# Civil Engineering & Development Department NT EAST Development Office

#### Contract No. ST89/02

# **Sha Tin Heights Tunnel and Approaches**

Quarterly EM&A Report (Version 1.0)

August to October 2006

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.

CINOTECH accepts no responsibility for changes made to this report by third parties.

### CINOTECH CONSULTANTS LTD

Room 1602-1610, Delta House, 3 On Yiu Street, Shatin, NT, Hong Kong Tel: (852) 2151 2083 Fax: (852) 3107 1388 Email: <u>info@cinotech.com.hk</u>

# TABLE OF CONTENTS

		Page
E	XECUTIVE SUMMARY	3
	Environmental Monitoring Works  Environmental Complaint and Prosecution  Environmental Licensing and Permitting  Future Key Issues	3 4
1.	INTRODUCTION	
2.	PROJECT CHARACTERISTICS	6
	Project Organization and Contacts of Key Management  Construction Programme and Synopsis of Work	
3.	ENVIRONMENTAL MONITORING AND AUDIT REQUIREMENTS	7
	Monitoring Parameters and Monitoring Locations  Monitoring Methodology and Calibration Details  Environmental Quality Performance Limits (Action and Limit Levels).  Environmental Mitigation Measures	7 7
4.	MONITORING RESULTS	8
	Weather Conditions Air Quality Noise	8
5.	AUDIT RESULTS	9
	Implementation Status of Environmental Mitigation Measures Site Audit Summary Status of Environmental Licensing and Permitting Advice on Solid Waste Management Status	9 10
6.	NON-COMPLIANCE (EXCEEDANCES) OF THE ENVIRONMENTAL QUALITY PERFORMANCE LIMITS (ACTION AND LIMIT LEVELS)	11
	Summary of Exceedances	11
7.	ENVIRONMENTAL COMPLAINTS	12
	Complaints Log	12
8.	NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS	12
9.	COMMENTS, CONCLUSIONS AND RECOMMENDATIONS	12

### LIST OF FIGURES

Figure 1 Site Layout Plan
Figure 2a Location of Monitoring Stations
Figure 3 Project Organization Chart

# LIST OF APPENDICES

Appendix A	Contact Details of the Project Organization
Appendix B	Construction Programme
Appendix C	Monitoring Requirements
Appendix D	Environmental Quality Performance (Action/Limit) Levels
Appendix E	Implementation Status of Environmental Mitigation Measures (EMIS)
Appendix F	Graphical Presentation of Air Quality Monitoring Results
Appendix G	Graphical Presentation of Noise Monitoring Results
Appendix H	Summary Status of Environmental Licences and Permits
Appendix I	Complaint Log
Appendix J	Summary report of Exceedances

#### **EXECUTIVE SUMMARY**

- 1. This is the sixteenth Environmental Monitoring and Audit (EM&A) Quarterly Summary Report prepared by Cinotech Consultants Limited for the "Sha Tin Heights Tunnel and Approaches" (the Project). This summary report presents EM&A works performed in the period between August and October 2006.
- 2. The construction activities undertaken in this reporting quarter included:
  - Slope works;
  - · Bridge works;
  - Construction of retaining wall;
  - Rising existing manhole level;
  - Drainage works;
  - Demolition of Temporary Access Road No.1;
  - Parapet construction;
  - Erection of noise barrier;
  - Slope upgrading works; and
  - Slope stabilization works.

#### **Environmental Monitoring Works**

3. Environmental monitoring for the Project was performed regularly as stipulated in the EM&A Manuals 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.

Air Quality

#### 1-hr TSP Monitoring

4. All 1-hr TSP monitoring was conducted as scheduled except monitoring at stations A2 and A3 on 2<sup>nd</sup> & 3<sup>rd</sup> August and 7<sup>th</sup> & 13<sup>th</sup> September 2006 was cancelled due to adverse weather. No Action/Limit Level exceedance was recorded in the reporting quarter.

#### 24-hr TSP Monitoring

5. All 24-hr TSP monitoring was conducted as scheduled except monitoring at station A3 on 12<sup>th</sup> September 2006 was cancelled due to power failure. No Action/Limit Level exceedance was recorded in the reporting quarter.

Construction Noise

6. All construction noise monitoring was conducted as scheduled in the reporting quarter. No Limit Level exceedance was recorded

#### **Environmental Complaint and Prosecution**

- 7. No environmental prosecution was recorded in the reporting quarter.
- 8. One complaint was received by EPD on 28<sup>th</sup> August 2006 and referred to ET on the same day.

9. The complaint, as received by EPD on 28<sup>th</sup> August 2006, was about construction dust generated from the construction site at Sha Tin Heights Southern Tunnel near Tai Po Road - Sha Tin Heights, Sha Tin. The complaint was considered not justifiable. The Complaint investigation report was issued by ET on 7<sup>th</sup> September 2006 and the details of complaint are shown in Appendix I.

#### **Environmental Licensing and Permitting**

- 10. License/Permits granted to the Project include the Environmental Permit (EP), Construction Noise Permits (CNP), Waste Disposal (Chemical Waste) License and Water Discharge Permit.
- 11. A total of one new CNP (CNP no.: GW-RN0438-06) was issued by the EPD in the reporting quarter.

#### **Future Key Issues**

- 12. Drainage works, construction of retaining wall, parapet construction, noise barrier erection, slope works and installation of aluminum cladding above existing footpath will be the major construction activities for the coming months.
- 13. The anticipated environmental issues will be mainly dust impact and construction noise nuisance during the slope works and parapet construction.

#### 1. INTRODUCTION

- 1.1 Sha Tin Heights Tunnel and Approaches (SHT) (hereinafter called the "Project") forms part of the Route 9 (Formerly Route 8) between Cheung Sha Wan and Sha Tin project, which will be a new expressway connecting west Kowloon and Sha Tin. The Project, the entrusted portion of the Route 9 (Formerly Route 8) project, is being managed and implemented by Civil Enginnering & Development Department (CEDD).
- 1.2 The Project works mainly comprise the site formation for a toll plaza at the valley of Sha Tin Heights, the construction of 1 km long dual three-lane tunnels under Sha Tin Heights, a 0.6 km long dual two-lane tunnel approach road in Tai Wai, two slip road viaducts with approximately total length of 1 km connecting to Che Kung Miu Road, associated noise barriers and noise enclosures, drainage, slope works and landscape woks. The remainder of the Route 9 (Formerly Route 8) (Main Portion, R9K) project forms the Kowloon Section and is being managed and implemented separately by Highways Department.
- 1.3 The Project is a Designated Project under the Environmental Impact Assessment Ordinance (Cap. 449, EIAO). An environmental impact assessment (EIA) report has been prepared in 1998 for the Route 9 (Formerly Route 8) project to consider the key issues of noise, air quality, water quality, ecological, construction waste, landscape and visual, land use and culture impacts, and identify possible mitigation measures. An updated Final EIA report was subsequently completed in August 1999 to cater for some changes in the main portion. The 1998 and 1999 Route 9 (Formerly Route 8) EIA (R9 EIA Reports) reports were included in the EIA register under the EIAO as report number EIA-135/BC and AEIAR-022/1999 respectively. EM&A Manuals for each of the R9 EIA reports were also included as part of the EIA reports in the register.
- 1.4 Subsequent to the endorsement of the R9 EIA reports by EPD in November 1999, the R9 project was deferred to start in 2002/2003 for completion by 2006/07. The implementation of the Route 9 (Formerly Route 8) project was then separated into the SHT and R9K portions. Meanwhile further design amendments had also been proposed for the SHT during the detailed design stage to resolve various engineering constraints. In view of these changes, an Environmental Review on the SHT was undertaken to update the findings of the R9 EIA reports. The Environmental Review report for R9S was completed in September 2001 and an Environmental Permit No. EP-104/2001 was issued on 4<sup>th</sup> October 2001 for the Project.
- 1.5 The works of the SHT is constructed under CEDD's construction Contract No. ST 89/02 "Sha Tin Heights Tunnel and Approaches". The site layout of the Project is shown in Figure 1.
- 1.6 Cinotech Consultants Limited (Cinotech) was commissioned by CEDD to undertake the Environmental Team (ET) Services for the Project. This is the sixteenth Quarterly EM&A report summarizing the EM&A works for the Project between August and October 2006.

#### 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 CEDD, Engineer Representative (ER), Independent Environmental Checker (IEC), the Contractor and Environmental Team (ET). The organization chart and contact details are shown in Appendix A and Figure 3.

#### Construction Programme and Synopsis of Work

- 2.2 The construction programme is presented in Appendix B. The construction activities undertaken in this reporting quarter were:
  - Slope works;
  - · Bridge works;
  - Construction of retaining wall;
  - Rising existing manhole level;
  - · Drainage works;
  - Demolition of Temporary Access Road No.1;
  - Parapet construction;
  - Erection of noise barrier;
  - · Slope upgrading works; and
  - Slope stabilization works.

#### 3. ENVIRONMENTAL MONITORING AND AUDIT REQUIREMENTS

#### **Monitoring Parameters and Monitoring Locations**

3.1 The EM&A Manuals designate 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 2a and 2b. Appendix C gives details of monitoring requirements.

#### **Monitoring Methodology and Calibration Details**

3.2 Monitoring works/equipments were conducted/calibrated regularly in accordance with the EM&A Manuals. Copies of calibration certificates were attached in the appendices of the Monthly Reports.

#### **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 Manuals for the Contractor to implement. A list of mitigation measures is given in Appendix E.

#### 4. MONITORING RESULTS

4.1 The summary exceedance report in this reporting quarter is presented in Appendix J.

#### **Weather Conditions**

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

#### **Air Quality**

- 4.3 All 1-hour TSP monitoring was conducted as scheduled in the reporting quarter except monitoring at stations A2 and A3 on 2<sup>nd</sup> & 3<sup>rd</sup> August and 7<sup>th</sup> & 13<sup>th</sup> September 2006 was cancelled due to adverse weather.
- 4.4 All 24-hr TSP monitoring was conducted as scheduled in the reporting quarter except monitoring at station A3 on 12<sup>th</sup> September 2006 was cancelled due to power failure.
- 4.5 No Action/Limit Level exceedance for both 1-hour TSP and 24-hour TSP monitoring was recorded in the reporting quarter.
- 4.6 The monitoring data of 1-hour and 24-hour TSP Levels are shown in the appendices of the Monthly Reports. The graphical presentations of the monitoring results are shown in Appendix F.

#### Noise

- 4.7 All construction noise monitoring was conducted as scheduled in the reporting quarter.
- 4.8 No Action/Limit Level exceedance was recorded in the reporting quarter.
- 4.9 The noise monitoring data are attached in the appendices of the Monthly Reports. The graphical plots of the noise monitoring results in this reporting quarter are shown in Appendix G.

#### 5. AUDIT RESULTS

#### **Implementation Status of Environmental Mitigation Measures**

5.1 The implementation status of environmental mitigation measures (EMIS) is given in Appendix G.

#### **Site Audit Summary**

Water Quality

- 5.2 In the reporting quarter, the following was observed regarding water quality during site inspections:
  - ♦ Stagnant water was observed near the Abutment No. 4 at Che Kung Miu Road. The Contractor has been reminded to clear the water as soon as possible.
  - ♦ Debris inside a vacant space at Abutment No. 3 was observed. The Contractor has been recommended to clear the debris as soon as possible.

Air Quality

5.3 No environmental deficiency was identified during the environmental site inspection in the reporting quarter.

Noise

5.4 The doors for an air compressor at upper sloped area of Retaining Wall G and the covers for excavator engines were observed being opened during operation. The Contractor was reminded that the compressor doors and engine covers should always be closed even when equipment is idle.

Waste / Chemical Management

- 5.5 In the reporting quarter, the following was observed regarding waste/chemical management during site inspections:
  - ♦ A pile of wooden materials with general refuse was observed accumulated near the stagnant water area abovementioned. The Contractor was reminded that the refuse should be disposed of regularly.
  - ♦ No drip tray was provided for container with spent oil. The Contractor was reminded to provide drip tray for the container or return the oil to oil inceptor.

Permit / Licenses

5.6 No environmental deficiency was identified during the environmental site inspection in the reporting quarter.

#### Status of Environmental Licensing and Permitting

5.7 Environmental licenses and permits including Environmental Permit for the Project, Construction Noise Permits (CNPs), Waste Disposal (Chemical Waste) License and Water Discharge Permit were in place and valid during this reporting quarter. A summary status of licenses and permits is given in Appendix H.

### **Advice on Solid Waste Management Status**

5.8 The solid waste generated from the Project site office was mainly general refuse that was collected by a licensed collector on an as need basis.

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

#### **Summary of Exceedances**

1-hr TSP

6.1 No Action/Limit Level exceedance was recorded in the reporting quarter.

24-hr TSP

6.2 No Action/Limit Level exceedance was recorded in the reporting quarter.

Noise

6.3 No Action/Limit Level exceedance was recorded in the reporting quarter.

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

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

#### **Summary of Actions Taken**

- 6.5 In this reporting quarter, the following mitigation measures were implemented:
  - Frequent watering on haul roads was applied for dust suppression;
  - Excavated/dusty materials have been covered by tarpaulin or water sprayed;
  - Wheel washing facilities were provided;
  - Groundwater pumped out was recycled via sediment tanks; and
  - 'AquaSed' has been setup to incorporate with the modified desilting system.

#### 7. ENVIRONMENTAL COMPLAINTS

#### **Complaint Log**

- 7.1 The implementation status of the complaint handling procedure is summarized in Appendix I.
- 7.2 One complaint was received by EPD on 28<sup>th</sup> August 2006 and referred to ET on the same day.
- 7.3 The complaint, as received by EPD on 28<sup>th</sup> August 2006, EPD received a complaint and referred to ET on the same day, which was about construction dust generated from the construction site at Sha Tin Heights Southern Tunnel near Tai Po Road Sha Tin Heights, Sha Tin. The complaint was considered not justifiable. The Complaint investigation report was issued by ET on 7<sup>th</sup> September 2006 and the details of complaint are shown in Appendix I.

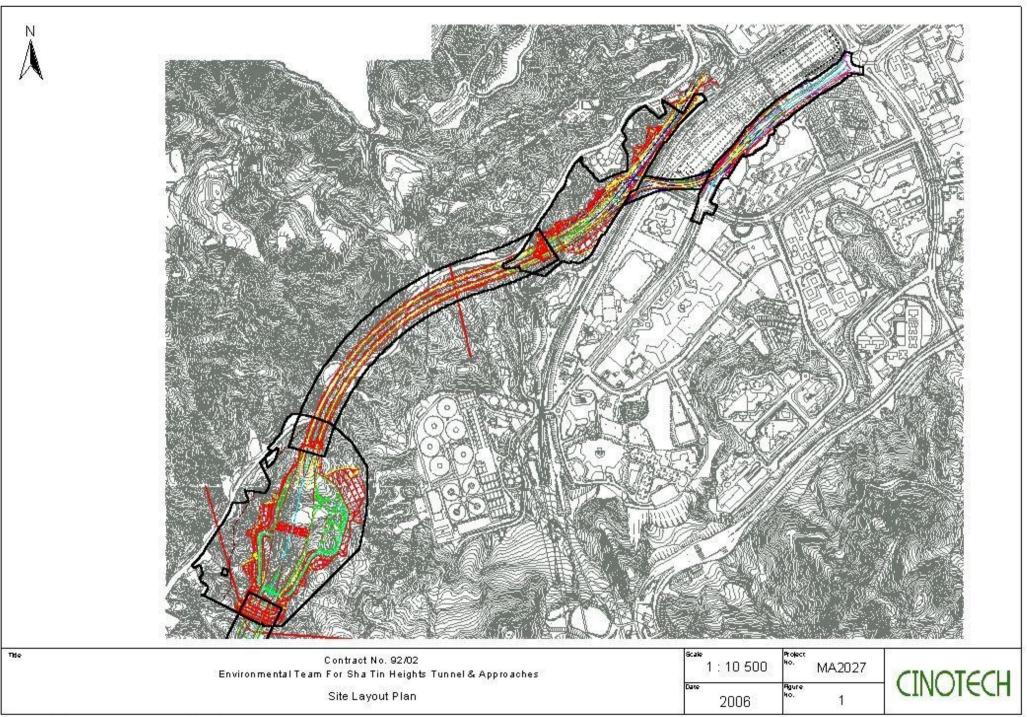
#### 8. NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS

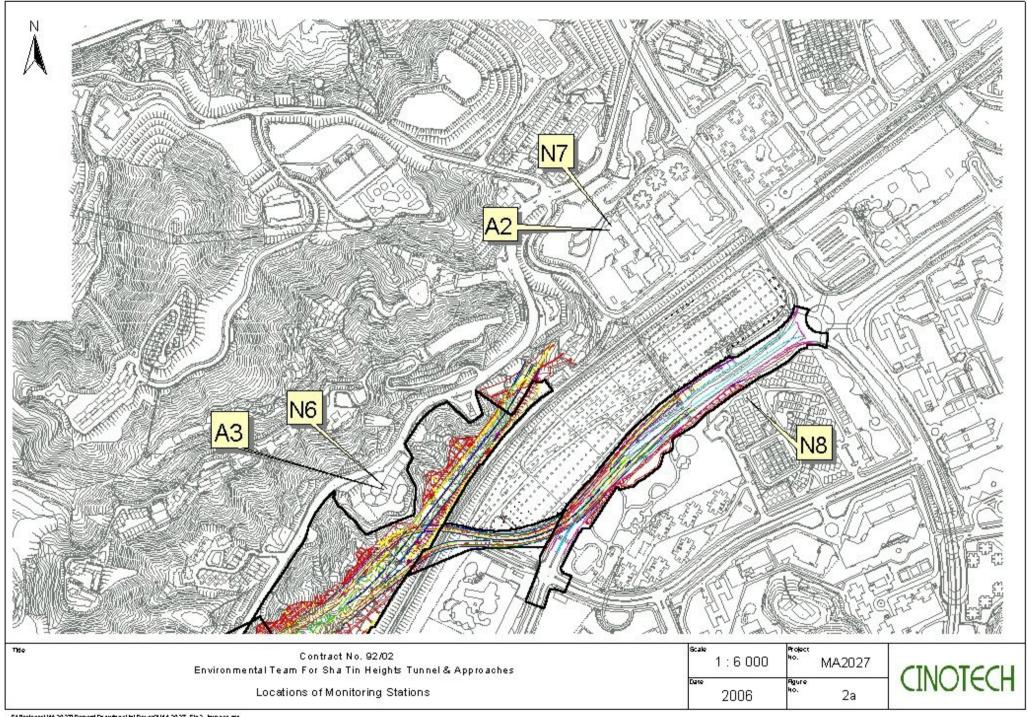
8.1 No environmental prosecution was recorded in the reporting quarter.

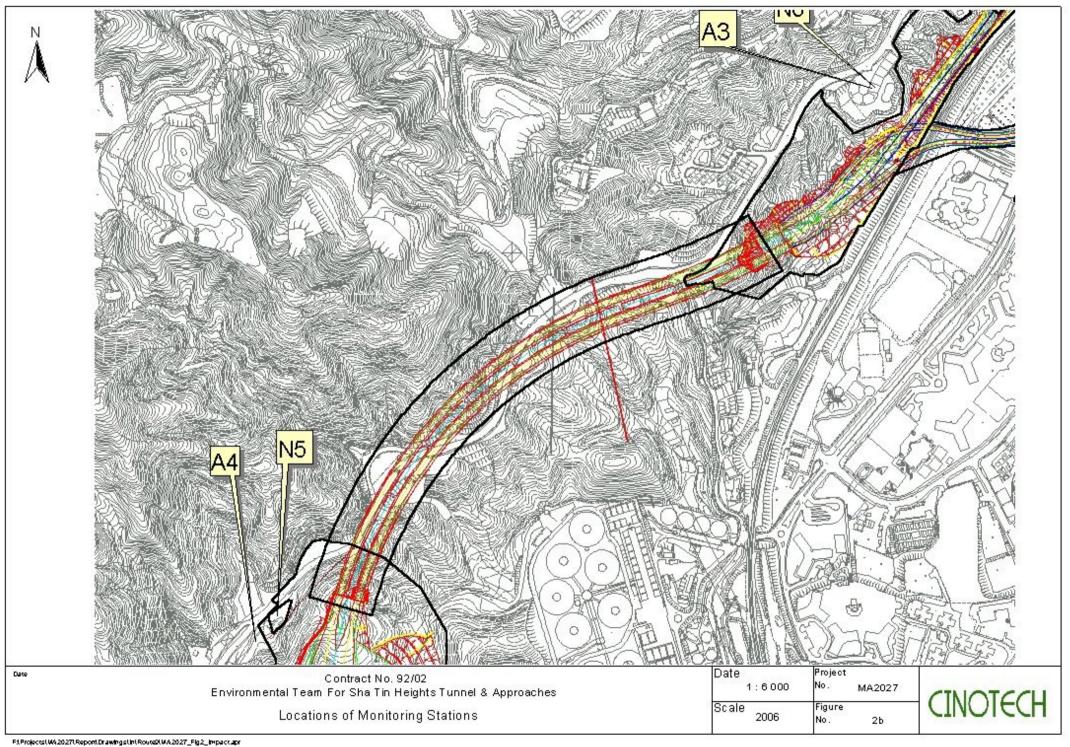
#### 9. COMMENTS, CONCLUSIONS AND RECOMMENDATIONS

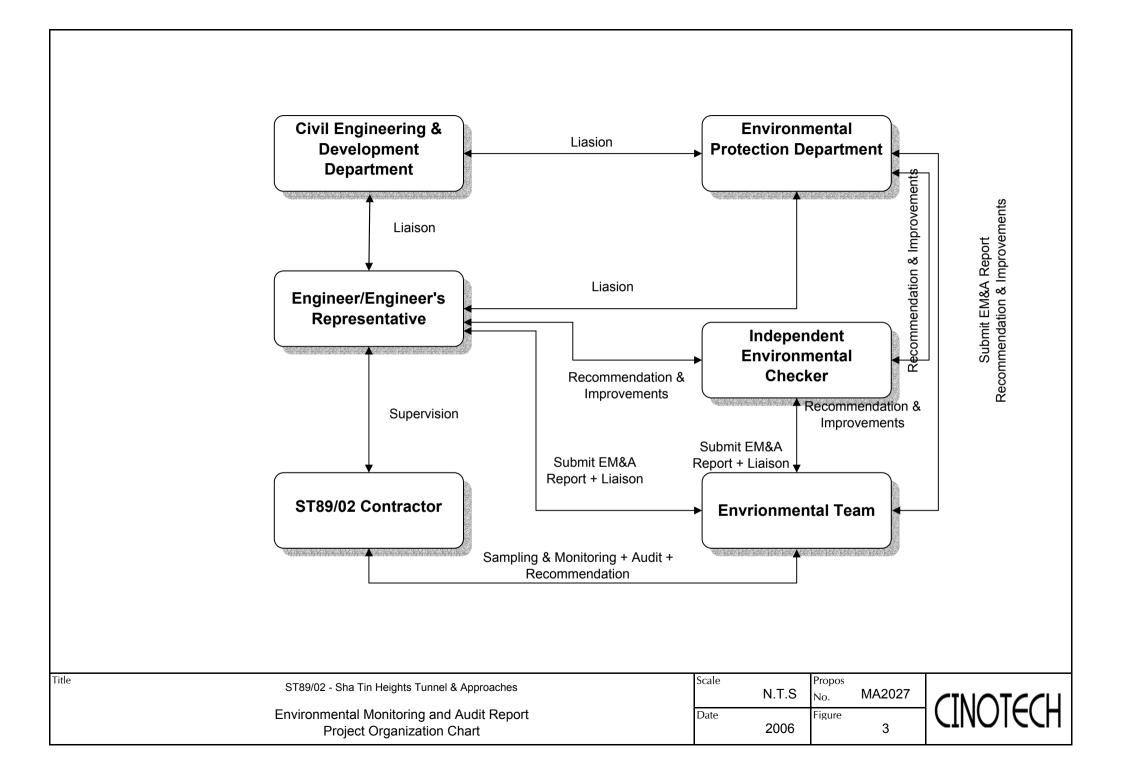
- 9.1 Drainage works, construction of retaining wall, parapet construction, noise barrier erection, slope works and installation of aluminum cladding above existing footpath will be the major construction activities for the coming quarter.
- 9.2 The anticipated environmental issues will be mainly dust impact and construction noise nuisance during the slope works and parapet construction.

# **FIGURES**









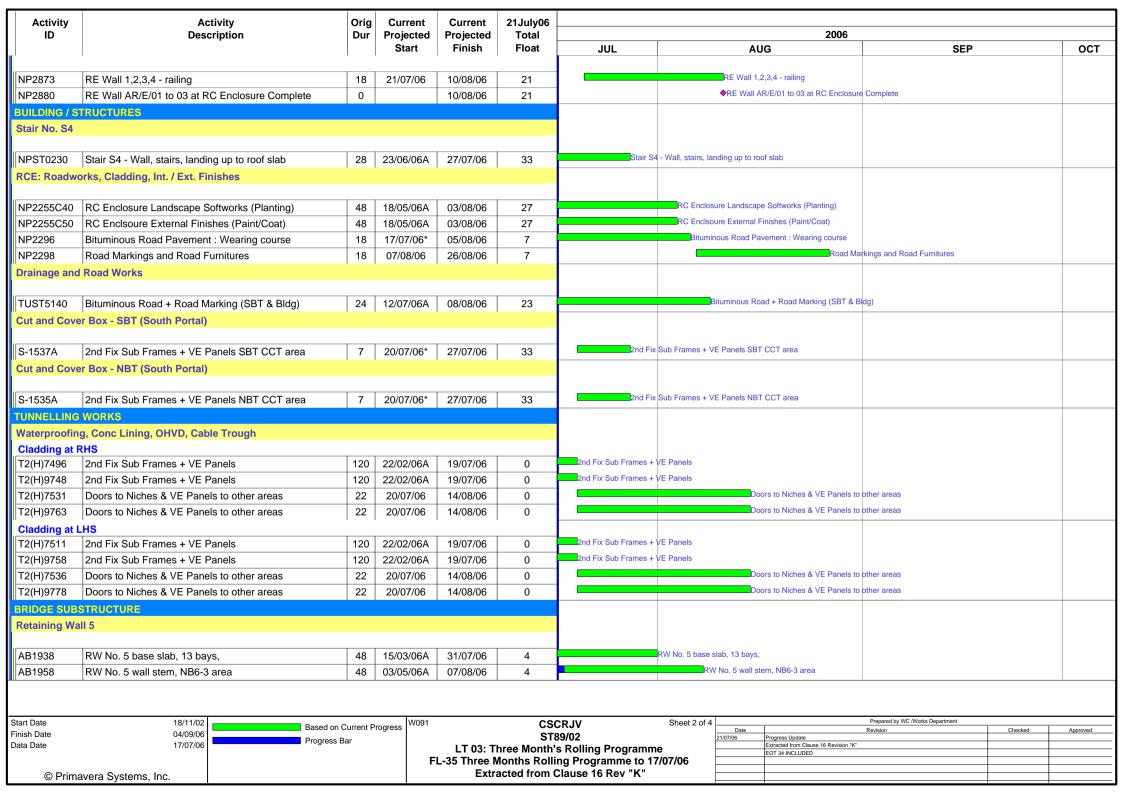
APPENDIX A CONTACT DETAILS OF THE PROJECT ORGANISATION

**Appendix A - Contact Details of the Project Organisation** 

Party	Name	Role	Phone No.	Fax No.
CEDD	Ms. Joanna Kwok	Permit Holder	2301 1383	2739 0076
CEDD	Mr. Robert Choy	Project Coordinator	2301 1373	2721 8630
	Mr. Francis Leong	The Engineer	2685 6517	2691 2649
MCAL	Mr. K.Y. Chan	En sin son's Donnes outstine	9750 0557	2697 4106
	Mr. S. K. Lo	Engineer's Representative	9751 9638	2697 4106
	Dr. Priscilla Choy	The ET Leader	2151 2089	
ET	Mr. Ray Yan	Audit Team Leader	2947 8682	3107 1388
	Mr. Henry Leung	Monitoring Team Leader	2151 2087	
IEC	Mr. David Yeung	Independent Environmental	2507 2203	2507 2293
ille	wii. David Teding	Checker	2307 2203	2301 2273
Contractor Mr. David Lau		Senior Project Manager	2601 7917	2697 1592
24-hour Hot	tline	9759 9852	-	

# APPENDIX B CONSTRUCTION PROGRAMME

		Ī				
Activity ID	Activity Description	Orig Dur	Current Projected	Current Projected	21July06 Total	2006
	Doscription	Jui	Start	Finish	Float	JUL AUG SEP OCT
SECTION XIV	-BRIDGE N1, N2, S1, S2 (7 JAN 06)					
BRIDGE SUP	ERSTRUCTURE					
Bridge Deck	S2					
Stage 2 - NS	32/2 to NS2/3					
AB3322	Parapet S2-2, Span 2 (north side)	16	11/07/06A	28/07/06	14	Parapet S2-2, Span 2 (north side)
Bridge Deck						
Stage 2 - NS						
AB3416	Parapet N2-1(TMIC duct)Span 2, 3 bays, NB7-1	16	11/07/06A	28/07/06	0	Parapet N2-1(TMIC duct)Span 2, 3 bays, NB7-1
	- REMAINDER OF WORKS (4 SEP 06)					
	TION & SLOPE WORKS					
Slope 7SW-I	D/FR5					
0005400	D 15111 ( 05 DD	10	4=/0=/00	0=/0=/00		Pook Filing from ASMPD
SB3546C	Back Filling from +95mPD	10	17/07/06	27/07/06	9	Back Filling from +95mPD
SB3547C	Back Filling from +102mPD	10	28/07/06	08/08/06	9	Back Filling from +102mPD Planting works - 7SW-D/FR5
SB3548	Planting works - 7SW-D/FR5	6	09/08/06	15/08/06	9	
SB3546	U-Channel construction	8	16/08/06	24/08/06	9	U-Channel construction  ♦Slope 7SW-D/FR5 Complete
SB3572	Slope 7SW-D/FR5 Complete	0		24/08/06	9	▼Stope 75W-D/FRS Complete
External Wo	rks					
000700	OL FIN TREAS	10	00/07/004	05/07/00		Slope Filling TPF10
SP3760	Slope Filling TPF10	16	06/07/06A	25/07/06	20	
SP3770	Slope Filling TPF11	15	26/07/06	11/08/06	20	Slope Filling TPF11
Portion 15 A	rea					
NDOOLO	D: W.I. ( I I I I I I I I I I I I I I I I I	144	07/07/00 4	04/07/00		Drainaga Watta ( u abangala Lastabrit)
NP3610	Drainage Works ( u-channels + catchpit)	14	07/07/06A	24/07/06	22	Drainage Works ( u-channels + catchpit)
NP3620	Concrete Footpath	14	25/07/06	09/08/06	22	Concrete Footpath  FTNS & other utilities construction
NP3630	FTNS & other utilities construction	14	25/07/06	09/08/06	22	◆Works in Portion 15 Complete
NP3640	Works in Portion 15 Complete	0		09/08/06	22	▼Works in Polition 13 Complete
DRAINAGE V						
Drainage Div	version near Roundabout					
AB1397	CCTV /Desilting	24	13/05/06A	26/07/06	34	CCTV /Desilting
		24	13/03/00A	20/07/00	34	
Drainage Un	der Bridge N2					
AB1365	DN375 Line, "M" Series (MH- M1 to M7)L=150m	36	11/05/06A	27/07/06	9	DN375 Line, "M" Series (MH- M1 to M7)L=150m
AB1367	CCTV /Desilting	24	28/07/06	24/08/06	9	CCTV /Desilting
1111	STRUCTURES		20/01/00	2-7,00,00	<u> </u>	
	and 3 in RC Enclosure Area					
NE Wall 1,2 d	and 3 III NO Eliciosure Alea					
NP2872	RE Wall 1,2,3,4 - coping	24	26/06/06A	25/07/06	21	RE Wall 1,2,3,4 - coping
NP2890	RE Wall AR/E/01 (Part 1) + APF2	21	26/06/06A	21/07/06	18	RE Wall AR/E/01 (Part 1) + APF2
NP2880E	RE Wall AR/E/02 + APF1	24	18/07/06	14/08/06	18	RE Wall AR/E/02 + APF1
Start Date	10/11/00		luioni	20,00		CR.IV Sheet 1 of 4 Prepared by WC Works Department
Finish Date	04/09/06		rogress			CRJV         Sheet 1 of 4         Prepared by WC /Works Department           89/02         Date         Revision         Checked         Approved           21/07/06         Progress Update         Checked         Approved
Data Date	17/07/06 Progress B	раг		LT 03: TI	hree Month'	S Rolling Programme Extracted from Clause 16 Revision 'K'  FOT 34 INCL IUPED  FOT 34 INCL IUPED
			F			ing Programme to 17/07/06
© Prim	avera Systems, Inc.			Extra	acted from (	Clause 16 Rev "K"



Activity	Activity	Orig	Current	Current	21July06						
ID	Description	Dur	Projected	Projected						Total	2006
			Start	Finish	Float	JUL AUG SEP OC					
BRIDGE SUP	ERSTRUCTURE										
Road Works											
AB1602	Bridge S1- Road Marking + Signs	6	17/07/06	22/07/06	7	Bridge S1- Road Marking + Signs					
AB1604	Bridge N1- Bituminous Surfacing, Final Course	10	17/07/06	27/07/06	7	Bridge N1- Bituminous Surfacing, Final Course					
AB1590	Bridge S2- Bituminous Surfacing, Final Course	10	28/07/06	08/08/06	7	Bridge S2- Bituminous Surfacing, Final Course					
AB1606	Bridge N1- Road Marking + Signs	12	28/07/06	10/08/06	21	Bridge N1- Road Marking + Signs					
AB1592	Bridge N2- Bituminous Surfacing, Final Course	10	09/08/06*	19/08/06	7	Bridge N2- Bituminous Surfacing, Final Course					
ABCK7872	Bridge S2- Road Marking + Signs	12	09/08/06	22/08/06	7	Bridge S2- Road Marking + Signs					
ABCK7870	Bridge N2- Road Marking + Signs	6	21/08/06	26/08/06*	7	Bridge N2- Road Marking + Signs					
NB7 Type 1, I	N2, NS2/1 to NS2/5, L=232m										
Bridge N2											
AB2812	NB7 Type 1- steel frame - Span 1 and 2	16	29/07/06	16/08/06	0	NB7 Type 1- steel frame - Span 1 and 2					
AB2814	NB7 Type 1 - install panel, Span 1 and 2	16	17/08/06	04/09/06	0	NB7 Type 1 - install panel, Span 1 and 2					
NB9 Type 4,	S2, NS2/3- NS2/5, L= 78.5m										
Bridge S2	_										
AB2990	NB9 Type 4 - install panel, NS2/3 to NS2/5	18	12/07/06A	01/08/06	11	NB9 Type 4 - install panel, NS2/3 to NS2/5					
NB9 Type 4, Bridge S2, Ret Wall 4, L= 56m											
Bridge S2											
AB2840	NB9 Type 4 - steel frame, RW4 area	24	12/07/06A	08/08/06	5	NB9 Type 4 - steel frame, RW4 area					
AB2850	NB9 Type 4 - install panel, RW4 area	18	09/08/06	29/08/06	5	NB9 Type 4 - install panel, RW4 area					
WATERMAIN											
Watermain Fo	04 & S02 Diversion										
AB2004	F04-DN450 / S02-300 WM pipelaying - CH027-113	48	08/04/06A	01/08/06	9	F04-DN450 / S02-300 WM pipelaying - CH027-113					
AB2006	F04-DN450 / S02-300 WM pressure test	2	02/08/06	03/08/06	9	F04-DN450 / S02-300 WM pressure test					
AB2007	F04-DN450 WM sterilization & sample test	6	04/08/06	10/08/06	9	F04-DN450 WM sterilization & sample test					
AB2001	F04-DN450 / S02-300 WSD approval for connection	6	11/08/06	17/08/06	9	F04-DN450 / S02-300 WSD approval for connection					
AB2009	F04-DN450 / S02-300 watermain connection	6	18/08/06	24/08/06	9	F04-DN450 / S02-300 watermain connection					
ROADWORKS	s										
Road Works											
ABCK7554C	Soft Landscaping (CKMR)	48	24/05/06A	12/08/06	19	Soft Landscaping (CKMR)					
ABCK7558E	Concrete Footpath + Paving Blocks (CKMR)	48	24/05/06A	12/08/06	13	Concrete Footpath + Paving Blocks (CKMR)					
ABCK7558F	Railing + Untensioned safety fence	30	29/07/06	01/09/06	2	Railing + Untensioned safety fence					
Traffic Direct	tional Signs (TDS)+Support										
TD0182	Other Directional Signs at CKMR - Installation	36	09/05/06A	12/08/06	19	Other Directional Signs at CKMR - Installation					
NB6-3, Type	1 RW 5, CKMR SB area) L=180m										
AB1942	NB6-3 Type 1 - steel frame, RW5 area	18	27/07/06	16/08/06	4	NB6-3 Type 1 - steel frame, RW5 area					
Start Date	19/11/02	`	w091	<u> </u>	CSC	CRJV Sheet 3 of 4 Prepared by WC /Works Department					
Finish Date	04/09/06 Based on C		rogress		ST8	Date   Revision   Checked   Approved					
Data Date	17/07/06 Progress E	rui		LT 03: TI	hree Month's	S Rolling Programme Extracted from Clause 16 Revision 'K'  FOT 34 INCL INFP					
			F			ng Programme to 17/07/06					
© Prima	avera Systems, Inc.			EAU	acteu monii C	NUMBER TO NOT IN					

NP2480E NP3650 NP3660 NOISE BAR	Activity Description  NB6-3 Type 1 - install panel, RW5 area s in North Portal Approach Area	Orig Dur	Current Projected Start	Current Projected	21July06 Total		2000		
AB1948 Road Work  NP2480E NP3650 NP3660 NOISE BAR	NB6-3 Type 1 - install panel, RW5 area		-	_		2006			
NP2480E NP3650 NP3660 NOISE BAR		12	ļ.	Finish	Float	JUL	AUG	SEP	ОСТ
NP2480E NP3650 NP3660 NOISE BAR		12		I	I				
NP2480E NP3650 NP3660 NOISE BAR	s in North Portal Approach Area		17/08/06	30/08/06	4	1	N	NB6-3 Type 1 - install panel, RW5 area	
NP3650 NP3660 NOISE BAR									
NP3650 NP3660 NOISE BAR									
NP3660 NOISE BAR	NP Approach Rd - Landscape Softworks	48	10/05/06A	18/07/06	41	NP Approach Rd - Lands	cape Softworks		
NOISE BAR	Railing + untensioned safety fence	24	30/06/06A	29/07/06	31		ing + untensioned safety fence		
	Boundary fence installation	24	30/06/06A	29/07/06	31	Bou	ndary fence installation		
NB1-1, TYF	RIER								
	E 3, NPF4 area, L=30m								
III									
AB3050	Noise Barrier Structural Steel Works	12	12/07/06A	25/07/06	25	Noise Barri	er Structural Steel Works		
AB3060	Noise Barrier Panel Installation	10	26/07/06	05/08/06	25		Noise Barrier Panel Installation		
NB1-5 TYP	E 3A/ 3 (N. Portal Area)L= 159m								
NP3220	Noise Barrier Panel Installation	18	05/07/06A	26/07/06	34	Noise Bar	rier Panel Installation		
NB1 Type 3	(Bridge N1 to Abut 1)L = 100m								
Bridge N1									
AB0830	NB1 Type 3 - steel frame (80m)	30	12/07/06A	15/08/06	2		NB1 Type 3 - steel frame (80m	n)	
AB0860	NB1 Type 3 - install panels (80m)	15	16/08/06	01/09/06	2			NB1 Type 3 - install panels (80m)	
NB11 TYPE	1 (Bridge N1 to Abut 1) L= 110m								
Bridge N1									
AB1944	NB11 Type 1 - steel frame (20m) (after FADS3)	7	17/07/06	24/07/06	11	NB11 Type 1	- steel frame (20m) (after FADS3)		
AB1947	NB11 Type 1 - install panels (90m)	15	17/07/06	02/08/06	28		NB11 Type 1 - install panels (90m)		
AB1949	NB11 Type 1 - install panels (90m)	7	25/07/06	01/08/06	11		NB11 Type 1 - install panels (90m)		
NB4-2 TYP	E 3 (N. Portal Approach Area) L=200m								
NP3270	Noise Barrier Panel Installation	18	04/07/06A	25/07/06	35	Noise Barri	er Panel Installation		
SECTION C	OMPLETION								
Contract C	ompletion Date(SA6+EOT AWARD 27)								
CONP3170	Section XVI (Remainder of Works)	0		04/09/06*	0	1		Section XVI (Remainder of Works)	
									ļ
									ļ
									ļ
									J
									J
AB0860  NB11 TYPE  Bridge N1  AB1944  AB1947  AB1949  NB4-2 TYPE  NP3270  SECTION C	NB1 Type 3 - install panels (80m)  1 (Bridge N1 to Abut 1) L= 110m  NB11 Type 1 - steel frame (20m) (after FADS3)  NB11 Type 1 - install panels (90m)  NB11 Type 1 - install panels (90m)  E3 (N. Portal Approach Area) L=200m  Noise Barrier Panel Installation  OMPLETION  completion Date(SA6+EOT AWARD 27)	7 15 7 18	16/08/06 17/07/06 17/07/06 25/07/06	01/09/06 24/07/06 02/08/06 01/08/06 25/07/06	2 11 28 11 35		- steel frame (20m) (after FADS3)  NB11 Type 1 - install panels (90m)  NB11 Type 1 - install panels (90m)	NB1 Type 3 - install panels (80m)	

Start Date	18/11/02		W091	CSCRJV Sheet 4	of 4			Prepared by WC /Works Department		
Finish Date	04/09/06	Based on Current Progress		COUNT		Date	F	Revision	Checked	Approved
		Progress Bar		ST89/02	2		Progress Update			
Data Date	17/07/06	1 Togress Bar		LT 03: Three Month's Rolling Programme	L		Extracted from Clause 16 Revision "K"			
			_				EOT 34 INCLUDED			
			F	L-35 Three Months Rolling Programme to 17/07/06						
© Primavera Systems,	Inc.			Extracted from Clause 16 Rev "K"						

# APPENDIX C MONITORING REQUIREMENTS

**Appendix C - Environmental Impact Monitoring Requirements** 

Type of Monitoring	Parameter	Frequency	Location	Measurement Conditions
Air Quality	1-hour TSP	3 times every 6 days	A2 (Lau Pak Lok Secondary School)	<ul> <li>A2 – on the roof top facing the site area</li> <li>A3 – on the roof top</li> </ul>
7 in Quanty	24-hour TSP	Once every 6 days	<ul> <li>A3 (Shatin Heights)</li> <li>A4 (Garden Villa)<sup>(2)</sup></li> </ul>	facing the site area  • A4 – on ground facing the site area
	$L_{eq}$ , $L_{90}$ & $L_{10}$ at 30 minute intervals during (0700 to 1900 on normal weekdays)	Once per week		N5– Façade
Noise <sup>(1)</sup>	$L_{eq}$ , $L_{90}$ & $L_{10}$ at 5 minute intervals during (1900 to 2300)	Once per week (include 3 consecutive 5-min measurements)	<ul><li>N5 (Garden Villa)</li><li>N6 (Shatin Heights)</li><li>N7 (Lau Pak Lok</li></ul>	Measurement  • N6 – Façade  Measurement
	$L_{eq}$ , $L_{90}$ & $L_{10}$ at 5 minute intervals during (2300 to 0700 of next day)	Once per week (include 3 consecutive 5-min measurements)	Secondary School)  N8 (187 Tin Sam Tsuen)	<ul><li>N7 – Façade Measurement</li><li>N8 –Façade</li></ul>
	L <sub>eq</sub> , L <sub>90</sub> & L <sub>10</sub> at 5 minute intervals during (0700 to 1900 on holidays)	Once per week (include 3 consecutive 5-min measurements)		Measurement

<sup>(1) —</sup> Conduct noise monitoring only when construction work is carried out.

<sup>(2) -</sup> Station A4 has been operating since 8 September 2003 and was relocated from Garden Villa to the nearby slope no. 07SW-D/FR4 on 14 February 2005.

APPENDIX D ENVIRONMENTAL QUALITY PERFORMANCE (ACTION/LIMIT) LEVELS

# Appendix D - Action and Limit Levels

Table 1 Action and Limit Levels for 1-Hour TSP

Location	Action Level, μg/m <sup>3</sup>	Limit Level, μg/m <sup>3</sup>
A2		
A3	350	500
A4		

Table 2 Action and Limit Levels for 24-Hour TSP

Location	Action Level, μg/m <sup>3</sup>	Limit Level, μg/m <sup>3</sup>
A2	186	
A3	200	260
A4	200	

Table 3 Action and Limit Level for Construction Noise

Action	ı Level	Limit Level
0700-1900 hrs on normal weekdays	One or more complaint(s) received in one week	75* dB(A)
1900-2300 hrs on holidays & 0700- 2300 hrs on all other days		60/65/70** dB(A)
2300-0700 hrs of next day		45/50/55** dB(A)

<sup>(\*)</sup> reduce to 70 dB(A) for schools and 65 dB(A) during school examination periods.

<sup>(\*\*)</sup> to be selected based on Area Sensitivity Rating. If Specified Powered Mechanical Equipment (SPME) is employed, the noise limits should be 15 dB(A) less than that shown above for the restricted hours.

APPENDIX E IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES (EMIS) Appendix E - Summary of Environmental Mitigation Implementation Schedule

Types of Impacts	Mitigation Measures	Status
	• Any stockpile of dusty materials or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water so as to maintain the entire surface wet.	^
	<ul> <li>A stockpile of dusty materials should not extend beyond the pedestrian barriers, fencing or traffic cones.</li> </ul>	^
	<ul> <li>Vehicle washing facilities should be provided at every exit point.</li> </ul>	^
	<ul> <li>The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores.</li> </ul>	^
	• Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit.	^
<b>Construction Dust</b>	<ul> <li>Every main haul road should be sprayed with water or a dust suppression chemical so as to maintain the entire road surface wet.</li> </ul>	^
	• The portion of any road leading only to a construction site that is within 30m of a discernible or designated vehicle entrance or exit should be kept clear of dusty materials.	^
	• Any stockpile of dusty materials should be either covered entirely be impervious sheeting, placed in an area sheltered on the top and the 3 sides or sprayed with water or a dust suppression chemical so as to maintain the entire surface wet.	^
	• All dusty materials should be sprayed with water or a dust suppression chemical immediately prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet.	^
	<ul> <li>Every vehicle should be washed to remove any dusty materials from its body and wheels immediately before leaving a construction site.</li> </ul>	^
	• The working area of any excavation should be sprayed with water or a dust suppression chemical immediately before, during and immediately after the operation so as to maintain the entire surface wet.	^
	• Only well-maintained plant should be operated on –site and plant should be serviced regularly during the construction works.	^
	• Machines and plant that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.	^
	• Plant know to emit noise strongly in one direction, should where possible, be orientated to direct noise away from the NSRS.	^
Construction	Mobile plant should be sited as far away from NSRs as possible.	^
Noise	<ul> <li>Material stockpiles and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.</li> </ul>	^
	Use quite plant and Working Method	^
	Reduce the number of plant operating in critical areas close NSRs.	^
	Construct temporary and movable noise barriers	^

Types of Impacts	Mitigation Measures	Status
Water Quality	Construction Runoff and Drainage	
	<ul> <li>Use of sediment traps and the adequate maintenance of drainage systems to prevent flooding and overflow.</li> </ul>	^
	<ul> <li>Boundaries of critical areas of earthworks should be marked and surrounded by dykes or embankments for flood protection.</li> <li>Temporary ditches should be provided to facilities runoff discharge into the appropriate watercourses, via a silt retention pond. Permanent drainage channels should incorporate sediment basins or traps and baffles to enhance deposition rates.</li> </ul>	^
	<ul> <li>All temporary and permanent drainage pipes and culverts provided to facilitate runoff discharge should be adequately designed for the controlled release of storm flows. All sediment traps should be regularly cleaned and maintained. The temporarily diverted drainage should be reinstated to its original condition when the construction works has finished or the temporary diversion is no longer required</li> </ul>	^
	• Sand silt in the wash water from the wheel washing facilities, which ensure no earth, mud and debris is deposited on roads, should be settled out the removed before discharging into storm drains. A section of the road between the wheel washing bay and the public road should be paved with backfill to prevent wash water or other site runoff form entering public road drains.	^
	<ul> <li>Oil interceptors should be provided in the drainage system and regularly emptied to prevent the release of oils and grease into the storm water drainage system after accidental spillage. The interceptor should have a bypass to prevent flushing during periods of heavy rain.</li> </ul>	^
	<ul> <li>Catchpits and perimeter channels shall be constructed in advance of site formation works and earthworks.</li> </ul>	^
	• Silt removal facilities, channels and manholes shall be suitably maintained with the deposited silt and grit being removed at least once a week, and at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.	^
	• Earthworks final surfaces shall be well compacted and the subsequent permanent work or surface protection shall be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms. Appropriate intercepting channels shall be provided along the site boundary or at the locations agreed with the ET Leader. Rainwater pumped out from trenches or foundation excavations shall be discharged into silt removal facilities before discharge into storm drains.	^
	• All generators, fuel and oil storage shall be within bunded areas. Drainage from the areas shall be connected to storm drains via a petrol interceptor.	^
	Tunnelling Work	
	• Temporary open storage of excavated materials should be covered with tarpaulin or similar fabric during rainstorms. Any washout of construction or excavated materials form the drill and blast tunnelling work should be diverted to the drainage system via appropriate sediment traps.	^
	Ground water pumped out of tunnels should be discharged into the drainage channels which incorporated sediment traps to enhance deposition rates and to remove silt.	^
	<ul> <li>Spend grouts used in diaphragm wall construction should be collected in a separate slurry collection system, reconditioned and reused wherever practicable. The disposal of used grouting materials will only be permitted if it is treated to the TM standards before discharge to the storm drains or disposal to landfill.</li> </ul>	N/A

Types of Impacts	Mitigation Measures	Status
	General Construction Activities	
	Debris and rubbish on site should be collected, handled and disposed of properly to avoid entering the water column and cause water quality impacts.	^
	• All fuel tanks and storage areas will be provided with locks and be located on sealed areas (within bunds of a capacity equal to 110% of the storage capacity of the largest tank or 20% by volume of the fuel stored in that areas, whichever in the greatest).	^
	Sewage Effluent	·L
	Construction work force sewage discharges form fixed toilet facilities on-site should be connected to the nearby existing trunk sewer wherever feasible. However, for areas where existing trunk sewer is not available, it is recommended that appropriate and adequate on site portable chemical toilets should be provided by a licensed contractor who will be responsible for appropriate disposal and maintenance of these facilities.	^
	• It is considered that sewage discharges could also be treated by on-site septic tanks and soakaway. Minimum clearance away form streams and catchments and other requirements for the proposed septic tank and soakaway should be referred to EPD's Practice Note for Professional Persons, Drainage Plans.	N/A
Waste	General	
	• Training and instruction shall be given at a site to construction staff to increase awareness and draw attention to waste management issues and the need to minimise waste generation. The training requirement shall be included in the site waste management plan.	^
	Storage, Collection and Transportation of Waste	.1.
	Wastes shall be handled and stored in a manner to ensure that they are held securely without loss or leakage.	^
	<ul> <li>Authorised or licensed waste hauliers shall be used and they shall only collect wastes prescribed by their permits.</li> <li>Waste shall be removed on a daily basis.</li> </ul>	^
	<ul> <li>Waste storage area shall be maintained and cleaned on a daily basis.</li> </ul>	^
	<ul> <li>Waste storage area shall be maintained and cleaned on a daily basis.</li> <li>Windblown litter and dust during transportation shall be minimised by either covering trucks or transporting wastes in enclosed containers.</li> </ul>	^
	<ul> <li>Obtain necessary waste disposal permits from the appropriate authorities if they are required.</li> </ul>	^
	<ul> <li>Wastes shall be disposed of at licensed waste disposal facilities.</li> </ul>	^
	<ul> <li>Develop procedure such as ticketing system to facilitate tracking of loads, particularly for chemical waste, and to ensure that illegal disposal of wastes does not occur.</li> </ul>	^
	Maintain records of the quantities of wastes generated, recycled and disposed.	^
	Surplus Excavated Materials	
	Due to the high risk of loose material being washed into the existing nullah, stockpile materials should be properly compacted and covered from water erosion and located at least 10 away from the nullah wall.	N/A
	Construction and Demolition (C&D) Waste	

Types of Impacts	Mitigation Measures	Status
	<ul> <li>Careful design, planning and good site management shall be adopted to minimise over-ordering and generation of waste materials such as concrete grouts.</li> </ul>	^
	• The handling and disposal of bentonite slurries shall be undertaken in accordance with Practice Note for Professional Persons – Construction Site Drainage (ProPECC PN 1/94) on construction site drainage.	N/A
	• Construction and demolition (C&D) material shall be segregated to inert and non-inert parts. The inert portion shall re-used at areas of reclamation or land formation, or to public filling area shall such allocation is deemed necessary. The non-inert portion shall be disposed of to landfill.	^
	Chemical Waste	
	<ul> <li>Chemical waste that is produce during construction shall be handled in accordance with the Cod of Practice on the Packaging, Handling and Storage of Chemical Wastes.</li> </ul>	^
	<ul> <li>Containers used for the storage of chemical wastes should:</li> <li>a. Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed;</li> </ul>	٨
	<ul> <li>b. Have a capacity of less than 450 litres unless the specifications have been approved by the EPD;</li> <li>c. Display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Chemical Waste Regulations.</li> </ul>	
	<ul> <li>The storage area for chemical wastes should:</li> <li>a. Be clearly labelled and used solely for the storage of chemical waste;</li> <li>b. Be enclosed on at least 3 sides;</li> <li>c. Have an impermeable floor and bunding of capacity to accommodate 110% of the volume of the largest container or</li> </ul>	
	<ul> <li>20% by volume of the chemical waste stored in the area, whichever is largest;</li> <li>d. Have adequate ventilation;</li> <li>e. Be covered to prevent rainfall entering (water collected within the bund must be tested and disposed as chemical waste if necessary);</li> </ul>	^
	f. Be arranged so that incompatible materials are adequately separated.	
	• Disposal of chemical waste shall be via a licensed waste collector; and to a facility licensed to receive chemical waste; or a reuser of the waste (under approval from EPD).	^
	General Refuse	
	• General refuse generated on-site shall be stored in enclosed bins or compaction unit separate from C&D and chemical wastes. A reputable waste collector shall be employed by the contractor to remove general refuse from the site, separately from C&D and chemical wastes, on a daily for every second day basis to minimise odour, pest and litter impacts. The burning of refuse on construction sites is prohibited by law.	^
	Reusable rather than disposable dishware shall be used if feasible.	N/A
Ecology	A sediment barrier shall be erected to minimize stream sedimentation at downstream of the project boundary of the Toll Plaza.	^

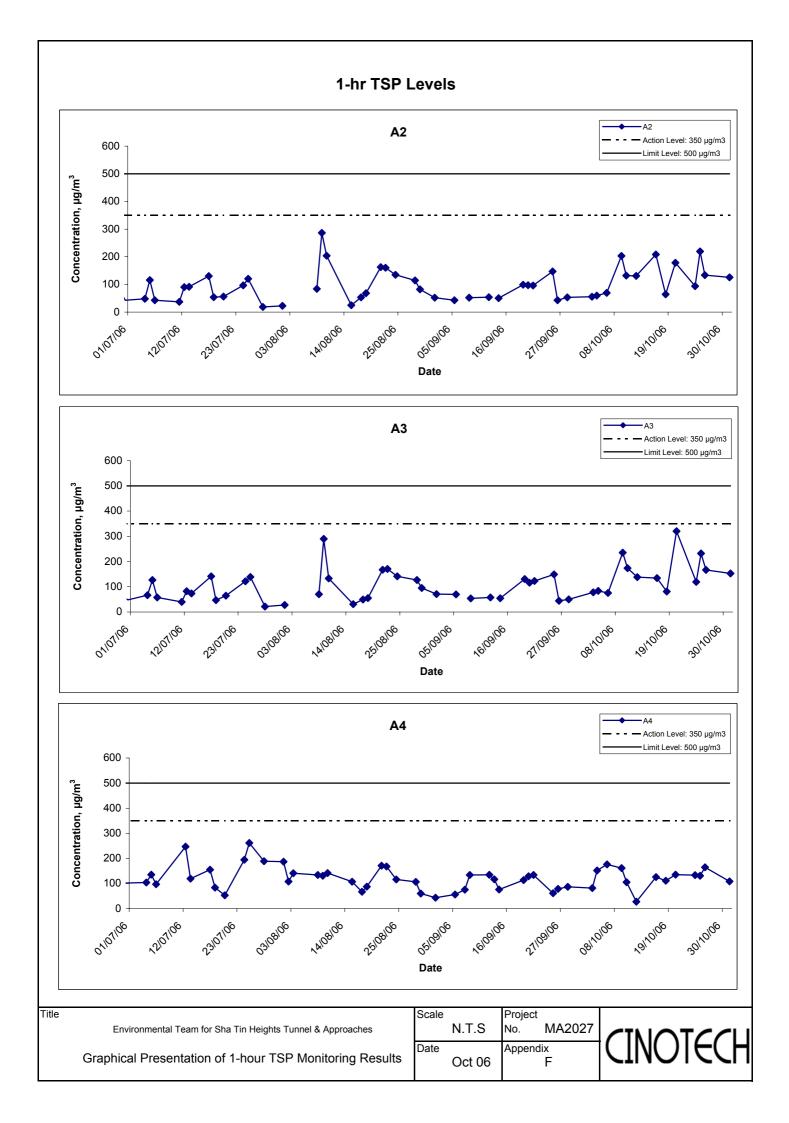
<b>Types of Impacts</b>	Mitigation Measures	Status
	Conduct a tree survey before commencement of the construction work.	^
	• All measures recommended in the approved landscape proposals under Condition 2.4 in EP above shall be fully implemented in accordance with the details and time schedule set out in the submission.	N/A
	<ul> <li>Loss of the adjacent woodland due to temporary land take shall be returned to the original status immediately.</li> </ul>	N/A
	Wild and uncontrolled fire shall be strictly prohibited	^
	• Fences shall be erected along the boundary of the construction sites at the Toll Plaza before commencement of works, to prevent tipping, vehicle movements, and encroachment of personnel onto adjacent wooded areas.	N/A
Landscape and Visual Impact	• Landscape mitigation measure 1 (LMM1) – Construction programming and management. The periphery of the works areas at street level shall be managed so that they do not appear cluttered, untidy and unattractive and inconvenient to pedestrians. For example, all hoarding shall be colorfully designed with interesting motifs demonstrating the work of Highways Department. Hoardings with bland colours shall be avoided.	N/A
	• Landscape mitigation measure 2 (LMM2) – Advanced planting and erosion control works. Where possible, the transplantation of existing valuable trees, the stockpiling of topsoil, new planting and erosion control works shall be carried out as early as possible in the construction period instead of at the end. This will assist in maximizing the time for carrying out transplantation and new planting, resulting in a higher success rate for the survival of transplantation and new planting, resulting in a higher success rate for the survival of transplanted trees and the establishment of new screen trees. The stockpiling of topsoil will provide an abundant use of on-site material for growing media. During detailed design, the issue of stockpiling of topsoil in a manner that would avoid washing into the drainage scheme should be examined comprehensively.	N/A
	Measurement of vibration would also be carried out on a need basis during the piling work	N/A

Remarks:

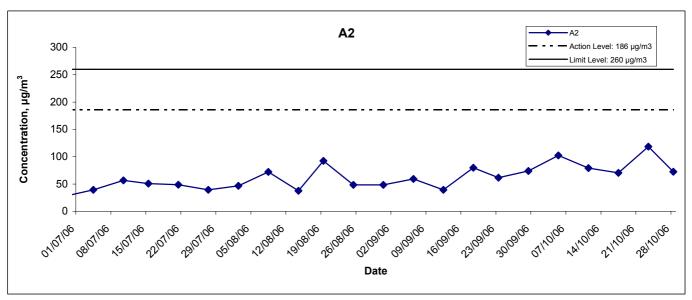
Compliance of mitigation measure; Not Applicable; N/A

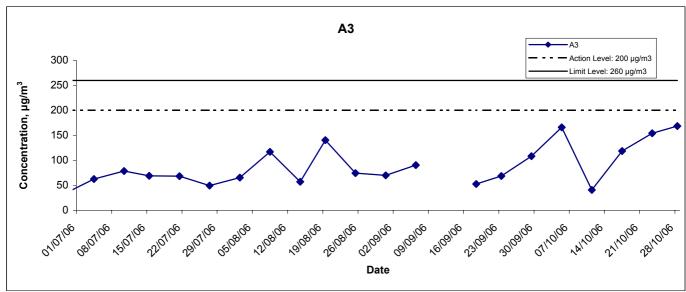
Non-compliance of mitigation measure; Non-compliance but rectified by the Contractor X

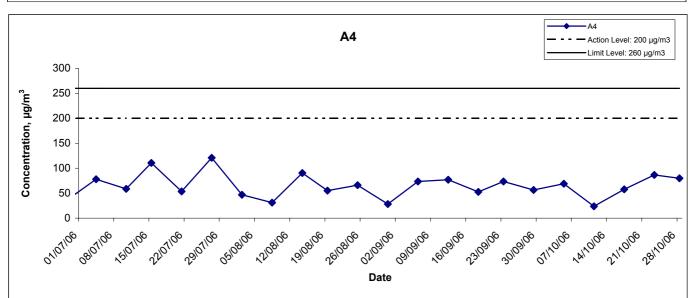
APPENDIX F GRAPHICAL PRESENTATION OF AIR QUALITY MONITORING RESULTS



#### 24-hr TSP Levels







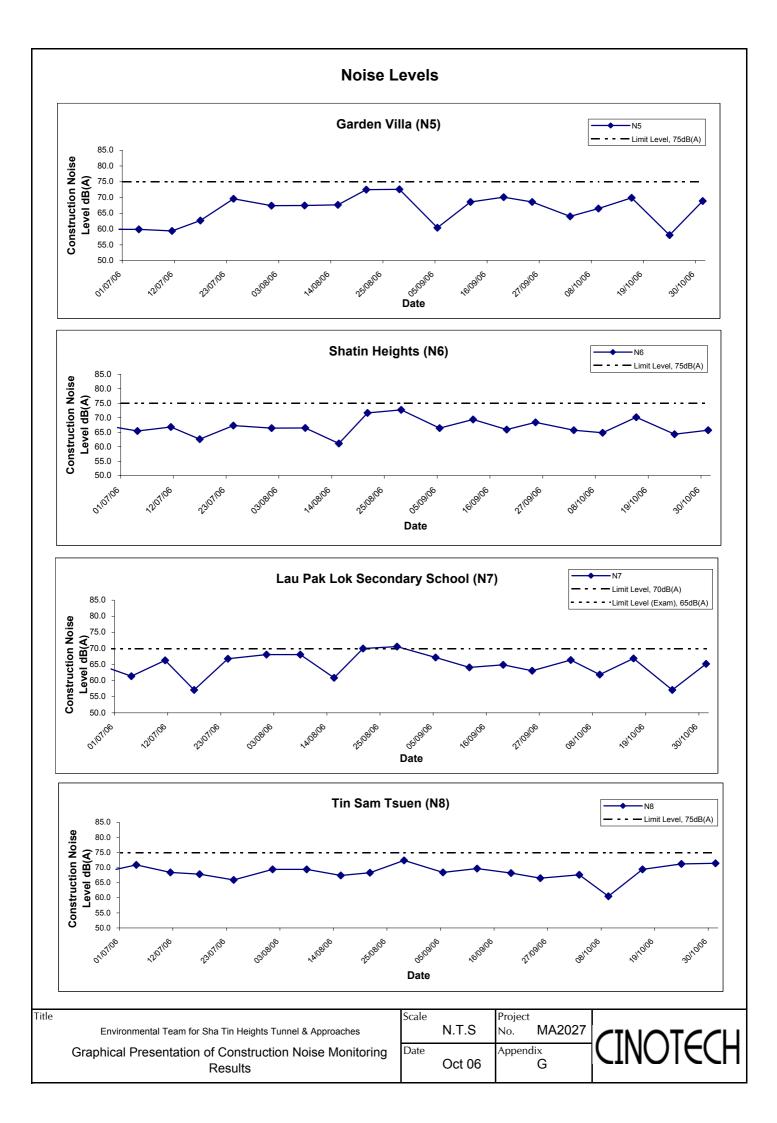
Environmental Team for Sha Tin Heights Tunnel & Approaches

Graphical Presentation of 24-hour TSP Monitoring Results

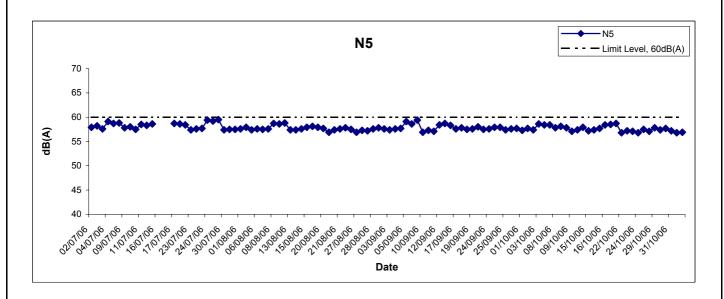
Title

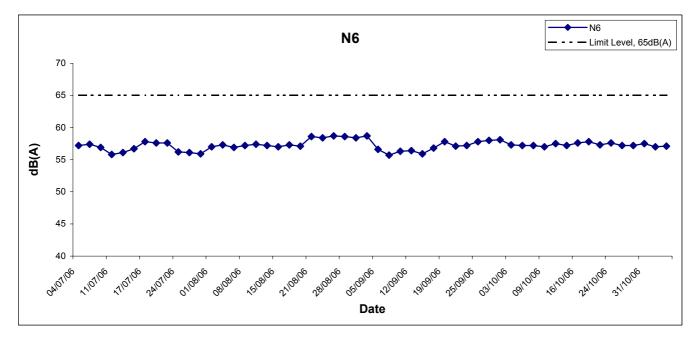
CINOTECH

APPENDIX G GRAPHICAL PRESENTATION OF NOISE MONITORING RESULTS



### **Restricted Hours** - Noise Levels





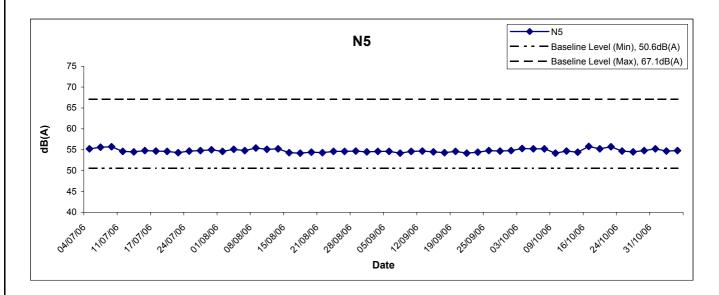
<sup>\*</sup>Remarks: - 19:00 to 23:00 on normal weekdays - 07:00 to 23:00 on Holidays

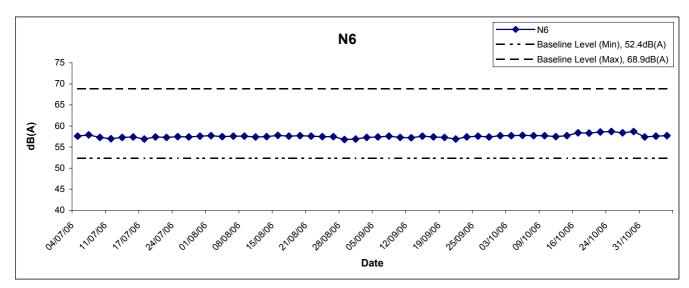
Litte	
	Environmental Team for Sha Tin Heights Tunnel & Approaches
	Graphical Presentation of Construction Noise Monitoring
	Results

Scale	N.T.S	Project No. MA2027
Date		Appendix
	Oct 06	G



# **Restricted Hours** - Noise Levels





<sup>\*</sup>Remarks: - 23:00 to 07:00 on normal weekdays

Litle	
	Environmental Team for Sha Tin Heights Tunnel & Approaches
	Graphical Presentation of Construction Noise Monitoring
	Results

Scale	N.T.S	Project No. MA2027	7
Date	Oct 06	Appendix	



### APPENDIX H SUMMARY OF ENVIRONMENTAL LICENCES AND PERMITS

# **Appendix H** Summary Status of Environmental Licenses and Permits

Permit No.	Valid	Period	Section	Status
refillt No.	From	To	Section	Status
<b>Environmental Pe</b>	ermit	•		
EP-104/2001/B	16/02/05	N/A	Site formation, drainage, geotechnical and landscape works for the toll plaza. Construction of the Sha Tin Heights Tunnels, the Sha Tin Approach Roads and the Slip Road Connecting to Che Kung Miu Road including all formation, structure, road, geotechnical, drainage and landscape work. Construction of the structure of the portal buildings of the Sha Tin Heights Tunnel and noise mitigation measures.	Valid
<b>Construction Nois</b>	se Permit			
GW-RN0238-06	13/5/06	12/11/06	Installation of VE Panel inside the RCFE during general holiday included Sunday between 0900 hrs and 1900 hrs, and any day not being a holiday included Sunday between 1900 hrs and 2300 hrs.	Valid
GW-RN0242-06	17/5/06	16/11/06	Installation of VE Panel inside the Tunnels during general holiday included Sunday between 0900 hrs and 1900 hrs, and any day not being a holiday included Sunday between 1900 hrs and 2300 hrs.	Valid
GW-RN0300-06	15/6/06	14/12/06	Apply lining to 1050 diameter Sewer during general holiday including Sundays between 0700 hrs and 0700 hrs on next day and any day not being a general holiday including Sundays between 1900 hrs and 0700 hrs on next day	Valid
GW-RN0327-06	25/6/06	24/12/06	Dismantling of the suspended working platform over KCRC tracks during any day not being a general holiday and not being a day immediately following a general holiday between 0030 hrs and 0530 hrs.	Valid
GW-RN0438-06	29/8/06	28/2/07	Installation of cladding over the bridge during general holiday including Sundays between 0700 hrs and 2300 hrs and any day not being a general holiday including Sundays between 1900 hrs and 2300 hrs.	Valid (New)
Wastewater Disch	narge Lice	nse		
3024	16/6/03	15/6/08	Wastewater discharge at the site office in Sha Tin Heights.	Valid
2984	21/8/03	20/8/08	Trade effluent and all other wastewater arising from the work areas, Sedimentation Barrier, Sedimentation tanks, Aqua Sep and Wet Sep	Valid
Waste Disposal (C	Chemical V	Vaste)	,	
WPN: 5213-754-C3250-01	N/A	N/A	Disposal of chemical waste such as waste lubricating oil and diesel oil arising from construction work.	Valid

### APPENDIX I COMPLAINT LOGS

Appendix I - Complaint Log

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
30422-1	Garden Villa, Tai Po Road	22 <sup>nd</sup> April 2003	The complaint (EPD complaint ref. N01/TN/00004192-03), which was transferred by EPD to ET on 22 <sup>nd</sup> April 2003, was raised by a resident living at Garden Villa on 22 <sup>nd</sup> April 2003 concerning construction activity during general holidays (18 <sup>th</sup> to 21 <sup>st</sup> April 2003) at Portion 2C, the concerned works area near Garden Villa at Tai Po Road.	Based on the monitoring results on 18 <sup>th</sup> April 2003, noise levels at the concerned area were below the limit level. The type and quantity PMEs used during the concerned period were complied with the requirement stated in the relevant CNP (CNP no. GW-TN0504-2002).  The ET will continue monitoring under the EM&A programme. In case there is any exceedance or complaint reported, procedures stipulated in the Event Action Plans and the complaint handling procedure of the EM&A Manual will be strictly followed.	Closed
30506-1	Garden Villa, Tai Po Road	6 <sup>th</sup> May 2003	The complaint (EPD complaint ref. N01/TN/00004856-03), which was transferred by EPD to ET on 6 <sup>th</sup> May 2003, was raised by a resident living at Garden Villa on 5 <sup>th</sup> May 2003 concerning construction noise during general holidays (1 <sup>st</sup> May to 4 <sup>th</sup> May 2003) at Portion 2C, the concerned works area near Garden Villa at Tai Po Road and construction waste accumulated on the footpath outside Garden Villa.	No construction work was carried out and A Construction Noise Permit (CNP no. GW-TN0504-2002) was granted by the Contractor on 18 <sup>th</sup> December 2002 for the use of powered mechanical equipments at the concerned area during restricted hours.  The Contractor has cleared the moulds from the footpath and placed all of them inside the site boundary upon receiving the complaint on 3 <sup>rd</sup> May 2003.  The ET will continue monitoring under the EM&A programme. In case there is any exceedance or complaint reported, procedures stipulated in the Event Action Plans and the complaint handling procedure of the EM&A Manual will be strictly followed.	Closed

Log Ref.	Location	<b>Received Date</b>	Details of Complaint	Investigation/Mitigation Action	Status
30714	Garden Villa, Tai Po Road	14 <sup>th</sup> July 2003	The complaint, which was transferred by ER to ET on 14 <sup>th</sup> July 2003, was raised by a resident living at Garden Villa concerning the dust pollution generated from the soil nail works at Temporary Access Road No. 1.	The mitigation measures did not apply effective to prevent the dust generation at the concerned area during the soil nail.  It was recommended that ER should continue monitoring the Contractor to implement the mitigation measures to avoid dust generation; the Contractor should continue implementing the mitigation measures to avoid dust generation, and minimize the disturbance generated by the construction activities at TAR1.	Closed
30808	Sha Tin Heights	8 <sup>th</sup> August 2003	The complaint (EPD Complaint Ref. N01/TN/00011396-03), which was transferred by the EPD to the ET on 8 <sup>th</sup> August 2003, was about the massive tree cutting activities in the site near Sha Tin Heights.	Based on the information stated in the Environmental Review Report, the tree cutting activities were considered necessary and the ecological impact of tree cutting was limited.  According to the Contractor's Method Statement for tree felling and transplanting, which had been commented from ET and Engineer Representative (ER), the tree felling and transplanting had been under the supervision of ER and the tree being felled or transplanted were clearly labeled. Photographic records for the tree being affected were kept.  Based on the information provided by the ER, the concerned area mainly included abandoned farm land and an existing stream covered with grass and shrubs. No individual tree identified to be retained had been felled.  The complaint was considered to be invalid.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
30826	Garden Villa	26 <sup>th</sup> August 2003	An environmental complaint was received by the ER on 26 <sup>th</sup> August 2003. The complaint (ER's complaint ref. EC-05) was forwarded to the ET on same day. It was about the noise disturbance from the rock-breaking activities in South Portal. ET undertook the investigation and submitted the complaint investigation report to ER on 29 <sup>th</sup> August 2003.	According to the ET's investigation, the complaint was considered to be valid. However, there was no noise Limit Level exceedance in August 2003 at the concerned area. Additional noise measurement conducted on 26 <sup>th</sup> August 2003 confirmed that the construction noise level at Garden Villa was below the noise limit.  To minimize the noise disturbance from the rock breaking activities, mitigation measures were then provided by the Contractor.	Closed
30901	Garden Villa	1 <sup>st</sup> September 2003	A public complaint was received by the EPD on 1 <sup>st</sup> September 2003. The complaint was forwarded by EPD to the ET on the same day. It was about the construction dust and Sunday noise generated from construction activities at Toll Plaza near Garden Villa. The complainant also expressed his/her concerns on the noise from breaking activities during weekdays' early morning around 7am. ET undertook the investigation and submitted the complaint investigation report to EPD on 9 <sup>th</sup> September 2003.	According to the ET's investigation report, the complaint was considered to be valid. However, the information provided by the Contractor stated that no Powered Mechanical Equipment was used on Sunday except that wire mesh installation works were carried out at the concerned area. In addition, the measured noise levels and dust levels were below the respective environmental limit in August 2003 at the concerned area. Further dust measurement was conducted on 9 <sup>th</sup> September 2003 to confirm that the dust level at Garden Villa was below the limit.  Mitigation measures were recommended to the Contractor. An additional regular continuous construction dust monitoring was also recommended and has been working since 9 <sup>th</sup> September 2003.	Closed

Log Ref.	Location	<b>Received Date</b>	Details of Complaint	Investigation/Mitigation Action	Status
30905	Garden Villa	5 <sup>th</sup> September 2003	An environmental complaint via the Honourable Cheng Kar Foo and Leung Wing Hung and was received by TDD on 5 <sup>th</sup> September 2003. The complaint was forwarded by TDD to the ET on the same day. It was about the construction dust and noise generated from construction activities at the site near Garden Villa. The complainant also requested to implement barrier to mitigate the noise and dust problem. ET undertook the investigation and submitted the complaint investigation report (Appendix P) to TDD on 9 <sup>th</sup> September 2003.	According to the ET's investigation report, the complaint was considered to be valid. However, the measured noise levels and dust levels were below the respective environmental limits in August and September 2003.  Mitigation measures were recommended to the Contractor. An additional regular continuous construction dust monitoring was also recommended and has been working since 9 <sup>th</sup> September 2003.	Closed
31003	Golden Time Villa	3 <sup>rd</sup> October 2003	An environmental complaint was raised by a resident of Golden Time Villa and was received by TDD on 3 <sup>rd</sup> October 2003. The complaint was forwarded by TDD to the ET on the same day. The complainant concerned about wildlife threat due to road works. He also expressed his concerns on whether the concerned department had any planning on how to settle the wildlife. ET undertook investigation and submitted the complaint investigation report to TDD on 14 <sup>th</sup> October 2003	According to the ET's investigation, the animal wildlife recorded for the Project was limited and no species of conservation interest was found. Avifauna, reptile, amphibian and butterfly species in the area were all common in Hong Kong. The potential impacts on animal wildlife were expected to be low. Therefore, no specific mitigation measure to the animal wildlife was recommended.	Closed

Log Ref.	Location	<b>Received Date</b>	Details of Complaint	Investigation/Mitigation Action	Status
31229	Hin Keng Estate	29 <sup>th</sup> December 2003	An environmental complaint was raised by residents of Hin Keng Estate and was received by EPD (EPD complaint ref.: N01/TN/00022004-03) on 29 <sup>th</sup> December 2003. The complaint was forwarded to the ET on the same day. The complaint was about the construction noise at the entrance of Sha Tin Heights Tunnel in North Portion. ET has undertaken investigation and submitted the complaint investigation report to TDD on 6 <sup>th</sup> January 2004.	According to ET's investigation report, a noise measurement at Hin Keng Estate was conducted on 3 <sup>rd</sup> January 2004 and the measured construction noise levels were well below the respective environmental criteria. The Contractor was recommended to  • space out noisy equipment and position it as far away as possible from the sensitive receivers;  • avoid concurrent uses of noisy equipment near the sensitive area;  • ensure the equipment are maintaining in good operation condition;  • turne off any idle equipment on site;  • provide mitigation measures to the rockbreaking activities; and  • continuously keep ET informed for the construction works to be carried out.	Closed
31231a	Sha Tin Heights	31 <sup>st</sup> December 2003	An environmental complaint was received by EPD (EPD complaint ref. N01/TN/00019795-03) on 29 <sup>th</sup> November 2003, which was transferred to ET on 31 <sup>st</sup> December 2003. The complaint was about the construction dust from at Sha Tin Heights. ET has undertaken investigation and submitted the complaint investigation report to TDD on 6 <sup>th</sup> January 2004.	According to Contractor's information, the Contractor has implemented mitigation measures to suppress the dust generation. These include  Exhaust of dump trucks for internal use were slightly verified in order to avoid it directing to the ground, but horizontally;  All bared slope was hydroseeded; and Frequency of watering for haul road was increased.	Closed
31231b	Sha Tin Heights	31 <sup>st</sup> December 2003	An environmental complaint was received by EPD (EPD complaint ref. N01/TN/00019858-03) on 1 <sup>st</sup> December 2003, which was transferred to ET on 31 <sup>st</sup> December 2003. The complaint was about the construction dust at Sha Tin Heights. ET has undertaken investigation and submitted the complaint investigation report to TDD on 6 <sup>th</sup> January 2004.	According to Contractor's information, the Contractor has implemented mitigation measures to suppress the dust generation. These include • Exhaust of dump trucks for internal use were slightly verified in order to avoid it directing to the ground, but horizontally; • All bared slope was hydroseeded; and • Frequency of watering for haul road was increased.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
40323	Sha Tin Heights	23 <sup>rd</sup> March 2004	An environmental complaint was received by EPD on 20 <sup>th</sup> March 2004 (EPD Ref.: N01/TN/00005617-04) about the dust nuisance generated from the Project at Shatin Heights. The EPD referred the complaint to the ET Leader on 23 <sup>rd</sup> March 2004 for investigation and the ET has submitted the investigation report on 29 <sup>th</sup> March 2004.	<ul> <li>According to ET's investigation report, the Contractor has enhanced mitigation measures as follows:-</li> <li>Arrange water spraying during the loading and unloading of dusty materials;</li> <li>Increase the frequency for haul road watering;</li> <li>Provide a brush machine to remove the dusty materials on the steep road;</li> <li>Arrange workers to spray water at rock breaking area; and</li> <li>Arrange workers at site entrance for wheel washing.</li> <li>No non-compliance of dust level recorded and observed after implementation of mitigations.</li> </ul>	Closed
40506	Hin Keng Estate	6 <sup>th</sup> May 2004	On 3 <sup>rd</sup> May 2004, the TDD received a complaint (TDD Ref.: NTE-ST2/694TH/100) about the noise and dust nuisance due to tunnel blasting near Shatin Heights. The TDD referred the complaint to the ET Leader of the Project on the following day for investigation and the ET has submitted the investigation report on 10 <sup>th</sup> May 2004.	<ul> <li>According to ET's investigation report, the Contractor has enhanced mitigation measures as follows:-</li> <li>To cover the gap between the steel sheet panels of the blasting door to reduce dust nuisance;</li> <li>To inform Hin Keng Estate of the time of blasting in advance;</li> <li>To provide water spraying in the blasting door during blasting time; and</li> <li>To provide acoustic absorption material at the inner surface of the blasting door.</li> <li>No non-compliance of noise level recorded and observed after implementation of mitigations.</li> </ul>	Closed

Log Ref.	Location	<b>Received Date</b>	<b>Details of Complaint</b>	Investigation/Mitigation Action	Status
40517	Sha Tin Heights	17 <sup>th</sup> May 2004	On 14 May 2004, the EPD received a complaint (EPD Ref.: N01/TN/00009723-04) about the dust nuisance due to uncovered lorries near Shatin Heights. The EPD referred the complaint to the ET Leader of the Project on 17 May 2004 for investigation and the ET has submitted the investigation report on 20 May 2004.	The complaint was a public complaint at Sha Tin Heights. The complainant mentioned that some construction lorries with loaded with earth were not covered and caused dust nuisance. According to ET's investigation, the Contractor has already provided all possible measures to prevent uncovered dump trucks leaving the site. It is believed that the captioned complaint is an exceptional incidence and the Contractor was recommended to strictly enforce their policy on dump trucks leaving the site.	Closed
40630	Hin Keng Estate	30 <sup>th</sup> June 2004	On 28 June 2004, the EPD received a complaint (EPD Ref.: N01/TN/00012734-04) about the noise and dust nuisance due to blasting near Shatin Heights. The EPD referred the complaint to the ET Leader of the Project on 30 June 2004 for investigation and the complaint handling procedure is initiated.	According to the information provided by the Contractor, blasting activities were taken place on 23, 26 and 29 June 2004.  The Contractor has erected a blasting door for both the tunnel before the commencement of blasting works in order to enclose the dust and reduce the noise level. The blasting door is made of steel plate with fiberglass filled in between. In addition, a water pipe has been installed inside the tunnel, which can produce aerosol to form a water screen for dust suppression. During blasting, water screen will be operated throughout the period until dust is settled. Water will be sprayed outside the open ground of the tunnel. The blasting door is only allowed to re-open at least 15 minutes after blasting. Additional water spraying will be provided after opening the blasting door.  After received the complaint, the Contractor has installed an additional water screen on 29 June 2004.	Closed

Log Ref.	Location	Received Date	<b>Details of Complaint</b>	Investigation/Mitigation Action	Status
40713	Hin Keng Estate	13 <sup>th</sup> July 2004	On 6 July 2004, the CEDD received a complaint (CEDD Ref.: NTE-ST2/654TH/108) about the noise and dust nuisance due to tunnel blasting near Shatin Heights. The CEDD referred the complaint to the ET Leader of the Project on 13 July 2004 for investigation.	<ul> <li>The Contractor has provided the following mitigations:-</li> <li>To cover the gap between the steel sheet panels of the blasting door to reduce dust nuisance;</li> <li>To inform Hin Keng Estate of the time of blasting in advance;</li> <li>To provide water spraying in the blasting door during blasting time; and</li> <li>To provide acoustic absorption material at the inner surface of the blasting door.</li> <li>Based on the information provided by the ER on 13 July 2004 and the site investigation conducted by ET on 15 July 2004, the Contractor has been strictly implementing the mitigations. The Management Office of Hin Keng Estate was always noticed 24 hours before every blasting.</li> </ul>	Closed
40723	Garden Villa	23 <sup>rd</sup> July 2004	On 21 July 2004, the ER received a complaint (ER Ref.: EC-017) about the noise nuisance due to trucks queuing up along Temporary Access Road 1 (TAR1). The ER referred the complaint to the ET Leader of the Project on 23 July 2004 for investigation.	On 26 July 2004, the Contractor has relocated the truck queue from top of TAR1 to downhill in front of wheel washing bay, where is much far away from Garden Villa. The increased notional distance is about 200m. A noise measurement was conducted on the same day at 9:30am and the measured construction noise level was 69.6dB(A) which does not exceed the Limit Level. Early measurement at Garden Villa will be conducted in order to monitor the effectiveness of mitigations.	Closed

Log Ref.	Location	<b>Received Date</b>	Details of Complaint	Investigation/Mitigation Action	Status
41201	Construction site which near K. K. Terrace	1 <sup>st</sup> December 2004	Complaint regarding the noise nuisance was received on 1 December 2004 at 23:12 (EPD Letter ref: EP580/E6/3/15 with 'Notice of Complaint'). The complainant complained the construction noise emitted after 19:00 from the construction site which near K. K. Terrace.	According to the RSS and the Contractor, one unit Rock Drill (hydraulic) was operated inside T1N tunnel and one unit Pneumatic Breaker was operated inside T2N tunnel during the time period of 19:00-23:00 on 1 December 2004. These two plants were operated in different tunnel and at staggered time. All the tunneling works should be conducted within a fully enclosure situation by closing the blasting door entirely. The Contractor did comply with the CNP conditions on the time of concern. In addition, no shotcreting works were conducted during the time period of 19:00-23:00 on 1 December 2004. As such, no concrete lorry mixer had traveled through Temporary Access Road No. 3 which is near K. K. Terrace during such period.  There is insufficient evidence to establish the complaint based on the available information from the "Notice of Complaint", the RSS, the Contractor and monitoring records. However, it is recommended the Contractor should notify the nearby residents in advance with the working schedule of construction work during restricted hours and strictly comply with all noise mitigation measures.	Closed

Log Ref.	Location	<b>Received Date</b>	<b>Details of Complaint</b>	Investigation/Mitigation Action	Status
50308	Garden Villa	8 <sup>th</sup> March 2005	Complaint regarding the noise and dust nuisance was received on 8 <sup>th</sup> March 2005at 23:12 (EPD Letter ref: EP580/E6/3/15 with 'Notice of Complaint'). The complaint was about the night time and Sunday Construction noise and dust from construction activities carrying out at the site near Garden Villa.	Dust: According to the site inspection on 18 March 2005, fugitive dust emission was observed generated by traffic movement on the haul road before vehicles entering into the wheel washing facility. The Contractor was recommended to provide sufficient dust control on the TAR1 such as installing additional water sprinklers or increasing the water spraying frequency by water truck to reduce the dust emission.  The Contractor should also cover the trucks with canvas sheet once the C&D waste was laden before passing adjacent to Garden Villa.  The Contractor should strictly implement the penalty system and further review and tighten up the system if no obvious improvement is made.  Noise: Based on the available information, no sufficient evidence could establish the noise complaint from the "Notice of Complaint", the Contractor and monitoring records.  The Contractor was recommended to notify the nearby residents in advance of the working schedule of construction work during the restricted hours and strictly comply with all necessary noise mitigation measures.	Closed
50330	Garden Villa	30 <sup>th</sup> March 2005	Complaint regarding the noise nuisance was received on 30 <sup>th</sup> March 2005 at 16:00 (EPD Letter ref: EP580/E6/3/15 with 'Notice of Complaint'). The complaint was about the noise generated by heavy vehicles traveling in and out of the construction site near Garden Villa. According to the complaint, the noise was made from 7am onwards.	According to the information provided by the Resident Site Staff, trucks from R8-SHT contract are not allowed to exit via TAR1 before 9am. The noise identified by the complainant is not related to R8-SHT contract. The complaint lodged against R8-SHT is therefore considered not justifiable.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
50425	Shatin Heights	25 <sup>th</sup> April 2005	Complaint regarding the dust nuisance was received on 18 <sup>th</sup> April 2005 (EPD Letter ref: EP580/E6/3/15 with 'Notice of Complaint'). The complaint was subsequently referred to the ET Leader on 25 <sup>th</sup> April 2005. It was related to the construction dust and sulphur-like odour generated from the tunnel blasting works near Shatin Heights.	The records of the RSS and the Contractor showed that blasting works have been conducted on the date of complaint (18 April 2005).  According to the Contractor's investigation, a reversion of tunnel air flow was observed due to seasonal change, such that air kept flowing from the direction of Garden Villa towards Shatin Heights. Since there was no water curtains installed Shatin Heights' direction, white fume and dust particle were observed after blasting works.  Upon receipt of the complaint, all blasting works were stopped until water curtain for tunnel tubes in the Shatin Heights' direction. The water curtain installation work was completed on 23 <sup>rd</sup> April 2005. The Contractor also agreed to implemented the following mitigation measures for future tunnel blasting works:  1. the area within 30m from the blasting area will be wetted with water prior to blasting; 2. sufficient time will be allowed for dust to settle before opening the blasting protection doors; and 3. water curtain will be operated.  Based on the site observed, the RSS considered that the implemented measures by the Contractor were effective.	Closed

Log Ref.	Location	<b>Received Date</b>	Details of Complaint	Investigation/Mitigation Action	Status
50509	The Police	9 <sup>th</sup> May 2005	Complaint regarding the noise nuisance was received on 9 <sup>th</sup> May 2005. The complaint was subsequently referred to the Environmental Team and the Contractor on that day. It was related to the excessive noise generated by the night work.	The records of the ER and the Contractor showed that bridge launching operation was being carried out over the East and Ma On Shan (MOS) Rail near Tai Wai Deport during the time of concern.	Closed

Log Ref.	Location	<b>Received Date</b>	Details of Complaint	Investigation/Mitigation Action	Status
				The Contractor was also reminded to continuously implement their practice as regards the advance notification to the nearby residents of the night time works. In addition, the Contractor should adopt good site practice to minimize the construction noise impact, such as:	
50509	The Police	9 <sup>th</sup> May 2005		<ul> <li>To space out noisy equipment and position it as far away as possible from the sensitive receivers;</li> <li>To avoid concurrent uses of noisy equipment near the sensitive area;</li> <li>To ensure the equipment are maintaining in good operation condition; and</li> <li>To turn off any idle equipment on site.</li> </ul>	Closed
50513	Golden Villa	13 <sup>th</sup> May 2005	Complaint regarding the noise nuisance at the representative of residents of Golden Villa was received on 13 <sup>th</sup> May 2005 from EPD. The complaint was subsequently referred to the Environmental Team Leader. It was about the noise generated from the engineering works from the night time to day time.	The site of concern was likely to be the Sha Tin Height Tunnel. According to the Contractor's information, tunnel excavation works including the rock drill and charging of explosive were undertaken after 2300 hours in the tunnels. It was believed that the nuisance was caused by the vibration due to drilling works. The nuisance was more significant as the excavation face at south bound tunnel came closer towards Keng Hau Road.	Closed
				Upon receipt of the complaint, the Contractor had already stopped all drilling works after 23:00 hours inside the sound bound tunnel. In addition, the Contractor also noticed to the residents of Golden Villa for explaining the cause of nuisance and the actions they had taken to rectify the problems.	

Log Ref.	Location	<b>Received Date</b>	<b>Details of Complaint</b>	Investigation/Mitigation Action	Status
51026	Exit of TAR1 next to Tai Po Road	26 <sup>th</sup> October 2005 (by CEDD)	Complaint was received by CEDD on 26 <sup>th</sup> October 2005 and it was subsequently referred to the Environmental Team Leader. It was about water in the wheel washing bay was brought onto the ensuing concrete pavement by lorries passing through it and the water fall onto Tai Po Road.	After the site investigation by the RSS, it was confirmed that the source of the muddy water was this newly constructed wheel washing bay. Water in the wheel washing bay was brought onto the ensuing concrete pavement by lorries passing through it and the water fall onto Tai Po Road.  The complaint was considered valid and corrective and preventive actions were taken by the Contractor:  1. all vehicles exiting from TAR1 were stopped using the wheel washing bay to prevent any further overflowing of muddy water from the bay.  2. a water browser was immediately deployed by the Contractor to clear the muddy water and the debris deposited on the concerned section of Tai Po Road.  3. A concrete bund was constructed along the lower side of the wheel washing bay to reduce the amount of water overflowing.  4. a small ditch was formed across the lower side of the vehicular exit in order to collect the overflowed water and prevent it from falling onto public road.  The Contractor was reminded to closely monitor the situation and review the effectiveness of the mitigation measures.	Closed

Log Ref.	Location	<b>Received Date</b>	<b>Details of Complaint</b>	Investigation/Mitigation Action	Status
51118	Near Carado Garden and KCRC depot	18 <sup>th</sup> November 2005 (by CEDD)  A complaint of same nature was forwarded by EPD on 29 <sup>th</sup> Nov 05.	Complaint regards the nighttime construction noise due to construction works near Carado Garden and KCRC depot on 17 <sup>th</sup> November 2005. It was received on 18 <sup>th</sup> November 2005 by CEDD and EPD. On 21 <sup>st</sup> and 29 <sup>th</sup> November 2005, the complaint was referred to the ET Leader by CEDD and EPD.	As advised by RSS, at the concern (17 <sup>th</sup> November 2005), stressing work was carried out by the Contractor on the bridge N1, Span 1. Noise was generated during the lorry passed the movement joints of the bridge deck where steel plates were installed temporarily to provide access.  According to the RSS, a valid CNP no. GW-RN0436-05 has been checked. All the PME and the type of lorry involved in the works complied with the CNP requirements.  The complaint was considered valid and preventive actions were taken by the Contractor:  1. re-spected the steel plates installed at the movement joints of the bridge deck and ensured that they are securely fixed. Such as , install steel bars to fix the steel plates.  2. rubber pads will be provided at the movement joints to minimize noise generation due to vibration of the steel plates.  3. close supervision to ensure care handling of construction materials will be provided on site.  As advised by the RSS, the bridge launching work has been completed and no similar type of work will be carried out during the nighttime in future.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
60207	Che Kung Miu Road near Tin Sam Village	7 <sup>th</sup> February 2006	The complaint was concerned the construction dust and noise generated from a construction site near Tin San Village during daytime between 0700 hours and 1900 hours. It was received on 7th February 2006 by EPD.	According to the RSS, the site of concern was the Proposed Retaining Wall No.5 (located at Che Kung Miiu Road near Tin Sam Village). During the period of concern, construction of pre-bored H-piles was undertaken and it's mainly activity involved a drilling machine, a crane lorry and air compressors.  The ET had arranged ad-hoc noise measurements on 8th, 9th, 14th and 16th Feb 06 at Tin Sam Village. The results of measurements showed no exceedance of the daytime noise criterion, i.e. 75dB(A) recorded.  The complaint was considered valid and rectification actions were taken by the Contractor, including:  a) All flaps of the air compressors would be closed all the time;  b) Idled machines would be switched to minimize generation of unnecessary noise;  c) Two air compressors were relocated to farther area on 8 Feb 06;  d) Temporary noise barriers were erected on 11 Feb 06;  e) Self monitoring of noise levels during the pilling operation;  f) Additional dust screens were installed along the public road on 8 Feb 06;  g) Public notices were distributed to the residents and the business establishment at Tin Sam Village on 8 Feb 06.  During ET's ad-hoc inspections, the abovementioned mitigation measures were found in place and the public footpath beside the site areas was found clean and free dusty materials.  As advised by the Contractor, a total of 10 piles are required to be constructed for the Proposed Retaining Wall No.5, thus this pilling activity would be continuously reviewed by the Contractor, RSS and the ET.	Closed

The complaint was referred by ER on 3rd May 2006, which was about the noise nuisance arising from the temporary steel plates installed at both north and south bond carriageway of Che Kung Miu Road  North and south bond carriageway steel plates.  North and south bond carriageway steel plates.  North and south bond carriageway steel plates.  North and south bond carriageway of Che Kung Miu Road  North and south bond carriageway of Che Kung Miu Road  North and south bond carriageway of Che Kung Miu Road  North and south bond carriageway of Che Kung Miu Road  North and south bond carriageway of Che Kung Miu Road  North and south bond carriageway of Che Kung Miu Road  North and south bond carriageway of Che Kung Miu Road  North and south bond carriageway of Che Kung Miu Road  North and south bond carriageway of Che Kung Miu Road  North and south bond carriageway of Che Kung Miu Road  North and south bond carriageway of Che Kung Miu Road  North and south bond carriageway of Che Kung Miu Road  North and south bond carriageway of Che Kung Miu Road  North and south bond carriageway of Che Kung Miu Road  North and south bond carriageway of Che Kung Miu Road  North and south bond carriageway of Che Kung Miu Road where trenches were exavared at the carriageways. The steel plates were exavared at the carriageways. The steel plates were exavared at the carriageways. The steel plates were exavared at the carriageways of Che Kung Miu Road where trenches were exavared at the carriageways. The steel plates were exavared at the carriageways of Che Kung Miu Road where trenches were exavared at the carriageways. The steel plates were exavated at the carriageways of Che Kung Miu Road where trenches were exavared at the carriageways. The steel plates were exavared at the carriageways. The steel plates were exavared at the carriag	Log Ref.	Location	<b>Received Date</b>	Details of Complaint	Investigation/Mitigation Action	Status
		North and south bound carriageway of Che Kung Miu		The complaint was referred by ER on 3 <sup>rd</sup> May 2006, which was about the noise nuisance arising from the temporary steel plates installed at both north and south bond carriageway of Che Kung Miu Road. The noise at night was heard when heavy vehicles	According to ER's record, the major construction activity at the concerned area was the underground drainage work at CKM Road where trenches were excavated at the carriageways. The steel plates were acted as temporarily deck over trenches for vehicles passage after works.  When heavy vehicles passed over the decks, the noise was generated due to clashing of the steel plates. It was the source of noise nuisance.  The complaint was considered valid and corrective and preventive actions were taken by the Contractor:  1. Conducted inspection to the temporary steel plates; and 2. Steel plates were welded together and fixed in position.  In addition, the Contractor had informed the complaint that mitigation measures were taken. No further complaint on the same issue had been received again.  During ET's ad-hoc inspections, the abovementioned mitigation measures were found in place.  As advised by the RSS, the drainage works would be completed at the concerned area by the end of August 2006.  Thus, the Contractor was reminded to continuously implement their practice to prevent noise nuisance	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
60626	near Tin Sum Village, Che Kung Miu Road	26 <sup>th</sup> June 2006	The Complaint was received by EPD on 19 <sup>th</sup> June 2006 and referred to ET Team on 26 <sup>th</sup> June 2006, which was about general construction noise and flytipping/dumping of construction wastes caused by construction work near Tin Sum Village, at Che Kung Miu Road.	According to the ER's record, the major construction activities included lying of drain pipe, removal and erection of framework. However, only hand held tools were used when formwork were erected to wall of RW5 Bay 12& 14.  As advised by the RSS, the waste skip was provided to stock some timbers at the concerned area. i.e. beside the KCRC boundary wall.  Besides, on load of construction waste was disposed on 19 <sup>th</sup> June 2006.  Site inspection on the Contractor's mitigation measure was carried out by ET on 28 <sup>th</sup> and 29 <sup>th</sup> June 2006.  Base on the information collected, the complaint was considered not justifiable.  However, the Contractor was reminded to continuously provide good site practice to minimize construction noise/waste impact.	Closed

Log Ref.	Location	Received Date	<b>Details of Complaint</b>	Investigation/Mitigation Action	Status
60828	Sha Tin Heights Southern Tunnel near Tai Po Road	28th August 2006	The public complaint was received on 28 August 2006 by EPD which was about construction dust generated from the construction site at Sha Tin Heights Southern Tunnel near Tai Po Road - Sha Tin Heights, Sha Tin.	According to the RSS information, the Southbound Tunnel was not for traffic and water spray onto road surface was implemented at least once a day.  According to the Contractor's information, the Northbound Tunnel was currently used as a vehicle access to the Toll Plaza near Garden Villa. This tunnel was maintained wet all the time during the working hours.  A site inspection was conducted on 28 August 2006 and 7 September 2006 by ET. During the site inspection, the adequate water spraying onto road surface was found in the concerned area of the Southbound Tunnel.  Based on the above information, the complaint was considered to be invalid.  However, the Contractor was reminded to continuously provide good site practice to minimize construction air impact.	Closed

### APPENDIX J SUMMARY OF EXCEEDANCES

# Appendix J – Summary of Exceedances

# Summary of Exceedances Recorded in the Reporting Quarter (August to October 2006)

- a) Exceedance Report for 1-hr TSP: NIL
- b) Exceedance Report for 24-hr TSP: NIL
- c) Exceedance Report for Construction Noise: NIL
- No Action / Limit Level exceedances were recorded in reporting quarter.