

Mass Transit Railway Corporation Limited

Contract 5032 - Mong Kok Station New Integrated Entrance C3

Environmental Monitoring and Audit Report

(August 2004)

## ***EXECUTIVE SUMMARY***

This is the 17<sup>th</sup> report prepared to document the environmental monitoring and audit works conducted for the modification works of Mong Kok Station under Contract 5032. Monitoring works for noise impact from the construction works were carried out during the period of August 2004. During this period, the major civil construction activities mainly included existing WSD pipe diversion, supporting to existing underground services, temporary road deck maintenance, underground obstruction removal, TTM Scheme implementation for traffic diversion & subway box construction.

With reference to the collected monitoring data and by field observation, environmental conditions of the construction site were in general satisfactory. There were no limit level exceedance recorded in regular construction noise monitoring at the agreed sensitive receivers. No complaint and prosecution were received during this reporting month. The Contractor continued to have regular review on their environmental mitigation measures provided on site. They provide reasonable effort to control the impacts generated from the construction activities to the nearby surrounding.

As the construction site is located in an urban area of Mong Kok, the noise and dust level are significantly affected by the busy traffic on Argyle Street and Portland Street and the works activities performed on the adjacent URA K2 Development site.

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## **1 INTRODUCTION**

### **1.1 Scope of the Report**

The Environmental Team headed by the ET leader Dr. Kam Chan is responsible to provide baseline and impact environmental monitoring services for the Project and advise ER to supervise Contractor's performance on site environmental matters in order to comply with the requirements of the Project Profile, EM&A Manual and Environmental Permit approved by the Environmental Protection Department of HKSAR.

This is the 17<sup>th</sup> impact monitoring report to cover the environmental monitoring works in the period of August 2004.

### **1.2 Structure of the Report**

The structure of the report is as follows:

- Section 1: Introduction – details the scope and structure of the report.
- Section 2: Project Information – summarizes the scope of the construction activities in this monitoring reporting period and the coming month.
- Section 3: Impact Noise Monitoring – summarizes the monitoring programme, locations and results.
- Section 4: Compliance checking which compares the impact monitoring results with the A/L Levels to determine whether the construction activities have any adverse impacts on the environment and gives comment in order to alleviate those impacts.
- Section 5: Actions taken in events of noise level exceedance.
- Section 6: Construction wastes disposal.
- Section 7: Record of complaints from public & EPD.
- Section 8: Status of permits and licences obtained.
- Section 9: Action items for site audits recorded.
- Section 10: Conclusion.

## **2 PROJECT INFORMATION**

### **2.1 Construction Programme**

The construction for modifications to the existing Mongkok Station are scheduled to commence in April 2003 and to be completed in early 2005. MTRCL is responsible for overall programming of the construction works. It is recommended that the programming is such that environmental impacts are reduced as far as possible. Site location plan is shown on Appendix A EMOKC3-001.

### **2.2 Construction Activities**

Major site activities carried out by the Contractor during this reporting period include the following:-

#### Stage 4 Construction

- TTM implementation for Stage 4 construction continued.
- Supporting to existing underground services continued.
- Underground WSD pipe diversion continued.
- Removal of underground abandoned structure continued.
- Construction of the subway structure including steelfixing, formwork and concrete continued.
- Site water pumping continued.
- Maintain and adjust the mitigation measures to suit the construction works activities.
- Loading and unloading construction materials to underground site.

Scheduled major site activities carried out by the Contractor in the next reporting period are as follows:-

#### Stage 4 Construction

- Continue TTM implementation for Stage 4 construction.
- Continue supporting to existing underground services.
- Continue removal of underground abandoned structures.
- Continue construction of the subway structure.
- Continue underground WSD pipe diversion.
- Continue site water pumping activities.
- Continue the mitigation measures to suit the construction works activities.
- Continue loading and unloading construction materials to underground site.

### 3 **IMPACT NOISE MONITORING**

#### 3.1 **Monitoring Parameters**

During this monitoring period, regular noise monitoring were made once a week at logging interval of 5 minutes in 30 minutes. 4 sets of 5 minutes average of Leq, L10 and L90 (in A-Weighting) were taken at N1MOKC3 and N2MOKC3 respectively.

#### 3.2 **Monitoring Locations**

##### Noise

Noise monitoring was undertaken at the following locations:

N1MOKC3 Residential Building at 43-49A Argyle Street (Argyle House)

N2MOKC3 Residential Building at 35-37A Argyle Street

Location of the above agreed monitoring stations are shown on Appendix A Figure EMOKC3-001.

#### 3.3 **Monitoring Time, Frequency, Duration and Weather**

##### Noise

Noise monitoring was performed once on normal weekdays i.e. Monday to Saturday (refer to Item 5.5.2 of the approved EM&A Manual March 2003). Below is the time schedule that the noise monitoring was performed in this monitoring period.

<b>Location</b>	<b>Date and Time of Monitoring</b>		<b>Climate</b>
N1MOKC3 (Argyle House)	2/8/04	4:15pm	Clear
	9/8/04	10:37am	Clear
	16/8/04	4:00pm	Clear
	23/8/04	10:00am	Clear
	30/8/04	4:37pm	Cloudy
N2MOKC3 (Residential Bldg 35-37A Argyle Street)	2/8/04	9:50am	Clear
	9/8/04	9:45am	Clear
	16/8/04	3:05pm	Clear
	23/8/04	10:50am	Clear
	30/8/04	9:50am	Cloudy

### 3.4 Monitoring Schedule for Next Month

Noise monitoring at N1MOKC3 and N2MOKC3 will be performed on 6, 13, 20 and 27 Sept. 2004.

### 3.5 Monitoring Results

#### Noise

A summary of the results (Leq30min) recorded during this monitoring period is shown in following table. Relevant details of the noise monitoring results and graphic plots are presented in Appendix B. Having compared the results with the limit levels, no exceedance were found.

Summary of Noise Monitoring Results measured in 30 minutes and dBA

Location	N1MOKC3 (Argyle House)						
	Date	Leq (30 min)	Leq corrected (30 min)	L10(30min)	L90(30min)	Allowable limit (30min)	Exceedance
	2/8/04	72.6	66.1	75.0	71.4	75	N
	9/8/04	71.6	****	74.7	69.6	75	N
	16/8/04	72.7	66.5	75.3	70.8	75	N
	23/8/04	71.9	62.8	74.0	69.5	75	N
	30/8/04	72.6	64.9	74.0	69.3	75	N
	N2MOKC3 (Residential Building at 35-37A Argyle Street)						
	2/8/04	75.8	****	77.0	72.0	75	N
	9/8/04	75.6	****	77.0	72.5	75	N
	16/8/04	75.6	59.2	77.8	72.3	75	N
	23/8/04	76.9	69.6	77.4	73.6	75	N
	30/8/04	76.6	67.7	78.0	72.5	75	N

Note:- \*\*\*\* measured noise level Leq(30min) less than or equal to background noise.

Leq(30min) corrected Measured noise level Leq(30min) with background correction.

Y Exceedance caused by Contractor's works activities.

N No exceedance caused by Contractor's works activities.

## 4 ASSESSMENT AND AUDIT RESULTS

With reference to the regular monitoring results obtained, there was no exceedance of limit level occurred in noise monitoring taken during this reporting period. Levels of the construction noise recorded at the agreed NSRs in this reporting period are lower than the allowable limit. By site observations, the major noise sources mainly came from the busy traffic on Argyle Street and Portland Street, the construction activities in URA K2 Development site and the Project construction activities. As most of main civil construction activities were carried out at underground, the construction noise generated from the site was rather low. The Contractor have provided reasonable monitoring and supervision to control the noise generated from the construction site. Also, the dust pollution on the site was under control.

**5 ACTION TAKEN IN EVENT OF CONSTRUCTION NOISE LEVEL EXCEEDANCE**

There was no noise level exceedance recorded at the agreed NSRs during this reporting period.

**6 CONSTRUCTION WASTE DISPOSAL**

Certain amount of excavated material and concrete debris were generated from the construction activities during this reporting period. The Contractor have set up implementation of the delivery trip ticket system for waste disposal.

	Amount of Construction Wastes Disposed		
	Inert Waste (to PPE) (m <sup>3</sup> )	Non-inert waste (to Landfill) (m <sup>3</sup> )	Chemical waste (trip)
April 2003	0	0	0
May 2003	78	0	0
June 2003	148	0	0
July 2003	46	0	0
August 2003	184	0	0
September 2003	152	0	0
October 2003	296	0	0
November 2003	274	7.0	0
December 2003	354	0	1
January 2004	205	0	0
February 2004	941	0	0
March 2004	430	0	1
April 2004	410	0	0
May 2004	738	5.5	1
June 2004	1838	0	0
July 2004	290	0	0
August 2004	0	0	0
Accumulated total since April 2003	6384	12.5	3



## 7 **RECORD OF COMPLAINTS FROM PUBLIC & EPD**

No environmental complaint was received during this monitoring period.

<b>Formal complaint</b>				
	<b>Air</b>	<b>Noise</b>	<b>Water</b>	<b>Others</b>
April 2003	0	0	0	0
May 2003	0	0	0	0
June 2003	0	0	0	0
July 2003	0	0	0	0
August 2003	0	0	0	0
September 2003	1	1	0	0
October 2003	0	0	0	0
November 2003	0	0	0	0
December 2003	0	0	0	0
January 2004	0	0	0	0
February 2004	0	1	0	0
March 2004	0	0	0	0
April 2004	0	0	0	0
May 2004	0	0	0	0
June 2004	0	0	0	0
July 2004	0	0	0	0
August 2004	0	0	0	0
Accumulated total since April 2003	1	2	0	0

## 8 **STATUS OF PERMITS AND LICENCES OBTAINED**

No new environmental related permits and licences were obtained during this reporting period. The following is the current status of permits and licences for the contract:-

<b>Type</b>	<b>Reference No.</b>	<b>Commencement Date</b>	<b>Expired Date</b>	<b>Remarks</b>
Chemical waste disposal	WPN5117-229-K2801-01	29/4/03	end of the Project	
Site water disposal	EP482/229/0302/1	30/4/03	31-5-2008	
Public fill disposal	CED's letter ref. (8) in PW PF/GEN/01 pt.26 dated 30/7/03	30/7/03	end of the project unless advised	
Landfill disposal	EPD's letter ref. EPD195/01/24/0614/2003 dated 16/9/03	16/9/03	end of the project unless advised	
Construction Noise Permit	EPD's letter ref. (4) in EP431/K03/UE0149-04	28/6/04	4/8/04	
Construction Noise Permit	EPD's letter ref. (4) in EP431/K03/UE0191-04 dated 23/6/04	5/8/04	4/9/04	CNP to be extended to suit the site need.

## 9 ACTION ITEMS FOR SITE AUDITS IN PAST MONTH

During this monitoring period, regular weekly joint site audits headed by the senior of MTRCL and the Contractor were taken. The Contractor's performance on the environmental matters were assessed. Status of required actions taken by the Contractor can be summarised as follows:-

	Description	Status
1.	The Contractor was reminded to have regular check on site to ensure the compliance of relevant environmental regulations, permits and licence.	On going
2.	The Contractor was reminded to remove the accumulated construction debris off site as soon as practical.	On going
3.	The Contractor was reminded to place the proper noise barrier as close as possible to the noisy activities carried out on site.	On going
4.	The Contractor was reminded to have regular check to prevent black smoke generated from the working plant.	On going
5.	The Contractor was reminded to pay attention on desiltation condition of the site water discharged into the public drain.	On going
6.	Ground contamination by diesel was observed. The Contractor required to clear up properly.	Done
7.	The Contractor was reminded to handle the chemical waste on site properly.	Done
8.	The Contractor was reminded to make air quality at underground better.	Done
9.	The Contractor was reminded to clear up the accumulated rainwater in the chemical drip tray.	Done

## 10 CONCLUSION

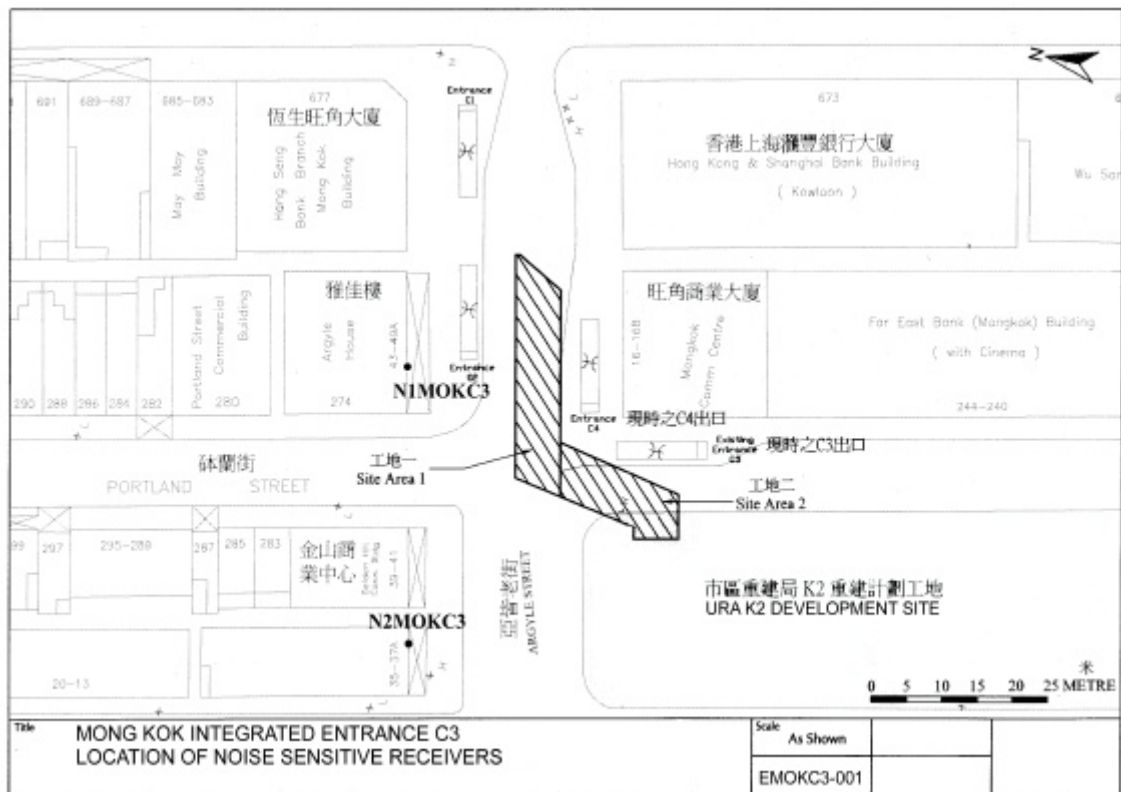
Major civil activities including TTM scheme implementation, WSD pipe diversions, subway structure construction and removal of obstructions, were carried out by the Contractor during this reporting period. Regular meetings and joint site audits headed by the senior were held among ET/ER/the Contractor to resolve the site environmental problems. The Contractor continue to have regular review on the environmental mitigation measures provided for the works activities on site. Concerned site environmental issues have been followed up by the Contractor practically.

By field observation, the environmental pollution control measures provided by the Contractor were generally acceptable. The construction noise levels recorded in the NSRs were below the allowable limits. No complaint and prosecution were received in this reporting period.

## Appendix A

### - Site Location Plan / Monitoring Locations

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## Appendix B

- Environmental Monitoring Data

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C5032- Noise Level at Monitoring Station N1MOKC3 (August 04)

