Kowloon-Canton Railway Corporation

# KCRC East Rail Extensions Sheung Shui to Lok Ma Chau

Monthly EM&A Report – February 2003

> March 2003 Report no: EA00761/R80/1



# KCRC East Rail Extensions Sheung Shui to Lok Ma Chau

Monthly EM&A Report – February 2003

Author: Claudine Lee

Checker: Jacquelyn Anderson

Approver: Jacquelyn Anderson

Report no: EA00761/R80/1

Date: March 2003

This report has been prepared for Kowloon-Canton Railway Corporation in accordance with the terms and conditions of appointment for KCRC East Rail Extensions Sheung Shui to Lok Ma Chau Spur Line dated March 2001. Hyder Consulting Limited (COI number 126012) cannot accept any responsibility for any use of or reliance on the contents of this report by any third party.





## Contents

Executive Summary1			
1	Introduction		4
2			4
	2.1	Contract LCC206	4
	2.2	Contract LDB201	4
	2.3	Contract LCC300	5
3	Public Consultation5		

#### Appendix 1

LCC206 TBM Launching Shaft Diaphragm Walls Monthly EM&A Report

#### Appendix 2

LDB201 Sheung Shui to Chau Tau Tunnels Monthly EM&A Report

#### Appendix 3

LCC300 Lok Ma Chau Station and Associated Works

#### EXECUTIVE SUMMARY

#### INTRODUCTION

This Report (in HTML format) is the eighth Monthly EM&A Report for the Sheung Shui to Lok Ma Chau Spur Line and includes the Monthly EM&A Reports for construction contracts LCC206, LDB201 and LCC300. This Report and all monitoring data collected under the EM&A Programme are available on the KCRC East Rail Extensions Environmental Monitoring and Audit Website at www.env-ere.kcrc.com.

#### LCC206 TBM Launching Shaft Diaphragm Wall

The EM&A programme for LCC206 commenced on 23 July 2002. 24-hr TSP monitoring was conducted once every six days and three sets of 1-hr TSP monitoring were conducted once every six days at AM1 Village House in Tsung Pak Long. There was an exceedance of the Limit Level recorded on 21 February for 1-hour TSP. The Contractor explained that this was due to the fugitive dust emission from adjacent construction site.

Noise monitoring was conducted once every six days during non-restricted hours at NM3 Village House in Tsung Pak Long. There was no exceedance recorded. No night-time noise measurement has been reported in this reporting month.

Water quality monitoring was conducted at one upstream control station URS and one downstream monitoring location RS1 in the River Sutlej. Full compliance for pH, oil & grease, dissolved oxygen and turbidity were reported during January. However an exceedance of the limit level of suspended solids on 10 February was recorded during the reporting month. CET explained that the exceedance was subject to surface run-off from River Sutlej (especially from the north-east branch) and nearby outfalls which carried silty matters from land to river. The construction activities were not considered to cause any significant impact on the river.

No complaints or notification of summons were received during the reporting month.

Weekly site inspections were carried out by the CET and an IEC monthly site audit was conducted on 19 February. No observation or non-compliance has been raised in the reporting month.

As the construction works for this Contract were completed on 28 February already, no EM&A works will be conducted in the next month. This report will be the last monthly EM&A report for this Contract.

#### LDB201 Shueng Shui to Chau Tau Tunnels

The construction works for LDB201 commenced in late November. This report presents the EM&A findings in the period from 26 January to 25 February 2003. As most of the site area of LCC206 has been handed over to LDB201 for site preparation works, the major works area for LDB201 was on the same site as the LCC206 Contract.

Currently monitoring is still being undertaken by LCC206 however it is anticipated that LDB201 will take over existing locations AM1, NM3, URS and SR1 in next reporting month.

TSP monitoring was conducted once every six days and three sets of 1-hr TSP monitoring were conducted once every six days at AM1 Village House in Tsung Pak



Long. There was an exceedance of the Limit Level recorded on 21 February for 1-hour TSP. The Contractor explained that this was due to the fugitive dust emission from truck travelling along the access road (ramp section) and the excavation works without watering in the vicinity of River Sutlej.

Noise monitoring was conducted once every six days during non-restricted hours at NM3 Village House in Tsung Pak Long. There was no exceedance recorded in the reporting month. Construction works were conducted during the restricted hours along San Wan Road.

Water quality monitoring was conducted at one upstream control station URS and one downstream monitoring location RS1 in the River Sutlej. Full compliance for all parameters were recorded during the reporting month except there was an exceedance of suspended solids recorded on 10 February. The Contractor explained that this is likely due to natural variation. In spite of this, additional protection measures have been provided including the construction of concrete kerb along the channel edge of the East Portion of the DSD channel, extending the sheet pile head for 200mm above the ground and the construction of a trench along the channel edge. At the West Portion, the gaps on the steel bridge were sealed and sandbags were provided along the edge to avoid falling off of materials into the channel.

No complaints or notification of summons were received during the reporting month.

Weekly site inspections were carried out by the CET and an IEC monthly site audit was conducted on 19 February. These resulted in the improvements including the more frequent water spraying on the access road near DSD channel of River Sutlej, ensuring no debris deposited on the roads and the provision of sandbags along the edge of sheet piling wall along DSD channel. The implementation and effectiveness of the corrective actions will be assessed during the next site audit.

#### LCC300 Lok Ma Chau Station and Associated Works

The EM&A programme for LCC300 commenced in mid-December. This report summarises the EM&A works conducted during the period from 15 December to 25 December. During the reporting month no major construction works were conducted. The preparation works carried out on site include the erection of hoarding and site offices, site investigation, and the preparation of site installations and pipe-jacking for the drainage outfall.

One set of 24-hr TSP and two sets of 1-hr TSP monitoring were conducted at AM4, Ha Wan Tsuen Village Playground. One exceedance of the Action Level for 24-hr was recorded during the monitoring period. However there were no construction works conducted for LCC300. The constructor explained the exceedance is likely due to the adjacent construction works and other influences.

Noise monitoring was conducted once every six days during non-restricted hours at three monitoring locations: NM13, Rear of house of Lok Ma Chau Closed Area Police Checkpoint, NM14, Rear of shop at Lok Ma Chau Closed Area Police Checkpoint and NM15, Ha Wan Tsuen Village. No noise level exceedance was recorded during monitoring period. There is no report of noise monitoring undertaken during restricted hours.

Water quality monitoring was conducted at one upstream station USTR, one downstream monitoring location STR1 at San Tin River, and three selected fishponds,



namely, FP1, FP2 and FP3. There were a number of exceedances recorded on dissolved oxygen, turbidity and pH during the reporting month. The Contractor explained that the exceedances were not related to Contract LCC300 as there was no construction works conducted in the vicinity of the monitoring locations and it is likely that the exceedances are due to outside influences.

One complaint was received from the Police regarding the mud and dirty wheel washings being carried on the border road. No notification of summons was received during the reporting month.

ET Leader and the Engineer have conducted regular site inspections and the IEC has conducted a monthly site audit on 19 February during the reporting month. These resulted in the improvements including the more frequent cleaning of the border road and the corrective action in process in response to the dark smoke emission from the land drain machine. The implementation and effectiveness of the corrective actions will be assessed during the next site audit.



## 1 Introduction

Hyder has been commissioned by KCRC as the IEC for the East Rail Extensions, which include the Ma On Shan to Tai Wai Rail, the Hung Hom to Tsim Sha Tsui Extension and the Lok Ma Chau Spur Line. A requirement of the Contract is for the IEC to prepare a combined EM&A Report on a monthly basis for each of the above rail lines. The combined report combines the Monthly EM&A Reports for each of the construction contracts within each rail line. This Report (in HTML format) is the eighth IEC Monthly EM&A Report for the Sheung Shui to Lok Ma Chau Spur Line and includes the Monthly EM&A Reports for construction contracts LCC206, LDB201 and LCC300 and a summary of the reports. It also includes a brief summary of the IEC Site Audits and information supplied by KCRC on Public Consultation activities.

# 2 IEC monthly site audits

IEC monthly site audit was conducted on 19 February. Non-compliances and observations issued by the IEC are based on the requirements of KCRC's Environmental Management System.

## 2.1 Contract LCC206

Site audit was undertaken by the IEC on 19 February. The major construction activities had already been completed. No observation or non-compliance has been raised.

## 2.2 Contract LDB201

The IEC site audit for LDB201 was also undertaken on the same day. The major construction activities include the ground substitution, reinforcement fixing and concreting for gantry beam of lunching shaft at Sheung Shui Launching Shaft Area, site installation works including the erection of hoarding, noise barrier and fence gate at East EAP Area and site preparation and formation works at Kwu Tung Enabling Works Area. Two observations have been raised during the site audit:

#### Sheung Shui Launching Shaft area

1. The waste disposal records for general refuse could not be provided during the site audit.

#### Kwu Tung Enabling Works Area

2. Some trucks left the site without using the temporary wheel washing facilities at the site exit of the access road which was shared with the nearby private occupiers.



As a result of the observation raised by the IEC, the Contractor will keep the records on site. As the access road at Kwu Tung site was shared with the nearby occupiers, the Contractor may not be able to control the others to use the wheel washing facilities before leaving the access road. The Contractor proposed to provide a separate access road to the nearby occupiers to improve the site management. The implementation and effectiveness of the measures will be assessed and verified during the next site audit.

## 2.3 Contract LCC300

The IEC site audit was conducted on the same day. The major construction works include the erection of site offices, hoarding, surveying, site investigations, jetty mini-piling works, sheet pilings, excavation and pipe ramming works for the western drainage channel to Shenzhen River. Five observations have been raised during the site audit:

- 1. A blue hose was broken and water was leaking out. The Contractor should protect the water hoses to avoid the leakage of water. The surface runoff should be controlled and collected.
- 2. Most of the generators were not provided with drip trays.
- 3. Stockpiles were not entirely covered.
- 4. The public road outside the wheel washing area was muddy although temporary wheel washing facilities were in place.
- 5. Waste disposal record for general refuse was not available for inspection during the site audit.

The Contractor shall implement mitigation measures to improve the situation. The implementation and effectiveness of the measures will be assessed and verified during the next site audit.

## 3 Public Consultation

No information on Public Consultation was provided by KCRC in December.