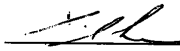


Mass Transit Railway Corporation Limited

Contract 5032 – Mong Kok Station New Integrated Entrance C3

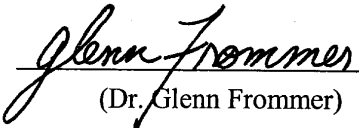
Environmental Monitoring and Audit Report

(December 2003)

Certified: 
(Dr. Kam Chan)

Position: Environmental Team Leader

Date: 12 Jan. 2004

Verified: 
(Dr. Glenn Frommer)

Position: Independent Environmental Checker

Date: 12 JAN 2004

EXECUTIVE SUMMARY

This is the 9th 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 December 2003. During this period, the major civil construction activities, including hole boring works, grouting works, supporting to existing underground services, temporary road deck construction, underground excavation and implementing of TTM Scheme were carried out.

With reference to the collected monitoring data and by field observation, environmental conditions of the construction site were satisfactory. There were no limit level exceedance recorded in regular construction noise monitoring at the agreed sensitive receivers. 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 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 9th impact monitoring report to cover the environmental monitoring works in the period of December 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 reporting period include the following:-

TTM Stage 3 Construction

- Implementation of road lane closure for construction works continued.
- Temporary road deck construction continued.
- Exposure and supporting to existing underground services continued.
- Hole boring works recommenced.
- Construction of drainage flow chamber completed.
- Grouting works continued.
- Underground excavation and mucking out commenced.
- Removal of underground abandoned concrete structure continued.

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

Stage 3 TTM Construction

- Continue implementation of road lane closure for construction.
- Continue hole boring works.
- Continue exposure and supporting to existing underground services.
- Continue underground excavation and mucking out.
- Continue grouting works.
- Continue removal of underground abandoned concrete structures.
- Continue temporary road deck construction.

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.

Location	Date and Time of Monitoring		Climate
N1MOKC3 (Argyle House)	1/12/03	2:26pm	Clear
	8/12/03	10:13am	Clear
	15/12/03	10:08am	Clear
	24/12/03	3:05pm	Clear
N2MOKC3 (Residential Bldg 35-37A Argyle Street)	1/12/03	3:13pm	Clear
	8/12/03	10:52am	Clear
	15/12/03	11:21am	Clear
	24/12/03	3:50pm	Clear

3.4 Monitoring Schedule for Next Month

Noise monitoring at N1MOKC3 and N2MOKC3 will be performed on 3, 8, 15, 21 and 28 January 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
1/12/03	71.6	****	74.5	66.1	75	N
8/12/03	68.7	****	70.5	65.5	75	N
15/12/03	71.6	****	73.4	67.2	75	N
24/12/03	72.0	****	73.7	69.6	75	N
	N2MOKC3 (Residential Building at 35-37A Argyle Street)					
1/12/03	74.7	****	77.5	68.9	75	N
8/12/03	73.0	****	75.1	69.3	75	N
15/12/03	75.7	****	79.2	68.8	75	N
24/12/03	75.1	****	78.2	70.7	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 noise generated from the construction site.

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 ³)	Non-inert waste (to Landfill) (m ³)	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	0	0
December 2003	354	0	1
Accumulated total since April 2003	1,532	0	1

7 RECORD OF COMPLAINTS FROM PUBLIC & EPD

No new formal environmental complaints were received during this reporting 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
September 2003	1	1	0	0
October 2003	0	0	0	0
November 2003	0	0	0	0
December 2003	0	0	0	0
Accumulated total since April 2003	1	1	0	0

8 STATUS OF PERMITS AND LICENCES OBTAINED

No new environmental related permits and licences were obtained during this reporting period.

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	
Landfill disposal	EPD's letter ref. EPD195/01/24/0614/2003 dated 16/9/03	16/9/03	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.

	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 movable 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 handle the chemical waste on site carefully.	Done
6.	The Contractor was reminded to provide drip tray to the diesel in use.	Done
7.	The Contractor was reminded to have proper noise enclosure to the working air compressor.	Done

An updated noise mitigation plan with revised noise measures for stage 3 & 5 construction was submitted to EPD on 16/12/03.

EPD staff inspected the construction site on 10/12/03 and had no adverse comment. However reminder was given to take close control on construction dust and handling chemical waste for future construction. The Contractor have taken a proper action to follow up the reminder accordingly.

10 CONCLUSION

Major civil activities including hole grouting works, underground excavation, supporting for underground services, temporary road deck construction, drainage flow chamber construction and grouting works carried out by the Contractor during this reporting period. Regular meetings and joint site audits lead by the senior were held among ET/ER/the Contractor to resolve the site environmental problems. Concerned site environmental issues have been followed up by the Contractor properly.

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

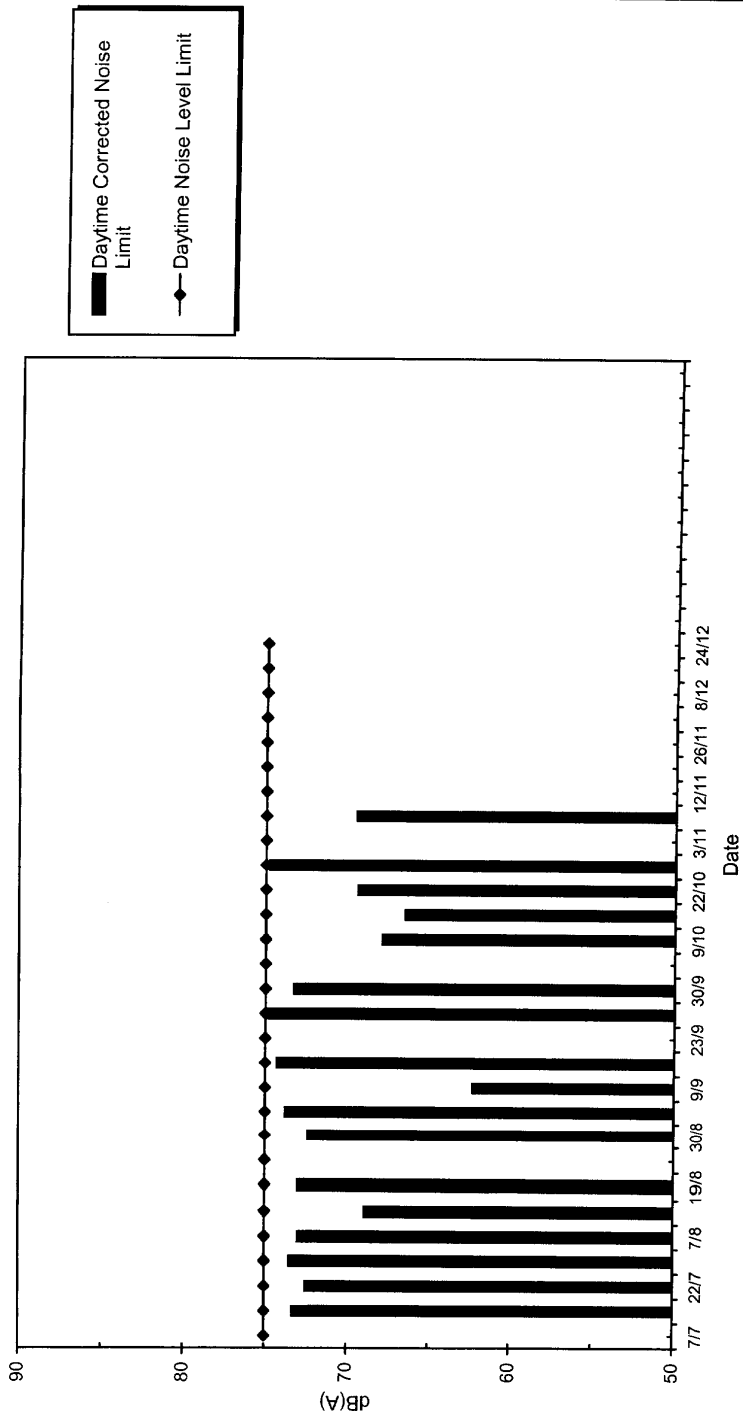
Appendix A

- Site Location Plan /
Monitoring Locations

Appendix B

- Environmental Monitoring
Data

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



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

