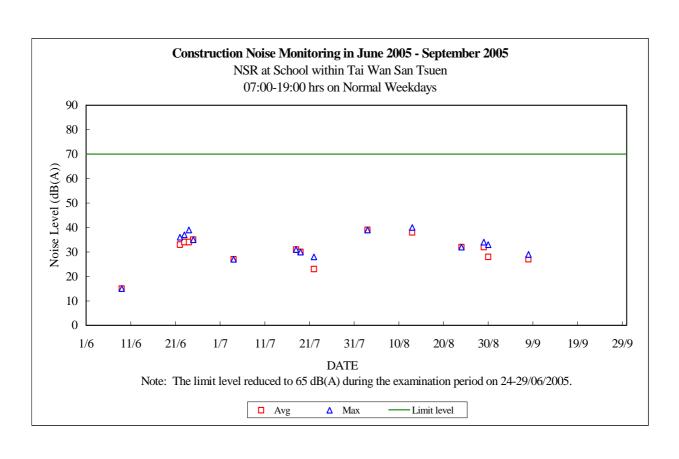
Date	Time	Calcula Noise Level a NSR at Tsai Tsuen/F Shing N (dB(A))	at Long Hung Ye	Limit Noise Level (dB(A))	Calcula Noise Level a NSR at school within Wan Sar Tsuen (dB(A))	at the Tai	Limit Noise Level (dB(A))
01/09/2005	07:00-19:00			75			70
01/09/2005	19:00-23:00			60			60
01/09/2005	23:00-07:00	41	35	45	31	27	45
02/09/2005	07:00-19:00			75			70
02/09/2005	19:00-23:00			60			60
02/09/2005	23:00-07:00	35	30	45	31	26	45
03/09/2005	07:00-19:00			75			70
03/09/2005	19:00-23:00			60			60
03/09/2005	23:00-07:00	39	34	45	34	30	45
04/09/2005	07:00-23:00	48	43	60	43	39	60
04/09/2005	23:00-07:00	43	34	45	31	27	45
05/09/2005	07:00-19:00			75			70
05/09/2005	19:00-23:00			60			60
05/09/2005	23:00-07:00	41	32	45	36	28	45
06/09/2005	07:00-19:00			75			70
06/09/2005	19:00-23:00	42	40	60	37	35	60
06/09/2005	23:00-07:00	42	33	45	35	27	45
07/09/2005	07:00-19:00			75			70
07/09/2005	19:00-23:00			60			60
07/09/2005	23:00-07:00	39	34	45	34	29	45
08/09/2005	07:00-19:00	33	31	75	29	27	70
08/09/2005	19:00-23:00			60			60

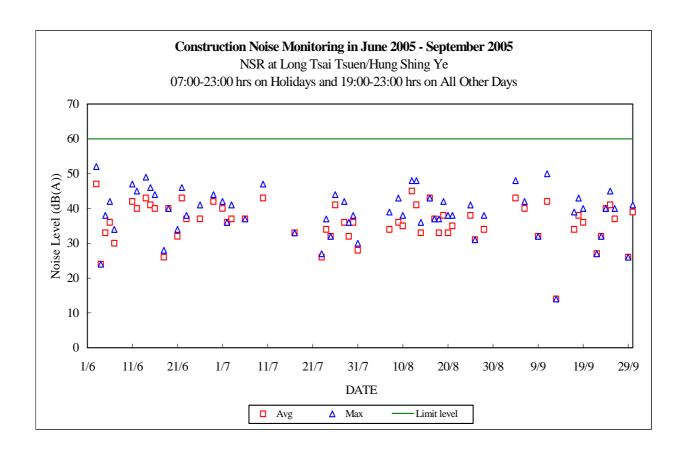
Date	Time	Calcula Noise Level a NSR at Tsai Tsuen/H Shing N (dB(A))	at Long Hung Ke	Limit Noise Level (dB(A))	Calcula Noise Level a NSR at school within Wan San Tsuen (dB(A))	at the Tai n	Limit Noise Level (dB(A))
		Max	Avg		Max	Avg	
08/09/2005	23:00-07:00	34	29	45	29	24	45
09/09/2005	07:00-19:00			75			70
09/09/2005	19:00-23:00	32	32	60	27	27	60
09/09/2005	23:00-07:00	38	32	45	31	25	45
10/09/2005	07:00-19:00			75			70
10/09/2005	19:00-23:00			60			60
10/09/2005	23:00-07:00	40	33	45	31	26	45
11/09/2005	07:00-23:00	50	42	60	34	31	60
11/09/2005	23:00-07:00	30	28	45	25	23	45
12/09/2005	07:00-19:00			75			70
12/09/2005	19:00-23:00			60			60
12/09/2005	23:00-07:00	35	31	45	31	27	45
13/09/2005	07:00-19:00			75			70
13/09/2005	19:00-23:00	14	14	60	9	9	60
13/09/2005	23:00-07:00	31	27	45	26	24	45
14/09/2005	07:00-19:00			75			70
14/09/2005	19:00-23:00			60			60
14/09/2005	23:00-07:00	35	30	45	30	26	45
15/09/2005	07:00-19:00			75			70
15/09/2005	19:00-23:00			60			60
15/09/2005	23:00-07:00	33	30	45	28	25	45
16/09/2005	07:00-19:00			75			70
16/09/2005	19:00-23:00			60			60
16/09/2005	23:00-07:00	33	30	45	28	25	45
17/09/2005	07:00-19:00			75			70
17/09/2005	19:00-23:00	39	34	60	34	30	60
17/09/2005	23:00-07:00	41	37	45	36	32	45
18/09/2005	07:00-23:00	43	38	60	38	33	60
18/09/2005	23:00-07:00	37	32	45	33	28	45
19/09/2005	07:00-23:00	40	36	60	35	32	60
19/09/2005	23:00-07:00	37	32	45	32	28	45
20/09/2005	07:00-19:00			75			70
20/09/2005	19:00-23:00			60			60
20/09/2005	23:00-07:00	29	28	45	24	23	45
21/09/2005	07:00-19:00			75			70

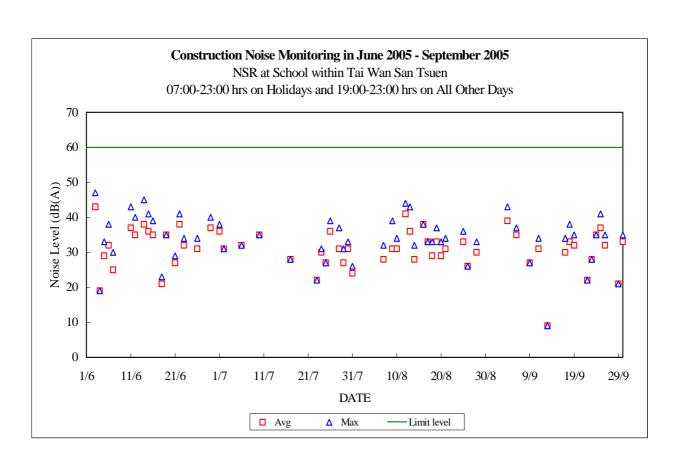
Date	Time	Calcula Noise Level a NSR at Tsai Tsuen/F Shing Y (dB(A))	at Long Hung Ye	Limit Noise Level (dB(A))	Calcula Noise Level a NSR at school within Wan Sar Tsuen (dB(A))	at the Tai	Limit Noise Level (dB(A))
21/09/2005	19:00-23:00	Max 	Avg 	60	Max 	Avg 	60
21/09/2005	23:00-07:00			45			45
22/09/2005	07:00-19:00			75			70
22/09/2005	19:00-23:00	27		60			60
			27		22	22	
22/09/2005	23:00-07:00	36	30	45 75	31	26	45 70
23/09/2005	07:00-19:00 19:00-23:00	32	32	60	28	28	60
· ' '							
23/09/2005	23:00-07:00	35	31	45	30	26	45
24/09/2005	07:00-19:00			75			70
24/09/2005	19:00-23:00	40	40	60	35	35	60
24/09/2005	23:00-07:00	44	41	45	38	36	45
25/09/2005	07:00-23:00	45	41	60	41	37	60
25/09/2005	23:00-07:00	42	36	45	38	32	45
26/09/2005	07:00-19:00			75			70
26/09/2005	19:00-23:00	40	37	60	35	32	60
26/09/2005	23:00-07:00	42	34	45	38	29	45
27/09/2005	07:00-19:00			75			70
27/09/2005	19:00-23:00			60			60
27/09/2005	23:00-07:00	39	34	45	35	30	45
28/09/2005	07:00-19:00			75			70
28/09/2005	19:00-23:00			60			60
28/09/2005	23:00-07:00	30	28	45	25	23	45
29/09/2005	07:00-19:00			75			70
29/09/2005	19:00-23:00	26	26	60	21	21	60
29/09/2005	23:00-07:00	44	37	45	38	31	45
30/09/2005	07:00-19:00			75			70
30/09/2005	19:00-23:00	41	39	60	35	33	60
30/09/2005	23:00-07:00	43	39	45	38	32	45

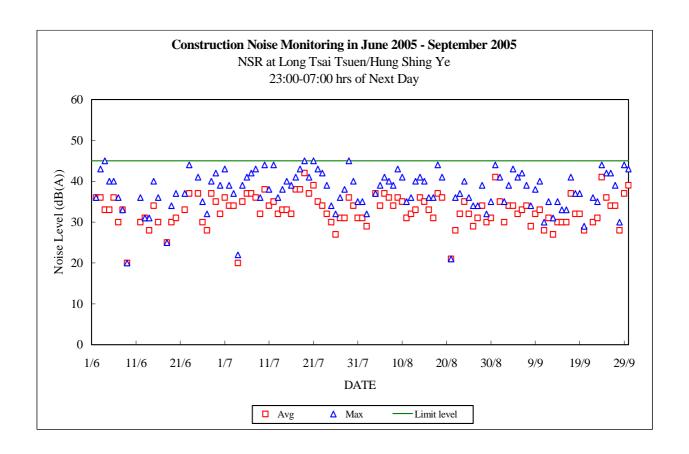
Note: "--" represents the measured noise monitoring data lower than the established notional background level/discarded under strong wind.

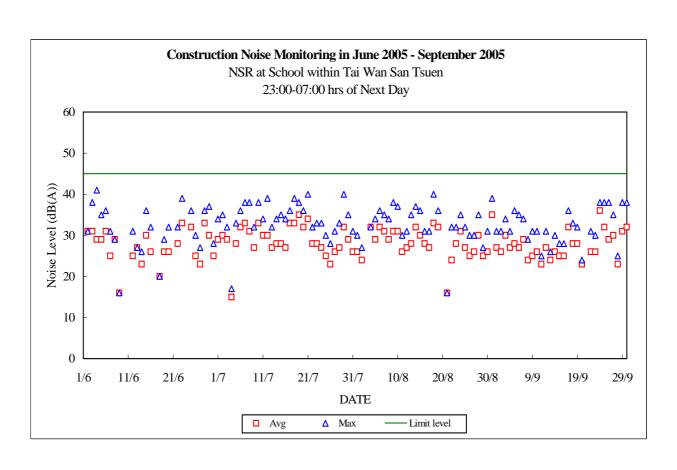












Appendix E.2 Manual Noise Monitoring Results for September 2005

Lamma Power Station Extension - Transmission System Site:

Measurement Parameter: 30-min Leq (07:00-19:00 hrs on normal weekdays) Noise Equipment Used: Rion NL-31 sound level meter (02/09/2005) &

ACO 6224 sound level meter (06-30/09/2005) and

ACO 2126 sound level calibrator

Wind Speed Equipment: Extech Instruments 45118

Last Calibration Date: Rion NL-31 sound level meter - 08/08/2005 ACO 6224 sound level meter - 11/04/2005

ACO 2126 sound level calibrator - 01/02/2005

Measurement Location: N4 - Pak Kok Tsui No.2

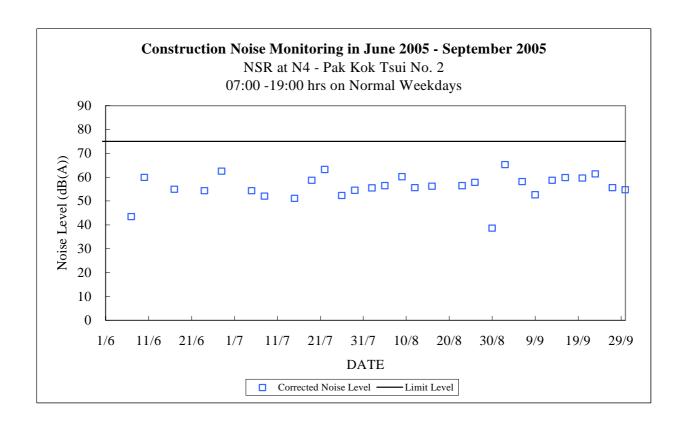
Date	Time	Measured Noise Level (dB(A))	Notional Background Noise Level (dB(A))	Corrected Noise Level (dB(A))	Limit Noise Level (dB(A))	Wind Speed (m/s)
02/09/2005	14:00-14:30	65.7	54.9	65.3	75	<5
06/09/2005	10:00-10:30	59.8	54.9	58.1	75	<5
09/09/2005	14:00-14:30	56.9	54.9	52.6	75	<5
13/09/2005	10:00-10:30	60.2	54.9	58.7	75	<5
16/09/2005	14:00-14:30	61.0	54.9	59.8	75	<5
20/09/2005	10:00-10:30	60.9	54.9	59.6	75	<5
23/09/2005	14:00-14:30	62.3	54.9	61.4	75	<5
27/09/2005	10:00-10:30	58.3	54.9	55.6	75	<5
30/09/2005	14:00-14:30	57.8	54.9	54.7	75	<5

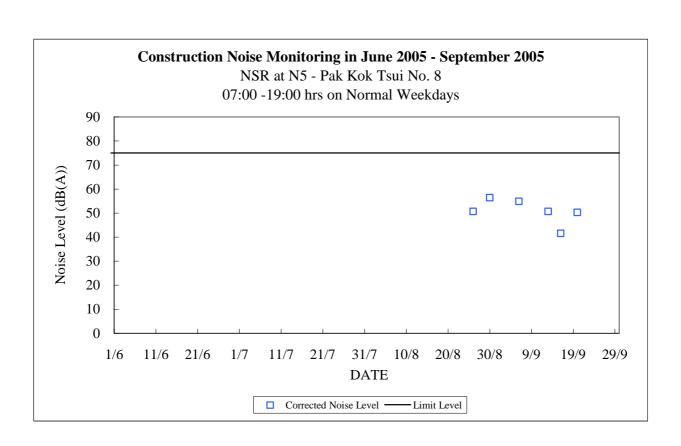
Measurement Location: N5 - Pak Kok Tsui No.8

		Measured	Notional	Corrected	Limit	Wind
Date	Date Time		Background	Noise	Noise	Speed
Date	TIME	Level	Noise Level	Level	Level	(m/s)
		(dB(A))	(dB(A))	(dB(A))	(dB(A))	(111/15)
02/09/2005	14:40-15:10	54.5	54.9		75	<5
06/09/2005	10:40-11:10	57.9	54.9	54.9	75	<5
09/09/2005	14:40-15:10	54.6	54.9		75	<5
13/09/2005	10:40-11:10	56.3	54.9	50.7	75	<5
16/09/2005	14:40-15:10	55.1	54.9	41.6	75	<5
20/09/2005	10:40-11:10	56.2	54.9	50.3	75	<5
23/09/2005	14:40-15:10	54.3	54.9		75	<5
27/09/2005	10:40-11:10	53.8	54.9		75	<5
30/09/2005	14:40-15:10	52.5	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.
- "--" represents the measured noise monitoring data lower than the established notional background level.





Appendix F

The QA/QC Procedures and Results

HIGH VOLUME AIR SAMPLER SITE VISIT LOG SHEET

Site N	Jame:	R	3.5	Site No.:	AM)
Date o	of visit:	12-	P-07	Hour of Visit:	12=47
Staff	name:			HVAS S/N:	2198
Used	filter paper no.:		1562		<u> </u>
Туре	of filter:	Glass-fil	ore	_	•
I.	Ambient Condition $Temperature, T_a =$		1273 807 K P	ressure, $P_a = $	1018 mb
II.	Correction of mano	meter re	ading		
	Calibration orifice	No.		Manometer reading corresponds to Q_S (inch E	$_{\text{TD}} = 40 \text{ ft}^3/\text{min.}$
	1534(09/200	4)		$\triangle H_a = 18.33(T_a/F_a)$	$P_{a}) = \underline{5.62}$
	Manometer reading Adjustment of flow Manometer reading Note: Tolerance Limit o	controll after ca	er (Y/N): libration:		for manometer : \pm 0.2 inch H_2O
Ш.	General Conditions	of HVA	AS		
IV.	Remarks				

File Name: C:\monitor\ambient\hvprical\HVASCAL04.doc

HIGH VOLUME AIR SAMPLER SITE VISIT LOG SHEET

f visit: ame: īlter paper no.:	12-P- W.L.MAK C. H. HUM		Hour of V — vHVAS S/			11:45
ame: Ilter paper no.:	U.L. MAK	. AKTS	γHVAS S/	N·		
	C. 17. 1(0h	to LSt	New filter	paper no.:		<u> </u>
of filter:	Glass-fibro	e 				
		13 5 K 1	Pressure,	P _a =	1010	
Correction of mano	meter reac	ling				
Calibration orifice	No.			esponds to Q _{ST}	$_{\rm D} = 40 \mathrm{ft}^3 / \mathrm{m}$	
1534(09/2004	4)		△H _a =	= 18.33(T _a /P _a	$_{\rm a})=\underline{}$	54
Adjustment of flow Manometer reading	controller after calib	Y/N): oration:	5	.5	for manomet	er: \pm 0.2 inch $\mathrm{H_2O}$
General Conditions	of HVAS					
Remarks						
	Correction of mano Calibration orifice 1534(09/200 Manometer reading Adjustment of flow Manometer reading Note: Tolerance Limit o General Conditions	Calibration orifice No. Calibration orifice No. 1534(09/2004) Manometer reading before cale Adjustment of flow controller Manometer reading after calibration of HVAS flow General Conditions of HVAS	Temperature, T _a = \frac{\frac{3.5 + 2+3}{5.5}}{5.5} K Correction of manometer reading Calibration orifice No. 1534(09/2004) Manometer reading before calibration Adjustment of flow controller (Y/N): Manometer reading after calibration: Note: Tolerance Limit of HVAS flow: \pm 1.0 ft	Temperature, $T_a = \frac{2.5 + 2\overline{4}^3}{305.5}$ K Pressure, Correction of manometer reading Calibration orifice No. Manor correction 1534(09/2004) Manometer reading before calibration: Adjustment of flow controller (Y/N): Manometer reading after calibration: Note: Tolerance Limit of HVAS flow: ± 1.0 ft ³ /min. Correst General Conditions of HVAS	Temperature, $T_a = \frac{2.5 + 213}{-305.5}$ K Pressure, $P_a = {}$ Correction of manometer reading Calibration orifice No. Manometer reading a corresponds to Q_{ST} (inch H 1534(09/2004) Manometer reading before calibration: $\frac{5.8}{}$ Adjustment of flow controller (Y/N): ${}$ Manometer reading after calibration: $\frac{5.5}{}$ Note: Tolerance Limit of HVAS flow: ± 1.0 ft ³ /min. Corresponding limits of General Conditions of HVAS	Temperature, $T_a = \frac{3.5 + 213}{-305.5}$ K Pressure, $P_a = \frac{1010}{-305.5}$ K Pressure, $P_a = \frac{1000}{-305.5}$ K Pressur

File Name: C:\monitor\ambient\hvprical\HVASCAL04.doc

PARTISOL TSP SAMPLER SITE VISIT LOG SHEET

Site Name:	Ash Lapoon	Site Number:	AM3
Date of Visi	t: 12-P-05	Hour of Visit:	14:10
Staff Name:	W. L. MAK	Partisol S/N:	2000 B 20755 c 410
Used Filter	No.: <u>PC76</u>	New Filter No	D.: <u>PC77</u>
Ambient ter	nperature: 34.8°	Ambient press	sure: <u>0.994/100</u> 7
I. <u>(</u>	General Services		
1	. Replace control unit Larg		
2	2. Clean the sample inlet he	ad	<u> </u>
3	3. Clean sample tube	· · · · · · · · · · · · · · · · · · ·	
4	l. Clean / Replace pump he		
5	6. Clean / Replace piston _		X
II. <u>(</u> 1. 2.	Department Audits (3 months in Temperature Check (Ambient to 34.4 °C Calibre Before	emperature ± 2°C) ation: Y(N)	After °C
۷.	Pressure Check (Ambient pressur loc 8 mbar Calibr Before		mbar After
3.	Flow Check (16.7± 1.1 litre/min)		
	16.7 I/min Calibr Before	ation: <u>Y(N</u>)	After 1/min
III. Rem	<u>arks</u>		

MINI VOLUME AIR SAMPLER SITE VISIT LOG SHEET

Site	e Name:		77٧	Site No.:	***************************************	AMY
Dat	te of visit	:	12-P-05	Hour of Visit:	Hour of Visit:	
Sta	ff name:		M.K.TSANK	MINIVOL S/N	V:	383
Us	ed filter p	aper no.:	MH62	New filter pape	er no.:	мн63
Tyj	pe of filte Calibr		Cellulose / Glas (Delete as appropormed by using Dry	oriate)	alibrator	
	5 S1/m	nin set point i	s recommended			
		2.0	Before	0-2	After	
II.	General 1. 2. 3. 4. 5.	Clean Rota Clean / rep Clean / rep Clean Impa Replace Tir	ini Vol Air Sample meter: lace Pump Valves: lace Pump Diaphra action Inlet: mer Battery Every (let Filter:	gms:	X X	
III.	Remark	S				

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

Month: September Year: 2005

	Reservoir (AM1)						
Date	Frequency (Hz) (230 – 260)	Noise (< 0.1)	Operation Mode (Mode 4)	Main Flow (l/min) (0.94 – 1.06)	Aux. Flow (l/min) (14.67 – 16.67)		
4/9/2005	257-66	0.027	4	(00)	15.68		
10/9/2005	257.29	0.041	4	1.00	15-68		
16/9/2005	236.93	0.040	4	1.00	12-68		
22/9/2005	236.72	0.042	4	1.00	(5-ks		
28/9/2005	216.49	0.241	4	1.00	15.68		

			East Gate (AM2)		
Date	Frequency (Hz) (230 – 250)	Noise (< 0.1)	Operation Mode (Mode 4)	Main Flow (l/min) (0.94 – 1.06)	Aux. Flow (I/min) (14.67 – 16.67)
4/9/2005	246.05	0.061	4	0.49	15-62
10/9/2005	243.64	0.051	4	0.99	15-63
16/9/2005	245.25	280,0	4	0.99	15-63
22/9/2005	245.02	0.06.	4	0.99	(5-6)
28/9/2005	246.27	0.051	4	0.99	15-64

		1	Ash Lagoon (AM3)		
Date	Frequency (Hz) (240 – 270)	Noise (< 0.1)	Operation Mode (Mode 4)	Main Flow (l/min) (0.94 – 1.06)	Aux. Flow (l/min) (14.67 – 16.67)
4/9/2005	248.86	0 358	4	1.00	15-67
10/9/2005	248.56	0.044	4	100	15.68
16/9/2005	248-27	0.051	4	1.00	15-66
22/9/2005	248.86	0-2.78	4	1.00	15-67
28/9/2005	248.66	0.053	4	1.00	15-68

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

Remarks:			
Prepared by :	Alex.		

Checked by:____

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

Loca	ocation Ash Lagoon/Ching Lam*					
Date	e	14-9	-05	Time _		10:30.
Equ	ipment	Rion	NA-27/ B &	K 2238F * S	Sound Lev	el Meter
Ser	ial Number _	0011	1465/0011	1466 /00111	1467/2 343	838/2356907*
Stai	ff Attended		hy .1	MAK ;	LIK TSA	NH
1.	Calibration	:				
	Acoustic ca	librat	or used			Rion NC-74
	Calibration	level	before a	djustment	(dB(A))	94.0
	Calibration	level	after ad	ljustment	(dB(A))	94
2.	Weather Con	dition	S			
	a. Sunny /f	ine/ cl	oudy/show	ery/heavy	rain*	
	b. Strong	wind/b	ree ze/cal	m*		
3.	Remark/Obse	rvatio	<u>n</u>			
		WW. 1955.			MANAGEMENT OF THE STATE OF THE	

18/5/2004

Note: * - Please delete where inappropriate

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

Loca	ation	***	.Ash Lagoon/Ching Lam*	
Date	= <u> 6-f</u>	°- 05	Time	10:50
Equ:	ipment	Rion N	A-27/B&K 2238F* Sound Le	vel Meter
Ser	ial Number _	001114	65/00111466/00111467/234	3838 /2356907*
Sta:	ff Attended		H.K. TSANG, C.H. HUN	i G
1.	Calibration	<u>.</u>		
	Acoustic ca	librator	used	Rion NC-74
	Calibration	level b	efore adjustment (dB(A))	93.5
	Calibration	level a	fter adjustment (dB(A))	94
2.	Weather Cor	ditions		
	a. Sunny/f	ine/clou	dy/showery/heavy rain*	
	b. Strong	wind/bre	ezq /calm*	
3.	Remark/Obse	rvation		

Note: * - Please delete where inappropriate

Equipment Calibration Record for September 2005

Site: Civil works for 275kV

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

Noise Equipment Used:

RION NL-31(*) / ACO-TYPE 6224 (#)

Calibrator Used:

ACO-TYPE 2126

Measurement Location: N4 - Pak Kok Tsui No. 2

Date	Calibration Level before Measurement (dB(A))	Calibration Level after Measurement (dB(A))	Calibrated by
02/09/2005 (*)	94.0	94.0	Anthony Wong
06/09/2005 (#)	94.0	94.0	Anthony Wong
09/09/2005 (#)	94.0	94.0	Anthony Wong
13/09/2005 (#)	94.0	94.0	Anthony Wong
16/09/2005 (#)	94.0	94.0	Anthony Wong
20/09/2005 (#)	94.0	94.0	Anthony Wong
23/09/2005 (#)	94.0	94.0	Anthony Wong
27/09/2005 (#)	94.0	94.0	Anthony Wong
30/09/2005 (#)	94.0	94.0	Anthony Wong

Measurement Location: N5 - Pak Kok Tsui No. 8

Date	Calibration Level before	Calibration Level after	Calibrated by
	Measurement (dB(A))	Measurement (dB(A))	
02/09/2005 (*)	94.0	94.0	Anthony Wong
06/09/2005 (#)	94.0	94.0	Anthony Wong
09/09/2005 (#)	94.0	94.0	Anthony Wong
13/09/2005 (#)	94.0	94.0	Anthony Wong
16/09/2005 (#)	94.0	94.0	Anthony Wong
20/09/2005 (#)	94.0	94.0	Anthony Wong
23/09/2005 (#)	94.0	94.0	Anthony Wong
27/09/2005 (#)	94.0	94.0	Anthony Wong
30/09/2005 (#)	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 consecutive	If the exceedance is found to be valid	the remedial actions proposed by the	failure in writing	avoid further exceedance		
	and due to the construction works,	ET / Contractor	Checking monitoring data and	Submit proposals for remedial		
samples	verbally advise the Contractor, Engineer	Advise Engineer on the effectiveness	Contractor's working methods	actions to Engineer within 3		
	and IEC, and inform the EPD of the	of the proposed remedial measures	Notify Contractor	working days of notifications		
	exceedance as soon as practicable.	Verify the implementation of the remedial measures	Discuss proposed remedial actions	Implement the agreed		
	Repeat measurement to confirm finding		with ET and Contractor	proposals		
	Increase monitoring frequency to daily		Ensure remedial measures properly	Resubmit proposals if problem		
	Carry out analysis of Contractor's		implemented	still not under control		
	working procedures to determine		If exceedance continues, consider	Stop the relevant portion of		
	possible mitigation to be implemented		what portion of the work is	works as determined by the		
	Arrange meeting with Engineer and		responsible and instruct the	Engineer until the exceedance		
	Contractor to discuss the remedial		Contractor to stop the portion of work	is abated		
	actions to be taken		until the exceedance is abated			
	If exceedance stops, discontinue					
	additional monitoring					

Table G.2 Event and Action Plans for Construction Noise

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

Table G.3 Event and Action Plans for Water Quality

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

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

Appendix H

Site Audit Summary

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

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

Weekly Site Inspection Checklist

Inspection (late 7/9/05 Time 10:00 Inspects	ed By	ET:	L	ern	y Wong
Site	Loly-Superstanstance	İ	Conti	racto	r: /	· 0
Weather						
Condition	Sunny Fine Overcast Hazy		Drizz	zle [Ra	in Stor
Temperatu	re[]]°C Humidity High Moderat	e [Low	1		
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	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements	l			}	
Cap311R:	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?		/			
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?		1		 	
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	/				
	Construction Sites					
EM&A:	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		/			
	Stockniling 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?

Cap311R:

Sch 18

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized fuel ash (PFA)	L		<u> </u>		
Cap311R: Seh 15(3)	Are the storage silos for cement or dry PFA prevented from overfilling?	1				
Cap311R; Sch 15(4)	Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system?	1				
Cap311R: Sch 15(2)	ls bulk coment 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	_	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?	/				
	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					
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?	/				
Cap311R: Sch 20(2)	Is every transfer point between any two-belt conveyors totally enclosed?	/				
Cap311R: Sch 20(3)	Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?	1				
Cap311R; Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?	/				
	Concrete batching plant					
ЕМ&Л: Л2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?	1				
EM&A: A2	Are dusty materials, except cement and dry PFA, wetted by water spray system?	/				
EM&A: A2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	/				
EM&A:	Are all the conveyor transfer points totally enclosed?	1	1	 	<u> </u>	

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Miscellaneous		•			
Cap311R: Sch 16	Are completed earthworks scaled and hydroseoded 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	L,—,—,—	l			<u></u>
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	/				
WMP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	/				
EM&A: E3	Are wastes disposed of at licensed sites?	/				
	Construction Waste and Excavated Materials					
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	/				
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	/				
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?				1	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?	/				
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?	/				
EM&Λ: 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		L-+	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		<u> </u>	.		
PN1/94	Are the silt removal facilities, channels and manholes maintained and the deposited silt and grit removed regularly?	/				
PN1/94	Are earthworks final surfaces well compacted and the subsequent permanent work or surface protection carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms? Is appropriate drainage like intercepting channels provided where necessary?	/				
PN1/94	Are measures taken to minimize the ingress of rainwater into trenches? Is rainwater pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?	/				
PN1/94	Are open stockpiles of construction materials (e,g, aggregates, sand and fill material) on site covered with tarpaulin or similar fabric during rainstorms? Are measures taken to prevent the washing away of construction materials, soil, silt or debris into the drainage system?	/				
PN1/94	Are manholes (including newly constructed ones) adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers?	1				
	Groundwater	1	<u> </u>	ļ	ļ	
PN1/94	Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?					

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Boring and Drilling Water	+	ļ ———		 	
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?		/	<u> </u>		

MARINE ECOLOGY

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

NOISE

Ref	Cheeklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: CI	Are working programmes schedu	led to minimize noise nuisance?		1			
EM&A: Cl	Are construction works or equipm nuisance?	nent sited to minimize noise		/			
EM&A: C1	Are all plant and equipment main conditions?	tained in good operating					
EM&A: CI/GP	Is idle equipment turned off or the	rottled down?	-	/		 	
EM&A: Cl	Are methods of working devised and arranged to minimize noise nuisance?						
EM&A: C1)	Are construction works carried or nuisance?		/				
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?		/				
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			1			
NCO	Are valid noise emission labels fixed at air compressors and hand held percussive breakers?			1			
·		☐ Traffic	Ø	Const	ruetic	n activ	vities inside the
	Major noise source(s)	Construction activities outside the site		Other	rs		

VEP:	Varied Environmental Permit		
WMP:	Waste Management Plan	EM&A:	EM&A Manual (Construction Phase)
Cap311R:	APC (Construction Dust) Regulation	NCO:	Noise Control Ordinance
Cap311O;	APC (Open Burning) Regulation	WDO:	Waste Disposal Ordinance
Cap311:	Air Pollution Control Ordinance		
PN1/94;	Practice Note for Professional Persons (Con	nstruction Site I	Drainage)
Unk:	Unknown		
Remark	Nil		

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	date 4905 Time 0500 Inspects	ed By	ET:		~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	Vory.
Site	LMX-Sugarstructure					
Weather		· · · · · · · · · · · · · · · · · · ·	-			
Condition	Sunny Fine Overcast Hazy		Drizz	zle [R	ain Stoi
Temperati	re 72°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?					
AIR QUAL Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements	1	l	l	<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, 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?					
Сяр311	Do the contractors possess valid Air Pollution Control Specified Processes Liceuses for the concrete batching plant wherever applicable and have it available for inspection?					
~- 	Construction Sites					
EMCA:	Are hard roads paved with concrete or sprayed with water to keep the entire road wer?		/			
·	Stockpiling of dusty materials	<u> </u>				
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 wer to prevent dust emission?				i	

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized fuel ash (PFA)	. 		L	L	I
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)	ls bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?	/				
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?				-	
	Loading, unloading or transfer of dusty materials					
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?	1	·			
EM&A: AI	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?					1, 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?		/		2	
	Transfer of dusty materials using a belt conveyor system	.]_ ,	,	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)	ls every transfer point between any two-belt conveyors totally enclosed?	/	I			!
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?	/	<u> </u>			
ЕМ&А: А2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	/				<u> </u>
EM&A:	Are all the conveyor transfer points totally enclosed?	/		l		

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Miscellaneous					\
Cap311R: Sen 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?					
Cap311O	Is open burning prohibited?		/			
СарЗП	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?		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?	/				
	General refuse					
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		7			
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		1			
WMP	Is the refuse disposed of regularly and properly?		1			
WMP	Are burning of refuse at site and dumping at sea prohibited?]	Z	L		
	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	Ne	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						
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?	7			***		
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?						
	(1) public fill materials for on-site reuse, or disposal at public filling area;	/					
	(2) reusable / recyclable materials;	/					
, · · · ·	(3) un-reusable / non-recyclable waste for landfill disposal.	1/					
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?	/					

WATER QUALITY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off					
PN1/94	Are the silt removal facilities, channels and manholes maintained and the deposited silt and grit removed regularly?	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?	1				
PN1/94	Are measures taken to minimize the ingress of rainwater into trenches? Is rainwater pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?	1				
PN1/94	Are open stockpiles of construction materials (e.g., aggregates, sand and fill material) on site covered with tarpaulin or similar fabric during rainstorms? Are measures taken to prevent the washing away of construction materials, soil, silt or debris into the drainage system?	(
PN1/94	Are manholes (including newly constructed ones) adequately covered and temporarily scaled so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers?	(
PN1/94	Is 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: Cl	Are working programmes schedu	led to minimize noise nuisance?		/				
EM&A: CI	Are construction works or equiprinuisance?	nent sited to minimize noise		/				
EM&A: CI	Are all plant and equipment mair conditions?	ntained in good operating		1				
EM&A: CI/GP	Is idle equipment turned off or th	prottled 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 folidation 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	1			
NCO	Are conditions of construction n relevant part(s) of the works imp							
NCO	Are valid noise emission labels theld percussive breakers?	fixed at air compressors and hand		1				
	Major noise source(s)	☐ Traffic	Ø	Cons site	truction	n acti	vities inside the	
	major noise source(s)	Construction activities outside the site		Other	rs			

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 (Control Unknown	NCO: WDO:	EM&A Manual (Construction Phase) Noise Control Ordinance Waste Disposal Ordinance Drainage)
Remark			
	Nil		
		,•	
Signatures	j.		
ET Member	Contractor's Repre	sentative	

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 21/9/05 Time 10:00 and Inspect	ed By	ET:	L	γ	Work
Site	LMX-Superstructure		Cont	racio)t: , A	1 any
Veather	· · · · · · · · · · · · · · · · · · ·					
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	ain Sto
Temperatı	nre <mark>【2】</mark> ℃ Humidity High	te	Lov	v		
Wind	Calm Light Breeze Strong					
GENERAL			i			
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		1			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		/			
		1		1		
IR QUAL	ľTY					
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
,	General Requirements	·	······································			
Cap311 R : 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: A compressed air jet shall not be used for cleaning or clearing dust Sch 12(3) 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: Are haul roads paved with concrete or sprayed with water to keep the entire road wet? Stockpiling of dusty materials Are stockpiles of dusty materials entirely covered with impervious Cap311R: sheets or sheltered on the top and 3 sides or sprayed with water to Sch 18 maintain the entire surface wet to prevent dust emission?

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized fuel ash (PFA)		·	1		L
Cap311R: Sch 15(3)	Are the storage silos for cement or dry PFA prevented from overfilling?					
Cap311R: Sch 15(4)	Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system?	1				<u> </u>
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>
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?	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					
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?	1	l			<u></u> .
Cap311R: Sch 20(2)	Is every transfer point between any two-belt conveyors totally enclosed?					.
Cap311R: Sch 20(3)	Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?	/				
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?	1				
	Concrete batching plant					
EM&A: A2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?	/				
EM&A: A2	Are dusty materials, except cement and dry PFA, wetted by water spray system?	/			!	
EM&A: A2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	1				
EM&A:	Are all the conveyor transfer points totally enclosed?					

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

WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks			
	Dredged Materials								
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	1							
WMP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	/							
EM&A: E3	Are wastes disposed of at licensed sites?	/							
	Construction Waste and Excavated Materials								
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	/							
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	/				· · · · · · · · · · · · · · · · · · ·			
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?		/						
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?		/						
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?		/	<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?	1				I		
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?	1			 	<u>, </u>		
	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;	/						
41.1	(2) reusable / recyclable materials;							
	(3) un-reusable / non-recyclable waste for landfill disposal.	/				121		
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?	1				
PN1/94	Are earthworks final surfaces well compacted and the subsequent permanent work or surface protection carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms? Is appropriate drainage like intercepting channels provided where necessary?	/				
PN1/94	Are measures taken to minimize the ingress of rainwater into trenches? Is rainwater pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?	1				
PN1/94	Are open stockpiles of construction materials (e,g, aggregates, sand and fill material) on site covered with tarpaulin or similar fabric during rainstorms? Are measures taken to prevent the washing away of construction materials, soil, silt or debris into the drainage system?	/				
PN1/94	Are manholes (including newly constructed ones) adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers?	/				
	Groundwater	ļ <u> </u>				
PN1/94	Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?			ļ. 	<u> </u>	

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: GI	Are all percussive piling works conducted on reclaimed land to avoid noise impact to marine mammals?	1				
EM&A: G2	Do the marine vessels moving to and from the construction site strictly follow the routes stated in the "Plan for Dredging & Reclamation, Routing of Construction Related Marine Vessels, and Installation of Silt Curtain"?					
EM&A: G3	Is rubble mound seawall constructed to the south and west edges of the reclamation to enhance recolonisation of marine organisms?					

NOISE

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

Abbreviation				
VEP: WMP: Cap311R: Cap311O: Cap311: PN1/94: Unk:	Varied Environmenta Waste Management I APC (Construction I APC (Open Burning Air Pollution Contro Practice Note for Pro Unknown	Plan Pust) Regulation Regulation	NCO: No WDO: W	M&A Manual (Construction Phase) oise Control Ordinance 'aste Disposal Ordinance inage)
Remark N	Ş (
	105-00-00-00-00-00-00-00-00-00-00-00-00-0			
Signatures				
(Name in Block le	tters:	(Name in Block letter		IEC's Representative This site inspection was carried out in the presence of IBC's segmentative

11th November 2002

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

Weekly Site Inspection Checklist

Inspection of	date 28/9/08 Time 10:00 Inspect	ed By	ET:	la	rry	Wang
Site	Mx Sugarstructure		Cond	racto	<u> </u>	. 4
Weather	/					
Condition	Sunny Fine Overcast Hazy		Driza	zle [Ra	in Stor
Temperatu	are 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 EIA report kept in Engineers' and Contractors' offices on site?		/			
AIR QUAL! Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements			1	<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, do the contractors notify EPD of the change?					
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?		1			
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	1				
·	Construction Sites	l	L	<u> </u>	<u> </u>	l
EM&A:	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		1			
	Stockpiling of dusty materials	······································		4		· · · · · · · · · · · · · · · · · · ·
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 polverized fuel ash (PFA)	h,	·	·	 -	
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	1	L	.1		I
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?	1				
EM&A: 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?					242)
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	٠.,	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 in?	/				-
	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?					
ЕМ&А: A2	Are dusty materials, except cement and dry PFA, wetted by water spray system?	/				
55444	Are all the receiving hoppers enclosed on three (3)sides up to 3m					
ЕМ&Л: Л2	above unloading point?					

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Aliscellaneous					
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?	/		,						
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?		1							
WMP	Is the refuse disposed of regularly and properly?		/							
WMIP	Are burning of refuse at site and dumping at sea prohibited?				1					
	Chemical Waste									
EM&A: E3	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?									

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?					<u> </u>	
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						
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;			-			
	(2) reusable / recyclable materials;	/					
	(3) un-reusable / non-recyclable waste for landfill disposal.	/				L,	
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?	/					

WATER QUALITY

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

NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: Cl	Are working programmes schedu	iled to minimize noise nuisance?		/			
EM&A: Cl	Are construction works or equip- nuisance?	ment sited to minimize noise		/			
EM&A: C1	Are all plant and equipment main conditions?	ntained in good operating		/	-		
EM&A: CI/GP	Is idle equipment turned off or the	rottled down?	 	/			
EM&A: C1	Are methods of working devised nuisance?	thods of working devised and arranged to minimize noise ee?					
EM&A: C1)	Are construction works carried of nuisance?	e construction works carried out in a manner to minimize noise isance?					
EM&A: C2	To mitigate construction noise di holidays, is either one of the followard in the construction of the followard in the construction of the constru	owing measures adopted?		1			
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			1			
NC0	Are valid noise emission labels f held percussive breakers?	ixed at air compressors and hand		/			
	Major noise source(s)	☐ Traffic	Ø	Const site	ructio	n activ	ities inside the
	iviajoi noise soui ce(s)	Construction activities outside the site		Other	s		

Abbreviation				
VEP: WMP: Cap311R: Cap311O: Cap311: PNI/94: Unk:	Varied Environmenta Waste Management P APC (Construction D APC (Open Burning) Air Pollution Control Practice Note for Prol Unknown	Plan rust) Regulation Regulation	NCO: 1 WDO: 1	EM&A Manual (Construction Phase) Noise Control Ordinance Waste Disposal Ordinance rainage)
Remark	<u> </u>	 		- 1
	Nil			
	A-1-80-4-1-4-4-4-4-4-4-4-4-4-4-4-4-4-4-4-4-4-	70-10		
				
	,			
Signatures				
ET Member		Contractor's Repres	sentative	
(Name in block	letters://	(Name in Block lett	ers: NG)	

11th November 2002

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

Inspection d	ate 07/09/05 Time 14:00 Inspect	ted by	ET:	Hend	ry Ho		
			Cont	racto	r: Kier		
Site	Transmission Route (Civil Work)						_
Weather							_
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	nin Sto	orm
Temperatur	e 31 °C Humidity High Moderate	e	Lov	v			
Wind	Calm Light Breeze Strong						
GENERAL							
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks	
VEP 1.5	Has a copy of the most updated Environmental Permit been displayed at all vehicular site entrances/exits for public information?		~				
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		1				

AIR 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?	<				
	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?		✓			LPS site
	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?		✓			
Cap311	Is black smoke emission from plant/equipment avoided?		>			

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					
Сар354	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?	~				

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?		√			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 a species Celtis biondii, Pteris dispar restricted plants Vitis balansaeana and Rhapis excellsa?	uncommon and rare plant ar and Ardicia pusilla, and the		√				
EM&A: O2	Are fences erected in accordance v in good condition along the bound prevent tipping, vehicle movement personnel into adjacent wooded are uncommon and restricted plant spe	lary of construction sites to ts, 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 t equipment provided in the work ar	emporary fire fighting		~				
		Traffic	/			ion act	ivities inside	
	Major noise source(s)	Construction activities outside the site			Others:			

Abbreviation

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

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 14/09/05 Time 10:00 Inspect	Eted by ET: Hendry Ho Contractor: Kier					
Site	Transmission Route (Civil Work)						
Weather	**************************************						
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	nin Ston	
Temperat	ure 30 °C Humidity High ✓ Moderat	te	Lov	v			
Wind	Calm Light Breeze Strong						
GENERAL	· · · · · · · · · · · · · · · · · · ·						
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks	
VEP 1.5	Has a copy of the most updated Environmental Permit been displayed at all vehicular site entrances/exits for public information?						

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?	*								
	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?		1			LPS site				
	Miscellaneous									
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?	~								

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

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?		√						
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?	✓							
	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?	1				

NOISE

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: L1	Are quiet PMEs or standard PMEs with modest source noise controls used at the cable route from N4 to N5?	/				
EM&A: L2 ~ L5	Are quiet PMEs (particularly the barge-mounted crane) or PMEs with comparably effective source noise controls used at landing point N5?	/				
NCO	Are valid construction noise permits, if required, available for inspection?		1			N4, N2, LPS sites
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?		√			

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 dispar restricted plants Vitis balansaeana and Rhapis excellsa?	uncommon and rare plant or and Ardicia pusilla, and the		~			
EM&A: O2	Are fences erected in accordance with the Hoarding Plan and kept in good condition along the boundary of construction sites to prevent tipping, vehicle movements, and encroachment of personnel into adjacent wooded areas, particularly where the rare, uncommon and restricted plant species are located?			✓			
EM&A: Q3	Has regular checking been perform boundaries are not exceeded and the surrounding areas?		✓				
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?			1			
		Traffic	·	Construction activities inside the site			
	Major noise source(s)	Construction activities outside the site	Others:				

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

NCO: Noise Control Ordinance Cap354: Waste Disposal Ordinance

Cap354c: WDO (Chemical Waste) (General) Regulation

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

Unk: Unknown

Remark			
	 	, -11	

Signatures

ET Member

Contractor's Representative

(Name in Block letters:

Hendry, ST Ho

Assistant Project

Name in Block letters:

The Hongkong Electric Co. Ltd. Lamma Power Station Extension – Construction of Transmission System

	Weekly Site Inspection Checkli	st	-							
Inspection	date 21/09/05 Time 14:00 Inspect	Inspected by			by ET: Hendry Ho					
-		-	Cont	racto	r: Kie					
Site	Transmission Route (Civil Work)									
Weather	<u> </u>									
Condition	Sunny Fine Overcast Hazy		Driz	zle [R	ainSto				
Temperatu	ure 31 °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?		*							
		I				L				
AIR QUAL	ITY									
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks				
	General Requirements					·				
C211D	It also a second of APDD of the second of the selection	· · · · · · · · · · · · · · · · · · ·				<u> </u>				

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks			
	General Requirements	A	L	J					
Cap311R:	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change?	*							
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Has this been observed?	✓							
	Stockpiling of dusty materials		· · · · · · · · · · · · · · · · · · ·						
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?		*			LPS site			
<u> </u>	Miscellaneous								
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?	✓							

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

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?		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)?	~							
Cap354C	Has the Contractor registered as a chemical waste producer?		V						
Cap354C	Is chemical waste handled according to the "Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?	✓							

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: 1.2 ~ 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, 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 dispar restricted plants Vitis balansaeana, and Rhapis excellsa?	ncommon and rare plant r and Ardicia pusilla, and the		V			
EM&A: O2	Are fences erected in accordance win good condition along the bounds 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 th 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 the s		ion act	ivities inside
	Major noise source(s)	Construction activities outside the site	1	Othe	ers: V	illage	vehicle

Abbreviation

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

Signatures

ET Member

Contractor's Representative

(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

Inspection da	te 28/09/05 Time 15:00 Inspect	ry Ho					
Site	Contractor: Kier Transmission Route (Civil Work) Sunny Fine Overcast Hazy Drizzle Rain S		<u> </u>				
Weather				•			-
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	in Ste	orm
Temperature	e 31 °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

Is a copy of EIA report kept in Engineers' and Contractors' offices

AIR QUALITY

VEP 1.6

information?

on site?

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks				
	General Requirements									
Cap311R:	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change?	*								
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Has this been observed?	*								
	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)	ls every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	:	~			LPS site				
	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?		✓			
Cap311	Is black smoke emission from plant/equipment avoided?		✓			

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?		4						
Cap466	Are wastes disposed of at licensed sites?	-	4						
	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?	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"?	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, 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 a species Celtis biondii, Pteris disparestricted plants Vitis balansaeana and Rhapis excellsa?		~				
EM&A: O2	Are fences erected in accordance v in good condition along the bound prevent tipping, vehicle movement personnel into adjacent wooded ar uncommon and restricted plant spe		~				
EM&A: Q3	Has regular checking been perform boundaries are not exceeded and the surrounding areas?			✓	*		
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?			~			
<u> </u>		Traffic	1	Con:		ion act	ivities inside
	Major noise source(s)	Construction activities outside the site	*			'illage	vehicle

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>	7/7.		
	<u>-</u>			
			A. 1900	

Signatures

ET Member

Contractor's Representative

(Name in Block letters:

20th December 2001

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

Inspection	date [Sep 05] Time 9=30 am Inspect	ted By	ET:	h/		(HEC
Site	LMX-Unit9, Merl Eredia Area		Con	tracto	or: <i>1</i> 4	MII CAAA
Weather						
Condition	Sunny Fine Overcast Hazy		Driz	zle	R	ain Ston
Temperatu	re 9°C Humidity High Modera	te	Lov	N		
Wind	Calm Light Breeze Strong					
GENERAL					,	٠.
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		/			
VEP_1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		/	1-		
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements	,	,			
Cap311R: 3	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?	/				
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?		/			
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	/				
	Construction Sites	I		11		L,
EM&A: A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		/			Spraying by 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)	-l	L.,	L	l	
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?	٧.				
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?					
	Loading, unloading or transfer of dusty materials		· · · · · · · · · · · · · · · · · · ·			
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?	/				
EM&A: A1	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?	1	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?	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?		/			Cleaning provider by Paul &
	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?	V				
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?	1				
	Concrete batching plant	·		l.		
EM&A: A2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?					
EM&A: A2	Are dusty materials, except cement and dry PFA, wetted by water spray system?	/			·	
EM&A: A2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?					
	Are all the conveyor transfer points totally enclosed?	· · · · · · · · · · · · · · · · · · ·				

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Miscellaneous	 -			l .	
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?	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?	レ				
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?	し				
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?	V				
	General refuse					
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		V			
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		V			
WMP	Is the refuse disposed of regularly and properly?		\checkmark			
WMP	Are burning of refuse at site and dumping at sea prohibited?		1			
	Chemical Waste					
EM&A: E3	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?					

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
WDO	Has the Contractor been registered as a chemical waste producer?					
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?		/			
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?	· · · · · · · · · · · · · · · · · · ·	/			
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?		~			
	Storage, collection and transportation of waste			·		
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?					· · · · · · · · · · · · · · · · · · ·
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?					
	(1) public fill materials for on-site reuse, or disposal at public filling area;					
	(2) reusable / recyclable materials;	/				
	(3) un-reusable / non-recyclable waste for landfill disposal.		V			
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	·		I	.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 crosion 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?	U				
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	Remark s
	Boring and Drilling Water	1				
PN1/94	Is water that used in ground boring and drilling for site investigation or rock/soil anchoring recirculated as far as possible after sedimentation? If there is a need for final disposal, is the wastewater discharged into storm drains via silt removal facilities?	V				
	Wheel Washing Water					
PN1/94	Is a wheel-washing bay provided at every exit if practicable and is the silt removed from wash-water before discharging into storm drains?	/				

MARINE ECOLOGY

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

NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: C1	Are working programmes schedu	uled to minimize noise nuisance?		~			
EM&A: CI	Are construction works or equip- nuisance?	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	rottled down?		V			
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		V			
EM&A: C2	holidays, is either one of the followable noise	struction noise during Sunday's and public er one of the following measures adopted? by portable noise barriers at noise sources or ng of some powered mechanical equipment to less me periods?		\ <u></u>			
EM&A: C3	To mitigate night time constructi equipped with silencers or muffle		0				
NCO	Are valid construction noise perminspection?	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	V			•,	
	Maior noise source(s)	☐ Traffic -	Û, C	Construction activities inside the			
	Major noise source(s)	☐ Construction activities outside the site	Others				

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

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

Inspection	date Time 3730 Inspec	ted By		W.		(HEC)
Site	LMX - Unit 9 Meth. Exection Avail		Con		στ. _[./.]	F. KING (TOK)
Weather						
Condition	Sunny Fine Overcast Hazy		Driz	zle	R	ain Stor
Temperatu	rre 30 °C Humidity 1 High Modera	te _	Lo	w		
Wind	Calm Light Breeze Strong					
GENERAL		•				٠,
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	.d		<u> </u>	·	
EM&A:	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		1			Spraying Br P.Y.
·-··	Stockpiling of dusty materials					" <u>} 1311</u>
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)					
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?	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?		✓			Cleaning Provided By P.X.
	Transfer of dusty materials using a belt conveyor system					.)
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?	✓				
Cap311R: Sch 20(2)	Is every transfer point between any two-belt conveyors totally enclosed?	✓				
Cap311R: Sch 20(3)	Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?	✓				
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?	✓				
	Concrete batching plant					
EM&A: A2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?	✓				
EM&A: A2	Are dusty materials, except cement and dry PFA, wetted by water spray system?	√				
EM&A: A2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	\checkmark				·
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?		<u> </u>			
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				٠.
ЕМ&А: ЕЗ	Are wastes disposed of at licensed sites?	V 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?	✓				
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	1				
EM&A: E3	Are wastes disposed of at licensed sites?	/				
	General refuse	•		•		
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		/			
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		✓			
WMP	Is the refuse disposed of regularly and properly?		/			
WMP	Are burning of refuse at site and dumping at sea prohibited?		\checkmark			
	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?		V						
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?		√						
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?		/						
	Storage, collection and transportation of waste								
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?		/	,					
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?								
	(1) public fill materials for on-site reuse, or disposal at public filling area;	✓							
	(2) reusable / recyclable materials;	/							
, , , , , , , , , , , , , , , , , , , ,	(3) un-reusable / non-recyclable waste for landfill disposal.		1						
ЕМ&А: Е3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?		~						

WATER QUALITY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off					
PN1/94	Are the silt removal facilities, channels and manholes maintained and the deposited silt and grit removed regularly?					
PN1/94	Are earthworks final surfaces well compacted and the subsequent permanent work or surface protection carried out immediately after the final surfaces are formed to prevent crosion caused by rainstorms? Is appropriate drainage like intercepting channels provided where necessary?	/				
PN1/94	Are measures taken to minimize the ingress of rainwater into trenches? Is rainwater pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?	✓				
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	1	<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?					

NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks	
EM&A: Cl	Are working programmes schede	uled to minimize noise nuisance?		/				
EM&A: Cl	Are construction works or equip- nuisance?	ment sited to minimize noise		/				
EM&A: C1	Are all plant and equipment main conditions?	ntained in good operating		/				
EM&A: C1/GP	Is idle equipment turned off or th	nrottled down?		/	**********			
EM&A: Cl	Are methods of working devised nuisance?	and arranged to minimize noise		✓				
EM&A: C1)	Are construction works carried o nuisance?	ut in a manner to minimize noise		/				
EM&A: C2	To mitigate construction noise de holidays, is either one of the folka) Mitigation by portable noise b) Rescheduling of some power sensitive time periods?	owing measures adopted?		v [′]				
EM&A: C3	To mitigate night time constructi equipped with silencers or muffle		/					
NCO	Are valid construction noise perminspection?	nits, if required, available for	/					
NCO	Are conditions of construction no relevant part(s) of the works imp		✓					
NCO	Are valid noise emission labels fi held percussive breakers?	ixed at air compressors and hand		/			•.	
	N	☐ Traffic	07 (Constru site	iction	activit	ies inside the	
	Major noise source(s)	Construction activities outside the site	Others					

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: APC (Open Burning) Regulation Air Pollution Control Ordinance Waste Disposal Ordinance Cap3110: WDO: Cap311: PN1/94: Practice Note for Professional Persons (Construction Site Drainage) Unk: Unknown Remark Signatures Contractor's Representative ET Member (Name in Block letters: Manje in Block letters:

Wish

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

Inspection	date 15 Sep 25 Time 2 7:30 Inspect	ted By	ET:		W. Si	
Site	LMY- Unity Mech Theritan Answ		Con	racio	or: _{W.}]	t Kinde (TDK)
Weather						
Condition	Sunny Fine Overcast Hazy		Driz	zle [R	ain Storm
Temperatu	re 1 °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 QUALI	<u></u>	DV/A	V	N.	11	n
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?		\rightarrow \tag{\tau}			
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: Al	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?			7		By 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)	1	·		•	
Cap311R:	Are the storage silos for cement or dry PFA prevented from		T			
Sch 15(3)	overfilling?	1				
Cap311R:	Are the handlings of cement or dry PFA through a totally enclosed					
Sch 15(4)	system equipped with air pollution control equipment at the vent of the system?	1				
	of the system:					
Cap311R:	Is bulk cement or dry PFA stored in a closed silo fitted with a					
Sch 15(2)	high-level alarm?	./				
Cap311R:	Are the cement, dry PFA or other dusty materials collected by the					
Sch 17	air pollution control equipment disposed of in totally enclosed containers?	1				
	containers?					
	Loading, unloading or transfer of dusty materials		I	<u> </u>		
Cap311R:	Are dusty materials, except cement and dry PFA, sprayed with					
Sch 19	water immediately prior to any loading, unloading or transfer	/				
	operation?					
EM&A:	Are the dropping heights of the fill materials controlled to a					
A1	practical level to minimize fugitive dust emission?				Í	
	Use of vehicles	1				
Cap311R:	Is every load of dusty material on the vehicles leaving the	T 1		Т	1	
Sch 21(2)	construction site covered entirely by clean impervious sheeting?					
EM&A:						
A1 Cap311R:	Is every vehicle wheel-washed by the wheel washing facilities to	-				11
Sch 21(1)	remove any dusty materials from its body and wheels before					in 1-1
	leaving the construction site?				-	اجماله
		<u>L1</u>				Ry Pr.
	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?					•.
	the top and 2 states.			1		
Cap311R:	Is every transfer point between any two-belt conveyors totally					
Sch 20(2)	enclosed?	🗸				
Cap311R:	Is a belt scraper or equivalent device installed at the head pulley of					
Sch 20(3)	every conveyor? Is the belt scraper equipped with bottom plates					
	or similar means to prevent falling of materials from the return belts?	$ \checkmark $				
•						
Cap311R:	Are stockpiling conveyors equipped with level adjusting					
Sch 20(4)	mechanism to maintain the dropping height within 1 m?	 				
	Concrete batching plant	· · · · · · · · · · · · · · · · · · ·			t.	
EM&A:	Are the loading, unloading, handling, transfer or storage of any			ī	1	
A2	dusty materials carried out in a totally enclosed system?					
EM&A:	Are dusty materials, except cement and dry PFA, wetted by water	<u> </u>		-		
	spray system?				1	
AZ						
	Assall the sections because and the devices (2) it as a constant					
EM&A:	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?			.		
A2 EM&A: A2 EM&A:	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point? 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?		1			

WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials			<u> </u>	·	<u> </u>
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	✓				
WMP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	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?	1				
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	/			·	
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?	1				
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?	<i>J</i>				
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?	V				
	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?		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?		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"?		/			
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?		V			
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?					. M
	(1) public fill materials for on-site reuse, or disposal at public filling area;	1				
	(2) reusable / recyclable materials;	1				
	(3) un-reusable / non-recyclable waste for landfill disposal.		~			
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?		/			

WATER QUALITY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off		L	L	<u> </u>	
PN1/94	Are the silt removal facilities, channels and manholes maintained and the deposited silt and grit removed regularly?	1				٠,
PN1/94	Are earthworks final surfaces well compacted and the subsequent permanent work or surface protection carried out immediately after the final surfaces are formed to prevent crosion caused by rainstorms? Is appropriate drainage like intercepting channels provided where necessary?	/				
PN1/94	Are measures taken to minimize the ingress of rainwater into trenches? Is rainwater pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?	/				
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	 	1		 	
PN1/94	Is water that used in ground boring and drilling for site investigation or rock/soil anchoring recirculated as far as possible after sedimentation? If there is a need for final disposal, is the wastewater discharged into storm drains via silt removal facilities?	/				
	Wheel Washing Water	T			1	
PN1/94	Is a wheel-washing bay provided at every exit if practicable and is the silt removed from wash-water before discharging into storm drains?	/				

MARINE ECOLOGY

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

NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: C1	Are working programmes sched	uled to minimize noise nuisance?	 	1			
EM&A: C1	Are construction works or equip nuisance?	ment sited to minimize noise		✓			
EM&A: C1	Are all plant and equipment mail conditions?	ntained in good operating		✓			-
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		~			
EM&A: C1)	Are construction works carried on uisance?	out in a manner to minimize noise		1			
EM&A: C2	holidays, is either one of the followable noise a) Mitigation by portable noise	b) Rescheduling of some powered mechanical equipment to less					
EM&A: C3	To mitigate night time constructi equipped with silencers or muffle		V				
NCO	Are valid construction noise perr inspection?	nits, if required, available for	~				;
NCO	Are conditions of construction no relevant part(s) of the works imp		/				
NCO	Are valid noise emission labels finded percussive breakers?	ixed at air compressors and hand					·.
	Major noise source(s)	□ Traffic		site	iction	activit	ies inside the
	ajor nome source(s)	Construction activities outside the site		thers			

Abbreviation VEP: Varied Environmental Permit WMP: Waste Management Plan EM&A: EM&A Manual (Construction Phase) APC (Construction Dust) Regulation APC (Open Burning) Regulation Cap311R: NCO: Noise Control Ordinance Cap3110: 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 (Name in Block letters: (Name in Block letters:

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

	date 21/9/2005 Time 1C=40 Inspect	ed By	ET:		///	Cain lan Chan
Site	U9 LMX Mech Erection		Con	· act	- 4	ian Lagra
Veather						
Condition	Sansy Pine Overcest Heavy		Driz	zie į	R	ain Spi
Temperati	ere 32 °C Humidity / High Madata	is [Lov	,		
Wind	Calm Light Brezze Strong					
ENERAL						
Ref.	Checklist Condition	N/A	Yes	No	Unk	Ramarks
VEP 1.5	Has a copy of the most update flavironmental 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?		J			
Ref.	Cherklist Condition	N/A	Yes	,,,,	T !I-	Remarks
					CARRE	CONTRACTOR INC.
Cap311R:	General Requirements		İ		Care	- CANDARA
	General Requirements Has the contractors socified EPD of the construction site which is classified as a socifieble work to a specified form? If there is any change in the notice, do the contractors notify EPD of the change?	✓		.X•	CARE	COMMA
CapSilRr	Has the contractors actified EPD of the construction site which is classified as a mulifiable work is a specified form? If there is any	✓	\ \			- CATION AS
3 Cap311Rr Sch 12(3)	Has the contractors sotified EPD of the construction site which is classified as a sotifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change? A compressed sit jet shall not be used for eleaning or clearing dust from any vehicle, equipment, other materials or person. It this	\ \ \	✓			
3 Cap311Rr Sch 12(3)	Has the contractors sotified EPD of the construction site which is classified as a sotifieble work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change? A compressed sir jet shall not be used for eleaning or clearing dust from any vehicle, equipment, other materials or gereen. Is this observed? Do the contractors possess valid Air Pollution Control Specified Processes Licerace for the contract beighing plans wherever	\rangle \rangle	✓	Ne		
Cap311Ri Sch 12(3) Cap311 Cap311	Has the contractors sotified EPD of the construction site which is classified as a sotified every thing of the contractors notify EPD of the change? A compressed sit jet shall not be used for eleaning or clearing dust from any vehicle, equipment, other materials or gereen. Is this observed? Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the contracts beighing plans wherever applicable and have it available for inspection?	\rangle \rangl	- - - - - -			المر المناطق
Cap31[Rr Sch 12(3) Cap311	Has the contractors sotified EPD of the construction site which is classified as a sotifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change? A corapressed sir jet shall not be used for eleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed? Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the contract batching plans wherever applicable and have it available for inspection? Construction Sites Are hauf reads gaved with concrete or sprayed with water to keep		· · · · · · · · · · · · · · · · · · ·		Lone	Fry by

Page 1 of 7

^{* 45 4 4 1 /} C: Documents and Settings/English/My Documents/UP Safety Management/S-05 Inspection programme/Weskity Site (aspection Checkles-Line

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized fuel ash (PFA)	·	•			·
Cap311R: Sch 15(3)	Are the storage silos for cement or dry PFA prevented from overfilling?					
Cap311R: Sch 15(4)	Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system?	1				
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?	1				
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	V				
	Loading, unloading or transfer of dusty materials				-	
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?					
EM&A: A1	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?	J				
	Use of vehicles ·					
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?					:
Cap311R: Sch 21(1)	Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?					Clearing provided by
	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?	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	·		I	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?					
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?		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			1		·
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?					
WMP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	1				• ,
EM&A: E3	Are wastes disposed of at licensed sites?					
	Construction Waste and Excavated Materials					
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	/				
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?					
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?	1				·
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?	1				
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	1				
EM&A: E3	Are wastes disposed of at licensed sites?	V				
	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?		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)?	1				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
WDO	Has the Contractor been registered as a chemical waste producer?	1	1			
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?		/			
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?		1			
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?					
	Storage, collection and transportation of waste	1				
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?		1			
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?					
	(1) public fill materials for on-site reuse, or disposal at public filling area;	1				
	(2) reusable / recyclable materials;					
	(3) un-reusable / non-recyclable waste for landfill disposal.		J			
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				٠.
PN1/94	Are earthworks final surfaces well compacted and the subsequent permanent work or surface protection carried out immediately after the final surfaces are formed to prevent crosion caused by rainstorms? Is appropriate drainage like intercepting channels provided where necessary?					
PN1/94	Are measures taken to minimize the ingress of rainwater into trenches? Is rainwater pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?	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?	/				
	Groundwater		/			
PN1/94	Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?					

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

MARINE ECOLOGY

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

NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks		
EM&A: C1	Are working programmes 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?			1					
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?			V					
NCO	Are valid noise emission labels fixed at air compressors and hand held percussive breakers?								
	M.i. and an analysis	☐ Traffic ·	Construction activities inside the site						
	Major noise source(s)	Construction activities outside the site	Others						

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

Dan Chan

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

Inspection	late 29 Sep 05 Time 09:30 Inspect	ed By	ET:	W.		(HE				
Site [MY-U] Medi Frection Asa.										
Veather				The section of the se						
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	iin Stor				
Temperatu	re C Humidity High Moderat	te _	Lov	v						
Wind	Calm Light Breeze Strong				٠					
GENERAL						**************************************				
Ref.	Checklist Condition		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?		✓							
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks				
	General Requirements	<u> </u>	L	<u></u>	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									
EM&A: A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		/			Spraying R. P. T				
	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?	~								

Page 1 of 7

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					
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?	~				
EM&A: A1	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?	~			-	
	Use of vehicles					
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	/				
Cap311R: Sch 21(1)	Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?		~			Cleaning Provided Property
	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?	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?	~				
	Are dusty materials, except cement and dry PFA, wetted by water					
EM&A: A2	spray system?	/		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?		V			

WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials				A	<u> </u>
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	~				
WMP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	V				
EM&A: E3	Are wastes disposed of at licensed sites?	/				
	Construction Waste and Excavated Materials					
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	~				
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	~				
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?	1				
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?	1				
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	~				
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?		\ <u>\</u>			
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?		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)?		1			

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
WDO	Has the Contractor been registered as a chemical waste producer?		/			
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?		~			
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?		1			
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?		~			
	Storage, collection and transportation of waste		1		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;	V				
	(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?	V				
	Groundwater	ļ		ļ		
PN1/94	Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?	/				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Boring and Drilling Water				1	
PN1/94	Is water that used in ground boring and drilling for site investigation or rock/soil anchoring recirculated as far as possible after sedimentation? If there is a need for final disposal, is the wastewater discharged into storm drains via silt removal facilities?	~				
	Wheel Washing Water					
PN1/94	Is a wheel-washing bay provided at every exit if practicable and is the silt removed from wash-water before discharging into storm drains?	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?	~				
EM&A: G2	Do the marine vessels moving to and from the construction site strictly follow the routes stated in the "Plan for Dredging & Reclamation, Routing of Construction Related Marine Vessels, and Installation of Silt Curtain"?					
EM&A: G3	Is rubble mound seawall constructed to the south and west edges of the reclamation to enhance recolonisation of marine organisms?	_				

NOISE -

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: C1	Are working programmes schedu	led to minimize noise nuisance?		1/			
EM&A: C1	Are construction works or equipmuisance?	nent sited to minimize noise		~			
EM&A: C1	Are all plant and equipment mair conditions?	tained in good operating		/			
EM&A: C1/GP	Is idle equipment turned off or th	rottled down?					
EM&A: C1	Are methods of working devised nuisance?	and arranged to minimize noise					
EM&A: C1)	Are construction works carried o 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 constructi equipped with silencers or muffle		_				
NCO	Are valid construction noise perminspection?	nits, if required, available for	~				
NCO	Are conditions of construction no relevant part(s) of the works imp		/				
NCO	Are valid noise emission labels f held percussive breakers?	ixed at air compressors and hand		/			
	Major paiga sourge(s)	☐ Traffic	Ø	Constr site	uction	activi	ties inside the
	Major noise source(s)	Construction activities outside the site	0	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 (Con Unknown	EM&A: EM&A Manual (Construction Phase) NCO: Noise Control Ordinance WDO: Waste Disposal Ordinance struction Site Drainage)
Remark	and the second of the second o	
Signatures		
ET Member	Contractor's Represen	ntative

W.SIV

(Name in Block letters:

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

Inspection	date $7 SEP Joos$ Time $9:2 h_{PS}$ Inspect	ted By		1.7.	CHIN	1PDE
Site	LMX- 19 Electrical Greating Area.		Coni	racto	r: PE	TER CHENG /
Weather		*************************************				
Condition	Sunny Fine Overcast Hazy		Driz	zle [R	ain Stor
Temperatu	ure Tro	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?		1			
AIR QUAL	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements	<u> </u>	<u> </u>	J		<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?		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	٠			<u> </u>	.L
EM&A: Al	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		V			Provided By
	Stockpiling of dusty materials	1		1	<u> </u>	1 I WIALA DO
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?	1				
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?	1				
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	/				
	Loading, unloading or transfer of dusty materials	1	ı	1		
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?	V				74-1-1-1-1
	Use of vehicles					<u> </u>
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 Wed Provided by
	Transfer of dusty materials using a belt conveyor system	<u> </u>		L		8
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?	V				
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within I m?	\checkmark				
	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?	V				
EM&A: A2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	٧				
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 sealed and hydroseeded and planted as soon as possible?	V				
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?	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?					
	Construction Waste and Excavated Materials					
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	V				
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	1				
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?	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?	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?		V			
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	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?							
	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) 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?	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?	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?	V				
DN14/04	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?	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?	J				
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	Are working programmes schedu	uled to minimize noise nuisance?		V			
EM&A: C1	Are construction works or equiponuisance?	ment sited to minimize noise		V			
EM&A: Cl	Are all plant and equipment main conditions?	ntained in good operating		V			
EM&A: C1/GP	Is idle equipment turned off or the	rottled down?		1			
EM&A: Cl	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		√			
EM&A: C2	To mitigate construction noise de holidays, is either one of the folloa) Mitigation by portable noise b) Rescheduling of some power sensitive time periods?	owing measures adopted?		V			
EM&A: C3	To mitigate night time constructi equipped with silencers or muffle		v				
NCO	Are valid construction noise perr inspection?	nits, if required, available for	1				
NCO	Are conditions of construction no relevant part(s) of the works imp	V					
NCO	Are valid noise emission labels fixed at air compressors and hand held percussive breakers?						
	Maior poigo convecto	☐ Traffic	ū	Consti site	ructio	n activ	ities inside the
	Major noise source(s)	Construction activities outside the site		Other	s		

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 (Construction Unknown	NCO: WDO:	EM&A Manual (Construction Phase) Noise Control Ordinance Waste Disposal Ordinance Orainage)
Remark			
4 1443			AMPA
			•
Signatures			
ET Member	Contractor's Representat	ive	

12th January 2005

CHINTOL FU)

SANKO.

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

Inspection of	date 4SP2065 Time 9:15 hrs. Inspect	ed By	ET:	7	7. CH	1111 / PPZ-
Site	LMX - L9 Heetrical Breation Area		Conti	racto	r: <i>PE</i>	TER CHENG
Weather		······································				
Condition	Sunny Fine Overcast Hazy		Drizz	zle [Ra	ain Stori
Temperatu	tre[30] °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?		V			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		/			
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements	<u> </u>		1	<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					
EM&A: A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		J			Pareled By
·	Stockpiling of dusty materials	1	<u>'</u>		I	1 100
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?	1				
Cap311R: Sch 15(4)	Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system?	1				
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?	J				
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	.t	4	1		
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?	V				
	Use of vehicles	1			<u>I</u>	I
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?		/			Whee Wad
	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?	✓				
Cap311R: Sch 20(3)	Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?	/				
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?	V				
	Concrete batching plant	-				
EM&A: A2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?	V				
EM&A: A2	Are dusty materials, except cement and dry PFA, wetted by water spray system?	V				
EM&A: A2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	1				
EM&A: A2	Are all the conveyor transfer points totally enclosed?	V				
				•		

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Miscellaneous					
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?	V				
Cap311O	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?	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?	V								
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	/	1 11			West 1 8 1				
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?	1								
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?	V								
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	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?		V							
WMP	Is the refuse disposed of regularly and properly?		1							
WMP	Are burning of refuse at site and dumping at sea prohibited?		V	<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)?	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?	V	•			e=u		
-,	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		
ia/Univ	(1) public fill materials for on-site reuse, or disposal at public filling area;							
	(2) reusable / recyclable materials;							
	(3) un-reusable / non-recyclable waste for landfill disposal.	1				· ************************************		
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?	/						

WATER QUALITY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off					
PN1/94	Are the silt removal facilities, channels and manholes maintained and the deposited silt and grit removed regularly?	/				
PN1/94	Are earthworks final surfaces well compacted and the subsequent permanent work or surface protection carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms? Is appropriate drainage like intercepting channels provided where necessary?	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?	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?	/				
	Groundwater					
PN1/94	Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?	V				

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

MARINE ECOLOGY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: G1	Are all percussive piling works conducted on reclaimed land to avoid noise impact to marine mammals?	1/				· · · · · · · · · · · · · · · · · · ·
EM&A: G2	Do the marine vessels moving to and from the construction site strictly follow the routes stated in the "Plan for Dredging & Reclamation, Routing of Construction Related Marine Vessels, and Installation of Silt Curtain"?	1				
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: CI	Are working programmes schedu	led to minimize noise nuisance?		V			
EM&A: CI	Are construction works or equipr nuisance?	ment sited to minimize noise		V			
EM&A: CI	Are all plant and equipment main conditions?	ntained in good operating		V			``\
EM&A: C1/GP	Is idle equipment turned off or th	rottled down?		/			····
EM&A: C1	Are methods of working devised nuisance?	and arranged to minimize noise		J			
EM&A: C1)	Are construction works carried on nuisance?	ut in a manner to minimize noise		V			
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?		V			
EM&A: C3	To mitigate night time constructi equipped with silencers or muffle		V				
NCO	Are valid construction noise perminspection?	nits, if required, available for	√				
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	V				
	Major noise source(s)	☐ Traffic	□Z′	Const site	ructio	n activ	ities inside the
	major noise source(s)	Construction activities outside the site	Others				

Abbreviation				
VEP: WMP: Cap311R: Cap311O: Cap311: PN1/94: Unk:	Varied Environmental Permit Waste Management Plan APC (Construction Dust) Regulation APC (Open Burning) Regulation Air Pollution Control Ordinance Practice Note for Professional Persons (County)	NCO: WDO:	EM&A Manual (Construction Phase) Noise Control Ordinance Waste Disposal Ordinance Orainage)	
Remark				
		·		_
				_
				_
more or .				
Signatures				-
ET Member	Contractor's Repr	esentative		

(Name in Block letters:

CHILL TOI FU)

PAC

12th January 2005

PETER CHEVA) SANKO

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

Inspection d	ate DISEP DOS Time 10 do has Inspect	ed By	ET:			/PDE
Site	[MX-L] Electrical Bratis Area		Com	Tacto	1. <u>C.</u> /	1.40 /smko
Weather						
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	sin Storm
Temperatu	re 20 °C Humidity ✓ High Moderat	te	Lov	٧		
Wind	Calm C 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			1		<u></u>
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements	· · · · · · ·				
Cap311R: 3	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?	V				
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?					
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?					
	Construction Sites					
EM&A: A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		1			Note Spraying Provided By Paul
	Stockpiling of dusty materials					<i>d</i> '
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)	ı			r.	
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?	V		1		
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	/				
	Loading, unloading or transfer of dusty materials	<u>'</u>			L	,
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?	レ				
EM&A: A1	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?	/				
••••	Use of vehicles	J		<u> </u>		<u> </u>
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?		/			the Westi Providally
	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?	1				
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?	V				
	Concrete batching plant					•
EM&A: A2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?	~				
EM&A: A2	Are dusty materials, except cement and dry PFA, wetted by water spray system?	V				
EM&A: A2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	7				
EM&A: A2	Are all the conveyor transfer points totally enclosed?	2				

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				
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					
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	U				
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?	U				
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	1				
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?	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?	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?		ν			
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		V			
WMP	Is the refuse disposed of regularly and properly?		1			
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)?	J				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks			
WDO	Has the Contractor been registered as a chemical waste producer?	V							
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?	V							
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?	6							
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?	V							
	Storage, collection and transportation of waste								
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?		J						
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?	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							

WATER QUALITY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off	L				
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?	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?	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?	1				
	Groundwater					
PN1/94	Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?	V				

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
****	Boring and Drilling Water				<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?	0	,			
	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"?	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	led to minimize noise nuisance?		~			,
EM&A: C1	Are construction works or equiprinuisance?	nent sited to minimize noise		7			***
EM&A: C1	Are all plant and equipment main conditions?	tained in good operating		v			
EM&A: C1/GP	Is idle equipment turned off or th	rottled down?		1			
EM&A: C1	Are methods of working devised nuisance?	and arranged to minimize noise		V			
EM&A: C1)	Are construction works carried or nuisance?	ut in a manner to minimize noise		1			
EM&A: C2	To mitigate construction noise du holidays, is either one of the follo a) Mitigation by portable noise b) Rescheduling of some powe sensitive time periods?		1				
EM&A: C3	To mitigate night time construction equipped with silencers or muffle		V				
NCO	Are valid construction noise perm inspection?	nits, if required, available for	V				AMANUAL III A
NCO	Are conditions of construction no relevant part(s) of the works impl		V				
NCO	Are valid noise emission labels fi held percussive breakers?	xed at air compressors and hand	1	/			
		☐ Traffic	Q	Consti	ructio	n activ	ities inside the
	Major noise source(s)	Construction activities					
		outside the site					

Abbreviation VEP: Varied Environmental Permit EM&A: EM&A Manual (Construction Phase) WMP: Waste Management Plan Cap311R: Noise Control Ordinance APC (Construction Dust) Regulation NCO: Cap311O: 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 IEC's Representative ET Member Contractor's Representative This site inspection was carried out in the presence of IEC's representative

(Name in Block letters:

CHIUTOIFU C.M. LO

(Name in Block letters:

PDG

SANKO,

)

12th January 2005

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

Inspection	23 29 113	ea By			r: 5a	
Site	LMX-19 Electrical Erection Broa					acco.
Veather						
Condition	Sunny Fine Overcast Hazy		Drizz	zle [Ra	in Sto
Temperatu	rre 29°C Humidity High Moderat	e	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?		V			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?]	/			
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
						L
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?	V				
Cap311R: Sch 12(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	V	V			
Sch 12(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? A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this	V	~			
Sch 12(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? A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed? Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever	V	~			
Sch 12(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? A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed? Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	V				
Cap311 EM&A:	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change? A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed? Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection? Construction Sites Are haul roads paved with concrete or sprayed with water to keep	V				

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?									
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?	<i>i</i> /								
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?	1								
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	V								
	Loading, unloading or transfer of dusty materials									
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?	レ								
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	<i>.</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?		V			Paul Y				
	Transfer of dusty materials using a belt conveyor system	I								
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?									
Cap311R: Sch 20(2)	Is every transfer point between any two-belt conveyors totally enclosed?	~								
Cap311R: Sch 20(3)	Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?	~								
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?	V								
	Concrete batching plant	L		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?	/								
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?		<u></u>					
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?	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?	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									
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	1									
EM&A: E3	Are wastes disposed of at licensed sites?										
	General refuse										
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		~								
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		/								
WMP	Is the refuse disposed of regularly and properly?		/								
WMP	Are burning of refuse at site and dumping at sea prohibited?		/								
	Chemical Waste										
EM&A: E3	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?										

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks			
WDO	Has the Contractor been registered as a chemical waste producer?	~							
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?	i/							
	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) public fill materials for on-site reuse, or disposal at public filling area;								
	(2) reusable / recyclable materials;								
	(3) un-reusable / non-recyclable waste for landfill disposal.								
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?	/							

WATER QUALITY

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

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?					
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?		<i>'</i>			

NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: C1	Are working programmes schedu	uled to minimize noise nuisance?		v			
EM&A: C1	Are construction works or equip nuisance?	ment sited to minimize noise		/			
EM&A: C1	Are all plant and equipment main conditions?	ntained in good operating		V			
EM&A: C1/GP	Is idle equipment turned off or th	nrottled down?		ン			
EM&A: C1	Are methods of working devised nuisance?						
EM&A: C1)	Are construction works carried on nuisance?	-	1				
EM&A: C2	To mitigate construction noise di holidays, is either one of the followal Mitigation by portable noise b) Rescheduling of some power sensitive time periods?		V	(
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	/				
NCO	Are conditions of construction no relevant part(s) of the works imp	oise permits, if any, for the lemented accordingly?	/				
NCO	Are valid noise emission labels f held percussive breakers?	1					
	Maintenance	□ Traffic	₽/c	onstru site	iction	activit	ies inside the
	Major noise source(s)	☐ Construction activities outside the site	□ о	thers			

Abbreviation

VEP:

Varied Environmental Permit

WMP:

Waste Management Plan

Cap311R: Cap311O: Cap311:

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

PN1/94:

Air Pollution Control Ordinance Practice Note for Professional Persons (Construction Site Drainage)

Unk:

Unknown

Remark			

NCO:

WDO:

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

Noise Control Ordinance

Waste Disposal Ordinance

Signatures

ET Member

Contractor's Representative

(Name in Block letters:

T.H.LAU

U.L.U

Name in Block letters:

12th January 2005

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

	tate $(9/9/05)$ Time (0.00) inspect	led by	Cont	racto	<u>r. (</u>	PONG POWER SESTE
Site	ONISIDE LANDING POINT 4 8 NJ	•				
Veather						
Condition	Sunny Fine Overcast Hazy		Driza	zle [Ra	in Storm
Temperatu	re 2♀ °C Humidity High ✓ Moderat	te	Low	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?		✓			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		/			
IR QUALI	TY					
IR QUALI	TY Checklist Condition	N/A	Yes	No	Unk	Remarks
-	I	N/A	Yes	No	Unk	Remarks
Ref.	Checklist Condition	N/A	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		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? Stockpiling of dusty materials		Yes	No	Unk	Remarks
Cap311R: Cap311R: Cap311R: Cap311R: 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: Cap311R: Sch 12(3)	Checklist Condition General Requirements Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? 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	✓ ✓	Yes	No	Unk	Remarks
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?	✓ ✓	Yes	No	Unk	Remarks
-	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	\(\sigma \)	Yes	No	Unk	Remarks

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?		✓			
Cap466	Are wastes disposed of at licensed sites?		1			
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	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?	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?	S				

N	О	IS	E

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?	V				
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?	/				
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	monitored to avoid impact on the species Celtis biondii, Pteris dis	t landing points N4 & N5 closely e uncommon and rare plant par and Ardicia pusilla, and the na, Pterospermum heterophyllum	V	so			
EM&A: O2	in good condition along the bou prevent tipping, vehicle moveme	ents, and encroachment of areas, particularly where the rare,	✓				
EM&A: Q3	Has regular checking been performed boundaries are not exceeded and surrounding areas?	ormed to ensure that the work site if that no damage occurs to	V				
EM&A: Q4	Is open fire prohibited and preve boundary during construction? I equipment provided in the work	s temporary fire fighting	V				
		☐ Traffic	Con		ructio	n activ	ities inside the
	Major noise source(s)	Construction activities outside the site		site Other:	s		

Abbreviation VEP: Varied Environmental Permit EM&A: EM&A Manual (Construction Phase) APC (Construction Dust) Regulation Noise Control Ordinance Cap311R: NCO: APC (Open Burning) Regulation Air Pollution Control Ordinance Cap354: Waste Disposal Ordinance Cap354c: WDO (Chemical Waste) (General) Regulation Cap3110: Cap311: Cap466: Dumping at Sea Ordinance Unk: Unknown Remark Signatures ET Member Contractor's Representative

Page 4 of 4

(Name in Block letters:

Yuzñ

RZRR'

(Name in Block letters:

CK WanG

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

Inspection d	ate [16/09/2005] Time [11:00] Inspect	ed by	ET:	K	W.X	UNG POWER SYS	
Site	ONÉSIDE LANDING POINÍ II 2N5	l	Cont	acto	1. <i>J- f</i>	COLLER SYS	yzms.
Weather							1
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	in Store	n
Temperatur	re 🔀 °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?		/				
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		/				
AIR QUALI	TY	1 1		No	T.,		
	Checklist Condition	N/A	Yes	1110	Unk	Remarks	
		N/A	Yes	140	Unk	Remarks	
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?	N/A	Yes	110	Unk	Kemarks	
Cap311R: Cap311R: Sch 12(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? If yes, did the contractors notify EPD of the		Yes		Unk	Remarks	
Cap311R: Sch 12(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? 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		Yes		Unk	Remarks	
Cap311R:	General Requirements Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change? 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		Unk	Remarks	
Cap311R: Sch 12(3) Cap311R: Sch 18 EM&A:J1	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		Yes		Unk	Remarks	
Cap311R: Sch 12(3) Cap311R: Sch 18	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?		Yes		Unk	Remarks	
Cap311R: Sch 12(3) Cap311R: Sch 18 EM&A:J1	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		Yes		Unk	Remarks	

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
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	<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?		/			Ink Remarks
	Construction Waste and Excavated Materials					
Cap354	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	/				
Cap354	Are wastes disposed of at licensed sited?	1				
	Chemical Waste					
Cap354C	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?	/				
Cap354C	Has the Contractor registered as a chemical waste producer?	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?					

N	^	. 1	c	E
1.0	ч.	41	•	r.

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

TERRESTRIAL ECOLOGY

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,	J				
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	1				
EM&A: Q4	Is open fire prohibited and preve boundary during construction? Is equipment provided in the work	s temporary fire fighting	/				
		☐ Traffic		Const	ructio	n activ	ities inside the
	Major noise source(s)	Construction activities outside the site		site Other	s		

Abbreviation

VEP: Cap311R: Varied Environmental Permit

Cap311O: Cap311: APC (Construction Dust) Regulation APC (Open Burning) Regulation

Cap466:

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

NCO: Noise Control Ordinance

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

Unk: Unknown

Remark	/	·
N/A		
,		
Signatures	 	

(Name in Block letters:

ET Member

K.W. YLWG)

(Name in Block letters:

Contractor's Representative

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

	" only site inspection officering	-				
Inspection d			ET:	racto	K 0 r: J-	NONG PONECS
Site	OUTSIDE LANDING POINT II & N	J				ı
Weather						
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	ain Sto
Temperatu	re 28°C Humidity High Moderat	te [Lov	v		
Wind	Calm Light Breeze Strong	741	phoo	n S	igno	al No.
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?		/			
		·	·	·		<u> </u>
AIR QUALI	TY 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?	V				
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Has this been observed?	V				
	Stockpiling of dusty materials					
Cap311R: Sch 18 EM&A:J1	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?	V				
	Use of vehicles					
Cap311R: Sch 21(2)	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	V				
	NC					<u></u>

Are completed earthworks sealed and hydroseeded and planted as

soon as possible?

Cap311R: Sch 16

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

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?		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		··········			L
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"?	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?	/				

I	N		91		ш
1	7	м		. 7	r

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?	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?	/				

TERRESTRIAL ECOLOGY

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	Are fences erected in accordance in good condition along the bour prevent tipping, vehicle moveme personnel into adjacent wooded uncommon and restricted plant s	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	1				
EM&A: Q4	Is open fire prohibited and preve boundary during construction? Is equipment provided in the work	temporary fire fighting	1				
		П	l led				
	Major paice source(s)	☐ Traffic		Const.	ructio	n activ	ities inside the
	Major noise source(s)	Construction activities outside the site		Other	s		

Abbreviation

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

(Name in Block letters:

(Name in Block letters)

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

Inspection of	tate $20/9/9$ Time $10:00am$ Inspect	ted by	ET:	CI	< Wa	NG POWER SYS
Site	Outside landing Point II & N5		Cont	racto	r.) - j	YOWZR SYS
Veather						······································
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	nin Storm
Temperatu	re 27°C Humidity High Moderat	te	Lov	v		
Wind	Calm Light Breeze Strong					
GENERAL						
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most updated Environmental Permit been displayed at all vehicular site entrances/exits for public information?		~			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		1			
AIR QUALI Ref.	TY Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements	L	Ļ	<u> </u>	l	L
Cap311R:	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change?	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?	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?	V				
	Miscellaneous	L	L	<u> </u>	L	L

Are completed earthworks sealed and hydroseeded and planted as

soon as possible?

Cap311R: Sch 16

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

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?		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?	V				
	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				

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				

N		ıc	Г
N	v	13.	Ŀ

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?	V				
EM&A: L2~L5	Are quiet PMEs (particularly the barge-mounted crane) or PMEs with comparably effective source noise controls used at landing point N5?	V				
NCO	Are valid construction noise permits, if required, available for inspection?	1				!
NCO	Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?	/				
NCO	Are valid noise emission labels fixed at air compressors and hand held percussive breakers?	V				

TERRESTRIAL ECOLOGY

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks			
EM&A: O1	monitored to avoid impact on the species Celtis biondii, Pteris dis	t landing points N4 & N5 closely e uncommon and rare plant par and Ardicia pusilla, and the na, Pterospermum heterophyllum	~							
EM&A: O2	in good condition along the bou prevent tipping, vehicle moveme	ents, and encroachment of areas, particularly where the rare,	V							
EM&A: Q3	Has regular checking been performed boundaries are not exceeded and surrounding areas?	ormed to ensure that the work site I that no damage occurs to	1		-					
EM&A: Q4	Is open fire prohibited and preve boundary during construction? I equipment provided in the work	s temporary fire fighting	/							
		☐ Traffic	Ū	Consti	ructio	n activ	ities inside the			
	Major noise source(s)	Construction activities outside the site		Other	s					

Abbreviation

VEP: Cap311R: Varied Environmental Permit

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

Cap3110: 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		
N/A		
•		
Signatures		
ET Member	Contractor's Representative	

(Name in Block letters:

CK War G

(Name in Block letters:

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

Inspection of	date Z/9/201 Time /0:50 Inspect	ed By				1 /POE
Site	LMX 275KV S/S ERECTION CONTRACT		Conti	racto	r: S /-	i surn/mehk
Weather						
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	ain Storm
Temperatu	re of °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 QUALI	Checklist Condition	N/A	Yes	No	Unk	Remarks
XCI.	General Requirements	14/11	103	110	Olik	Acmarks
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?		/			PROVIOUS BY 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?	/				

Cap311R: Sch 15(3) Cap311R: Sch 15(4) Cap311R: Sch 15(2) Cap311R: Sch 17	Cement and dry pulverized fuel ash (PFA) Are the storage silos for cement or dry PFA prevented from overfilling? 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? Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm? Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers? Loading, unloading or transfer of dusty materials	/ / /			
Sch 15(3) Cap311R: Sch 15(4) Cap311R: Sch 15(2) Cap311R:	overfilling? 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? Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm? Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	/ / / /			
Sch 15(4) Cap311R: Sch 15(2) Cap311R:	system equipped with air pollution control equipment at the vent of the system? Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm? Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	/ /			
Sch 15(2) Cap311R:	high-level alarm? Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	/			
	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?				
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 WA FACILITIES PROJUCIES B PANL 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				
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?		\checkmark			

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?	1									
	Construction Waste and Excavated Materials										
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?										
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	/									
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?										
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?		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?		/			
	Storage, collection and transportation of waste		1	<u></u>	L	
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?					
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?	/				
	(1) public fill materials for on-site reuse, or disposal at public filling area;					
	(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?	V				
	Groundwater					
PN1/94	Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?					

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Boring and Drilling Water	1			 	
PN1/94	Is water that used in ground boring and drilling for site investigation or rock/soil anchoring recirculated as far as possible after sedimentation? If there is a need for final disposal, is the wastewater discharged into storm drains via silt removal facilities?					
	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	iled to minimize noise nuisance?							
EM&A: C1	Are construction works or equipr nuisance?	nent 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	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?	owing measures adopted?		/					
EM&A: C3	To mitigate night time constructive 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 noise source(c)	☐ Traffic	1	Constr site	uction	activi	ties inside the		
	Is idle equipment turned off or the Are methods of working devised nuisance? Are construction works carried on nuisance? To mitigate construction noise of holidays, is either one of the foll a) Mitigation by portable noise b) Rescheduling of some powensitive time periods? To mitigate night time construct equipped with silencers or muffled Are valid construction noise per inspection? Are conditions of construction in relevant part(s) of the works improved the silencers of the works improved the silencers of the works improved the silencers of the works improved the silencers of the works improved the silencers of the works improved the silencers of the works improved the silencers of the works improved the silencers of the works improved the silencers of the works improved the silencers of the works improved the silencers of the works improved the silencers of the silencers of the works improved the silencers of the silencer	Construction activities outside the site		Others					

Abbreviation VEP: Varied Environmental Permit EM&A: EM&A Manual (Construction Phase) WMP: Waste Management Plan Noise Control Ordinance Cap311R: APC (Construction Dust) Regulation NCO: APC (Open Burning) Regulation WDO: Waste Disposal Ordinance Cap3110: 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. UI,

(Name in Block letters: SHSVW)

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

Inspection	date 9/f/>>5 Time /0:00 Inspect	ed By	ET:	ند	. l.	4 (pob	
Site	LMX 275/CV S/S EREOTON CONTRACT		Cont	racto	I: SL	1 SUEN/1	MEHK
Weather							-
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	ain Stor	rm
Temperatu	re → °C Humidity High Modera	te	Lov	,			
Wind	Calm Light Breeze Strong						
GENERAL							
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks	
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?						
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: 3	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?						
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?						
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	/					
	Construction Sites			l			1
EM&A: A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		/			PROVIDED	Ky
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Stockpiling of dusty materials	•		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?	1				
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?	/				
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	/				
	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?		/			DHEEL W FACILITIES PROMPED BAILLY
	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:	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?					
		1			•	
Sch 20(4)	Concrete batching plant	.11				
Sch 20(4) EM&A:	Concrete batching plant Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?					
EM&A: A2 EM&A:	Are the loading, unloading, handling, transfer or storage of any	\rightarrow \right				
	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system? Are dusty materials, except cement and dry PFA, wetted by water	\frac{1}{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?					

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?									
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								
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	7						
	(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?	1				
	Groundwater					
PN1/94	Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?					

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Boring and Drilling Water	1			<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?					

NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: C1	Are working programmes schedu	iled to minimize noise nuisance?		/			
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		V			
EM&A: C1/GP	Is idle equipment turned off or the	sidle 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?		/				
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		/				
NCO	Are valid construction noise perr inspection?	nits, if required, available for					
NCO	Are conditions of construction no relevant part(s) of the works imp		/				
NCO	Are valid noise emission labels fi held percussive breakers?	ixed at air compressors and hand					
	Major noise source(s)	☐ Traffic	Construction activities inside th				
	major noise source(s)		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 (County)	NCO: WDO:	EM&A Manual (Construction Phase) Noise Control Ordinance Waste Disposal Ordinance Prainage)	
Remark				
	MALIEN CONTRACTOR OF THE PROPERTY OF THE PROPE			
Signatures				
ET Member	Contractor's Repr	esentativ e		

12th January 2005

(Name in Block letters:

W.L. U)

(Name in Block letters:

SHSVER,

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

Inspection	date 16/9/201 Time /0:00 Inspect	ed By	Cont	racto	C. 6	1 SUEN/ME
Site	LMX > 75 KU S/S FREETIN CONTRACT				··	1 302~/14p
Weather						
Condition	Sunny Fine Overcast Hazy		Driz	zle [R	ain Storm
Temperati	re[͡͡͡͡͡͡͡͡͡ː 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?	V				
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?		/			
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	0				
	Construction Sites	1				•
EM&A: A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		/			PAULY
	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?		/			PACIOTIES DIPACE 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					
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?	/				
	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?					
WMP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	1				
EM&A: E3	Are wastes disposed of at licensed sites?					
	Construction Waste and Excavated Materials					
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	/				
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	/				
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?					
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?	/				
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	/				
EM&A: E3	Are wastes disposed of at licensed sites?					
	General refuse					
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		/			
WMP	Is general refuse stored within receptacles and separated from chemical wastes?					
WMP	Is the refuse disposed of regularly and properly?		/			
WMP	Are burning of refuse at site and dumping at sea prohibited?					
	Chemical Waste					
EM&A: E3	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?					

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
WDO	Has the Contractor been registered as a chemical waste producer?		/			:
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	I.		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;					
	(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	ļ	ļ <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?	/				
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: CI	Are construction works or equipr nuisance?	nent sited to minimize noise		/			
EM&A: Cl	Are all plant and equipment main conditions?	ntained in good operating					
EM&A: C1/GP	Is idle equipment turned off or throttled 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?	owing measures adopted?		∠			
EM&A: C3	To mitigate night time construction equipped with silencers or muffle	on noise, is dredging equipment ers?	/				
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 raice course(a)	☐ Traffic		Constr site	uction	activi	ties inside the
	Major noise source(s)	Construction activities outside the site					

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 (Co	NCO: WDO:	EM&A Manual (Construction Phase) Noise Control Ordinance Waste Disposal Ordinance Orainage)
Remark			
<u> </u>			
			(100-000)
Signatures			
ET Member	Contractor's Repre	esentative	
	_		

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 of	date $21/9/2005$ Time $10:40 hrs$ Inspect	ed By	ET:	W.	1. V	SUEN/M
Site	LMX 275KU S/S EPREUTON CONTRACT		Com	acto	1	302~/~
Weather						
Condition	Sunny Fine Overcast Hazy		Driza	zle [Ra	nin Stor
Temperatu	rre 30 °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 QUALI Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements			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?	/				
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?		/			PROVIDEDS 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 PROVINES E PAUL Y
	Transfer of dusty materials using a belt conveyor system					
O 211D	Are belt conveyors used for transfer of dusty materials covered on					
Cap311R: Sch 20(1)	the top and 2 sides?					
Sch 20(1) Cap311R:	the top and 2 sides? Is every transfer point between any two-belt conveyors totally					
Sch 20(1) Cap311R: Sch 20(2) Cap311R: Sch 20(3) Cap311R:	Is every transfer point between any two-belt conveyors totally enclosed? 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					
Sch 20(1) Cap311R: Sch 20(2) Cap311R:	Is every transfer point between any two-belt conveyors totally enclosed? 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? Are stockpiling conveyors equipped with level adjusting					
Sch 20(1) Cap311R: Sch 20(2) Cap311R: Sch 20(3) Cap311R:	Is every transfer point between any two-belt conveyors totally enclosed? 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? Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?					
Sch 20(1) Cap311R: Sch 20(2) Cap311R: Sch 20(3) Cap311R: Sch 20(4)	Is every transfer point between any two-belt conveyors totally enclosed? 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? Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m? Concrete batching plant Are the loading, unloading, handling, transfer or storage of any					
Sch 20(1) Cap311R: Sch 20(2) Cap311R: Sch 20(3) Cap311R: Sch 20(4) EM&A: A2 EM&A:	Is every transfer point between any two-belt conveyors totally enclosed? 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? Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m? Concrete batching plant Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system? Are dusty materials, except cement and dry PFA, wetted by water					

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

WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials	•		•		
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	/				
WMP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	/				
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?		/	L		
	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?		/			
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?	/				
	(1) public fill materials for on-site reuse, or disposal at public filling area;					
	(2) reusable / recyclable materials;					
	(3) un-reusable / non-recyclable waste for landfill disposal.					
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?					

WATER QUALITY

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

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

MARINE ECOLOGY

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

NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks	
EM&A: C1	Are working programmes schedu	lled to minimize noise nuisance?		/				
EM&A: C1	Are construction works or equipronuisance?	nent sited to minimize noise		/				
EM&A: C1	Are all plant and equipment main conditions?	tained in good operating		/				
EM&A: C1/GP	Is idle equipment turned off or th	rottled down?		/				
EM&A: C1	Are methods of working devised nuisance?	and arranged to minimize noise		/				
EM&A: C1)	Are construction works carried or nuisance?	ut in a manner to minimize noise		/				
EM&A: C2	To mitigate construction noise du holidays, is either one of the folloa Mitigation by portable noise b) Rescheduling of some powe sensitive time periods?	owing measures adopted?		/				
EM&A: C3	To mitigate night time constructive 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 noise source(s)	☐ Traffic	☑(/ Constr site	uction	activi	ties inside the	
		Construction activities outside the site		Others				

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 Cap311O: APC (Open Burning) Regulation 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 IEC's Representative This site inspection was carried out in the presence of IEC's representative (Name in Block letters: (Name in Block letters:

12th January 2005

W. C.C.

HSiZN

Name in Block I

)

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

Inspection of	ate 2////xoof Time /2-00 Inspect	ea By		racto	r. e. 6	1 Suen/	
Site	LMX 275kU S/S ERRETTON CONFRACT	-	Conc	acto	1	1 3480/] ~ # <i>17</i> 6
Weather Condition	Sunny Fine Overcast Hazy		Driz	-1a [Ra	ain Stor	•
Condition			Diriz: 	zie [111
Temperatu	re → C Humidity High U Moderat	e	Lov	<i>y</i>			
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 Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks]
*******	General Requirements	ŀ	<u> </u>	<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?						
	Construction Sites						
EM&A : A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?			,		PROJECT SPA	BY MING
	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?	/			131	
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?		/			WHEEL WE FACILITIES PROVINCED R PAUL Y
	Transfer of dusty materials using a belt conveyor system	•	•	•		7 - 2 (
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?	/				
	And all the receiving houses analoged on these (2) aides are to 2 are					
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?		,			
Cap3110	Is open burning prohibited?		/		•••	
Cap311	Is black smoke emission from plant/equipment avoided?					

WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks					
	Dredged Materials	•									
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	/									
WMP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	1				<u>.</u>					
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?		1								
WMP	Are burning of refuse at site and dumping at sea prohibited?		V								
	Chemical Waste										
EM&A: E3	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?										

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

WATER QUALITY

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

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

MARINE ECOLOGY

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

NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: C1	Are working programmes schedu	led to minimize noise nuisance?					
EM&A: C1	Are construction works or equipm nuisance?			\			
EM&A: C1	Are all plant and equipment main conditions?			\mathcal{I}			
EM&A: C1/GP	Is idle equipment turned off or the						
EM&A: C1	Are methods of working devised nuisance?	and arranged to minimize noise		/			
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 Book Rescheduling of some power sensitive time periods?	wing measures adopted?		<u> </u>			
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	emented accordingly?	/				
NCO	Are valid noise emission labels fi held percussive breakers?	xed at air compressors and hand	/				
	Major paice course(s)	☐ Traffic	1	Constr site	uction	ı activi	ties inside the
	Major noise source(s)	Construction activities outside the site		Others	,		

Abbreviation VEP: Varied Environmental Permit WMP: Waste Management Plan EM&A: EM&A Manual (Construction Phase) Cap311R: APC (Construction Dust) Regulation Noise Control Ordinance NCO: Cap3110: APC (Open Burning) Regulation 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:

W.L.W)

(Name in Block letters:

8 H8082

12th January 2005

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 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
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
 bottom seals in order to prevent leatransport; all barges shall be filled to a level over during loading and transport to freeboard is maintained to ensure the 	bottom seals in order to prevent leakage of material during loading and	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
	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.	N/A
	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 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. 	N/A
	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	
	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	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.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.	Mitigation Measures	Implementation Status
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
 bottom seals in order to prevent leatransport; all barges shall be filled to a level over during loading and transport to freeboard is maintained to ensure the 	bottom seals in order to prevent leakage of material during loading and	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
	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
	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
IE 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
	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:

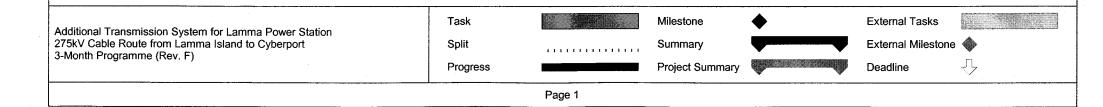
Compliance with mitigation measure Non-compliance with mitigation measure Not Applicable C -NC -

N/A -

Appendix J

Tentative Construction Programme

					October					Nove	mber				Dec	cember			
ID -	Task Name	Start	Finish	25/9	2/10	9/10	16/10	23/10) 30	0/10	6/11	13/11	20/1	1 27	7/11	4/12	11/12	18/1:	2 25/1
1	Civil Works																		
2																			
3	Site Procession & Preparation Work	Tue 25/5/04	Mon 12/7/04																
4	·																		
5	Within Lamma Power Station			1														-	
6	Construction of Cable Duct	Mon 4/10/04	Thu 29/9/05	ZZZ													,		
7	Construction of Cable Duct North Portal	Mon 12/7/04	Wed 30/11/05	ZZZ	7777	7777	7777		777	777	777	777	////	777	7				
8				1															
9	Yung Shue Wan South			1															
10	Construction of Cable Landing Point	Mon 12/7/04	Wed 30/11/05	ZZZ	ZZZZZ	7777	7777	7777	777	777	777	1111	7777	777	3				
11	Construction of Cable Duct South Portal	Mon 12/7/04	Wed 30/11/05	ZZZ	ZZZZZ	7777	777	7777	777	777	777	1777	////		3				
12		,																	
13	Pak Kok San Tsuen			1															
14	Construction of Cable Landing Point	Tue 24/8/04	Fri 14/10/05	ZZZ	7777														
15	Construction of Cable Trenches	Sat 30/7/05	Sat 31/12/05	ZZZZ	ZZZZ	7777	777	////	777		777	////	7777	777	777		7777	777	7777
16	Construction of Cable Duct	Thu 25/11/04	Fri 30/9/05	ZZZZ	200														
17	Construction of Cable Duct South Portal	Wed 25/8/04	Sat 31/12/05	7777	7777		777	////	771	777	777	7777	7777	777	111	1777	7777	111	7777
18				1	-														
19	Pak Kok Tsui																		
20	Construction of Cable Landing Point	Mon 12/7/04	Wed 14/9/05	1															
21	Construction of Cable Duct North Portal	Mon 12/7/04	Sat 31/12/05	7777	<i>ZZZZ</i>	77777	777	7777	ZZ	777	1777	////	777	1771		1777	////	777	7777



	A				October 2005				November 2005				December 2005		J
ID 1	Activities Main Station Bldg. and HRSG	710 days	Start 02 Apr '04	Finish 12 Mar '06	01 04 07	10 13	16 19 22	2 25 28	31 03 06	09 12	15 18 21	24 27	30 03 06 09 12 15	18 21 24 27	30
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		01 Dec '04	28 Feb '05											
		90 days													
7	3/F Construction	45 days	15 Jan '05	28 Feb '05											
8	4/F Construction	45 days	01 Feb '05	17 Mar '05											
9	5/F Construction	45 days	02 Mar '05	15 Apr '05											
10	R/F Construction	45 days	17 Mar '05	30 Apr '05											
11	Deferred works - East	50 days	21 Apr '05	09 Jun '05											
12	Deferred works - West	76 days	17 May '05	31 Jul '05											
13	Deferred works - South	45 days	15 Oct '05	28 Nov '05											
14	Deferred works - Air Inlet	31 days	01 Jan '06	31 Jan '06											
15	Deferred works - North	40 days	01 Feb '06	12 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 Sep '05											
18	Deferred works - Metal Fence at Transformer Bay	62 days	01 Jan '06	03 Mar '06											
19															
20	275kV Bldg.	455 days	03 May '04	31 Jul '05											
21	Pile head treatment	22 days	03 May '04	24 May '04											
22	Earthing system	30 days	11 May '04	09 Jun '04											
23	Pile cap and tie beam	45 days	16 May '04	29 Jun '04											
24	1/F construction	90 days	01 Jun '04	29 Aug '04											
25	2/f construction	90 days	30 Aug '04	27 Nov '04											
26	3/f construction	45 days	28 Nov '04	11 Jan '05											
27	Roof construction	45 days	12 Jan '05	25 Feb '05											
28	Surrounding Cable Trench	108 days	15 Apr '05	31 Jul '05											
29															
30	No. 4 Chimney	584 days	30 Jun '04	03 Feb '06											
31	Pile head treatment	30 days	30 Jun '04	29 Jul '04											
32	Pile cap construction	63 days	30 Aug '04	31 Oct '04											
33	Superstructure construction	300 days	01 Nov '04	27 Aug '05											
34	Steel and Internal Works	160 days	28 Aug '05	03 Feb '06											
35															
36	Road & Drainage Works	198 days	05 Jul '04	18 Jan '05											
37	Along Loading and Unloading Area	88 days	05 Jul '04	30 Sep '04											
38	Breaking up the road concrete	10 days	05 Jul '04	14 Jul '04											
39	Pipe installation	48 days	15 Jul '04	31 Aug '04											
40	Testing	7 days	01 Sep '04	07 Sep '04											
41	Haunching and Road making good	23 days	08 Sep '04	30 Sep '04											
42	North Seafront Road	148 days	09 Jul '04	03 Dec '04											
43	Excavation	84 days	09 Jul '04	30 Sep '04											
44	Pipe installation	84 days	16 Jul '04	07 Oct '04											
	· ·														
45	Testing Househing and Road making good	14 days	15 Oct '04	28 Oct '04											
46	Haunching and Road making good	120 days	06 Aug '04	03 Dec '04											
47	East Bridge Road	72 days	28 Oct '04	07 Jan '05											
	a Power Station Extension - Unit 9 Civil and Bui tth Programme	lding Work	Scheduled A	Activity											
							Page 1							Rev	/ision: -

					October 2005		November 2005		Decembe		J
ID 48	Activities Excavation	Duration 30 days	Start 28 Oct '04	Finish 26 Nov '04	01 04 07	10 13 16 19 22 25 28	31 03 06	09 12 15 18 21	24 27 30 03	06 09 12 15	18 21 24 27 30
49	Pipe installation	30 days	11 Nov '04	10 Dec '04							
50	Testing		18 Dec '04	31 Dec '04							
51	Haunching and Road making good	14 days 14 days	25 Dec '04	07 Jan '05							
52	Chimney Road		08 Nov '04								
53	•	72 days		18 Jan '05							
	Excavation	30 days	08 Nov '04	07 Dec '04							
54 55	Pipe installation	30 days	22 Nov '04	21 Dec '04							
	Testing	14 days	29 Dec '04	11 Jan '05							
56	Haunching and Road making good	14 days	05 Jan '05	18 Jan '05							
57											
	C W Culvert System	459 days	15 Aug '04	16 Nov '05							
59	Outlet Section	392 days	15 Aug '04	10 Sep '05							
60	Excavation	14 days	15 Aug '04	28 Aug '04							
61	Install Sheet Pile	45 days	29 Aug '04	12 Oct '04							
62	Pending consent	28 days	13 Oct '04	09 Nov '04							
63	Install 1800mm Pipe	50 days	10 Nov '04	29 Dec '04							
64	Trust Block Construction	45 days	30 Dec '04	12 Feb '05							
65	Backfilling	10 days	13 Feb '05	22 Feb '05							
66	Install pipe pile	90 days	23 Feb '05	23 May '05							
67	Pending consent	28 days	24 May '05	20 Jun '05							
68	Excavation & install wailing	40 days	21 Jun '05	30 Jul '05							
69	Install 1800mm Pipe	14 days	31 Jul '05	13 Aug '05							
70	Manhole Construction	21 days	14 Aug '05	03 Sep '05							
71	Backfilling	7 days	04 Sep '05	10 Sep '05							
72	Inlet Section	152 days	13 Oct '04	13 Mar '05							
73	Excavation	14 days	13 Oct '04	26 Oct '04							
74	Install Sheet Pile	30 days	27 Oct '04	25 Nov '04							
75	Pending consent	28 days	26 Nov '04	23 Dec '04							
76	Install 1800mm Pipe	40 days	24 Dec '04	01 Feb '05							
77	Trust Block Construction	30 days	02 Feb '05	03 Mar '05							
78	Backfilling	10 days	04 Mar '05	13 Mar '05							
79											
80	C W Pump Equipment Room	76 days	15 Jul '05	28 Sep '05							
81	Excavation	4 days	15 Jul '05	18 Jul '05							
82	Substructure	21 days	19 Jul '05	08 Aug '05							
83	Superstructure	30 days	09 Aug '05	07 Sep '05							
84	Finishing	21 days	08 Sep '05	28 Sep '05							
85											
86	Pipe & Cable Rack	101 days	23 May '05	31 Aug '05							
87	Excavation	21 days	23 May '05	12 Jun '05							
88	Footing	30 days	13 Jun '05	12 Jul '05							
89	Steel Work	50 days	13 Jul '05	31 Aug '05							
90	One Description Oberton	405	45 1:1105	40 N 105							
91	Gas Receiving Station	125 days	15 Jul '05	16 Nov '05							
92	Excavation PC Structure and finishing work	45 days	15 Jul '05	28 Aug '05 16 Nov '05							
93	RC Structure and finishing work Drainage and Road Work	80 days 60 days	29 Aug '05 29 Aug '05	27 Oct '05							
34	Drainage and Road Work	ou days	29 Aug 05	27 00 05							
	a Power Station Extension - Unit 9 Civil and Bui th Programme	lding Work	Scheduled A	Activity							
						Page 2					Revision: -

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

Item	Description	Start	Finish		Od	ct			Nov			Dec	
	·			1	10	20	3 ′	1 1	0 2	20 3	3 0 1	0 2	0 31
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										
5	Condenser erection	15 Feb,05											
\vdash	Condenser creation	10 1 00,00	Oont										
6	Aux equipment erection	01 Apr,05	Cont										
7	Air duct / Inlet filter	25 Apr,05	Cont										
8	HRSG inlet duct	21 May, 0	Cont										
9	Piping support / Piping erection	01 Jun,05	Cont										
10	Insulation work	23 Feb,05	Cont										
11	Platform installation	11 Apr, 0	Cont										
12	Pipe rack installation	26 Aug, 0	Cont										
13	Intake aux equipment installation	08 Aug, 0	Cont										
15	GRS piping installation	01 Dec, 0	5										
		, -											

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 (OCTOBER 2005 TO DECEMBER 2005)

		_		OCTOBER	NOVEMBER	DECEMBER
ID	Task Name GIS ERECTION	Start	Finish	2/10 9/10 16/10 23/10 30/10	6/11 13/11 20/11 27/11	4/12 11/12 18/12 25/12
1	OIS EXECTION					
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			
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 (OCTOBER 2005 TO DECEMBER 2005)

						Octobe	er			No	ovember	•		De	cember		
ID	Task Name	Start	Finish	1/10	8/10	15/10	22/10	29/10	5/11	12/11	19/11	26/11	3/12	10/12	17/12	24/12	30/12
1																	
2	L9 Electrical Erection	Sat 1/10/05	Sat 31/12/05														
3	Transformer Installation	Sat 1/10/05	Sat 31/12/05										i				
4	Busduct Installation	Sat 1/10/05	Sat 31/12/05														
5	IPB Installation	Sat 1/10/05	Sat 31/12/05														
6	Control Panel Installation	Sat 1/10/05	Sat 31/12/05														
7	Instrument Panel & Piping Installation	Sat 1/10/05	Sat 31/12/05														
8	Cable Tray & Earthing Installation	Sat 1/10/05	Sat 31/12/05														
9	Conduit Installation	Sat 1/10/05	Sat 31/12/05														
10	Cable Laying	Sat 1/10/05	Sat 31/12/05														
11	Cable Termination	Sat 1/10/05	Sat 31/12/05														

ID		1	1		October			November			December			
יםו	Task Name	Start	Finish	25/9	2/10	9/10	16/10 23/10	30/10 6/11	13/11	20/11 27/11	I 4/12	11/12	18/12	25/12
1														
2	Pipeline Installation	Sat 1/10/05	Sat 31/12/05)									
3	-													
4	Rock Dumping	Sat 1/10/05	Sat 31/12/05					<u> </u>						
ammo	Power Station Extension		Task				Milestone	•		External Tasks				
upply	Power Station Extension and Installation of Submarine Gas	s Pipeline						◆						
upply	Power Station Extension and Installation of Submarine Gas n Programme	s Pipeline	Split				Summary	*		External Milestone	*			
ylggu	and Installation of Submarine Gas	s Pipeline						*			e •			

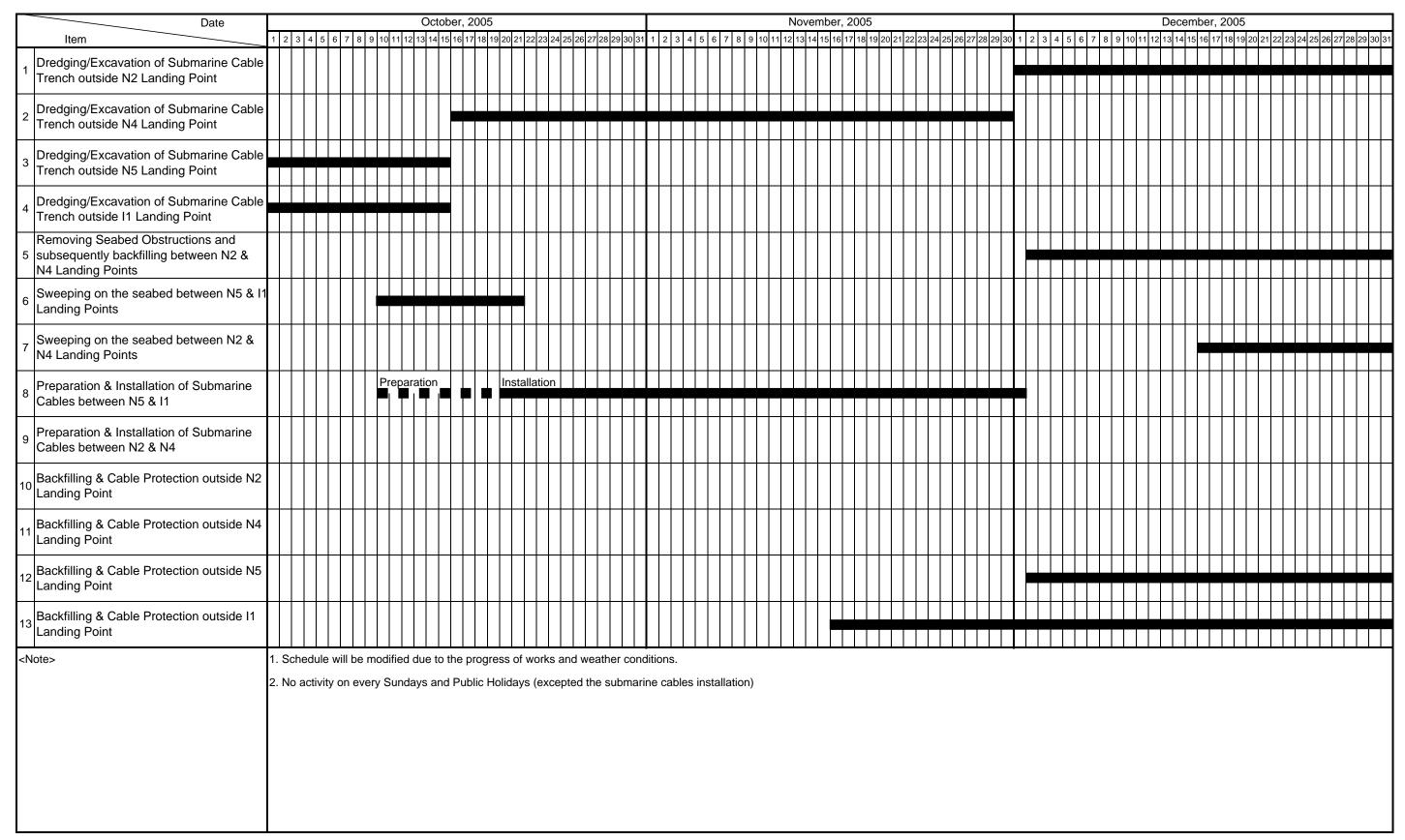
J-Power Systems Corp.

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: 16
Date: 30-Sep-05



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

September 2005

						16
	3					
				754	DOU	
0	30/09/05	Issued for Comments	WK	WB WB	AM AM	
REV	DATE	DESCRIPTION	PREPARED	CHECKED	APPROVED	PURCHASER

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

TOTAL OR PARTIAL REPRODUCTION AND/OR UTILIZATION OF THIS DOCUMENT ARE FORBIDDEN WITHOUT PRIOR WRITTEN AUTHORIZATION OF THE OWNER

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

0 A





Saipem

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

Page i

TABULATION OF REVISED PAGES

PAGE				REVIS	SIONS	3			PAGE				REVI	SIONS	3			
	0	1	2	3	4	5	6	7		0	1	2	3	4	5	6	7	
1	Х								51									
2	Х								52									
3	Χ								53									
4	Χ								54									
5	Х								55									
6									56									
7									57									
8									58									
9									59									
10									60									
11									61									
12									62									
13									63									
14									64									
15									65									
16									66									
17									67									
18									68									
19									69									
20									70									
21									71									
22									72									
23									73									
24									74									
25									75									
26									76									
27									77									
28									78									
29									79									
30									80									
31									81									
32									82									
33									83									
34									ATTACH	MENT	S/AP	PEND	IX					
35									Α	Х								
36									В	Х								
37																		
38																		
39																		
40																		
41																		
42																		
43																		
44																		
45																		
46																		
47																		
				1	1			1				1			1			
49				1	1			1				1			1			
50				1	1			1				1			1			
48 49																		

LAMMA POWER STATION EXTENTION; Contract 03/9008

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

Revision: 0

Date : 30.09.2005





Saipem

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

Page ii

Saipem Asia Sdn. Bhd

Lamma Power Station ExtensionSupply and Installationof Submarine Gas Pipeline

Environmental Monitoring and Audit Report (Version 0.A)

September 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

Room 1602-1610, Delta House, 3 On Yiu Street, Shatin, NT, Hong Kong Tel: (852) 2151 2083 Fax: (852) 3107 1388

Email: info@cinotech.com.hk





Saipem

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

Page iii

TABLE OF CONTENTS

	Page
EXECUTIVE SUMMARY	1
Introduction	1
Environmental Monitoring Works	1
Complaints and Prosecutions	
1 INTRODUCTION	
Background	
Project Organizations	2
2 WATER QUALITY MONITORING	4
3 ENVIRONMENTAL AUDIT	4
Implementation Status of Mitigation Measures	4
Summary of Non-compliance of the Environmental Quality Performance Li	imit4
Summary of Complaints and Prosecution	4
4 FUTURE KEY ISSUES	4
Key Issues for the Coming Month	4
5 CONCLUSIONS AND RECOMMENDATIONS	5
Conclusions	5

LIST OF TABLES

Table 1.1 Key Project Contacts

LIST OF FIGURES

Figure 1.1 Layout of the Submarine Gas Pipeline

LIST OF APPENDICES

- A Construction Phase Mitigation Measures and their Implementation (Gas Pipeline)
- B Complaint Log





Saipem

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

Page iv

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

Environmental Monitoring and Audit Report (September 05)

EXECUTIVE SUMMARY

Introduction

 This is the eighth 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 September 2005.

Environmental Monitoring Works

Water Quality

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

Complaints and Prosecutions

3. No environmental complaint and prosecution were received during the reporting month.

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) intends 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 will be 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 awarded 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

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. The complaint log for the works is provided in Appendix B.

4 FUTURE KEY ISSUES

Key Issues for the Coming Month

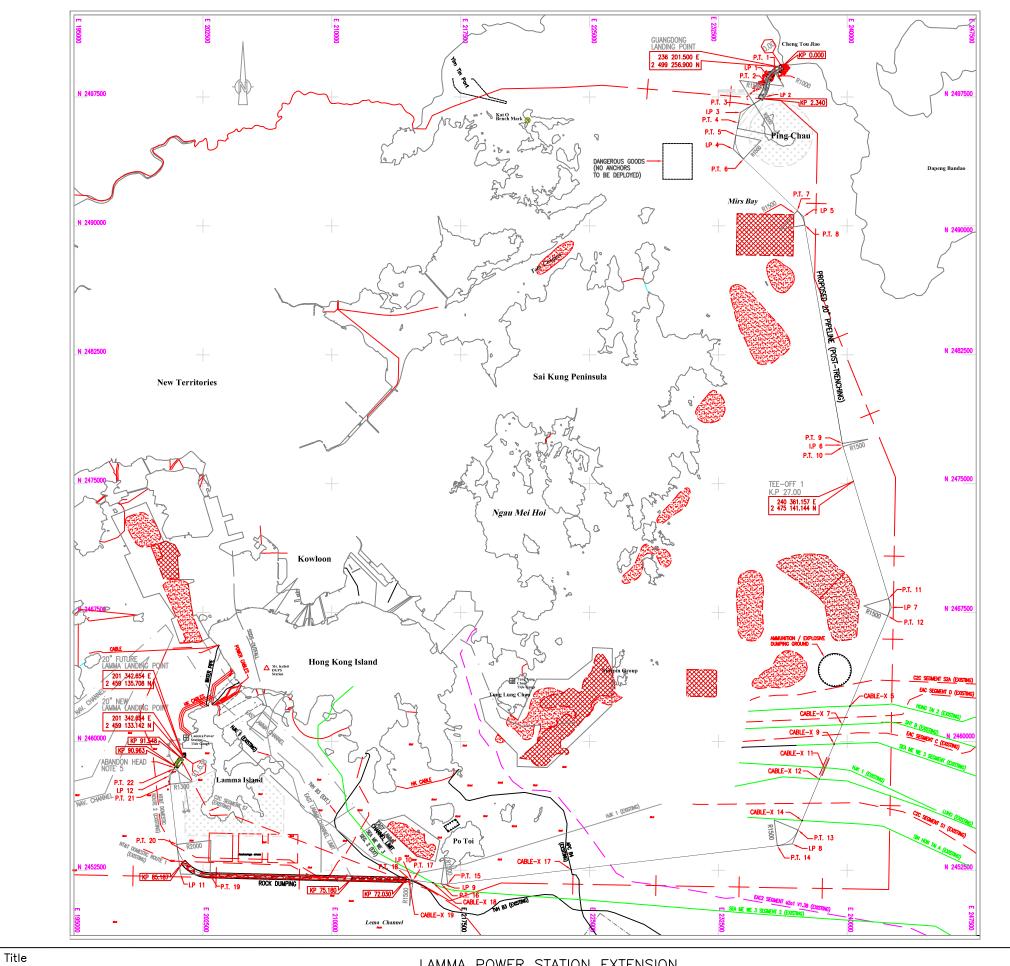
4.1 Anchor protection/rock dumping works are the major activities in the coming months. No major environmental impact is anticipated. Ad hoc site inspection will be carried out as necessary in accordance with the EM&A Manual.

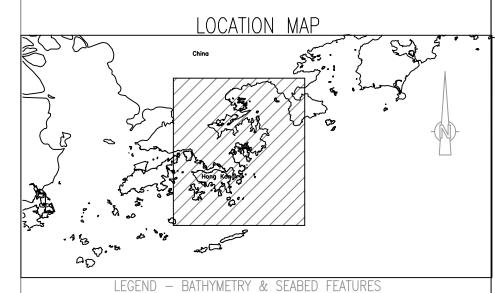
5 CONCLUSIONS AND RECOMMENDATIONS

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	LOCATION		COORDINATES		LENGTH	REMARKS	
	52551111 11511			EASTING	NORTHING	(m)	TILINI WITO	
1	LAMMA NAVIGATION CHANNEL	START KP	91.492	201257.067	2459014.325	597	PRE-TRENCH	
		END KP	90.895	200908.315	2458530.164	597	(DREDGING METHOD)	
2	SOUTH LAMMA ANCHORAGE ZONE	START KP	85.187	201388.269	2453015.705	40000	POST-TRENCH	
		END KP	75.180	211178.791	2452029.904	10000	(JETTING METHOD)	
3	EAST LAMMA CHANNEL & SOUTH	START KP	75.180	211177.747	2452029.928	3150	POST-TRENCH (JETTING METHOD)	
	OF PO TOI	END KP	72.030	214327.791	2451950.529	3130		
4	SHENZHEN SHORE APPROACH	START KP	2.340	234934.490	2497405.926	2340	PRE-TRENCH (DREDGING METHOD)	
		END KP	0.000	236201.500	2499256.900	2540		

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	Implemen- tation 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

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
N/A	N/A	N/A	N/A	N/A	N/A