The Hongkong Electric Co Ltd

香港電燈有限公司



ENVIRONMENTAL IMPACT ASSESSMENT (EIA) ORDINANCE, CAP. 499

ENVIRONMENTAL PERMIT NO. EP-071/2000/C

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

Report Title

Environmental Monitoring & Audit Report

(January 2006)

Date

14/02/2006

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	15
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	15 15 15 16 16 17
3.	NOISE	19
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	19 19 19 20 20 21
4.	ENVIRONMENTAL AUDIT	24
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	24 24 25 25 28 28 28
5.	FUTURE KEY ISSUES	30
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	30 30 31 31
6	CONCLUSION	32

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 January 2006
Table 4.3	Summary of Environmental Licensing and Permit Status
Table 4.4	Environmental Complaints / Enquiries Received in January 2006
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 A	Area)
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 January 2006
Appendix E	Noise Monitoring Results for January 2006
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 January 2006 prepared by the Consultant as one of the ET Members

EXECUTIVE SUMMARY

This is the fifty-eighth 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 January 2006.

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

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

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

Construction Activities Undertaken

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

Item	Construction Activities
Unit L9 Civil and Building Works	Main Station Building, 275kV Switching Station Building, Shunt Reactor, Chimney, Drainage & Road, Fire Services Water Tank and Fire Pump House, C.W. Culvert System & Equipment Room, C.W. Pump Equipment Room, Gas Receiving Station, Pipe & Cable Rack and Lamma Power Station Addition and Alteration (LPS A&A) Works
Unit L9 Mechanical Erection	Erection of HRSG, Steam Turbine, Gas Turbine, Generator, Condenser, Aux Equipment, Air duct / Inlet Filter, HRSG Inlet Duct and Piping Support / Piping Erection; Insulation Work; and Installation of Platform, Pipe Rack, Intake Aux Equipment, Bop piping and GRS piping
Unit L9 Electrical, Instrumentation & Control Erection	Control Panel/Instrument Panel & Rack Installation, Cable Tray & Earthing Installation, Conduit & Instrument Piping Installation, Cable Laying & Termination and Busduct & Isolated Phase Busduct (IPB) Installation
Transmission System	Construction of tunnel portal structure for Cable Duct 1 and backfilling above portal structure for Cable Duct 2
Gas Pipeline	Please refer to Appendix K
Miscellaneous	Slurry ash piping & filling

Environmental Monitoring Works

All monitoring work at designated stations was performed as scheduled satisfactorily.

Air Quality

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

Noise

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

Site Environmental Audit

Independent Environmental Checker (IEC) conducted a site inspection on 18/01/2006. The inspection result is attached in Appendix H.

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

Environmental Licensing and Permitting

Description	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-RS0416-05	10/07/05	09/01/06	Contractor	30/06/05
Construction Noise Permit	GW-RS0424-05	15/07/05	14/01/06	Contractor	07/07/05
Construction Noise Permit	GW-RS0514-05	12/08/05	11/02/06	Contractor	12/08/05
Construction Noise Permit	GW-RS0584-05	20/09/05	19/03/06	Contractor	15/09/05
Construction Noise Permit	GW-RS0585-05	17/09/05	16/03/06	Contractor	15/09/05
Construction Noise Permit	GW-RS0784-05	29/11/05	19/05/06	Contractor	29/11/05
Construction Noise Permit	GW-RS0719-05	01/12/05	31/05/06	Contractor	09/11/05
Construction Noise Permit	GW-RE0363-05	01/01/06	31/05/06	Contractor	24/11/05
Dumping Permit	EP/MD/06-031	05/09/05	04/03/06	Contractor	02/09/05
Dumping Permit	EP/MD/06-032	05/09/05	04/03/06	Contractor	02/09/05
Registration of Chemical Waste Producer	WPN5213-912- P2781-07	11/06/04	-	Contractor	11/06/04

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

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;

<u>Unit L9 Electrical Erection</u>

- 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;

<u>Transmission System</u>

- 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 January 2006.

1.2 Project Organisation

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

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

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

1.3 Construction Works undertaken during the Reporting Month

Construction activities for Unit L9 civil and building works were for the Main Station Building, 275kV Switching Station Building, Shunt Reactor, Chimney, Drainage & Road, Fire Services Water Tank and Fire Pump House, C.W. Culvert System & Equipment Room, C.W. Pump Equipment Room, Gas Receiving Station, Pipe & Cable Rack and LPS A&A Works. Construction activities for Unit L9 mechanical works were the erection of HRSG, Steam Turbine, Gas Turbine, Generator, Condenser, Auxiliary Equipment, Air duct / Inlet Filter, HRSG Inlet Duct, Piping Support / Piping, Insulation Work, and installation of Platform, Pipe Rack, Intake Auxiliary Equipment, Bop piping and GRS piping. Construction activities for Unit L9 electrical, instrumentation & control erection were Control Panel / Instrument Panel & Rack installation, Cable Tray & Earthing installation, Conduit & Instrument Piping Installation, Cable Laying & Termination and Busduct & IPB Installation. Construction activities for Unit L9's associated transmission system were construction of tunnel portal structure for Cable Duct 1 and backfilling above portal structure for Cable Duct 2, and the dredging/excavation of submarine cable trench outside N2 and N4 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 materials were dumped at the assigned location within the South Cheung Chau Spoil Disposal Area. Figure 1.3 and shows the dumping location in January 2006.

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

Table 1.1 Construction Activities and Their Corresponding Environmental Mitigation Measures

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

Item	Construction Activities	Environmental Mitigation Measures	
2.	275kV Switching Station Building	Air Dust suppression measures implemented. Noise General noise mitigation measures employed at	
		 all work sites throughout the construction phase. Waste Management Waste Management Plan submitted and implemented. 	
3.	Shunt Reactor	Air - Dust suppression measures implemented.	
		Noise - General noise mitigation measures employed at all work sites throughout the construction phase.	
		Waste Management - Waste Management Plan submitted and implemented.	
4.	Chimney	Air — Dust suppression measures implemented.	
		Noise - General noise mitigation measures employed at all work sites throughout the construction phase.	
		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
		 General noise mitigation measures employed at all work sites throughout the construction phase.
		Waste ManagementWaste Management Plan submitted and implemented.
7.	C.W. Culvert System & Equipment	AirDust suppression measures implemented.
	Room	Noise General noise mitigation measures employed at all work sites throughout the construction phase.
		Waste ManagementWaste Management Plan submitted and implemented.
8.	C.W. Pump Equipment Room	Air – Dust suppression measures implemented.
		Noise General noise mitigation measures employed at all work sites throughout the construction phase.
		Waste ManagementWaste Management Plan submitted and implemented.
9.	Gas Receiving Station	Air — Dust suppression measures implemented.
		Noise General noise mitigation measures employed at all work sites throughout the construction phase.
		Waste ManagementWaste Management Plan submitted and implemented.

Item	Construction Activities	Environmental Mitigation Measures
10.	Pipe & Cable Rack	Air — Dust suppression measures implemented.
		Noise General noise mitigation measures employed at all work sites throughout the construction phase.
		 Waste Management Waste Management Plan submitted and implemented.
11.	LPS A&A Works	Air – Dust suppression measures implemented.
		Noise General noise mitigation measures employed at all work sites throughout the construction phase.
		Waste Management - Waste Management Plan submitted and implemented.
Constru	iction of Transmi	ssion System
12.	Construction of tunnel portal structure for Cable Duct 1	Noise General noise mitigation measures employed at all work sites throughout the construction phase.
13.	Backfilling above portal structure for Cable Duct 2	 Terrestrial Ecology Special care and close monitoring to avoid disturbances to the rare plant species. Temporary fire fighting equipment provided within the work area during construction.

Item	Construction Activities	Environmental Mitigation Measures			
Unit L9	Unit L9 Mechanical Erection				
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 Management - Waste Management Plan submitted and implemented.		
27.	Bop piping 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.		
28.	GRS piping installation	Air – Dust suppression measures implemented.		
		Noise - General noise mitigation measures employed at all work sites throughout the construction phase.		
		Waste Management - Waste Management Plan submitted and implemented.		
Unit L9	Electrical, Instr	umentation & Control Erection		
29.	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.		

Item	Construction Activities	Environmental Mitigation Measures		
30.	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. 		
31.	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.		
32.	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. 		
33.	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.		

Item	Construction Activities	Environmental Mitigation Measures			
Miscella	Miscellaneous				
34.	Slurry ash piping & filling	Noise - General noise mitigation measures implemented and silent type equipment deployed.			

1.4 Summary of EM&A Requirements

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

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

- Environmental monitoring results;
- Waste Management Records;
- Weekly site audit results;
- The status of environmental licensing and permits for the Project;
- The implementation status of environmental protection and pollution control/mitigation measures.

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

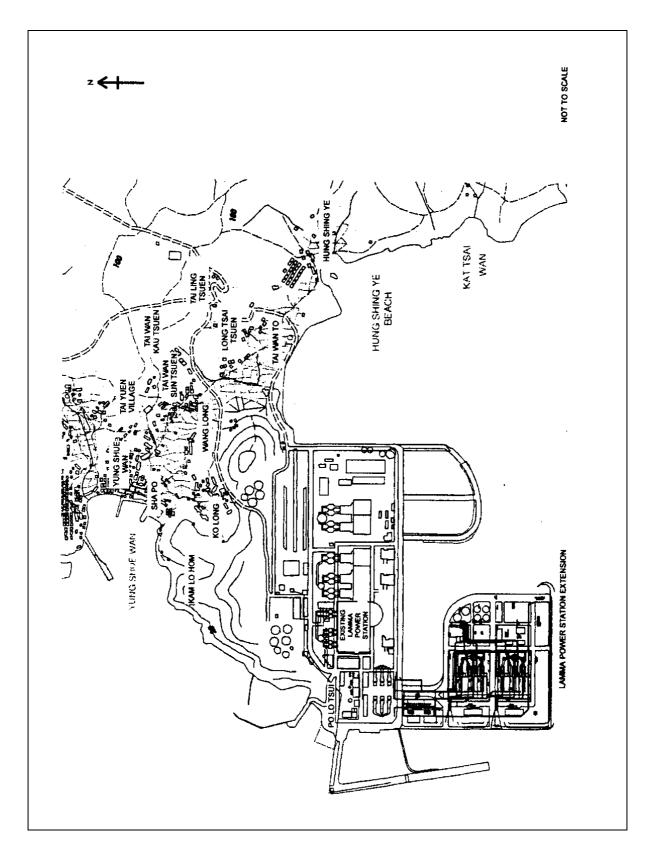


Figure 1.1 Layout of Work Site

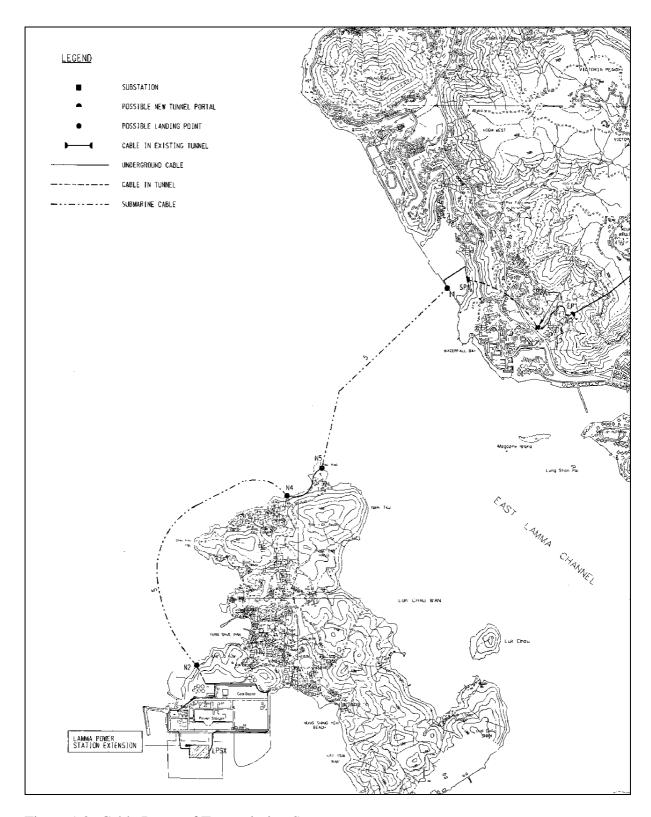


Figure 1.2 Cable Route of Transmission System

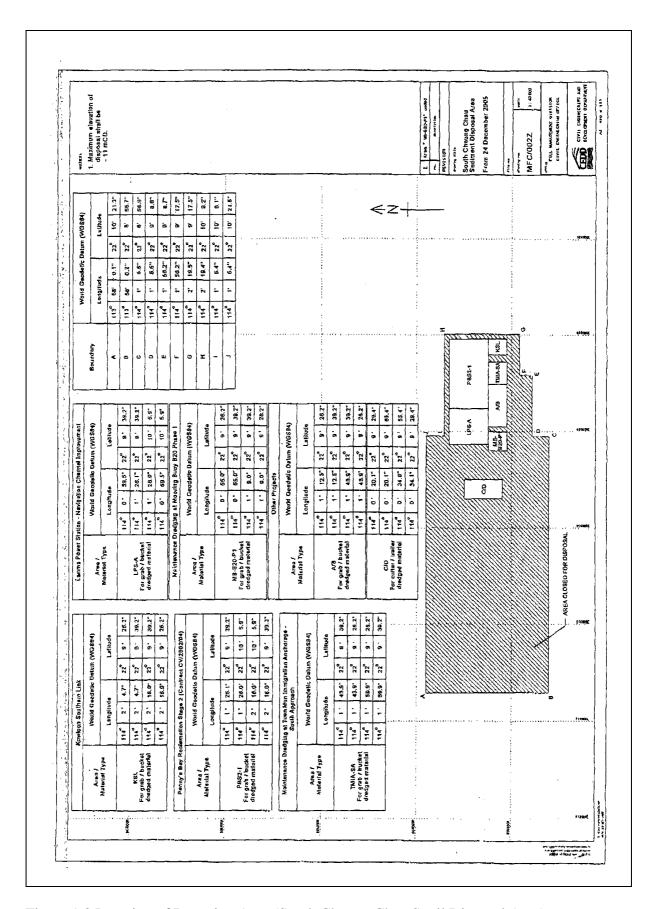


Figure 1.3 Location of Dumping Area (South Cheung Chau Spoil Disposal Area)

2. AIR QUALITY

2.1 Monitoring Requirements

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

2.2 Monitoring Locations

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

Table 2.1 Air Quality Monitoring Locations

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

2.3 Monitoring Equipment

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

Table 2.2 Air Quality Monitoring Equipment

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

2.4 Monitoring Parameters, Frequency and Duration

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

Table 2.3 Air Quality Monitoring Parameter, Duration and Frequency

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

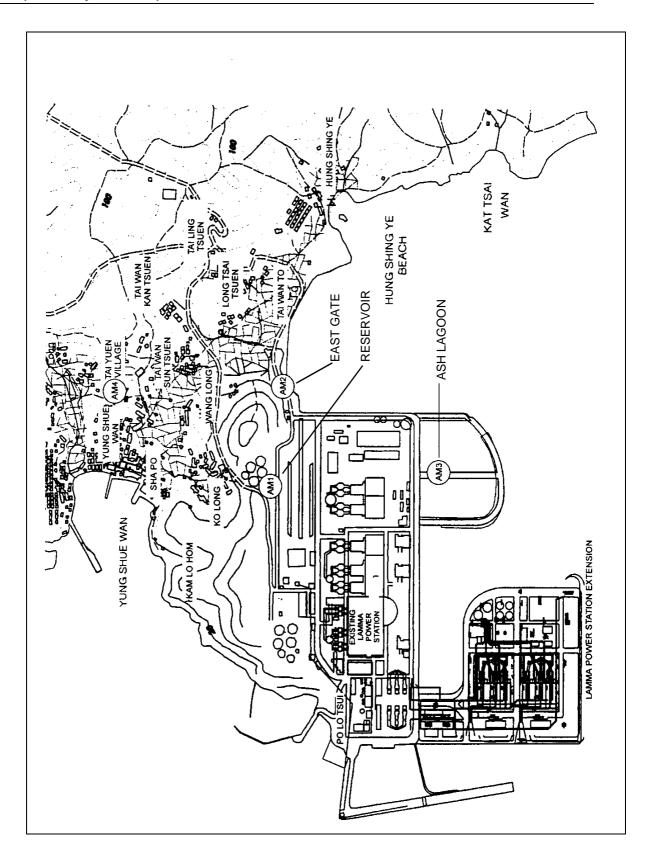


Figure 2.1 Location of Air Quality Monitoring Stations

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 S		
Sound level meter	Rion NA-27/ B&K 2238F	Rion NL-31	
Sound level calibrator	Rion NC-74	Rion NC-74	

3.4 Monitoring Parameters, Frequency and Duration

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

 Table 3.3
 Noise Monitoring Duration and Parameter

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

3.5 Monitoring Procedures and Calibration Details

Monitoring Procedures

Continuous Noise Monitoring for Lamma Extension Construction

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

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

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

Manual Noise Monitoring for Transmission System Construction

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

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

Equipment Calibration

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

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

3.6 Results and Observations

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

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

21

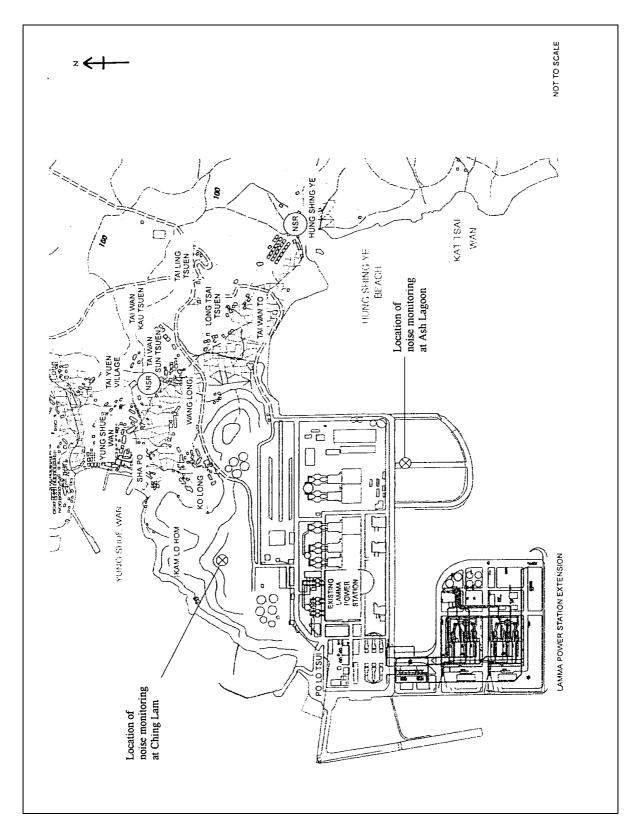


Figure 3.1 Location of Noise Monitoring Stations

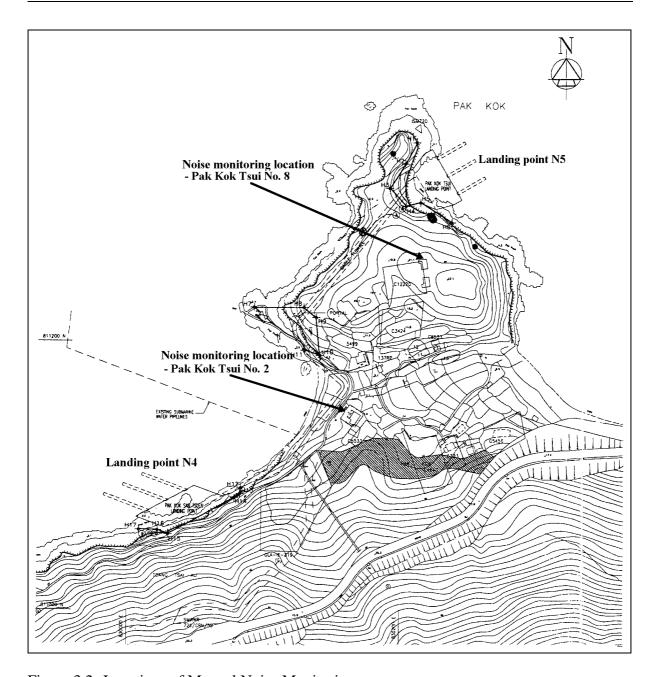


Figure 3.2 Locations of Manual Noise Monitoring

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)	01/01/06- 31/01/06	0	0	
2	Ambient TSP (1-hour)	01/01/06- 31/01/06	0	0	
Noise					
1	Noise level at the critical NSR's predicted by the noise alarm monitoring system	01/01/06- 31/01/06	0	0	
2	Manual noise monitoring at the Pak Kok Tsui residences	01/01/06- 31/01/06	0	0	

Waste Management Records

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

Table 4.2 Estimated Amounts of Waste Generated in January 2006

Waste Type	Examples	Estimated Amount
Construction Waste	Concrete Waste, Used formwork, reinforcement	1.5 Tonne
	and wooden waste	254 m ³
General Refuse	Domestic wastes collected	30 m^3
	on site	

4.3 Site Environmental Audit

IEC conducted a site inspection on 18/01/2006. The inspection result is attached in Appendix H.

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

4.4 Status of Environmental Licensing and Permitting

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

Table 4.3 Summary of Environmental Licensing and Permit Status

Description	Permit No.	Valid Period		Highlights	Status
		From	To		
Varied Environmental Permit	EP-071/2000/C	18/05/05	-	The whole construction work site	Valid
Construction Noise Permit	GW-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

Description	Permit No.	Valid 1	Period	Highlights	Status
_		From	To		
Construction Noise Permit	GW-RS0424-05	15/07/05	14/01/06	Operation of PME's allowed during the restricted hours (general holidays including Sundays between 0700-0700 hrs on next day and any day not being a holiday between 1900-0700 hrs on next day).	Valid
Construction Noise Permit	GW-RS0514-05	12/08/05	11/02/06	Operation of PME's allowed during the restricted hours (general holidays including Sundays between 0700-0700 hrs on next day and any day not being a general holiday between 1900-0700 hrs on next day).	Valid
Construction Noise Permit	GW-RS0584-05	20/09/05	19/03/06	Operation of PME's allowed during the restricted hours (any day between 2300-0700 hrs on next day).	Valid
Construction Noise Permit	GW-RS0585-05	17/09/05	16/03/06	Operation of PME's allowed during the restricted hours (general holidays including Sundays between 0700-2300 hrs and any day not being a general holiday between 1900-2300 hrs).	Valid
Construction Noise Permit	GW-RS0784-05	29/11/05	19/05/06	Operation of PME's allowed during the restricted hours (general holidays including Sundays between 0700-1900 hrs and any day not being a general holiday between 1900-2100 hrs).	Valid

Description	Permit No.	Valid 1	Period	Highlights	Status
_		From	To		
Construction Noise Permit	GW-RS0719-05	01/12/05	31/05/06	Operation of PME's allowed during the restricted hours (general holidays including Sundays between 0700-0700 hrs on next day and any day not being a holiday between 1900-0700 hrs on next day).	Valid
Construction Noise Permit	GW-RE0363-05	01/01/06	31/05/06	Operation of PME's allowed during the restricted hours (general holidays including Sundays between 0700-0700 hrs on next day and any day not being a general holiday between 1900-0700 hrs on next day).	Valid
Dumping Permit	EP/MD/05-031	05/09/05	04/03/06	Dumping at South Cheung Chau Disposal Area; Supply and Installation of Submarine and Land Cables	Valid
Dumping Permit	EP/MD/05-032	05/09/05	04/03/06	Dumping at South Cheung Chau Disposal Area; Supply and Installation of Submarine and Land Cables	Valid
Registration of Chemical Waste Producer	WPN5213-912- P2781-07	11/06/04	-	Major Chemical Waste Type: Spent lubrication oil, waste car battery, paint or thinner contaminated container	Valid

Description	Permit No.	Valid Period		Highlights	Status
_		From	To		
Registration of Chemical Waste Producer	WPN5213-912- K2801-03	15/09/04	-	Major Chemical Waste Type: Spent lubricating oil, spent battery, contaminated soil with spent flammable liquid	Valid
Registration of Chemical Waste Producer	WPN5517-912- T2007-02	17/03/05	-	Major Chemical Waste Type for the construction work: asbestos waste, spent lubricating lubrication oil	Valid
Registration of Chemical Waste Producer	WPN5213-912- W2852-09	25/01/05	-	Major Chemical Waste Type: spent mineral oil/ lubricating oil, spent solvents, spent batteries and surplus paint	Valid
Registration of Chemical Waste Producer	WPN4111-912- M2534-09	20/06/05	-	Major Chemical Waste Type: spent insulation oil for transformer	Valid
WPCO Discharge Licence	EP890/W2/XD020	22/11/04	30/11/09	Toilet for LMX construction site	Valid

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 January 2006, no complaint against the construction activities was received.

Table 4.4 Environmental Complaints / Enquiries Received in January 2006

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

Table 4.5 Outstanding Environmental Complaints / Enquiries Carried Over

Case Reference /	Descriptions /Actions Taken	Conclusion /
Date, Time Received /		Status
Date, Time Concerned		
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.

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 February 2006 to April 2006. 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.

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

The environmental performance of the Project was generally satisfactory.

0106emna.doc 32

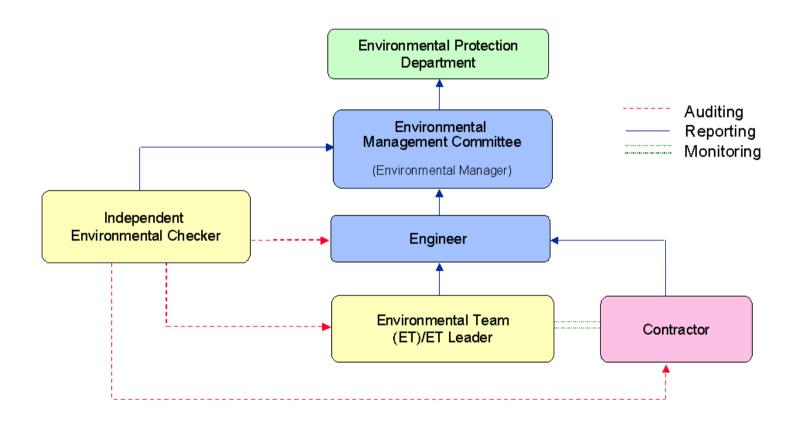


Figure A.1 Organisation of EM&A Programme at Construction Phase

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 (January 2006 to April 2006)

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

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

Date	Monitoring Start Time
03/Jan/2006	10:00
06/Jan/2006	14:00
10/Jan/2006	10:00
13/Jan/2006	14:00
17/Jan/2006	10:00
20/Jan/2006	14:00
24/Jan/2006	10:00
27/Jan/2006	14:00
01/Feb/2006	10:00
03/Feb/2006	14:00
07/Feb/2006	10:00
10/Feb/2006	14:00
14/Feb/2006	10:00
17/Feb/2006	14:00
21/Feb/2006	10:00
24/Feb/2006	14:00
28/Feb/2006	10:00
03/Mar/2006	14:00
07/Mar/2006	10:00
10/Mar/2006	14:00
14/Mar/2006	10:00
17/Mar/2006	14:00
21/Mar/2006	10:00
24/Mar/2006	14:00
28/Mar/2006	10:00
31/Mar/2006	14:00
04/Apr/2006	10:00
07/Apr/2006	14:00
11/Apr/2006	10:00
13/Apr/2006	14:00
18/Apr/2006	10:00
21/Apr/2006	14:00
25/Apr/2006	10:00
28/Apr/2006	14:00

APPENDIX D AIR QUALITY MONITORING RESULTS

Site: Lamma Power Station Extension

Month: January 2006

24 hour TSP Measurement:-

	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)	(°)	(%)
02/01/2006	66	70	62	94	19.6	090	80
08/01/2006	130	120	121	129	29.5	050	61
14/01/2006	58	56	54	89	18.7	050	86
20/01/2006	56	53	48	61	23.5	030	94
26/01/2006	103	97	94	71	22.5	020	64

1 hour TSP Measurement:-

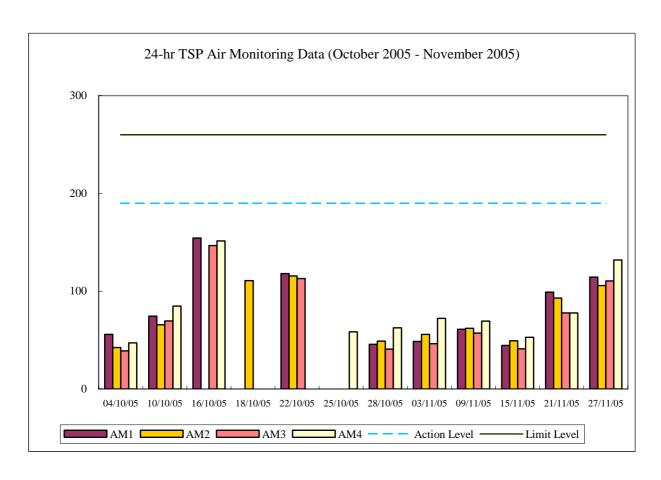
		TSP concentration (µg/m³)					
Date	Time	Reservoir (AM1)	East Gate (AM2)	Ash Lagoon (AM3)			
	15:00-15:59	62	65	56			
02/01/2006	16:00-16:59	60	62	66			
	17:00-17:59	70	73	73			
	15:00-15:59	132	131	114			
08/01/2006	16:00-16:59	115	122	106			
	17:00-17:59	117	124	103			
	15:00-15:59	56	51	36			
14/01/2006	16:00-16:59	50	50	45			
	17:00-17:59	52	49	46			
	15:00-15:59	54	44	37			
20/01/2006	16:00-16:59	44	28	29			
	17:00-17:59	29	23	25			
	15:00-15:59	106	104	92			
26/01/2006	16:00-16:59	109	118	95			
	17:00-17:59	108	118	101			

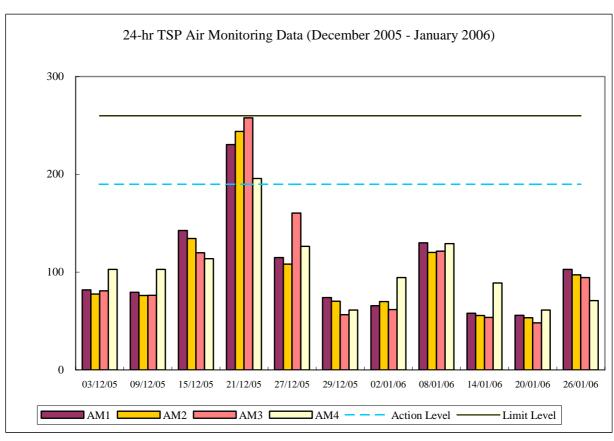
	1-hr TSP	24-hr TSP
	$(\mu g/m^3)$	$(\mu g/m^3)$
Action Level	340	190
Limit Level	500	260

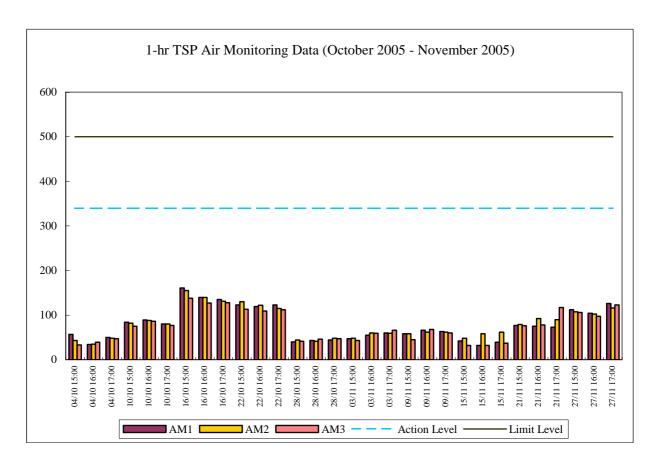
Calibration: Calibration details are shown in appendix F.

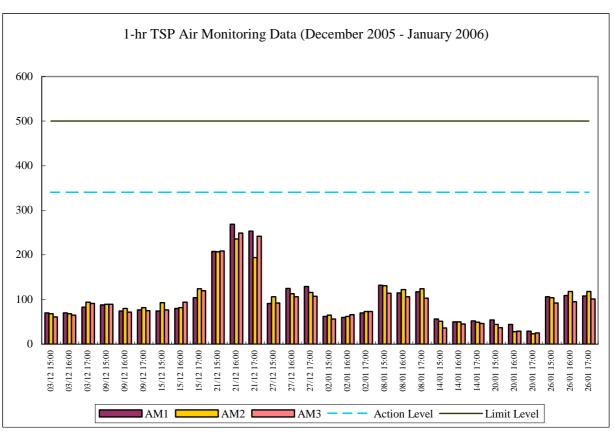
Equipment used:

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 January 2006

Site: Lamma Power Station Extension - Superstructure

and E&M Works

Measurement Location: Ash Lagoon and Ching Lam

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

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

07:00 hrs of next day)

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

Lam) sound level meters and Rion NC-74 sound

level calibrator

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

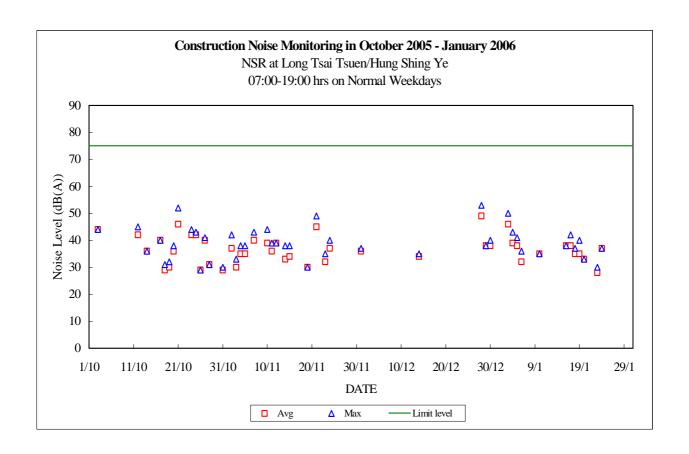
B&K 2238F sound level meter - 13/07/2004 Rion NC-74 calibrator - 17/02/2005

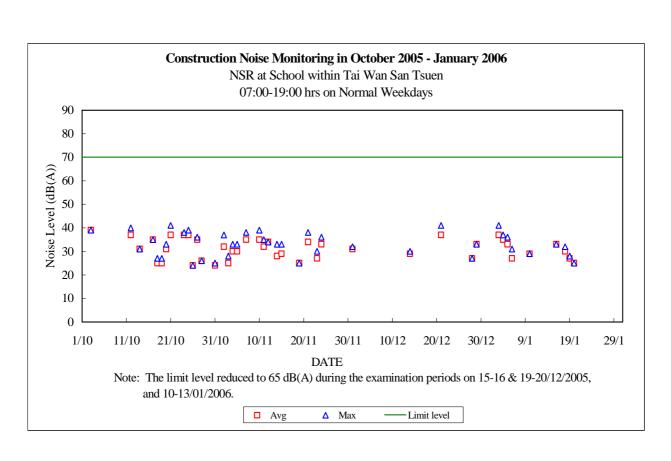
Date	Time	Calcula Noise Level a NSR at Tsai Tsuen/F Shing N (dB(A))	at Long Hung Ye	Limit Noise Level (dB(A))	Calcula Noise Level a NSR at school within Wan Sar Tsuen (dB(A))	at the Tai	Limit Noise Level (dB(A))
01/01/2006	07:00-23:00	42	Avg 31	60	38	Avg 31	60
01/01/2006	23:00-07:00	35	30	45	30	27	45
02/01/2006	07:00-23:00	40	37	60	35	32	60
02/01/2006	23:00-07:00	37	32	45	32	29	45
03/01/2006	07:00-19:00	50	46	75	41	37	70
03/01/2006	19:00-23:00			60			60
03/01/2006	23:00-07:00	38	33	45	33	29	45
04/01/2006	07:00-19:00	43	39	75	37	35	70
04/01/2006	19:00-23:00	19	19	60	14	14	60
04/01/2006	23:00-07:00	39	33	45	34	28	45
05/01/2006	07:00-19:00	41	38	75	36	33	70
05/01/2006	19:00-23:00	30	30	60	25	25	60
05/01/2006	23:00-07:00	28	23	45	24	19	45
06/01/2006	07:00-19:00	36	32	75	31	27	70
06/01/2006	19:00-23:00	30	27	60	25	23	60
06/01/2006	23:00-07:00	40	34	45	35	29	45
07/01/2006	07:00-19:00			75			70
07/01/2006	19:00-23:00	38	36	60	33	31	60
07/01/2006	23:00-07:00	44	40	45	39	35	45
08/01/2006	07:00-23:00	41	38	60	36	32	60
08/01/2006	23:00-07:00	37	33	45	32	28	45
09/01/2006	07:00-19:00			75			70

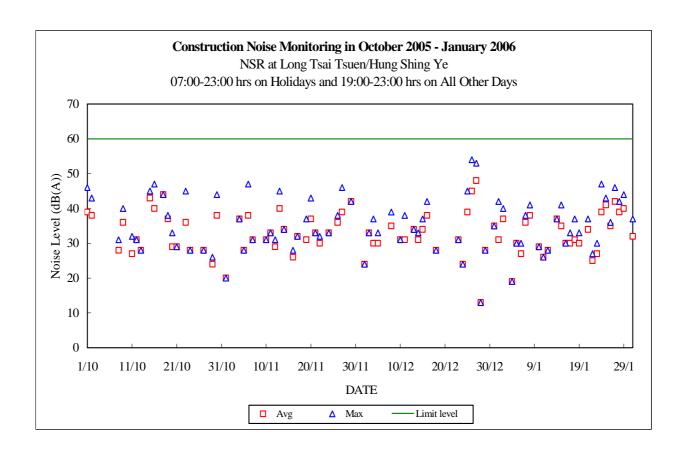
Date	Time	Calculated Noise Level at NSR at Long Tsai Tsuen/Hung Shing Ye (dB(A))		Limit Noise Level (dB(A))	Noise Level a NSR at school within	Level at NSR at the school within Tai Wan San Tsuen	
		Max	Avg		Max	Avg	
09/01/2006	19:00-23:00			60			60
09/01/2006	23:00-07:00	38	33	45	34	29	45
10/01/2006	07:00-19:00	35	35	75	29	29	65
10/01/2006	19:00-23:00	29	29	60	24	24	60
10/01/2006	23:00-07:00	39	33	45	34	28	45
11/01/2006	07:00-19:00			75			65
11/01/2006	19:00-23:00	26	26	60	22	22	60
11/01/2006	23:00-07:00	35	31	45	30	26	45
12/01/2006	07:00-19:00			75			65
12/01/2006	19:00-23:00	28	28	60	23	23	60
12/01/2006	23:00-07:00	37	33	45	33	28	45
13/01/2006	07:00-19:00			75			65
13/01/2006	19:00-23:00			60			60
13/01/2006	23:00-07:00	35	30	45	30	25	45
14/01/2006	07:00-19:00			75			70
14/01/2006	19:00-23:00	37	37	60	33	33	60
14/01/2006	23:00-07:00	35	28	45	30	24	45
15/01/2006	07:00-23:00	41	35	60	37	29	60
15/01/2006	23:00-07:00	36	33	45	31	28	45
16/01/2006	07:00-19:00	38	38	75	33	33	70
16/01/2006	19:00-23:00	30	30	60	25	25	60
16/01/2006	23:00-07:00	33	29	45	28	25	45
17/01/2006	07:00-19:00	42	38	75			70
17/01/2006	19:00-23:00	33	30	60	29	27	60
17/01/2006	23:00-07:00	39	35	45	34	30	45
18/01/2006	07:00-19:00	37	35	75	32	30	70
18/01/2006	19:00-23:00	37	31	60	32	26	60
18/01/2006	23:00-07:00	36	31	45	32	27	45
19/01/2006	07:00-19:00	40	35	75	28	27	70
19/01/2006	19:00-23:00	33	30	60	29	26	60
19/01/2006	23:00-07:00	37	31	45	33	29	45
20/01/2006	07:00-19:00	33	33	75	25	25	70
20/01/2006	19:00-23:00			60			60
20/01/2006	23:00-07:00	35	30	45	30	25	45
21/01/2006	07:00-19:00			75			70

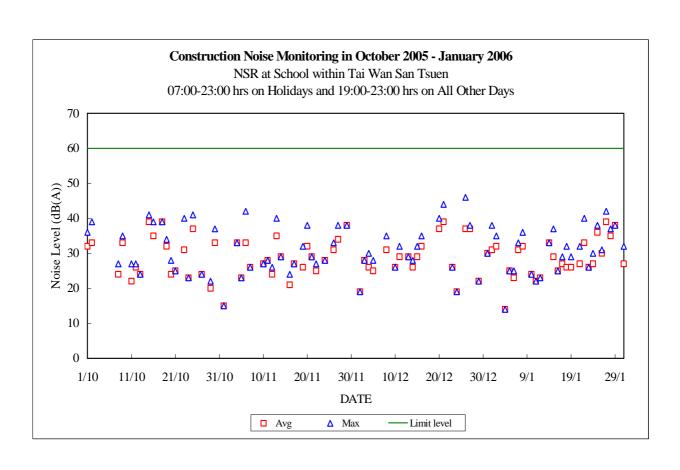
Date	Time	Calculated Noise Level at NSR at Long Tsai Tsuen/Hung Shing Ye (dB(A))		Noise Level at NSR at Long Time Tsai Tsuen/Hung Shing Ye Limit Noise Level (dB(A))		Noise Level	Calculated Noise Level at NSR at the school within Tai Wan San Tsuen (dB(A))		Limit Noise Level (dB(A))
01/01/0006	10 00 02 00	Max	Avg	60	Max	Avg	60		
21/01/2006	19:00-23:00	37	34	60	32	27	60		
21/01/2006	23:00-07:00			45	32	27	45		
22/01/2006	07:00-23:00	27	25	60	40	33	60		
22/01/2006	23:00-07:00	41	37	45	35	30	45		
23/01/2006	07:00-19:00	30	28	75			70		
23/01/2006	19:00-23:00	30	27	60	26	26	60		
23/01/2006	23:00-07:00	39	31	45	34	27	45		
24/01/2006	07:00-19:00	37	37	75			70		
24/01/2006	19:00-23:00	47	39	60	30	27	60		
24/01/2006	23:00-07:00	38	33	45	33	28	45		
25/01/2006	07:00-19:00			75			70		
25/01/2006	19:00-23:00	43	41	60	38	36	60		
25/01/2006	23:00-07:00	37	33	45	32	29	45		
26/01/2006	07:00-19:00			75			70		
26/01/2006	19:00-23:00	36	35	60	31	30	60		
26/01/2006	23:00-07:00	35	32	45	31	27	45		
27/01/2006	07:00-19:00			75			70		
27/01/2006	19:00-23:00	46	42	60	42	39	60		
27/01/2006	23:00-07:00	42	34	45	37	30	45		
28/01/2006	07:00-23:00	42	39	60	37	35	60		
28/01/2006	23:00-07:00	42	35	45	37	32	45		
29/01/2006	07:00-23:00	44	40	60	38	38	60		
29/01/2006	23:00-07:00	34	31	45			45		
30/01/2006	07:00-23:00			60			60		
30/01/2006	23:00-07:00	43	35	45	39	35	45		
31/01/2006	07:00-23:00	37	32	60	32	27	60		
31/01/2006	23:00-07:00	36	33	45	31	29	45		

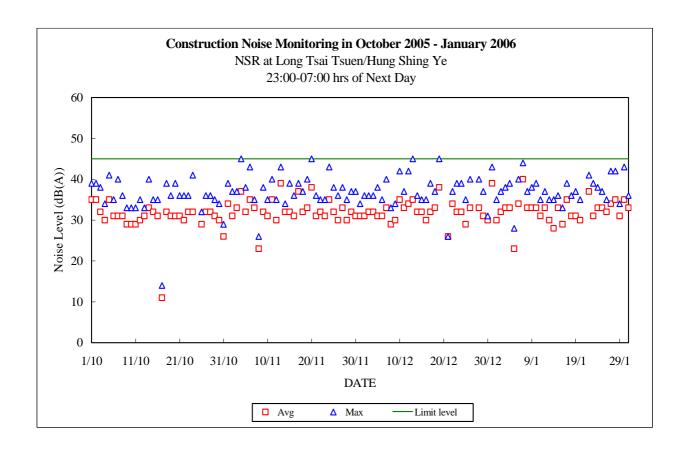
Note: "--" represents the measured noise monitoring data lower than the established notional background level/discarded under strong wind.

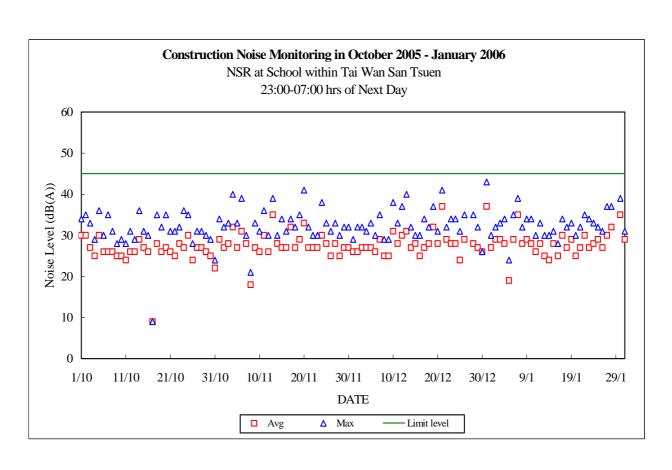












Appendix E.2 Manual Noise Monitoring Results for January 2006

Site: Lamma Power Station Extension - Transmission System

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

level calibrator

Wind Speed Equipment: Extech Instruments 45118

Last Calibration Date: Rion NL-31 sound level meter - 08/08/2005

Rion NC-74 sound level calibrator - 04/10/2005

Measurement Location: N4 - Pak Kok Tsui No.2

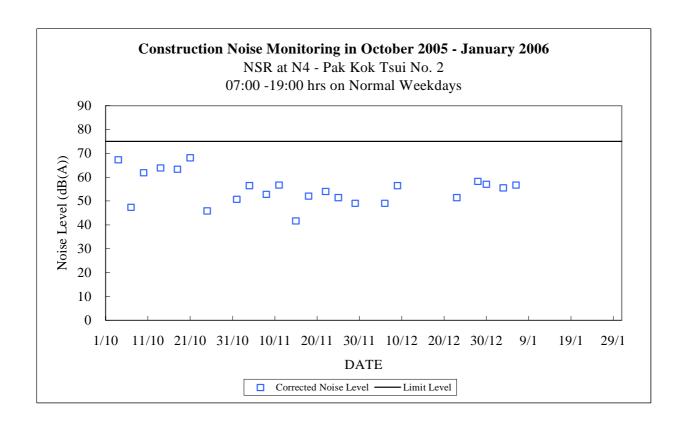
Date	Time	Measured Noise Level (dB(A))	Notional Background Noise Level (dB(A))	Corrected Noise Level (dB(A))	Limit Noise Level (dB(A))	Wind Speed (m/s)
03/01/2006	10:00-10:30	58.2	54.9	55.5	75	<5
06/01/2006	14:00-14:30	58.9	54.9	56.7	75	<5
10/01/2006	10:40-11:10	54.1	54.9		75	<5
13/01/2006	14:00-14:30	53.1	54.9		75	<5
17/01/2006	10:40-11:10	54.1	54.9		75	<5
20/01/2006	14:40-15:10	53.6	54.9		75	<5
24/01/2006	10:40-11:10	54.4	54.9		75	<5
27/01/2006	14:40-15:10	52.9	54.9		75	<5

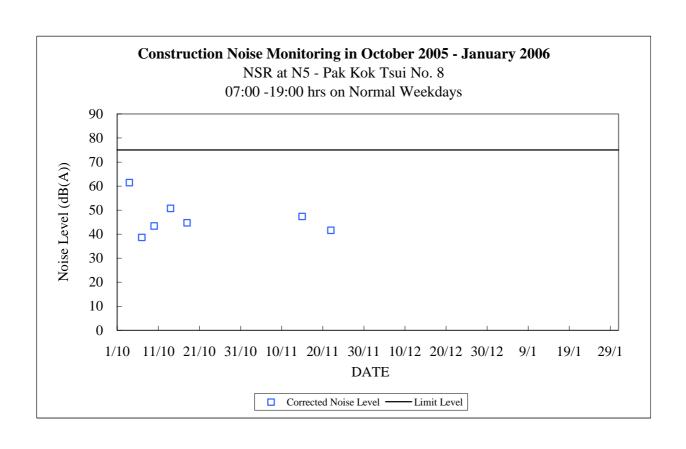
Measurement Location: N5 - Pak Kok Tsui No.8

Date	Time	Measured Noise Level (dB(A))	Notional Background Noise Level (dB(A))	Corrected Noise Level (dB(A))	Limit Noise Level (dB(A))	Wind Speed (m/s)
03/01/2006	10:40-11:10	48.6	54.9		75	<5
06/01/2006	14:40-15:10	53.2	54.9		75	<5
10/01/2006	10:00-10:30	48.7	54.9		75	<5
13/01/2006	14:40-15:10	49.8	54.9		75	<5
17/01/2006	10:00-10:30	48.5	54.9		75	<5
20/01/2006	14:00-14:30	49.7	54.9		75	<5
24/01/2006	10:00-10:30	49.0	54.9		75	<5
27/01/2006	14:00-14:30	49.8	54.9		75	<5

Note:

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





Appendix F

The QA/QC Procedures and Results

HIGH VOLUME AIR SAMPLER SITE VISIT LOG SHEET

Site Na	Site Name:		RE Site No.:		Am 1			
Date o	Date of visit:		1-2006	Hour of Visit:	11:05			
Staff n	ame:		L angle		2198			
Used f	ilter paper no.:	LTI		New filter paper no.:	LT09			
Туре	of filter:	Glass-fil	ore					
I.	Ambient Conditions Temperature, $T_a =$		4.0 K P1	ressure, $P_a = \underline{l}$	<u>0 </u>			
II.	Correction of mano	•						
	Calibration orifice No.		Manometer reading at site conditions corresponds to $Q_{STD} = 40 \text{ ft}^3/\text{min.}$ (inch H_2O)					
	1535(09/2009	5)		$\triangle H_a = 19.29(T_a/P_a)$)= <u>5.65"</u>			
	Manometer reading before calibration: Adjustment of flow controller (Y/N): Manometer reading after calibration: Solution: Y Note: Tolerance Limit of HVAS flow: ± 1.0 ft ³ /min. Corresponding limits for manometer: ± 0.2 inch H ₂ :							
III.	. General Conditions of HVAS							
IV.	Remarks							

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

HIGH VOLUME AIR SAMPLER SITE VISIT LOG SHEET

e Name:	<u> </u>	Site No.:	AM2
te of visit:	16-1-2006	Hour of Visit:	10 45
iff name:	W. L. MAK	HVAS S/N:	2195
ed filter paper no.:	LT08	New filter paper no.:	410
pe of filter:	Glass-fibre		·
Ambient Conditions $Temperature, T_a =$		Pressure, $P_a = $	<u>1018</u> mb
Correction of mano	meter reading		
Calibration orifice	No.	Manometer reading at corresponds to Q _{STD} (inch H ₂ C	$= 40 \text{ ft}^3/\text{min.}$
1535(09/200)	5)	$\triangle H_a = 19.29(T_a/P_a)$	=582 = (
Manometer reading Adjustment of flow Manometer reading Note: Tolerance Limit o General Conditions	controller (Y/N): after calibration: f HVAS flow: ± 1.0 fl		or manometer: ± 0.2 inch $ m H_2O$
Remarks			

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

PARTISOL TSP SAMPLER SITE VISIT LOG SHEET

Site Name: Ash lagor	Site Number:AM3
Date of Visit: 16-1-2006.	Hour of Visit: 10 c =
Staff Name: W.L. MAK . H.K. ISANG	Partisol S/N: 2000 R 207 XX 0410
Used Filter No.: PDO	New Filter No.:PD_0 2
Ambient temperature: 21°C	Ambient pressure: 10 6 mpar
I. <u>General Services</u>	
Replace control unit Lar	ge In-line Filter
2. Clean the sample inlet h	ead
3. Clean sample tube	<u>X</u>
4. Clean / Replace pump h	ead
5. Clean / Replace piston _	X
1. <u>Temperature Check</u> (Ambient	ration: Y/N After
2. <u>Pressure Check</u> (Ambient pressu	re ± 20 mbar)(1actor = 0.000987)
Before Calib	ration: Y/N mbar After
3. Flow Check (16.7±1.1 litre/min)	· ·
Before Calib	ration: Y/N1/min After
III. <u>Remarks</u>	

MINI VOLUME AIR SAMPLER SITE VISIT LOG SHEET

Site Name:		TYU	Site No.:	AM4	
Date of visit:		16-1-06	Hour of Visit:	11:00	
Sta	ff name:		H. K. TSANIA	MINIVOL S/N:	3383
Use	ed filter pa	aper no.:	нн 87	New filter paper no.:	MH86
Type of filter: I. Calibration is perfo			Cellulose / Gla (Delete as appro		
	5 Sl/m	in set point	is recommended		
		X.0	Before	X.OAfter	
Π.	General S	Service of M Clean Rota	Iini Vol Air Sampl	er X	l
	2.	Clean / rep	olace Pump Valves	:X	
	3.	Clean / rep	olace Pump Diaphr	agms:(
	4.	Clean Imp	action Inlet:	✓	
	5.	Replace Ti	imer Battery Every	6 months:	
	6.	Replace In	ılet Filter:	V	
III.	Remark	S		<u>.</u>	
					

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

Month: January Year: 2006

	Reservoir (AM1)							
Date	Frequency (Hz) (230 – 260)	Noise (< 0.1)	Operation Mode (Mode 4)	Main Flow (1/min) (0.94 – 1.06)	Aux. Flow (l/min) (14.67 – 16.67)			
2/1/2006	257-46	0.031	4	1.00	15.68			
8/1/2006	257-18	0.033	4	1.00	15-68			
14/1/2006	236.72	0.032	4	1.00	15-68			
20/1/2006	256.44	0.020	4	1.00	15-68			
26/1/2006	256.09	0.024	4	1.00	15-68			

	East Gate (AM2)							
Date	Frequency (Hz)	Noise	Operation Mode	Main Flow (1/min)	Aux. Flow (l/min)			
Date	(230 - 250)	(< 0.1)	(Mode 4)	(0.94 - 1.06)	(14.67 - 16.67)			
2/1/2006	245-79	0.049	¥	0.99	15-64			
8/1/2006	245.54	0.030	4	0.19	15.65			
14/1/2006	45.08	0.041	4	0.99	15.63			
20/1/2006	244.81	0.04	4	1.00	15-64			
26/1/2006	244.76	0.038	4	1.00	15.63			

	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)			
2/1/2006	246.70	0.068	4	1.00	15-67			
8/1/2006	246.51	0.047	4	0.49	15-67			
14/1/2006	246.14	0.045	4	1.01	15.68			
20/1/2006	249.09	0.034	4	1.00	15-68			
26/1/2006	248.82	0.049	4	1.01	15-67			

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

Remarks:				
			 	, ,, ,, , , , , , , , , , , , , , , ,
Prepared by:	Alex.	_		

Checked by : ____

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

Location Ash Lagoon/Ching Lamt										
Date	16-1-06 Time $10:45$.									
Equi	oment Rion NA-27/ B&K-2238F* Sound Level Meter									
	Serial Number - 00111465/00111466 /00111467/ 2343838/2356907*									
Staf	Staff Attended W. L. MAK ; H.K. ISAN G									
1.	Calibration									
	Acoustic calibrator used Rion NC-74									
	Calibration level before adjustment (dB(A))94.0									
	Calibration level after adjustment (dB(A))94									
2.	Weather Conditions									
	a. Sunny/fine/cloudy/showery/heavy rain*									
	o. <u>Strong_wind/breeze/</u> calm*									
3.	Remark/Observation									

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	e	7 -1 - 1) X	_ Time _		[6:00		
Equ:	EquipmentRion NA-27/B&K 2238F* Sound Level Meter							
Ser	ial Number	-00111	465/0011	1466/00111	.467/2343	838/ 2356907*		
Sta:	ff Attende	d		W. H. HAK	<u>,</u> H.	K. TSANG		
1.	Calibrati	<u>on</u>						
	Acoustic	calibrato	or used			Rion NC-74		
	Calibrati	on level	before a	djustment	(dB(A))	93.6		
	Calibrati	on level	after ad	justment	(dB(A))	94		
2.	Weather C	onditions	3					
	a. Sunny	/fine/ clo	oudy/s how	e ry/heavy	rain*			
	b. Stron	g wind/br	eeze/cal	m*				
3.	Remark/Ob	servation	<u>1</u>					
		,						

Note: * - Please delete where inappropriate

Equipment Calibration Record for January 2006

Site:

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

Noise Equipment Used:

RION NL - 31

Calibrator Used:

<u>RION NC - 74</u>

Measurement Location: N4 - Pak Kok Tsui No. 2

Date	Calibration Level before	Calibration Level after	Calibrated by
	Measurement (dB(A))	Measurement (dB(A))	
03/01/2006	94.0	94.0	C K Law
06/01/2006	94.0	94.0	C K Law
10/01/2006	94.0	94.0	Anthony Wong
13/01/2006	94.0	94.0	Anthony Wong
17/01/2006	94.0	94.0	C K Law
20/01/2006	94.0	94.0	C K Law
24/01/2006	94.0	94.0	C K Law
27/01/2006	94.0	94.0	C K Law

Measurement Location: N5 - Pak Kok Tsui No. 8

Date	Calibration Level before	Calibration Level after	Calibrated by
	Measurement (dB(A))	Measurement (dB(A))	i
03/01/2006	94.0	94.0	C K Law
06/01/2006	94.0	94.0	C K Law
10/01/2006	94.0	94.0	Anthony Wong
13/01/2006	94.0	94.0	Anthony Wong
17/01/2006	94.0	94.0	C K Law
20/01/2006	94.0	94.0	C K Law
24/01/2006	94.0	94.0	C K Law
27/01/2006	94.0	94.0	C K Law
			:

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

Appendix G Event/Action Plans

Table G.1 Event and Action Plans for Air Quality

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

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

Table G.2 Event and Action Plans for Construction Noise

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

Table G.3 Event and Action Plans for Water Quality

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

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

Appendix H

Site Audit Summary

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

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

Inspection c	ate 166 Time 10215 Inspecte	d By	ET:	QV.	Mp	Word,
Site	200x - Superstructure	1	Com		·_/ <u>\</u>	ngo, r
Veather						
Condition	Sunny Fine Overcast Hazy		Drizz	ele [Ra	in Sto
Temperatu	re[7]°C Humidity High Moderate	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?		1			
	ITY .					
Ref.	Checklist Condition	N/A	Ves	No	Ilnk	Remarks
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
		N/A	Yes	No	Unk	Remarks
Ref. Cap311R:	Checklist Condition General Requirements	N/A	Yes	No	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	N/A	Yes	No	Unk	Remarks
Cap311R: 3 Cap311R: Sch 12(3)	Checklist Condition General Requirements Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change? A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this	N/A	Yes	No	Unk	Remarks
Cap311R: 3 Cap311R: Sch 12(3)	Checklist Condition General Requirements Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change? A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed? Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever	N/A	Yes	No	Unk	Remarks
Cap311R: 3 Cap311R: Sch 12(3)	Checklist Condition General Requirements Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change? A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed? Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	N/A	Yes	No	Unk	Remarks
Cap311R: 3 Cap311R: Sch 12(3) Cap311	Checklist Condition General Requirements Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change? A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed? Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection? Construction Sites Are haul roads paved with concrete or sprayed with water to keep	N/A	Yes	No	Unk	Remarks

Ref.	Checklist Condition	N/A	Yes	Nο	Unk	Remarks
	Cement and dry polyerized 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?	/				
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	٠				
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	. (<i>.</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?		/		,	
	Transfer of dusty materials using a belt conveyor system		·	ل <u>.</u> ل		
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?	/				
Cap311R: Sch 20(2)	ls every transfer point between any two-belt conveyors totally enclosed?	1				
Cap311R: Sch 20(3)	Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?					
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?					
	Concrete batching plant					
	A 41-1-41 1 11 1 11 1 1					
	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?				ĺ	
N2 EM&A:	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system? Are dusty materials, except cement and dry PFA, wetted by water spray system?	1				
EM&A: A2 EM&A: A2 EM&A:	dusty materials carried out in a totally enclosed system? Are dusty materials, except cement and dry PFA, wetted by water	1				

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

WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials					
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	/				
WMIP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	/				
EM&A: E3	Are wastes disposed of at licensed sites?					
	Construction Waste and Excavated Materials					
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?					
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	7		·		
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?		/			
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?		/			
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?					
EM&A: E3	Are wastes disposed of at licensed sites?	1				
	General refuse					
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		/			
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		/			
WMP	Is the refuse disposed of regularly and properly?		/			
WMP	Are burning of refuse at site and dumping at sea prohibited?					
	Chemical Waste					
EM&л: Е3	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?					

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks		
WDO	Has the Contractor been registered as a chemical waste producer?	/						
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?	/		† 		 		
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging. Handling and Storage of Chemical Waste'"?	/						
EM&Λ: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?	/						
	Storage, collection and transportation of waste							
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;	7						
	(2) reusable / recyclable materials;	/						
	(3) un-reusable / non-recyclable waste for landfill disposal.	/						
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?	/						

WATER QUALITY

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

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

MARINE ECOLOGY

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

NOISE

							
Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: Cl	Are working programmes sched	uled to minimize noise nuisance?	-	/			
EM&A: CI	Are construction works or equip nuisance?	oment sited to minimize noise		/			
EM&A: CI	Are all plant and equipment mai conditions?	ntained in good operating		/			
EM&A: C1/GP	Is idle equipment turned off or t			/		_	1
EM&A: Cl	Are methods of working devised nuisance?	d and arranged to minimize noise		/			
EM&A: C1)	Are construction works carried on nuisance?	out in a manner to minimize noise		/			
EM&A: C2	To mitigate construction noise of holidays, is either one of the foll a) Mitigation by portable nois b) Rescheduling of some pow sensitive time periods?	luring Sunday's and public lowing measures adopted? se barriers at noise sources or ered mechanical equipment to less		/			
EM&A: C3	To mitigate night time construct equipped with silencers or muffl	ion noise, is dredging equipment ers?	1				
NCO	Are valid construction noise per inspection?	•		/			
NCO	Are conditions of construction n relevant part(s) of the works imp	plemented accordingly?		/	-		
NCO	Are valid noise emission labels in held percussive breakers?	fixed at air compressors and hand		7	-		10.0
	Major noise source(s)	☐ Traffic	Ø	Consti site	uction	n activi	ities inside the
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Construction activities outside the site		Others			

Abbreviation

VEP:	Varied Environmental Permit		•
AMP	Waste Management Plan	EM&A:	EM&A Manual (Construction Phase)
Cap341R:	APC (Construction Dust) Regulation	NCO:	Noise Control Ordinance
Cap314O:	APC (Open Burning) Regulation	WDO:	Waste Disposal Ordinance
Cap311:	Air Pollution Control Ordinance		
PN1/94:	Practice Note for Professional Persons (Cor	astruction Site I	Orainage)
Unk:	Unknown		
Remark			
. Commission			
k 18 l			
-121- 			
	A		
		· · · · · · · · · · · · · · · · · · ·	
	4-14-4		

Signatures

ET Member

Contractor's Representative

(Name in Block letters:

L.K. Wory

(Name in Block letters:

Wong Ho Hong

11th November 2002

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

Weekly Site Inspection Checklist

Inspection of	tate [[[/[06]] Time [10:00]] Inspects	ed By	ET:	av	ny Pau	Word
Site	IMX - Superstructure		Conti	acto	<u> </u>	41-K
Veather						
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	uinSt
Temperatu	rre 🔣 °C Humidity 🔃 High 📗 Moderat	ie /	Lov	,		
Wind	Calm Light Breeze Strong					
GENERAL						
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		1			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		/			
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements	1				
Cap311R: 3	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?					
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?					
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	1				
	Construction Sites	1	l	L	L	1
EM&A : Л1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		1			
	Stockpiling of dusty materials	L		L		l
Cap311R: Seh 18	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?					

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized fuel ash (PFA)					
Cap311R: Sch 15(3)	Are the storage silos for cement or dry PFA prevented from overfilling?					
Cap311R: Sch 15(4)	Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system?	/				
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?					
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	/				
	Loading, unloading or transfer of dusty materials					
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?					
EM&A: Al	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?	/				
	Use of vehicles		J			
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	/				
Cap311R: Sch 21(1)	Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?		/		,	
	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				•	
ЕМ&Л: Л2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?	/				
EM&Λ: Λ2	Are dusty materials, except cement and dry PFA, wetted by water spray system?	/				
	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
	Miscellaneous					
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?					
Cap311O	Is open burning prohibited?		/			
Cap311	Is black smoke emission from plant/equipment avoided?		/			

WASTE/CHEMICAL WASTE MANAGEMENT

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

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

WATER QUALITY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off					
PN1/94	Are the silt removal facilities, channels and manholes maintained and the deposited silt and grit removed regularly?	/				
PN1/94	Are earthworks final surfaces well compacted and the subsequent permanent work or surface protection carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms? Is appropriate drainage like intercepting channels provided where necessary?	/				
PN1/94	Are measures taken to minimize the ingress of rainwater into trenches? Is rainwater pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?	1				
PN1/94	Are open stockpiles of construction materials (e,g, aggregates, sand and fill material) on site covered with tarpaulin or similar fabric during rainstorms? Are measures taken to prevent the washing away of construction materials, soil, silt or debris into the drainage system?	/				
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					
P:N1/94	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?	/				:
EM&A: G2	Do the marine vessels moving to and from the construction site strictly follow the routes stated in the "Plan for Dredging & Reclamation, Routing of Construction Related Marine Vessels, and Installation of Silt Curtain"?	/				
EM&A: G3	Is rubble mound seawall constructed to the south and west edges of the reclamation to enhance recolonisation of marine organisms?					

NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: CI	Are working programmes schedu	led to minimize noise nuisance?		1			
EM&A: Cl	Are construction works or equiprinuisance?	nent sited to minimize noise		/			
EM&A: CI	Are all plant and equipment main conditions?	stained in good operating		/			
EM&A: CI/GP	Is idle equipment turned off or th	rottled down?		/			77
EM&A: Cl	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		1			
EM&A: C2	To mitigate construction noise du holidays, is either one of the folle a) Mitigation by portable noise b) Rescheduling of some powe 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 impl	oise permits, if any, for the lemented accordingly?		/	,,		
NCO	Are valid noise emission labels fi held percussive breakers?	xed at air compressors and hand		/	-		
		☐ Traffic	Ø	Const	ructio	n activ	ities inside the
	Major noise source(s)	Construction activities outside the site		Other	5		

Abbreviation

VEP:

Varied Environmental Permit

чме

Waste Management Plan

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

Cap311R: Cap341O: APC (Construction Dust) Regulation APC (Open Burning) Regulation

Noise Control Ordinance NCO: Waste Disposal Ordinance

Cap311; PN1/94;

Air Pollution Control Ordinance

WDO:

Practice Note for Professional Persons (Construction Site Drainage)

Unk:

Unknown

R	em	ark

Ni1

Signatures

ET Member

Contractor's Representative

(Name in Block letters:

11th November 2002

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

Weekly Site Inspection Checklist

Inspection o	tate [1/1/06] Time [0:20] Inspecte	ed By	ET:	/ar	M	Wone
Site	200x- Super Anusture	ĺ	Com	acto	· NIV	go, re
/eather	/					·
Condition	Sunny Fine Overcast Hazy		Driza	zle [Ra	in St
Temperatu	rre C Humidity High Moderal	ie _	Low	,		
Wind	Calm Light Breeze Strong					
ENERAL						
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		/			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		7			
IR QUAL Ref.	TY Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements	1,471		1		- Tentar As
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?		1		, , <u> </u>	
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?		/			
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	/				
	Construction Sites			L		
EM&A : A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		1			
	Stockpiling of dusty materials	<u> </u>		L		L
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 never the entire surface.					

Ref.	Checklist Condition .	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized fuel ash (PFA)					
Cap311R: Seli 15(3)	Are the storage silos for cement or dry PFA prevented from overfilling?	/				
Cap311R: Sch 15(4)	Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system?	/				
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?	/				
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	/				
	Loading, unloading or transfer of dusty materials					•
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?	/				
EM&A: A1	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?	/				
	Use of vehicles					
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?					
Cap311R: Sch 21(1)	Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?		/	/		·
• • • • • • • • • • • • • • • • • • • •	Transfer of dusty materials using a belt conveyor system		•		·	J
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	4				
EM&л: Л2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?	1				
EM&л: Л2	Are dusty materials, except cement and dry PFA, wetted by water spray system?	1				
EM&Λ: Λ2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	1				
EM&A:	Are all the conveyor transfer points totally enclosed?					

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Miscellaneous					
Cap311R: Sch 16	Are completed earthworks scaled 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

Reſ	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials					
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?					
WMP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	/				
EM&A: E3	Are wastes disposed of at licensed sites?	/				
	Construction Waste and Excavated Materials					
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	1				
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?					
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?		/			
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?		/			
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	1				
EM&A: E3	Are wastes disposed of at licensed sites?	1				
	General refuse					
WAIP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		/			
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		/			
WAIP	Is the refuse disposed of regularly and properly?		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?	1						
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?	JAK /						
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging. Handling and Storage of Chemical Waste**?	/						
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?	/						
	Storage, collection and transportation of waste							
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?	/			·			
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?							
—	(1) public fill materials for on-site reuse, or disposal at public filling area;	/						
	(2) reusable / recyclable materials;							
	(3) un-reusable / non-recyclable waste for landfill disposal.	/						
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?	/						

WATER QUALITY

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

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

MARINE ECOLOGY

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

NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A:	Are working programmes schedu	iled to minimize noise nuisance?		1		1	
EM&A: CI	Are construction works or equipmuisance?	ment sited to minimize noise		/			
EM&A: CI	Are all plant and equipment main conditions?	ntained in good operating		/			
EM&A: CI/GP	Is idle equipment turned off or the	prottled down?		/			
EM&A: CI	Are methods of working devised nuisance?						
EM&A: C1)	Are construction works carried o nuisance?		/				
EM&A: C2	To mitigate construction noise de holidays, is either one of the folk 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 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		/			WE 3.1
	Major noise source(s)	☐ Traffic	口	Const	ructio	n activ	ities inside the
	istalor noise some ce(2)	Construction activities		Other	s		

Abbreviation

VEP:	Varied Environmental Permit		
WMP	Waste Management Plan	EM&A:	EM&A Manual (Construction Phase)
Cap314R:	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 (Cor	istruction Site I	Orainage)

Unk:

Remark		
Nil		AND THE RESIDENCE OF THE PERSON OF THE PERSO
	A	
		·.
Signatures		

ET Member

Contractor's Representative

(Name in Block letters:

IEC's Representative

)

11th November 2002

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

Weekly Site Inspection Checklist

Inspection d	late VS/1/06 Time 10215 Inspecto	d By	ET: (an	¥	Wong
Site	LMX- superstructure	1	Contr	ileto	· KN	ngo, M
Veather						
Condition	Sunny Fine Overcast Hazy		Drizz	zle [Ra	in St
Temperatu	re 7°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	T	- N/A			711.	n
Ref.	Checklist Condition	N/A	Yes	No	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, 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	I	L	l	L_,
EM&A : Л1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		1			
						

Are stockpiles of dusty materials entirely covered with impervious

sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?

Cap311R:

Sch 18

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

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

WASTE/CHEMICAL WASTE MANAGEMENT

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

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks		
WDO	Has the Contractor been registered as a chemical waste producer?	1			#			
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?							
ЕМ&А: Е4	Is chemical waste handled according to the Code of Practice on the Packaging. Handling and Storage of Chemical Waste"?							
ЕМ&Л: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?	/						
	Storage, collection and transportation of waste							
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?	/						
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?							
	(1) public fill materials for on-site reuse, or disposal at public filling area;	/						
	(2) reusable / recyclable materials;	/						
	(3) un-reusable / non-recyclable waste for landfill disposal.	/						
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?	7						

WATER QUALITY

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

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:	Are working programmes schedu	iled to minimize noise nuisance?		/			
EM&A: C1	Are construction works or equipanuisance?	ment sited to minimize noise		/			
EM&A: C1	Are all plant and equipment mair conditions?	ntained in good operating					
EM&A: CI/GP	Is idle equipment turned off or th		/				
EM&A: Cl	Are methods of working devised nuisance?		/				
EM&A: C1)	Are construction works carried o nuisance?		/				
EM&A: C2	To mitigate construction noise 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 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?		/				
		☐ Traffic	Construction activities inside the				ities inside the
	Major noise source(s)	Construction activities		Others	·		

Abbreviation

	100	13.	
`	1;1	1.	

Varied Environmental Permit

 $\Delta \, \mathrm{MP}$

Waste Management Plan

NCO:

WDO:

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

Cap311R: Cap311O. APC (Construction Dust) Regulation APC (Open Burning) Regulation

Noise Control Ordinance Waste Disposal Ordinance

Cap311: PN1/94:

Air Pollution Control Ordinance

Practice Note for Professional Persons (Construction Site Drainage)

Unk:

Unknown

Re	ma	rk
----	----	----

Mel		
,		
	,	

Signatures

ET Member

Contractor's Representative

(Name in Block letters:

11th November 2002

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

Inspection	date 5 Jan o 6 Time 09:30 Inspect	ed By	ET:	-0		Sto (HZ
Site	LMX Unit 9 - Mech. Fredam Ances		Com	1800	. W.	F.Kusek (71)K
Veather			-	uen-nes	Department,	
Condition	Sunny Fine Overcast Hazy		Driz	zle [R	sin Sto
Temperate	re/4 °C Humidity High Moderat	e [Lov	V.		
Wind	Calm Light Breeze Strong					
GENERAL				-		
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		V			
VEP 1.6	Is a copy of ElA report kept in Engineers' and Contractors' offices on site?		~			-
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements	-				
Cap311R:	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?	v				
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?		v			
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?					4
	Construction Sites			-		
EM&A ; A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		1			Sprayers By P.Y
	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?	V				

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 fael ash (PFA)					
Cap311R: Sch 15(3)	Are the storage siles for cement or dry PFA prevented from overfilling?	V		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 year of the system?	V				
Сяр311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level elarm?	1				
Cap311R: Sch 17	Are the coment, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	1				
	Londing, unloading or transfer of dusty materials			-		
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?	V				
EM&A: A1	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?	V	,			
	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?		J			Cleaning Armort By RY.
	Transfer of dusty materials using a belt conveyor system					
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?	V				
Cap311R: Sch 20(2)	Is every transfer point between any two-belt conveyors totally enclosed?	V				-
Cap311R: Sch 20(3)	Is a best scraper or equivalent device installed at the head pulley of every conveyor? Is the best scraper equipped with bottom plates or similar awars to prevent falling of materials from the setum bests?	V				
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?	1				İ
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?	V		-		
EM&A:	Are all the conveyor transfer points totally enclosed?	J	1			

Page 2 of 7

C Documents and Settings/English/My Documents/U9 Safety Management/S-05 Inspection programme/Weekly Site Inspection Checklistidoc

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

WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Candition	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?	1				
EM&A: E3	Are wastes disposed of at beensed 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?	V				
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?		V			
WMP	Are burning of refuse at site and dumping at sea prohibited?		V	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)?		V	-		

Page 3 of 7

C.\Documents and Settings\English\M\v Documents\U9 Sufety Management\S-05 Inspection programme\Weekly Site Inspection Checklist doc

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
WDO	Has the Contractor been registered as a chemical waste producer?		1			
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?		V			
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste''?		V			
EM&A: E4	Is the chemical waste storage, if any, we'll maintained, kept closed and locked?		V			
	Storage, collection and transportation of waste					
EM&A: E3	Are wastes transported by enclosed containers or covered tracks?		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;	v				
	(2) teusable / 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?		1			

WATER QUALITY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off					
PN1/94	Are the silt removal facilities, channels and manholes maintained and the deposited silt and grit removed regularly?	V	i			
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?	·				
	Groundwater			1000		
PN1/94	Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?	V				

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

MARINE ECOLOGY

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

NOISE -

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: C1	Are working programmes scheo	duled to minimize noise nuisance?		V			
EM&A: CI	Are construction works or equi nuisance?	pment sited to minimize noise				- 8	
EM&A: CI	Are all plant and equipment ma conditions?	intained in good operating		~			
EM&A: CI/GP	Is idle equipment turned off or	throttled down?		1		-	
EM&A: Ci	Are methods of working devise nuisance?	d and arranged to minimize noise		1			
EM&A: CI)	Are construction works carried nuisance?		1				
EM&A: C2	To mitigate construction noise of holidays, is either one of the fol a) Mitigation by portable noise. b) Rescheduling of some powsensitive time periods?	lowing measures adopted?					
EM&A: C3	To mitigate night time construction equipped with silencers or must	tion noise, is dredging equipment ders?	7				
NCO	Are valid construction noise per inspection?	rmits, if required, available for	1				
NCO	Are conditions of construction relevant part(s) of the works int		~				
NCO	Are valid noise emission labels held percussive breakers?	fixed at air compressors and hand		1			
		□ Traffic	0/0	Constr	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 Unknown	NCO: WDO:	Waste Disposal Ordinance
Remark		THE RESIDENCE TO SECURE VALUE OF THE PARTY O	

Signatures

ET Member

Contractor's Representative

(Name in Block letters:

(Name in Block letters;

W. F. Kurk)

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

Inspection	date 2 Jan 06 Time 67130 Inspect	ed By	ET:		<i>W</i> . ∶	Sin (HI
Site	LMX Unt 9-Much Frenten Area		Cont	racto	r: W 7	Kurk 100
Weather					(PROPERTY CHARLES	
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	in Sto
Temperate	re DO °C Humidity High Moderat	te	Lov	v		
Wind	Calm Light Breeze Strong					
GENERAL						
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		✓			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		1			
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements					
Cap311R: 3	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?	✓				
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?		✓			
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	✓				
	Construction Sites					
EM&A: A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		/			Spraying By P.Y.
	Stockpiling of dusty materials					J '''
Cap311R: Sch 18	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?	/				

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?	V				
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?	1				
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	V				
	Loading, unloading or transfer of dusty materials	<u> </u>			I	
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?	V				
	Use of vehicles					L
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	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?		/			Cleary Droveled By PX
	Transfer of dusty materials using a belt conveyor system					
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?	V				
Cap311R: Sch 20(2)	Is every transfer point between any two-belt conveyors totally enclosed?	V				
Cap311R: Sch 20(3)	Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?	V	-			·
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?	V				
	Concrete batching plant					1
EM&A: A2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?	1				
EM&A: A2	Are dusty materials, except cement and dry PFA, wetted by water spray system?	/				
EM&A: A2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	V				
EM&A: A2	Are all the conveyor transfer points totally enclosed?	V				

Page 2 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
	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	Yeş	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?	~				
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?	V.				
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	1				
EM&A: E3	Are wastes disposed of at licensed sites?	~				
	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?		_			
WMP	Are burning of refuse at site and dumping at sea prohibited?		V			
	Chemical Waste					
EM&A: E3	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?		1			

Page 3 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
WDO	Has the Contractor been registered as a chemical waste producer?		~			
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?		~			
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste''?		V			
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?		/			
	Storage, collection and transportation of waste	• • • • • • • • • • • • • • • • • • • •				
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?		/			
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?					
	(1) public fill materials for on-site reuse, or disposal at public filling area;	1				
	(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		L
PN1/94	Are the silt removal facilities, channels and manholes maintained and the deposited silt and grit removed regularly?	1				
PN1/94	Are earthworks final surfaces well compacted and the subsequent permanent work or surface protection carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms? Is appropriate drainage like intercepting channels provided where necessary?	V				
PN1/94	Are measures taken to minimize the ingress of rainwater into trenches? Is rainwater pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?	1				
PN1/94	Are open stockpiles of construction materials (e.g., aggregates, sand and fill material) on site covered with tarpaulin or similar fabric during rainstorms? Are measures taken to prevent the washing away of construction materials, soil, silt or debris into the drainage system?	,				
PN1/94	Are manholes (including newly constructed ones) adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers?					
	Groundwater					
PN1/94	Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?	/				

Page 4 of 7
C:\Documents and Settings\English\My Documents\U9 Safety Management\S-05 Inspection programme\Weekly Site Inspection Checklist.doc

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

MARINE ECOLOGY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: G1	Are all percussive piling works conducted on reclaimed land to avoid noise impact to marine mammals?	1				
EM&A: G2	Do the marine vessels moving to and from the construction site strictly follow the routes stated in the "Plan for Dredging & Reclamation, Routing of Construction Related Marine Vessels, and Installation of Silt Curtain"?	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 sched	uled to minimize noise nuisance?		/			
EM&A: C1	Are construction works or equip nuisance?	ment sited to minimize noise		/			
EM&A: C1	Are all plant and equipment mai conditions?	ntained in good operating		1			
EM&A: C1/GP	Is idle equipment turned off or the	nrottled down?		1			
EM&A: C1	Are methods of working devised nuisance?	and arranged to minimize noise		1			
EM&A: C1)	Are construction works carried of nuisance?	out in a manner to minimize noise		1			
EM&A: C2				J			
EM&A: C3	To mitigate night time construct equipped with silencers or muffl	on noise, is dredging equipment ers?	V				
NCO	Are valid construction noise peri inspection?	nits, if required, available for	1				
NCO	Are conditions of construction no relevant part(s) of the works imp						
NCO	Are valid noise emission labels fi held percussive breakers?	ixed at air compressors and hand		1			
	Major noise source(s)	☐ Traffic ☐ Construction activities outside the site		Constr site Others		activi	ties inside the

Page 6 of 7
C:\Documents and Settings\English\My Documents\U9 Safety Management\S-05 Inspection programme\Weekly Site Inspection Checklist.doc

Abbreviation VEP: Varied Environmental Permit Waste Management Plan APC (Construction Dust) Regulation WMP: EM&A: EM&A Manual (Construction Phase) Cap311R: Cap311O: NCO: Noise Control Ordinance APC (Open Burning) Regulation WDO: Waste Disposal Ordinance Cap311; PN1/94: Air Pollution Control Ordinance Practice Note for Professional Persons (Construction Site Drainage) Unk: Unknown Remark Signatures ET Member Contractor's Representative

ame in Block letters:

(Name in Mock letters:

SIU)

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

Inspection	date [18/01/2006] Time [10:25 DM Inspec	ted By	FI		/M(them 18
Site	Lm x - U9		Con	track)r	7 Um Tek
Veather					OLIMANIA DA M	· · · · · · · · · · · · · · · · · · ·
Condition	Sunny Pine Overcast Hnzy		Driz	zic	R	ain Storm
Temperat	ure °C Humidity High Modera	ite [Lov	w		
Wind	Caim Light Breeze Strong					
GENERAL						
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		1		And Inches	1
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?					A was
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements	<u> </u>		1		
Cap3tJR: 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?	J				
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?				·	
Cap3I1	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	<u>i </u>		·	***************************************	l
em&a : Ai	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		1			ود ويه ود
······	Stockpiling of dusty materials		<u></u> ,		SV ANDERSON STATE	
Çap311R: 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?				***************************************	GETTING TOUT IN PROPERTY.

Page 1 of 7

CADocuments and Settings/English/My Documents/US Safety Management/S-US Inspection programme/Weekly Site Inspection Checklist.doc

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized fuel ash (PFA)	 -	· · · · · · · · · · · · · · · · · · ·		L	<u> </u>
Cap511R: Sch 15(3)	Are the storage siles for coment or dry PFA prevented from overfilling?	1	:			
Cap311R; Sch 15(4)	Are the handlings of coment 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 coment or dry PFA stored in a closed site fitted with a high-level alarm?	1		<u></u>	<u> </u>	1
Cap311R: Sch 27	Are the coment, 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 coment 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 fili materials controlled to a practical level to minimize fugitive dust emission?					VI II and the second se
	Use of vehicles					· · · · · · · · · · · · · · · · · · ·
Cap311R: Sch 21(2) EM&A: Al	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?					Clion by
	Transfer of dusty materials using a belt conveyor system	<u> </u>	<u>-</u>	i_		
Cap311R: 5ch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?	1			į	
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?					- pamar
İ	Concrete batching plant		1			
EM&A: A2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?	7	:			
EM&A: A2	Are dusty materials, except comout and dry PFA, wetted by water spray system?	7				
EM&A: A2	Are all the receiving hoppers enclosed on three (3) sides up to 3m above unloading point?	7				
EM&A:	Are all the conveyor transfer points totally enclosed?	1		-		

Page 2 of 7
CADocuments and Settings/English\My Documents\U9 Sufety Management\S-03 (aspection programme\Weekly Site inspection Checklist doc

Ref.	Checklist Candition	N/A	Yes	No	Urk	Remarks
	Miscellancous		1	!		L
Cap311R: Seh 16	Are completed earthworks scaled and hydroscoded and planted as soon as possible"	1			:	
Cap3110	Is open burning prohibited?					
Cap311	Is black smoke emission from plant/equipment avoided?		Ĭ			,

WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Condition	NA	Yes	No	Ųnk	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?			T- 17-14-							
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?	17			,,,						
(* 1	Construction Waste and Excavated Materials										
WMP EM&A: E3	Does the Centractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?										
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	1				dia secono					
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?										
WAIP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	1									
емел: ез	Are wastes disposed of at licensed sites?										
	Ceneral refuse										
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		ممرا			*****					
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								
	Chemical Waste	,,,,									
EM&A: E3	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?										

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
WDO	Has the Contractor been registered as a chemical waste producer?		1	 	-	
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?		S	i		
EM&A: E4	Is chemical waste handled according to the Code of Fractice on the Packaging, Handling and Storage of Chemical Waste ¹¹ ?		J			*
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?		7			
	Storage, collection and transportation of waste			L		127.00
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?		J			*I************************************
EM&A: E3	Are weste materials segregated and sorted into 3 categories as follows?		,			
	(1) public fill materials for on-site rouse, 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	Νɔ	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	maintained and the deposited silt and grit removed regularly? Are earthworks final surfaces well compacted and the subsequent permanent work or surface protection carried out immediately after the final surfaces are formed to provent erosion caused by rainstorms? Is appropriate drainage like intercepting channels provided where necessars?					
PN1/94	Are measures taken to minimize the ingress of minwater 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 sine covered with tarpaulin or similar fabric during rainstorms? Are measures taken to prevent the washing away of construction materials, soil, silt or debris into the drainage system?	1	, 1, 100 to 100			
PN1/94	Are manholes (including newly constructed ones) adequately covered and temporarily sealed so as to provent silt, construction materials or debns 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 regirculated as far as possible after sedimentation? If there is a need for final disposal, is the wastewater discharged into storm drains via silt removal facilities?					-
	Wheel Washing Water	1			1	
PN1/94	Is a wheel-weshing buy provided at every exit if practicable and is the silt removed from wash-water before discharging into storm drains?	1		*	-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 manurals?	1	ر پرده برد مر			
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: C3	Is rubble mound seewall constructed to the south and west edges of the reclamation to enhance recolonisation of marine organisms?	7	<i>f</i>			P.Phill becomes

NOISE

Ref	Checklist Condition		N/A	Yes	No	Dok	Remarks
EM&Λ : C1	<i>\}</i>	eduled to minimize noise nuisance?	 	7			
EM&A: C1	Are construction works or equinuisance?	ilpment sited to minimize noise		1			
EM&A: C1	Are all plant and equipment is conditions?	autained in good operating		7			
EM&A: CI/GP	Is idic equipment turned off or	throttled down?	Ī				
EM&A: C1	Are methods of working devis	ed and arranged to minimize noise	İ				<u> </u>
EM&A: C1)	Are construction works carried nuisance?	lout in a manner to minimize noise		/			
EM&A: C2		during Sunday's and public Mowing measures adopted? iso barriers at noise sources or wered mechanical equipment to less		/			
ЕМ&A: СЗ	To mitigate night time construe equipped with silencers or mul	ction noise, is dredging equipment Hers?	./				Tablished a change of the second seco
NCO	Are valid construction noise per inspection?	ermits, if required, available for	フ				***************************************
NCO .	Are conditions of construction relevant part(s) of the works in	noise permits, if any, for the uplemented accordingly?	7				
VCO	Are valid noise emission labels hold percussive breakers?	fixed at air compressors and hand		, ,	,		
	Mujor noise source/s)	□ Traffic		onstru site	ction	activiti	es inside the
	Magor noise source(s)	Major noise source(s) Construction activities outside the site		thers			

Abbreviation VE9: Varied Em ironmental Permit Waste Management Plan APC (Construction Dust) Regulation APC (Open Burning) Regulation Air Pollution Control Ordinance WMP. EM&A: EM&A Manual (Constantion Phase) Cap311R. Cap311O NCO: Noise Control Ordinance WDO. Waste Disposal Ordinance Cnp311: 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 IBCs representati (Name in Block letters:

Page 7 of 7

CADocuments and Settings/English/My Documents/U9 Safety Management/S-05 inspection programme/Weekly Site Inspection Checklishdoo

Inspected By ET:

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

Time 0 / 30

Inspection date

Site	LMY- Ungel - Mech. Enoten Ana	l	Cont	racto	r: W -	7.16k170x
Weather					Proposition de la constitución d	
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	in Storm
Temperatu	re C Humidity High Moderat	e	Lov	Ÿ		
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	4		1		
Cap311R: 3	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?	(
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?					
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	/				
	Construction Sites					
EM&A: A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		(Cryy By P-Z.
	Stockpiling of dusty materials					l
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	/				

Page 1 of 7

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

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		I			L
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	(
Cap311R: Sch 21(1)	Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?		/			Clony Rombit By P.Y.
	Transfer of dusty materials using a belt conveyor system			<u></u>		17 (-6
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?	1				
Cap311R: Sch 20(2)	Is every transfer point between any two-belt conveyors totally enclosed?	/				
Cap311R: Sch 20(3)	Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?	/				
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?	/				
	Concrete batching plant				·	
EM&A: A2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?					
EM&A: A2	Are dusty materials, except cement and dry PFA, wetted by water spray system?	1				
EM&A: A2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	/				
EM&A: A2	Are all the conveyor transfer points totally enclosed?	7				

Page 2 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
	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		L			L
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	1				
WMP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	/				
EM&A: E3	Are wastes disposed of at licensed sites?					
	Construction Waste and Excavated Materials					
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	/				
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	1				
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?	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?	1			-	
	General refuse					
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		/			
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		/			
WMP	Is the refuse disposed of regularly and properly?		1			
WMP	Are burning of refuse at site and dumping at sea prohibited?		7			
	Chemical Waste					
EM&A: E3	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?		/			

Page 3 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	Νo	Unk	Remarks
WDO	Has the Contractor been registered as a chemical waste producer?		/			
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?					
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?		/			
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	Arc wastes transported by enclosed containers or covered trucks?		/			
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?					
	(1) public fill materials for on-site reuse, or disposal at public filling area;	1				
	(2) reusable / recyclable materials;					
	(3) un-reusable / non-recyclable waste for landfill disposal.		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 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?					

Page 4 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
	Boring and Drilling Water					
PN1/94	Is water that used in ground boring and drilling for site investigation or rock/soil anchoring recirculated as far as possible after sedimentation? If there is a need for final disposal, is the wastewater discharged into storm drains via silt removal facilities?					,
	Wheel Washing Water					
PN1/94	Is a wheel-washing bay provided at every exit if practicable and is the silt removed from wash-water before discharging into storm drains?	/				

MARINE ECOLOGY

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

NOISE ·

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks		
EM&A: C1	Are working programmes sched	uled to minimize noise nuisance?		^					
EM&A: C1	Are construction works or equip nuisance?	ment sited to minimize noise		1					
EM&A: C1	Are all plant and equipment mail conditions?	ntained in good operating		/					
EM&A: C1/GP	Is idle equipment turned off or the	nrottled down?		1					
EM&A: C1	Are methods of working devised nuisance?								
EM&A: C1)	Are construction works carried on nuisance?		/						
EM&A: C2				/					
EM&A: C3	To mitigate night time constructi equipped with silencers or muffle	on noise, is dredging equipment ers?	-						
NCO	Are valid construction noise perr inspection?	nits, if required, available for	/						
NCO	Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?		1						
NCO	Are valid noise emission labels f held percussive breakers?	ixed at air compressors and hand							
	Major noise source(s)	☐ Traffic ☐ Construction activities	<u> </u>	site	uction	activi	ties inside the		
		outside the site	□ Others						

VEP: WMP: Cap311R: Cap311O: Cap311: PN1/94: Unk:	APC (Open Burni Air Pollution Con	nt Plan n Dust) Regulation ng) Regulation	NCO: WDO:	EM&A Manual (Construction Phase) Noise Control Ordinance Waste Disposal Ordinance Orainage)
Remark			AND REAL PROPERTY OF THE PERSON NAMED IN	эдий түү эм түүнө 4 дуу сандарын айдагын майр ро-мен да мүйсээг, соороод насын айсын айсын айсын айсын айсын а Эмий түү
	7			· · · · · · · · · · · · · · · · · · ·
Signatures				
ET Member		Contractor's Repres	sentative	
	<i>></i>	Name in Block let		

Abbreviation

Page 7 of 7

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

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

Inspection d	ate AJAN 2006 Time 09: 201.5 Inspecto	ed By	ET:	T.F.	CHIU r: 022	/PPE [ER CHGNG]/	د ما ۔
Site	LMX- 19 ELECTRICAL ERZETION AREA.	!	Com		·· (75)	GE CHENEY	HAN (C).
Weather							1
Condition	Sunny Fine VOvercast Hazy		Driz:	zle [Ra	nin Storr	ท
Temperatu	re 00°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?		V				
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		/				
AIR QUALI	TY Checklist Condition	N/A	Yes	No	Unk	Remarks	
	General Requirements						
Cap311R: 3	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?	✓					
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?		V				
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	\ \				340	
	Construction Sites			·			
EM&A : A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		V			NATER SPRA	(NG) PAULY
	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?	V					

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized fuel ash (PFA)	•				**** ·
Cap311R: Sch 15(3)	Are the storage silos for cement or dry PFA prevented from overfilling?	1				
Cap311R: Sch 15(4)	Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system?	1			_	
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?	\ \ \				
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	/				
	Loading, unloading or transfer of dusty materials	<u> </u>				
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?	V				
EM&A: A1	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?	V				
	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 Wash Services Provi By Porulli
	Transfer of dusty materials using a belt conveyor system					0
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?	V				
Cap311R: Sch 20(2)	Is every transfer point between any two-belt conveyors totally enclosed?	V				
Cap311R: Sch 20(3)	Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?	√				
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?	/				
	Concrete batching plant					
EM&A: A2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?	V				
EM&A:	Are dusty materials, except cement and dry PFA, wetted by water spray system?	√				
A2 `				ı		
A2 ` 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?	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?					
	Construction Waste and Excavated Materials					
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	V				
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	/				
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?	1				
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?	J				
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	1				
EM&A: E3	Are wastes disposed of at licensed sites?	1				
	General refuse					
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		V			
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		V			
WMP	Is the refuse disposed of regularly and properly?	1	J			
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)?	V				

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"?	V				
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?	V				
	Storage, collection and transportation of waste					
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?		1			
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?	√		:		
	(1) public fill materials for on-site reuse, or disposal at public filling area;					
	(2) reusable / recyclable materials;			-		
	(3) un-reusable / non-recyclable waste for landfill disposal.					
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?	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?	✓				
PN1/94	Groundwater Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?	1/				

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

MARINE ECOLOGY

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

NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: C1	Are working programmes sched	uled to minimize noise nuisance?		V			
EM&A: C1	Are construction works or equip nuisance?	ment sited to minimize noise		V			
EM&A: CI	Are all plant and equipment mail conditions?	ntained in good operating		1			
EM&A: C1/GP	Is idle equipment turned off or the	nrottled down?		\ \	•		, 74 5 (4)
EM&A: C1	Are methods of working devised nuisance?	and arranged to minimize noise		V			
EM&A: C1)	Are construction works carried on nuisance?		1			, 7,0° 2 ,0°4	
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?		V				****
EM&A: C3	To mitigate night time constructi equipped with silencers or muffle		V				
NCO	Are valid construction noise perrinspection?	nits, if required, available for	V				* 5.9° Mains et
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?			,			
		Traffic		Constr site	uction	activi	ities inside the
	Major noise source(s)	Construction activities outside the site		Others			

Abbreviation

VEP:

Varied Environmental Permit

WMP:

Waste Management Plan

Cap311R:

APC (Construction Dust) Regulation

NCO:

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

Cap3110: Cap311:

APC (Open Burning) Regulation

Air Pollution Control Ordinance

WDO:

Waste Disposal Ordinance

PN1/94: Unk:

Practice Note for Professional Persons (Construction Site Drainage) Unknown

Remark			
The second secon		 · · · · · · · · · · · · · · · · · · ·	
		VA-V	
A STATE AND A STATE AND A STATE AND A STATE AND A STATE AND A STATE AND A STATE AND A STATE AND A STATE AND A			
	, mi p. 6.	, na***-	
The state of the s			· · · · · · · · · · · · · · · · · · ·
1 100110000		77 - 777 All All a sandard	

Signatures

ET Member

Contractor's Representative

(Name in Block letters:

CHIU TO FU)
PDC

12th January 2005

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

Inspection	late 11 JAN 2006 Time 10:50 hst Inspect	ed By	ET:	7.7	CHILL	1 PDE]
Site	LHX- 19 EIETRICAL ERECTION ARZA		Cont	iacio	1. <i>1. 6</i> 7.	K CHGAG /SP	PVK
Weather							ı
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	in Storn	n
Temperatu	re	e	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?		V				
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?						

AIR QUALITY

eç

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?		/			PROVIDED
	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?	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?	8				
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?	✓				
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	/				
	Loading, unloading or transfer of dusty materials	·				
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?	V				
EM&A: A1	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?	/				
	Use of vehicles					
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?					
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 Wards Services Pro By Paul
	Transfer of dusty materials using a belt conveyor system					0
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?	V				
Cap311R: Sch 20(2)	Is every transfer point between any two-belt conveyors totally enclosed?	~				
Cap311R: Sch 20(3)	Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?	✓				
Cap311R: Sch 20(4)	Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m?					
.,	Concrete batching plant					
EM&A: A2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?	1				
EM&A: A2`	Are dusty materials, except cement and dry PFA, wetted by water spray system?	~				
EM&A: A2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	V				
EM&A:	Are all the conveyor transfer points totally enclosed?					1

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

WASTE/CHEMICAL WASTE MANAGEMENT

• 🔨

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials					
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	V				
WMP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	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?	J				
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	v				
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?	1				
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?	/				
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	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?		/			
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?		0			
	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?	N							
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?		V						
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?								

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?	V				·
PN1/94	Are open stockpiles of construction materials (e.g. aggregates, sand and fill material) on site covered with tarpaulin or similar fabric during rainstorms? Are measures taken to prevent the washing away of construction materials, soil, silt or debris into the drainage system?	1				
PN1/94	Are manholes (including newly constructed ones) adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers?	V				
PN1/94	Groundwater Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?	V				

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

MARINE ECOLOGY

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

NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: C1		uled to minimize noise nuisance?		V			
EM&A: C1	Are construction works or equiponuisance?	ment sited to minimize noise		V			
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 o nuisance?	out in a manner to minimize noise		/			
EM&A: C2	To mitigate construction noise de holidays, is either one of the follea) 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		J				
NCO	Are valid construction noise perrinspection?	nits, if required, available for	1				
NCO	Are conditions of construction no relevant part(s) of the works imp	1					
NCO	Are valid noise emission labels f held percussive breakers?	ixed at air compressors and hand	1	,			
	Major noise source(s)	☐ Traffic	Image: section of the content of the	Consti site	ructio	activ	ities inside the
	istajoi noise source(s)		Other	s			

Abbreviation

VEP:

Varied Environmental Permit

WMP: Cap311R: Waste Management Plan

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

NCO:

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

Noise Control Ordinance

Cap311O: Cap311:

Air Pollution Control Ordinance

Practice Note for Professional Persons (Construction Site Drainage)

WDO:

Waste Disposal Ordinance

PN1/94: Unk:

Unknown

Remark		 		
	Remark			
			••	
			· 	
		 		· · · · · ·
		 LAL SETTING		
The state of the s		 		

Signatures

ET Member

Contractor's Representative

(Name in Block letters:

CHIM TO FU

12th January 2005

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

Inspection of	late IS JAN 2006 Time 10125 Lrs Inspect	ed By	ET:	7.	Т <u>. Он</u>	10 /PPE	AUKO.
Site	LMX-L9 Electrical Erecto Arm			4010	.C. 711	<u>co 13</u>	₩W.C.
Weather							
Condition	Sunny Fine Overcast Hazy		Driza	zle [Ra	in Storr	n
Temperatu	re ☑ °C Humidity ☑ High ☐ Moderat	е	Low	,			
Wind	Calm Light Breeze Strong						<u></u>
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 QUALITY

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements			· [I
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?	\checkmark				
	Construction Sites					l
EM&A : A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		.1			NOTER SPK
						PROVIDED
	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)			ı		
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?	V				
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?	V				
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	/				
	Loading, unloading or transfer of dusty materials	,				
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?	V				
EM&A: A1	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?	1				
	Use of vehicles					
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	V				
Cap311R: Sch 21(1)	Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?					Who I Water Services Pract
****	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?	1				
	Concrete batching plant	I				
EM&A: A2	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?					
EM&A: A2	Are dusty materials, except cement and dry PFA, wetted by water spray system?	1				
EM&A: A2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	1				
EM&A: Λ2	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				
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					
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?	V				
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	1				
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?	1				
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?	V				
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	1				12.12.00
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?		,			
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?	J						
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"?	J						
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?	1						
	Storage, collection and transportation of waste							
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?		V					
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?	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?	1						

WATER QUALITY

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

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

MARINE ECOLOGY

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

NOISE

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks	
EM&A: C1	Are working programmes schedu	led to minimize noise nuisance?		√				
EM&A: C1	Are construction works or equiprinuisance?	ment sited to minimize noise		V				
EM&A: C1	Are all plant and equipment mair conditions?	ntained in good operating		1				
EM&A: C1/GP	Is idle equipment turned off or th	rottled down?		V	Hanna .			
EM&A: C1	Are methods of working devised nuisance?	and arranged to minimize noise		/				
EM&A: C1)	Are construction works carried o 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?	owing measures adopted?	V	V				
EM&A: C3	To mitigate night time construction equipped with silencers or muffle							
NCO	Are valid construction noise perminspection?	nits, if required, available for	v					
NCO	Are conditions of construction no relevant part(s) of the works impl		1					
NCO	Are valid noise emission labels fi held percussive breakers?	xed at air compressors and hand	1	///				
		☐ Traffic	Q/	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: APC (Construction Dust) Regulation NCO: Noise Control Ordinance 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 IEC's Repres ET Member Contractor's Representative

(Name in Block letters:

CHIN 7.1 Fu

(Name in Block letters:

LO CHUNG MAN,

SANKO.

12th January 2005

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

Inspection	late 25 JAN 2006 Time 08: 20hr Inspect	ed By	ET:		T. CHI	- +	40
Site	LMX-19 ELECTRICAL BREGION AREA		Cond		· relea	CHER /SAN	ILO ,
Weather							
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	ain Storm	ŀ
Temperatu	re 5 °C Humidity High Modera	te _	Low	,			
Wind	Calm Light Breeze Strong						
GENERAL							_
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks	
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		V				
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	i					
Cap311R: 3	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?	V					
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?		V				
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?						
	Construction Sites		1				
EM&A: A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		v			WATER STRAYING PROVIDED BY	
1	Stockpiling of dusty materials	I		<u> </u>		I NOVINCED 15	INML
Cap311R: Sch 18	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?	/					

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized fuel ash (PFA)		1	'	·	<u></u>
Cap311R: Sch 15(3)	Are the storage silos for cement or dry PFA prevented from overfilling?	V				
Cap311R: Sch 15(4)	Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system?	V				
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?	V				
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	/				
	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	•		ll		
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	V				
Cap311R: Sch 21(1)	Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?		1			Wheel Whohir Service Provide By Paul Y
	Transfer of dusty materials using a belt conveyor system	<u> </u>				7 1461 1.
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?	1				
Cap311R: Sch 20(2)	Is every transfer point between any two-belt conveyors totally enclosed?	1				
Cap311R: Sch 20(3)	Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts?	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	<u> </u>	1			
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&Λ: A2	Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point?	V				
EM&A: A2	Are all the conveyor transfer points totally enclosed?	/				

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?	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?	✓				
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?	V				
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?	V				
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	/				
EM&A: E3	Are wastes disposed of at licensed sites?	1				
	General refuse					
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		V			
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		√			
WMP	Is the refuse disposed of regularly and properly?		V			
WMP	Are burning of refuse at site and dumping at sea prohibited?					
	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?	~							
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;								
	(2) reusable / recyclable materials;				•				
	(3) un-reusable / non-recyclable waste for landfill disposal.					<u> </u>			
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?					.			

WATER QUALITY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off					L
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?	J				
PN1/94	Are manholes (including newly constructed ones) adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers?	J				
	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?	V				

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

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?	/				

NOISE

Checklist Condition		N/A	Yes	No	Unk	Remarks
Are working programmes schedu	led to minimize noise nuisance?		V			
Are construction works or equipm nuisance?	nent sited to minimize noise		V			
Are all plant and equipment main conditions?	tained in good operating		V			
Is idle equipment turned off or the	rottled down?		1			1
Are methods of working devised nuisance?	and arranged to minimize noise		V			
Are construction works carried or nuisance?	isance?					
holidays, is either one of the follo a) Mitigation by portable noise	V					
		1				
Are valid construction noise perm inspection?	nits, if required, available for	1				
		1				
Are valid noise emission labels fixed at air compressors and hand held percussive breakers?						
	☐ Traffic	Q		ructio	n activ	ities inside the
Major noise source(s)	Construction activities		Other	s		
	Are working programmes schedulare construction works or equipment nuisance? Are all plant and equipment main conditions? Is idle equipment turned off or the Are methods of working devised nuisance? Are construction works carried or nuisance? To mitigate construction noise due holidays, is either one of the followal Mitigation by portable noise by Rescheduling of some power sensitive time periods? To mitigate night time construction equipped with silencers or muffled Are valid construction noise perminspection? Are conditions of construction no relevant part(s) of the works implementation of the works impl	Are working programmes scheduled to minimize noise nuisance? Are construction works or equipment sited to minimize noise nuisance? Are all plant and equipment maintained in good operating conditions? Is idle equipment turned off or throttled down? Are methods of working devised and arranged to minimize noise nuisance? Are construction works carried out in a manner to minimize noise nuisance? To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted? a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods? To mitigate night time construction noise, is dredging equipment equipped with silencers or mufflers? Are valid construction noise permits, if required, available for inspection? Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly? Are valid noise emission labels fixed at air compressors and hand held percussive breakers?	Are working programmes scheduled to minimize noise nuisance? Are construction works or equipment sited to minimize noise nuisance? Are all plant and equipment maintained in good operating conditions? Is idle equipment turned off or throttled down? Are methods of working devised and arranged to minimize noise nuisance? Are construction works carried out in a manner to minimize noise nuisance? To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted? a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods? To mitigate night time construction noise, is dredging equipment equipped with silencers or mufflers? Are valid construction noise permits, if required, available for inspection? Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly? Are valid noise emission labels fixed at air compressors and hand held percussive breakers?	Are working programmes scheduled to minimize noise nuisance? Are construction works or equipment sited to minimize noise nuisance? Are all plant and equipment maintained in good operating conditions? Is idle equipment turned off or throttled down? Are methods of working devised and arranged to minimize noise nuisance? Are construction works carried out in a manner to minimize noise nuisance? To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted? a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods? To mitigate night time construction noise, is dredging equipment equipped with silencers or mufflers? Are valid construction noise permits, if required, available for inspection? Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly? Are valid noise emission labels fixed at air compressors and hand held percussive breakers? Traffic Major noise source(s)	Are working programmes scheduled to minimize noise nuisance? Are construction works or equipment sited to minimize noise nuisance? Are all plant and equipment maintained in good operating conditions? Is idle equipment turned off or throttled down? Are methods of working devised and arranged to minimize noise nuisance? Are construction works carried out in a manner to minimize noise nuisance? To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted? a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods? To mitigate night time construction noise, is dredging equipment equipped with silencers or mufflers? Are valid construction noise permits, if required, available for inspection? Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly? Are valid noise emission labels fixed at air compressors and hand held percussive breakers? Traffic Construction site	Are working programmes scheduled to minimize noise nuisance? Are construction works or equipment sited to minimize noise nuisance? Are all plant and equipment maintained in good operating conditions? Is idle equipment turned off or throttled down? Are methods of working devised and arranged to minimize noise nuisance? Are construction works carried out in a manner to minimize noise nuisance? To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted? a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods? To mitigate night time construction noise, is dredging equipment equipped with silencers or mufflers? Are valid construction noise permits, if required, available for inspection? Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly? Are valid noise emission labels fixed at air compressors and hand held percussive breakers? Traffic Construction active site

Abbreviation VEP: Varied Environmental Permit EM&A: EM&A Manual (Construction Phase) WMP: Waste Management Plan Noise Control Ordinance NCO: Cap311R: APC (Construction Dust) Regulation Cap3110: Cap311: APC (Open Burning) Regulation WDO: Waste Disposal Ordinance Air Pollution Control Ordinance PN 1/94: Practice Note for Professional Persons (Construction Site Drainage) Unk: Unknown Remark Signatures ET Member Contractor's Representative

12th January 2005

CHINTOI FU

The Hongkong Electric Co. Ltd. Lamma Power Station Extension – E&M Works Weekly Site Inspection Checklist C/N: 04/90/8

mspection	Inspect	ed By	E1:			IUEN 1
Site	L9 - GRS		Cont	Tacto	1.10. [. Kwokito
Veather				FEMALES PROPERTY.		
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	un Sto
Temperatu	re C Humidity High Modera	te 🗸	Lov	v		
Wind	Calm Light Breeze Strong				a.	
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?		V			
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements	1		<u> </u>		<u> </u>
Cap311R: 3	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?	√				
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			<u>. </u>	1	L
EM&A: Al	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		~			Spraying By P.Y
	Stockpiling of dusty materials		1	1		1
Cap311R: Sch 18	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?					

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?	V				
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	~				
	Loading, unloading or transfer of dusty materials					
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?	~				
EM&A: A1	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?	✓ 				
	Use of vehicles					1
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	✓				
Cap311R: Sch 21(1)	Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?		V			Cleaning Provided By P.Y.
	Transfer of dusty materials using a belt conveyor system		1	LJ		<u></u>
Cap311R: Sch 20(1)	Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides?	~				
Cap311R: Sch 20(2)	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 1 m?	~				
	Concrete batching plant	I				
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?	V				
EM&A: A2	Are all the conveyor transfer points totally enclosed?	V				11.
1.#						

Page 2 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
	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?	/				
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?	V				
WMP	Are the used formworks reused as far as possible before being disposed of in a landfill site?	V				
WMP	Are the remaining unsuitable excavated materials disposed of at the public filling areas?	~				
EM&A: E3	Are wastes disposed of at licensed sites?	J				
	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)?		/			

Page 3 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
WDO	Has the Contractor been registered as a chemical waste producer?		1			
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?		~			
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?		~			
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?		~			
	Storage, collection and transportation of waste	1		L	I	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;	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?		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?	J				
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?	1				

Page 4 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
	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				·
PN1/94	Wheel Washing Water Is a wheel-washing bay provided at every exit if practicable and					
	is the silt removed from wash-water before discharging into storm drains?	/				

MARINE ECOLOGY

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

NOISE ·

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks	
EM&A: C1	0. 0	uled to minimize noise nuisance?		\/				
EM&A: C1	Are construction works or equip nuisance?	ment sited to minimize noise		~				
EM&A: C1	Are all plant and equipment mai conditions?	ntained in good operating		1				
EM&A: C1/GP	Is idle equipment turned off or the	nrottled down?		1				
EM&A: C1	Are methods of working devised nuisance?	and arranged to minimize noise		1				
EM&A: C1)	Are construction works carried on nuisance?		1					
EM&A: C2	To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted? a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods?			J				
EM&A: C3	To mitigate night time construct equipped with silencers or muffl	on noise, is dredging equipment ers?	~					
NCO	Are valid construction noise per inspection?	nits, if required, available for	1					
NCO		Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?						
NCO	Are valid noise emission labels fi held percussive breakers?	ixed at air compressors and hand		~				
	Major noise source(s)	Construction activities inside the site Others						

Abbreviation				
VEP: WMP: Cap311R: Cap311O: Cap311: PN1/94: Unk:	Varied Environment. Waste Management APC (Construction I APC (Open Burning Air Pollution Contro Practice Note for Pro Unknown	Plan Dust) Regulation) Regulation	NCO: WDO;	EM&A Manual (Construction Phase) Noise Control Ordinance Waste Disposal Ordinance Orainage)
Remark	AGA MANANGAN MANANGAN ANG MANANGAN MANANGAN MANANGAN MANANGAN MANANGAN MANANGAN MANANGAN MANANGAN MANANGAN MAN		AND THE PERSON NAMED IN COLUMN TWO	· · · · · · · · · · · · · · · · · · ·
		• '		
Signatures				and the top of the second seco
ET Member		Contractor's Represe	entative	
WA				
(Name in Block le		(Name in Block lette	ers:	
W.S.4	UEN	Mr. F. Knock		

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

C/N= 04/9018

Inspection	date [3 Janob] Time 0 945 Inspect	ted By			S.Ju	
Site	LMX LAN 9 - GRS		Cont	racto	or: W.	Flank (7DK
Weather			THE PARTY OF THE P			A W. Mariella Company of the Company
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	ain Stor
Temperate	rre [^c] °C Humidity High ✓ Modera	te	Lov	v		
Wind	Calm Light Breeze Strong					
GENERAL				Marie Caracia Afficia		-
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		V			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		/			
				1		,
AIR QUAL	ITY					
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements	·		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					

General Requirements					
Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?	~			-	
A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?	-	/			
Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	/				
Construction Sites					
Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		/			Sprogram
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?	✓				
	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 the entire road wet? 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	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 the entire road wet? 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	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 the entire road wet? 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	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 the entire road wet? 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	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 the entire road wet? 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

Page 1 of 7

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

	The state of the s					
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized fuel ash (PFA)					
Cap311R: Sch 15(3)	Are the storage silos for cement or dry PFA prevented from overfilling?					
Cap311R: Sch 15(4)	Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system?	~				
Cap311R: Sch 15(2)	Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm?					
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	1				
	Loading, unloading or transfer of dusty materials			11		
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?					
EM&A: A1	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?	1				
	Use of vehicles					
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	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?		✓			Cleary Printed By P.Y.
	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					
EM&A:	Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system?	1				
A2		1				
A2 EM&A: A2	Are dusty materials, except cement and dry PFA, wetted by water spray system?	/				
EM&A:		/				

Page 2 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
	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?	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?					
	General refuse					
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		1			
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		/			
WMP	Is the refuse disposed of regularly and properly?		7			
WMP	Are burning of refuse at site and dumping at sea prohibited?		/			
	Chemical Waste		ſ			
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)?		/			

Page 3 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
WDO	Has the Contractor been registered as a chemical waste producer?		1			
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?		-			
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?		-			
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?					
	Storage, collection and transportation of waste			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?	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?	(
PN1/94	Groundwater Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?	/				

Page 4 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
	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"?	1			-	
EM&A: G3	Is rubble mound seawall constructed to the south and west edges of the reclamation to enhance recolonisation of marine organisms?	/				

NOISE .

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: C1	Are working programmes sched	luled to minimize noise nuisance?		(
EM&A: C1	Are construction works or equip nuisance?	oment sited to minimize noise		1			
EM&A: C1	Are all plant and equipment mai conditions?	intained in good operating		1			
EM&A: C1/GP	Is idle equipment turned off or the	hrottled down?		1			
EM&A: C1	Are methods of working devised nuisance?	d and arranged to minimize noise		/			
EM&A: C1)	Are construction works carried on nuisance?	out in a manner to minimize noise		/			
EM&A: C2							
EM&A: C3	To mitigate night time constructi equipped with silencers or muffl	ion noise, is dredging equipment ers?	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		/			-	
NCO	Are valid noise emission labels f held percussive breakers?	ixed at air compressors and hand		/			
	Major noise source(s)	☐ Traffic ☐ Construction activities outside the site		Constru site Others	uction	activit	ies inside the

Page 6 of 7
C:\Documents and Settings\English\My Documents\U9 Safety Management\S-05 Inspection programme\Weekly Site Inspection Checklist.doc

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

Signatures

ET Member

Contractor's Representative

(Name in Block letters:

(Name in Block letters:

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

Inspection	date 20 Jan cb Time 69:30 Inspect	ed By	ET:			. Yuan
Site	4MX - BRS		Cont	racto	r: L) . 1	Kwolz (70K)
Weather				(1) (7 - 11)		
Condition	Sunny Fine Overcast Hazy		Driz	zle	Ra	in Storm
Temperatu	re C Humidity High Moderat	te	Lov	v		
Wind	Calm Light Breeze Strong					
GENERAL						-
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		✓			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		✓			
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
Ret.		N/A	Yes	No	Unk	Remarks
	General Requirements		r			
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	<u> </u>
EM&A: A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		/			Spreying 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?	/				

Page 1 of 7

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

				1		
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Cement and dry pulverized fuel ash (PFA)					
Cap311R:	Are the storage silos for cement or dry PFA prevented from					
Sch 15(3)	overfilling?	~				
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		Ì		
Cap311R:	Is bulk cement or dry PFA stored in a closed silo fitted with a					
Sch 15(2)	high-level alarm?					
C. 211D	A di DEA di di di di di di di di di di di di di	/			<u>-</u>	
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed					
Den 17	containers?	/				
	Loading, unloading or transfer of dusty materials					
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?	/				
	Use of vehicles				L	
C-211D.		T		1	1	
Cap311R: Sch 21(2)	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?					
EM&A:	constitution site covered entirely by clean impervious sheeting:					
A1		L				
Cap311R:	Is every vehicle wheel-washed by the wheel washing facilities to					Cleaning
Sch 21(1)	remove any dusty materials from its body and wheels before leaving the construction site?					Privided
			1			by P.Y.
	Transfer of dusty materials using a belt conveyor system	1	<u> </u>		1	124 156
Cap311R:	Are belt conveyors used for transfer of dusty materials covered on	Τ		Ţ	Ι	
Sch 20(1)	the top and 2 sides?			1		
		1		_		
Cap311R:	Is every transfer point between any two-belt conveyors totally enclosed?					
Sch 20(2)	eliciosed?				1	
Cap311R:	Is a belt scraper or equivalent device installed at the head pulley of			1		
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?	/				
	ocis;					
Cap311R:	Are stockpiling conveyors equipped with level adjusting	1				
Sch 20(4)	mechanism to maintain the dropping height within 1 m?	/				
	Concrete batching plant	<u></u>	1		l	1
EM&A:	Are the loading, unloading, handling, transfer or storage of any		-	1	1	1
A2	dusty materials carried out in a totally enclosed system?	/				
		L.				
EM&A:	Are dusty materials, except cement and dry PFA, wetted by water					
A2	spray system?	1				
EM&A:	Are all the receiving hoppers enclosed on three (3)sides up to 3m				-	
A2	above unloading point?	1				
		-		-		
EM&A:	Are all the conveyor transfer points totally enclosed?	1				
A2		i	1	l .	1	1

Page 2 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
	Miscellaneous					
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?	/				
Cap3110	Is open burning prohibited?		1			
Cap311	Is black smoke emission from plant/equipment avoided?					

WASTE/CHEMICAL WASTE MANAGEMENT

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials	•				
WMP EM&A: E3	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	/				
WMP EM&A: E3	Has the contractor kept a complete set of dumping records/ticketing system and made them available for inspection?	1				
EM&A: E3	Are wastes disposed of at licensed sites?	1				
	Construction Waste and Excavated Materials					
WMP EM&A: E3	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	/				
WMP	Has the Contractor maintained disposal records for the construction waste and excavated materials, and made them available for inspection?	1				
WMP	Is suitable concrete waste/excavated material used for on-site reclamation/filling works?	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?	1				
	General refuse					,
WMP	Has the Contractor maintained a disposal record for general refuse and made it available for inspection?		(
WMP	Is general refuse stored within receptacles and separated from chemical wastes?		/			
WMP	Is the refuse disposed of regularly and properly?		/			
WMP	Are burning of refuse at site and dumping at sea prohibited?		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)?		/			

Page 3 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
WDO	Has the Contractor been registered as a chemical waste producer?					
EM&A: E3	Has the Contractor kept all the trip tickets for the disposal of chemical waste and made them available for inspection?		1			
EM&A: E4	Is chemical waste handled according to the Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?		/			
EM&A: E4	Is the chemical waste storage, if any, well maintained, kept closed and locked?		1			
	Storage, collection and transportation of waste	.1		l	1	I
EM&A: E3	Are wastes transported by enclosed containers or covered trucks?		1			
EM&A: E3	Are waste materials segregated and sorted into 3 categories as follows?					
	(1) public fill materials for on-site reuse, or disposal at public filling area;					
	(2) reusable / recyclable materials;	/				
	(3) un-reusable / non-recyclable waste for landfill disposal.		,			
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 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?	/				

Page 4 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
	Boring and Drilling Water					
PN1/94	Is water that used in ground boring and drilling for site investigation or rock/soil anchoring recirculated as far as possible after sedimentation? If there is a need for final disposal, is the wastewater discharged into storm drains via silt removal facilities?	1				
	Wheel Washing Water					
PN1/94	Is a wheel-washing bay provided at every exit if practicable and is the silt removed from wash-water before discharging into storm drains?	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 schedu	iled to minimize noise nuisance?		(
EM&A: C1	Are construction works or equipt nuisance?	ment sited to minimize noise		1			
EM&A: C1	Are all plant and equipment main conditions?	ntained in good operating		1			
EM&A: C1/GP	Is idle equipment turned off or th	rottled down?		/			
EM&A: C1	Are methods of working devised nuisance?	and arranged to minimize noise		1			
EM&A: C1)	Are construction works carried o nuisance?	ut in a manner to minimize noise		1			
EM&A: C2	To mitigate construction noise du holidays, is either one of the folka) Mitigation by portable noise b) Rescheduling of some power sensitive time periods?	owing measures adopted?		1			
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	1				
NCO	Are conditions of construction no relevant part(s) of the works imp		1	1			
NCO	Are valid noise emission labels fi held percussive breakers?	ixed at air compressors and hand					
	Major noise source(s)	☐ Traffic ☐ Construction activities outside the site	Construction activities inside site				

Page 6 of 7

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

Varied Environmenta			
Waste Management I APC (Construction I APC (Open Burning) Air Pollution Control	Plan Dust) Regulation) Regulation I Ordinance	NCO: WDO:	EM&A Manual (Construction Phase) Noise Control Ordinance Waste Disposal Ordinance Orainage)
THE COMMENTS AND ADDRESS OF THE SHAREST COLUMN TO SHARE THE SHAREST COLUMN TO SHARES	R-T-Alliel Letti (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1984) (1	AND THE PARTY OF T	AND THE BUTTON BEFORE AND THE PROPERTY OF THE PARTY OF TH
	-		
			G Coccio
	Contractor's Repres	sentative	
			• .
	. /		
	1 1 11		
Arr	Olofad in Black latt	earc:	- Constant
	()		
	APC (Construction I APC (Open Burning) Air Pollution Contro Practice Note for Pro	APC (Construction Dust) Regulation APC (Open Burning) Regulation Air Pollution Control Ordinance Practice Note for Professional Persons (Control Unknown Contractor's Representation of the Professional Persons (Contractor's APC (Construction Dust) Regulation NCO: APC (Open Burning) Regulation WDO: Air Pollution Control Ordinance Practice Note for Professional Persons (Construction Site I Unknown Contractor's Representative Contractor's Representative	

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

Inspection	date 27 Janes Time 08:30 Inspect	ed By	ET:	<u> </u>		Alm.
Site	LMX - BRS		Cont	racto	··ω、	7. Kwole (70)
Weather				TO CONTRACT	The second second second second second second second second second second second second second second second se	t effective and the forest congression below
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	in Stor
Temperatu	re[5] °C Humidity High Moderat	te	Lov	v		
Wind	Calm Light Breeze Strong					
GENERAL				n'		
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most update Environmental Permit been displayed at all vehicular site entrances/exits for public information?		✓			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		V			
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements					
Cap311R: 3	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change?	\				
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed?		1			
Cap311	Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection?	/				
	Construction Sites	1		.l	<u> </u>	
EM&A: A1	Are haul roads paved with concrete or sprayed with water to keep the entire road wet?		/			Sprigging R
	Stockpiling of dusty materials			1		J .
Cap311R: Sch 18	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?	/				

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?	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?	/				
Cap311R: Sch 17	Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers?	1				
	Loading, unloading or transfer of dusty materials					
Cap311R: Sch 19	Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation?	1				
EM&A: A1	Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission?	1			-	
	Use of vehicles					
Cap311R: Sch 21(2) EM&A: A1	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	/				
Cap311R: Sch 21(1)	Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site?		_			Cleaning Provided By P.Y.
	Transfer of dusty materials using a belt conveyor system		1	1		The fact.
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?	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?	1				
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?	~				
EM&A: A2	Are all the conveyor transfer points totally enclosed?	~				

Page 2 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	Νo	Unk	Remarks
	Miscellaneous					
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?	/				
Cap3110	Is open burning prohibited?		1			
Cap311	Is black smoke emission from plant/equipment avoided?		/			

WASTE/CHEMICAL WASTE MANAGEMENT

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

Page 3 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		
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.		1					
EM&A: E3	Are the records of the quantities of wastes generated and disposed off-site for the 3 categories of waste properly maintained?		/					

WATER QUALITY

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Surface Run-off				1	
PN1/94	Are the silt removal facilities, channels and manholes maintained and the deposited silt and grit removed regularly?	(
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?	1				
	Groundwater					
PN1/94	Is groundwater that pumped out of wells discharged into storm drains after the removal of silt in silt removal facilities?	/				

Page 4 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
	Boring and Drilling Water					
PN1/94	Is water that used in ground boring and drilling for site investigation or rock/soil anchoring recirculated as far as possible after sedimentation? If there is a need for final disposal, is the wastewater discharged into storm drains via silt removal facilities?	1	-			
	Wheel Washing Water					
PN1/94	Is a wheel-washing bay provided at every exit if practicable and is the silt removed from wash-water before discharging into . storm drains?	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?	1				

NOISE ·

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: C1	Are working programmes scheduled to minimize noise nuisance?			1			
EM&A: C1	Are construction works or equipment sited to minimize noise nuisance?			1			
EM&A: C1	Are all plant and equipment maintained in good operating conditions?			1			
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?			1			
EM&A: C1)	Are construction works carried out in a manner to minimize noise nuisance?			1			
EM&A: C2	To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted? a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods?			1			
EM&A: C3	To mitigate night time construction noise, is dredging equipment equipped with silencers or mufflers?		1				
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?			(
	Major noise source(s)	☐ Traffic ☐ Construction activities outside the site		☐ Construction activities inside the site ☐ Others			

Page 6 of 7
C:\Documents and Settings\English\My Documents\U9 Safety Management\S-05 Inspection programme\Weekly Site Inspection Checklist.doc

1120101411011					
VEP: WMP: Cap311R: Cap311O: Cap311: PN1/94: Unk:	Varied Environment Waste Management APC (Construction APC (Open Burnint Air Pollution Contractice Note for Practice Note	t Plan Dust) Regulation g) Regulation	NCO: 1 WDO: 1	EM&A Manual (Construction P Noise Control Ordinance Waste Disposal Ordinance ainage)	hase)
Remark	Malakan (1974), ett 1974 (1974), ett 1974 (1974), ett 1974 (1974), ett 1974 (1974), ett 1974 (1974), ett 1974	n Jahah afulkat kemenyakan seri dan bintu yannah telebah di Alam 1990 sebahan da Selatu (1990 sebahan 1905 seb	A STANSON OF THE PERSON OF THE	·************************************	
		•			
		-			
Signatures				5.1.2.1	
ET Member		Contractor's Repres	sentative		
21 1120111001					
				•	
		1			
INA	\	$\mathcal{L}_{\mathcal{M}}$			
(Name in Block	letters:	(Name in Block lett	ters:	-	
IVI.C.Y	151	(),, 7, 1, 1			
W, 2, 11	U <i>E</i> ~ 1		^)		

	date 04/01/06 Time 10:00 Inspect	ed by	ET: I	Tenu	i y 110	
			Cont	racto	r: Kier	•
Site	Transmission Route (Civil Work)					
/eather						
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	ain S
Temperatı	rre 17 °C Humidity High Moderat	e	Lov	V		
Wind	Calm Light Breeze Strong					
ENERAL						
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most updated Environmental Permit been displayed at all vehicular site entrances/exits for public information?		1			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		1			
IR QUAL	ITY					_
	Checklist Condition	N/A	Yes	No	Unk	Remarks
AIR QUAL	Checklist Condition	N/A	Yes	No	Unk	Remarks
		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
Ref. Cap311R: Cap311R: Sch 12(3) Cap311R: Sch 18	Checklist Condition General Requirements Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change? A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Has this been observed?	*	Yes	No	Unk	Remarks
Ref.	Checklist Condition General Requirements Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change? A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Has this been observed? Stockpiling of dusty materials Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to	*		No	Unk	Remarks
Ref. Cap311R: Cap311R: Sch 12(3) Cap311R: Sch 18 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?	*		No	Unk	Remarks
Ref. Cap311R: Cap311R: Sch 12(3) Cap311R: Sch 18	Checklist Condition General Requirements Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change? A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Has this been observed? Stockpiling of dusty materials Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission? Use of vehicles Is every load of dusty material on the vehicles leaving the	×		No	Unk	Remarks

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

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

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

NOISE

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: L1	Are quiet PMEs or standard PMEs with modest source noise controls used at the cable route from N4 to N5?	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?	~				i i
NCO	Are valid construction noise permits, if required, available for inspection?		√			LPS sites
NCO	Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?		√			
NCO	Are valid noise emission labels fixed at air compressors and hand held percussive breakers?		*			

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: O1	Are the construction activities at la monitored to avoid impact on the a species Celtis biondii, Pteris disparestricted plants Vitis balansaeana and Rhapis excellsa?	incommon and rare plant or 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 ar uncommon and restricted plant spe	ary of construction sites to is, 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	/	Con the s		ion act	ivities inside
	Major noise source(s)	Construction activities outside the site		Oth	ers:		

Abbreviation

VEP:

Varied Environmental Permit

Cap311R: Cap311O: APC (Construction Dust) Regulation APC (Open Burning) Regulation

Cap311: 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:

(Name in Block letters:

20th December 2001

Inspection of	date 11/01/06 Time 09:30 Inspect	ed by	ET:	Hend	ry Ho	:
**	<u> </u>		Cont	racto	r: Kier	
Site	Transmission Route (Civil Work)					
Weather						1
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	ain Stor
Temperatu	re 18 °C Humidity High Moderat	e [Lov	v		i
Wind	Calm Light Breeze Strong					
wina	Caim V Light Bleeze 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?		V			:
AIR QUAL	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements					
Cap311R:	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change?	√				-
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					3
Cap311R: Sch 21(2)	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	*				!
	Miscellaneous					
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?	*				

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

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks			
	Dredged Materials	•							
Cap466	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	~							
Cap466	Are wastes disposed of at licensed sites?	1							
	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?	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				!			

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

NOISE

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: L1	Are quiet PMEs or standard PMEs with modest source noise controls used at the cable route from N4 to N5?	~				
EM&A: L2 ~ L5	Are quiet PMEs (particularly the barge-mounted crane) or PMEs with comparably effective source noise controls used at landing point N5?	1				· · · · · · · · · · · · · · · · · · ·
NCO	Are valid construction noise permits, if required, available for inspection?		1			LPS sites
NCO	Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?		4			
NCO	Are valid noise emission labels fixed at air compressors and hand held percussive breakers?		√			:

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: O1	Are the construction activities at la monitored to avoid impact on the s species Celtis biondii, Pteris dispa- restricted plants Vitis balansaeana and Rhapis excellsa?	uncommon and rare plant ar and Ardicia pusilla, and the		V			
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	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	✓	Con:		ion act	ivities inside
	Major noise source(s) Construction activities outside the site			Othe	ers:		

Abbreviation

VEP: Cap311R: Cap311O:

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

Cap311: Cap466:

Air Pollution Control Ordinance Dumping at Sea Ordinance

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

NCO: Noise Control Ordinance Cap354: Waste Disposal Ordinance

Cap354c: WDO (Chemical Waste) (General) Regulation

Unknown

Remark	
_	

Signatures

ET Member

Contractor's Representative

(Name in Block letters:

(Name in Block letters:

20th December 2001

Inspection of	late 18/01/06 Time 09:30 Inspect	ed by	ET: I			
Site	Transmission Route (Civil Work)		Cont	racto	r: Kier	•
Site	Transmission Route (Civil Work)					
Weather						i
Condition	Sunny Fine Overcast Hazy		Driz	<u> </u>	Ra	ain Storr
Temperatu	re 20 °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?		1			
AIR QUALI Ref.	TY Checklist Condition	N/A	Yes	No	Unk	Remarks
Ken.	General Requirements]		
Cap311R:	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change?	✓				
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Has this been observed?	1				
	Stockpiling of dusty materials	ı				
Cap311R: Sch 18 EM&A:J1	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?		>			
	Use of vehicles					
Cap311R: Sch 21(2)	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	~				
	Miscellaneous					
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?	~				

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

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

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?	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?		*			LPS sites
NCO	Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?		√			
NCO	Are valid noise emission labels fixed at air compressors and hand held percussive breakers?		/			

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: O1	Are the construction activities at la monitored to avoid impact on the u species Celtis biondii, Pteris dispa restricted plants Vitis balansaeana, and Rhapis excellsa?	ncommon and rare plant rand Ardicia pusilla, and the		√			
EM&A: O2	Are fences erected in accordance win good condition along the bound prevent tipping, vehicle movement personnel into adjacent wooded are uncommon and restricted plant spe	ary of construction sites to s, and encroachment of eas, particularly where the rare,		~			
EM&A: Q3	Has regular checking been perform boundaries are not exceeded and the surrounding areas?	ned to ensure that the work site nat no damage occurs to		~			
EM&A: Q4	&A: Is open fire prohibited and prevented within the work site boundary during construction? Is temporary fire fighting equipment provided in the work area during construction?			1			
		Traffic	✓	Con		ion act	ivities inside
	Major noise source(s)	Construction activities outside the site		Oth	ers:		

Abbreviation

VEP:

Varied Environmental Permit

Cap311R:

APC (Construction Dust) Regulation APC (Open Burning) Regulation Air Pollution Control Ordinance

Cap311O: Cap311: 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

Remark		
Signatures		•
ET Member	Contractor's Representative	
Éxic/K Y Dai	Ano	
(Name in Block letters: Assistant Resident Engineer	Name in Block letters:	
/	CKIAN	

Engineer.

Inspection	date 25/01/06 Time 09:30 Inspect	ed by	ET:	Eric l	Dai	
			Cont	racto	r: Kier	
Site	Transmission Route (Civil Work)					
Weather						
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	nin Sto
Temperatu	ıre 18 °C Humidity High Moderat	e	Lov	v		
Wind	Calm Light Breeze Strong					
GENERAL						
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most updated Environmental Permit been displayed at all vehicular site entrances/exits for public information?		1			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		√			
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements		l		I	
Cap311R:	Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change?	1				
Cap311R: Sch 12(3)	A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Has this been observed?	√				
	Stockpiling of dusty materials				•	
Cap311R: Sch 18 EM&A:J1	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?		✓			
	Use of vehicles					
Cap311R: Sch 21(2)	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	*				
	Miscellaneous Are completed earthworks sealed and hydroseeded and planted as					

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
Сар311О	Is open burning prohibited?		1			
Cap311	Is black smoke emission from plant/equipment avoided?		✓			

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials	•				
Сар466	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?	√				
Сар466	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)?	1				
Cap354C	Has the Contractor registered as a chemical waste producer?		√		_	
Cap354C	Is chemical waste handled according to the "Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?	~				

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

NOISE

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: L1	Are quiet PMEs or standard PMEs with modest source noise controls used at the cable route from N4 to N5?	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?		*	"		LPS sites
NCO	Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?		*	<u></u>		
NCO	Are valid noise emission labels fixed at air compressors and hand held percussive breakers?		1			

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: O1	Are the construction activities at la monitored to avoid impact on the a species Celtis biondii, Pteris dispa- restricted plants Vitis balansaeana and Rhapis excellsa?	incommon and rare plant rand Ardicia pusilla, and the		1			
EM&A: O2	Are fences erected in accordance win good condition along the bound prevent tipping, vehicle movement personnel into adjacent wooded are uncommon and restricted plant spe	ary of construction sites to es, and encroachment of eas, particularly where the rare,		1			
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?			~			
		Traffic	✓	Con	• • • • • •	ion act	ivities inside
	Major noise source(s) Construction activities outside the site			Oth	ers:		

Abbreviation

VEP:

Varied Environmental Permit

Cap311R:

APC (Construction Dust) Regulation

Cap311O: Cap311: Cap466:

APC (Open Burning) Regulation Air Pollution Control Ordinance

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

Noise Control Ordinance

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

Unk: Unknown

Dumping at Sea Ordinance

Remark

Signatures ET Member

(Name in Block letters: Eric, K Y Dai

Assistant Resident Engineer

Contractor's Representative

Orame in Block letters:

20th December 2001

Inspection of		tea by	Cont	Ch	-Wa	NO POWER S
Site	DANDING POINT II. NZ, N4		Cont	acto	<i>- ر</i>	1 awmc Sy
Weather						
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	ain Stor
Temperatu	re [1] °C Humidity High	te 🗸	Lov	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 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.	Checklist Condition	N/A	Yes	No	Unk	Remarks
·	General Requirements	·	L		<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?	/				
	Stockpiling of dusty materials					
Cap311R: Sch 18 EM&A:J1	Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission?	/				
	Use of vehicles	·		·········		<u> </u>
Cap311R: Sch 21(2)	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	V				
	Miscellaneous	·			<u></u>	
Cap311R:	Are completed earthworks sealed and hydroseeded and planted as					ſ <u>.</u>

soon as possible?

Sch 16

Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
Cap311O	Is open burning prohibited?	1				
Cap311	Is black smoke emission from plant/equipment avoided?	/				

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

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

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
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?	V				
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?	/				

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

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

(Name in Block letters:

(Name in Block letters:

K Wanh

Inspection d	ate $[13/1/06]$ Time $[16:30]$ Inspect	ed by	ET:	C	KL	POWERSE
Site	OUTSIDE LANDENG POINT II, N28	Nq	Cont	acto	1.(1-)	WART SK
Weather						
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	in Storm
Temperatu	re 22°C Humidity High Moderat	e _	Lov	1		
Wind	Calm Light Breeze Strong				180	
GENERAL						
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most updated Environmental Permit been displayed at all vehicular site entrances/exits for public information?		V			
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		/			
AIR QUALI	Checklist Condition	N/A	Yes	No	Unk	Remarks
 	General Requirements	<u> </u>	<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				
	Miscellaneous					
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?	<u> </u>		Į Ī		

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

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials		-			, , , , , , , , , , , , , , , , , , , ,
Cap466	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?		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?	/				
	Chemical Waste		·	<u> </u>	L.,	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?	~				
Cap354C	Is chemical waste handled according to the "Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?	V				

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

N	^	T	c	т.
1.4	• 1	,		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?	1				
EM&A: L2 ~ L5	Are quiet PMEs (particularly the barge-mounted crane) or PMEs with comparably effective source noise controls used at landing point N5?	/		-		
NCO	Are valid construction noise permits, if required, available for inspection?	/		-		
NCO	Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly?	1				
NCO	Are valid noise emission labels fixed at air compressors and hand held percussive breakers?	/				•

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

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

(Name in Block letters:

YUEN,

CKWONG

Inspection d	Inspected by ET: CK Wan (Contractor: J-POWER SYSTE						
Site	aniside Landing point II, NZ & NG		Cont	racto)r: ' <i>j - [</i>	OWEK 0431	
Weather							
Condition	Sunny Fine Overcast Hazy	V	Driz	zle [Ra	ain Storr	
Temperatu	re 📝 °C Humidity 🗸 High 🗌 Moderat	e	Lov	V			
Wind	Calm Light Breeze Strong						
GENERAL							
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks	
VEP 1.5	Has a copy of the most updated Environmental Permit been displayed at all vehicular site entrances/exits for public information?		\ \				
VEP 1.6	Is a copy of EIA report kept in Engineers' and Contractors' offices on site?		V				
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?	V					
	Use of vehicles				4		
Cap311R: Sch 21(2)	Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting?	V					
	Miscellaneous					· · · · · · · · · · · · · · · · · · ·	
Cap311R: Sch 16	Are completed earthworks sealed and hydroseeded and planted as soon as possible?						

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

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

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

NOISE

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
EM&A: L1	Are quiet PMEs or standard PMEs with modest source noise controls used at the cable route from N4 to N5?	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?	1				
NCO	Are valid noise emission labels fixed at air compressors and hand held percussive breakers?	/				

Ref	Checklist Condition		N/A	Yes	No	Unk	Remarks
EM&A: O1	monitored to avoid impact on the species Celtis biondii, Pteris dis		1				
EM&A: O2	in good condition along the bour prevent tipping, vehicle movement	ents, and encroachment of areas, particularly where the rare,	V				
EM&A: Q3	Has regular checking been perfo boundaries are not exceeded and surrounding areas?	rmed to ensure that the work site that no damage occurs to	1				
EM&A: Q4	Is open fire prohibited and preve boundary during construction? Is equipment provided in the work	s temporary fire fighting	/				
		☐ Traffic	Te	Const	ructio	n activ	ities inside the
· <u> </u>	Major noise source(s)	Construction activities		site Other			

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

BERRY YUEN,

(Name in Block letters:

Inspection of	late $2+(1/06)$ Time $14=30$ Inspect	ted by	Cont	K L	V X	UNG POWER STS
Site	QUISIDE LANDING POINT II NZ 2N4	-	Cont		1.5 - f	WER & D
Weather						
Condition	Sunny Fine Overcast Hazy		Driz	zle [Ra	nin Storm
Temperatu	re W °C Humidity High Moderat	te V	Lov	V		
Wind	Calm Light Breeze Strong					
GENERAL						
Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
VEP 1.5	Has a copy of the most 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?		V		1	
AND ON A L						
AIR QUALI Ref.	Checklist Condition	N/A	Yes	No	Unk	Remarks
	General Requirements	l	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?	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				
		·	L		L	

Use of vehicles

Miscellaneous

soon as possible?

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

Are completed earthworks sealed and hydroseeded and planted as

Cap311R: Sch 21(2)

Cap311R:

Sch 16

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

Ref	Checklist Condition	N/A	Yes	No	Unk	Remarks
	Dredged Materials					
Cap466	Does the appropriate contractor possess valid dumping permits for dredged marine mud and have them available for inspection?		✓			
Cap466	Are wastes disposed of at licensed sites?					
	Construction Waste and Excavated Materials					
Cap354	Does the Contractor possess a valid Public Dumping License for construction waste and excavated materials and make it available for inspection?	~				
Сар354	Are wastes disposed of at licensed sited?	V				
	Chemical Waste	1	·			<u></u>
Cap354C	Has the contractor obtained the necessary disposal permits from the relevant authority, if required, according to Waste Disposal (Chemical Waste) (General Regulation)?	\rangle				
Cap354C	Has the Contractor registered as a chemical waste producer?	V				
Cap354C	Is chemical waste handled according to the "Code of Practice on the Packaging, Handling and Storage of Chemical Waste"?					

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

N	4	`	T	c	
17	м		ı	. •	Е

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

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,	~	· ·			
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	V				
		☐ Traffic		Consti	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) Cap311R: Cap311O: APC (Construction Dust) Regulation Noise Control Ordinance APC (Open Burning) Regulation Cap354: Waste Disposal Ordinance Cap311: Cap466: Cap354c: WDO (Chemical Waste) (General) Regulation Air Pollution Control Ordinance Dumping at Sea Ordinance Unknown Remark NIA Signatures ET Member Contractor's Representative

(Name in Block letters:

YUEN,

Appendix I: Summary of EMIS

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

Table I.1 Construction Phase Mitigation Measures and their Implementation

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

EM&A Log Ref.	Mitigation Measures	Implementation Status
B5	Sand fill for the rubble mound seawalls shall be placed by controlled pumping down the trailer arm.	N/A
B6	EM&A shall confirm the acceptability of any impacts during construction and should any unacceptable impacts be found then one or more of the following mitigation measures shall be implemented:	N/A
	 reducing the number of dredgers working at any one time; reducing the rate of working of the dredgers; temporary suspension of operations; phasing of the works so that dredging / filling is only undertaken at certain stages of the tidal cycle. 	
В7	In addition to the above specific measures the following general working procedures shall be adopted.	
	fully-enclosed or watertight grabs shall be used to minimise loss of sediment during the raising of loaded grabs through the water column;	N/A
	the descent speed of grabs shall be controlled to minimise the seabed impact speed and to reduce the volume of over dredging;	N/A
	barges shall be loaded carefully to avoid splashing of material;	N/A
	all barges used for the transport of dredged materials shall be fitted with tight bottom seals in order to prevent leakage of material during loading and transport;	N/A
	all barges shall be filled to a level which ensures that material does not spill over during loading and transport to the disposal site and that adequate freeboard is maintained to ensure that the decks are not washed by wave action;	N/A
	• the speed of trailer dredgers shall be controlled to prevent propeller wash from stirring up the sea bed sediments;	N/A
	"rainbowing" sand fill from trailer dredgers shall not be permitted; and	N/A
	the works shall cause no visible foam, oil, grease or litter or other objectionable matter to be present in the water within and adjacent to the dredging site and along the route to the disposal site.	N/A
B8	Cumulative impacts shall be assessed through EM&A. Co-ordination with the EM&A consultants for other projects to determine if any exceedances are caused by the other projects or by HEC's activities. Should monitoring results indicate exceedances at sensitive receivers due to HEC's activities, then the above described mitigation measures shall be implemented until impacts reduce to acceptable levels.	N/A
		T
	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.	8			
	LANDSCAPE & VISUAL IMPACTS			
D1	The following mitigation measures shall be allowed for landscape and visual improvement:			
	Use rubble mound seawall along south and west edges of the reclamation to provide a more natural look.	С		
	Break the mass of main buildings by varying the height/division into smaller units.	С		
	Plant trees and vegetation for screening.	С		
	Adopt colour scheme to blend the buildings into the scenery.	С		
		Т		
	WASTE MANAGEMENT	С		
E1	HEC to submit a Waste Management Plan for the construction phase to EPD. The Plan shall be verified by the IEC and shall describe the arrangements for avoidance, reuse, recovery and recycling, storage, collection, treatment and disposal of different categories of waste to be generated from the construction activities and shall take into account the recommendations of the EIA report.			
	Dredging Waste			
E2	All vessels for marine transportation of dredged sediment shall be fitted with tight fitting seals to their bottom openings to prevent leakage of materials. In addition, loading of barges and hoppers shall be controlled to prevent splashing of dredged material into the surrounding water, and barges or hoppers should under no circumstances be filled to a level which shall cause the overflowing of materials or polluted water during loading or transportation	N/A		
	Storage, Collection and Transport of Waste			
E3	Minimise windblown litter and dust during transportation by either covering trucks or transporting wastes in enclosed containers.	С		
	Obtain the necessary waste disposal permits from the appropriate authorities, if they are required, in accordance with the Waste Disposal Ordinance (Cap.354), Waste Disposal (Chemical Waste) (General) Regulation (Cap.354), the Crown Land Ordinance (Cap 28), Dumping at Sea Ordinance (Cap 466) and Work Branch Technical Circular No. 22/92, Marine Disposal of Dredged Mud.	С		
	Disposal of waste at Licensed sites;	С		
	Develop procedures such as a ticketing system to facilitate tracking of marine mud and chemical waste, and to ensure that illegal disposal does not occur;	N/A		
	 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); 	N/A		
	 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	N/A
	LAND CONTAMINATION	
F1	No land Contamination mitigation measures are required during the construction phase.	N/A
	MARINE ECOLOGY	
G1	All percussive piling works shall be conducted on reclaimed land to avoid noise impact to marine mammals	N/A
G2	All construction related vessels shall approach the extension site from the north and via the East Lamma Channel to avoid disturbance to the finless porpoise	С
G3	Rubble mound seawall to the south and west edges of the reclamation to enhance recolonisation of marine organisms	С
G4	Artificial Reefs of a volume not less than 400 m ³ shall be deployed in a location to be decided upon consultation with the Director of Agriculture and Fisheries to serve the purpose of an Additional Habitat Enhancement Measure.	С
	FISHERIES	
H1	No Fisheries-specific mitigation measures are required during the construction phase.	N/A
	RISK ASSESSMENT	
I1	No risk mitigation measures are required during the construction phase.	N/A

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

 Table I.2
 Construction Phase Mitigation Measures and their Implementation

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

EM&A Log Ref.	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.	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 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
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. Transmission System – Civil Works (Part C of EIA Report)

Table I.4 Construction Phase Mitigation Measures and their Implementation

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

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

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

Remarks:

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

N/A -

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

 Table I.5
 Construction Phase Mitigation Measures and their Implementation

tigate potential construction related dust impacts, the dust control measures ated under the Air Pollution Control (Construction Dust) Regulation shall be ited with, such as: I debris or materials shall be either covered or stored in a debris sheltered oblection area; Frior to any material handling, all dusty material shall be sprayed with water. ER QUALITY tigation measures are considered necessary. E Cable Route ion and use of quiet PMEs, or use of modest source noise controls with rd PMEs Inding Point	N/A N/A N/A N/A
atted under the Air Pollution Control (Construction Dust) Regulation shall be ited with, such as: I debris or materials shall be either covered or stored in a debris sheltered ollection area; Frior to any material handling, all dusty material shall be sprayed with water. ER QUALITY tigation measures are considered necessary. E Cable Route ion and use of quiet PMEs, or use of modest source noise controls with rd PMEs	N/A N/A
ER QUALITY tigation measures are considered necessary. E Cable Route ion and use of quiet PMEs, or use of modest source noise controls with rd PMEs	N/A N/A
ER QUALITY tigation measures are considered necessary. E Cable Route ion and use of quiet PMEs, or use of modest source noise controls with rd PMEs	N/A
tigation measures are considered necessary. E Cable Route ion and use of quiet PMEs, or use of modest source noise controls with rd PMEs	
tigation measures are considered necessary. E Cable Route ion and use of quiet PMEs, or use of modest source noise controls with rd PMEs	
E 5 Cable Route ion and use of quiet PMEs, or use of modest source noise controls with rd PMEs	
5 Cable Route ion and use of quiet PMEs, or use of modest source noise controls with rd PMEs	N/A
5 Cable Route ion and use of quiet PMEs, or use of modest source noise controls with rd PMEs	N/A
ion and use of quiet PMEs, or use of modest source noise controls with rd PMEs	N/A
nding Point	
ion and use of quiet PMEs (particularly the barge-mounted crane), or use of arably effective source noise controls with the PMEs;	N/A
on-percussive piling – use of equipment with a SWL of 113 dB(A) or less if s no programme overlap of the piling with the site formation works, vise offsetting source noise controls shall be required.	N/A
crcussive piling – use of equipment with a SWL of 115 dB(A) or less, vise, offsetting source noise controls shall be required.	N/A
-percussive piling and site formation activities are to be carried out aneously then careful equipment selection and source controls shall be ed for both activities to reduce each by approximately 3 dB(A).	N/A
INE ECOLOGY	
	N/A
ERIES	
	N/A
	INE ECOLOGY ruction of rubble mound seawalls for the landing and launching points at ha Island. ERIES heries-specific 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:	
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

Activities				February 2006	March 2006	April 2006	
Main Station Bldg. and HRSG	Duration	Start	Finish	01 04 07 10 13 16 19 22 25	28 03 06 09 12 15 18	21 24 27 30 02 05 08 11 14 17	20 23 26
	788 days	02 Apr '04	29 May '06		!	'	
Pile head treatment	29 days	02 Apr '04	30 Apr '04	A Company of the Comp	i		
Earthing system	30 days	11 May '04	09 Jun '04			i	
Pile cap and tie beam	110 days	16 May '04	02 Sep '04		The state of the s	!	
1/F construction	60 days	26 Dec '04	23 Feb '05	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		İ	
2/F Construction	90 days	01 Dec '04	28 Feb '05		1	i	
3/F Construction	45 days	15 Jan '05	28 Feb '05	T T T T T T T T T T T T T T T T T T T	1 T	I	
4/F Construction	45 days	01 Feb '05	17 Mar '05	A III			
5/F Construction	45 days	02 Mar '05	15 Apr '05			i	
R/F Construction	45 days	17 Mar '05	30 Apr '05	100		<u> </u>	
Deferred works - East	50 days	21 Apr '05	09 Jun '05	## T T T T T T T T T T T T T T T T T T	:	a de la companya de l	
Deferred works - West	76 days	17 May '05	31 Jul '05			ı	
Deferred works - South	45 days	15 Oct '05	28 Nov '05	THE STATE OF THE S		i	
Deferred works - Air Inlet				A TO A TO THE A TO THE TANK A TO A TO THE TANK A TO THE TA	1		
Deferred works - North	50 days	01 Jan '06	19 Feb '06			:	
Deferred works - Tiling at +16.15	25 days	10 Feb '06	06 Mar '06	■ 本土工工の 中国 中国 中国 中国 中国 中国 でいます でいます でいます できます できます できます できます できます できます できます でき	3788877 GB307 F	1	
	90 days	01 Mar '06	29 May '06	-C 11 11 12 12 12 12 12 12 12 12 12 12 12	Constitution to the contract of a tremp of the state of t	がはない。 またまた、 1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	to a sila manakana
Deferred works - Firewall at Transformer Bay	46 days	20 Jul '05	03 Sep '05	8-1 B ()			
Deferred works - Metal Fence at Transformer Bay	45 days	01 Mar '06	14 Apr '06	1975 1975 1975	一次加速工作的原则 # 4 中華中一一十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十	日本の日本書の日本の日本の日本の日本の日本日本日本日本の日本日本日本日本日本日本	
				· 6 전 전 10 전 10 전 10 전 10 전 10 전 10 전 10	i	i	
275kV Bldg.	651 days	03 May '04	12 Feb '06	Party of Editor		:	
Pile head treatment	22 days	03 May '04	24 May '04	A Paragraph of the Control of the Co		The same of the sa	
Earthing system	30 days	11 May '04	09 Jun '04	oc an		* E	
Pile cap and tie beam	45 days	16 May '04	29 Jun '04	*es ADD			
1/F construction	90 days	01 Jun '04	29 Aug '04	737		į	
2/f construction	90 days	30 Aug '04	27 Nov '04	± 6.0mm y	!	1	
3/f construction	45 days	28 Nov '04	11 Jan '05				
Roof construction	45 days	12 Jan '05	25 Feb '05	1.00		:	
Surrounding Cable Trench	120 days	15 Apr '05	12 Aug '05	AS IN THE STATE OF	i	!	
Surrounding External works	60 days	15 Dec '05		SBRANTINA SESTEMBRANTINA		:	
				Ellother	İ	1	
No. 4 Chimney	634 days	30 Jun '04	25 M ar '06	5 FT-10-0	1		
Pile head treatment	30 days	30 Jun '04	29 Jul '04	man (M)		į	
Pile cap construction	63 days	30 Aug '04	31 Oct '04		i	£	
Superstructure construction	300 days	01 Nov '04	27 Aug '05	- e thirtie		İ	
Steel and Internal Works	180 days	28 Aug '05	23 Feb '06	The second state of the second			
Remaining Works	30 days	24 Feb '06	25 Mar '06	Event	and the state of t	District.	
The state of the s	Journal	24160 00	20 IVIAI 00	F-1-1-1			
Road & Drainage Works	COA dour	05 1.4104	00 Fab (00	de a de constant d			
Along Loading and Unloading Area	604 days	05 Jul '04	28 Feb '06	10 mg / 10 mg		į.	
Breaking up the road concrete	88 days	05 Jul '04	30 Sep '04	La Tra			
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10 days	05 Jul '04	14 Jul '04	The second section of the second seco	W., A	THE RESERVE OF THE PROPERTY OF	V0.10144/400 41414
a Power Station Extension - Unit 9 Civil and Building	Work Sche	eduled Activity	4 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		<u> </u>		
th Programme							

ID	Activities	Duration	Start	Finish	February 2006	March 2006	April 2006 30 02 05 08 11 14 17 20 23 26
41	Pipe installation	48 days	15 Jul '04	31 Aug '04	01 04 07 10 13 16 19 22 25 2	8 03 06 09 12 15 18 21 24 27	30 02 05 08 11 14 17 20 23 26
42	Testing	7 days	01 Sep '04	07 Sep '04	10 4 4 4 10 10 10 10 10 10 10 10 10 10 10 10 10		
43	Haunching and Road making good	23 days	08 Sep '04	30 Sep '04	1		1
44	North Seafront Road	600 days	09 Jul '04	28 Feb '06			**
45	Excavation	84 days	09 Jul '04	30 Sep '04	-		
46	Pipe installation	120 days	01 Oct '04	28 Jan '05	111111111111111111111111111111111111111		:
47	Testing	45 days	05 Feb '05	21 Mar '05	11 11 00 000		
48	Haunching and Road making good	200 days	22 Oct '04	09 May '05	**************************************		**
19	External Utility Work and Ground Finish	120 days	01 Nov '05				:
50	East Bridge Road	472 days	28 Oct '04	11 Feb '06			
51	Excavation	30 days	28 Oct '04	26 Nov '04	# ·		
52	Pipe installation	90 days	27 Nov '04	24 Feb '05			
53	Testing	14 days	04 Mar '05		I I I I I I I I I I I I I I I I I I I		## !
54	Haunching and Road making good		11 Mar '05	17 Mar '05	d difference		
55	External Utility Work and Ground Finish	120 days		08 Jul '05			
56	Chimney Road	120 days	15 Oct '05		**************************************		
57	Excavation	478 days	08 Nov '04	28 Feb '06	- Andrews		
8	Pipe installation	30 days	08 Nov '04	07 Dec '04	Teacher		
9	Testing	90 days	08 Dec '04	07 Mar '05			ii :
50	Haunching and Road making good	30 days	15 Mar '05	13 Apr '05			
1	External Utility Work and Ground Finish	120 days	22 Mar '05	19 Jul '05			**
2	External Utility Work and Ground Finish	60 days	31 Dec '05	28 Feb '06	Consideration of the second of		<u> </u>
	C W Culvert System	565 days	15 Aug '04	02 Mar '06	Company of the state of the sta		
4	Outlet Section	392 days	15 Aug '04	10 Sep '05	1		· · · · · · · · · · · · · · · · · · ·
7	Inlet Section	152 days	13 Oct '04	13 Mar '05			**
4			10 001 01	10 11141 00	Programma		:
5	C W Pump Equipment Room	115 days	15 Jul '05	06 Nov '05			1
0		acyo		00 1101 00	THE STATE OF THE S		
1	Pipe & Cable Rack	266 days	23 May '05	12 Feb '06	Sign and the sign		1
2	Excavation	21 days	23 May '05	12 Jun '05	SER P		
3	Footing	30 days	13 Jun '05	12 Jul '05	The state of the s		
4	Steel Work	50 days	13 Jul '05	31 Aug '05	T and a second		:
5	Walkway and Catladder	60 days	15 Dec '05		1 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		***
3		ou days:	15 Dec 05	12 Feb 00	2		
,	Gas Receiving Station	024	45 1-1105		haris and the second se		:
3	Excavation	231 days	15 Jul '05	02 Mar '06	THE PROPERTY OF THE PROPERTY O		
-	RC Structure and finishing work	90 days	15 Jul '05	12 Oct '05			
ō	Drainage and Road Work	80 days	05 Aug '05	23 Oct '05	The said		
1	Defer and remaining work	60 days	24 Oct '05	22 Dec '05	10 10 10 10 10 10 10 10 10 10 10 10 10 1		
	- stor and remaining work	30 days	01 Feb '06	02 Mar '06	the server residence and any server and a server and a server recommendates	14.5	ı

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

Scheduled Activity

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

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

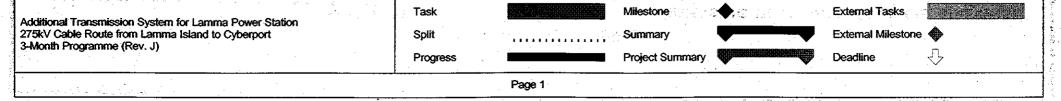
CONTRACT NO. 04/9013 LAMMA POWER STATION EXTENSION UNIT 9 COMPLETE ERECTION, INSPECTION, TESTING & COMMISSIONING OF POWER BLOCK ELECTRICAL, INSTRUMENTATION AND CONTROL FACITILITIES

3 MONTH PROGRAMME (FEBRUARY 2006 TO APRIL 2006)

						Februa	ary			M	arch			At	oril	
ID	Task Name	Start	Finish	1/2	8/2	15/2	22/2	28/2	5/3	12/3	19/3	26/3	3/4	10/4	17/4	24/4
1																
2	L9 Electrical Erection	Wed 1/2/06	Sun 30/4/06													
3	Control Panel Installation	Wed 1/2/06	Sun 30/4/06										ı			
4	Instrument Panel & Piping Installation	Wed 1/2/06	Sun 30/4/06										l			
5	Cable Tray & Earthing Installation	Wed 1/2/06	Sun 30/4/06										i			
6	Conduit Installation	Wed 1/2/06	Sun 30/4/06													
7	Cable Laying	Wed 1/2/06	Sun 30/4/06	/4/06								<u> </u>				
8	Cable Termination	Wed 1/2/06	Sun 30/4/06													

				F	ebruary			March				April				May
ID	Task Name	Start	Finish	29/1	5/2	12/2	19/2 26/	2 5/3	12/3	19/3	26/3	2/4	9/4	16/4	23/4	30/4
1																
2	Pipeline Installation	Wed 1/2/06	Sun 30/4/06													
3																
4	Rock Dumping	Wed 1/2/06	Thu 30/3/06													
5	Pre-commissioning	Fri 31/3/06	Sun 30/4/06													
amma	Power Station Extension	inalina	Task				Milestone		•		External					
Supply a	Power Station Extension and Installation of Submarine Gas Pi Programme	ipeline	Task Split				Summan		•			Tasks Milestone	e •			

e jege i	and the control of th			Fel	xuary	,	March		error es es espera esta esta	April	ter and stable	- Devilopentia	M
tD :	Task Name	Start	Finish			12/2 19/2 2	6/2 5/3	12/3	19/3 26/3		16/4	23/4	
1	Civil Works	i. Grand and a second of	÷ N		# ·		have a second	jevi i i i N			e i i		1.
2	A CONTROL OF THE CONT	r Periodo de la companya da seriesa da seriesa da seriesa da seriesa da seriesa da seriesa da seriesa da seriesa	\$ 1.5 kg.		edata -			وجود استان		- 15 m	1 11 00	y	10
·3	Site Procession & Preparation Work	Tue 25/5/04	Mon 12/7/04	1	<u>i</u> # #								
4] :	.		100						
5	Within Lamma Power Station			1									
6	Construction of Cable Duct	Mon 4/10/04	Thu 29/9/05	1									
7 -	Construction of Cable Duct North Portal	Mon 12/7/04	Tue 31/1/06	72	e gillenne -			da Lab	334				
8	Backfilling Work inside Cable Duct after Cable Laying	Wed 1/3/06	Fri 28/4/06		officesturile		77777	7777		M		777	
9	The contract of the property of the property of the contract o	and the second second		1	Di Guidh II	ار دارای معهد این اینها	. Pour contractor	اد اولامان الامار	e Sangar sa sa sa sa sa sa sa sa sa sa sa sa sa	and about the new world			
10	Yung Shue Wan South	C.		1			中海水和	10 m			1 2 4		
11	Construction of Cable Landing Point	Mon 12/7/04	Sat 31/12/05	1	NAME OF TAXABLE PARTY.			0.75	(Constant				
12	Construction of Cable Duct South Portal	Mon 12/7/04	Sat 31/12/05	1		a Para di salah salah di saka ke saka	ed uja senskie i nasaset i	The Company of the Co	and a complete the second second second second	er o comercial parties of the commercial par			
13	rain, s			1								•,	
14	Pak Kok San Tsuen	Ž.			STATE STATE OF THE								
15°	Construction of Cable Landing Point	Tue 24/8/04	Fri 14/10/05	1	estadol Pul								
16	Construction of Cable Trenches	Sat 30/7/05	Sat 31/12/05	1									
17	Construction of Cable Duct	Thu 25/11/04	Fri 30/9/05								Salar Salar		
18	Construction of Cable Duct South Portal	Wed 25/8/04	Mon 16/1/06	1	,		\$775 5 00		and the same	() () () () () () () () () ()			ŀ
19	Backfilling Work inside Cable Duct after Cable Laying	Wed 1/3/06	Fri 28/4/06					7777		77777	<i></i>	ZZZZ	
20	Backfilling Work at Cable Trenches after Cable Laying	Wed 1/3/06	Fri 28/4/06			and Alberta A		7777	mm	77177	<i>22222</i>	<u> </u>	r
21		The second second		1	THE STATE OF THE S						sa Separate de la companya de la companya de la companya de la companya de la companya de la companya de la co	4 7.80 3.848.0	
22	Pak Kok Tsui			1							ិ ទៅព្រំភ		: 7
23	Construction of Cable Landing Point	Mon 12/7/04	Wed 14/9/05					. 15. Fi		. A	3.47	\$ - 54	
24	Construction of Cable Duct North Portal	Mon 12/7/04	Sat 31/12/05	1				$\sum_{i=1}^{n}\frac{1}{i}\sum_{i=1}^{n}\frac{1}{i}\sum_{i=1}^{n}\frac{1}{i}$					
		· · · · · · · · · · · · · · · · · · ·		.			A 34.2	Sec. No.		** \$* 130° }	3¢ 1.4		
			•										
						er in die eerste van die eerste van die eerste van die eerste van die eerste van die eerste van die eerste van Die eerste van die eerste van die eerste van die eerste van die eerste van die eerste van die eerste van die e	es to tello	. 21.0	en en en en en en en en en en en en en e	A Language Sala	ا می درو میگرخود		
			•			5 4	eriense in der L	• •	1 . WW.A				835



3 3 2 3 L S C

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: 20 Date: 24-Jan-06

										<u>U</u>	OIN	311	100	۱۱۱ر	JIN	<u> </u>	ПЕІ	וטכ	<u>-⊏ (</u>	<u>FU</u>	KE	CAS	ST F	UK	<u>. 3 I</u>	VIOI	NII	10)															ט	ate:	24	-Jai	-00		
	Date							Feb	uary	, 200	6													Ма	rch,	2006	6														April	, 200	06						
	Item	1 2	3 -	4 5	6 7	8 9	10 11	12 1	3 14 1	16 1	7 18 1	19 20 2	21 22	23 24	25 26	3 27 2	8 1	2 3	4 5	6 7	8 9	9 10 1	1 12 1	3 14	15 16	17 18	19 20	0 21 2	2 23 2	4 25 2	26 27	28 29	30 31	1 2	3 4	5 6	7 8	3 9	10 11	12 13	14 1	5 16 1	17 18	19 20	21 22	23 24	4 25 26	6 27 2	.8 29
1	Dredging/Excavation of Submarine Cable Trench outside N2 Landing Point																																																
2	Dredging/Excavation of Submarine Cable Trench outside N4 Landing Point																																																
	Dredging/Excavation of Submarine Cable Trench outside N5 Landing Point (Completed)																																																
4	Dredging/Excavation of Submarine Cable Trench outside I1 Landing Point (Completed)																																																
5	Removing Seabed Obstructions and subsequently backfilling between N2 & N4 Landing Points (Completed)																																																
6	Sweeping on the seabed between N5 & I1 Landing Points (Completed)																																																
7	Sweeping on the seabed between N2 & N4 Landing Points																																																
	Preparation & Installation of Submarine Cables between N5 & I1 (Completed)																																																
9	Preparation & Installation of Submarine Cables between N2 & N4																																																
	Backfilling & Cable Protection outside N2 Landing Point																																																+
	Backfilling & Cable Protection outside N4 Landing Point																																																
12	Backfilling & Cable Protection outside N5 Landing Point																																																+
13	Backfilling & Cable Protection outside I1 Landing Point																																																
<no< td=""><td>ote></td><td> </td><td><u> </u></td><td><u> </u></td><td></td><td></td><td><u> </u></td><td></td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td>1 1</td><td><u> </u></td><td></td><td></td><td></td><td><u> </u></td><td><u> </u></td><td></td><td></td><td></td><td></td><td></td><td></td><td><u> </u></td><td><u> </u></td><td><u> </u></td><td></td><td></td><td><u>1 </u></td><td>1</td><td></td><td></td><td><u> </u></td><td><u> </u></td><td></td><td><u> </u></td><td></td></no<>	ote>		<u> </u>	<u> </u>			<u> </u>		<u> </u>	<u> </u>	<u> </u>									<u> </u>	<u> </u>	<u> </u>	1 1	<u> </u>				<u> </u>	<u> </u>							<u> </u>	<u> </u>	<u> </u>			<u>1 </u>	1			<u> </u>	<u> </u>		<u> </u>	
		1. S	che	dule	will b	be r	nodifi	ed d	ue to	the	prog	ıress	of w	vorks	and	d we	athei	r cor	ditio	ns.																													

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

January 2006

1	7/02/06	Issued for approval	WK			
0	2/02/06	Issued for comments	WK			
0	1/02/06	Issued for comments	WK			
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

Dec. No. 1 TI D 22 4 429 C	REVISION	STATUS
Doc. No.: LTLD-32-1-138-G	1	В





Saipem

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

Page i

TABULATION OF REVISED PAGES

PAGE				REVI	SIONS	3			PAGE REVISIONS									
PAGE	0	1	2	3	4	5	6	7	PAGE	0	1	2	3	4	5	6	7	<u> </u>
1	Х	Х							51									
2	Х	Х							52									
3	Χ	Χ							53									
4	Χ	Χ							54									
5	Х	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	MENI	TS/AD	DENID	IY	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
35									ATTACH	X	X	LIND	<u> </u>					<u> </u>
36									В	X	X							
37									ا ا	_^	_^							
																		
38 39																		
40								-										
41								-										
																		-
42																		-
43								-										
44				-				-										-
45																		
46																		
47																		
48																		<u> </u>
49																		
50																		<u> </u>

LAMMA POWER STATION EXTENTION; Contract 03/9008 Doc No. : LTLD-32-1-138-G

Revision: 1

Date : 07.02.2006





Saipem

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

Page ii

Saipem Asia Sdn. Bhd

Lamma Power Station ExtensionSupply and Installationof Submarine Gas Pipeline

Environmental Monitoring and Audit Report (Version 1.B)

January 2006

Approved By

(Project Director: Dr. HF Chan)

REMARKS:

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

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

CINOTECH CONSULTANTS LTD

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

Email: info@cinotech.com.hk





Saipem

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

Page iii

TABLE OF CONTENTS

		Page
EX	ECUTIVE SUMMARY	1
En\ Cor	oductionvironmental Monitoring Worksmplaints and Prosecutions	1 1
1	INTRODUCTION	2
Bac Pro	ckground ject Organizations	2 2
2	WATER QUALITY MONITORING	4
3	ENVIRONMENTAL AUDIT	4
Sur	olementation Status of Mitigation Measuresmmary of Non-compliance of the Environmental Quality Performance Limitmmary of Complaints and Prosecution	4
4	FUTURE KEY ISSUES	4
Key	y Issues for the Coming Month	4
5	CONCLUSIONS AND RECOMMENDATIONS	5
Cor	nclusions	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 (January 06)

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

EXECUTIVE SUMMARY

Introduction

1. This is the twelfth 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 January 2006.

Environmental Monitoring Works

Water Quality

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

Complaints and Prosecutions

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

Future Key Issues

4. Anchor protection/rock dumping and pipeline discharge works are the major activities in the coming months. The hydrotest medium is tentatively planned to be discharged in Mainland China waters in April 2006 and a discharge license is being applied from the PRC Authorities. No major environmental impact is anticipated from the works.

1 INTRODUCTION

Background

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

Project Organizations

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

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

Table 1.1 Key Project Contacts

Party	Name	Role	Phone No.	Fax No.
ET- Cinotech	Dr. Priscilla Choy	Project Manager	2151 2089	3107 1388
	Ms. Winniss Kong	Coordinator	2151 2068	3107 1388
	Mr. Henry Leung	Monitoring Team Leader	2151 2087	3107 1388

2 WATER QUALITY MONITORING

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

3 ENVIRONMENTAL AUDIT

Implementation Status of Mitigation Measures

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

Summary of Non-compliance of the Environmental Quality Performance Limit

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

Summary of Complaints and Prosecution

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

4 FUTURE KEY ISSUES

Key Issues for the Coming Month

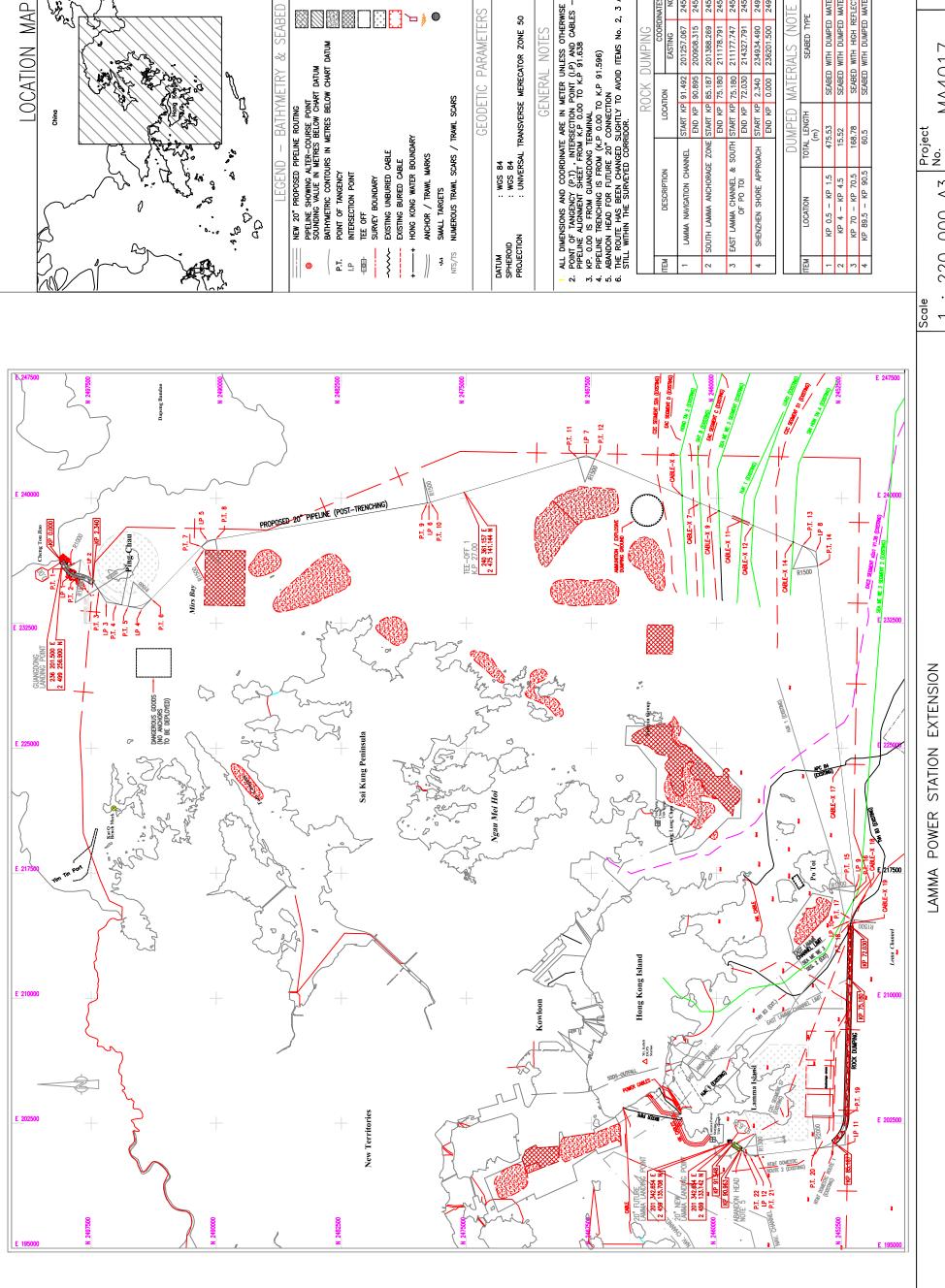
4.1 Anchor protection/rock dumping and pipeline discharge works are the major activities in the coming months. The hydrotest medium is tentatively planned to be discharged in Mainland China waters in April 2006 and a discharge license is being applied from the PRC Authorities. Ad hoc site inspection will be carried out as necessary in accordance with the EM&A Manual.

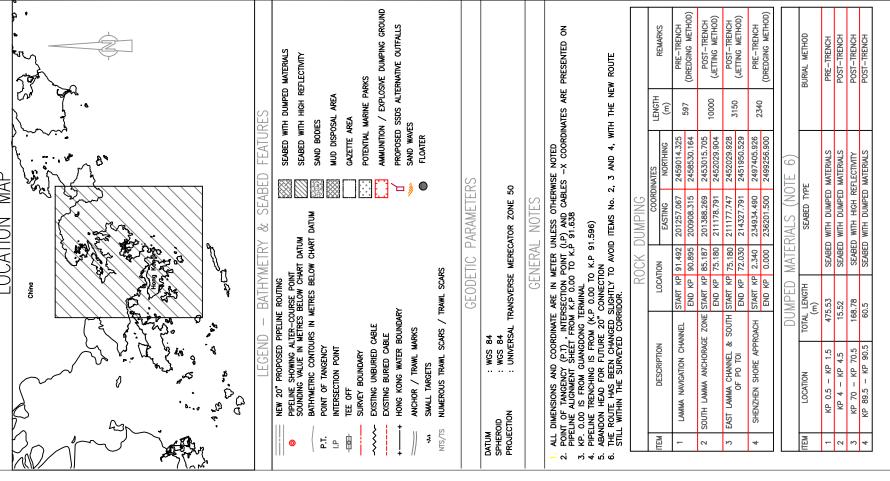
5 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

- 5.1 No environmental monitoring and audit works were performed in the reporting month.
- 5.2 Anchor protection/rock dumping and pipeline discharge works are the major activities in the coming months. The hydrotest medium is tentatively planned to be discharged in Mainland China waters in April 2006 and a discharge license is being applied from the PRC Authorities. No major environmental impact is anticipated.

FIGURE





SUBMARINE GAS ШН 9 LAYOUT

PIPELINE

MA4017

A3

000

220

Figure No.

2005

Date

F:\PEOJECTS\MA4017\DRAWINGS\MONTHLY\FIGURE 1.1.DWG

Title

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
001	South of the Lamma anchorage areas	October 2005	The local fishermen raised their concerns on the rock dumping operations of the Project.	The complaint is being handled by Hong Kong Electric Co., Ltd.	N/A