

Mass Transit Railway Corporation Limited

Contract 5032 - Mong Kok Station New Integrated Entrance C3

Environmental Monitoring and Audit Report

(January 2005)

EXECUTIVE SUMMARY

This is the 22nd 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 January 2005. During this period, the major civil construction activities mainly included building service, electrical and mechanical works, footpath and road slab reinstatement, TTM Scheme implementation for traffic diversion, drainage works, backfilling and escalator installation.

With reference to the collected noise monitoring data and by field observation, environmental conditions of the construction site were maintained in acceptable condition. There were no limit level exceedance recorded in regular 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 have provided 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 22nd impact monitoring report to cover the environmental monitoring works in the period of January 2005.

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 AL 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 middle 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 5 Construction

- TTM implementation for Stage 5 construction continued.
- Backfilling for partial footpath and road slab reinstatement continued.
- Construction of the subway box structure completed.
- Maintain and adjust the mitigation measures to suit the construction works activities.
- BS & E&M works inside the newly constructed subway structure continued.
- Footpath and road slab reinstatement continued.
- Installation of escalator inside the subway box continued.
- Drainage and utility reinstatement works continued.

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

Stage 5 Construction

- Continue TTM implementation for Stage 5 construction.
- Continue BS and E&M works inside the subway box.
- Continue footpath and road slab reinstatement in next TTM scheme.
- Maintain the mitigation measures to suit the progressing construction activities.
- Continue footpath & road slab reinstatement works.
- Continue the escalator installation inside the subway box.
- Continue drainage and utility reinstatement works.

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 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) | 03/01/05 | 4:56pm | Clear |
| | 10/01/05 | 3:16pm | Clear |
| | 17/01/05 | 2:23pm | Clear |
| | 24/01/05 | 4:13pm | Clear |
| | 31/01/05 | 1:27pm | Clear |
| N2MOKC3 (Residential Bldg 35-37A Argyle Street) | 03/01/05 | 4:07pm | Clear |
| | 10/01/05 | 10:30am | Clear |
| | 17/01/05 | 9:55am | Clear |
| | 24/01/05 | 10:07am | Clear |
| | 31/01/05 | 10:15am | Clear |

3.4 Monitoring Schedule for Next Month

Noise monitoring at N1MOKC3 and N2MOKC3 will be performed on 7, 16, 21 and 28 February 2005.

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 |
| | 03/01/05 | 72.6 | 64.9 | 76.1 | 70.5 | 75 | N |
| | 10/01/05 | 70.3 | **** | 72.0 | 67.5 | 75 | N |
| | 17/01/05 | 69.9 | **** | 71.5 | 67.0 | 75 | N |
| | 24/01/05 | 70.7 | **** | 73.5 | 68.5 | 75 | N |
| | 31/01/05 | 70.2 | **** | 74.6 | 68.7 | 75 | N |
| | N2MOKC3 (Residential Building at 35-37A Argyle Street) | | | | | | |
| | 03/01/05 | 76.3 | 68.5 | 77.6 | 74.0 | 75 | N |
| | 10/01/05 | 74.6 | **** | 76.5 | 69.0 | 75 | N |
| | 17/01/05 | 75.8 | **** | 77.0 | 70.5 | 75 | N |
| | 24/01/05 | 74.0 | **** | 77.0 | 69.8 | 75 | N |
| | 31/01/05 | 74.3 | **** | 77.4 | 69.5 | 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, no exceedance noise limit level were recorded in NSRs during this reporting period. The construction noise generated from the site was rather low. 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. Also, the dust pollution on the site was under control.

5 ACTION TAKEN IN EVENT OF CONSTRUCTION NOISE LEVEL EXCEEDANCE

There was no 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 | 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 | 42.7 | 0 |
| September 2004 | 0 | 82.9 | 1 |
| October 2004 | 0 | 165 | 0 |
| November 2004 | 0 | 150 | 0 |
| December 2004 | 0 | 145 | 0 |
| January 2005 | 0 | 90 | 0 |
| Accumulated total since April 2003 | 6384 | 688.1 | 4 |

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

No environmental 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 |
| 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 |
| September 2004 | 0 | 0 | 0 | 0 |
| October 2004 | 0 | 0 | 0 | 0 |
| November 2004 | 0 | 0 | 0 | 0 |
| December 2004 | 0 | 0 | 0 | 0 |
| January 2005 | 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:-

| 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 | |
| Construction Noise Permit | EPD's letter ref. (4) in EP431/K03/UE0149-04 dated 19/5/04 | 28/6/04 | 4/8/04 | expired |
| Construction Noise Permit | EPD's letter ref. (4) in EP431/K03/UE0191-04 dated 23/6/04 | 5/8/04 | 4/9/04 | expired |
| Construction Noise Permit | GW-RE5029-04 dated 31/8/04 | 6/9/04 | 10/11/04 | Expired. WSD pipe connection already done on 16/9/04 mid night |

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 | Action 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 have regular check to prevent black smoke generated from the working plant. | On going |
| 4. | The Contractor was reminded to apply anti-mosquito agent to the stagnant water at underground. | On going |
| 5. | The Contractor was reminded to improve the housekeeping inside the subway box. | Done |
| 6. | The Contractor was reminded to maintain a proper noise enclosure to the working air compressor and hydraulic breaker. | Done |
| 7. | The Contractor was reminded to keep the total bags of cement not more than 25. Otherwise, a proper store should be provided. | On going |
| 8. | The Contractor was reminded to have a proper dust control on bags of cement opened for use. | On going |
| 9. | The Contractor was reminded to replace damaged warning label for the chemical waste store. | Done |

10 CONCLUSION

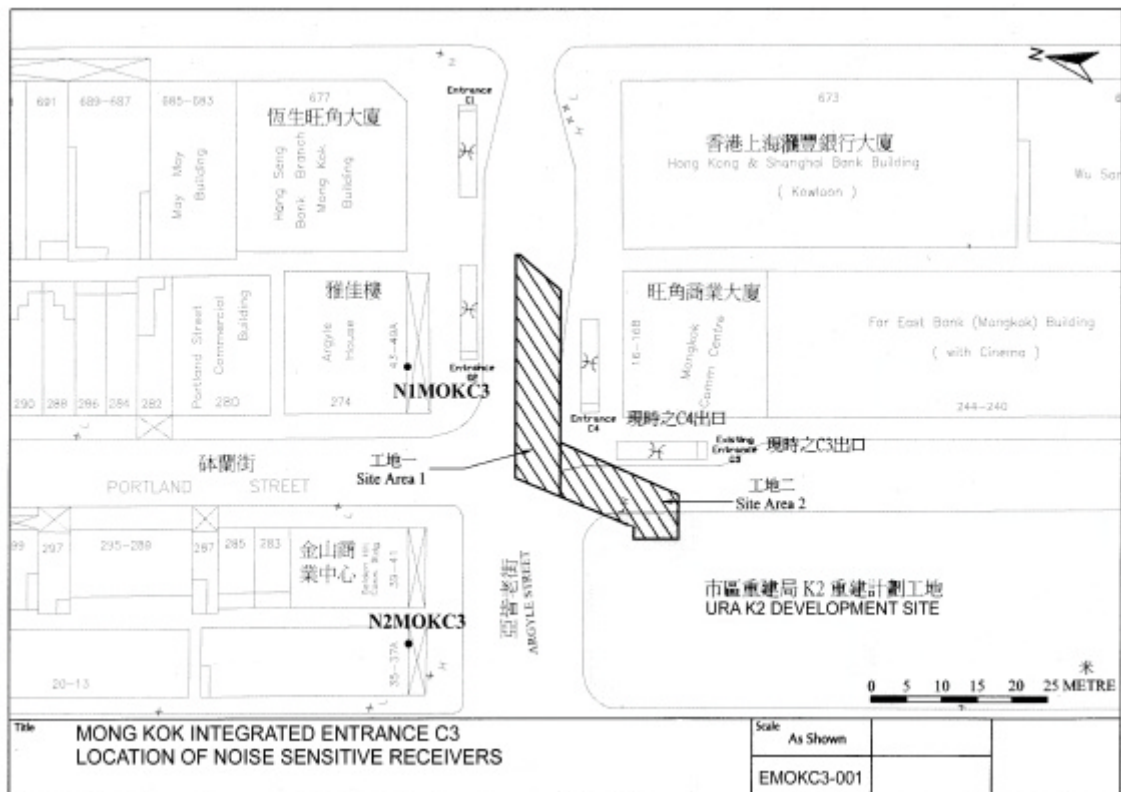
Major civil activities including TTM scheme implementation, BS and E&M works inside the subway box, footpath and road reinstatement, escalator installation, drainage works and utility reinstatement were carried out by the Contractor during this reporting period. Regular meetings and joint site audits 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 on site. Concerned site environmental issues have been followed up by the Contractor properly.

By field observation, the required environmental pollution control on noise, dust, solid & chemical wastes and site water disposal provided by the Contractor were 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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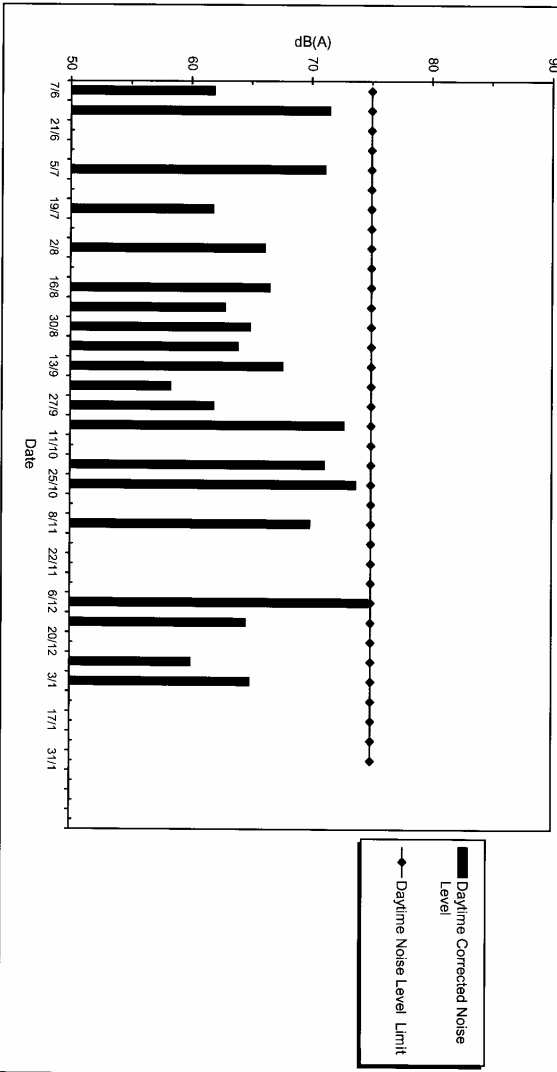
Appendix B

- Environmental Monitoring Data

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C5032- Noise Level at Monitoring Station N1MOKC3 (January 05)



C5032 - Noise Level at Monitoring Station N2MOKC3 (January 05)

