

Civil Engineering and Development Department

**Contract No. ST 77/01
Sha Tin New Town, Stage II**

**Road D15 Linking Lok Shun Path
and Tai Po Road**

**Environmental Monitoring and Audit
Quarterly Report (Version 1.0)**

July to September 2004

Certified By



(Environmental Team Leader)

REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

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EXECUTIVE SUMMARY

1. This is the first Environmental Monitoring and Audit (EM&A) Quarterly Summary Report prepared by Cinotech Consultants Limited for the “Sha Tin New Town, Stage II – Road D15 Linking Lok Shun Path and Tai Po Road” (the Project). The EM&A works were commenced on 12th August 2004. This summary report presents EM&A work performed by Cinotech by the end of September 2004.
2. The construction activities undertaken in the reporting quarter were:-
 - Finishing works
 - Noise Barrier installation
 - Underground and surface drainage works
 - Water mains and irrigation mains works
 - Landscaping works

Environmental Monitoring Works

3. Environmental monitoring for the Project was performed regularly as stipulated in the EM&A Manual and the results were checked and reviewed. Site audits were conducted once per week. The implementation of the environmental mitigation measures, Event Action Plans and environmental complaint handling procedures were also checked.
4. Summary for Non-compliance Recorded in the reporting quarter is presented in the below:

Media / Nature	Number of Exceedances		Action Taken	Results of action taken	Remarks
	Action Level	Limit Level			
Air	0	0	N.A.	N.A.	N.A.
Noise	0	1	N.A.	N.A.	The exceedance was not due to the Project.

*Air Quality*1-hour TSP Monitoring

5. 1-hour TSP monitoring commenced on 25th August 2004. All 1-hour TSP monitoring was conducted as scheduled. No Action/Limit Level exceedance was recorded in the reporting quarter.

24-hour TSP Monitoring

6. 24-hour TSP monitoring was commenced on 24th August 2004. All 24-hour TSP monitoring was conducted as scheduled and all the results complied with the Action and Limit Levels in the reporting quarter.

Construction Noise

7. Construction noise monitoring was commenced on 25th August 2004 at all designated monitoring station except at N3, Royal Ascot as the management office of Royal Ascot refused the ET from entering. All construction noise monitoring was conducted as scheduled.
8. There was one Limit Level exceedance recorded in the reporting month at N1, Lok Lo Ha Village House No. 3B on 14th September 2004. However, the exceedance was considered invalid as the major noise source was the breaking activities performed by others. No further action was required.

Environmental Complaint and Prosecution

9. A total of 3 complaints have been received since the commencement of the Project. The details of each of the complaint are summarized in Appendix I. One environmental complaint was received during the reporting quarter.
10. The residents of Lok Lo Ha Village (House No. 3b, 2nd Floor) raised a complaint regarding excessive train noise in Lok Lo Ha Village due to cutting of trees and shrubs by the Contractor of the Project.
11. EPD referred the complaint to the Environmental Team (ET) Leader on 21st September 2004. In accordance with the Environmental Monitoring and Audit (EM&A) Manual of the Project, a complaint investigation was carried out by ET.
12. According to the collected information, a tree survey had been carried out. The tree felling plan from the Engineer indicated that there were originally 25 numbers of trees in total in the concerned area. Of those 25 trees, 18 were required to be felled and 7 were required to be transplanted. The 7 trees are currently planted at a nursery area in Tai Po, and will be replanted to the area by mid-Oct 2004.
13. The EIA study for the Project was carried out before 1998. An EIA Review was carried out (in 2001) prior to the commencement of the Project. Noise Barriers a-b and c-d in Figure 2 of the EP have already been constructed. One of the noise barriers was installed in front of House No. 3b.
14. Based on the information obtained above, it is believed that there was no violation of the EP condition by Contractor.
15. There was no environmental prosecution in the reporting quarter.

1. INTRODUCTION

- 1.1 Cinotech Consultants Limited (hereinafter called the “ET”) was appointed by Civil Engineering and Development Department (CEDD) (hereinafter called the "Project Proponent") via Maunsell Consultants Asia Limited (hereinafter called the “Engineer/Engineer’s Representative) to undertake the Environmental Monitoring and Audit (EM&A) works for the Project “Sha Tin New Town, Stage II – Road D15 Linking Lok Shun Path and Tai Po Road” (the Project).
- 1.2 The Project is a Designated Project under the Environmental Impact Assessment Ordinance (Cap. 449) and an environmental impact assessment report titled “Sha Tin New Town Stage II Road D15 Linking Lok Shun Path & Tai Po Road Environmental Impact Assessment Final Report (March 1997)” (Register No. EIA-112/BC) has been approved and deposited with Environmental Protection Department (EPD). The Environmental Permit (EP) No. EP-092/2001/A issued by EPD for the construction and operation of the proposed works under the Project was amended to EP-092/2001/B.
- 1.3 The Project “Sha Tin New Town, Stage II – Road D15 Linking Lok Shun Path and Tai Po Road” was commenced in 2002. The site layout is shown in Figures 1a and 1b. Under the requirements of Conditions 3 of the EP, EM&A programme as set out in the EM&A Manual is required to be implemented. In accordance with the EM&A Manual, environmental monitoring of air quality and noise are required for the construction phase of the Project.
- 1.4 The EM&A works were carried out by Environmental Management Limited until July 2004. Cinotech was commissioned by the Project Proponent via the Engineer to undertake the works in mid August 2004.
- 1.5 This report presents the monitoring results and observations, locations, equipment, period, methodology and QA/QC procedures of the required monitoring parameters, namely noise and dust levels and audit works for the Project by Cinotech for the quarter between July 2004 and September 2004.

2. PROJECT CHARACTERISTICS**Project Organization and Contacts of Key Management**

- 2.1 An organization structure and the line of communication were set up for the Project between the Project Proponent, Engineer Representative (ER), the Contractor and Environmental Team (ET). The organization chart and contact details are shown in Appendix A and Figure 2.

Construction Programme and Synopsis of Work

- 2.2 The construction programme is presented in Appendix B. The site activities during the reporting period are summarized in Table 2.1.

Table 2.1 Summary of Works Undertaken in the Reporting Months

Item	Work Activity	2004		
		July	August	September
1.	Construction of Bridges	√		
2.	Retaining walls	√		
3.	Noise barrier installation	√	√	√
4.	Box culvert extension	√		
5.	Underground drainage and water pipes	√	√	√
6.	Landscaping	√		
7.	Finishing works	√	√	√

3. ENVIRONMENTAL MONITORING AND AUDIT REQUIREMENTS

Monitoring Parameters and Monitoring Locations

- 3.1 The EM&A Manual designates locations for the ET to monitor environmental impacts in terms of air quality and noise due to the Project. The Project area and monitoring locations are depicted in Figures 1a and 1b. Appendix C gives details of monitoring requirements.

Monitoring Methodology and Calibration Details

- 3.2 Monitoring works/equipment were conducted/ calibrated regularly in accordance with the EM&A Manual.

Environmental Quality Performance Limits (Action and Limit Levels)

- 3.3 The environmental quality performance limits, i.e. Action and Limit Levels were derived from the baseline monitoring results. Should the measured environmental quality parameters exceed the Action/Limit Levels, the respective action plans would be implemented. The Action/Limit Levels for each environmental parameter are given in Appendix D.

Environmental Mitigation Measures

- 3.4 Relevant mitigation measures as recommended in the project EIA report have been stipulated in the EM&A Manual for the Contractor to adopt. A list of mitigation measures implemented on site is given in Appendix G.

4. MONITORING RESULTS

- 4.1 In the reporting quarter, monitoring at all designated monitoring stations were performed on scheduled.

Weather Conditions

- 4.2 The weather during monitoring sessions was mainly sunny or cloudy. The weather conditions for each individual monitoring session were presented in the field record sheets.

Air Quality

1-hour TSP

- 4.3 1-hour TSP monitoring commenced on 25th August 2004. All 1-hour TSP monitoring was conducted as scheduled. All 1-hour TSP monitoring results were below the Action/Limit Levels. The graphical presentation of the monitoring results is provided in Appendix E.

24-hour TSP

- 4.4 24-hour TSP monitoring was commenced on 24th August 2004. All 24-hour TSP monitoring was conducted as scheduled in the reporting quarter. All measured 24-hour TSP levels were below the Action/Limit Levels in the reporting period. The graphical presentation of the monitoring results is provided in Appendix E.

Noise

- 4.5 Construction noise monitoring was commenced on 25th August 2004 at all designated monitoring station except at N3, Royal Ascot as the management office of Royal Ascot refused the ET from entering. All construction noise monitoring was conducted as schedule. The graphical presentation of the monitoring results is provided in Appendix F.
- 4.6 There was one Limit Level exceedance recorded in the reporting month at N1, Lok Lo Ha Village House No. 3B on 14th September 2004. However, the exceedance was considered invalid as the major noise source was the breaking activities performed by others. No further action was required.

5. AUDIT RESULTS

Main Construction Activities

5.1 Finishing works were the main construction activities in the reporting quarter.

Summary of Site Audit Results

5.2 The Contractor was reminded to clear all stand water or spray the water ponds with anti-mosquito agents within the site area.

5.3 The Contractor was reminded to avoid sand and silt accumulated in the u-channels.

5.4 The Contractor was reminded to prevent the general refuses accumulated.

5.5 The Contractor was reminded to keep the public road around site entrance free from dust.

6. NON-COMPLIANCE (EXCEEDANCES) OF THE ENVIRONMENTAL QUALITY PERFORMANCE LIMITS (ACTION AND LIMIT LEVELS)

Summary of Exceedances

- 6.1 All measured 1-hr and 24-hr TSP levels were below the Action/Limit Levels in the reporting period.
- 6.2 A No Action Level exceedance for noise (construction noise complaint) was reported in the reporting quarter. A total of one Limit Level exceedance for construction noise was recorded in the reporting quarter. However, the exceedance was considered invalid as the major noise source was the breaking activities performed by others. No further action was required.

Review of the Reasons for and the Implications of Non-compliance

- 6.3 There was no non-compliance from the site audits in the reporting quarter. The observations and recommendations made in each individual site audit session were attached in the Monthly Reports.

7. ENVIRONMENTAL COMPLAINTS

Complaint Log

- 7.1 A total of 3 complaints have been received since the commencement of the Project. Appendix H summaries the complaints received since the Project commencement. One environmental complaint was received during the reporting quarter.
- 7.2 The residents of Lok Lo Ha Village (House No. 3b, 2nd Floor) raised a complaint regarding excessive train noise in Lok Lo Ha Village due to cutting of trees and shrubs by the Contractor of the Project.
- 7.3 EPD referred the complaint to the Environmental Team (ET) Leader on 21st September 2004. In accordance with the Environmental Monitoring and Audit (EM&A) Manual of the Project, a complaint investigation was carried out by ET.
- 7.4 According to the collected information, a tree survey had been carried out. The tree felling plan from the Engineer indicated that there were originally 25 numbers of trees in total in the concerned area. Of those 25 trees, 18 were required to be felled and 7 were required to be transplanted. The 7 trees are currently planted at a nursery area in Tai Po, and will be replanted to the area by mid-Oct 2004.
- 7.5 The EIA study for the Project was carried out before 1998. An EIA Review was carried out (in 2001) prior to the commencement of the Project. Noise Barriers a-b and c-d in Figure 2 of the EP have already been constructed. One of the noise barriers was installed in front of House No. 3b.
- 7.6 Based on the information obtained above, it is believed that there was no violation of the EP condition by Contractor.

Complaint Handling Procedure

- 7.7 All complaints have been handled in accordance with the EM&A Manual. The implementation status of the complaint handling procedure is summarized in Appendix H Complaint Log.

8. NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS

8.1 No environmental prosecution was received in the reporting quarter.

9. COMMENTS, CONCLUSIONS AND RECOMMENDATIONS

- 9.1 Finishing works were the main construction activities in the reporting quarter. No significant impact on construction noise was identified. The anticipated environmental impacts will be mainly on dust during dry season.