

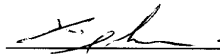
Mass Transit Railway Corporation Limited

Contract 5032 -- Mong Kok Station New Integrated Entrance C3

Environmental Monitoring and Audit Report

(August 2003)

Certified:

  
\_\_\_\_\_  
(Dr. Kam Chan)

Position:

Environmental Team Leader

Date:

15 Sept. 2003

Verified:

  
\_\_\_\_\_  
(Dr. Glenn Frommer)

Position:

Independent Environmental Checker

Date:

15 Sept. 2003

### ***EXECUTIVE SUMMARY***

This is the 5<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 2003. During this period, the major civil construction activities, including demolition of lower portion of Entrance C3, installation of monitoring instruments, sheetpile installation, king post installation and temporary road deck placing were carried out.

With reference to the collected monitoring data and by field observation, environmental conditions of the construction site were said to be satisfactory in general. There were no limit level exceedance recorded in regular construction noise monitoring at the agreed sensitive receivers. In addition, no formal prosecution and complaint were received in this reporting period. The Contractor have provided reasonable effort to control the environmental impacts generated from the construction activities to the nearby surrounding.

As the concerned 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 lead by the ET leader Dr. Kam Chan was responsible to provide baseline and impact environmental monitoring services for the Project and advice to 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 5<sup>th</sup> impact monitoring report to cover the environmental monitoring works in the period of August 2003.

### ***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 monitoring period include the following:-

#### Stage 1 TTM Construction

- Demolition of Entrance C3 structure completed.
- Sheetpiling for underground construction completed.
- Site instrument installation completed.
- King post installation completed.
- Placement of temporary road decks completed.

#### Stage 2 TTM Construction

- Breaking existing road slab commenced.
- Implementation of TTM Stage 2 traffic diversion commenced.

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

#### Stage 2 TTM Construction

- Continue implementation of TTM Stage 2 traffic diversion.
- Commence existing underground services diversions.
- Commence demolition of existing box culvert.
- Commence construction of flow chamber.
- Commence sheetpiling and temporary road decking construction.
- Commence king post installation.

### 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. 5 sets of 5 minutes average of Leq, L10 and L90 (in A-Weighting) were taken at N1MOKC3 and N2MOKC3.

#### 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.

Location	Date and Time of Monitoring		Climate
N1MOKC3 (Argyle House)	7/8/03	3:08pm	Clear
	13/8/03	2:05pm	Clear
	19/8/03	9:37am	Clear
	26/8/03	4:23pm	Cloudy
	30/8/03	9:12am	Clear
N2MOKC3 (Residential Bldg 35-37A Argyle Street)	7/8/03	2:35pm	Fine
	13/8/03	1:35pm	Fine
	19/8/03	8:57am	Fine
	26/8/03	3:37pm	Cloudy
	30/8/03	8:35am	Fine

### 3.4 Monitoring Schedule for Next Month

Noise monitoring at N1MOKC3 and N2MOKC3 will be performed on 4, 9, 15, 22 & 29 September 2003.

### 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
7/8/03	76.5	74.5	79.0	71.4	75	N
13/8/03	73.5	68.2	74.5	70.0	75	N
19/8/03	73.8	69.1	74.7	69.0	75	N
26/8/03	71.8	60.0	73.0	69.5	75	N
30/8/03	72.9	67.0	74.1	70.5	75	N
N2MOKC3 (Residential Building at 35-37A Argyle Street)						
7/8/03	77.7	73.0	80.0	72.1	75	N
13/8/03	76.7	68.9	78.5	74.0	75	N
19/8/03	77.5	73.0	79.5	73.0	75	N
26/8/03	74.6	****	76.5	71.5	75	N
30/8/03	77.3	72.4	78.5	73.7	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 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. The Contractor have provided reasonable monitoring and supervision to control the construction noise generated from the construction site.

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

There was no exceedance recorded during regular noise monitoring recorded at the agreed NSRs during this reporting period and no actions were required.

**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
Accumulated total since April 2003	456	0	0



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

No complaint was received during this monitoring period.

Formal complaint				
	Air	Noise	Water	Others
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
Accumulated total since April 2003	0	0	0	0

**8 STATUS OF PERMITS AND LICENCES OBTAINED**

No new environmental permit/licence were obtained during this reporting period.

Application letter requesting for allocation of landfill area for non-inert waste dumping has been sent to EPD on 3 September.

Type	Reference No.	Commencement Date	Expired Date	Remarks
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	

**9 ACTION ITEMS FOR SITE AUDITS IN PAST MONTH**

During this monitoring period, regular weekly joint site audits lead by the senior of MTRC 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.

	<b>Description</b>	<b>Status</b>
1.	The Contractor reminded to have regular check on site to ensure the compliance of relevant environmental regulations, permits and licence.	On going
2.	The Contractor reminded to remove the accumulated construction debris off site as soon as practical.	On going
3.	The Contractor reminded to place the movable noise barrier as close as possible to the breaker head during road slab breaking.	On going
4.	The Contractor reminded to provide temporary dust cover to the working grout plants and dusty materials.	Done
5.	The Contractor reminded to clean up the rain water collected inside the oil drip tray.	Done
6.	The Contractor reminded reinstate the missing top portion of noise enclosure to the working air compressor.	Done

MTRCL has sent the supporting and reference documents required by EPD upon their inspection on 27 July 2003 for information.

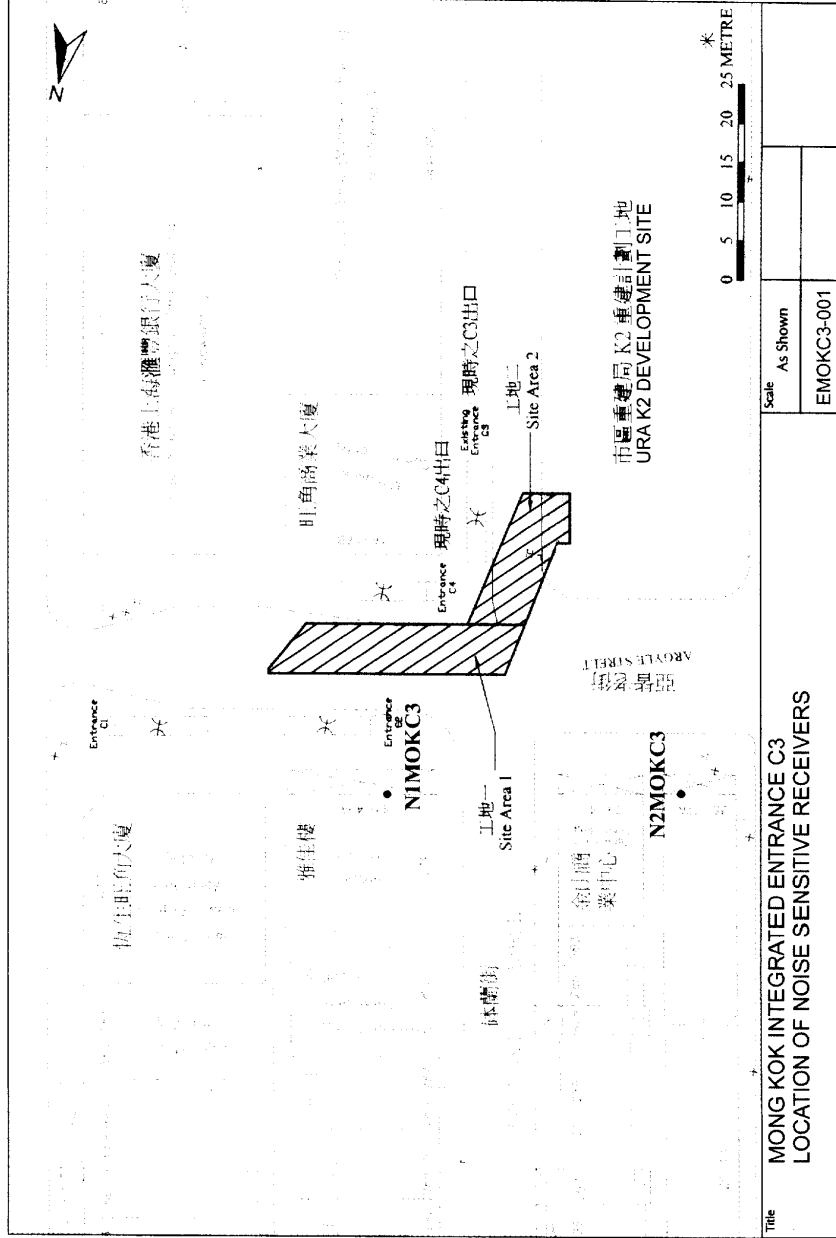
**10 CONCLUSION**

Major civil activities including Entrance C3 demolition, site instrument installation, sheetpiling, king post installation and placing temporary road deck were carried out by the Contractor during this reporting period. Regular meetings and joint site audits lead by the senior were held to resolve the site environmental problems.

By field observation, the environmental pollution control measures provided by the Contractor were generally acceptable. The construction noise levels recorded during the reporting period were below the allowable limits. No formal complaint and prosecution obtained in this monitoring period. Concerned site environmental items raised have been followed by the Contractor properly.

## Appendix A

- Reference Figures



Title MONG KOK INTEGRATED ENTRANCE C3  
LOCATION OF NOISE SENSITIVE RECEIVERS

Scale	As Shown
	EMOKC3-001

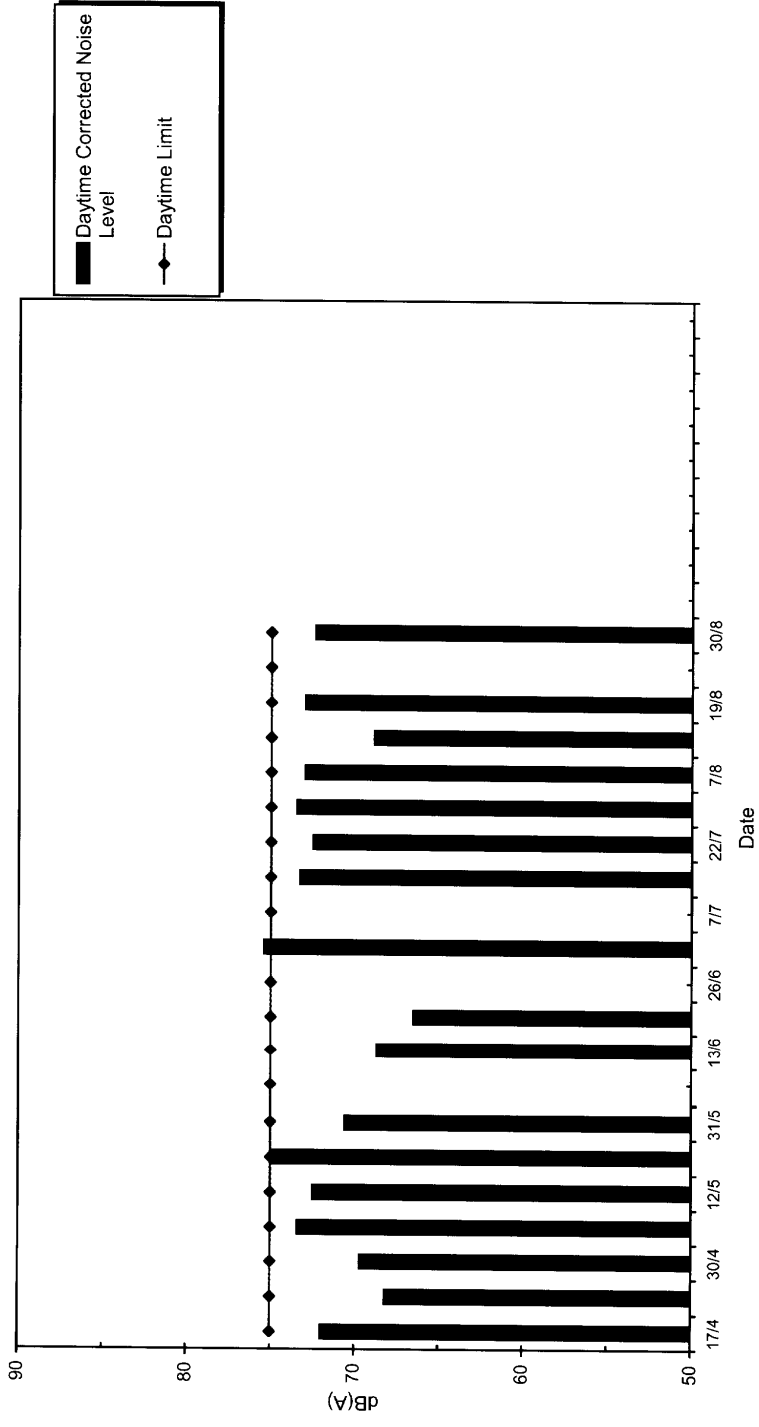
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## Appendix B

- Environmental Monitoring  
Data

C5032 - Noise Level at Monitoring Station N2MOKC3 (August 03)



C5032- Noise Level at Monitoring Station N1MOKC3 (August 03)

