

Kowloon-Canton Railway Corporation

KCRC East Rail Extensions Sheung Shui to Lok Ma Chau

Monthly EM&A Report –
May 2003

June 2003

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EXECUTIVE SUMMARY

INTRODUCTION

This Report (in HTML format) is the eleventh Monthly EM&A Report for the Sheung Shui to Lok Ma Chau Spur Line and includes the Monthly EM&A Reports for construction contracts LDB201, LCC202 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.

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 April to 25 May 2003. The main construction activities undertaken in the reporting month include:

- East Approach Area – San Wan Road & East Rail Area: Sheet pile installation for water main, excavation and drainage diversion, retaining wall construction for interim stage and wastewater treatment plant set up;
- Sheung Shui Launching Shaft Area: Shaft excavation, struts installation, reinforcement fixing, concreting for gantry beam of launching shaft, base slab construction and conveyor;
- TBM Works area: Works area installation, spoil basin excavation and concreting, building workshop and TBM Main Drive Refurbishment;
- East EAP Area: site formation works;
- Cross Passages areas: site installation;
- Kwu Tung Enabling Works Area: Site clearance and formation works, hoarding erection, erection of noise barriers along site boundary, drainage channel diversion, access road paving, slurry wall construction, guide wall and D-wall construction, village access construction, tree felling and transplanting, site formation and cut slop for west box; and
- West Approach Area: Site clearance and site installation.

LDB201 has undertaken the routine monitoring works at these monitoring locations: AM1 and AM2 for air quality, NM1, NM2, NM3, NM4, NM5, NM6, NM7, NM8 and NM9 for noise, and URS, SR1, URB and RB1 for water quality, in this 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 the two monitoring locations. No exceedance was recorded at the monitoring locations in this reporting month.

Noise monitoring of $L_{eq(30min)}$ was conducted once every six days during non-restricted hours at the identified monitoring locations. There was no exceedance recorded in the reporting month. No construction works were conducted during restricted hours.

Water quality monitoring was conducted at the identified water quality monitoring locations. Exceedances of dissolved oxygen, total suspended solids and pH value were recorded during the reporting month. Contractor explained that the exceedances were not related to their site works as they did not have construction works conducted near the streams. The potential cause of the exceedances would be the natural variation.

No notification of summons, warning or complaint was received during the reporting month except that a yellow notice was received from EPD on 20 May 2003 regarding the works on the identified potentially contaminated sites before the approval of the Remediation Action Plan (RAP). Contractor clarified that the sites are proved uncontaminated in accordance with the Contamination Assessment Report (CAR) approved on 21 May 2003.

Weekly site inspections were carried out by the CET and an IEC monthly site audit was conducted on 20 May 2003. The Contractor has proposed mitigation measures to rectify the environmental deficiencies in response to the non-compliance and the observations raised by the IEC during the monthly site audit. The proposed mitigation measures include ensuring the entire covering of the excavated soil and stockpiles, the provision of wheel washing facilities at the site exit, purchasing of new drip trays, reminding the site agent to clean up the rubbish and the temporary suspension of the use of the site exit at Kwu Tung Enabling Works Area for maintenance. The implementation and effectiveness of the corrective actions will be assessed during the next site audit.

LCC202 West Section Alignment and Associated Works

The commencement date for LCC202 started on 26 March 2003. This report presents the EM&A works during the period from 26 April to 25 May 2003. Within this reporting month, the major construction works include the site formation at the site office area, P3, W24-37, W40-W49, W38-W39, W50-W54 and W58-W60. No construction works conducted during restricted hours.

LCC202 has undertaken the routine monitoring works at these monitoring locations: AM4 for air quality, NM15 for noise, and FP1, FP2, FP3, USRT and STR1 for water quality, in this 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 the monitoring location. No exceedance was recorded at the monitoring locations in this reporting month.

Noise monitoring of $L_{eq(30min)}$ was conducted once every six days during non-restricted hours at the identified monitoring location. There was no exceedance recorded in the reporting month.

Water monitoring was undertaken at one upstream station USTR, one downstream monitoring location STR1 at San Tin River, and three selected fishponds, namely, FP1, FP2 and FP3. The DO measurements complied with the Action/Limit Levels at all monitoring stations. There were a total of 17 Action Level exceedances in pH value in which 16 exceedances were recorded at the fishponds, 1 Limit Level exceedance and 2 Limit Level exceedances in turbidity at STR1 and USTR respectively, and 1 Limit Level exceedance in suspended solids at USTR. The contractor explained that the exceedances are unlikely related to their construction works.

No notification of summons was received during the reporting month. Two complaints were received regarding the soil deposited on the Border Road observed on 20 May 2003 and the discharge of sediment-loaded water next to W37 into the adjacent wetland site on 21 May 2003. The Contractor would discuss with other contractors in the vicinity on the cleaning arrangement of the public area, has stopped the discharge immediately and cleaned up the storm drain to rectify the situation.

The ET Leader has carried out weekly site inspections and an IEC monthly site audit has been conducted on 22 May 2003. In response to the non-compliance and the observations raised by the ET Leader and the IEC, the Contractor has proposed mitigation measures including the settling of wastewater in the sedimentation tank before discharge, clearing of silt in the sedimentation tank, the provision of drip trays to oil drums, moistening the dusty ground using water browser or manual spray, watering the dusty materials before loading/unloading, cleaning up the ground with oil stain, segregation of different types of wastes, the provision of rubbish bins, putting cement bags in enclosed area, cleaning up of muddy wheel washing area, more frequent removal of sediment from the sump pit for wastewater from wheel washing, fencing off the trees from construction equipment, removal of oil contained in drip tray, and the removal of burnt newspaper. 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 26 March to 25 April. During the reporting month the principal work activities include sand filling, operation and maintenance of visual monitoring system, surveying, site investigations, operation of the western drainage outfall and bored piling operations.

LCC300 has undertaken the routine monitoring works at these monitoring locations: AM4 for air quality, NM13, NM14 and NM15 for noise, and FP3, USRT and STR1 for water quality, in this reporting month. Alternative water quality monitoring locations, namely BBL1, BBL2 and BBL3, were identified to isolate the impacts from the adjacent construction works. Water quality monitoring at BBL1 has already undertaken and the access to BBL2 and BBL3 is under negotiation.

TSP monitoring was conducted once every six days and three sets of 1-hr TSP monitoring were conducted once every six days at the monitoring location. No exceedance was recorded at the monitoring locations in this reporting month.

Noise monitoring of $L_{eq(30min)}$ was conducted once every six days during non-restricted hours at the identified monitoring locations. There was no exceedance recorded in the reporting month. 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 the selected fishponds, namely FP3 and BBL1. 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 due to seasonal fluctuations and other adjacent construction works.

No complaint or 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 20 May during the reporting month. In response to the two non-compliances raised by the IEC, these resulted in the improvements including securing the jetty, reducing the traffic speed and dampening the haul roads.

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 eleventh 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 LDB201, LCC202 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 audits were conducted on 20 May for LDB201 and LCC300, and on 22 May for LCC202. Non-compliances and observations issued by the IEC are based on the requirements of KCRC's Environmental Management System.

2.1 Contract LDB201

The IEC site audit for LDB201 was undertaken on 20 May. The main construction activities undertaken in the reporting month include:

- East Approach Area – San Wan Road & East Rail Area: Sheet pile installation for water main, excavation and drainage diversion, retaining wall construction for interim stage and wastewater treatment plant set up;
- Sheung Shui Launching Shaft Area: Shaft excavation, struts installation, reinforcement fixing, concreting for gantry beam of launching shaft, base slab construction and conveyor;
- TBM Works area: Works area installation, spoil basin excavation and concreting, building workshop and TBM Main Drive Refurbishment;
- East EAP Area: site formation works;
- Cross Passages areas: site installation;
- Kwu Tung Enabling Works Area: Site clearance and formation works, hoarding erection, erection of noise barriers along site boundary, drainage channel diversion, access road paving, slurry wall construction, guide wall and D-wall construction, village access

construction, tree felling and transplanting, site formation and cut slop for west box; and

- West Approach Area: Site clearance and site installation.

One non-compliance and seven observations have been raised during the site audit:

Non-compliance:

East Approach Area – San Wan Road

1. Untreated washing water was discharging into the storm drain at the roadside.

Observations:

East Approach Area – San Wan Road

2. Stockpiles in the storage yard were not entirely covered.
3. Dusty ground was observed in the storage yard.
4. Trucks with full load of soil were not covered with tarpaulin sheet.
5. Oil drums without the provision of drip trays were observed in the storage yard.
6. Rubbish was observed on site.
7. Soil deposited on road and mud trails outside the site exits where observed.

Kwu Tung Enabling Works Area

8. The wheel washing area near the site exit was muddy.

As a result of the observation raised by the IEC, the contractor proposed mitigation measures including ensuring the entire covering of the excavated soil and stockpiles, the provision of wheel washing facilities at the site exit, purchasing of new drip trays, reminding the site agent to clean up the rubbish and the temporary suspension of the use of the site exit at Kwu Tung Enabling Works Area for maintenance. The implementation and effectiveness of the corrective actions will be assessed during the next site audit.

2.2 Contract LCC202

The IEC site audit for LCC202 was undertaken on 22 May. The major construction works include the site formation at the site office area, P3, W24-37, W40-W49, W38-W39, W50-W54 and W58-W60. One non-compliance and thirteen observations have been raised during the site audit:

Non-compliance:

Area P3

1. Untreated silty water discharging outside the site / into the water stream was observed.

Observations:

Area P3, Piers 57-60 and Ha Wan Tsuen

2. Oil drums were not provided with drip trays.

Area P3

3. Dusty ground was observed.
4. Dust was generated during loading/unloading of vegetation materials.
5. Oil spillage on the ground was observed.
6. Empty oil containers were mixed with the pile of general refuse.
7. Rubbish was observed everywhere on the site.
8. Bags of cement were not covered or stored in enclosed area.
9. The sedimentation tank was full of silt.

Piers W57-60

10. The wheel washing area and the area right outside the site exit were muddy.
11. The sump pit for collection of wheel washing water was silty. Please ensure sufficient capacity is provided for the settlement of solids and the water quality is acceptable to be discharged.
12. The trees to be retained / transplanted were not fenced off properly from the construction equipment.

Ha Wan Tsuen

13. The oil contained in the drip tray should be cleared frequently.
14. Burnt newspaper was observed on site.

As a result of the observation raised by the IEC, the contractor proposed mitigation measures including the settling of wastewater in the sedimentation tank before discharge, clearing of silt in the sedimentation tank, the provision of drip trays to oil drums, moistening the dusty ground using water browser or manual spray, watering the dusty materials before loading/unloading, cleaning up the ground with oil stain, segregation of different types of wastes, the provision of rubbish bins, putting cement bags in enclosed area, cleaning up of muddy wheel washing area, more frequent removal of sediment from the sump pit for wastewater from wheel washing, fencing off the trees from construction equipment, removal of oil contained

in drip tray, and the removal of burnt newspaper. The implementation and effectiveness of the corrective actions will be assessed during the next site audit.

2.3 Contract LCC300

The IEC site audit was conducted on 20 May. The major construction works include sand filling, operation and maintenance of visual monitoring system, surveying, site investigations, operation of the western drainage outfall and bored piling operations. Two non-compliances and four observations have been raised during the site audit:

Non-compliances:

Shum Chun River - Jetty

1. Sand falling off from the conveyor belt and the walkway into the River was observed.

LMC Station site area

2. The bare ground was very dusty.

Observations:

Stockpiling area near the EVA

3. The stockpile was still not entirely covered.

LMC Station site area

4. There is still a potential that the soil on the bund is falling into the western drainage channel.
5. Muddy discharge into the retention pond from bore piling works was observed. Please make sure the capacity of the pond is large enough to handle the large amount of silty discharge. It is recommended that the water from bore piling is to be directed to a sedimentation tank for silt settling before discharge into the retention pond.
6. The site exit area near the wheel washing bay was silty.

In response to the two non-compliances raised by the IEC, the Contractor has proposed some improvement measures including securing the jetty, reducing the traffic speed and dampening the haul roads. The implementation and effectiveness of the measures will be assessed and verified during the next site audit.

3 Public Consultation

The 5th Meeting of the Sheung Shui to Lok Ma Chau Spur Line Political and Public Relations Task Group has been held on 20th May 2003.
