CHINA STATE CONSTRUCTION ENGRG. (H.K.) LTD.

Contract No. HY/99/19 – Middle Section Castle Peak Road Improvement between Ting Kau and Sham Tseng, Tsuen Wan

> Monthly EM&A Report No. 20 (for the month February 2004)

> > March 2004

Approved By

(Project Director)

REMARKS:

The information contained in this report is, to the best of our knowledge, correct at the time of printing. The interpretation and recommendations in the report are based on our experience, using reasonable professional skill and judgment, and based upon the information that was available to us. These interpretations and recommendations are not necessarily relevant to any aspect outside the restricted requirements of our brief. This report has been prepared for the sole and specific use of our client and MEMCL accepts no responsibility for its use by others.

This report is copyright and may not be reproduced in whole or in part without prior written permission.

MAUNSELL ENVIRONMENTAL MANAGEMENT CONSULTANTS LTD

Room 1213-1219, Grand Central Plaza, Tower 2 138 Shatin Rural Committee Road, Shatin, NT, Hong Kong Tel: (852) 2893 1551 Fax: (852) 2891 0305 Email: mem@maunsell.com.hk Maunse

TABLE OF CONTENTS

EXECUTIVE SUMMARY

1. INTRODUCTION

BACKGROUND

SCOPE OF REPORT

PROJECT ORGANIZATION

SUMMARY OF CONSTRUCTION WORKS

SUMMARY OF EM&A REQUIREMENTS

2. AIR QUALITY

MONITORING REQUIREMENTS

MONITORING EQUIPMENT

MONITORING PARAMETER, FREQUENCY AND SCHEDULE

MONITORING LOCATIONS

MONITORING METHODOLOGY

CALIBRATION DETAILS

RESULTS AND OBSERVATIONS

3. NOISE MONITORING

MONITORING REQUIREMENTS

MONITORING EQUIPMENT

MONITORING PARAMETER, FREQUENCY AND SCHEDULE

MONITORING LOCATIONS

MONITORING PROCEDURES

RESULTS AND OBSERVATIONS

4. WATER QUALITY

MONITORING REQUIREMENT

MONITORING EQUIPMENT

MONITORING PARAMETERS, FREQUENCY AND SCHEDULE

MONITORING LOCATIONS

MONITORING METHODOLOGY AND CALIBRATION DETAILS

RESULTS AND OBSERVATIONS

ASSESSMENT OF ENVIRONMENTAL MONITORING RESULTS

5. LANDSCAPE AND VISUAL

AUDIT REQUIREMENT

AUDIT RESULTS

6. ENVIRONMENTAL SITE INSPECTION

SITE INSPECTIONS

REVIEW OF ENVIRONMENTAL MONITORING PROCEDURES

ASSESSMENT OF ENVIRONMENTAL MONITORING RESULTS

ADVICE ON THE SOLID AND LIQUID WASTE MANAGEMENT STATUS

ENVIRONMENTAL LICENCES AND PERMITS

IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES

SUMMARY OF EXCEEDANCES OF THE ENVIRONMENTAL QUALITY PERFORMANCE LIMIT28

SUMMARY OF COMPLAINTS, NOTIFICATIONS OF SUMMONS AND SUCCESSFUL

PROSECUTIONS

7. FUTURE KEY ISSUES

CONSTRUCTION PROGRAMME FOR THE COMING MONTHS

KEY ISSUES FOR COMING MONTH

MONITORING SCHEDULE FOR THE COMING MONTHS

8. CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

RECOMMENDATIONS

LIST OF TABLES

Table 1.1	Contact Information of Key Personnel
Table 1.2	Construction Activities and the Corresponding Environmental Mitigation
	Measures
Table 2.1	Air Quality Monitoring Equipment
Table 2.2	Frequency of Air Quality Monitoring
Table 2.3	Air Quality Monitoring Stations
Table 2.4	Summary of 1-hour TSP Impact Monitoring Results
Table 2.5	Summary of 24-hour TSP Impact Monitoring Results
Table 3.1	Noise Monitoring Equipment
Table 3.2	Frequency and Parameters of Noise Monitoring
Table 3.3	Location of the Noise Monitoring Stations
Table 3.4	Summary of Impact Noise Levels during 07:00 – 19:00
Table 3.5	Summary of Impact Noise Levels during Restricted hours (09:00-19:00 on
	general holiday including Sundays & 19:00-21:00 on any day not being a
	general holiday)
Table 4.1	Water Quality Monitoring Equipment
Table 4.2	Water Quality Monitoring Parameters and Frequency
Table 4.3	Limits of Detection for the In-situ and Laboratory Measurements
Table 4.4	Marine Water Quality Monitoring Stations
Table 4.5	Summary of Total Number of Exceedances in the Reporting Month
Table 4.6	Total Number of Water Quality Exceedances in the Reporting Month and
	Previous Month

Corrective Actions and Outstanding Issues Table 6.1 Summary of Environmental Licensing and Permit Status

- Table 6.2 Corrective Actions by Contractor on Audit Findings
- Table 6.3 Summary of Environmental Complaints and Prosecutions

LIST OF FIGURES

Figure 1.1	Project Site Locations
Figure 2.1	Air Quality and Noise Environmental Monitoring Stations (1 of 3)
Figure 2.2	Air Quality and Noise Environmental Monitoring Stations (2 of 3)
Figure 2.3	Air Quality and Noise Environmental Monitoring Stations (3 of 3)
Figure 4.1a-b	Water Quality Monitoring Stations
Figure 6.1	Complaint Response Procedures

Table 5.1 Summary of Landscape and Visual Observations, Recommendations,

APPENDIX

Appendix A	Project Organization Chart
Appendix B	Action and Limit Levels for Air Quality, Noise and Water Quality
Appendix C	Monitoring Schedule for February 2004
Appendix D	Calibration Certificates
Appendix E	Air Quality Monitoring Results and Graphical Presentation
Appendix F	Noise Monitoring Results and Graphical Presentation
Appendix G	Site Audit Summary
Appendix H	Implementation Schedule of Mitigation Measures
Appendix I	Interim Notification of Environmental Quality Limits Exceedance
Appendix J	Event Action Plan
Appendix K	Construction Programme
Appendix L	Tentative Schedules for March to May 2004
Appendix M	Weather Data
Appendix N	Marine Water Quality Monitoring Results and Graphical Presentation
Appendix O	QC Results