

Mass Transit Railway Corporation Limited

Contract 5032 – Mong Kok Station New Integrated Entrance C3

Environmental Monitoring and Audit Report

(July 2003)

Certified:



(Dr. Kam Chan)

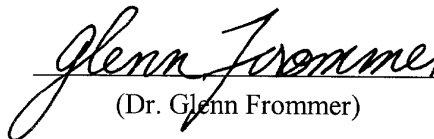
Position:

Environmental Team Leader

Date:

12 AUG 2003

Verified:



(Dr. Glenn Frommer)

Position:

Independent Environmental Checker

Date:

12 August 2003

EXECUTIVE SUMMARY

1 INTRODUCTION

- 1.1 Scope of the Report**
- 1.2 Structure of the Report**

2 PROJECT INFORMATION

- 2.1 Construction Programme**
- 2.2 Construction Activities**

3 IMPACT NOISE MONITORING

- 3.1 Monitoring Parameters**
- 3.2 Monitoring Locations**
- 3.3 Monitoring Time, Frequency, Duration and Weather**
- 3.4 Monitoring Schedule for Next Month**
- 3.5 Monitoring Results**

4 ASSESSMENT AND AUDIT RESULTS

5 ACTION TAKEN IN EVENT OF CONSTRUCTION NOISE LEVEL EXCEEDANCE

6 CONSTRUCTION WASTE DISPOSAL

7 RECORD OF COMPLAINTS FROM PUBLIC & EPD

8 STATUS OF PERMITS AND LICENCES OBTAINED

9 ACTION ITEMS FOR SITE AUDITS IN PAST MONTH

10 CONCLUSION

Appendix A

- Reference Figures
-
-

Appendix B

- Environmental Monitoring Data
-
-

EXECUTIVE SUMMARY

This is the 4th 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 July 2003. During this period, the major civil construction activities, including demolition of lower portion of Entrance C3, underground excavation, installation of monitoring instruments, king post and sheetpile installation, existing underground services diversions 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.

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 give 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 4th impact monitoring report to cover the environmental monitoring works in the period of July 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:-

- Implementation of TTM continued.
- Demolition of Entrance C3 structure (lower portion) substantially completed.
- Placement of temporary road decks continued.
- Existing underground services diversions to suit progressing site construction.
- Bulk excavation for underground works activities commenced.
- Sheetpiling for underground construction continued.
- Site monitoring instrument installation commenced.
- King post installation continued.
- Backfilling and road slab reinstatement on Portland Street completed.

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

- Continue implementation of TTM.
- Continue existing underground services diversions.
- Continue sheetpiling works for underground construction.
- Continue bulk excavation and removal of excavated material offsite.

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 every six days. Below is the time schedule that noise monitoring was performed in this monitoring period.

Location	Date and Time of Monitoring		Climate
N1MOKC3 (Argyle House)	7/7/03	3:42pm	Clear
	16/7/03	1:28pm	Clear
	22/7/03	10:21am	Cloudy
	31/7/03	2:20pm	Clear
N2MOKC3 (Residential Bldg 35-37A Argyle Street)	7/7/03	3:08pm	Clear
	16/7/03	2:07pm	Clear
	22/7/03	11:07am	Cloudy
	31/7/03	1:15pm	Clear

3.4 Monitoring Schedule for Next Month

Noise monitoring at N1MOKC3 and N2MOKC3 will be performed on 7, 12, 20 & 27 August 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	
7/7/03	74.8	72.1	77	69.5	75	N	
16/7/03	75.8	74.4	78.2	69.7	75	N	
22/7/03	76.1	73.7	78.6	69.4	75	N	
31/7/03	74.2	70.2	77	71	75	N	
			N2MOKC3 (Residential Building at 35-37A Argyle Street)				
7/7/03	75.1	****	77	72	75	N	
16/7/03	77.6	73.3	78.2	73.4	75	N	
22/7/03	77.4	72.5	79.8	75.2	75	N	
31/7/03	77.4	73.5	80.1	72.6	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.

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 in average 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 hence no actions were required to take.

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 to 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
Accumulated total since April 2003	272	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
Accumulated total since April 2003	0	0	0	0

8 **STATUS OF PERMITS AND LICENCES OBTAINED**

For disposal of public filling, CED has allocated the public filling barging point at Kai Tak for this contract.

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 and concerned items were raised for rectification. Status of required actions taken by the Contractor can be summarised as follows.

	Description	Status
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 prevent any ground contamination due to oil leak from working plants.	Done
5.	The Contractor reminded to display the EP on site notice area.	Done
6.	The Contractor reminded to prevent any wash of stockpiled excavated material to the public drain.	Done

EPD inspected the construction site on 28/7/03. Some supporting documents for noise level for the working generator, superficial density of the installed noise barrier and calculation reference for regular construction noise monitoring were required to submit. MTRCL/Kier are being followed.

10 CONCLUSION

Major civil activities including Entrance C3 demolition, bulk underground excavation, site services instrument installation, sheetpiling, king post installation and underground diversion were carried out by the Contractor during this reporting period. Regular meetings and joint site audits lead by the seniors for discussing site environmental matters 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 in average 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 in a reasonable time.

Appendix A

- Reference Figures

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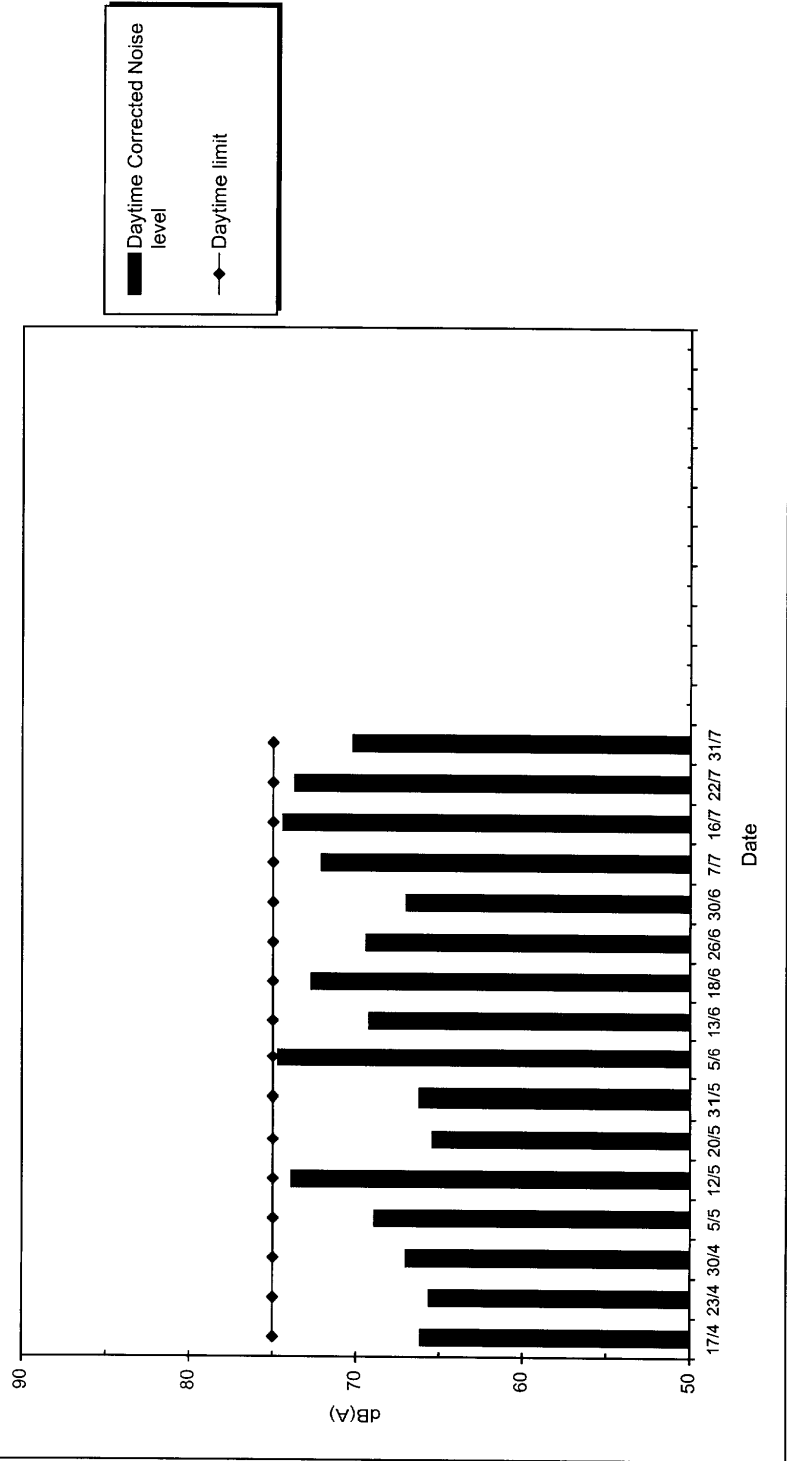
Appendix B

- Environmental Monitoring Data

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



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

