

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 Background 1
 - 1.2 Project Organisation 1
 - 1.3 Construction Works undertaken during the Reporting Month 2
 - 1.4 Summary of EM&A Requirements 11
- 2. AIR QUALITY..... 15**
 - 2.1 Monitoring Requirements 15
 - 2.2 Monitoring Locations 15
 - 2.3 Monitoring Equipment 15
 - 2.4 Monitoring Parameters, Frequency and Duration 16
 - 2.5 Monitoring Procedures and Calibration Details 16
 - 2.6 Results and Observations 17
- 3. NOISE 19**
 - 3.1 Monitoring Requirements 19
 - 3.2 Monitoring Locations 19
 - 3.3 Monitoring Equipment 19
 - 3.4 Monitoring Parameters, Frequency and Duration 20
 - 3.5 Monitoring Procedures and Calibration Details 20
 - 3.6 Results and Observations 21
- 4. ENVIRONMENTAL AUDIT 24**
 - 4.1 Review of Environmental Monitoring Procedures 24
 - 4.2 Assessment of Environmental Monitoring Results 24
 - 4.3 Site Environmental Audit 25
 - 4.4 Status of Environmental Licensing and Permitting 25
 - 4.5 Implementation Status of Environmental Mitigation Measures 28
 - 4.6 Implementation Status of Event/Action Plans 28
 - 4.7 Implementation Status of Environmental Complaint Handling Procedures 28
- 5. FUTURE KEY ISSUES..... 30**
 - 5.1 Status of Natural Gas supply 30
 - 5.2 Key Issues for the Coming Month 30
 - 5.3 Monitoring Schedules for the Next 3 Months 31
 - 5.4 Construction Program for the Next 3 Months 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 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 | Permit No. | Valid Period | | Issued To | Date of Issuance |
|---|----------------------|--------------|----------|------------|------------------|
| | | From | To | | |
| 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 Issuance |
|---|----------------------|--------------|----------|------------|------------------|
| | | From | To | | |
| Registration of Chemical Waste Producer | WPN5213-912-K2801-03 | 15/09/04 | - | Contractor | 15/09/04 |
| Registration of Chemical Waste Producer | WPN5517-912-T2007-02 | 17/03/05 | - | Contractor | 17/03/05 |
| Registration of Chemical Waste Producer | WPN5213-912-W2852-09 | 25/01/05 | - | Contractor | 25/01/05 |
| Registration of Chemical Waste Producer | WPN4111-912-M2534-09 | 20/06/05 | - | Contractor | 20/06/05 |
| WPCO Discharge Licence | EP890/W2/XD020 | 22/11/04 | 30/11/09 | Contractor | 22/11/04 |

Implementation Status of Environmental Mitigation Measures

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

Environmental Complaints

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

Future Key Issues

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

Unit L9 Civil and Building Works

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

Unit L9 Mechanical Erection

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

Unit L9 Electrical Erection

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

Transmission System

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

Concluding Remarks

The environmental performance of the project was generally satisfactory.

1. INTRODUCTION

1.1 Background

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

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

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

This report summarizes the environmental monitoring and audit work for the Project for the month of 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 Building Works | | |
| 1. | Main Station Building | <p>Air</p> <ul style="list-style-type: none"> – Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> – General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> – Waste Management Plan submitted and implemented. |

| Item | Construction Activities | Environmental Mitigation Measures |
|-------------|----------------------------------|--|
| 2. | 275kV Switching Station Building | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |
| 3. | Shunt Reactor | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |
| 4. | Chimney | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |
| 5. | Drainage & Road Works | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |

| Item | Construction Activities | Environmental Mitigation Measures |
|-------------|--|--|
| 6. | Fire Services Water Tank and Fire Pump House | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |
| 7. | C.W. Culvert System & Equipment Room | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |
| 8. | C.W. Pump Equipment Room | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |
| 9. | Gas Receiving Station | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |

| Item | Construction Activities | Environmental Mitigation Measures |
|--|--|--|
| 10. | Pipe & Cable Rack | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |
| 11. | LPS A&A Works | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |
| Construction of Transmission System | | |
| 12. | Construction of tunnel portal structure for Cable Duct 1 | <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. |
| 13. | Backfilling above portal structure for Cable Duct 2 | <p>Terrestrial Ecology</p> <ul style="list-style-type: none"> - 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 Mechanical Erection | | |
| 14. | HRSG Erection | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |
| 15. | Steam Turbine Erection | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |
| 16. | Gas Turbine Erection | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |
| 17. | Generator Erection | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |

| Item | Construction Activities | Environmental Mitigation Measures |
|-------------|--------------------------------|--|
| 18. | Condenser Erection | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |
| 19. | Auxiliary Equipment Erection | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |
| 20. | Air duct / Inlet Filter | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |
| 21. | HRSG Inlet Duct | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |

| Item | Construction Activities | Environmental Mitigation Measures |
|-------------|----------------------------------|--|
| 22. | Piping Support / Piping Erection | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |
| 23. | Insulation Work | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |
| 24. | Platform Installation | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |
| 25. | Pipe Rack Installation | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |

| Item | Construction Activities | Environmental Mitigation Measures |
|---|---|--|
| 26. | Intake Aux Equipment Installation | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |
| 27. | Bop piping installation | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |
| 28. | GRS piping installation | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |
| Unit L9 Electrical, Instrumentation & Control Erection | | |
| 29. | Control Panel/ Instrument Panel & Rack Installation | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |

| Item | Construction Activities | Environmental Mitigation Measures |
|-------------|--|--|
| 30. | Cable Tray & Earthing Installation | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |
| 31. | Conduit & Instrument Piping Installation | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |
| 32. | Cable Laying & Termination | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |
| 33. | Busduct & IPB Installation | <p>Air</p> <ul style="list-style-type: none"> - Dust suppression measures implemented. <p>Noise</p> <ul style="list-style-type: none"> - General noise mitigation measures employed at all work sites throughout the construction phase. <p>Waste Management</p> <ul style="list-style-type: none"> - Waste Management Plan submitted and implemented. |

| Item | Construction Activities | Environmental Mitigation Measures |
|----------------------|--------------------------------|---|
| 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.

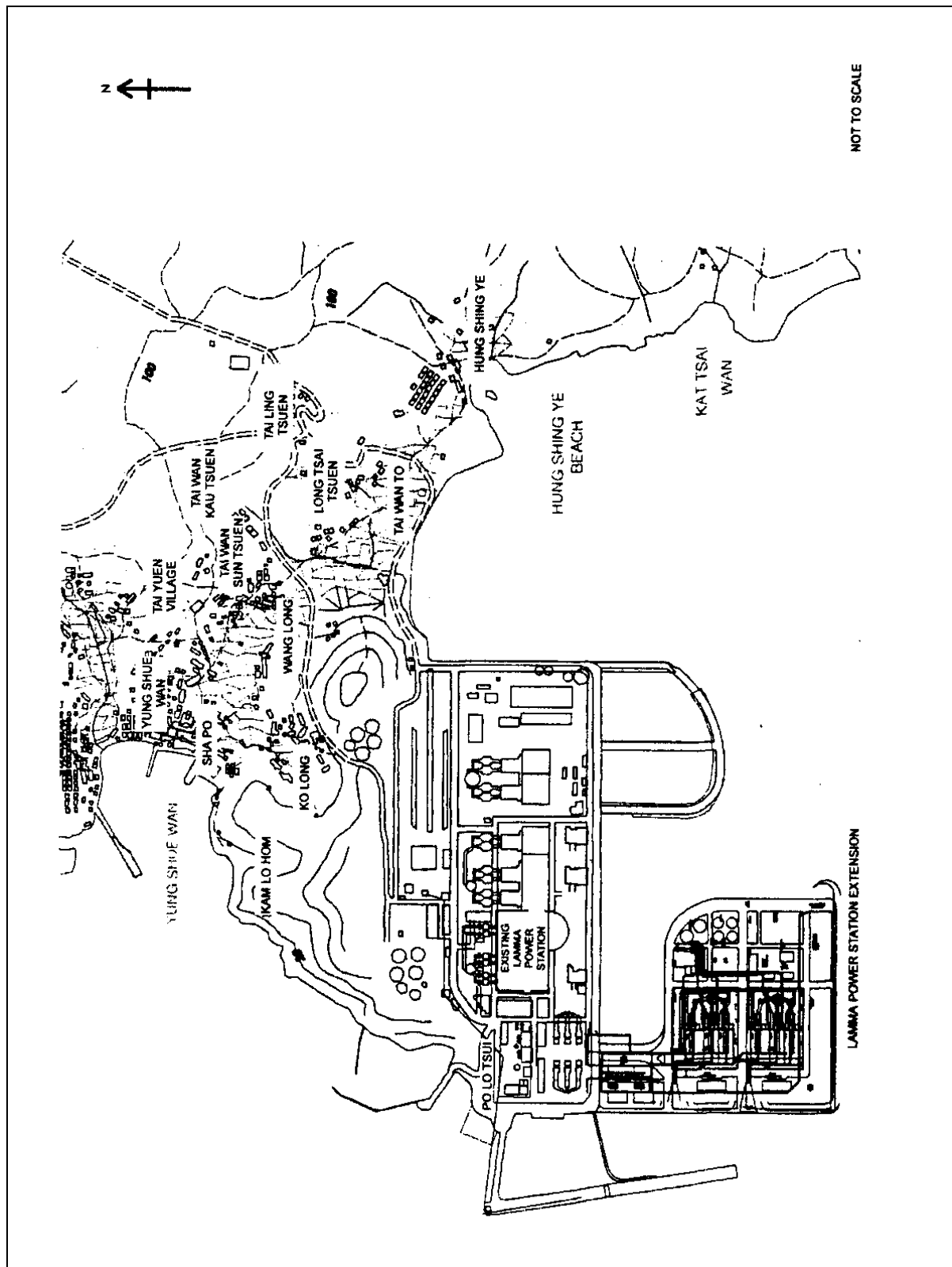


Figure 1.1 Layout of Work Site

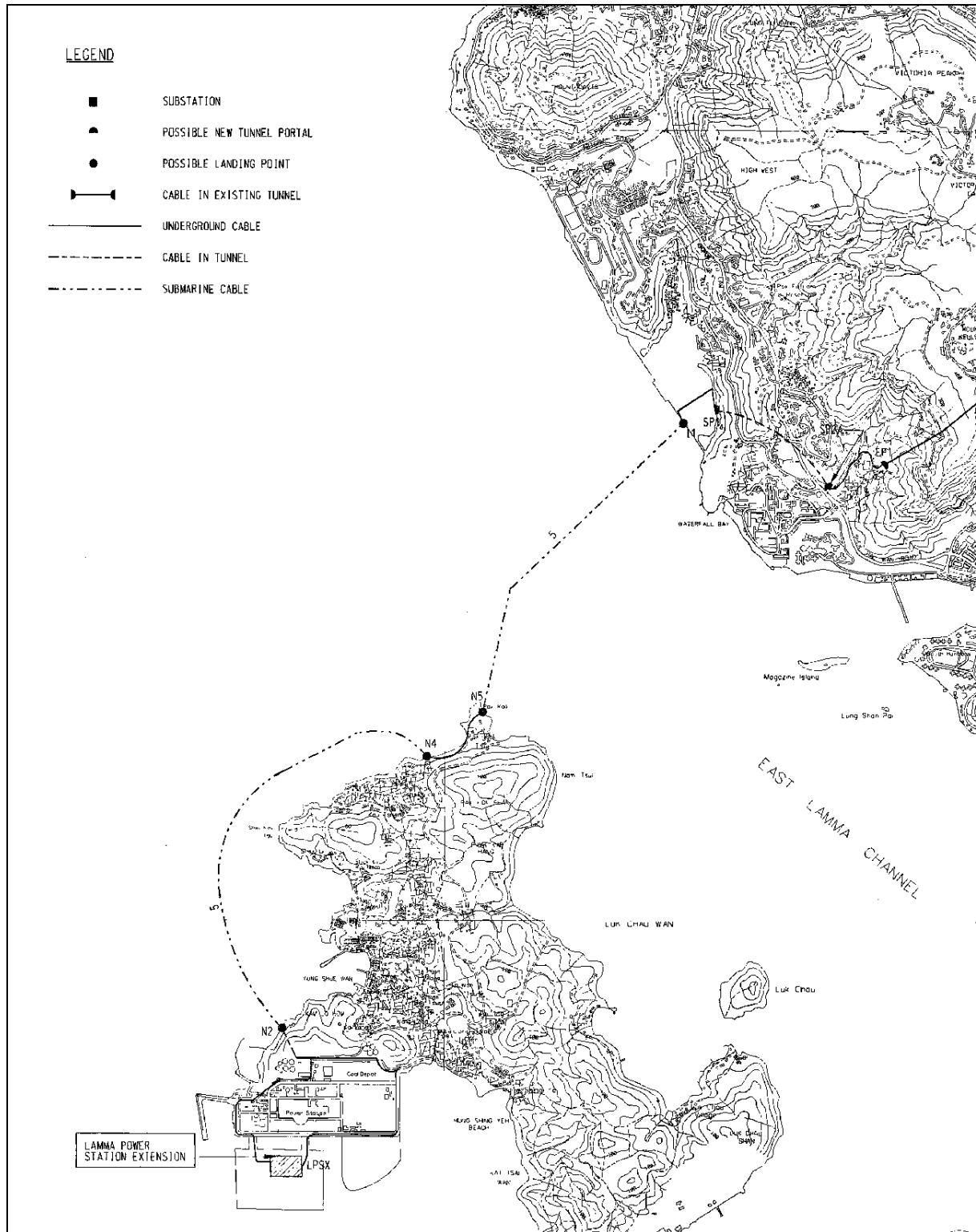


Figure 1.2 Cable Route of Transmission System

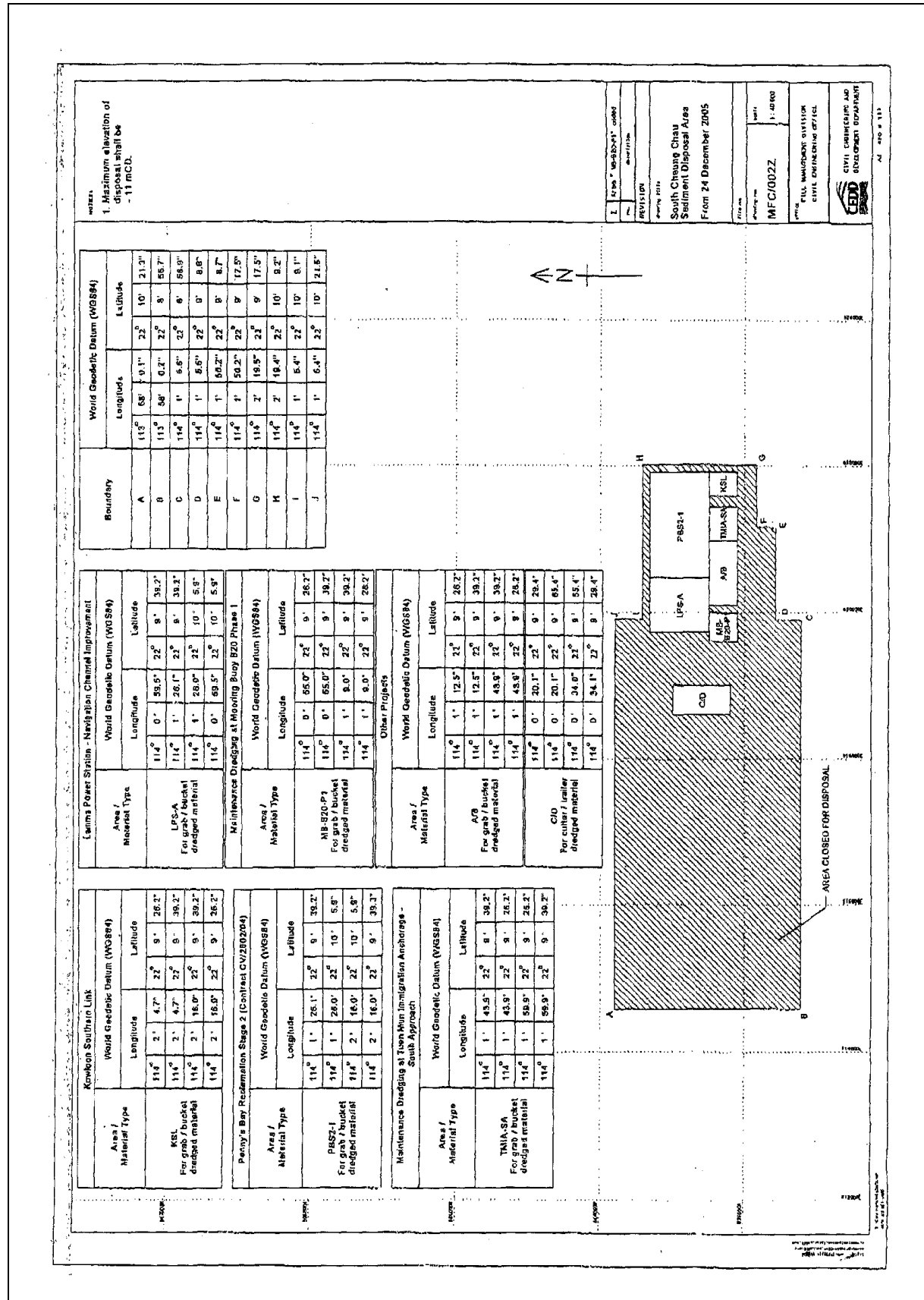


Figure 1.3 Location of Dumping Area (South Cheung Chau Spoil Disposal Area)

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 |
|--|---|
| <i>24-hour sampling:</i> HVAS Sampler | Model GS2310 Anderson Instruments Inc. |
| Partisol Air Sampler | Partisol Model 2000 Rupprecht & Patashnick |
| MINIVOL Portable Sampler | AIRMETRICS |
| <i>1-hour sampling:</i> 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 |
| | 24-hour TSP | 24 | Once every 6 days |
| AM2 | 1-hour TSP | 1 | 3 hourly samples every 6 days |
| | 24-hour TSP | 24 | Once every 6 days |
| AM3 | 1-hour TSP | 1 | 3 hourly samples every 6 days |
| | 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:
 - Mass concentration;
 - Total mass;
 - Frequency of the tapered element;
 - Electrical noise;
 - Main flow;
 - 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.

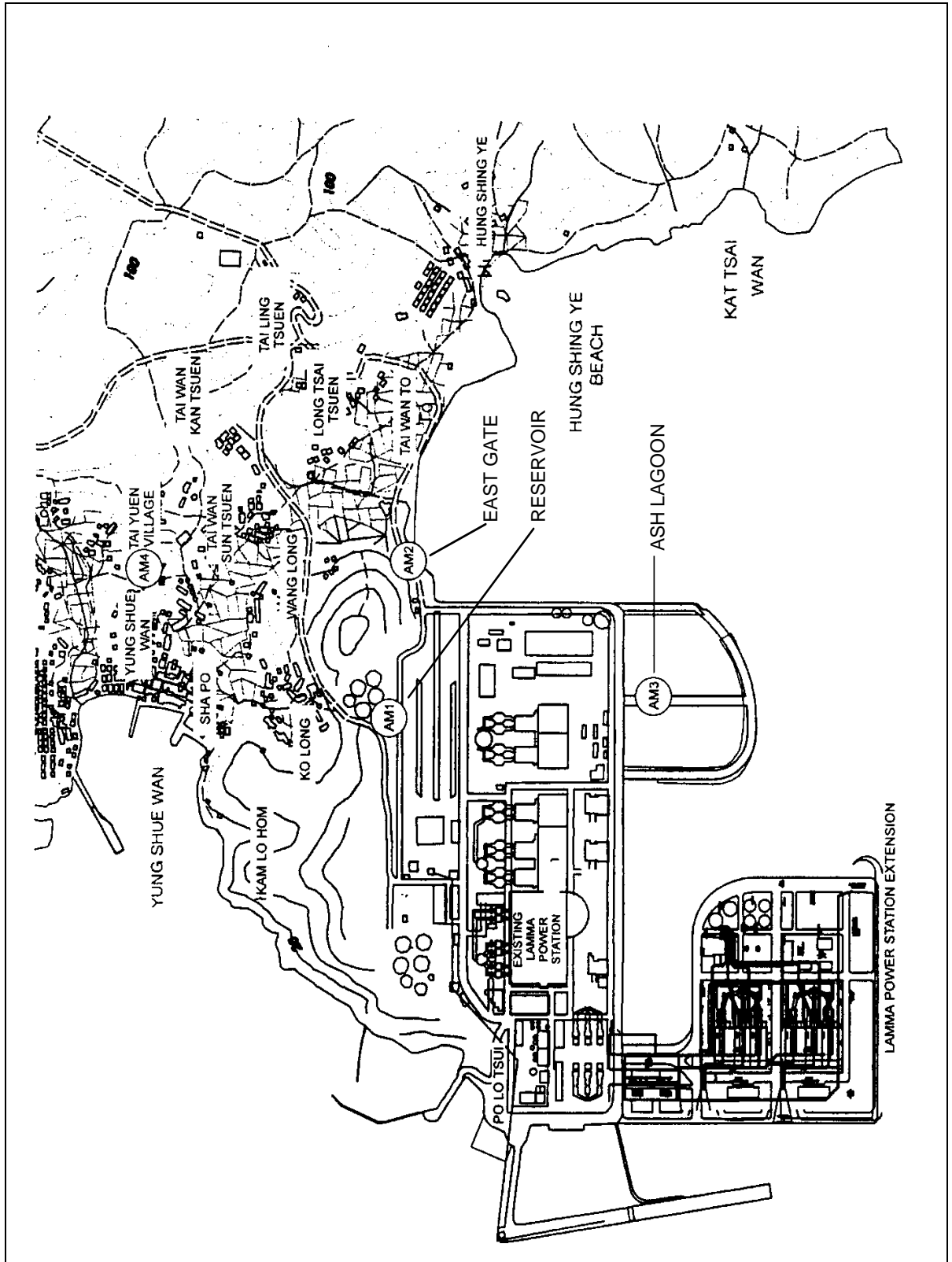


Figure 2.1 Location of Air Quality Monitoring Stations

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

3.4 Monitoring Parameters, Frequency and Duration

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

Table 3.3 Noise Monitoring Duration and Parameter

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

3.5 Monitoring Procedures and Calibration Details

Monitoring Procedures

Continuous Noise Monitoring for Lamma Extension Construction

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

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

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

Manual Noise Monitoring for Transmission System Construction

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

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

Equipment Calibration

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

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

3.6 Results and Observations

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

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

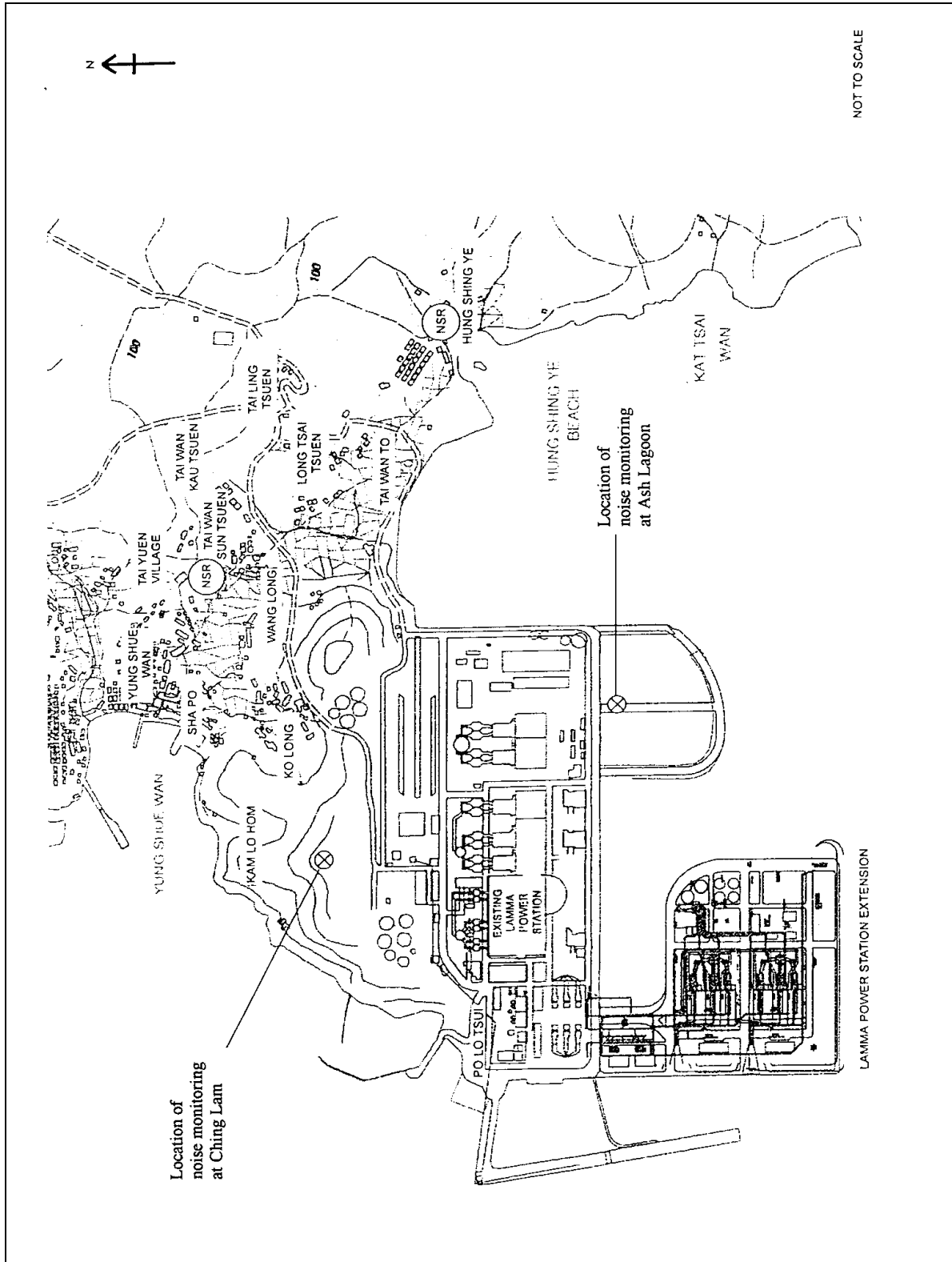


Figure 3.1 Location of Noise Monitoring Stations

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 and Results |
|-------|--|-------------------|-----------------------|-------------|---|
| | | | Action Level | Limit Level | |
| 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 and wooden waste | 1.5 Tonne |
| | | 254 m ³ |
| General Refuse | Domestic wastes collected on site | 30 m ³ |

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 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 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 / Date, Time Received / Date, Time Concerned | Descriptions /Actions Taken | Conclusion / Status |
|---|-----------------------------|------------------------|
| Nil | N/A | N/A |

5. FUTURE KEY ISSUES

5.1 Status of Natural Gas supply

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

5.2 Key Issues for the Coming Month

Key issues to be considered in the coming month include:

Unit L9 Civil and Building Works

Noise Impact

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

Air Impact

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

Unit L9 Mechanical Erection

Noise Impact

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

Air Impact

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

Unit L9 Electrical, Instrumentation & Control Erection

Noise Impact

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

Air Impact

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

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.

Appendix A Organization Chart

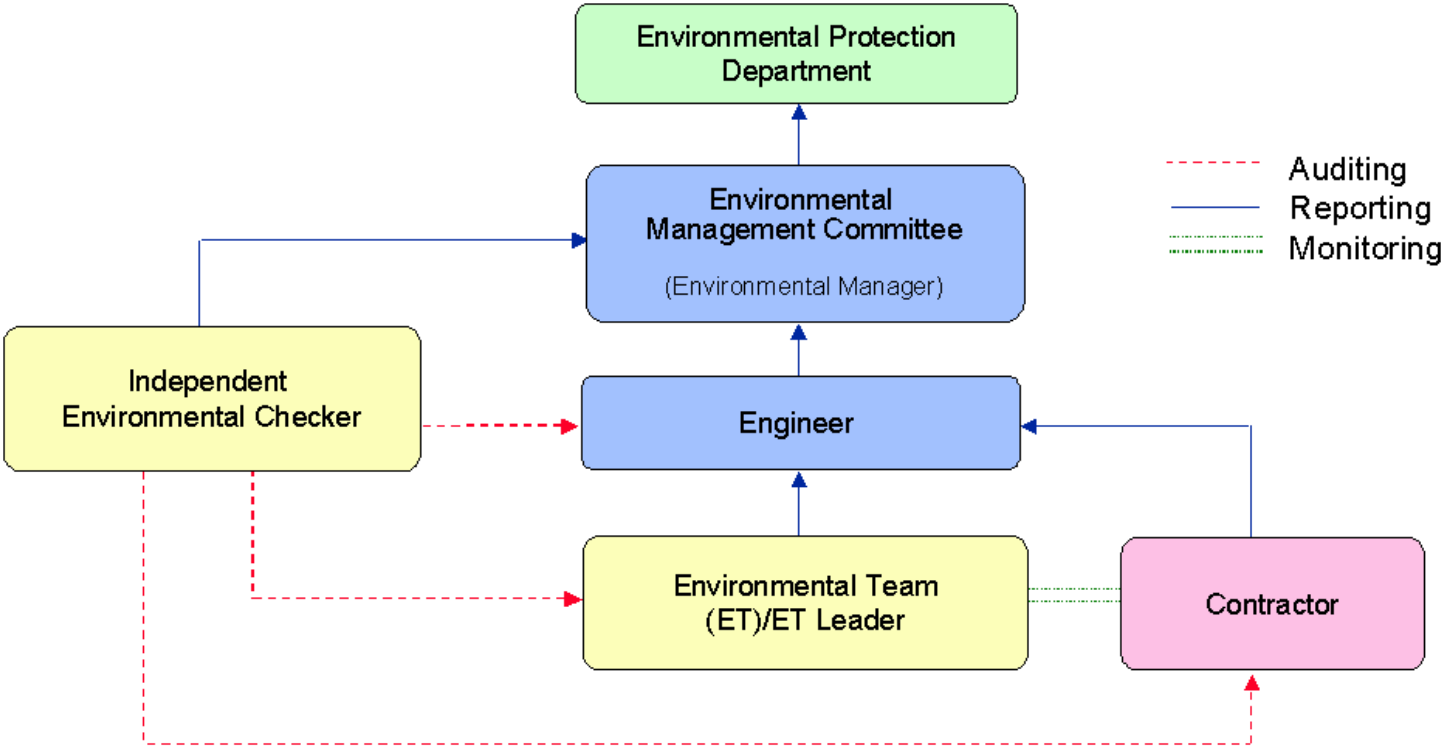


Figure A.1 Organisation of EM&A Programme at Construction Phase

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, $\mu\text{g}/\text{m}^3$ | Limit Level, $\mu\text{g}/\text{m}^3$ |
|-------------|--|---------------------------------------|
| 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 Tsuen predicted by the noise alarm monitoring system | When one or more documented complaints are received | a. 75 dB(A) in $L_{Aeq,30 \text{ min}}$ (07:00-19:00 hrs on normal weekdays) (Note 1) |
| Manual noise monitoring at the nearest Pak Kok Tsui residences to cable landing points N4 and N5 | | 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 dB(A) in $L_{Aeq,5 \text{ min}}$ c. subject to statutory control under the Noise Control Ordinance (23:00-07:00 hrs of next day). Set to 45 dB(A) in $L_{Aeq,5 \text{ min}}$ |
| 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)

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

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:-

| Date | TSP concentration ($\mu\text{g}/\text{m}^3$) | | | | Weather Information (From Hong Kong Observatory) | | |
|------------|--|--------------------|---------------------|---------------------------|---|--|------------------|
| | Reservoir (AM1) | East Gate (AM2) | Ash Lagoon (AM3) | Tai Yuen Village (AM4) | Mean Wind Speed (km/hr) | Prevailing Wind Dir. ($^{\circ}$) | Mean R.H. (%) |
| 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:-

| Date | Time | TSP concentration ($\mu\text{g}/\text{m}^3$) | | |
|------------|-------------|--|--------------------|---------------------|
| | | Reservoir (AM1) | East Gate (AM2) | Ash Lagoon (AM3) |
| 02/01/2006 | 15:00-15:59 | 62 | 65 | 56 |
| | 16:00-16:59 | 60 | 62 | 66 |
| | 17:00-17:59 | 70 | 73 | 73 |
| 08/01/2006 | 15:00-15:59 | 132 | 131 | 114 |
| | 16:00-16:59 | 115 | 122 | 106 |
| | 17:00-17:59 | 117 | 124 | 103 |
| 14/01/2006 | 15:00-15:59 | 56 | 51 | 36 |
| | 16:00-16:59 | 50 | 50 | 45 |
| | 17:00-17:59 | 52 | 49 | 46 |
| 20/01/2006 | 15:00-15:59 | 54 | 44 | 37 |
| | 16:00-16:59 | 44 | 28 | 29 |
| | 17:00-17:59 | 29 | 23 | 25 |
| 26/01/2006 | 15:00-15:59 | 106 | 104 | 92 |
| | 16:00-16:59 | 109 | 118 | 95 |
| | 17:00-17:59 | 108 | 118 | 101 |

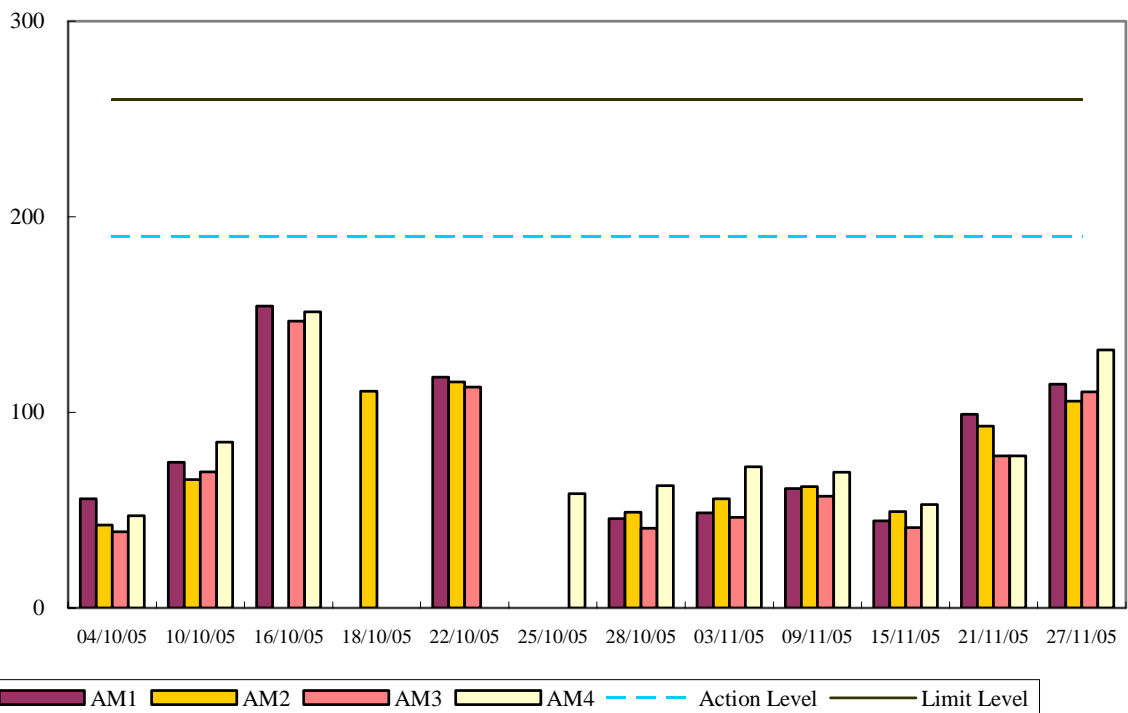
| | 1-hr TSP ($\mu\text{g}/\text{m}^3$) | 24-hr TSP ($\mu\text{g}/\text{m}^3$) |
|--------------|--|---|
| Action Level | 340 | 190 |
| Limit Level | 500 | 260 |

Calibration: Calibration details are shown in appendix F.

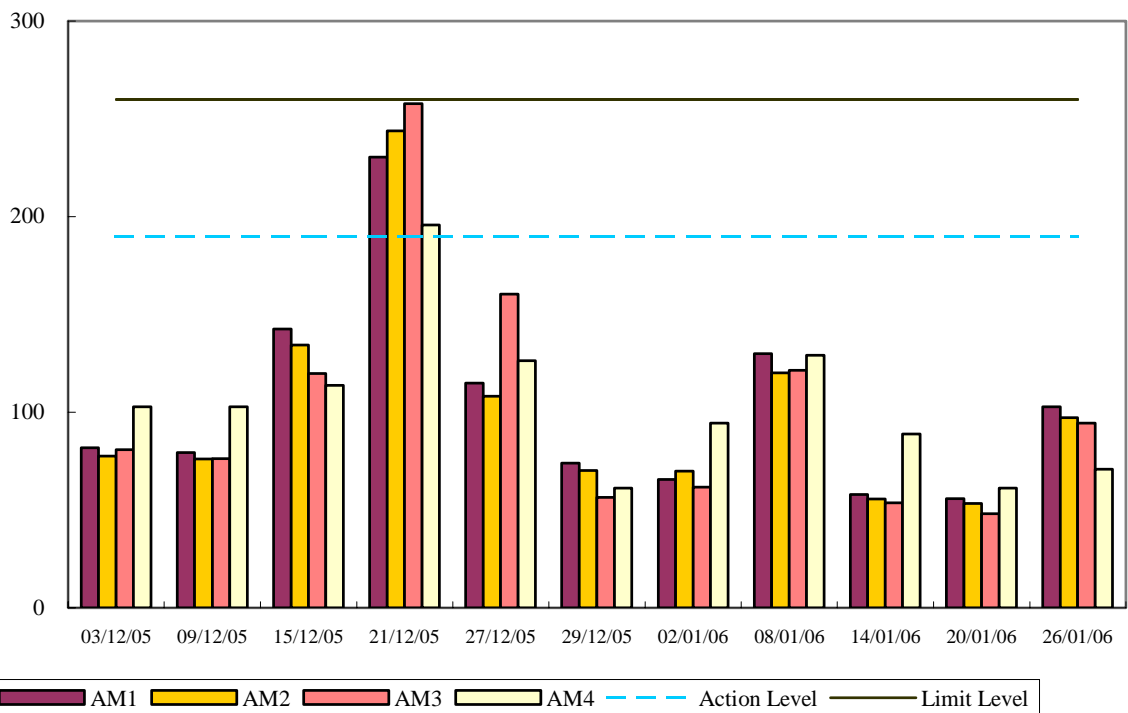
Equipment used:

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

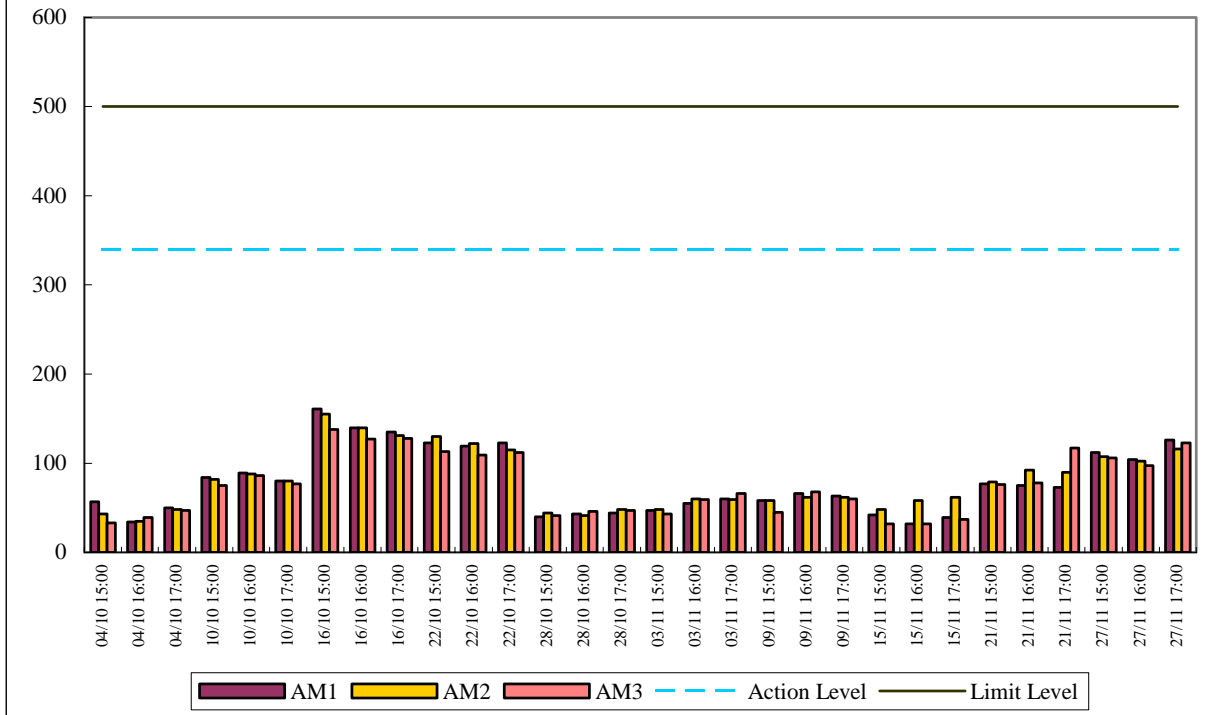
24-hr TSP Air Monitoring Data (October 2005 - November 2005)



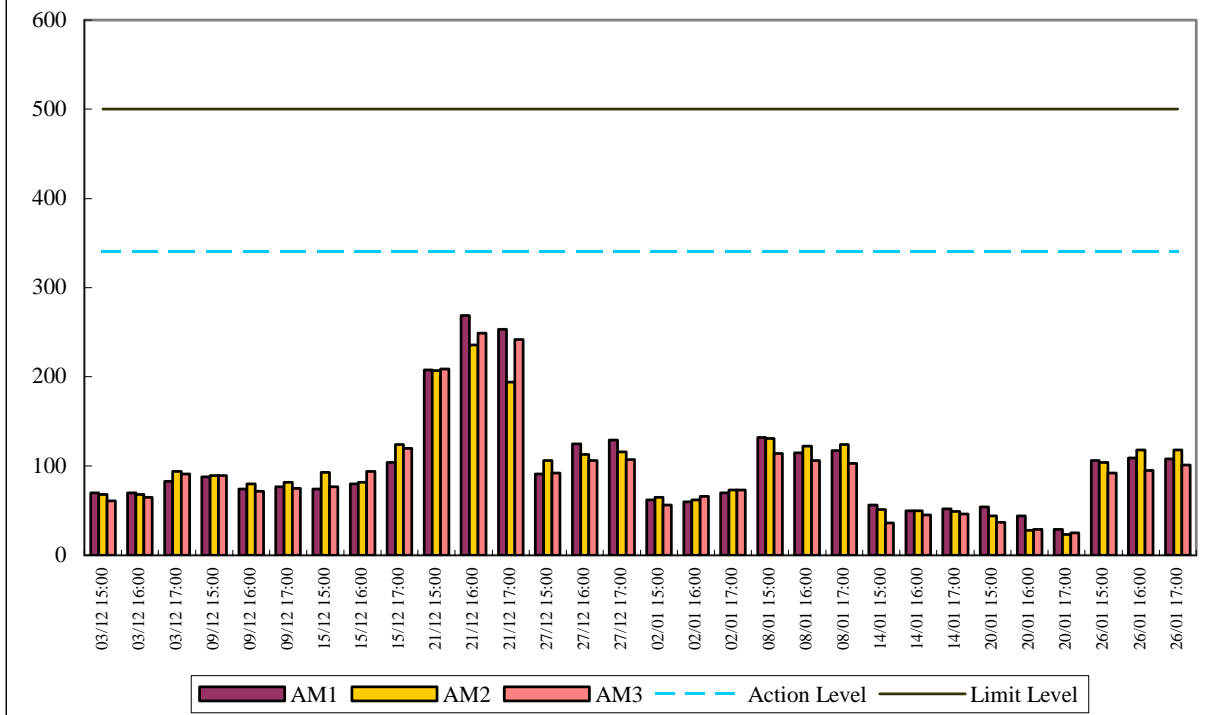
24-hr TSP Air Monitoring Data (December 2005 - January 2006)



1-hr TSP Air Monitoring Data (October 2005 - November 2005)



1-hr TSP Air Monitoring Data (December 2005 - January 2006)



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 | Calculated Noise Level at NSR at Long Tsai Tsuen/Hung Shing Ye (dB(A)) | | Limit Noise Level (dB(A)) | Calculated Noise Level at NSR at the school within Tai Wan San Tsuen (dB(A)) | | Limit Noise Level (dB(A)) |
|------------|-------------|--|-----|---------------------------|--|-----|---------------------------|
| | | Max | Avg | | Max | Avg | |
| 01/01/2006 | 07:00-23:00 | 42 | 31 | 60 | 38 | 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 |

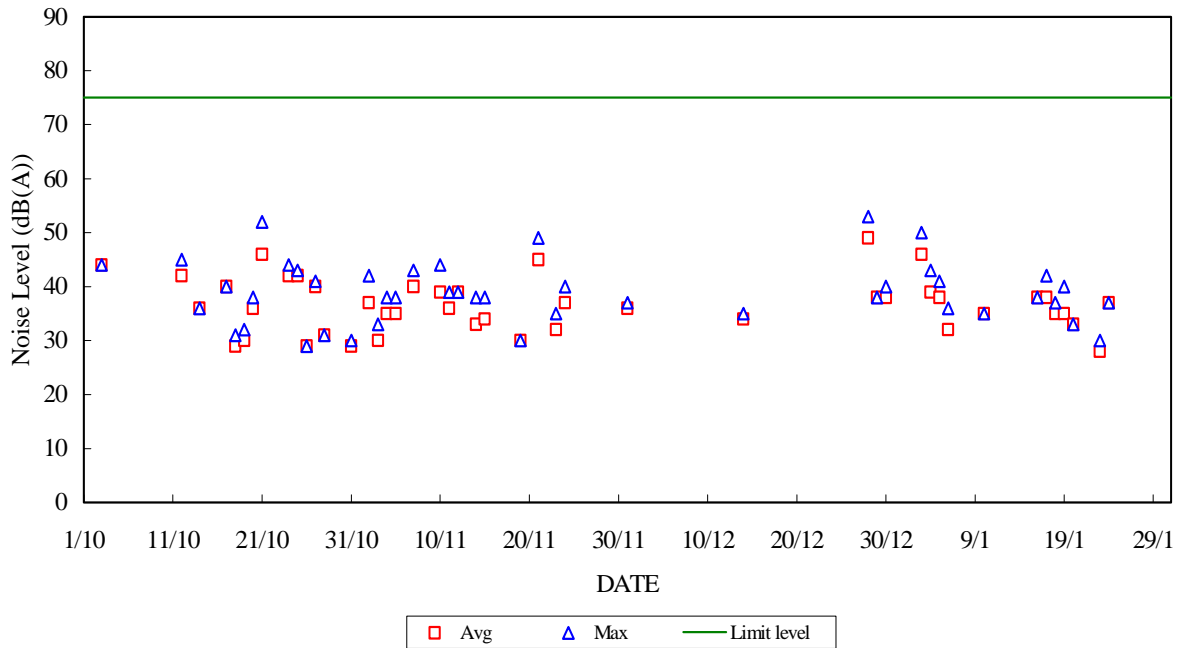
| Date | Time | Calculated Noise Level at NSR at Long Tsai Tsuen/Hung Shing Ye (dB(A)) | | Limit Noise Level (dB(A)) | Calculated Noise Level at NSR at the school within Tai Wan San Tsuen (dB(A)) | | Limit Noise Level (dB(A)) |
|------------|-------------|--|-----|---------------------------|--|-----|---------------------------|
| | | 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)) | | Limit Noise Level (dB(A)) | Calculated Noise Level at NSR at the school within Tai Wan San Tsuen (dB(A)) | | Limit Noise Level (dB(A)) |
|------------|-------------|--|-----|---------------------------|--|-----|---------------------------|
| | | Max | Avg | | Max | Avg | |
| 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.

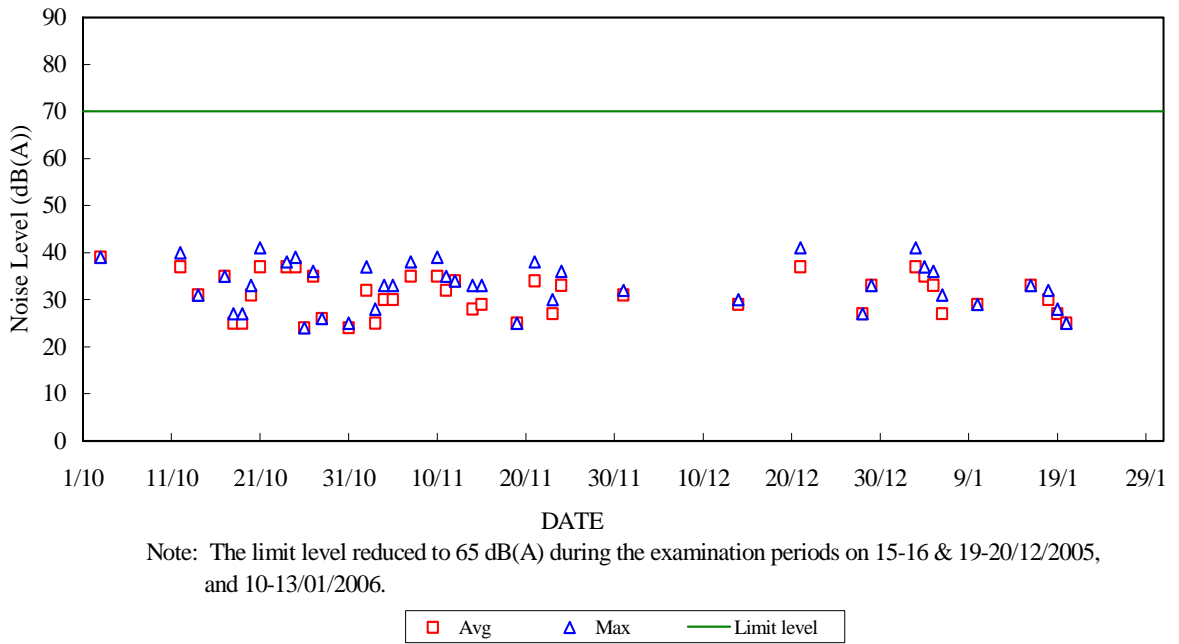
Construction Noise Monitoring in October 2005 - January 2006

NSR at Long Tsai Tsuen/Hung Shing Ye
07:00-19:00 hrs on Normal Weekdays



Construction Noise Monitoring in October 2005 - January 2006

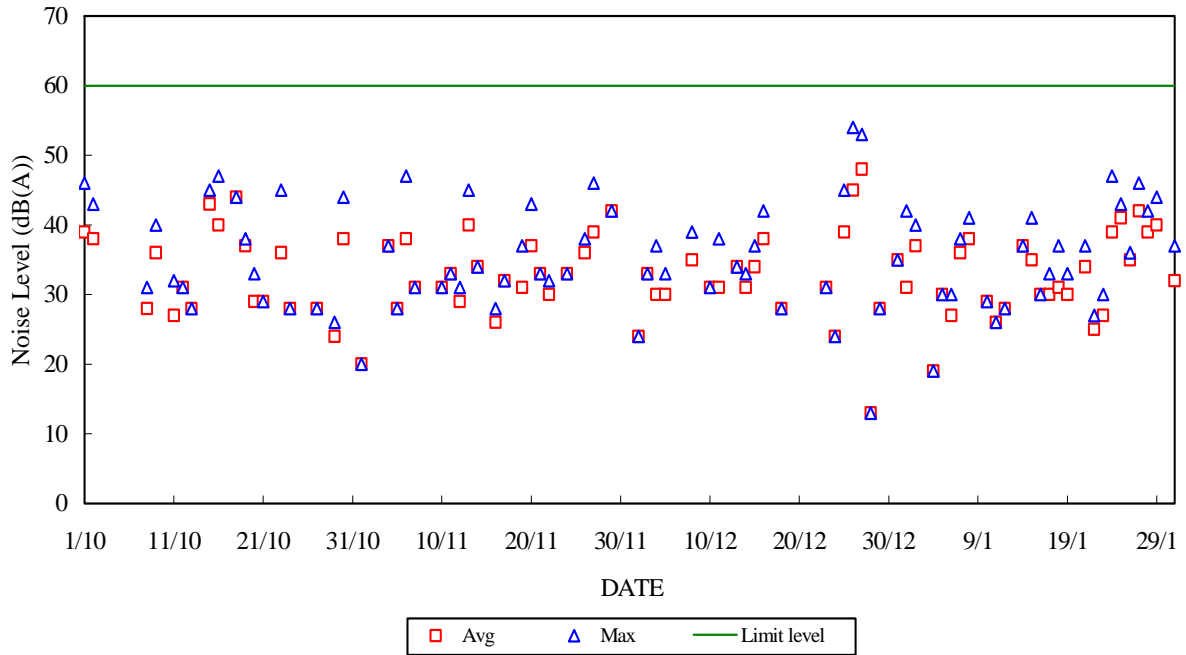
NSR at School within Tai Wan San Tsuen
07:00-19:00 hrs on Normal Weekdays



Construction Noise Monitoring in October 2005 - January 2006

NSR at Long Tsai Tsuen/Hung Shing Ye

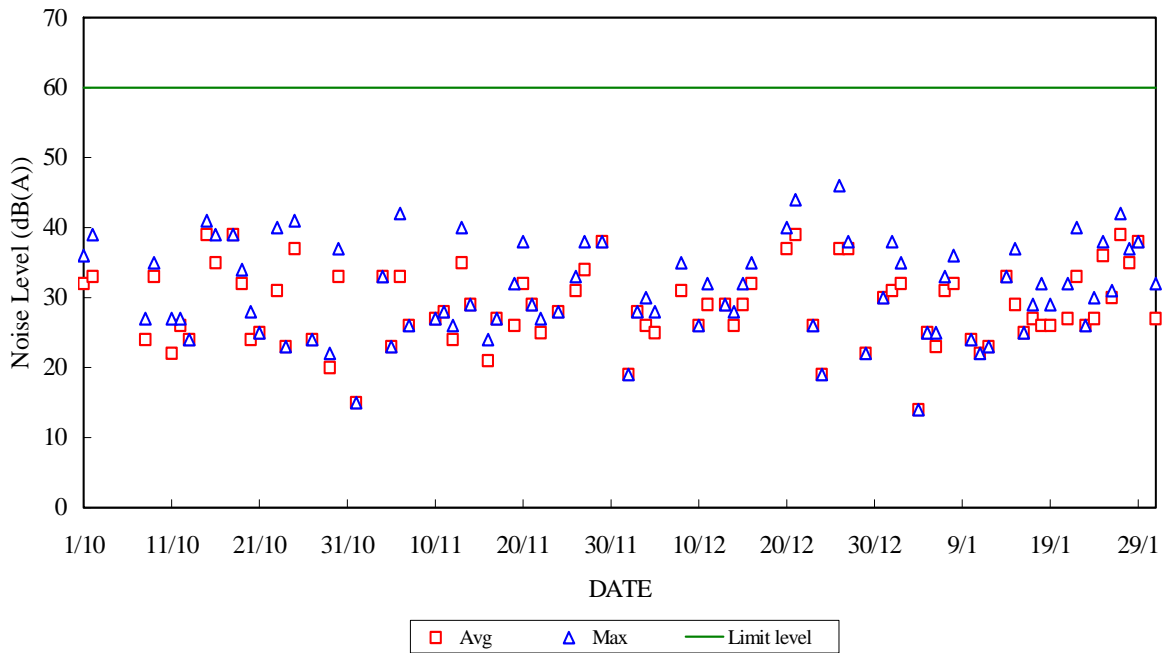
07:00-23:00 hrs on Holidays and 19:00-23:00 hrs on All Other Days



Construction Noise Monitoring in October 2005 - January 2006

NSR at School within Tai Wan San Tsuen

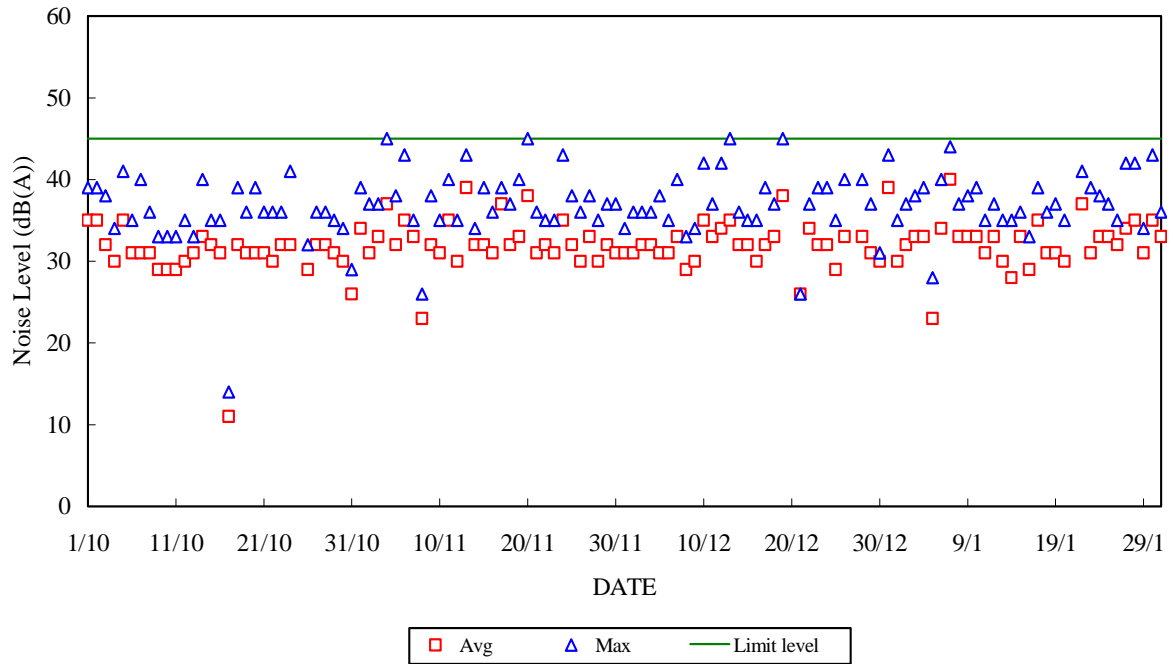
07:00-23:00 hrs on Holidays and 19:00-23:00 hrs on All Other Days



Construction Noise Monitoring in October 2005 - January 2006

NSR at Long Tsai Tsuen/Hung Shing Ye

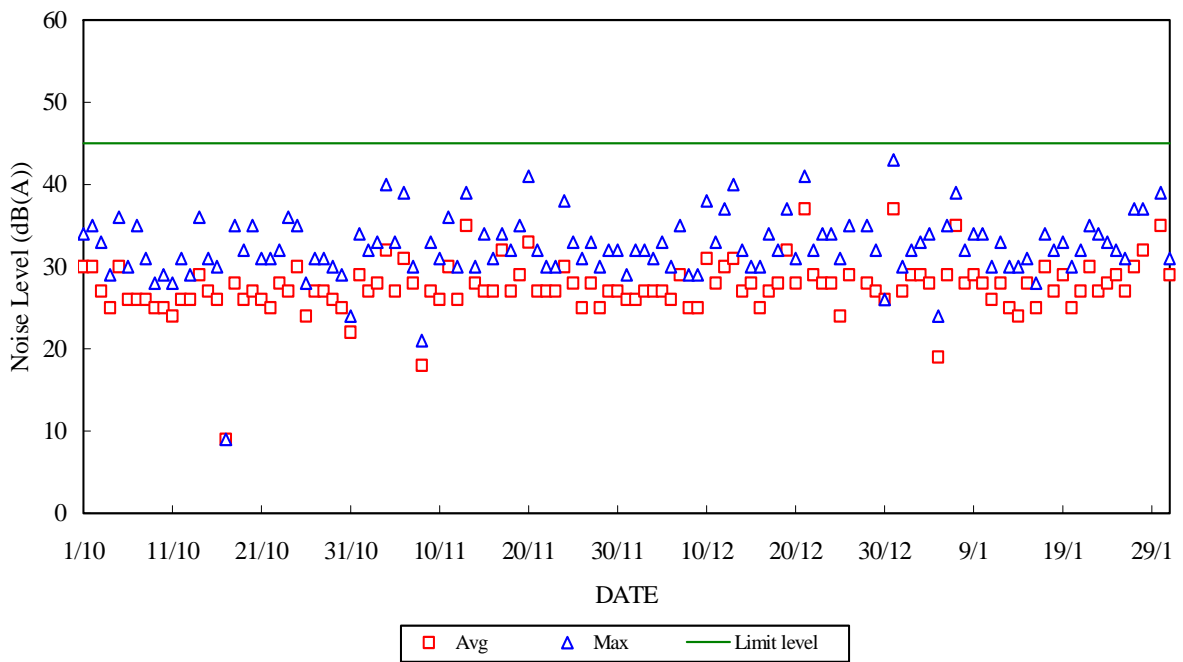
23:00-07:00 hrs of Next Day



Construction Noise Monitoring in October 2005 - January 2006

NSR at School within Tai Wan San Tsuen

23:00-07:00 hrs of Next Day



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

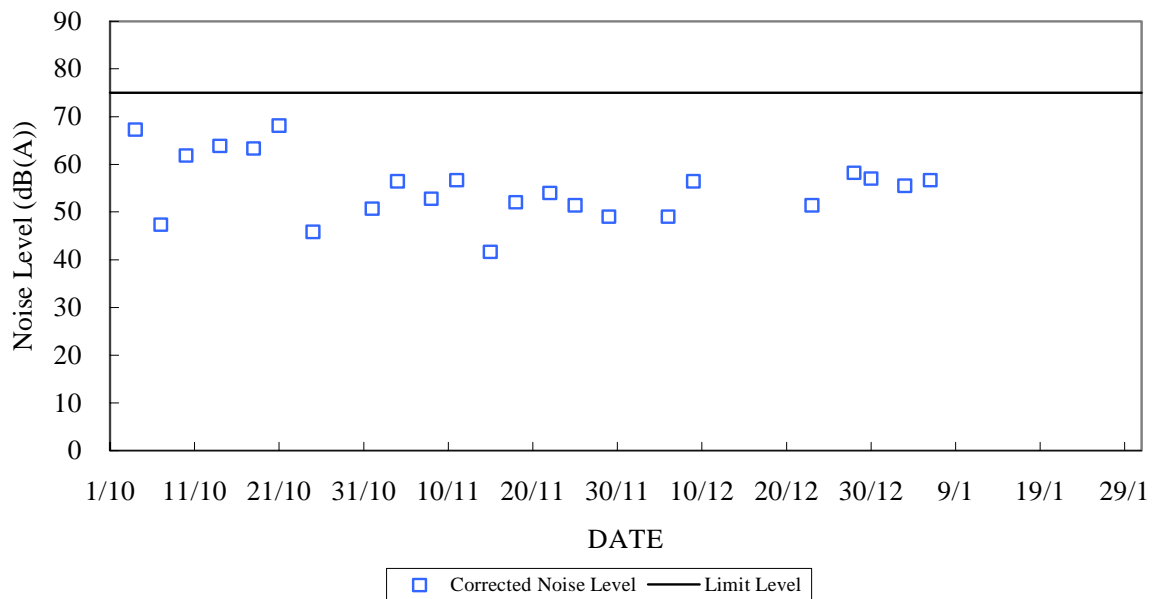
| Date | Time | Measured Noise Level (dB(A)) | Notional Background Noise Level (dB(A)) | Corrected Noise Level (dB(A)) | Limit Noise Level (dB(A)) | Wind Speed (m/s) |
|------------|-------------|------------------------------|---|-------------------------------|---------------------------|------------------|
| 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:

1. The noise generated from local noisy events (e.g. dog barking, passing-by 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.

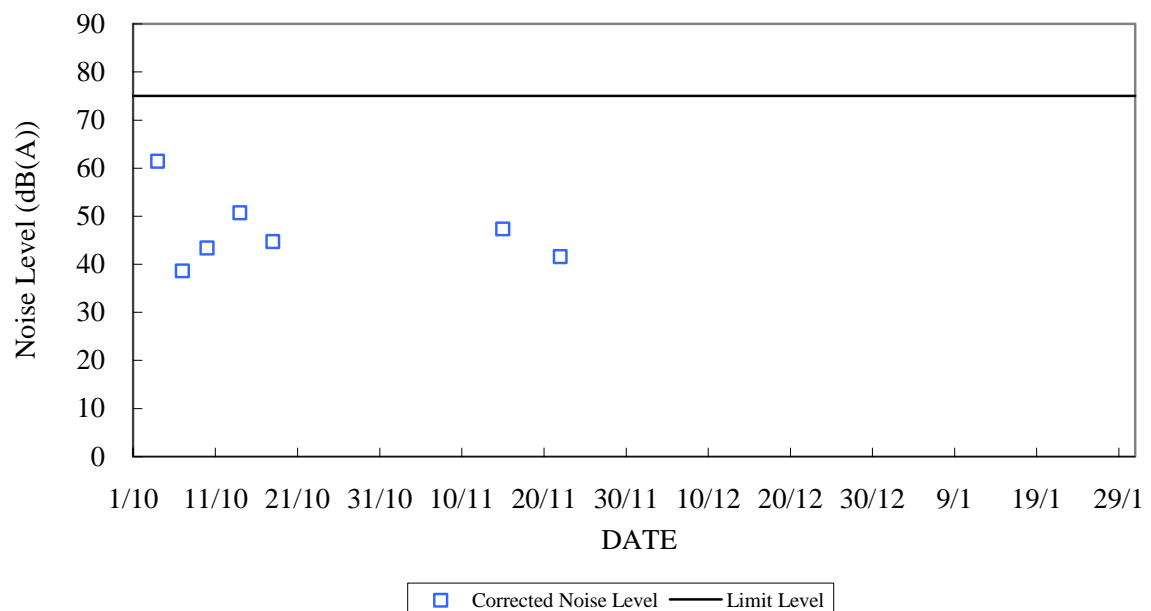
Construction Noise Monitoring in October 2005 - January 2006

NSR at N4 - Pak Kok Tsui No. 2
07:00 -19:00 hrs on Normal Weekdays



Construction Noise Monitoring in October 2005 - January 2006

NSR at N5 - Pak Kok Tsui No. 8
07:00 -19:00 hrs on Normal Weekdays



Appendix F

The QA/QC Procedures and Results

HIGH VOLUME AIR SAMPLER
SITE VISIT LOG SHEET

Site Name: RE Site No.: Am 1
 Date of visit: 16-1-2006 Hour of Visit: 11:05
 Staff name: W. L. O'NEILL HVAS S/N: 2198
 Used filter paper no.: LT07 New filter paper no.: LT09
 Type of filter: Glass-fibre

I. Ambient Conditions

Temperature, $T_a = \frac{273 + 24.0}{297}$ K Pressure, $P_a = 1014$ mb

II. Correction of manometer reading

| Calibration orifice No. | Manometer reading at site conditions corresponds to $Q_{STD} = 40$ ft ³ /min. (inch H ₂ O) |
|-------------------------|--|
| 1535(09/2005) | $\Delta H_a = 19.29(T_a/P_a) = 5.65''$ |

Manometer reading before calibration: 5.40''
 Adjustment of flow controller (Y/N): Y
 Manometer reading after calibration: 5.60''

Note: Tolerance Limit of HVAS flow: ± 1.0 ft³/min. Corresponding limits for manometer: ± 0.2 inch H₂O

III. General Conditions of HVAS

IV. Remarks

HIGH VOLUME AIR SAMPLER
SITE VISIT LOG SHEET

Site Name: EG Site No.: AM2
 Date of visit: 16-1-2006 Hour of Visit: 10 45
 Staff name: W. L. MAK HVAS S/N: 2195
 Used filter paper no.: LT08 New filter paper no.: LT10
 Type of filter: Glass-fibre

I. Ambient Conditions

Temperature, $T_a = \frac{273 + 22.0}{295}$ K Pressure, $P_a = 1018$ mb

II. Correction of manometer reading

| Calibration orifice No. | Manometer reading at site conditions corresponds to $Q_{STD} = 40$ ft ³ /min. (inch H ₂ O) |
|-------------------------|--|
| 1535(09/2005) | $\Delta H_a = 19.29(T_a/P_a) = 5.58$ " |

Manometer reading before calibration: 5.20"
 Adjustment of flow controller (Y/N): Y
 Manometer reading after calibration: 5.50"

Note: Tolerance Limit of HVAS flow: ± 1.0 ft³/min. Corresponding limits for manometer : ± 0.2 inch H₂O

III. General Conditions of HVAS

IV. Remarks

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
Staff name: H.K. TSANG MINIVOL S/N: 3393
Used filter paper no.: MM8K New filter paper no.: MM86

Type of filter: ~~Cellulose~~ / Glass-fibre
(Delete as appropriate)

I. Calibration is performed by using Drycal DC-2 Flow Calibrator
5 Sl/min set point is recommended
5.0 Before 5.0 After

II. General Service of Mini Vol Air Sampler

1. Clean Rotameter: X
2. Clean / replace Pump Valves: X
3. Clean / replace Pump Diaphragms: X
4. Clean Impaction Inlet: ✓
5. Replace Timer Battery Every 6 months: X
6. Replace Inlet Filter: ✓

III. Remarks

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 (l/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 | 256.72 | 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) (230 – 250) | 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 | 245.79 | 0.049 | 4 | 0.99 | 15.64 |
| 8/1/2006 | 245.54 | 0.030 | 4 | 0.99 | 15.65 |
| 14/1/2006 | 245.08 | 0.041 | 4 | 0.99 | 15.63 |
| 20/1/2006 | 244.81 | 0.024 | 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 | 0.99 | 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 Record | | | |
|-----------------------------|-----------|-----------|------------|
| | Reservoir | East Gate | Ash Lagoon |
| TEOM Filter Exchange | ✓ | ✓ | ✓ |
| Clean TSP Inlet | ✓ | ✓ | ✓ |
| Replace flow in-line filter | | | |
| Pump Repair | | | |
| Leak Check | | | |
| Flow Audit | | | |
| Flow Controller Calibration | | | |
| A/C filter cleaning | ✓ | ✓ | ✓ |

Remarks:

Prepared by : Alex

Checked by : [Signature]

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

Location Ash Lagoon/~~Ching Lam*~~

Date 16-1-06 Time 10:45

Equipment Rion NA-27/~~B&K 2238F*~~ Sound Level Meter

Serial Number ~~00111465/00111466/00111467/2343838/2356907*~~

Staff Attended W.L. MAK ; H.K. TSANG

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*~~

b. ~~Strong wind/breeze/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

Location Ash Lagoon/Ching Lam*

Date 17-1-05 Time 16:00

Equipment ~~Rion NA-27~~/B&K 2238F* Sound Level Meter

Serial Number 00111465/00111466/00111467/2343838/2356907*

Staff Attended W. H. MAK ; H. K. TSANG

1. Calibration

Acoustic calibrator used Rion NC-74

Calibration level before adjustment (dB(A)) 93.9

Calibration level after adjustment (dB(A)) 94

2. Weather Conditions

a. ~~Sunny/fine/cloudy/showery/heavy rain*~~

b. ~~Strong wind/breeze/calm*~~

3. Remark/Observation

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: RION NC – 74

Measurement Location: N4 – Pak Kok Tsui No. 2

| Date | Calibration Level before Measurement (dB(A)) | Calibration Level after Measurement (dB(A)) | Calibrated by |
|------------|--|---|---------------|
| 03/01/2006 | 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 Measurement (dB(A)) | Calibration Level after Measurement (dB(A)) | Calibrated by |
|------------|--|---|---------------|
| 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 two or more consecutive samples | <p>Identify source</p> <p>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.</p> <p>Repeat measurement to confirm finding</p> <p>Increase monitoring frequency to daily</p> <p>Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented</p> <p>Arrange meeting with Engineer and Contractor to discuss the remedial actions to be taken</p> <p>If exceedance stops, discontinue additional monitoring</p> | <p>Provide feedback to the Engineer on the remedial actions proposed by the ET / Contractor</p> <p>Advise Engineer on the effectiveness of the proposed remedial measures</p> <p>Verify the implementation of the remedial measures</p> | <p>Confirm receipt of notification of failure in writing</p> <p>Checking monitoring data and Contractor's working methods</p> <p>Notify Contractor</p> <p>Discuss proposed remedial actions with ET and Contractor</p> <p>Ensure remedial measures properly implemented</p> <p>If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop the portion of work until the exceedance is abated</p> | <p>Take immediate action to avoid further exceedance</p> <p>Submit proposals for remedial actions to Engineer within 3 working days of notifications</p> <p>Implement the agreed proposals</p> <p>Resubmit proposals if problem still not under control</p> <p>Stop the relevant portion of works as determined by the Engineer until the exceedance is abated</p> | |

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 the Construction works, verbally advise the Contractor, Engineer and IEC, and inform the EPD of the exceedance, as soon as practicable. | Review Contractor's remedial actions / measures to ensure their effectiveness and advise the Engineer and ET accordingly. | Check Contractor's working methods and advise IEC and ET accordingly. Discuss with Contractor the remedial actions to be implemented. | Submit proposals for remedial actions to Engineer. Amend proposals if required by the Engineer. |
| | Discuss remedial actions required with Engineer. | Verify the implementation of the remedial measures | Keep the Contractor informed of the efficacy of remedial actions. If the exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop the portion of work until the exceedance is abated | Implement remedial actions immediately upon instruction from the Engineer. 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 |
| | Increase manual monitoring frequency to assess efficacy of remedial measures. | | | |

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

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 date 4/1/06 Time 10:15 Inspected By ET: Lamy Wong, PDC
Contractor: Ringo, Paul Y.
Site Lamma - Superstructure

Weather

Condition Sunny Fine Overcast Hazy Drizzle Rain Storm
Temperature 17 °C Humidity High Moderate 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 QUALITY

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

| Ref. | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|---|--|-----|-----|----|-----|---------|
| Cement and dry pulverized fuel ash (PFA) | | | | | | |
| Cap311R: Sch 15(3) | Are the storage silos for cement or dry PFA prevented from overfilling? | ✓ | | | | |
| Cap311R: Sch 15(4) | Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system? | ✓ | | | | |
| Cap311R: Sch 15(2) | Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm? | ✓ | | | | |
| Cap311R: Sch 17 | Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers? | ✓ | | | | |
| Loading, unloading or transfer of dusty materials | | | | | | |
| Cap311R: Sch 19 | Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation? | ✓ | | | | |
| EM&A: A1 | Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission? | ✓ | | | | |
| Use of vehicles | | | | | | |
| Cap311R: Sch 21(2) EM&A: A1 | Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting? | ✓ | | | | |
| Cap311R: Sch 21(1) | Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site? | | ✓ | | | |
| Transfer of dusty materials using a belt conveyor system | | | | | | |
| Cap311R: Sch 20(1) | Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides? | ✓ | | | | |
| Cap311R: Sch 20(2) | Is every transfer point between any two-belt conveyors totally enclosed? | ✓ | | | | |
| Cap311R: Sch 20(3) | Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts? | ✓ | | | | |
| Cap311R: Sch 20(4) | Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m? | ✓ | | | | |
| Concrete batching plant | | | | | | |
| EM&A: A2 | Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system? | ✓ | | | | |
| EM&A: A2 | Are dusty materials, except cement and dry PFA, wetted by water spray system? | ✓ | | | | |
| EM&A: A2 | Are all the receiving hoppers enclosed on three (3) sides up to 3m above unloading point? | ✓ | | | | |
| 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? | / | | | | |
| Cap311O | Is open burning prohibited? | | / | | | |
| Cap311 | Is black smoke emission from plant/equipment avoided? | | / | | | |

WASTE/CHEMICAL WASTE MANAGEMENT

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

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

WATER QUALITY

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

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

MARINE ECOLOGY

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

NOISE

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|----------------|--|---|-----|---|-----|---------|
| EM&A : C1 | Are working programmes scheduled to minimize noise nuisance? | | / | | | |
| EM&A: C1 | Are construction works or equipment sited to minimize noise nuisance? | | / | | | |
| EM&A: C1 | Are all plant and equipment maintained in good operating conditions? | | / | | | |
| EM&A: C1/GP | Is idle equipment turned off or throttled down? | | / | | | |
| EM&A: C1 | Are methods of working devised and arranged to minimize noise nuisance? | | / | | | |
| EM&A: C1) | Are construction works carried out in a manner to minimize noise nuisance? | | / | | | |
| EM&A: C2 | To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted? a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods? | | / | | | |
| EM&A: C3 | To mitigate night time construction noise, is dredging equipment equipped with silencers or mufflers? | / | | | | |
| NCO | Are valid construction noise permits, if required, available for inspection? | | / | | | |
| NCO | Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly? | | / | | | |
| NCO | Are valid noise emission labels fixed at air compressors and hand held percussive breakers? | | / | | | |
| | Major noise source(s) | <input type="checkbox"/> Traffic | | <input checked="" type="checkbox"/> Construction activities inside the site | | |
| | | <input type="checkbox"/> Construction activities outside the site | | <input type="checkbox"/> Others _____ | | |

Abbreviation

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


Remark

Nil

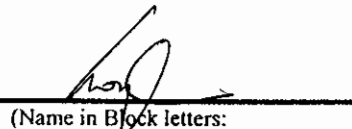
Signatures

ET Member

Contractor's Representative



(Name in Block letters:
L.K. Wong)



(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 date 11/1/06 Time 10:00 Inspected By ET: Lanny Wong, PDE
 Site LMA - Superstructure Contractor: Paul T-Roy

Weather

Condition Sunny Fine Overcast Hazy Drizzle Rain Storm
 Temperature 18 °C Humidity High Moderate 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 QUALITY

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

| Ref. | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|---|--|-----|-----|----|-----|---------|
| Cement and dry pulverized fuel ash (PFA) | | | | | | |
| Cap311R: Sch 15(3) | Are the storage silos for cement or dry PFA prevented from overfilling? | ✓ | | | | |
| Cap311R: Sch 15(4) | Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system? | ✓ | | | | |
| Cap311R: Sch 15(2) | Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm? | ✓ | | | | |
| Cap311R: Sch 17 | Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers? | ✓ | | | | |
| Loading, unloading or transfer of dusty materials | | | | | | |
| Cap311R: Sch 19 | Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation? | ✓ | | | | |
| EM&A: A1 | Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission? | ✓ | | | | |
| Use of vehicles | | | | | | |
| Cap311R: Sch 21(2) EM&A: A1 | Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting? | ✓ | | | | |
| Cap311R: Sch 21(1) | Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site? | | ✓ | | | |
| Transfer of dusty materials using a belt conveyor system | | | | | | |
| Cap311R: Sch 20(1) | Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides? | ✓ | | | | |
| Cap311R: Sch 20(2) | Is every transfer point between any two-belt conveyors totally enclosed? | ✓ | | | | |
| Cap311R: Sch 20(3) | Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts? | ✓ | | | | |
| Cap311R: Sch 20(4) | Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m? | ✓ | | | | |
| Concrete batching plant | | | | | | |
| EM&A: A2 | Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system? | ✓ | | | | |
| EM&A: A2 | Are dusty materials, except cement and dry PFA, wetted by water spray system? | ✓ | | | | |
| EM&A: A2 | Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point? | ✓ | | | | |
| 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? | / | | | | |
| Cap311O | Is open burning prohibited? | | / | | | |
| Cap311 | Is black smoke emission from plant/equipment avoided? | | / | | | |

WASTE/CHEMICAL WASTE MANAGEMENT

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

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

WATER QUALITY

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

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

MARINE ECOLOGY

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

NOISE

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|----------------|--|---|-----|---|-----|---------|
| EM&A : C1 | Are working programmes scheduled to minimize noise nuisance? | | / | | | |
| EM&A: C1 | Are construction works or equipment sited to minimize noise nuisance? | | / | | | |
| EM&A: C1 | Are all plant and equipment maintained in good operating conditions? | | / | | | |
| EM&A: C1/GP | Is idle equipment turned off or throttled down? | | / | | | |
| EM&A: C1 | Are methods of working devised and arranged to minimize noise nuisance? | | / | | | |
| EM&A: C1) | Are construction works carried out in a manner to minimize noise nuisance? | | / | | | |
| EM&A: C2 | To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted? a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods? | | / | | | |
| EM&A: C3 | To mitigate night time construction noise, is dredging equipment equipped with silencers or mufflers? | / | | | | |
| NCO | Are valid construction noise permits, if required, available for inspection? | | / | | | |
| NCO | Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly? | | / | | | |
| NCO | Are valid noise emission labels fixed at air compressors and hand held percussive breakers? | | / | | | |
| | Major noise source(s) | <input type="checkbox"/> Traffic | | <input checked="" type="checkbox"/> Construction activities inside the site | | |
| | | <input type="checkbox"/> Construction activities outside the site | | <input type="checkbox"/> Others _____ | | |

Abbreviation

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

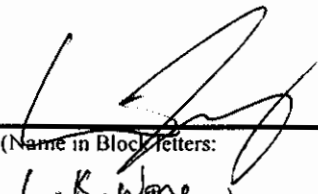
Remark

Nil

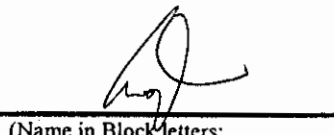
Signatures

ET Member

Contractor's Representative



(Name in Block letters:
L. K. Wong)



(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 date 18/1/06 Time 10:20 Inspected By ET: Larry Wong, PDC
Contractor: Ringo, Paul, Y
Site LMA - Superstructure

Weather

Condition Sunny Fine Overcast Hazy Drizzle Rain Storm
Temperature 17 °C Humidity High Moderate 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 QUALITY

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

| Ref. | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|---|--|-----|-----|----|-----|---------|
| Cement and dry pulverized fuel ash (PFA) | | | | | | |
| Cap311R: Sch 15(3) | Are the storage silos for cement or dry PFA prevented from overfilling? | / | | | | |
| Cap311R: Sch 15(4) | Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system? | / | | | | |
| Cap311R: Sch 15(2) | Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm? | / | | | | |
| Cap311R: Sch 17 | Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers? | / | | | | |
| Loading, unloading or transfer of dusty materials | | | | | | |
| Cap311R: Sch 19 | Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation? | / | | | | |
| EM&A: A1 | Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission? | / | | | | |
| Use of vehicles | | | | | | |
| Cap311R: Sch 21(2) EM&A: A1 | Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting? | / | | | | |
| Cap311R: Sch 21(1) | Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site? | | / | | | |
| Transfer of dusty materials using a belt conveyor system | | | | | | |
| Cap311R: Sch 20(1) | Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides? | / | | | | |
| Cap311R: Sch 20(2) | Is every transfer point between any two-belt conveyors totally enclosed? | / | | | | |
| Cap311R: Sch 20(3) | Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts? | / | | | | |
| Cap311R: Sch 20(4) | Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m? | / | | | | |
| Concrete batching plant | | | | | | |
| EM&A: A2 | Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system? | / | | | | |
| EM&A: A2 | Are dusty materials, except cement and dry PFA, wetted by water spray system? | / | | | | |
| EM&A: A2 | Are all the receiving hoppers enclosed on three (3) sides up to 3m above unloading point? | / | | | | |
| 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? | / | | | | |
| Cap311O | Is open burning prohibited? | | / | | | |
| Cap311 | Is black smoke emission from plant/equipment avoided? | | / | | | |

WASTE/CHEMICAL WASTE MANAGEMENT

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

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

WATER QUALITY

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

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

MARINE ECOLOGY

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

NOISE

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|----------------|--|---|-----|---|-----|---------|
| EM&A : C1 | Are working programmes scheduled to minimize noise nuisance? | | / | | | |
| EM&A: C1 | Are construction works or equipment sited to minimize noise nuisance? | | / | | | |
| EM&A: C1 | Are all plant and equipment maintained in good operating conditions? | | / | | | |
| EM&A: C1/GP | Is idle equipment turned off or throttled down? | | / | | | |
| EM&A: C1 | Are methods of working devised and arranged to minimize noise nuisance? | | / | | | |
| EM&A: C1) | Are construction works carried out in a manner to minimize noise nuisance? | | / | | | |
| EM&A: C2 | To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted? a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods? | | / | | | |
| EM&A: C3 | To mitigate night time construction noise, is dredging equipment equipped with silencers or mufflers? | | / | | | |
| NCO | Are valid construction noise permits, if required, available for inspection? | | / | | | |
| NCO | Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly? | | / | | | |
| NCO | Are valid noise emission labels fixed at air compressors and hand held percussive breakers? | | / | | | |
| | Major noise source(s) | <input type="checkbox"/> Traffic | | <input checked="" type="checkbox"/> Construction activities inside the site | | |
| | | <input type="checkbox"/> Construction activities outside the site | | <input type="checkbox"/> Others _____ | | |

Abbreviation

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

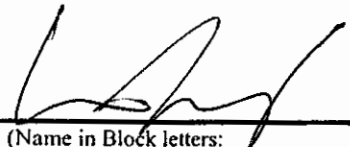
Remark


Nil

Signatures


ET Member

Contractor's Representative


(Name in Block letters:
L.K. Wong)


(Name in Block letters:
Wong Ho Hong)

IEC's Representative
This site inspection was carried out
in the presence of IEC's representative


Name in Block Letters:
(Chan Tin Mo)

11th November 2002

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

Inspection date 25/1/06 Time 10:15 Inspected By ET: Larry Wong, PPC
 Contractor: Rango, Paul Y
 Site LX - Superstructure

Weather

Condition Sunny Fine Overcast Hazy Drizzle Rain Storm
 Temperature 17 °C Humidity High Moderate 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 QUALITY

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

| Ref. | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|---|--|-----|-----|----|-----|---------|
| Cement and dry pulverized fuel ash (PFA) | | | | | | |
| Cap311R: Sch 15(3) | Are the storage silos for cement or dry PFA prevented from overfilling? | ✓ | | | | |
| Cap311R: Sch 15(4) | Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system? | ✓ | | | | |
| Cap311R: Sch 15(2) | Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm? | ✓ | | | | |
| Cap311R: Sch 17 | Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers? | ✓ | | | | |
| Loading, unloading or transfer of dusty materials | | | | | | |
| Cap311R: Sch 19 | Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation? | ✓ | | | | |
| EM&A: A1 | Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission? | ✓ | | | | |
| Use of vehicles | | | | | | |
| Cap311R: Sch 21(2) EM&A: A1 | Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting? | ✓ | | | | |
| Cap311R: Sch 21(1) | Is every vehicle wheel-washed by the wheel washing facilities to remove any dusty materials from its body and wheels before leaving the construction site? | | ✓ | | | |
| Transfer of dusty materials using a belt conveyor system | | | | | | |
| Cap311R: Sch 20(1) | Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides? | ✓ | | | | |
| Cap311R: Sch 20(2) | Is every transfer point between any two-belt conveyors totally enclosed? | ✓ | | | | |
| Cap311R: Sch 20(3) | Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts? | ✓ | | | | |
| Cap311R: Sch 20(4) | Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m? | ✓ | | | | |
| Concrete batching plant | | | | | | |
| EM&A: A2 | Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system? | ✓ | | | | |
| EM&A: A2 | Are dusty materials, except cement and dry PFA, wetted by water spray system? | ✓ | | | | |
| EM&A: A2 | Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point? | ✓ | | | | |
| 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? | | / | | | |
| Cap311O | Is open burning prohibited? | | / | | | |
| Cap311 | Is black smoke emission from plant/equipment avoided? | | / | | | |

WASTE/CHEMICAL WASTE MANAGEMENT

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

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

WATER QUALITY

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

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

MARINE ECOLOGY

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

NOISE

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|----------------|--|---|-----|---|-----|---------|
| EM&A : C1 | Are working programmes scheduled to minimize noise nuisance? | | / | | | |
| EM&A: C1 | Are construction works or equipment sited to minimize noise nuisance? | | / | | | |
| EM&A: C1 | Are all plant and equipment maintained in good operating conditions? | | / | | | |
| EM&A: C1/GP | Is idle equipment turned off or throttled down? | | / | | | |
| EM&A: C1 | Are methods of working devised and arranged to minimize noise nuisance? | | / | | | |
| EM&A: C1) | Are construction works carried out in a manner to minimize noise nuisance? | | / | | | |
| EM&A: C2 | To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted? a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods? | | / | | | |
| EM&A: C3 | To mitigate night time construction noise, is dredging equipment equipped with silencers or mufflers? | / | | | | |
| NCO | Are valid construction noise permits, if required, available for inspection? | | / | | | |
| NCO | Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly? | | / | | | |
| NCO | Are valid noise emission labels fixed at air compressors and hand held percussive breakers? | | / | | | |
| | Major noise source(s) | <input type="checkbox"/> Traffic | | <input checked="" type="checkbox"/> Construction activities inside the site | | |
| | | <input type="checkbox"/> Construction activities outside the site | | <input type="checkbox"/> Others _____ | | |

Abbreviation

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

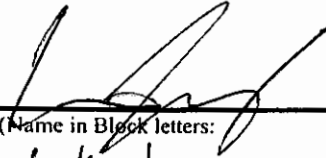
Remark

Ntl

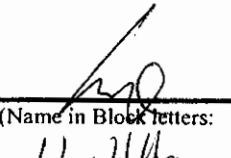
Signatures

ET Member

Contractor's Representative



(Name in Block letters:
L. K. Wong)



(Name in Block letters:
Wong Hing)

11th November 2002

04/9/12

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

Inspection date 5 Jan 06 Time 09:30 Inspected By ET: W. Sze (HKE)
Contractor: W. F. K. (HKE)
Site LMX Unit 9 - Mada. Fungan Area

Weather

Condition Sunny Fine Overcast Hazy Drizzle Rain Storm
Temperature 14 °C Humidity High Moderate 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 QUALITY

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

| Ref. | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|---|--|-----|-----|----|-----|--------------------------------|
| Cement and dry pulverized fuel ash (PFA) | | | | | | |
| Cap311R: Sch 15(3) | Are the storage silos for cement or dry PFA prevented from overfilling? | ✓ | | | | |
| Cap311R: Sch 15(4) | Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system? | ✓ | | | | |
| Cap311R: Sch 15(2) | Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm? | ✓ | | | | |
| Cap311R: Sch 17 | Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers? | ✓ | | | | |
| Loading, unloading or transfer of dusty materials | | | | | | |
| Cap311R: Sch 19 | Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation? | ✓ | | | | |
| EM&A: A1 | Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission? | ✓ | | | | |
| 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 Amended By P.Y. |
| Transfer of dusty materials using a belt conveyor system | | | | | | |
| Cap311R: Sch 20(1) | Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides? | ✓ | | | | |
| 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 systems? | ✓ | | | | |
| EM&A: A2 | Are dusty materials, except cement and dry PFA, wetted by water spray system? | ✓ | | | | |
| EM&A: A2 | Are all the receiving hoppers enclosed on three (3) sides up to 3m above unloading point? | ✓ | | | | |
| EM&A: A2 | Are all the conveyor transfer points totally enclosed? | ✓ | | | | |

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

WASTE/CHEMICAL WASTE MANAGEMENT

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

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

WATER QUALITY

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

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

MARINE ECOLOGY

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

NOISE

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|----------------|--|---|-----|---|-----|---------|
| EM&A: C1 | Are working programmes scheduled to minimize noise nuisance? | | ✓ | | | |
| EM&A: C1 | Are construction works or equipment sited to minimize noise nuisance? | | ✓ | | | |
| EM&A: C1 | Are all plant and equipment maintained in good operating conditions? | | ✓ | | | |
| EM&A: C1/GP | Is idle equipment turned off or throttled down? | | ✓ | | | |
| EM&A: C1 | Are methods of working devised and arranged to minimize noise nuisance? | | ✓ | | | |
| EM&A: C1) | Are construction works carried out in a manner to minimize noise nuisance? | | ✓ | | | |
| EM&A: C2 | To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted? a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods? | | ✓ | | | |
| EM&A: C3 | To mitigate night time construction noise, is dredging equipment equipped with silencers or mufflers? | ✓ | | | | |
| NCO | Are valid construction noise permits, if required, available for inspection? | ✓ | | | | |
| NCO | Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly? | ✓ | | | | |
| NCO | Are valid noise emission labels fixed at air compressors and hand held percussive breakers? | | ✓ | | | |
| | Major noise source(s) | <input type="checkbox"/> Traffic | | <input checked="" type="checkbox"/> Construction activities inside the site | | |
| | | <input type="checkbox"/> Construction activities outside the site | | <input type="checkbox"/> Others _____ | | |

Abbreviation

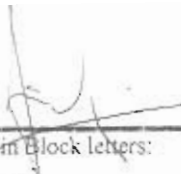
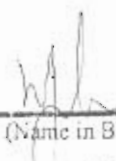
| | | | |
|----------|---|-------|----------------------------------|
| VEP: | Varied Environmental Permit | EM&A: | EM&A Manual (Construction Phase) |
| WMP: | Waste Management Plan | NCO: | Noise Control Ordinance |
| Cap311R: | APC (Construction Dust) Regulation | WDO: | Waste Disposal Ordinance |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

Remark

Signatures

ET Member

Contractor's Representative

| | |
|--|--|
|  _____ (Name in Block letters: W. S. W.) |  _____ (Name in Block letters: W. F. Kwok) |
|--|--|

07/9012

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

Inspection date 12 Jan 06 Time 09:30 Inspected By ET: W. Sim (HEC)
Contractor: W. F. Luk (DRI)
Site LMA Unit 9 - Mech Foundation Area

Weather

Condition Sunny Fine Overcast Hazy Drizzle Rain Storm
Temperature 20 °C Humidity High Moderate 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 QUALITY

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

| Ref. | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|---|--|-----|-----|----|-----|--------------------------|
| Cement and dry pulverized fuel ash (PFA) | | | | | | |
| Cap311R: Sch 15(3) | Are the storage silos for cement or dry PFA prevented from overfilling? | ✓ | | | | |
| Cap311R: Sch 15(4) | Are the handlings of cement or dry PFA through a totally enclosed system equipped with air pollution control equipment at the vent of the system? | ✓ | | | | |
| Cap311R: Sch 15(2) | Is bulk cement or dry PFA stored in a closed silo fitted with a high-level alarm? | ✓ | | | | |
| Cap311R: Sch 17 | Are the cement, dry PFA or other dusty materials collected by the air pollution control equipment disposed of in totally enclosed containers? | ✓ | | | | |
| Loading, unloading or transfer of dusty materials | | | | | | |
| Cap311R: Sch 19 | Are dusty materials, except cement and dry PFA, sprayed with water immediately prior to any loading, unloading or transfer operation? | ✓ | | | | |
| EM&A: A1 | Are the dropping heights of the fill materials controlled to a practical level to minimize fugitive dust emission? | ✓ | | | | |
| 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 Done By R.S. |
| Transfer of dusty materials using a belt conveyor system | | | | | | |
| Cap311R: Sch 20(1) | Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides? | ✓ | | | | |
| Cap311R: Sch 20(2) | Is every transfer point between any two-belt conveyors totally enclosed? | ✓ | | | | |
| Cap311R: Sch 20(3) | Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts? | ✓ | | | | |
| Cap311R: Sch 20(4) | Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m? | ✓ | | | | |
| Concrete batching plant | | | | | | |
| EM&A: A2 | Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system? | ✓ | | | | |
| EM&A: A2 | Are dusty materials, except cement and dry PFA, wetted by water spray system? | ✓ | | | | |
| EM&A: A2 | Are all the receiving hoppers enclosed on three (3) sides up to 3m above unloading point? | ✓ | | | | |
| 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? | ✓ | | | | |
| Cap311O | Is open burning prohibited? | | ✓ | | | |
| Cap311 | Is black smoke emission from plant/equipment avoided? | | ✓ | | | |

WASTE/CHEMICAL WASTE MANAGEMENT

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

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

WATER QUALITY

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

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

MARINE ECOLOGY

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

NOISE

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|----------------|--|---|-----|---|-----|---------|
| EM&A : C1 | Are working programmes scheduled to minimize noise nuisance? | | ✓ | | | |
| EM&A: C1 | Are construction works or equipment sited to minimize noise nuisance? | | ✓ | | | |
| EM&A: C1 | Are all plant and equipment maintained in good operating conditions? | | ✓ | | | |
| EM&A: C1/GP | Is idle equipment turned off or throttled down? | | ✓ | | | |
| EM&A: C1 | Are methods of working devised and arranged to minimize noise nuisance? | | ✓ | | | |
| EM&A: C1) | Are construction works carried out in a manner to minimize noise nuisance? | | ✓ | | | |
| EM&A: C2 | To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted? a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods? | | ✓ | | | |
| EM&A: C3 | To mitigate night time construction noise, is dredging equipment equipped with silencers or mufflers? | ✓ | | | | |
| NCO | Are valid construction noise permits, if required, available for inspection? | ✓ | | | | |
| NCO | Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly? | ✓ | | | | |
| NCO | Are valid noise emission labels fixed at air compressors and hand held percussive breakers? | | ✓ | | | |
| | Major noise source(s) | <input type="checkbox"/> Traffic | | <input checked="" type="checkbox"/> Construction activities inside the site | | |
| | | <input type="checkbox"/> Construction activities outside the site | | <input type="checkbox"/> Others _____ | | |

Abbreviation

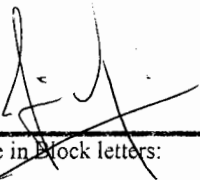
| | | | |
|----------|---|-------|----------------------------------|
| VEP: | Varied Environmental Permit | EM&A: | EM&A Manual (Construction Phase) |
| WMP: | Waste Management Plan | NCO: | Noise Control Ordinance |
| Cap311R: | APC (Construction Dust) Regulation | WDO: | Waste Disposal Ordinance |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

Remark

Signatures

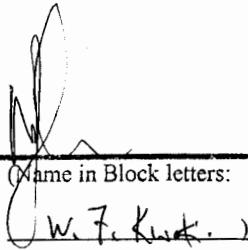
ET Member

Contractor's Representative



(Name in Block letters:

W. S. U.)



(Name in Block letters:

W. F. K.)

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

Inspection date 18/01/2006 Time 10:25 AM Inspected By ET / M. Chiu 162 P/P/m
 Contractor C + U + T

Site Lm X - U9

Weather

Condition Sunny Fine Overcast Hazy Drizzle Rain Storm

Temperature °C Humidity High Moderate 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 QUALITY

| Ref. | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|---------------------------------------|--|-----|-----|----|-----|-----------------|
| General Requirements | | | | | | |
| Cap311R: 3 | Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice, do the contractors notify EPD of the change? | ✓ | | | | |
| Cap311R: Sch 12(3) | A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Is this observed? | | ✓ | | | |
| Cap311 | Do the contractors possess valid Air Pollution Control Specified Processes Licenses for the concrete batching plant wherever applicable and have it available for inspection? | ✓ | | | | |
| Construction Sites | | | | | | |
| EM&A: A1 | Are haul roads paved with concrete or sprayed with water to keep the entire road wet? | | ✓ | | | Sprayed by P.V. |
| 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 overflowing? | ✓ | | | | |
| 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? | | ✓ | | | Clean by M |
| Transfer of dusty materials using a belt conveyor system | | | | | | |
| Cap311R: Sch 20(1) | Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides? | ✓ | | | | |
| Cap311R: Sch 20(2) | Is every transfer point between any two-belt conveyors totally enclosed? | ✓ | | | | |
| Cap311R: Sch 20(3) | Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts? | ✓ | | | | |
| Cap311R: Sch 20(4) | Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m? | ✓ | | | | |
| Concrete batching plant | | | | | | |
| EM&A: A2 | Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system? | ✓ | | | | |
| EM&A: A2 | Are dusty materials, except cement and dry PFA, wetted by water spray system? | ✓ | | | | |
| EM&A: A2 | Are all the receiving hoppers enclosed on three (3) sides up to 3m above unloading point? | ✓ | | | | |
| 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? | ✓ | | | | |
| Cap311O | Is open burning prohibited? | | ✓ | | | |
| Cap311 | Is black smoke emission from plant/equipment avoided? | | ✓ | | | |

WASTE/CHEMICAL WASTE MANAGEMENT

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

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

WATER QUALITY

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

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

MARINE ECOLOGY

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

NOISE

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|----------------|--|--|---|----|-----|---------|
| EM&A: C1 | Are working programmes scheduled to minimize noise nuisance? | | <input checked="" type="checkbox"/> | | | |
| EM&A: C1 | Are construction works or equipment sited to minimize noise nuisance? | | <input checked="" type="checkbox"/> | | | |
| EM&A: C1 | Are all plant and equipment maintained in good operating conditions? | | <input checked="" type="checkbox"/> | | | |
| EM&A: C1/CP | Is idle equipment turned off or throttled down? | | <input checked="" type="checkbox"/> | | | |
| EM&A: C1 | Are methods of working devised and arranged to minimize noise nuisance? | | <input checked="" type="checkbox"/> | | | |
| EM&A: C1) | Are construction works carried out in a manner to minimize noise nuisance? | | <input checked="" type="checkbox"/> | | | |
| 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? | | <input checked="" type="checkbox"/> | | | |
| EM&A: C3 | To mitigate night time construction noise, is dredging equipment equipped with silencers or mufflers? | <input checked="" type="checkbox"/> | | | | |
| NCO | Are valid construction noise permits, if required, available for inspection? | <input checked="" type="checkbox"/> | | | | |
| NCO | Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly? | <input checked="" type="checkbox"/> | | | | |
| NCO | Are valid noise emission labels fixed at air compressors and hand held percussive breakers? | | <input checked="" type="checkbox"/> | | | |
| | Major noise source(s) | <input checked="" type="checkbox"/> Traffic | <input checked="" type="checkbox"/> Construction activities inside the site | | | |
| | | <input checked="" type="checkbox"/> Construction activities outside the site | <input type="checkbox"/> Others _____ | | | |

Abbreviation

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

Remark

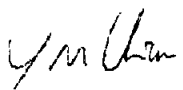
Signatures

ET Member

Contractor's Representative

IEC's Representative

This site inspection was carried out in the presence of IEC's representative



(Name in Block letters:

(Name in Block letters:

Y.M. Chim, PD

CHAU CHI TAK / TDK Safety Officer

Name in Block Letters

(Chan Jui Wo)

04/9012

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

Inspection date 26 Jan 08 Time 09:30 Inspected By ET: W. Sz
 Contractor: W. F. L. L. (1702)
 Site LMA - Unit 8 - Mech. Extension Area

Weather

Condition Sunny Fine Overcast Hazy Drizzle Rain Storm
 Temperature 16 °C Humidity High Moderate 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 QUALITY

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

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

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

WASTE/CHEMICAL WASTE MANAGEMENT

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

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

WATER QUALITY

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

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

MARINE ECOLOGY

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

NOISE .

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|----------------|--|---|---|----|-----|---------|
| EM&A : C1 | Are working programmes scheduled to minimize noise nuisance? | | / | | | |
| EM&A: C1 | Are construction works or equipment sited to minimize noise nuisance? | | / | | | |
| EM&A: C1 | Are all plant and equipment maintained in good operating conditions? | | / | | | |
| EM&A: C1/GP | Is idle equipment turned off or throttled down? | | / | | | |
| EM&A: C1 | Are methods of working devised and arranged to minimize noise nuisance? | | / | | | |
| EM&A: C1) | Are construction works carried out in a manner to minimize noise nuisance? | | / | | | |
| EM&A: C2 | To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted? a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods? | | / | | | |
| EM&A: C3 | To mitigate night time construction noise, is dredging equipment equipped with silencers or mufflers? | / | | | | |
| NCO | Are valid construction noise permits, if required, available for inspection? | / | | | | |
| NCO | Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly? | / | | | | |
| NCO | Are valid noise emission labels fixed at air compressors and hand held percussive breakers? | | / | | | |
| | Major noise source(s) | <input type="checkbox"/> Traffic | <input checked="" type="checkbox"/> Construction activities inside the site | | | |
| | | <input type="checkbox"/> Construction activities outside the site | <input type="checkbox"/> Others _____ | | | |

Abbreviation

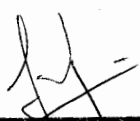
| | | | |
|----------|---|-------|----------------------------------|
| VEP: | Varied Environmental Permit | EM&A: | EM&A Manual (Construction Phase) |
| WMP: | Waste Management Plan | NCO: | Noise Control Ordinance |
| Cap311R: | APC (Construction Dust) Regulation | WDO: | Waste Disposal Ordinance |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

Remark

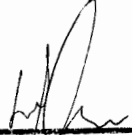
Signatures

ET Member

Contractor's Representative



(Name in Block letters:
W. S. C.)



(Name in Block letters:
W. F. K.)

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

Inspection date 4 JAN 2006 Time 09:20hrs Inspected By ET: T.F. CHIU / PPE
 Site LMX-19 ELECTRICAL ERECTION AREA. Contractor: PETER CHENG / SAN KONG

Weather

Condition Sunny Fine Overcast Hazy Drizzle Rain Storm
Temperature 20 °C **Humidity** High Moderate 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 QUALITY

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

| Ref. | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|---|--|-----|-----|----|-----|--|
| Cement and dry pulverized fuel ash (PFA) | | | | | | |
| 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? | | ✓ | | | Wheel Washing Services Provided By POCULT. |
| Transfer of dusty materials using a belt conveyor system | | | | | | |
| Cap311R: Sch 20(1) | Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides? | ✓ | | | | |
| Cap311R: Sch 20(2) | Is every transfer point between any two-belt conveyors totally enclosed? | ✓ | | | | |
| Cap311R: Sch 20(3) | Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts? | ✓ | | | | |
| Cap311R: Sch 20(4) | Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m? | ✓ | | | | |
| Concrete batching plant | | | | | | |
| EM&A: A2 | Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system? | ✓ | | | | |
| EM&A: A2 | Are dusty materials, except cement and dry PFA, wetted by water spray system? | ✓ | | | | |
| EM&A: A2 | Are all the receiving hoppers enclosed on three (3)sides up to 3m above unloading point? | ✓ | | | | |
| 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? | ✓ | | | | |
| Cap311O | Is open burning prohibited? | | ✓ | | | |
| Cap311 | Is black smoke emission from plant/equipment avoided? | | ✓ | | | |

WASTE/CHEMICAL WASTE MANAGEMENT

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

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

WATER QUALITY

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

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

MARINE ECOLOGY

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

NOISE

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|----------------|--|---|-----|---|-----|---------|
| EM&A : C1 | Are working programmes scheduled to minimize noise nuisance? | | ✓ | | | |
| EM&A: C1 | Are construction works or equipment sited to minimize noise nuisance? | | ✓ | | | |
| EM&A: C1 | Are all plant and equipment maintained in good operating conditions? | | ✓ | | | |
| EM&A: C1/GP | Is idle equipment turned off or throttled down? | | ✓ | | | |
| EM&A: C1 | Are methods of working devised and arranged to minimize noise nuisance? | | ✓ | | | |
| EM&A: C1) | Are construction works carried out in a manner to minimize noise nuisance? | | ✓ | | | |
| EM&A: C2 | To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted? a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods? | ✓ | | | | |
| EM&A: C3 | To mitigate night time construction noise, is dredging equipment equipped with silencers or mufflers? | ✓ | | | | |
| NCO | Are valid construction noise permits, if required, available for inspection? | ✓ | | | | |
| NCO | Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly? | ✓ | | | | |
| NCO | Are valid noise emission labels fixed at air compressors and hand held percussive breakers? | ✓ | | | | |
| | Major noise source(s) | <input type="checkbox"/> Traffic | | <input checked="" type="checkbox"/> Construction activities inside the site | | |
| | | <input type="checkbox"/> Construction activities outside the site | | <input type="checkbox"/> Others _____ | | |

Abbreviation

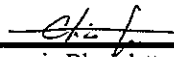
| | | |
|----------|---|--|
| VEP: | Varied Environmental Permit | |
| WMP: | Waste Management Plan | EM&A: EM&A Manual (Construction Phase) |
| Cap311R: | APC (Construction Dust) Regulation | NCO: Noise Control Ordinance |
| Cap311O: | APC (Open Burning) Regulation | WDO: Waste Disposal Ordinance |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

Remark

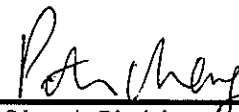
Signatures

ET Member

Contractor's Representative



 (Name in Block letters:
CHIU TAI FU)
 PDE



 (Name in Block letters:
PETER CHENG)
 SINC

12th January 2005

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

Inspection date 11 JAN 2006 Time 10:50 hrs Inspected By ET: T.F. CHIU / PDE
 Contractor: PETER CHENG / SHANKO
 Site LAX - 19 ELECTRICAL ERECTION AREA

Weather

Condition Sunny Fine Overcast Hazy Drizzle Rain Storm
Temperature 19 °C **Humidity** High Moderate 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 QUALITY

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

| Ref. | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|---|--|-----|-----|----|-----|--|
| Cement and dry pulverized fuel ash (PFA) | | | | | | |
| 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? | | ✓ | | | Wheel Washing Services Provided By Paul T. |
| Transfer of dusty materials using a belt conveyor system | | | | | | |
| Cap311R: Sch 20(1) | Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides? | ✓ | | | | |
| Cap311R: Sch 20(2) | Is every transfer point between any two-belt conveyors totally enclosed? | ✓ | | | | |
| Cap311R: Sch 20(3) | Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts? | ✓ | | | | |
| Cap311R: Sch 20(4) | Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m? | ✓ | | | | |
| Concrete batching plant | | | | | | |
| EM&A: A2 | Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system? | ✓ | | | | |
| EM&A: A2 | Are dusty materials, except cement and dry PFA, wetted by water spray system? | ✓ | | | | |
| EM&A: A2 | Are all the receiving hoppers enclosed on three (3) sides up to 3m above unloading point? | ✓ | | | | |
| EM&A: A2 | Are all the conveyor transfer points totally enclosed? | ✓ | | | | |

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

WASTE/CHEMICAL WASTE MANAGEMENT

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

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

WATER QUALITY

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

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

MARINE ECOLOGY

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

NOISE

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|----------------|--|---|-----|---|-----|---------|
| EM&A : C1 | Are working programmes scheduled to minimize noise nuisance? | | ✓ | | | |
| EM&A: C1 | Are construction works or equipment sited to minimize noise nuisance? | | ✓ | | | |
| EM&A: C1 | Are all plant and equipment maintained in good operating conditions? | | ✓ | | | |
| EM&A: C1/GP | Is idle equipment turned off or throttled down? | | ✓ | | | |
| EM&A: C1 | Are methods of working devised and arranged to minimize noise nuisance? | | ✓ | | | |
| EM&A: C1) | Are construction works carried out in a manner to minimize noise nuisance? | | ✓ | | | |
| EM&A: C2 | To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted? a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods? | ✓ | | | | |
| EM&A: C3 | To mitigate night time construction noise, is dredging equipment equipped with silencers or mufflers? | ✓ | | | | |
| NCO | Are valid construction noise permits, if required, available for inspection? | ✓ | | | | |
| NCO | Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly? | ✓ | | | | |
| NCO | Are valid noise emission labels fixed at air compressors and hand held percussive breakers? | ✓ | | | | |
| | Major noise source(s) | <input type="checkbox"/> Traffic | | <input checked="" type="checkbox"/> Construction activities inside the site | | |
| | | <input type="checkbox"/> Construction activities outside the site | | <input type="checkbox"/> Others _____ | | |

Abbreviation


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

Remark

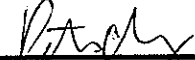
Signatures

ET Member

Contractor's Representative



 (Name in Block letters:
 Chan Tai Fu)
 PDE



 (Name in Block letters:
 Peter Chen)
 SHUKO

12th January 2005

CH-04/19013

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

Inspection date 18 JAN 2006 Time 10:25 hrs Inspected By ET: T. Z. CHIU / PDE
 Contractor: C.M.L.O / SANKO.
 Site LMX-19 Electrical Erectio Area

Weather

Condition Sunny Fine Overcast Hazy Drizzle Rain Storm
 Temperature 21 °C Humidity High Moderate 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 QUALITY

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

| Ref. | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|---|--|-----|-----|----|-----|--|
| Cement and dry pulverized fuel ash (PFA) | | | | | | |
| 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? | | ✓ | | | Wheel washing Services Provided By Paul Y. |
| Transfer of dusty materials using a belt conveyor system | | | | | | |
| Cap311R: Sch 20(1) | Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides? | ✓ | | | | |
| Cap311R: Sch 20(2) | Is every transfer point between any two-belt conveyors totally enclosed? | ✓ | | | | |
| Cap311R: Sch 20(3) | Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts? | ✓ | | | | |
| Cap311R: Sch 20(4) | Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m? | ✓ | | | | |
| Concrete batching plant | | | | | | |
| EM&A: A2 | Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system? | ✓ | | | | |
| EM&A: A2 | Are dusty materials, except cement and dry PFA, wetted by water spray system? | ✓ | | | | |
| EM&A: A2 | Are all the receiving hoppers enclosed on three (3) sides up to 3m above unloading point? | ✓ | | | | |
| EM&A: A2 | Are all the conveyor transfer points totally enclosed? | ✓ | | | | |

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

WASTE/CHEMICAL WASTE MANAGEMENT

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

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

WATER QUALITY

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

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

MARINE ECOLOGY

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

NOISE

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|----------------|--|---|-----|---|-----|---------|
| EM&A : C1 | Are working programmes scheduled to minimize noise nuisance? | | ✓ | | | |
| EM&A: C1 | Are construction works or equipment sited to minimize noise nuisance? | | ✓ | | | |
| EM&A: C1 | Are all plant and equipment maintained in good operating conditions? | | ✓ | | | |
| EM&A: C1/GP | Is idle equipment turned off or throttled down? | | ✓ | | | |
| EM&A: C1 | Are methods of working devised and arranged to minimize noise nuisance? | | ✓ | | | |
| EM&A: C1) | Are construction works carried out in a manner to minimize noise nuisance? | | ✓ | | | |
| EM&A: C2 | To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted? a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods? | ✓ | | | | |
| EM&A: C3 | To mitigate night time construction noise, is dredging equipment equipped with silencers or mufflers? | ✓ | | | | |
| NCO | Are valid construction noise permits, if required, available for inspection? | ✓ | | | | |
| NCO | Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly? | ✓ | | | | |
| NCO | Are valid noise emission labels fixed at air compressors and hand held percussive breakers? | ✓ | | | | |
| | Major noise source(s) | <input type="checkbox"/> Traffic | | <input checked="" type="checkbox"/> Construction activities inside the site | | |
| | | <input type="checkbox"/> Construction activities outside the site | | <input type="checkbox"/> Others _____ | | |

Abbreviation

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

Remark

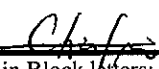
Signatures

ET Member


Contractor's Representative

IEC's Representative


This site inspection was carried out in the presence of IEC's representative



 (Name in Block letters:
CHIU T-I FU)
 PDE



 (Name in Block letters:
LO CHUNG MAN)
 SANKO



 (Name in Block Letters:
 (CHAN TUN WAI))

12th January 2005

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

Inspection date 25 JAN 2006 Time 08:20hrs Inspected By ET: T. F. CHIU / PDE
 Contractor: PETER CHENG / SAN/KD.
 Site LMX - 19 ELECTRICAL ERECTION AREA

Weather

Condition Sunny Fine Overcast Hazy Drizzle Rain Storm
Temperature 15 °C **Humidity** High Moderate 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 QUALITY

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

| 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? | | ✓ | | | Wheel Washing Service Provided By Paul Y. |
| Transfer of dusty materials using a belt conveyor system | | | | | | |
| Cap311R: Sch 20(1) | Are belt conveyors used for transfer of dusty materials covered on the top and 2 sides? | ✓ | | | | |
| Cap311R: Sch 20(2) | Is every transfer point between any two-belt conveyors totally enclosed? | ✓ | | | | |
| Cap311R: Sch 20(3) | Is a belt scraper or equivalent device installed at the head pulley of every conveyor? Is the belt scraper equipped with bottom plates or similar means to prevent falling of materials from the return belts? | ✓ | | | | |
| Cap311R: Sch 20(4) | Are stockpiling conveyors equipped with level adjusting mechanism to maintain the dropping height within 1 m? | ✓ | | | | |
| Concrete batching plant | | | | | | |
| EM&A: A2 | Are the loading, unloading, handling, transfer or storage of any dusty materials carried out in a totally enclosed system? | ✓ | | | | |
| EM&A: A2 | Are dusty materials, except cement and dry PFA, wetted by water spray system? | ✓ | | | | |
| EM&A: A2 | Are all the receiving hoppers enclosed on three (3) sides up to 3m above unloading point? | ✓ | | | | |
| EM&A: A2 | Are all the conveyor transfer points totally enclosed? | ✓ | | | | |

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

WASTE/CHEMICAL WASTE MANAGEMENT

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

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

WATER QUALITY

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

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|--------|--|-----|-----|----|-----|---------|
| | Boring and Drilling Water | | | | | |
| PNI/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 | | | | | |
| PNI/94 | Is a wheel-washing bay provided at every exit if practicable and is the silt removed from wash-water before discharging into storm drains? | ✓ | | | | |

MARINE ECOLOGY

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

NOISE

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|----------------|--|---|-----|---|-----|---------|
| EM&A : C1 | Are working programmes scheduled to minimize noise nuisance? | | ✓ | | | |
| EM&A: C1 | Are construction works or equipment sited to minimize noise nuisance? | | ✓ | | | |
| EM&A: C1 | Are all plant and equipment maintained in good operating conditions? | | ✓ | | | |
| EM&A: C1/GP | Is idle equipment turned off or throttled down? | | ✓ | | | |
| EM&A: C1 | Are methods of working devised and arranged to minimize noise nuisance? | | ✓ | | | |
| EM&A: C1) | Are construction works carried out in a manner to minimize noise nuisance? | | ✓ | | | |
| EM&A: C2 | To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted? a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods? | ✓ | | | | |
| EM&A: C3 | To mitigate night time construction noise, is dredging equipment equipped with silencers or mufflers? | ✓ | | | | |
| NCO | Are valid construction noise permits, if required, available for inspection? | ✓ | | | | |
| NCO | Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly? | ✓ | | | | |
| NCO | Are valid noise emission labels fixed at air compressors and hand held percussive breakers? | ✓ | | | | |
| | Major noise source(s) | <input type="checkbox"/> Traffic | | <input checked="" type="checkbox"/> Construction activities inside the site | | |
| | | <input type="checkbox"/> Construction activities outside the site | | <input type="checkbox"/> Others _____ | | |

The Hongkong Electric Co. Ltd.
Lamma Power Station Extension – E&M Works
Weekly Site Inspection Checklist
C/N: 04/9018

Inspection date 6 Jan 06 Time 09:45 Inspected By ET: W. S. YUEN
 Site L9 - GRS Contractor: W. F. Kwok (TDK)

Weather

Condition Sunny Fine Overcast Hazy Drizzle Rain Storm
 Temperature 11 °C Humidity High Moderate 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 QUALITY

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

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

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

WASTE/CHEMICAL WASTE MANAGEMENT

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

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

WATER QUALITY

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

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

MARINE ECOLOGY

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

NOISE

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|----------------|--|---|---|----|-----|---------|
| EM&A : C1 | Are working programmes scheduled to minimize noise nuisance? | | ✓ | | | |
| EM&A: C1 | Are construction works or equipment sited to minimize noise nuisance? | | ✓ | | | |
| EM&A: C1 | Are all plant and equipment maintained in good operating conditions? | | ✓ | | | |
| EM&A: C1/GP | Is idle equipment turned off or throttled down? | | ✓ | | | |
| EM&A: C1 | Are methods of working devised and arranged to minimize noise nuisance? | | ✓ | | | |
| EM&A: C1) | Are construction works carried out in a manner to minimize noise nuisance? | | ✓ | | | |
| EM&A: C2 | To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted? a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods? | | ✓ | | | |
| EM&A: C3 | To mitigate night time construction noise, is dredging equipment equipped with silencers or mufflers? | ✓ | | | | |
| NCO | Are valid construction noise permits, if required, available for inspection? | ✓ | | | | |
| NCO | Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly? | ✓ | | | | |
| NCO | Are valid noise emission labels fixed at air compressors and hand held percussive breakers? | | ✓ | | | |
| | Major noise source(s) | <input type="checkbox"/> Traffic | <input checked="" type="checkbox"/> Construction activities inside the site | | | |
| | | <input type="checkbox"/> Construction activities outside the site | <input type="checkbox"/> Others _____ | | | |

Abbreviation


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

Remark

Signatures

ET Member

Contractor's Representative



(Name in Block letters:

W. S. YUEN

(Name in Block letters:

W. F. Kwok)

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

C/N = 04/9018

Inspection date 13 Jan 06 Time 0945 Inspected By ET: W-S. YUEN (HFC)
 Site 2MX Unit 9 - GRS Contractor: W. F. Kwok (TDK)

Weather

Condition Sunny Fine Overcast Hazy Drizzle Rain Storm
 Temperature 19 °C Humidity High Moderate 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 QUALITY

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

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

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

WASTE/CHEMICAL WASTE MANAGEMENT

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

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

WATER QUALITY

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

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

MARINE ECOLOGY

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

NOISE

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|----------------|--|---|---|----|-----|---------|
| EM&A : C1 | Are working programmes scheduled to minimize noise nuisance? | | / | | | |
| EM&A: C1 | Are construction works or equipment sited to minimize noise nuisance? | | / | | | |
| EM&A: C1 | Are all plant and equipment maintained in good operating conditions? | | / | | | |
| EM&A: C1/GP | Is idle equipment turned off or throttled down? | | / | | | |
| EM&A: C1 | Are methods of working devised and arranged to minimize noise nuisance? | | / | | | |
| EM&A: C1) | Are construction works carried out in a manner to minimize noise nuisance? | | / | | | |
| EM&A: C2 | To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted? a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods? | | / | | | |
| EM&A: C3 | To mitigate night time construction noise, is dredging equipment equipped with silencers or mufflers? | ✓ | | | | |
| NCO | Are valid construction noise permits, if required, available for inspection? | ✓ | | | | |
| NCO | Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly? | / | | | | |
| NCO | Are valid noise emission labels fixed at air compressors and hand held percussive breakers? | | / | | | |
| | Major noise source(s) | <input type="checkbox"/> Traffic | <input checked="" type="checkbox"/> Construction activities inside the site | | | |
| | | <input type="checkbox"/> Construction activities outside the site | <input type="checkbox"/> Others _____ | | | |

Abbreviation

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

Remark

Signatures

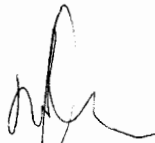
ET Member

Contractor's Representative



(Name in Block letters:

W.S. YUEN)



(Name in Block letters:

J.W.F. KUO)

04/9/18

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

Inspection date 20 Jun 18 Time 09:30 Inspected By ET: W. S. Yuen
 Contractor: L. F. Kwok (IDK)
 Site LMX - GRS

Weather

Condition Sunny Fine Overcast Hazy Drizzle Rain Storm
 Temperature 17 °C Humidity High Moderate 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 QUALITY

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

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

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

WASTE/CHEMICAL WASTE MANAGEMENT

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

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

WATER QUALITY

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

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

MARINE ECOLOGY

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

NOISE

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|----------------|--|---|-----|---|-----|---------|
| EM&A : C1 | Are working programmes scheduled to minimize noise nuisance? | | / | | | |
| EM&A: C1 | Are construction works or equipment sited to minimize noise nuisance? | | / | | | |
| EM&A: C1 | Are all plant and equipment maintained in good operating conditions? | | / | | | |
| EM&A: C1/GP | Is idle equipment turned off or throttled down? | | / | | | |
| EM&A: C1 | Are methods of working devised and arranged to minimize noise nuisance? | | / | | | |
| EM&A: C1) | Are construction works carried out in a manner to minimize noise nuisance? | | / | | | |
| EM&A: C2 | To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted? a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods? | | / | | | |
| EM&A: C3 | To mitigate night time construction noise, is dredging equipment equipped with silencers or mufflers? | / | | | | |
| NCO | Are valid construction noise permits, if required, available for inspection? | / | | | | |
| NCO | Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly? | / | / | | | |
| NCO | Are valid noise emission labels fixed at air compressors and hand held percussive breakers? | | | | | |
| | Major noise source(s) | <input type="checkbox"/> Traffic | | <input checked="" type="checkbox"/> Construction activities inside the site | | |
| | | <input type="checkbox"/> Construction activities outside the site | | <input type="checkbox"/> Others _____ | | |

Abbreviation

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

Remark

Signatures

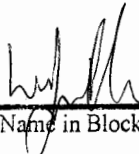
ET Member

Contractor's Representative



(Name in Block letters:

W.S. YUEN)



(Name in Block letters:

W. F. Luk)

04/9/08

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

Inspection date 27 Jan 08 Time 09:30 Inspected By ET: W. S. Yuen
 Contractor: W. F. Kwok (TOK)
 Site LMX - GRS

Weather

Condition Sunny Fine Overcast Hazy Drizzle Rain Storm
 Temperature 15 °C Humidity High Moderate 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 QUALITY

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

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

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

WASTE/CHEMICAL WASTE MANAGEMENT

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

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

WATER QUALITY

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

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

MARINE ECOLOGY

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

NOISE

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|----------------|--|---|-----|---|-----|---------|
| EM&A : C1 | Are working programmes scheduled to minimize noise nuisance? | | / | | | |
| EM&A: C1 | Are construction works or equipment sited to minimize noise nuisance? | | / | | | |
| EM&A: C1 | Are all plant and equipment maintained in good operating conditions? | | / | | | |
| EM&A: C1/GP | Is idle equipment turned off or throttled down? | | / | | | |
| EM&A: C1 | Are methods of working devised and arranged to minimize noise nuisance? | | / | | | |
| EM&A: C1) | Are construction works carried out in a manner to minimize noise nuisance? | | / | | | |
| EM&A: C2 | To mitigate construction noise during Sunday's and public holidays, is either one of the following measures adopted? a) Mitigation by portable noise barriers at noise sources or b) Rescheduling of some powered mechanical equipment to less sensitive time periods? | | / | | | |
| EM&A: C3 | To mitigate night time construction noise, is dredging equipment equipped with silencers or mufflers? | / | | | | |
| NCO | Are valid construction noise permits, if required, available for inspection? | / | | | | |
| NCO | Are conditions of construction noise permits, if any, for the relevant part(s) of the works implemented accordingly? | / | | | | |
| NCO | Are valid noise emission labels fixed at air compressors and hand held percussive breakers? | | / | | | |
| | Major noise source(s) | <input type="checkbox"/> Traffic | | <input checked="" type="checkbox"/> Construction activities inside the site | | |
| | | <input type="checkbox"/> Construction activities outside the site | | <input type="checkbox"/> Others _____ | | |

Abbreviation

VEP: Varied Environmental Permit
WMP: Waste Management Plan
Cap311R: APC (Construction Dust) Regulation
Cap311O: APC (Open Burning) Regulation
Cap311: Air Pollution Control Ordinance
PN1/94: Practice Note for Professional Persons (Construction Site Drainage)
Unk: Unknown

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

Remark

Signatures

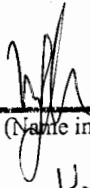
ET Member

Contractor's Representative



(Name in Block letters:

W.S. YUEN)



(Name in Block letters:

U. F. HUI)

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

Inspection date Time Inspected by

 Site Transmission Route (Civil Work)

Weather

Condition Sunny Fine Overcast Hazy Drizzle Rain Storm
Temperature °C **Humidity** High Moderate 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 updated Environmental Permit been displayed at all vehicular site entrances/exits for public information? | | ✓ | | | |
| VEP 1.6 | Is a copy of EIA report kept in Engineers' and Contractors' offices on site? | | ✓ | | | |

AIR QUALITY

| Ref. | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|---------------------------------------|---|-----|-----|----|-----|---------|
| General Requirements | | | | | | |
| Cap311R: | Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change? | ✓ | | | | |
| Cap311R: Sch 12(3) | A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Has this been observed? | ✓ | | | | |
| Stockpiling of dusty materials | | | | | | |
| Cap311R: Sch 18 EM&A:J1 | Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission? | | ✓ | | | |
| Use of vehicles | | | | | | |
| Cap311R: Sch 21(2) | Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting? | ✓ | | | | |
| Miscellaneous | | | | | | |
| Cap311R: Sch 16 | Are completed earthworks sealed and hydroseeded and planted as soon as possible? | ✓ | | | | |

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

WASTE/CHEMICAL WASTE MANAGEMENT

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

MARINE ECOLOGY

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|-------------|---|-----|-----|----|-----|---------|
| EM&A: MI | 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 PME's or standard PME's with modest source noise controls used at the cable route from N4 to N5? | ✓ | | | | |
| EM&A: L2 ~ L5 | Are quiet PME's (particularly the barge-mounted crane) or PME's 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? | | ✓ | | | |

TERRESTRIAL ECOLOGY

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|-------------|---|-----|-----|----|-----|---|
| EM&A: O1 | Are the construction activities at landing points N4 & N5 closely monitored to avoid impact on the uncommon and rare plant species <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> ? | | ✓ | | | |
| EM&A: O2 | Are fences erected in accordance with the Hoarding Plan and kept in good condition along the boundary of construction sites to prevent tipping, vehicle movements, and encroachment of personnel into adjacent wooded areas, particularly where the rare, uncommon and restricted plant species are located? | | ✓ | | | |
| EM&A: Q3 | Has regular checking been performed to ensure that the work site boundaries are not exceeded and that no damage occurs to surrounding areas? | | ✓ | | | |
| 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? | | ✓ | | | |
| | Major noise source(s) | | ✓ | | | Construction activities inside the site |
| | | | | | | Others: |

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

Inspection date Time Inspected by
 Contractor:
 Site

Weather

Condition Sunny Fine Overcast Hazy Drizzle Rain Storm
 Temperature °C Humidity High Moderate 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 updated Environmental Permit been displayed at all vehicular site entrances/exits for public information? | | ✓ | | | |
| VEP 1.6 | Is a copy of EIA report kept in Engineers' and Contractors' offices on site? | | ✓ | | | |

AIR QUALITY

| Ref. | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|---------------------------------------|---|-----|-----|----|-----|---------|
| General Requirements | | | | | | |
| Cap311R: | Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change? | ✓ | | | | |
| Cap311R: Sch 12(3) | A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Has this been observed? | ✓ | | | | |
| Stockpiling of dusty materials | | | | | | |
| Cap311R: Sch 18 EM&A:J1 | Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission? | | ✓ | | | |
| Use of vehicles | | | | | | |
| Cap311R: Sch 21(2) | Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting? | ✓ | | | | |
| Miscellaneous | | | | | | |
| Cap311R: Sch 16 | Are completed earthworks sealed and hydroseeded and planted as soon as possible? | ✓ | | | | |

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

WASTE/CHEMICAL WASTE MANAGEMENT

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

MARINE ECOLOGY

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

NOISE

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

TERRESTRIAL ECOLOGY

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|-------------|---|-----|-----|----|-----|---|
| EM&A: O1 | Are the construction activities at landing points N4 & N5 closely monitored to avoid 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> ? | | ✓ | | | |
| EM&A: O2 | Are fences erected in accordance with the Hoarding Plan and kept in good condition along the boundary of construction sites to prevent tipping, vehicle movements, and encroachment of personnel into adjacent wooded areas, particularly where the rare, uncommon and restricted plant species are located? | | ✓ | | | |
| EM&A: Q3 | Has regular checking been performed to ensure that the work site boundaries are not exceeded and that no damage occurs to surrounding areas? | | ✓ | | | |
| 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? | | ✓ | | | |
| | | | | | | |
| | Major noise source(s) | | ✓ | | | Construction activities inside the site |
| | | | | | | Others: |

Abbreviation

VEP: Varied Environmental Permit
Cap311R: APC (Construction Dust) Regulation
Cap311O: APC (Open Burning) Regulation
Cap311: Air Pollution Control Ordinance
Cap466: Dumping at Sea Ordinance


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:
Henry S. A. O.)



(Name in Block letters:
Anthony Tang)

20th December 2001

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

Inspection date Time Inspected by

Site Transmission Route (Civil Work)

Weather

Condition Sunny Fine Overcast Hazy Drizzle Rain Storm

Temperature °C Humidity High Moderate 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 updated Environmental Permit been displayed at all vehicular site entrances/exits for public information? | | ✓ | | | |
| VEP 1.6 | Is a copy of EIA report kept in Engineers' and Contractors' offices on site? | | ✓ | | | |

AIR QUALITY

| Ref. | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|---------------------------------------|---|-----|-----|----|-----|---------|
| General Requirements | | | | | | |
| Cap311R: | Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change? | ✓ | | | | |
| Cap311R: Sch 12(3) | A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Has this been observed? | ✓ | | | | |
| Stockpiling of dusty materials | | | | | | |
| Cap311R: Sch 18 EM&A:J1 | Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission? | | ✓ | | | |
| Use of vehicles | | | | | | |
| Cap311R: Sch 21(2) | Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting? | ✓ | | | | |
| Miscellaneous | | | | | | |
| Cap311R: Sch 16 | Are completed earthworks sealed and hydroseeded and planted as soon as possible? | ✓ | | | | |

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

WASTE/CHEMICAL WASTE MANAGEMENT

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

MARINE ECOLOGY

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

NOISE

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|------------------|---|-----|-----|----|-----|-----------|
| EM&A: L1 | Are quiet PME or standard PME with modest source noise controls used at the cable route from N4 to N5? | ✓ | | | | |
| EM&A: L2 ~ L5 | Are quiet PME (particularly the barge-mounted crane) or PME 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? | | ✓ | | | |

TERRESTRIAL ECOLOGY

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|-------------|---|-----|--|----|---|---------|
| EM&A: O1 | Are the construction activities at landing points N4 & N5 closely monitored to avoid impact on the uncommon and rare plant species <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> ? | | ✓ | | | |
| EM&A: O2 | Are fences erected in accordance with the Hoarding Plan and kept in good condition along the boundary of construction sites to prevent tipping, vehicle movements, and encroachment of personnel into adjacent wooded areas, particularly where the rare, uncommon and restricted plant species are located? | | ✓ | | | |
| EM&A: Q3 | Has regular checking been performed to ensure that the work site boundaries are not exceeded and that no damage occurs to surrounding areas? | | ✓ | | | |
| 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? | | ✓ | | | |
| | Major noise source(s) | | Traffic | ✓ | Construction activities inside the site | |
| | | | Construction activities outside the site | | Others: | |

Abbreviation

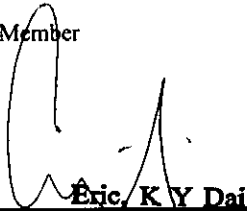
VEP: Varied Environmental Permit
Cap311R: APC (Construction Dust) Regulation
Cap311O: APC (Open Burning) Regulation
Cap311: Air Pollution Control Ordinance
Cap466: Dumping at Sea Ordinance

EM&A: EM&A Manual (Construction Phase)
NCO: Noise Control Ordinance
Cap354: Waste Disposal Ordinance
Cap354c: WDO (Chemical Waste) (General) Regulation
Unk: Unknown

Remark

Signatures

ET Member



(Name in Block letters:
Assistant Resident Engineer)

Contractor's Representative



(Name in Block letters:
C K LAW
Engineer.)

20th December 2001

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

Inspection date Time Inspected by
 Contractor:
 Site Transmission Route (Civil Work)

Weather

Condition Sunny Fine Overcast Hazy Drizzle Rain Storm
 Temperature °C Humidity High Moderate 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 updated Environmental Permit been displayed at all vehicular site entrances/exits for public information? | | ✓ | | | |
| VEP 1.6 | Is a copy of EIA report kept in Engineers' and Contractors' offices on site? | | ✓ | | | |

AIR QUALITY

| Ref. | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|---------------------------------------|---|-----|-----|----|-----|---------|
| General Requirements | | | | | | |
| Cap311R: | Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change? | ✓ | | | | |
| Cap311R: Sch 12(3) | A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Has this been observed? | ✓ | | | | |
| Stockpiling of dusty materials | | | | | | |
| Cap311R: Sch 18 EM&A:J1 | Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission? | | ✓ | | | |
| Use of vehicles | | | | | | |
| Cap311R: Sch 21(2) | Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting? | ✓ | | | | |
| Miscellaneous | | | | | | |
| Cap311R: Sch 16 | Are completed earthworks sealed and hydroseeded and planted as soon as possible? | ✓ | | | | |

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

WASTE/CHEMICAL WASTE MANAGEMENT

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

MARINE ECOLOGY

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

NOISE

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|------------------|---|-----|-----|----|-----|-----------|
| EM&A: L1 | Are quiet PME's or standard PME's with modest source noise controls used at the cable route from N4 to N5? | ✓ | | | | |
| EM&A: L2 ~ L5 | Are quiet PME's (particularly the barge-mounted crane) or PME's 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? | | ✓ | | | |

TERRESTRIAL ECOLOGY

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|-------------|---|--|-----|---|-----|---------|
| EM&A: O1 | Are the construction activities at landing points N4 & N5 closely monitored to avoid impact on the uncommon and rare plant species <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> ? | | ✓ | | | |
| EM&A: O2 | Are fences erected in accordance with the Hoarding Plan and kept in good condition along the boundary of construction sites to prevent tipping, vehicle movements, and encroachment of personnel into adjacent wooded areas, particularly where the rare, uncommon and restricted plant species are located? | | ✓ | | | |
| EM&A: Q3 | Has regular checking been performed to ensure that the work site boundaries are not exceeded and that no damage occurs to surrounding areas? | | ✓ | | | |
| 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? | | ✓ | | | |
| | Major noise source(s) | Traffic | ✓ | Construction activities inside the site | | |
| | | Construction activities outside the site | | Others: | | |

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

Inspection date 6/01/06 Time 11:00 Inspected by ET: CKWONG
 Site OUTSIDE
LANDING POINT EL. N2, N4
 Contractor: J-POWER SYSTEMS

Weather

Condition Sunny Fine Overcast Hazy Drizzle Rain Storm
 Temperature 13 °C Humidity High Moderate 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 updated Environmental Permit been displayed at all vehicular site entrances/exits for public information? | | ✓ | | | |
| VEP 1.6 | Is a copy of EIA report kept in Engineers' and Contractors' offices on site? | | ✓ | | | |

AIR QUALITY

| Ref. | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|---------------------------------------|---|-----|-----|----|-----|---------|
| General Requirements | | | | | | |
| Cap311R: | Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change? | ✓ | | | | |
| Cap311R: Sch 12(3) | A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Has this been observed? | ✓ | | | | |
| Stockpiling of dusty materials | | | | | | |
| Cap311R: Sch 18 EM&A:J1 | Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission? | ✓ | | | | |
| Use of vehicles | | | | | | |
| Cap311R: Sch 21(2) | Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting? | ✓ | | | | |
| Miscellaneous | | | | | | |
| Cap311R: Sch 16 | Are completed earthworks sealed and hydroseeded and planted as soon as possible? | ✓ | | | | |

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

WASTE/CHEMICAL WASTE MANAGEMENT

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

MARINE ECOLOGY

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

NOISE

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|------------------|---|-----|-----|----|-----|---------|
| EM&A: L1 | Are quiet PME's or standard PME's with modest source noise controls used at the cable route from N4 to N5? | ✓ | | | | |
| EM&A: L2 ~ L5 | Are quiet PME's (particularly the barge-mounted crane) or PME's 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? | ✓ | | | | |
| NCO | Are valid noise emission labels fixed at air compressors and hand held percussive breakers? | ✓ | | | | |

TERRESTRIAL ECOLOGY

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|-------------|---|---|-----|---|-----|---------|
| EM&A: O1 | Are the construction activities at landing points N4 & N5 closely monitored to avoid 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> ? | ✓ | | | | |
| EM&A: O2 | Are fences erected in accordance with the Hoarding Plan and kept in good condition along the boundary of construction sites to prevent tipping, vehicle movements, and encroachment of personnel into adjacent wooded areas, particularly where the rare, uncommon and restricted plant species are located? | ✓ | | | | |
| EM&A: Q3 | Has regular checking been performed to ensure that the work site boundaries are not exceeded and that no damage occurs to surrounding areas? | ✓ | | | | |
| 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? | ✓ | | | | |
| | Major noise source(s) | <input type="checkbox"/> Traffic | | <input checked="" type="checkbox"/> Construction activities inside the site | | |
| | | <input type="checkbox"/> Construction activities outside the site | | <input type="checkbox"/> Others _____ | | |

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 |

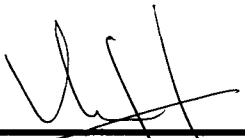
Remark

N/A


Signatures

ET Member

Contractor's Representative



(Name in Block letters:
CK WANG)



(Name in Block letters:
BERRY YUEN)

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

Inspection date 13/1/06 Time 16:30 Inspected by ET: CK Wong
 Contractor: J-POWER SYSTEMS
 Site OUTSIDE LANDON G BENT II, N2 & N4

Weather

Condition Sunny Fine Overcast Hazy Drizzle Rain Storm
Temperature 22°C **Humidity** High Moderate 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 updated Environmental Permit been displayed at all vehicular site entrances/exits for public information? | | ✓ | | | |
| VEP 1.6 | Is a copy of EIA report kept in Engineers' and Contractors' offices on site? | | ✓ | | | |

AIR QUALITY

| Ref. | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|---------------------------------------|---|-----|-----|----|-----|---------|
| General Requirements | | | | | | |
| Cap311R: | Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change? | ✓ | | | | |
| Cap311R: Sch 12(3) | A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Has this been observed? | ✓ | | | | |
| Stockpiling of dusty materials | | | | | | |
| Cap311R: Sch 18 EM&A:J1 | Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission? | ✓ | | | | |
| Use of vehicles | | | | | | |
| Cap311R: Sch 21(2) | Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting? | ✓ | | | | |
| Miscellaneous | | | | | | |
| Cap311R: Sch 16 | Are completed earthworks sealed and hydroseeded and planted as soon as possible? | ✓ | | | | |

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

WASTE/CHEMICAL WASTE MANAGEMENT

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

MARINE ECOLOGY

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

NOISE

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|------------------|---|-----|-----|----|-----|---------|
| EM&A: L1 | Are quiet PME's or standard PME's with modest source noise controls used at the cable route from N4 to N5? | ✓ | | | | |
| EM&A: L2 ~ L5 | Are quiet PME's (particularly the barge-mounted crane) or PME's 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? | ✓ | | | | |
| NCO | Are valid noise emission labels fixed at air compressors and hand held percussive breakers? | ✓ | | | | |

TERRESTRIAL ECOLOGY

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|-------------|---|-----|-----|----|-----|---------|
| EM&A: O1 | Are the construction activities at landing points N4 & N5 closely monitored to avoid 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> ? | ✓ | | | | |
| EM&A: O2 | Are fences erected in accordance with the Hoarding Plan and kept in good condition along the boundary of construction sites to prevent tipping, vehicle movements, and encroachment of personnel into adjacent wooded areas, particularly where the rare, uncommon and restricted plant species are located? | ✓ | | | | |
| EM&A: Q3 | Has regular checking been performed to ensure that the work site boundaries are not exceeded and that no damage occurs to surrounding areas? | ✓ | | | | |
| 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? | ✓ | | | | |

| | | | |
|--|-----------------------|---|---|
| | Major noise source(s) | <input type="checkbox"/> Traffic | <input checked="" type="checkbox"/> Construction activities inside the site |
| | | <input type="checkbox"/> Construction activities outside the site | <input type="checkbox"/> Others _____ |

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

N/A


Signatures

ET Member

Contractor's Representative



(Name in Block letters:
CKWONG)



(Name in Block letters:
BERRY YUEN)

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

Inspection date 20/1/06 Time 14:39 Inspected by ET: CK WONG
 Contractor: J-POWER SYSTEMS
 Site QUIESCENT LAND WITH PERMIT I1, N2 & N4

Weather

Condition Sunny Fine Overcast Hazy Drizzle Rain Storm
 Temperature 19 °C Humidity High Moderate 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 updated Environmental Permit been displayed at all vehicular site entrances/exits for public information? | | ✓ | | | |
| VEP 1.6 | Is a copy of ELA report kept in Engineers' and Contractors' offices on site? | | ✓ | | | |

AIR QUALITY

| Ref. | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|---------------------------------------|---|-----|-----|----|-----|---------|
| General Requirements | | | | | | |
| Cap311R: | Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change? | ✓ | | | | |
| Cap311R: Sch 12(3) | A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Has this been observed? | ✓ | | | | |
| Stockpiling of dusty materials | | | | | | |
| Cap311R: Sch 18 EM&A:J1 | Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission? | ✓ | | | | |
| Use of vehicles | | | | | | |
| Cap311R: Sch 21(2) | Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting? | ✓ | | | | |
| Miscellaneous | | | | | | |
| Cap311R: Sch 16 | Are completed earthworks sealed and hydroseeded and planted as soon as possible? | ✓ | | | | |

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

WASTE/CHEMICAL WASTE MANAGEMENT

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

MARINE ECOLOGY

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

NOISE

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|------------------|---|-----|-----|----|-----|---------|
| EM&A: L1 | Are quiet PME's or standard PME's with modest source noise controls used at the cable route from N4 to N5? | ✓ | | | | |
| EM&A: L2 ~ L5 | Are quiet PME's (particularly the barge-mounted crane) or PME's 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? | ✓ | | | | |
| NCO | Are valid noise emission labels fixed at air compressors and hand held percussive breakers? | ✓ | | | | |

TERRESTRIAL ECOLOGY

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|-------------|---|---|-----|---|-----|---------|
| EM&A: O1 | Are the construction activities at landing points N4 & N5 closely monitored to avoid 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> ? | ✓ | | | | |
| EM&A: O2 | Are fences erected in accordance with the Hoarding Plan and kept in good condition along the boundary of construction sites to prevent tipping, vehicle movements, and encroachment of personnel into adjacent wooded areas, particularly where the rare, uncommon and restricted plant species are located? | ✓ | | | | |
| EM&A: Q3 | Has regular checking been performed to ensure that the work site boundaries are not exceeded and that no damage occurs to surrounding areas? | ✓ | | | | |
| 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? | ✓ | | | | |
| | Major noise source(s) | <input type="checkbox"/> Traffic | | <input checked="" type="checkbox"/> Construction activities inside the site | | |
| | | <input type="checkbox"/> Construction activities outside the site | | <input type="checkbox"/> Others _____ | | |

Abbreviation

VEP: Varied Environmental Permit
Cap311R: APC (Construction Dust) Regulation
Cap311O: APC (Open Burning) Regulation
Cap311: Air Pollution Control Ordinance
Cap466: Dumping at Sea Ordinance

EM&A: EM&A Manual (Construction Phase)
NCO: Noise Control Ordinance
Cap354: Waste Disposal Ordinance
Cap354c: WDO (Chemical Waste) (General) Regulation
Unk: Unknown

Remark

N/A

Signatures

ET Member

Contractor's Representative



(Name in Block letters:

LAI KA YIN)



(Name in Block letters:

BERRY YUEN)

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

Inspection date 27/1/06 Time 14:30 Inspected by ET: KW YUNG
 Contractor: T-POWER & SYSTEMS
 Site OUTSIDE LANDING POINT II N2 & N4

Weather

Condition Sunny Fine Overcast Hazy Drizzle Rain Storm
 Temperature 18 °C Humidity High Moderate 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 updated Environmental Permit been displayed at all vehicular site entrances/exits for public information? | | ✓ | | | |
| VEP 1.6 | Is a copy of EIA report kept in Engineers' and Contractors' offices on site? | | ✓ | | | |

AIR QUALITY

| Ref. | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|---------------------------------------|---|-----|-----|----|-----|---------|
| General Requirements | | | | | | |
| Cap311R: | Has the contractors notified EPD of the construction site which is classified as a notifiable work in a specified form? If there is any change in the notice? If yes, did the contractors notify EPD of the change? | ✓ | | | | |
| Cap311R: Sch 12(3) | A compressed air jet shall not be used for cleaning or clearing dust from any vehicle, equipment, other materials or person. Has this been observed? | ✓ | | | | |
| Stockpiling of dusty materials | | | | | | |
| Cap311R: Sch 18 EM&A:J1 | Are stockpiles of dusty materials entirely covered with impervious sheets or sheltered on the top and 3 sides or sprayed with water to maintain the entire surface wet to prevent dust emission? | ✓ | | | | |
| Use of vehicles | | | | | | |
| Cap311R: Sch 21(2) | Is every load of dusty material on the vehicles leaving the construction site covered entirely by clean impervious sheeting? | ✓ | | | | |
| Miscellaneous | | | | | | |
| Cap311R: Sch 16 | Are completed earthworks sealed and hydroseeded and planted as soon as possible? | ✓ | | | | |

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

WASTE/CHEMICAL WASTE MANAGEMENT

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

MARINE ECOLOGY

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

NOISE

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

TERRESTRIAL ECOLOGY

| Ref | Checklist Condition | N/A | Yes | No | Unk | Remarks |
|-------------|---|---|-----|---|-----|---------|
| EM&A: O1 | Are the construction activities at landing points N4 & N5 closely monitored to avoid 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> ? | ✓ | | | | |
| EM&A: O2 | Are fences erected in accordance with the Hoarding Plan and kept in good condition along the boundary of construction sites to prevent tipping, vehicle movements, and encroachment of personnel into adjacent wooded areas, particularly where the rare, uncommon and restricted plant species are located? | ✓ | | | | |
| EM&A: Q3 | Has regular checking been performed to ensure that the work site boundaries are not exceeded and that no damage occurs to surrounding areas? | ✓ | | | | |
| 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? | ✓ | | | | |
| | Major noise source(s) | <input type="checkbox"/> Traffic | | <input checked="" type="checkbox"/> Construction activities inside the site | | |
| | | <input type="checkbox"/> Construction activities outside the site | | <input type="checkbox"/> Others _____ | | |

Abbreviation

VEP: Varied Environmental Permit
Cap311R: APC (Construction Dust) Regulation
Cap311O: APC (Open Burning) Regulation
Cap311: Air Pollution Control Ordinance
Cap466: Dumping at Sea Ordinance

EM&A: EM&A Manual (Construction Phase)
NCO: Noise Control Ordinance
Cap354: Waste Disposal Ordinance
Cap354c: WDO (Chemical Waste) (General) Regulation
Unk: Unknown

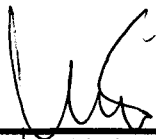
Remark

N/A


Signatures

ET Member

Contractor's Representative



(Name in Block letters:
K.W. YUNG)



(Name in Block letters:
BERRY YUEN)

Appendix I: Summary of EMIS

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

Table I.1 Construction Phase Mitigation Measures and their Implementation

| EM&A Log Ref. | Mitigation Measures | Implementation Status |
|---------------|---|--------------------------|
| | AIR QUALITY | |
| A1 | For general construction works, the dust control measures stipulated under the Air Pollution Control (Construction Dust) Regulation shall be complied with, such as: <ul style="list-style-type: none"> the haul roads shall be sprayed with water to keep the entire road surface wet. the load carried by vehicle shall be covered by impervious sheeting to ensure no leakage of dusty materials from the vehicle. the heights from which fill materials are dropped shall be controlled to a practical level to minimise the fugitive dust arising from unloading. | C C C |
| A2 | For the concrete batching plant, the following control measures are recommended: <ul style="list-style-type: none"> loading, unloading, handling, transfer or storage or any dusty materials shall be carried out in a totally enclosed system. The materials which may generate airborne dust emissions shall be wetted by water spray system. All receiving hoppers shall be enclosed on three sides up to 3m above unloading point. All conveyor transfer points shall be totally enclosed. | N/A N/A N/A N/A |
| | WATER QUALITY | |
| B1 | The following configurations and maximum rates of dredging shall be allowed: <ul style="list-style-type: none"> 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. 1 trailer dredger with a rate of working of 8,000 m³ day⁻¹, and 2 large grab dredgers, each with rates of working of 12,000 m³ day⁻¹ | N/A 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 |
| B3 | 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. | C |

| 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 | <p>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:</p> <ul style="list-style-type: none"> • 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. | N/A |
| B7 | <p>In addition to the above specific measures the following general working procedures shall be adopted.</p> | |
| | <ul style="list-style-type: none"> • 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 |
| | <ul style="list-style-type: none"> • the descent speed of grabs shall be controlled to minimise the seabed impact speed and to reduce the volume of over dredging; | N/A |
| | <ul style="list-style-type: none"> • barges shall be loaded carefully to avoid splashing of material; | N/A |
| | <ul style="list-style-type: none"> • 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 |
| | <ul style="list-style-type: none"> • 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 |
| | <ul style="list-style-type: none"> • the speed of trailer dredgers shall be controlled to prevent propeller wash from stirring up the sea bed sediments; | N/A |
| <ul style="list-style-type: none"> • "rainbowing" sand fill from trailer dredgers shall not be permitted; and | N/A | |
| <ul style="list-style-type: none"> • 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 |
| | | |
| | NOISE | |
| C1 | General noise mitigation measures shall be employed at all work sites throughout the construction phase. | C |
| C2 | Mitigate against general construction noise during Sunday's and public holidays, either at source with portable noise barriers, or by rescheduling of some PME's to less sensitive time periods. | C |
| 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 | <p>The following mitigation measures shall be allowed for landscape and visual improvement:</p> <ul style="list-style-type: none"> • Use rubble mound seawall along south and west edges of the reclamation to provide a more natural look. • Break the mass of main buildings by varying the height/division into smaller units. • Plant trees and vegetation for screening. • Adopt colour scheme to blend the buildings into the scenery. | |
| | | C |
| | | C |
| | | C |
| | | |
| WASTE MANAGEMENT | | |
| E1 | <p>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.</p> | C |
| <i>Dredging Waste</i> | | |
| E2 | <p>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</p> | N/A |
| <i>Storage, Collection and Transport of Waste</i> | | |
| E3 | <ul style="list-style-type: none"> • Minimise windblown litter and dust during transportation by either covering trucks or transporting wastes in enclosed containers. • 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. • Disposal of waste at Licensed sites; • 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; • Segregate and sort the waste materials into 3 categories: <ul style="list-style-type: none"> • public fill (e.g. concrete and rubble) for re-use on-site or disposal at a public filling area; • re-use and/or recycling waste (e.g. steel and other metals); • waste which cannot be re-used and/or recycled (e.g. wood, glass and plastic) for landfill disposal. • The sorting process shall be carefully monitored to avoid missing of the 3 categories. Different types of wastes shall be stockpiled and stored in different containers or skips to enhance re-use or recycling of materials and their proper disposal. • Maintain records of the quantities of wastes generated and disposed off-site for each category of waste. | C |
| | | C |
| | | C |
| | | N/A |
| | | N/A |
| C | | |

| 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 | C |
| G3 | Rubble mound seawall to the south and west edges of the reclamation to enhance recolonisation of marine organisms | C |
| 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. | C |
| 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: <ul style="list-style-type: none"> the haul roads shall be sprayed with water to keep the entire road surface wet. the load carried by vehicle shall be covered by impervious sheeting to ensure no leakage of dusty materials from the vehicle. the heights from which fill materials are dropped shall be controlled to a practical level to minimise the fugitive dust arising from unloading. | C N/A N/A |
| A2 | For the concrete batching plant, the following control measures are recommended: <ul style="list-style-type: none"> loading, unloading, handling, transfer or storage of any dusty materials shall be carried out in a totally enclosed system. The materials which may generate airborne dust emissions shall be wetted by water spray system. All receiving hoppers shall be enclosed on three sides up to 3m above unloading point. All conveyor transfer points shall be totally enclosed. | N/A N/A N/A N/A |
| | WATER QUALITY | |
| B1 | The following configurations and maximum rates of dredging shall be allowed: <ul style="list-style-type: none"> 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. 1 trailer dredger with a rate of working of 8,000 m³ day⁻¹, and 2 large grab dredgers, each with rates of working of 12,000 m³ day⁻¹ | N/A 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 |
| B3 | 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 | <p>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:</p> <ul style="list-style-type: none"> • 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. | N/A |
| B7 | <p>In addition to the above specific measures the following general working procedures shall be adopted.</p> | |
| | <ul style="list-style-type: none"> • 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 |
| | <ul style="list-style-type: none"> • the descent speed of grabs shall be controlled to minimise the seabed impact speed and to reduce the volume of over dredging; | N/A |
| | <ul style="list-style-type: none"> • barges shall be loaded carefully to avoid splashing of material; | N/A |
| | <ul style="list-style-type: none"> • 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 |
| | <ul style="list-style-type: none"> • 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 |
| | <ul style="list-style-type: none"> • the speed of trailer dredgers shall be controlled to prevent propeller wash from stirring up the sea bed sediments; | N/A |
| <ul style="list-style-type: none"> • "rainbowing" sand fill from trailer dredgers shall not be permitted; and | N/A | |
| <ul style="list-style-type: none"> • 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. | C | |
| 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. | C |
| C2 | Mitigate against general construction noise during Sunday's and public holidays, either at source with portable noise barriers, or by rescheduling of some PME's to less sensitive time periods. | C |
| 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: | |
| | <ul style="list-style-type: none"> • Use rubble mound seawall along south and west edges of the reclamation to provide a more natural look. | N/A |
| | <ul style="list-style-type: none"> • Break the mass of main buildings by varying the height/division into smaller units. | N/A |
| | <ul style="list-style-type: none"> • Plant trees and vegetation for screening. • Adopt colour scheme to blend the buildings into the scenery. | N/A |
| | | |
| WASTE MANAGEMENT | | |
| E1 | HEC to submit a Waste Management Plan for the construction phase to EPD. The Plan shall be verified by the IEC and shall describe the arrangements for avoidance, reuse, recovery and recycling, storage, collection, treatment and disposal of different categories of waste to be generated from the construction activities and shall take into account the recommendations of the EIA report. | C |
| <i>Dredging Waste</i> | | |
| 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 |
| <i>Storage, Collection and Transport of Waste</i> | | |
| E3 | <ul style="list-style-type: none"> • Minimise windblown litter and dust during transportation by either covering trucks or transporting wastes in enclosed containers. | C |
| | <ul style="list-style-type: none"> • 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. | C |
| | <ul style="list-style-type: none"> • Disposal of waste at Licensed sites; | C |
| | <ul style="list-style-type: none"> • 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; | C |
| | <ul style="list-style-type: none"> • Segregate and sort the waste materials into 3 categories: <ul style="list-style-type: none"> • public fill (e.g. concrete and rubble) for re-use on-site or disposal at a public filling area; • re-use and/or recycling waste (e.g. steel and other metals); • waste which cannot be re-used and/or recycled (e.g. wood, glass and plastic) for landfill disposal. • The sorting process shall be carefully monitored to avoid missing of the 3 categories. Different types of wastes shall be stockpiled and stored in different containers or skips to enhance re-use or recycling of materials and their proper disposal. | C |
| <ul style="list-style-type: none"> • Maintain records of the quantities of wastes generated and disposed off-site for each category of waste. | C | |

| 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 | C |
| | 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: <ul style="list-style-type: none"> the haul roads shall be sprayed with water to keep the entire road surface wet. the load carried by vehicle shall be covered by impervious sheeting to ensure no leakage of dusty materials from the vehicle. the heights from which fill materials are dropped shall be controlled to a practical level to minimise the fugitive dust arising from unloading. | C N/A N/A |
| A2 | For the concrete batching plant, the following control measures are recommended: <ul style="list-style-type: none"> loading, unloading, handling, transfer or storage or any dusty materials shall be carried out in a totally enclosed system. The materials which may generate airborne dust emissions shall be wetted by water spray system. All receiving hoppers shall be enclosed on three sides up to 3m above unloading point. All conveyor transfer points shall be totally enclosed. | N/A N/A N/A N/A |
| | WATER QUALITY | |
| B1 | The following configurations and maximum rates of dredging shall be allowed: <ul style="list-style-type: none"> 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. 1 trailer dredger with a rate of working of 8,000 m³ day⁻¹, and 2 large grab dredgers, each with rates of working of 12,000 m³ day⁻¹ | N/A 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 |
| B3 | 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 | <p>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:</p> <ul style="list-style-type: none"> • 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. | N/A |
| B7 | <p>In addition to the above specific measures the following general working procedures shall be adopted.</p> | |
| | <ul style="list-style-type: none"> • 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 |
| | <ul style="list-style-type: none"> • the descent speed of grabs shall be controlled to minimise the seabed impact speed and to reduce the volume of over dredging; | N/A |
| | <ul style="list-style-type: none"> • barges shall be loaded carefully to avoid splashing of material; | N/A |
| | <ul style="list-style-type: none"> • 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 |
| | <ul style="list-style-type: none"> • 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 |
| | <ul style="list-style-type: none"> • the speed of trailer dredgers shall be controlled to prevent propeller wash from stirring up the sea bed sediments; | N/A |
| <ul style="list-style-type: none"> • "rainbowing" sand fill from trailer dredgers shall not be permitted; and | N/A | |
| <ul style="list-style-type: none"> • 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 |
| | | |
| | NOISE | |
| C1 | General noise mitigation measures shall be employed at all work sites throughout the construction phase. | C |
| C2 | Mitigate against general construction noise during Sunday's and public holidays, either at source with portable noise barriers, or by rescheduling of some PME's to less sensitive time periods. | C |
| 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: | |
| | <ul style="list-style-type: none"> • Use rubble mound seawall along south and west edges of the reclamation to provide a more natural look. | N/A |
| | <ul style="list-style-type: none"> • Break the mass of main buildings by varying the height/division into smaller units. | N/A |
| | <ul style="list-style-type: none"> • Plant trees and vegetation for screening. • Adopt colour scheme to blend the buildings into the scenery. | N/A |
| | | |
| WASTE MANAGEMENT | | |
| E1 | HEC to submit a Waste Management Plan for the construction phase to EPD. The Plan shall be verified by the IEC and shall describe the arrangements for avoidance, reuse, recovery and recycling, storage, collection, treatment and disposal of different categories of waste to be generated from the construction activities and shall take into account the recommendations of the EIA report. | C |
| <i>Dredging Waste</i> | | |
| 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 |
| <i>Storage, Collection and Transport of Waste</i> | | |
| E3 | <ul style="list-style-type: none"> • Minimise windblown litter and dust during transportation by either covering trucks or transporting wastes in enclosed containers. | C |
| | <ul style="list-style-type: none"> • 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. | C |
| | <ul style="list-style-type: none"> • Disposal of waste at Licensed sites; | C |
| | <ul style="list-style-type: none"> • 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; | C |
| | <ul style="list-style-type: none"> • Segregate and sort the waste materials into 3 categories: <ul style="list-style-type: none"> • public fill (e.g. concrete and rubble) for re-use on-site or disposal at a public filling area; • re-use and/or recycling waste (e.g. steel and other metals); • waste which cannot be re-used and/or recycled (e.g. wood, glass and plastic) for landfill disposal. • The sorting process shall be carefully monitored to avoid missing of the 3 categories. Different types of wastes shall be stockpiled and stored in different containers or skips to enhance re-use or recycling of materials and their proper disposal. | C |
| <ul style="list-style-type: none"> • Maintain records of the quantities of wastes generated and disposed off-site for each category of waste. | C | |

| 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 | C |
| | 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

| EM&A Log Ref. | Mitigation Measures | Implementation Status |
|--------------------------|---|------------------------------|
| | AIR QUALITY | |
| J1 | To mitigate potential construction related dust impacts, the dust control measures stipulated under the Air Pollution Control (Construction Dust) Regulation shall be complied with, such as: <ul style="list-style-type: none"> all debris or materials shall be either covered or stored in a debris sheltered collection area; prior to any material handling, all dusty material shall be sprayed with water. | C |
| | | C |
| | WATER QUALITY | |
| K1 | No mitigation measures are considered necessary. | N/A |
| | NOISE | |
| L1 | N4-N5 Cable Route Selection and use of quiet PMEs, or use of modest source noise controls with standard PMEs | C |
| L2 | N5 Landing Point Selection and use of quiet PMEs (particularly the barge-mounted crane), or use of comparably effective source noise controls with the PMEs; | C |
| L3 | For non-percussive piling – use of equipment with a SWL of 113 dB(A) or less if there is no programme overlap of the piling with the site formation works, otherwise offsetting source noise controls shall be required. | N/A |
| L4 | For percussive piling – use of equipment with a SWL of 115 dB(A) or less, otherwise, offsetting source noise controls shall be required. | N/A |
| L5 | If non-percussive piling and site formation activities are to be carried out simultaneously then careful equipment selection and source controls shall be required for both activities to reduce each by approximately 3 dB(A). | N/A |
| | MARINE ECOLOGY | |
| M1 | Construction of rubble mound seawalls for the landing and launching points at Lamma Island. | C |
| | FISHERIES | |
| N1 | No fisheries-specific mitigation measures are required during the construction phase | N/A |

| EM&A Log Ref. | Mitigation Measures | Implementation Status |
|--|--|-----------------------|
| | <p>TERRESTRIAL ECOLOGY</p> <p>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:</p> | |
| 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. | C |
| 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. | C |
| O3 | Regular checking to ensue that the work site boundaries are not exceeded and that no damage occurs to surrounding areas. | C |
| 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. | C |
| | | |
| | <p>LANDSCAPE AND VISUAL IMPACT</p> | |
| 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: | |
| | <ul style="list-style-type: none"> 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. | C |
| | <ul style="list-style-type: none"> 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 |
| <ul style="list-style-type: none"> 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. | Mitigation Measures | Implementation Status |
|------------------|--|--------------------------|
| | <ul style="list-style-type: none"> 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:

- C - Compliance with mitigation measure
- NC - Non-compliance with mitigation measure
- N/A - Not Applicable

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

Table I.5 Construction Phase Mitigation Measures and their Implementation

| EM&A Log Ref. | Mitigation Measures | Implementation Status |
|--------------------------|---|------------------------------|
| | AIR QUALITY | |
| J1 | To mitigate potential construction related dust impacts, the dust control measures stipulated under the Air Pollution Control (Construction Dust) Regulation shall be complied with, such as: | |
| | <ul style="list-style-type: none"> all debris or materials shall be either covered or stored in a debris sheltered collection area; prior to any material handling, all dusty material shall be sprayed with water. | N/A |
| | | N/A |
| | WATER QUALITY | |
| K1 | No mitigation measures are considered necessary. | N/A |
| | NOISE | |
| L1 | N4-N5 Cable Route Selection and use of quiet PMEs, or use of modest source noise controls with standard PMEs | N/A |
| L2 | N5 Landing Point Selection and use of quiet PMEs (particularly the barge-mounted crane), or use of comparably effective source noise controls with the PMEs; | N/A |
| L3 | For non-percussive piling – use of equipment with a SWL of 113 dB(A) or less if there is no programme overlap of the piling with the site formation works, otherwise offsetting source noise controls shall be required. | N/A |
| L4 | For percussive piling – use of equipment with a SWL of 115 dB(A) or less, otherwise, offsetting source noise controls shall be required. | N/A |
| L5 | If non-percussive piling and site formation activities are to be carried out simultaneously then careful equipment selection and source controls shall be required for both activities to reduce each by approximately 3 dB(A). | N/A |
| | MARINE ECOLOGY | |
| M1 | Construction of rubble mound seawalls for the landing and launching points at Lamma Island. | N/A |
| | FISHERIES | |
| N1 | No fisheries-specific mitigation measures are required during the construction phase | N/A |

| EM&A Log Ref. | Mitigation Measures | Implementation Status |
|--|--|-----------------------|
| | <p>TERRESTRIAL ECOLOGY</p> <p>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:</p> | |
| 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 |
| O3 | 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 | |
| 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: | |
| | <ul style="list-style-type: none"> 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 |
| | <ul style="list-style-type: none"> 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 |
| <ul style="list-style-type: none"> 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. | Mitigation Measures | Implementation Status |
|------------------|--|--------------------------|
| | <ul style="list-style-type: none"> 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:

- C - Compliance with mitigation measure
- NC - Non-compliance with mitigation measure
- N/A - Not Applicable

Appendix J

Tentative Construction Programme

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

3 MONTH PROGRAMME (FEBRUARY 2006 TO APRIL 2006)

| ID | Task Name | Start | Finish | February | | | | | March | | | | April | | | |
|----|--|------------|-------------|----------|-----|------|------|------|-------|------|------|------|-------|------|------|------|
| | | | | 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 | | | | | | | | | | | | | |
| 4 | Instrument Panel & Piping Installation | Wed 1/2/06 | Sun 30/4/06 | | | | | | | | | | | | | |
| 5 | Cable Tray & Earthing Installation | Wed 1/2/06 | Sun 30/4/06 | | | | | | | | | | | | | |
| 6 | Conduit Installation | Wed 1/2/06 | Sun 30/4/06 | | | | | | | | | | | | | |
| 7 | Cable Laying | Wed 1/2/06 | Sun 30/4/06 | | | | | | | | | | | | | |
| 8 | Cable Termination | Wed 1/2/06 | Sun 30/4/06 | | | | | | | | | | | | | |

| ID | Task Name | Start | Finish | February | | | | March | | | | April | | | | May |
|----|------------------------------|-------------------|--------------------|----------|-----|------|------|-------|-----|------|------|-------|-----|-----|------|------|
| | | | | 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 |
| 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 | | | | | | | | | | | | | |

| | | | | | | |
|---|----------|--|-----------------|--|--------------------|--|
| Lamma Power Station Extension Supply and Installation of Submarine Gas Pipeline 3-Month Programme | Task | | Milestone | | External Tasks | |
| | Split | | Summary | | External Milestone | |
| | Progress | | Project Summary | | Deadline | |

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

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

| | | | | | |
|----------|---|-----------------|---|--------------------|---|
| Task |  | Milestone |  | External Tasks |  |
| Split |  | Summary |  | External Milestone |  |
| Progress |  | Project Summary |  | Deadline |  |

CONSTRUCTION SCHEDULE (FORECAST FOR 3 MONTHS)

| Item | Date | February, 2006 | | | | | | | | | | | | | | | | | | | | | | | | | | | | March, 2006 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | April, 2006 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------|--|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|-------------|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | | | | | | | | | | | | | | |
| 1 | Dredging/Excavation of Submarine Cable Trench outside N2 Landing Point | █ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | Dredging/Excavation of Submarine Cable Trench outside N4 Landing Point | █ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Dredging/Excavation of Submarine Cable Trench outside N5 Landing Point <i>(Completed)</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Dredging/Excavation of Submarine Cable Trench outside I1 Landing Point <i>(Completed)</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Removing Seabed Obstructions and subsequently backfilling between N2 & N4 Landing Points <i>(Completed)</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | Sweeping on the seabed between N5 & I1 Landing Points <i>(Completed)</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | Sweeping on the seabed between N2 & N4 Landing Points | █ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Preparation & Installation of Submarine Cables between N5 & I1 <i>(Completed)</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | Preparation & Installation of Submarine Cables between N2 & N4 | █ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | Backfilling & Cable Protection outside N2 Landing Point | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | █ | | | | | | | | | | | | | | | | | |
| 11 | Backfilling & Cable Protection outside N4 Landing Point | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | █ | | | | | | | | | | | | | | | | | |
| 12 | Backfilling & Cable Protection outside N5 Landing Point | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | █ | | | | | | | | | | | | | | | | | |
| 13 | Backfilling & Cable Protection outside I1 Landing Point | █ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <Note> | | 1. Schedule will be modified due to the progress of works and weather conditions. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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 | | | | | |
| | Doc. No.: LTLD-32-1-138-G | | | | REVISION 1 | STATUS B |



TABULATION OF REVISED PAGES

| PAGE | REVISIONS | | | | | | | PAGE | REVISIONS | | | | | | | | |
|------|-----------|---|---|---|---|---|---|-----------------------------|-----------|---|---|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | | 7 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1 | x | x | | | | | | 51 | | | | | | | | | |
| 2 | x | x | | | | | | 52 | | | | | | | | | |
| 3 | x | x | | | | | | 53 | | | | | | | | | |
| 4 | x | x | | | | | | 54 | | | | | | | | | |
| 5 | x | x | | | | | | 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 | | | | | | | | ATTACHMENTS/APPENDIX | | | | | | | | | |
| 35 | | | | | | | | A | x | x | | | | | | | |
| 36 | | | | | | | | B | x | x | | | | | | | |
| 37 | | | | | | | | | | | | | | | | | |
| 38 | | | | | | | | | | | | | | | | | |
| 39 | | | | | | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | | | | | |
| 41 | | | | | | | | | | | | | | | | | |
| 42 | | | | | | | | | | | | | | | | | |
| 43 | | | | | | | | | | | | | | | | | |
| 44 | | | | | | | | | | | | | | | | | |
| 45 | | | | | | | | | | | | | | | | | |
| 46 | | | | | | | | | | | | | | | | | |
| 47 | | | | | | | | | | | | | | | | | |
| 48 | | | | | | | | | | | | | | | | | |
| 49 | | | | | | | | | | | | | | | | | |
| 50 | | | | | | | | | | | | | | | | | |



HONGKONG ELECTRIC CO., LTD.



Saipem

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

Page ii

Saipem Asia Sdn. Bhd

**Lamma Power Station Extension
– Supply and Installation
of 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

TABLE OF CONTENTS

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

LIST OF TABLES

Table 1.1 Key Project Contacts

LIST OF FIGURES

Figure 1.1 Layout of the Submarine Gas Pipeline

LIST OF APPENDICES

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

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

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.

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 Guangdong Liquefied Natural Gas (GD LNG) Terminal located at Cheng Tou Jiao of Shenzhen 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 Guangdong 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

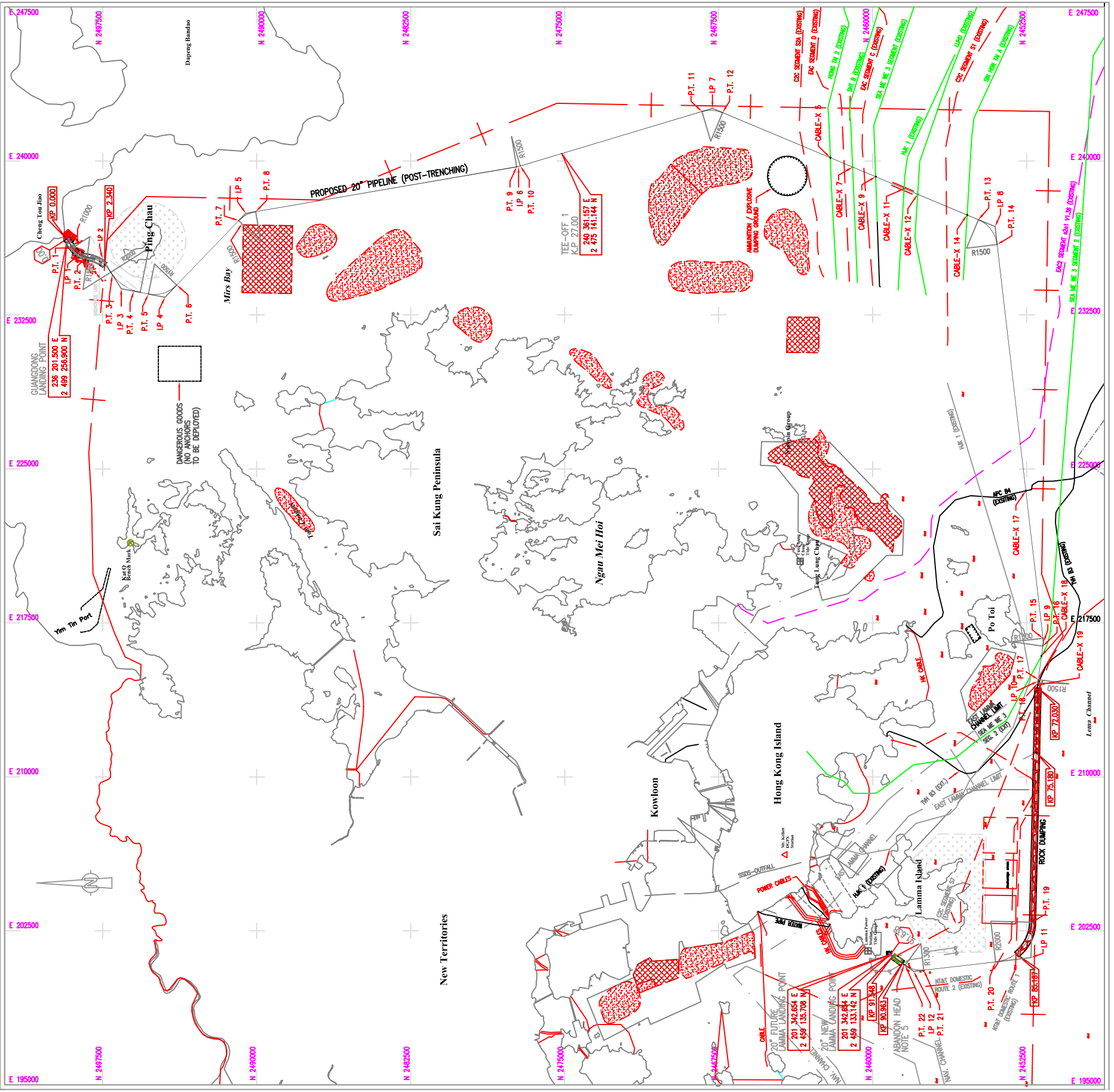
- 4.1 Anchor protection/rock dumping and pipeline discharge works are the major activities in the coming months. The hydrotest medium is tentatively planned to be discharged in Mainland China waters in April 2006 and a discharge license is being applied from the PRC Authorities. Ad hoc site inspection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

5 CONCLUSIONS AND RECOMMENDATIONS

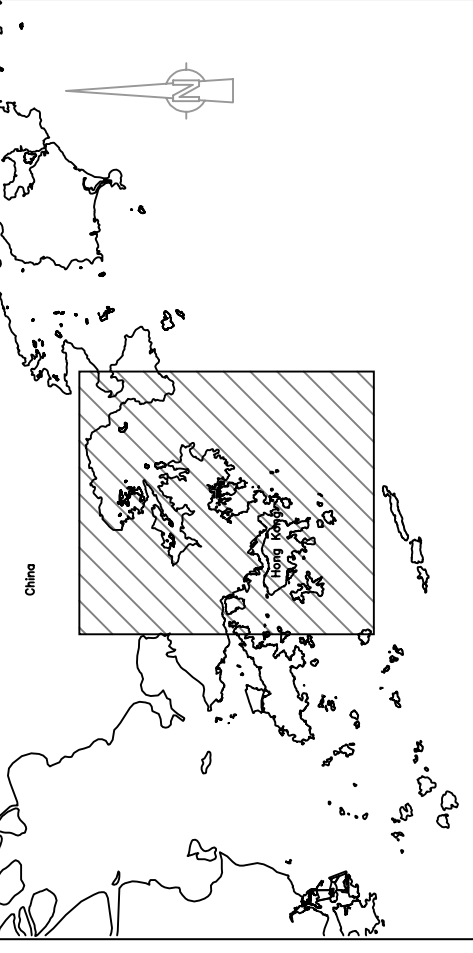
Conclusions

- 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



LOCATION MAP



LEGEND - BATHYMETRY & SEABED FEATURES

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

GEODETTIC PARAMETERS

DATUM : WGS 84
 SPHEROID : WGS 84
 PROJECTION : UNIVERSAL TRANSVERSE MERCATOR ZONE 50

GENERAL NOTES

1. ALL DIMENSIONS AND COORDINATE ARE IN METER UNLESS OTHERWISE NOTED
2. POINT OF TANGENCY (P.T.), INTERSECTION POINT (I.P.) AND CABLES -X COORDINATES ARE PRESENTED ON PIPELINE ALIGNMENT SHEET FROM K.P. 0.00 TO K.P. 91.638
3. K.P. 0.00 IS FROM GUANGDONG TERMINAL
4. PIPELINE TRENCHING IS FROM (K.P. 0.00 TO K.P. 91.596)
5. ABANDON HEAD FOR FUTURE 20" CONNECTION
6. THE ROUTE HAS BEEN CHANGED SLIGHTLY TO AVOID ITEMS No. 2, 3 AND 4, WITH THE NEW ROUTE STILL WITHIN THE SURVEYED CORRIDOR.

ROCK DUMPING

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

DUMPED MATERIALS (NOTE 6)

| ITEM | LOCATION | TOTAL LENGTH (m) | | SEABED TYPE | BURIAL METHOD |
|------|-------------------|------------------------------|-------------------------------|-------------------------------|---------------|
| | | SEABED WITH DUMPED MATERIALS | SEABED WITH HIGH REFLECTIVITY | | |
| 1 | KP 0.5 - KP 1.5 | 475.53 | | SEABED WITH DUMPED MATERIALS | PRE-TRENCH |
| 2 | KP 4 - KP 4.5 | 15.52 | | SEABED WITH DUMPED MATERIALS | POST-TRENCH |
| 3 | KP 70 - KP 70.5 | 188.78 | | SEABED WITH HIGH REFLECTIVITY | POST-TRENCH |
| 4 | KP 89.5 - KP 90.5 | 60.5 | | SEABED WITH DUMPED MATERIALS | POST-TRENCH |

LAMMA POWER STATION EXTENSION

LAYOUT OF THE SUBMARINE GAS PIPELINE

Scale
 1 : 220 000 A3

Date
 2005

Project No.
 MA4017

Figure No.
 1.1



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

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

| EP-071/2000/C | EM&A Log Ref. | Mitigation Measures | Implementation Status |
|---------------|---------------|--|-----------------------|
| | | AIR QUALITY | |
| | Q1 | For the fuel gas supply system, equipment shall be chosen and measures taken, so as to prevent CH ₄ leakage from the system. In accordance with this recommendation, HEC shall be implementing the following: <ul style="list-style-type: none"> corrosion-preventing coatings on the pipeline; welded pipe joints; and laying of pipeline below sea bed such that it is well protected from potential damages by marine activities. | C C C |
| | Q2 | HEC shall submit to EPD for review, a report of the above actions. | C |
| | | 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: <ul style="list-style-type: none"> a single small grab dredger with a maximum daily rate of working of 2,400m³ maximum forward speed of the jetting machine shall be 7 m per minute | NA 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: <ul style="list-style-type: none"> reducing the speed of the water jetting machine; and temporary suspension of the works. | NA 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. | C |
| | | 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. | C |
| | T2 | HEC shall review their existing safety management system against current best practice. | C |

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 |