

# SHA TIN NEW TOWN STAGE II CONTRACT NO. ST 86/2000 CONSTRUCTION OF ROAD T7 IN MA ON SHAN ENVIRONMENTAL MONITORING AND AUDIT

# QUARTERLY EM&A SUMMARY REPORT

OCTOBER 2002 TO DECEMBER 2002

Prepared For:

Maunsell Consultants Asia Limited

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Report No.: 23156-Q8



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Job No 23156

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#### ABBREVIATIONS AND ACRONYMS

AQO Air Quality Objectives

Arup Ove Arup & Partners Hong Kong Limited

ASR Area Sensitive Rating

BOD<sub>5</sub> Biochemical Oxygen Demand (5 days)

B&K Brüel & Kjær

CFM Cubic Feet per Minute

CHEC China Harbour Engineering Company

CNP Construction Noise Permit

CT Contractor

EA Environmental Auditor

EIA Environmental Impact Assessment EM&A Environmental Monitoring and Audit

EP Environmental Permit

EPD Environmental Protection Department ER Engineer / Engineer's Representative

ET Environmental Team

HKSAR Hong Kong Special Administrative Region

HOKLAS The Hong Kong Laboratory Accreditation Scheme

HVS High Volume Sampler

IEC International Electrotechnical Commission Publications

K Degrees Kelvin

MCAL Maunsell Consultants Asia Limited

NAMAS National Measurement Accreditation Service

NSR Noise Sensitive Receiver

TDD NTE Territory Development Department New Territory East Office

TSP Total Suspended Particulates

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#### **EXECUTIVE SUMMARY**

This quarterly EM&A report summaries the site inspection findings, air quality and noise impact monitoring works for the period between October 2002 to December 2002.

For noise monitoring,  $L_{eq(30min)}$  level was recorded once a week between the period of 0700 and 2300 at Ma On Shan Lutheran Primary School (NM2), Heng Shan House, Heng On Estate (NM3), Kam Yiu House, Kam Ying Court (NM4), Symphony Bay (NM6), Podium of block 15, Monte Vista (NM7) and Roof of block 15, Monte Vista (NM8).

Thirteen measurements were taken at each location during 0700-1900 and twelve measurements were taken at NM3 and NM4 and eleven measurements were taken at NM6 and NM8 during 1900-2300 from October 2002 to December 2002. The recorded noise levels were in the range from 57.1 to 72.5 dB(A) during 0700-1900 and from 58.4 to 66.5 dB (A) during 1900-2300. All measurements were below the Limit Level of 70dB(A) at NM2 and 75dB(A) at other locations during 0700-1900, and below the Limited Level of 70 dB(A) during 1900-2300 for monitoring locations.

1-hour Total Suspended Particulate (TSP) was recorded three times per every six days between the period of 0700 and 1900, and 24-hour TSP was recorded once every six days from 0000 to 2400. Air quality monitoring was conducted at Ma On Shan Lutheran Primary School (AM2), Ma On Shan Joseph's Primary School (AM3), Villa Concerta, Symphony Bay (AM4) and Club House, Monte Vista (AM5) and Kam Yiu House, Kam Ying Court (AM6).

A total of fifteen 24-hour TSP monitoring were conducted at AM2, AM3, AM4 and AM5 and six 24-hour TSP monitoring were conducted at AM6 from October 2002 to December 2002. The electrical cable of the HVS at AM6 was damaged by the waste collector in early October 2002, which caused temporary suspension of the 24-hour TSP monitoring in October and early November 2002. The HVS at AM6 had been repaired since 21 November 2002 and the monitoring was resumed on 26 November 2002. The recorded 24-hour TSP levels were in the range from 22.4 to 118.1 µg/m³ and were below the Action and Limit Levels.

A total of forty-five 1-hour TSP monitoring were conducted at each location from October 2002 to December 2002. The recorded 1-hour TSP levels were in the range from 73.8 to  $280.7 \,\mu\text{g/m}^3$  and were below the Action and Limit Levels.

A total of 163 loads of waste from site clearance (i.e. felled trees) have been disposed of at NENT Landfill from October 2002 to December 2002. The total tonnage of the waste disposal from October 2002 to December 2002 was 1,250.3 tonnes.

A total of 7,204 loads of rocks ( $\phi > 400$ mm) have been disposed of at the follow government project sites from October 2002 to December 2002:

- TDD Contract No. YL 46/99 Tin Shui Wai Further Development Road D3 and Constructed Wetland,
- TDD Contract No. FL 26/01 River Training for Upper River Indus Completion of the Remaining Works between Man Kam To Road and KCRC Bridges and
- CED Contract No. CV/99/10 Pak Shek Kok Reclamation for Public Filling, Remaining Works.

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The total quantity of the disposed rocks was 45,130.9 m<sup>3</sup> from October 2002 to December 2002.

A total of 206 loads of inert material have been disposed of at Public Filling Area from October 2002 to December 2002. The total quantity of the disposed inert materials was 1,176.0 m<sup>3</sup> from October 2002 to December 2002.

ET was informed by the CT that EPD visited the site on 04/10/02, 15/10/02, 04/11/02, 02/12/02, 05/12/02, 15/12/02 and 29/12/02.

Six public complaints regarding construction noise were received on 23/10/02, 05/11/02, 23/11/02, 30/11/02, 16/12/02 and 30/12/02 respectively through the Environmental Protection Department and Territory Development Department. All complaints had been resolved.

#### 1. INTRODUCTION

OAP was commissioned by the Territory Development Department New Territory East Office (TDD NTE) via Maunsell Consultant Asia Limited (MCAL) to conduct the Environmental Monitoring and Audit (EM&A) for the project 'Shatin New Town, Stage II Contract No. ST 86/2000 Construction of Road 7 in Ma On Shan" with the contract commencement on 10 January 2000.

Truck Road T7 in Ma On Shan is constructed as part of the development of the Sha Tin New Town, Stage II, which is managed by the TDD NTE. The project was commenced in January 2001 and anticipated to be completed by the January 2004. The trunk road will connect the existing Ma On Shan Road and Sai Sha Road, allowing traffic destined for north Ma On Shan, Lok Wo Sha and Sai Kung to by-pass the busy Ma On Shan Town Centre.

The Environmental Impact Assessment (EIA) Report<sup>[1]</sup> has identified the environmental impacts during various stages of the construction and operational stages. These include construction noise and fugitive dust during the construction stage, and the traffic noise and tunnel air quality during the operational stage. The monitoring of these environmental issues is required during the construction and operational stages and in accordance with the Brief for Environmental Monitoring and Audit<sup>[2]</sup>.

The Environmental Permit (EP)<sup>[3]</sup> has been issued for the Road T7 project under the EIA Ordinance. The EM&A programme has commenced from January 2001 and is anticipated to be completed by the February 2005.

# 1.1 Purpose of the Report

The purpose of the quarterly EM&A report is to summarise the monitoring and audit results of the environmental issues, air quality and noise impacts due to the captioned road construction project for the period from October 2002 to December 2002.

#### 1.2 Site Description

The site starts from the existing Ma On Shan Road (close to Heng On Estate), runs along the boundary of Ma On Shan Country Park, and terminates at Sai Sha Road (close to Symphony Bay). The site location plan is shown in Figure 1-1.

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Figure 1-1 - Site location plan of construction of Road T7.



#### 2. ENVIRONMENTAL STATUS

#### 2.1 Construction Activities in the Quarter

The main construction activities in the period from October 2002 to December 2002 were slope formation and bridge construction. Construction works for the retaining wall were carried out near the casting yard. The rock excavation activities were still in progress at the slope behind Monte Vista. Construction works of tunnel was in progress at Portal D area near Cheung Muk Tau Village. Bridge construction works was in progress at TA and TB bridge area.

#### 2.2 Environmental Sensitive Receivers

Several residential buildings and schools close to the site have been identified as environmental sensitive receivers in the EIA Report. They included:

- Ma On Shan Lutheran Primary School;
- Ma On Shan St. Joseph's Primary School;
- Heng On Estate;
- Kam Ying Court;
- Monte Vista; and
- Villa Concerto, Symphony Bay.

Detailed locations of the environmental sensitive receivers are shown in Figure 2-1.

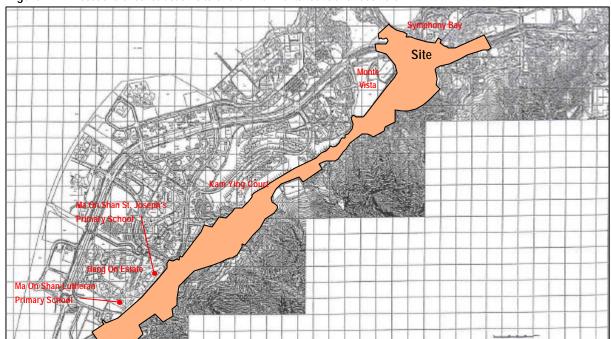


Figure 2-1 - Locations of construction site and environmental sensitive receivers.

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#### 3. SUMMARY OF EM&A REQUIREMENTS

Constructions noise and air quality were significant environmental impacts identified for the construction period of the project. In accordance with the Brief for EM&A, air quality and noise impact monitoring shall be performed by an ET at all specified monitoring locations during this stage.

# 3.1 Construction Noise Monitoring

# 3.1.1 Monitoring Parameters

Construction noise monitoring shall be measured in terms of the A-weighted equivalent continuous sound pressure level ( $L_{eq}$ ).  $L_{10}$  and  $L_{90}$  will also be recorded as supplementary reference information for data auditing.

# 3.1.2 Monitoring Frequency

Construction noise measurements were required to be taken on a weekly basis according to the Brief for EM&A. The monitoring time periods, monitoring parameters and frequency are specified in Table 3-1.

**Table 3-1** - Construction noise monitoring parameters and frequency requirements.

Time Period (when construction activity is found)	Parameters	Monitoring Frequency	No. of measurements for each monitoring	
Between 0700-1900 hours on normal weekdays	Leq(30 min)		1	
Between 1900-2300 hours on normal weekdays		Once per week		
Between 2300-0700 hours of next day	Leq(5 min)*	Office per week	3 (consecutive)	
Between 0700-1900 hours on holidays				

Remarks: The L<sub>eq(5 min)</sub> will only be measured if construction activities are conducted in holidays and between the period of 1900 and 0700 hours during normal weekdays.

# 3.1.3 Monitoring Locations

A total of six monitoring locations were specified. They are given in Table 3-2 and shown in Figure 3-1. The measurements shall be taken away from any nearby reflective surface and at a position of 1.2m above ground. No façade correction is required.

Table 3-2 - Noise impact monitoring locations.

NSR No.	Location	Monitoring Point
NM2	Ma On Shan Lutheran Primary School	Roof-top of the school
NM3	Heng Shan House, Heng On Estate	Podium floor of Heng Shan House
NM4	Kam Yiu House, Kam Ying Court	Roof-top of Kam Yiu House
NM6	Villa Concerto, Symphony Bay	Roof-top of Block 1
NM7	Monte Vista, Block 15	Podium floor of Block 15
NM8	Monte Vista, Block 15	Roof of Block 15

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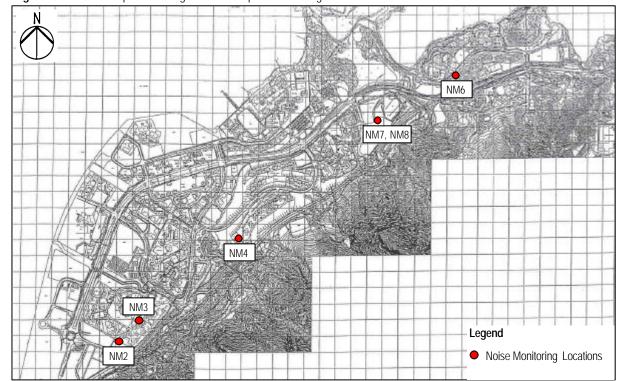


Figure 3-1 - Location plan showing the noise impact monitoring locations.

# 3.2 Air Quality Monitoring

## 3.2.1 Monitoring Parameters

Air monitoring shall be measured in terms of the TSP levels for both 24-hour and 1-hour periods.

## 3.2.2 Monitoring Frequency

24-hour TSP and 1-hour TSP levels shall be monitored during the course of construction according to the Brief for EM&A. The monitoring parameters and frequencies are specific in Table 3-3.

**Table 3-3** - TSP monitoring parameters and frequency.

Parameters	Monitoring Frequency	Time Period	No. of measurement for each monitoring
24-hour TSP	Once every six days	0000 – 2400	1
1-hour TSP	Three times per every six days	0700 – 1900	1

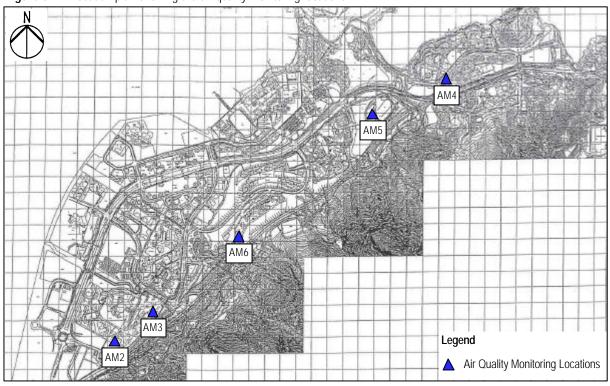
# 3.2.3 Monitoring Locations

Five monitoring locations nearest to the construction site were specified. They are tabulated in Table 3-4 and shown in Figure 3-2.

**Table 3-4** - Air quality monitoring locations.

Sensitive Receptors No.	Location	Monitoring Point
AM2	Ma On Shan Lutheran Primary School	Roof-top of the school
AM3	Ma On Shan St. Joseph's Primary School	Roof-top of the school
AM4	Villa Concerto, Symphony Bay	Roof-top of Block 1
AM5	Monte Vista	Roof-top of Club House
AM6	Kam Ying Court	G/F. Kam Yiu House

Figure 3-2 - Location plan showing the air quality monitoring locations.



#### 3.3 Performance Limits and Event-Action Plans

The monitoring results shall be checked against appropriate standards and requirements. A two-tier system performance limits has been established in the Project Specific EM&A Manual<sup>[4]</sup>. The "Action Level" and the "Limit Level" are established according to the EPD requirements. Corresponding actions will be taken by ET, ER and CT in accordance with the Event-Action Plans if the monitoring results exceed the performance limits.

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## 3.3.1 Construction Noise Impact

The action and limit levels for the construction noise have been established in Project Specific EM&A Manual<sup>[4]</sup> and are tabulated in Table 3-5.

Table 3-5 - Action and limit levels for construction noise.

Time Period	Action Level	Limit Level dB(A)
0700 – 1900 hours on weekdays		75 *
0700 – 2300 hours on General Holidays; & 1900 – 2300 hours on all other days	When one documented complaint is received	50 or 55** <sup>(1)</sup> 65 or 70** <sup>(2)</sup>
2300 – 0700 hours of next day		55 or 40** <sup>(1)</sup> 50 or 55** <sup>(2)</sup>

Remarks: \*

- reduced to 70dB(A) for schools and 65dB(A) during school examination periods.
- \*\* to be selected based on Area Sensitivity Rating
- (1) for the SPME and prescribed works
- (2) for non-SPME and prescribed works

Note: If works are to be carried out during restricted hours, the conditions stipulated in the construction noise permit issued by the Noise Control Authority have to be followed.

Table 3-6a and Table 3-6b detail the actions required to be carried out by different parties in the case of an exceedance of performance limits being detected.

Table 3-6a - Event-action plan for construction noise (Action Level).

		Action		
	ET	ER		СТ
1. 2. 3.	Notify ER and CT Carry out investigation Report the result of investigation to ER	<ol> <li>Confirm receipt of notification of failure in writing</li> <li>Notify CT</li> <li>Require CT to propose remedial</li> </ol>	<ol> <li>2.</li> </ol>	Submit noise mitigation proposals to ET Implement noise mitigation proposals
<ul><li>4.</li><li>5.</li></ul>	Increase monitoring frequency to check mitigation effectiveness Review the proposed remedial measures by CT and advise ER	measures for the noise exceedance		,,,,,,,,,,
6.	accordingly			
7.	Supervise the implementation of remedial measures			
8.	If exceedance stops, cease additional monitoring			

 Table 3-6b
 - Event-action plan for construction noise (Limit Level).

Action				
ET	ER	СТ		
<ol> <li>Notify ER and EPD</li> <li>Identify source</li> <li>Repeat measurement to confirm findings</li> <li>Increase monitoring frequency</li> <li>Discuss amongst ER and CT on the potential remedial actions</li> <li>Review CT's remedial actions whenever necessary to assure their effectiveness and advise ER accordingly</li> </ol>	<ol> <li>Confirm receipt of notification of failure in writing</li> <li>Notify CT</li> <li>Require CT to propose remedial measures for the noise exceedance</li> <li>Ensure remedial measures are properly implemented</li> <li>If exceedance continues, consider what portion of the work is responsible and instruct CT to stop that portion of work until the</li> </ol>	<ol> <li>Take immediate action to avoid further exceedance.</li> <li>Inform ET, ER and EPD of the actions taken for the exceedance.</li> <li>Submit proposals for remedial actions to ET within 3 working days of notification</li> <li>Implement the agreed proposals</li> <li>Resubmit proposals if problem still not under control</li> <li>Stop the relevant portion of works as determined by the ER until the</li> </ol>		
<ul> <li>7. Suggest any improvement or other alternative mitigation measures should the CT's proposal be found ineffective</li> <li>8. Supervise the implementation of remedial measures</li> </ul>	exceedance is abated	exceedance is abated		
<ul><li>9. Inform ER and EPD of the causes for the exceedance</li></ul>				
10. Assess effectiveness of CT's remedial actions and keep EPD and ER informed of the results				
11. If exceedance stops, cease additional monitoring				

# 3.3.2 Air Quality

The action and limit levels for air quality have been established in the Project Specific EM&A Manual<sup>[4]</sup> and are tabulated in Table 3-7.

Table 3-7 - Action and limit levels for air quality.

Parameters	Action Level	Limit Level
	<ul> <li>For baseline level &lt; 108 μg/m³,</li> <li>Action Level = average of baseline level plus 30% and Limit Level</li> </ul>	
24 Hour TSP Level in μg/m³	<ul> <li>For 108μg/m³ &lt; baseline level &lt; 154μg/m³,</li> <li>Action Level = 200μg/m³</li> </ul>	260
	<ul> <li>For baseline level &gt; 154 μg/m³,</li> <li>Action Level = 130% of baseline level</li> </ul>	
	<ul> <li>For baseline level &lt; 154 μg/m³,</li> <li>Action Level = average of baseline level plus 30% and Limit Level</li> </ul>	
1 Hour TSP Level in μg/m³	<ul> <li>For 154μg/m³ &lt; baseline level &lt; 269μg/m³,</li> <li>Action Level = 350μg/m³</li> </ul>	500
	<ul> <li>For baseline level &gt; 269 μg/m³,</li> <li>Action Level = 130% of baseline level</li> </ul>	

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The baseline checking was conducted on 8 December 2002. There was no significant difference when comparing the baseline checking results of December 2002 with previous baseline checking results. Therefore, the current A/L levels for 24-hour TSP and 1-hour TSP monitoring are still representative and valid. In accordance with the Baseline Monitoring Report<sup>[5]</sup> and Baseline Checking Results in March 2002, the action and limit levels for 24-hour TSP and 1-hour TSP at different locations were established and are tabulated in Table 3-8 and Table 3-9 respectively.

Table 3-8 - Action and limit levels for 24-hour TSP.

Monitoring Location	24-hour TSP Level in ng/m3			
Monitoring Education	Baseline Level *	Action Level	Limit Level	
Ma On Shan Lutheran Primary School	66.0	173		
Ma On Shan St. Joseph's Primary School	57.7	168		
Villa Concerto, Symphony Bay	60.8	170	260	
Club House, Monte Vista#	-	185		
Kam Yiu House, Kam Ying Court#	-	194		

Remarks: \* Baseline levels were obtained from the Baseline Monitoring Report prepared by Manusell Consultant Asia Limited<sup>[5]</sup>.

Table 3-9 - Action and limit levels for 1-hour TSP.

Monitoring Location	1-hour TSP Level in mg/m <sup>3</sup>					
Monitoring Education	Baseline Level *	Action Level #	Limit Level			
Ma On Shan Lutheran Primary School	274	350				
Ma On Shan St. Joseph's Primary School	274	350				
Villa Concerto, Symphony Bay	273	347	500			
Club House, Monte Vista	-	350				
Kam Yiu House, Kam Ying Court	-	349				

Remarks: \* Baseline levels were obtained from the Baseline Monitoring Report prepared by Maunsell Consultant Asia Limited<sup>[5]</sup>.

- # The Action Levels of AM2, AM3 and AM4 have been revised in accordance with the baseline checking results in March 2002.
- \* No baseline monitoring was conducted for Monte Vista (AM5) and Kam Ying Court (AM6) as these two locations were established after the commencement of the construction works. The Action Level of AM5 and AM6 are established in accordance with the baseline checking results in March 2002.

Table 3-10a and Table 3-10b detail the actions required to be carried out by different parties in case of an exceedance of performance limits being detected.

<sup>\*</sup> No baseline monitoring was conducted for Monte Vista (AM5) and Kam Ying Court (AM6) as these two locations were established after the commencement of the construction works. The Action Levels of AM5 and AM6 are established in accordance with the baseline checking results in March 2002.

Table 3-10a - Event-action plan for air quality (Action Level).

	Action								
ET	ER	СТ							
Action Level 1 – Exceedance for one sar	nple								
<ol> <li>Identify source</li> <li>Inform ER</li> <li>Repeat measurement to confirm findings</li> <li>Review the proposed remedial measures by CT and advise ER accordingly</li> <li>Suggest any improvement or other alternative mitigation measures should the CT's proposal be found ineffective</li> <li>Supervise the implementation of remedial measures</li> <li>Increase monitoring frequency to demonstrate efficacy of remedial measures</li> <li>If exceedance stops, cease additional monitoring</li> </ol>	<ol> <li>Notify CT</li> <li>Check monitoring data and CT's working methods</li> </ol>	<ol> <li>Rectify any unacceptable practice</li> <li>Amend working methods if appropriate</li> </ol>							
<ol> <li>Action Level 2 – Exceedance for two or m</li> <li>Identify source</li> <li>Inform ER</li> <li>Repeat measurement to confirm findings</li> <li>Review the proposed remedial measures by CT and advise ER accordingly</li> <li>Discuss with ER for remedial actions required</li> <li>Suggest any improvement or other alternative mitigation measures should the CT's proposal be found ineffective</li> <li>Supervise the implementation of remedial measures</li> <li>Increase monitoring frequency to demonstrate efficacy of remedial measures</li> <li>If exceedance continues, arrange meeting with ER</li> <li>If exceedance stops, cease</li> </ol>	<ol> <li>Confirm receipt of notification of failure in writing</li> <li>Notify CT</li> <li>Check monitoring data and CT's working methods</li> <li>Discuss with Environmental Supervisor and CT on potential remedial actions</li> <li>Ensure remedial actions are properly implemented</li> </ol>	<ol> <li>Submit proposals for remedial actions to ER within 3 working days of notification</li> <li>Implement the agreed proposals</li> <li>Amend proposal if appropriate</li> </ol>							

Note: If source of exceedance is clearly identified as being not works related no further action is necessary by any party.

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Table 3-10b - Event-action plan for air quality (Limit Level).

		Action	
	ET	ER	СТ
Lin	nit Level 1 – Exceedance for one samp	ple	
<ul><li>2.</li><li>3.</li><li>4.</li><li>5.</li><li>7.</li></ul>	Identify source Inform ER Repeat measurement to confirm findings Discuss with ER for remedial actions required Suggest any improvement or other alternative mitigation measures should the CT's proposal be found ineffective Supervise the implementation of remedial measures Increase monitoring frequency to demonstrate efficacy of remedial measures If exceedance stops, cease	<ol> <li>Confirm receipt of notification of failure in writing</li> <li>Notify CT</li> <li>Check monitoring data and CT's working methods</li> <li>Discuss with ET and CT on potential remedial actions</li> <li>Ensure remedial actions are properly implemented</li> </ol>	<ol> <li>Take immediate action to avoid further exceedance</li> <li>Submit proposals for remedial actions to ER within 3 working days of notification</li> <li>Implement the agreed proposals</li> <li>Amend proposal if appropriate</li> </ol>
Lin	additional monitoring  nit Level 2 – Exceedance for two or mo	ora consacutiva samplas	
$\vdash$		· · · · · · · · · · · · · · · · · · ·	Take immediate action to avoid
2.	Identify source Inform ER the causes and actions taken for the exceedance	failure in writing  2. Notify CT	further exceedance 2. Submit proposals for remedial
	Repeat measurement to confirm findings	3. Carry out analysis of CT's working procedures to determine possible mitigation to be implemented	actions to ER within 3 working days of notification  3. Implement the agreed proposals
	Investigate the causes of exceedance	4. Discuss amongst ET and CT on	Resubmit proposals if problem still not under control
5.	Arrange meeting with ER to discuss the remedial actions to be taken	potential remedial actions 5. Review CT's remedial actions whenever necessary to assure	5. Stop the relevant portion of works as determined by ER until the
6.	alternative mitigation measures should the CT's proposal be found ineffective	their effectiveness  6. If exceedance continues, consider what portion of the work is responsible and instruct CT to stop	exceedance is abated
7.	Supervise the implementation of remedial measures	that portion of work until the exceedance is abated	
8.	Increase monitoring frequency to demonstrate efficacy of remedial measures		
9.	If exceedance stops, cease additional monitoring		

Note: If source of exceedance is clearly identified as being not works related no further action is necessary by any party.

#### 4. CONSTRUCTION NOISE MONITORING

# 4.1 Monitoring Results

Thirteen measurements were taken at each location during 0700-1900. The twelve measurements were taken at NM3 and NM4 and eleven measurements were taken at NM6 and NM8 respectively during 1900-2300 from October 2002 to December 2002. All the noise measurements were taken between 0700-2300 hours on normal weekdays during which the construction site was under normal operation. The construction daytime and evening time noise monitoring results in the period between October 2002 and December 2002 are tabulated in Table 4-1 and Table 4-2 respectively. Detailed weather conditions and the monitoring period are given in Appendix 1. The trend of the noise levels at each monitoring location were plotted and presented in Figure 4-1 and Figure 4-2.

Table 4-1 - Construction noise monitoring results from October 2002 to December 2002.

Date of Monitoring	Monitoring		Monitoring Res			g Results, dB(A) (30 min)			
Date of Monitoring	Parameters	NM2	NM3	NM4	NM6	NM7	NM8		
	L <sub>eq</sub>	62.8	63.4	65.5	67.6	57.1	68.7		
07/10/02 (Mon)	L <sub>10</sub>	64.0	64.5	69.5	70.5	59.0	73.0		
	L <sub>90</sub>	61.0	61.0	58.5	62.5	53.5	64.0		
	L <sub>eq</sub>	63.0	64.5	64.5	68.0	59.7	68.0		
16/10/02 (Wed)	L <sub>10</sub>	65.8	65.5	70.3	71.8	61.5	72.5		
	L <sub>90</sub>	60.3	59.0	58.3	61.3	56.0	63.0		
	L <sub>eq</sub>	64.8	63.7	68.3	68.7	58.9	68.4		
23/10/02 (Wed)	L <sub>10</sub>	66.8	65.3	70.3	69.8	59.8	69.8		
	L <sub>90</sub>	62.3	60.3	64.3	64.3	55.3	63.8		
	L <sub>eq</sub>	67.5	65.0	68.0	67.5	65.8	61.9		
30/10/02 (Wed)	L <sub>10</sub>	70.0	68.0	72.5	73.0	69.0	62.5		
	L <sub>90</sub>	61.5	58.5	60.0	61.0	60.0	57.0		
	L <sub>eq</sub>	67.0	63.5	68.5	68.0	65.5	69.5		
06/11/02 (Wed)	L <sub>10</sub>	69.5	66.0	71.4	72.0	69.0	73.0		
	L <sub>90</sub>	62.0	59.0	61.8	62.5	61.5	63.0		
	L <sub>eq</sub>	64.5	63.0	67.5	68.7	68.0	70.0		
12/11/02 (Tue)	L <sub>10</sub>	67.0	65.5	71.4	72.0	73.0	73.5		
	L <sub>90</sub>	61.0	60.0	62.0	62.5	62.0	63.5		
	L <sub>eq</sub>	67.5	64.5	70.5	69.8	67.0	66.8		
21/11/02 (Thu)	L <sub>10</sub>	70.0	67.0	73.5	72.3	70.5	71.2		
	L <sub>90</sub>	64.0	60.5	65.5	60.0	62.0	61.0		
	L <sub>eq</sub>	66.7	64.0	69.8	70.5	69.5	68.5		
27/11/02 (Wed)	L <sub>10</sub>	71.4	66.5	74.0	73.0	72.5	72.0		
	L <sub>90</sub>	62.0	61.0	65.2	65.0	64.5	64.0		
	L <sub>eq</sub>	66.5	65.0	70.5	68.0	67.5	69.0		
04/12/02 (Wed)	L <sub>10</sub>	69.0	68.0	73.0	70.5	70.0	72.0		
	L <sub>90</sub>	61.0	60.5	65.5	62.5	62.0	61.5		

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Date of Monitoring	Monitoring		Monitoring Results, dB(A) (30 min)					
Date of Monitoring	Parameters	NM2	NM3	NM4	NM6	NM7	NM8	
	L <sub>eq</sub>	67.5	65.5	70.0	67.7	69.5	70.5	
11/12/02 (Wed)	L <sub>10</sub>	70.0	69.0	74.5	71.5	72.5	73.5	
	L <sub>90</sub>	61.5	61.0	64.0	62.0	62.0	63.0	
	L <sub>eq</sub>	69.5	66.0	68.5	70.1	71.0	72.0	
18/12/02 (Wed)	L <sub>10</sub>	72.5	68.5	72.0	73.0	74.0	75.5	
	L <sub>90</sub>	62.0	60.5	61.0	64.5	63.0	62.5	
	L <sub>eq</sub>	68.0	65.0	69.5	71.5	70.0	72.5	
24/12/02 (Tue)	L <sub>10</sub>	71.5	68.0	73.0	74.0	73.5	75.0	
	L <sub>90</sub>	63.0	60.5	62.0	63.0	64.0	65.0	
31/12/02 (Tue)	L <sub>eq</sub>	66.5	65.0	70.5	67.0	70.0	71.0	
	L <sub>10</sub>	69.0	68.5	74.0	69.5	75.5	74.5	
	L <sub>90</sub>	61.0	60.0	63.5	61.0	63.0	62.5	

Figure 4-1 – Trend of Noise Level for daytime monitoring from September 2002 to December 2002.

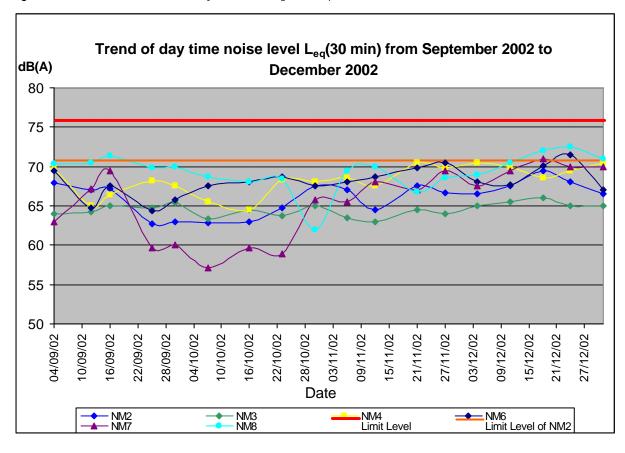


Table 4-2 - Construction evening time noise monitoring results from October 2002 to December 2002.

Date of Monitoring	Monitoring Results, $L_{eq}$ dB(A) (5 min)						
Pate of Monitoring	NM3*	NM4*	NM6#	NM7**	NM8#		
	-	-	64.0	-	63.0		
07/10/02 (Mon)	-	-	63.5	-	63.0		
	-	-	63.0	-	63.5		
	61.0	59.4	-	-	-		
16/10/02 (Wed)#	61.7	59.4	-	-	-		
	63.5	58.4	-	-	-		
	62.0	60.0	-	-	-		
23/10/02 (Wed)#	63.0	60.5	-	-	-		
	62.3	61.2	-	-	-		
	62.5	60.0	63.0	-	65.0		
31/10/02 (Thu)	62.8	60.5	64.0	-	66.5		
F	61.5	60.0	62.5	-	64.8		
	61.5	60.0	63.0	-	63.5		
06/11/02 (Wed)	62.0	62.0	61.5	-	65.5		
F	60.0	61.0	62.0	-	63.0		
	60.5	61.0	62.5	-	63.0		
12/11/02 (Tue)	63.0	60.5	63.0	-	64.5		
F	61.0	60.5	63.0	-	63.8		
	60.0	62.0	61.8	-	64.0		
21/11/02 (Thu)	62.5	61.5	62.0	-	64.5		
	63.0	62.0	63.5	-	63.8		
	61.0	60.5	62.5	-	62.0		
27/11/02 (Wed)	61.5	62.0	64.0	-	61.0		
	62.0	60.0	63.0	-	61.5		
	61.0	63.0	63.0	-	64.0		
04/12/02 (Wed)	60.5	63.0	63.0	-	63.5		
	61.5	63.5	62.5	-	61.0		
	62.5	64.0	62.0	-	63.5		
11/12/02 (Wed)	63.0	63.0	61.5	-	65.0		
	61.5	65.0	62.0	-	62.5		
	64.0	65.0	64.0	-	62.0		
18/12/02 (Wed)	61.0	64.5	61.5	-	63.0		
	63.0	64.0	62.0	-	63.5		
	63.5	63.5	63.0	-	63.0		
23/12/02 (Mon)	64.0	64.0	63.5	-	64.0		
	62.0	63.0	63.0	-	63.5		
	60.5	63.0	66.0	-	64.0		
31/12/02 (Tue)	61.0	63.5	65.0	-	63.0		
	62.5	63.5	63.0	-	62.5		

 $\textbf{Noted:} \ \ ^{\star} \ \text{Evening time noise monitoring is not required at monitoring stations NM3 and NM4 in Week 1 as no}$ 

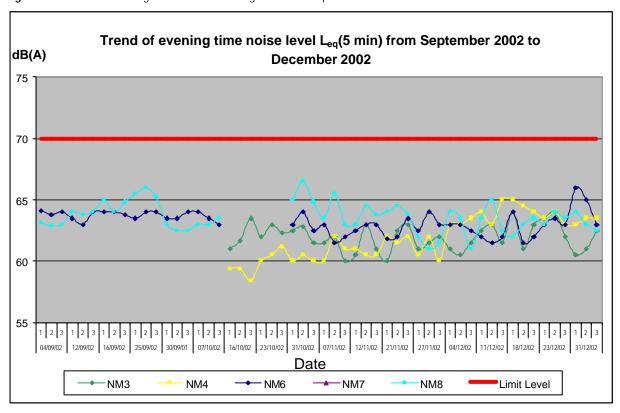
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construction works was conducted near these stations.

\*\* Evening time noise monitoring is not required at monitoring station NM7 as no construction works was conducted near this station.

# As the locations of the restricted hour works have been shifted, the evening time noise monitoring locations at NM6 Symphony Bay and NM8 Roof of blk5, Monte Vista were no longer valid for checking the restricted hour noise impact. Therefore, evening time noise monitoring at these 2 stations suspended since Week 2 of October 2002. However, as per the request of ER, the evening time noise monitoring at NM6 and NM8 was resumed in Week 4 of October 2002.

Figure 4-2 - Trend of evening time noise monitoring level from September 2002 to December 2002.



#### 5. AIR QUALITY MONITORING

#### 5.1 24-hour TSP Monitoring Results

A total of fifteen 24-hour TSP monitoring were conducted at AM2, AM3, AM4 and AM5 and six 24-hour TSP monitoring were conducted at AM6 from October 2002 to December 2002. The 24-hour TSP monitoring results are tabulated in Table 5-1. Detailed monitoring data are given in Appendix 2. The trend of the 24-hours TSP levels at each monitoring location were plotted and presented in Figure 5-1.

Table 5-1 - 24-hour TSP monitoring results for October 2002 to December 2002.

Data of Manitoring	24-hour TSP Monitoring Results,(μg/m³)							
Date of Monitoring	AM2	AM3	AM4	AM5	AM6#			
03/10/02 (Thu)	71.9	-	76.4	80.1	-			
07/10/02 (Mon)*	-	118.1	-	-	-			
09/10/02 (Wed)	81.0	84.3	76.2	87.1	-			
15/10/02 (Tue)	50.1	50.3	49.6	37.4	-			
21/10/02 (Mon)	31.3	34.2	33.4	37.6	-			
26/10/02 (Sat)	67.4	73.9	67.5	75.6	-			
02/11/02 (Sat)	54.8	57.6	46.6	38.1	-			
08/11/02 (Fri)	71.1	76.0	57.8	67.3	-			
14/11/02 (Thu)	63.0	64.2	48.9	58.5	-			
20/11/02 (Wed)	81.8	87.3	85.4	70.2	-			
26/11/02 (Tue)	74.2	79.6	73.1	69.1	64.8			
02/12/02 (Mon)	71.7	76.3	76.0	60.1	60.9			
10/12/02 (Tue)	63.2	66.1	57.9	58.1	55.8			
14/12/02 (Sat)	67.6	55.4	67.2	61.1	61.7			
21/12/02 (Sat)	30.5	53.6	29.4	28.2	24.5			
27/12/02 (Fri)	25.5	53.6	27.6	25.3	22.4			

Note: \* The 24-hour TSP monitoring at AM3 was postponed from 03/10/02 to 07/10/02 due to equipment failure.

<sup>#</sup> The electrical cable of the HVS at AM6 was damaged by the waste collector in early October 2002, which caused temporary suspension of the 24-hour TSP monitoring in October and early November 2002. The HVS at AM6 had been repaired since 21 November 2002 and the monitoring was resumed on 26 November 2002.

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# 5.2 1-hour Monitoring Results

A total of forty-five 1-hour TSP monitoring were conducted at each location from October 2002 to December 2002. The 1-hour TSP monitoring results are tabulated in Table 5-2 and the detailed monitoring data are given in Appendix 3. The trend of the 1-hour TSP levels at each monitoring location were plotted and presented in Figure 5-2.

Table 5-2 - 1-hour TSP monitoring results for October 2002 to December 2002.

Data of Manitania a	1-hour TSP Monitoring Results,(µg/m³)						
Date of Monitoring	AM2	AM3	AM4	AM5	AM6		
	204.6	206.7	184.7	182.6	185.9		
07/10/02 (Mon)	212.3	212.6	192.2	187.1	189.4		
, ,	205.4	204.8	197.3	192.8	195.4		
	193.3	183.7	192.8	194.7	190.1		
10/10/02 (Thu)	189.2	178.6	188.1	189.2	185.6		
	189.4	180.3	188.5	190.9	186.3		
	144.1	146.5	154.9	160.0	153.6		
16/10/02 (Wed)	148.7	154.5	160.2	165.5	163.5		
	149.6	152.9	159.9	164.0	153.9		
	129.9	145.7	106.3	122.1	79.8		
23/10/02 (Wed)	138.6	151.6	121.9	125.2	83.1		
	121.5	138.6	98.5	127.0	73.8		
	157.0	162.8	160.7	150.5	169.1		
30/10/02 (Wed)	178.4	181.7	170.5	161.8	165.5		
	167.9	158.0	177.0	165.5	165.1		
	180.1	180.8	176.0	183.7	184.6		
06/11/02 (Wed)	199.6	198.7	162.2	163.4	199.2		
	167.9	173.7	143.2	149.7	180.6		
	182.9	174.5	154.7	132.6	194.2		
12/11/02 (Tue)	162.5	155.7	146.6	120.9	174.4		
	170.0	164.0	140.9	137.2	182.8		
	184.2	187.1	162.2	164.7	149.4		
15/11/02 (Fri)	178.2	179.3	159.8	158.8	152.9		
	182.4	182.7	156.4	159.4	143.7		
	138.6	157.6	157.1	154.0	169.7		
21/11/02 (Thu)	148.9	154.3	157.2	157.8	179.2		
	148.3	161.1	161.9	162.3	180.6		
	197.1	221.4	219.8	204.8	218.4		
27/11/02 (Wed)	197.0	222.5	219.5	197.1	216.8		
	194.7	221.7	209.9	201.1	213.1		

Date of Monitoring	1-hour TSP Monitoring Results,(µg/m³)						
Date of Monitoring	AM2	AM3	AM4	AM5	AM6		
	165.3	159.6	188.3	185.2	171.0		
04/12/02 (Wed)	166.2	152.5	180.7	182.7	168.1		
	163.5	152.4	181.9	180.9	164.7		
	193.4	171.8	196.0	179.3	243.5		
11/12/02 (Wed)	191.7	151.1	194.2	171.7	244.8		
	212.8	194.3	207.9	196.6	260.6		
	276.6	265.5	277.2	249.8	190.1		
18/12/02 (Wed)	278.7	268.6	280.6	253.3	180.5		
	280.7	275.0	276.0	256.2	178.8		
	171.9	190.4	195.1	160.8	181.0		
24/12/02 (Tue)	189.7	200.7	208.0	171.4	179.5		
	203.2	218.4	221.0	188.9	177.4		
	202.0	168.4	189.4	164.6	174.1		
31/12/02 (Tue)	183.1	156.8	179.0	153.2	154.9		
	216.5	178.9	213.9	180.6	191.3		

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Figure 5-1 - Trend of 24-hours TSP levels from September 2002 to December 2002.

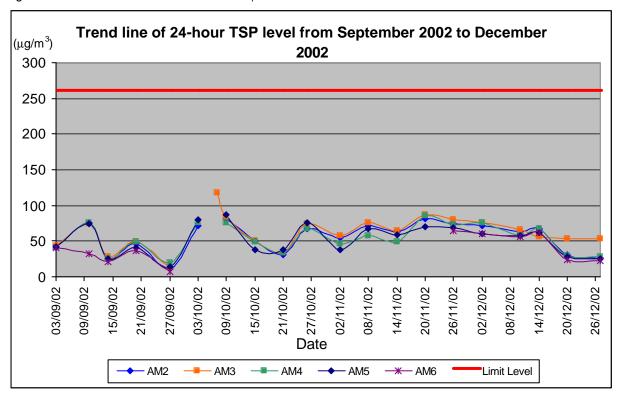
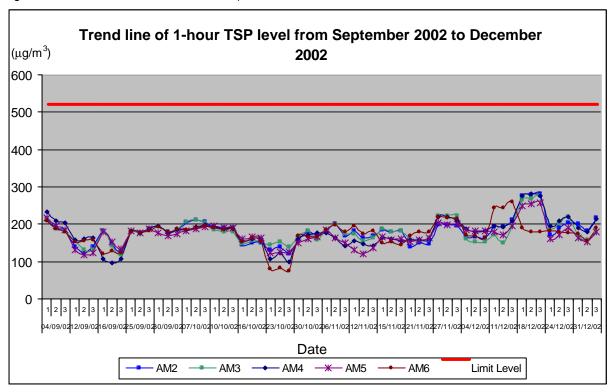


Figure 5-2 - Trend of 1-hour TSP levels from September 2002 to December 2002.



# 6. QUARTERLY SUMMARY, ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE RECORDS

#### 6.1 Waste Disposal

A total of 163 loads of waste from site clearance (i.e. felled trees) have been disposed of at NENT Landfill from October 2002 to December 2002. The total tonnage of the waste disposal from October 2002 to December 2002 was 1,250.3 tonnes.

A total of 7,204 loads of rocks ( $\phi > 400$ mm) have been disposed of at the follow government project sites from October 2002 to December 2002:

- TDD Contract No. YL 46/99 Tin Shui Wai Further Development Road D3 and Constructed Wetland,
- TDD Contract No. FL 26/01 River Training for Upper River Indus Completion of the Remaining Works between Man Kam To Road and KCRC Bridges and
- CED Contract No. CV/99/10 Pak Shek Kok Reclamation for Public Filling, Remaining Works.

The total quantity of the disposed rocks was 45,130.9 m<sup>3</sup> from October 2002 to December 2002.

A total of 206 loads of inert material have been disposed of at Public Filling Area from October 2002 to December 2002. The total quantity of the disposed inert materials was 1,176.0 m<sup>3</sup> from October 2002 to December 2002.

The total quantities of the waste disposal to Landfill and Public Fill are summarised in Table 6-1.

**Table 6-1 -** Waste Disposal Summary.

Month	Number of Loads to NENT	Total Disposed Tonnage (tonnes)	Number of Loads to others gov. designated project#	Total Disposed Quantity (m³)	Number of Loads to Public Filling Area	Total Disposed Quantity (m³)
February & March 2001*	262	1,834	-	-	-	-
April 2001*	124	868	-	-	-	-
May 2001	83	588.3	-	-	-	-
June 2001	48	326.1	-	-	-	-
July 2001	82	723.4	-	-	-	-
August 2001	62	513.8	-	-	14	176.4
September 2001	114	772.2	-	-	456	5,348.6
October 2001	60	478.8	-	-	431	5,861.2
November 2001	122	737.5	-	-	853	8,637.7
December 2001	121	814.2	-	-	790	10,657.4
January 2002	204	1,343.8	-	-	1,182	11,820
February 2002	73	521.3	-	-	646	3,876
March 2002	88	653.0	-	-	1,164	6,984.0

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Month	Number of Loads to NENT	Total Disposed Tonnage (tonnes)	Number of Loads to others gov. designated project#	Total Disposed Quantity (m³)	Number of Loads to Public Filling Area	Total Disposed Quantity (m³)
April 2002	29	169.8	2,265	24,881.5	488	7,515.9
May 2002	101	773.3	2,478	17,295.9	351	4,213.6
June 2002	81	624.7	2,077	14,814.8	453	4,306.1
July 2002	45	327.4	372	2,659.8	112	877.1
August 2002	-	-	548	3,391	62	469.3
September 2002	42	225.6	3,732	22,720	9	54.0
October 2002	48	378.0	2,989	18,740.2	69	414.0
November 2002	94	725.0	1,232	7,565.7	80	480.0
December 2002	21	147.3	2,983	18,825	57	282.0
Total	1,904	13,545.5	18,676	130,893.9	7,217	71,973.3

Note:

- An average of 7 tonnes per truck is assumed for the estimation of tonnage for February 2001 to April 2001 as the trip ticket system was not commenced until May 2001.
- # -TDD Contract No. YL 46/99 Tin Shui Wai Further Development Road D3 and Constructed Wetland,
  - -TDD Contract No. FL 26/01 River Training for Upper River Indus Completion of the Remaining Works between Man Kam To Road and KCRC Bridges and
  - -CED Contract No. CV/99/10 Pak Shek Kok Reclamation for Public Filling, Remaining Works.

# 6.2 EPD Site Inspection

ET was informed by the CT that EPD visited the site on 04/10/02, 15/10/02, 04/11/02, 02/12/02, 05/12/02, 15/12/02 and 29/12/02.

# 6.3 Complaint Record

Six public complaints regarding construction noise were received on 23/10/02, 05/11/02, 23/11/02, 30/11/02, 16/12/02 and 30/12/02 respectively through the Environmental Protection Department and Territory Development Department. All complaints had been resolved. The details of the complaint and the implemented mitigation measures are summarised in the memorandums of public complaints given in Appendix 4. A summary of the complaint record is tabulated in Table 6-2.

**Table 6-2 –** Compliant Record Summary.

Date Received	Source of Complaint	Complaint Issue	Status
15/03/01	Public (Kam Ying Court)	Noise	Resolved
30/03/01	Public (Kam Ying Court)	Noise	Resolved
26/04/01	Public (Kam Ying Court)	Noise	Resolved
26,27,28 /04/01	Public (Kam Ying Court)	Noise	Resolved
21/06/01	Public (District Councillor for Shatin District Board)	Water	Resolved
12/07/01	Public (District Councillor for Shatin District Board)	Noise	Resolved

Date Received	Source of Complaint	Complaint Issue	Status
20/10/01	Public (Monte Vista) Noise		Resolved
23/10/01	Public (Monte Vista)	Noise	Resolved
27/10/01	Public (Monte Vista)	Noise	Resolved
30/10/01	Public (Kam Ying Court)	Noise	Resolved
14/11/01	-	Noise	-
15/11/01	-	Noise	-
18/11/01	Public (Kam Ying Court)	Noise	Resolved
20/11/01	Public (Lee On Estate)	Noise	Resolved
26/11/01	Public (Monte Vista)	Dust	Resolved
02/12/01	Public (Kam Ying Court)	Noise	Resolved
03/12/01	Public (Kam Ying Court)	Dust, Noise	Resolved
07/12/01	Public (Heng On Estate)	Noise	Resolved
14/12/01	Public (Kam Ying Court)	Dust, Noise	Resolved
08/01/02	Public (Monte Vista, Kam Ying Court)	Dust, Noise	Resolved
09/01/02	Public (Kam Ying Court)	Noise	Resolved
10/01/02	Public (Monte Vista)	Noise	Resolved
16/01/02	Public (Kam Ying Court)	Noise	Resolved
22/01/02	Public (Lok Wo Sha)	Dust, Waste	Resolved
01/02/02	Public (Monte Vista)	Noise	Resolved
20/03/02	Public (Kam Ying Court)	Noise	Resolved
26/03/02	Public (Monte Vista)	Dust	Resolved
16/04/02	Public (Monte Vista)	Dust	Resolved
13/05/02	Public (Lee On Estate)	Water	Resolved
26/06/02	Public (Monte Vista)	Noise	Resolved
10/09/02	Public (Cheung Muk Tau Village)	Noise	Resolved
30/09/02	Public (Monte Vista)	Dust	Resolved
23/10/02	Public (Monte Vista)	Noise	Resolved
05/11/02	Public (Lee On Estate)	Noise	Resolved
23/11/02	Public (Heng On Estate)	Noise	Resolved
30/11/02	Public (Kam Ying Court)	Noise	Resolved
16/12/02	Public (Kam Ying Court)	Noise	Resolved
27/12/02	Public (Kam Ying Court)	Noise	Resolved

# 6.4 Non-compliance Record

There was no exceedance recorded in the period from October 2002 to December 2002. The compliance percentage of noise, 24-hours TSP and 1-hour TSP monitoring are summarised in Table 6-3, Table 6-4 and Table 6-5 respectively.

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Table 6-3 - The Summary of Compliance Percentage of Noise Monitoring from February 2001 to December 2002.

Period	Noise Monitoring			
	Number of Monitoring	Number of Compliance	Compliance Percentage (%)	
February 2001	3	3	100	
March 2002	5	5	100	
April 2001	4	4	100	
May 2001	5	5	100	
June 2001	4	4	100	
July 2001	5	5	100	
August 2001	4	4	100	
September 2001	4	4	100	
October 2001	5	4	100	
November 2001	4	4	100	
December 2001	4	4	100	
January 2002	5	5	100	
February 2002	4	4	100	
March 2002	4	4	100	
April 2002	4	4	100	
January 2003	5	5	100	
June 2002	4	4	100	
July 2002	5	5	100	
August 2002	4	4	100	
September 2002	5	5	100	
October 2002	4	4	100	
November 2002	4	4	100	
December 2002	5	5	100	

**Table 6-4 -** The Summary of Compliance Percentage of 24-hours TSP monitoring from February 2001 to December 2002.

Period	24-hours TSP Monitoring			
	Number of Monitoring	Number of Compliance	Compliance Percentage (%)	
February 2001	-	-	-	
March 2002	5	5	100	
April 2001	5	5	100	
May 2001	5	5	100	
June 2001	5	5	100	
July 2001	5	5	100	
August 2001	5	5	100	

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Period		24-hours TSP Monitoring	
Periou	Number of Monitoring	Number of Compliance	Compliance Percentage (%)
September 2001	5	5	100
October 2001	5	5	100
November 2001	5	5	100
December 2001	5	4*	80
January 2002	5	4*	80
February 2002	5	5	100
March 2002	5	5	100
April 2002	6	5*	83.3
January 2003	5	5	100
June 2002	5	5	100
July 2002	5	5	100
August 2002	5	5	100
Septe mber 2002	5	5	100
October 2002	5	5	100
November 2002	5	5	100
December 2002	5	5	100

**Note:** The 24-hours TSP monitoring was commenced in March 2001.

**Table 6-5 -** The Summary of Compliance Percentage of 1-hour TSP monitoring from February 2001 to December 2002.

Period		1-hour TSP Monitoring	
Period	Number of Monitoring	Number of Compliance	Compliance Percentage (%)
February 2001	-	-	-
March 2002	3	3	100
April 2001	15	15	100
May 2001	18	18	100
June 2001	15	15	100
July 2001	15	15	100
August 2001	15	15	100
September 2001	15	15	100
October 2001	15	15	100
November 2001	15	15	100
December 2001	15	15	100
January 2002	15	15	100
February 2002	15	15	100
March 2002	15	15	100

<sup>\*</sup> The exceedances of 24-hour TSP level at AM2 in December 2001, January 2002 and April 2002 were due to the waterproofing works at the roof level as confirmed by the Principal of Ma On Shan Lutheran Primary School.

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Period		1-hour TSP Monitoring	
renou	Number of Monitoring	Number of Compliance	Compliance Percentage (%)
April 2002	15	15	100
January 2003	15	15	100
June 2002	15	15	100
July 2002	18	18	100
August 2002	15	15	100
September 2002	15	15	100
October 2002	15	15	100
November 2002	15	15	100
December 2002	15	15	100

**Note:** The 1-hour TSP monitoring was commenced in March 2001.

Ove Arup & Partners Section 7

#### 7. REFERENCES

[1] Truck Road T7 in Ma On Shan - Environmental Impact Assessment Study, Final Assessment Report, Maunsell Consultants Asia Limited.

- [2] Brief for Environmental Monitoring and Audit for the Sha Tin New Town, stage II Contract No. ST 86/2000 Construction of Road T7 in Ma On Shan, Maunsell Consultants Asia Limited.
- [3] Environmental Permit No. EP-057/2000 for the Designated Project "Truck Road T7 in Ma On Shan", Environmental Protection Department, HKSAR.
- [4] Trunk Road T7 in Ma On Shan Environmental Monitoring and Audit Manual, Maunsell Consultant Asia Limited, HKSAR.
- [5] Sha Tin New Town, Stage II Contract No. ST 86/2000 Construction of Road T7 in Ma On Shan Baseline Monitoring Report, Maunsell Consultants Asia Ltd.

# APPENDIX 1

Noise Impact Monitoring Results for October 2002 to December 2002

# **Details of Day Time Noise Impact Monitoring**

		NSR	Time p	eriods	Weather	Avg. wind	No	ise Level dE	B(A)
Month	Date	No.	Start	Finish	condition	speed (m/s)	L,q	L <sub>10</sub>	L <sub>90</sub>
Oct-02	07-Oct-02	NM2	15:30	16:00	Cloudy	0.4	62.8	64.0	61.0
Oct-02	07-Oct-02	NM3	16:10	16:40	Cloudy	0.2	63.4	64.5	61.0
Oct-02	07-Oct-02	NM4	11:15	11:45	Cloudy	0.3	65.5	69.5	58.5
Oct-02	07-Oct-02	NM6	9:00	9:30	Cloudy	0.4	67.6	70.5	62.5
Oct-02	07-Oct-02	NM7	9:45	10:15	Cloudy	0.6	57.1	59.0	53.5
Oct-02 Oct-02	07-Oct-02 16-Oct-02	NM8 NM2	10:25 8:40	10:55 9:10	Cloudy	0.6 0.4	68.7 63.0	73.0 65.8	64.0 60.3
Oct-02	16-Oct-02	NM3	8:50	9:10	sunny sunny	0.4	64.5	65.5	59.0
Oct-02	16-Oct-02	NM4	10:50	11:20	sunny	0.2	64.5	70.3	58.3
Oct-02	16-Oct-02	NM6	9:40	10:10	sunny	0.2	68.0	71.8	61.3
Oct-02	16-Oct-02	NM7	11:00	11:30	sunny	0.2	59.7	61.5	56.0
Oct-02	16-Oct-02	NM8	9:55	10:25	sunny	0.2	68.0	72.5	63.0
Oct-02	23-Oct-02	NM2	10:40	11:10	Cloudy	0.2	64.8	66.8	62.3
Oct-02	23-Oct-02	NM3	10:05	10:35	Cloudy	0.2	63.7	65.3	60.3
Oct-02	23-Oct-02	NM4	13:00	13:30	Cloudy	0.2	68.3	70.3	64.3
Oct-02	23-Oct-02	NM6	13:40	14:10	Cloudy	0.2	68.7	69.8	64.3
Oct-02	23-Oct-02	NM7	9:15	9:45	Cloudy	0.2	58.9	59.8	55.3
Oct-02	23-Oct-02	NM8	11:20	11:50	Cloudy	0.2	68.4	69.8	63.8
Oct-02 Oct-02	30-Oct-02 30-Oct-02	NM2 NM3	10:00 9:20	10:30	Cloudy Cloudy	0.2	67.5	70.0	61.5
Oct-02	30-Oct-02 30-Oct-02	NM4	9:20 8:30	9:50 9:00	Cloudy	0.2 0.2	65.0 68.0	68.0 72.5	58.5 60.0
Oct-02	30-Oct-02 30-Oct-02	NM6	10:45	9:00	Cloudy	0.2	67.5	72.5 73.0	61.0
Oct-02	30-Oct-02	NM7	13:00	13:30	Cloudy	0.2	65.8	69.0	60.0
Oct-02	30-Oct-02	NM8	13:40	14:10	Cloudy	0.2	61.9	62.5	57.0
Nov-02	06-Nov-02	NM2	8:00	8:30	Sunny	0.5	67.0	69.5	62.0
Nov-02	06-Nov-02	NM3	8:45	9:15	Sunny	0.3	63.5	66.0	59.0
Nov-02	06-Nov-02	NM4	9:30	10:00	Sunny	0.6	68.5	71.4	61.8
Nov-02	06-Nov-02	NM6	13:00	13:30	Sunny	0.7	68.0	72.0	62.5
Nov-02	06-Nov-02	NM7	10:15	10:45	Sunny	0.4	65.5	69.0	61.5
Nov-02	06-Nov-02	NM8	10:55	11:25	Sunny	0.6	69.5	73.0	63.0
Nov-02	12-Nov-02	NM2	10:25	10:55	sunny	0.5	64.5	67.0	61.0
Nov-02	12-Nov-02	NM3	9:50	10:20	sunny	0.4	63.0	65.5	60.0
Nov-02 Nov-02	12-Nov-02 12-Nov-02	NM4 NM6	9:15 10:55	9:45 11:25	sunny	0.6 0.3	67.5 68.7	71.4 72.0	62.0 62.5
Nov-02	12-Nov-02	NM7	11:30	12:00	sunny sunny	0.3	68.0	73.0	62.0
Nov-02	12-Nov-02	NM8	13:00	13:30	sunny	0.4	70.0	73.5	63.5
Nov-02	21-Nov-02	NM2	8:50	9:20	sunny	0.4	67.5	70.0	64.0
Nov-02	21-Nov-02	NM3	9:25	9:55	sunny	0.2	64.5	67.0	60.5
Nov-02	21-Nov-02	NM4	10:05	10:35	sunny	0.6	70.5	73.5	65.5
Nov-02	21-Nov-02	NM6	10:40	11:10	sunny	0.7	69.8	72.3	60.0
Nov-02	21-Nov-02	NM7	11:20	11:50	sunny	0.5	67.0	70.5	62.0
Nov-02	21-Nov-02	NM8	13:00	13:30	sunny	0.4	66.8	71.2	61.0
Nov-02	27-Nov-02	NM2	11:20	11:50	sunny	0.5	66.7	71.4	62.0
Nov-02	27-Nov-02	NM3	10:40	11:10	sunny	0.3	64.0	66.5	61.0
Nov-02 Nov-02	27-Nov-02 27-Nov-02	NM4 NM6	9:55	10:25 17:00	sunny	0.4	69.8	74.0	65.2
Nov-02	27-Nov-02 27-Nov-02	NM7	16:30 9:15	9:45	sunny sunny	0.5 0.6	70.5 69.5	73.0 72.5	65.0 64.5
Nov-02	27-Nov-02	NM8	8:50	9:20	sunny	0.5	68.5	72.0	64.0
Dec-02	04-Dec-02	NM2	13:00	13:30	sunny	0.3	66.5	69.0	61.0
Dec-02	04-Dec-02	NM3	9:10	9:40	sunny	0.3	65.0	68.0	60.5
Dec-02	04-Dec-02	NM4	9:50	10:20	sunný	0.5	70.5	73.0	65.5
Dec-02	04-Dec-02	NM6	10:20	10:50	sunny	0.6	68.0	70.5	62.5
Dec-02	04-Dec-02	NM7	10:55	11:25	sunny	0.5	67.5	70.0	62.0
Dec-02	04-Dec-02	NM8	11:30	12:00	sunny	0.4	69.0	72.0	61.5
Dec-02	11-Dec-02	NM2	10:45	11:15	sunny	0.4	67.5	70.0	61.5
Dec-02 Dec-02	11-Dec-02 11-Dec-02	NM3	11:25	11:55	sunny	0.3	65.5	69.0	61.0
Dec-02 Dec-02	11-Dec-02 11-Dec-02	NM4 NM6	10:00 13:00	10:30 13:30	sunny sunny	0.4 0.5	70.0 67.7	74.5 71.5	64.0 62.0
Dec-02	11-Dec-02	NM7	9:20	9:50	sunny	0.5 0.5	69.5	71.5	62.0
Dec-02	11-Dec-02	NM8	8:50	9:20	sunny	0.5	70.5	73.5	63.0
Dec-02	18-Dec-02	NM2	8:50	9:20	sunny	0.4	69.5	72.5	62.0
Dec-02	18-Dec-02	NM3	9:25	9:55	sunny	0.3	66.0	68.5	60.5
Dec-02	18-Dec-02	NM4	10:00	10:30	sunny	0.5	68.5	72.0	61.0
Dec-02	18-Dec-02	NM6	13:00	13:30	sunny	0.5	70.1	73.0	64.5
Dec-02	18-Dec-02	NM7	10:50	11:20	sunny	0.5	71.0	74.0	63.0
Dec-02	18-Dec-02	NM8	11:30	12:00	sunny	0.6	72.0	75.5	62.5
Dec-02	24-Dec-02	NM2	8:30	9:00	Sunny	0.4	68.0	71.5	63.0
Dec-02 Dec-02	24-Dec-02 24-Dec-02	NM3	9:20	9:50	Sunny	0.3	65.0	68.0	60.5
Dec-02 Dec-02	24-Dec-02 24-Dec-02	NM4 NM6	10:10 10:55	10:40 11:25	Sunny Sunny	0.4 0.5	69.5 71.5	73.0 74.0	62.0 63.0
Dec-02 Dec-02	24-Dec-02 24-Dec-02	NM7	11:30	12:00	Sunny	0.5 0.5	71.5 70.0	74.0 73.5	63.0 64.0
Dec-02	24-Dec-02	NM8	13:00	13:30	Sunny	0.6	72.5	75.0	65.0
Dec-02	31-Dec-02	NM2	8:40	9:10	Fine	0.3	66.5	69.0	61.0
Dec-02	31-Dec-02	NM3	9:15	9:45	Fine	0.3	65.0	68.5	60.0
Dec-02	31-Dec-02	NM4	9:55	10:25	Fine	0.5	70.5	74.0	63.5
Dec-02	31-Dec-02	NM6	13:00	13:30	Fine	0.6	67.0	69.5	61.0
Dec-02	31-Dec-02	NM7	10:40	11:10	Fine	0.5	70.0	75.5	63.0
Dec-02	31-Dec-02	NM8	11:15	11:45	Fine	0.6	71.0	74.5	62.5

# **Details of Evening time Noise Impact Monitoring**

		· ·	NSR	Time p	eriods	Weather	Avg. wind	Noi	se Level dE	3(A)
Month	Date	Set No.	No.	Start	Finish	condition	speed (m/s)	L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>
Oct-02	07-Oct-02	1	NM6	19:00	19:05	fine	0.4	64.0	65.5	57.5
Oct-02	07-Oct-02	2	NM6	19:05	19:10	fine	0.4	63.5	65.0	58.0
Oct-02	07-Oct-02	3	NM6	19:10	19:15	fine	0.4	63.0	65.0	58.0
Oct-02	07-Oct-02	1	NM8	19:20	19:25	fine	0.6	63.0	65.0	57.0
Oct-02	07-Oct-02	2	NM8	19:25	19:30	fine	0.6	63.0	65.5	57.5
Oct-02	07-Oct-02	3	NM8 NM3	19:30 19:00	19:35 19:05	fine fine	0.6 0.4	63.5 61.0	66.0 63.0	57.0 59.5
Oct-02 Oct-02	16-Oct-02 16-Oct-02	2	NM3	19:00	19:05	fine	0.4	61.7	64.0	58.0
Oct-02	16-Oct-02	3	NM3	19:00	19:15	fine	0.4	63.5	65.0	60.5
Oct-02	16-Oct-02	1	NM4	19:25	19:30	fine	0.4	59.4	60.0	58.5
Oct-02	16-Oct-02	2	NM4	19:30	19:35	fine	0.4	59.4	61.5	57.5
Oct-02	16-Oct-02	3	NM4	19:35	19:40	fine	0.4	58.4	60.0	56.5
Oct-02	23-Oct-02	1	NM3	19:00	19:05	fine	0.3	62.0	64.0	59.0
Oct-02	23-Oct-02	2	NM3	19:05	19:10	fine	0.3	63.0	64.5	60.0
Oct-02	23-Oct-02	3	NM3	19:10	19:15	fine	0.3	62.3	65.0	58.5
Oct-02	23-Oct-02	1	NM4	19:30	19:35	fine	0.4	60.0	62.0	57.0
Oct-02	23-Oct-02	2	NM4	19:35	19:40	fine	0.4	60.5	63.0	56.5
Oct-02	23-Oct-02	3	NM4	19:40	19:45	fine	0.4	61.2	62.5	57.0
Oct-02	31-Oct-02	1	NM3	19:05	19:10	fine	0.3	62.5	65.0	60.0
Oct-02	31-Oct-02	2	NM3	19:10	19:15	fine	0.3	62.8	65.0	59.5
Oct-02	31-Oct-02	3	NM3	19:15	19:20	fine	0.3	61.5	65.0	60.0
Oct-02	31-Oct-02	1 2	NM4	19:40	19:45	fine	0.5	60.0	63.5	57.5 57.0
Oct-02 Oct-02	31-Oct-02 31-Oct-02	2 3	NM4 NM4	19:45 19:50	19:50 19:55	fine fine	0.5 0.5	60.5 60.0	64.0 64.0	57.0 57.0
Oct-02 Oct-02	31-Oct-02 31-Oct-02	1	NM4 NM6	19:50 21:00	19:55 21:05	fine fine	0.5	63.0	65.5	57.0 57.5
Oct-02 Oct-02	31-Oct-02 31-Oct-02	2	NM6	21:00	21:10	fine	0.6	64.0	66.0	57.5 57.0
Oct-02 Oct-02	31-Oct-02	3	NM6	21:10	21:15	fine	0.6	62.5	65.5	57.0 57.0
Oct-02	31-Oct-02	l ĭ	NM8	20:15	20:20	fine	0.6	65.0	66.5	57.0
Oct-02	31-Oct-02	2	NM8	20:20	20:25	fine	0.6	66.5	68.4	60.0
Oct-02	31-Oct-02	3	NM8	20:25	20:30	fine	0.6	64.8	67.0	57.5
Nov-02	07-Nov-02	1	NM3	20:00	20:05	fine	0.3	61.5	64.5	58.0
Nov-02	07-Nov-02	2	NM3	20:05	20:10	fine	0.3	62.0	66.0	58.5
Nov-02	07-Nov-02	3	NM3	20:10	20:15	fine	0.3	60.0	63.5	58.0
Nov-02	07-Nov-02	1	NM4	20:25	20:30	fine	0.5	60.0	63.0	58.0
Nov-02	07-Nov-02	2	NM4	20:30	20:35	fine	0.5	62.0	65.0	60.5
Nov-02	07-Nov-02	3	NM4	20:35	20:40	fine .	0.5	61.0	63.8	58.0
Nov-02	07-Nov-02	1 1	NM6	21:30	21:35	fine	0.4	63.0	66.0	58.0
Nov-02	07-Nov-02	2	NM6	21:35	21:40	fine	0.4	61.5 62.0	64.0 65.5	58.0 58.5
Nov-02 Nov-02	07-Nov-02 07-Nov-02	3	NM6 NM8	21:40 20:50	21:45 20:55	fine fine	0.4 0.4	63.5	65.8	59.5
Nov-02 Nov-02	07-Nov-02 07-Nov-02	2	NM8	20:55	20.55	fine	0.4	65.5	68.0	60.5
Nov-02	07-Nov-02	3	NM8	21:00	21:05	fine	0.4	63.0	64.5	60.0
Nov-02	12-Nov-02	1	NM3	19:00	19:05	fine	0.2	60.5	63.0	57.5
Nov-02	12-Nov-02	2	NM3	19:05	19:10	fine	0.2	63.0	65.5	59.0
Nov-02	12-Nov-02	3	NM3	19:10	19:15	fine	0.2	61.0	64.8	58.0
Nov-02	12-Nov-02	1	NM4	19:35	19:40	fine	0.2	61.0	62.5	57.0
Nov-02	12-Nov-02	2	NM4	19:40	19:45	fine	0.2	60.5	62.0	56.5
Nov-02	12-Nov-02	3	NM4	19:45	19:50	fine	0.2	60.5	62.0	56.0
Nov-02	12-Nov-02	1	NM6	20:30	20:35	fine	0.4	62.5	65.0	57.0
Nov-02	12-Nov-02	2	NM6	20:35	20:40	fine	0.4	63.0	65.8	56.5
Nov-02	12-Nov-02	3	NM6	20:40	20:45	fine	0.4	63.0	65.0	56.5
Nov-02	12-Nov-02	1	NM8	20:00	20:05	fine	0.4	63.0	65.5	58.5
Nov-02	12-Nov-02 12-Nov-02	2	NM8	20:05	20:10	fine	0.4 0.4	64.5 63.8	66.0 65.0	60.0 57.0
Nov-02 Nov-02	12-Nov-02 21-Nov-02	3	NM8 NM3	20:10 19:00	20:15 19:05	fine fine	0.4 0.5	60.0	65.0 64.5	58.0
Nov-02 Nov-02	21-Nov-02 21-Nov-02	2	NM3	19:05	19:05	fine	0.5	62.5	65.0	58.5
Nov-02	21-Nov-02 21-Nov-02	3	NM3	19:10	19:15	fine	0.5	63.0	65.0	58.5
Nov-02 Nov-02	21-Nov-02	1	NM4	19:30	19:35	fine	0.6	62.0	64.5	58.0
Nov-02	21-Nov-02	2	NM4	19:35	19:40	fine	0.6	61.5	65.0	58.5
Nov-02	21-Nov-02	3	NM4	19:40	19:45	fine	0.6	62.0	65.0	58.5
Nov-02	21-Nov-02	1	NM6	20:30	20:35	fine	0.5	61.8	63.5	60.0
Nov-02	21-Nov-02	2	NM6	20:35	20:40	fine	0.5	62.0	64.5	60.0
Nov-02	21-Nov-02	3	NM6	20:40	20:45	fine	0.5	63.5	66.0	59.0
Nov-02	21-Nov-02	1	NM8	19:55	20:00	fine	0.6	64.0	65.5	60.0
Nov-02	21-Nov-02	2	NM8	20:00	20:05	fine	0.6	64.5	65.8	60.5
Nov-02	21-Nov-02	3	NM8	20:05	20:10	fine	0.6	63.8	66.0	60.5
Nov-02 Nov-02	27-Nov-02 27-Nov-02	1 2	NM3 NM3	19:00 19:05	19:05 19:10	fine fine	0.3 0.3	61.0 61.5	65.5 66.0	60.0 59.5
Nov-02 Nov-02	27-Nov-02 27-Nov-02	3	NM3	19:05	19:10	fine	0.3	62.0	66.0	59.5 59.0
Nov-02 Nov-02	27-Nov-02 27-Nov-02	1	NM4	19:30	19:15	fine	0.5	60.5	64.0	58.5
Nov-02 Nov-02	27-Nov-02	2	NM4	19:35	19:40	fine	0.5	62.0	64.5	59.0
Nov-02	27-Nov-02	3	NM4	19:40	19:45	fine	0.5	60.0	64.0	58.5
Nov-02	27-Nov-02	1	NM6	21:00	21:05	fine	0.5	62.5	66.0	58.0
Nov-02	27-Nov-02	2	NM6	21:05	21:10	fine	0.5	64.0	65.5	58.0
Nov-02	27-Nov-02	3	NM6	21:10	21:15	fine	0.5	63.0	65.0	57.5
Nov-02	27-Nov-02	1	NM8	20:00	20:05	fine	0.5	62.0	66.0	58.5
	07 N- 00	2	NM8	20:05	20:10	fine	0.5	61.0	64.5	58.0
Nov-02 Nov-02	27-Nov-02 27-Nov-02	3	NM8	20:10	20:15	fine	0.5	61.5	64.5	58.0

# **Details of Evening time Noise Impact Monitoring**

	·		NSR	Time p	eriods	Weather	Avg. wind	No	ise Level dE	3(A)
Month	Date	Set No.	No.	Start	Finish	condition	speed (m/s)	L <sub>eq</sub>	L <sub>10</sub>	L <sub>90</sub>
Dec-02	04-Dec-02	1	NM3	19:00	19:05	fine	0.3	61.0	64.0	58.0
Dec-02	04-Dec-02	2	NM3	19:05	19:10	fine	0.3	60.5	63.5	58.0
Dec-02	04-Dec-02	3	NM3	19:10	19:15	fine	0.3	61.5	64.0	58.5
Dec-02	04-Dec-02	1 1	NM4	19:35	19:40	fine	0.4	63.0	65.0	57.5
Dec-02	04-Dec-02	2	NM4	19:40	19:45	fine	0.4	63.0	65.5	58.0
Dec-02	04-Dec-02	3	NM4	19:45	19:50	fine	0.4	63.5	65.0	58.0
Dec-02	04-Dec-02	1	NM6	20:35	20:40	fine	0.5	63.0	65.0	59.5
Dec-02	04-Dec-02	2	NM6	20:40	20:45	fine	0.5	63.0	65.8	59.0
Dec-02	04-Dec-02	3	NM6	20:45	20:50	fine	0.5	62.5	65.5	60.0
Dec-02	04-Dec-02	1	NM8	20:00	20:05	fine	0.5	64.0	65.5	59.0
Dec-02	04-Dec-02	2	NM8	20:05	20:10	fine	0.5	63.5	65.0	58.0
Dec-02	04-Dec-02	3	NM8	20:10	20:15	fine	0.5	61.0	63.0	58.0
Dec-02	11-Dec-02	1	NM3	19:00	19:05	fine	0.3	62.5	64.0	60.5
Dec-02	11-Dec-02	2	NM3	19:05	19:10	fine	0.3	63.0	64.5	58.0
Dec-02	11-Dec-02	3	NM3	19:10	19:15	fine	0.3	61.5	63.0	57.0
Dec-02	11-Dec-02	1	NM4	19:30	19:35	fine	0.5	64.0	66.0	58.0
Dec-02	11-Dec-02	2	NM4	19:35	19:40	fine	0.5	63.0	65.0	58.0
Dec-02	11-Dec-02	3	NM4	19:40	19:45	fine	0.5	65.0	66.5	58.0
Dec-02	11-Dec-02	1 1	NM6	20:30	20:35	fine	0.4	62.0	65.5	58.0
Dec-02	11-Dec-02	2	NM6	20:35	20:40	fine	0.4	61.5	65.8	59.0
Dec-02	11-Dec-02	3	NM6	20:40	20:45	fine	0.4	62.0	68.0	60.0
Dec-02	11-Dec-02	1	NM8	20:00	20:05	fine	0.5	63.5	66.0	59.5
Dec-02	11-Dec-02	2	NM8	20:05	20:10	fine	0.5	65.0	68.0	60.5
Dec-02	11-Dec-02	3	NM8	20:10	20:15	fine	0.5	62.5	65.0	60.0
Dec-02	18-Dec-02	1	NM3	19:00	19:05	fine	0.3	64.0	66.5	61.0
Dec-02	18-Dec-02	2	NM3	19:05	19:10	fine	0.3	61.0	63.5	59.0
Dec-02	18-Dec-02	3	NM3	19:10	19:15	fine	0.3	63.0	65.0	60.5
Dec-02	18-Dec-02	1 1	NM4	19:30	19:35	fine	0.4	65.0	67.0	58.5
Dec-02	18-Dec-02	2	NM4	19:35	19:40	fine	0.4	64.5	. 66.0	58.0
Dec-02	18-Dec-02	3	NM4	19:40	19:45	fine	0.4	64.0	66.0	59.0
Dec-02	18-Dec-02	1	NM6	20:30	20:35	fine	0.5	64.0	67.0	60.0
Dec-02	18-Dec-02	2	NM6	20:35	20:40	fine	0.5	61.5	64.0	60.0
Dec-02	18-Dec-02	3	NM6	20:40	20:45	fine	0.5	62.0	64.0	60.0
Dec-02	18-Dec-02	1 1	NM8	20:00	20:05	fine	0.4	62.0	64.5	60.0
Dec-02	18-Dec-02	2	NM8	20:05	20:10	fine	0.4	63.0	65.0	60.0
Dec-02	18-Dec-02	3	NM8	20:10	20:15	fine	0.4	63.5	65.0	60.5
Dec-02	23-Dec-02	1	NM3	19:00	19:05	fine	0.4	63.5	65.0	60.0
Dec-02	23-Dec-02	2	NM3	19:05	19:10	fine	0.4	64.0	66.0	60.0
Dec-02	23-Dec-02	3	NM3	19:10	19:15	fine	0.4	62.0	64.0	59.0
Dec-02	23-Dec-02	1	NM4	19:30	19:35	fine	0.6	63.5	65.0	60.0
Dec-02	23-Dec-02	2	NM4	19:35	19:40	fine	0.6	64.0	65.0	60.0
Dec-02	23-Dec-02	3	NM4	19:40	19:45	fine	0.6	63.0	64.5	59.0
Dec-02	23-Dec-02	1	NM6	20:20	20:25	fine	0.5	63.0	65.0	60.0
Dec-02	23-Dec-02	2	NM6	20:25	20:30	fine	0.5	63.5	65.0	59.5
Dec-02	23-Dec-02	3	NM6	20:30	20:35	fine	0.5	63.0	64.0	59.0
Dec-02	23-Dec-02	1	NM8	19:55	20:00	fine	0.6	63.0	65.0	60.0
Dec-02	23-Dec-02	2	NM8	20:00	20:05	fine	0.6	64.0	65.0	60.5
Dec-02	23-Dec-02	3	NM8	20:05	20:10	fine	0.6	63.5	65.0	60.5
Dec-02	31-Dec-02	1	NM3	19:00	19:05	fine	0.3	60.5	64.0	58.0
Dec-02	31-Dec-02	2	NM3	19:05	19:10	fine	0.3	61.0	64.0	57.0
Dec-02	31-Dec-02	3	NM3	19:10	19:15	fine	0.3	62.5	65.0	57.5
Dec-02	31-Dec-02	1	NM4	19:30	19:35	fine	0.5	63.0	65.5	58.0
Dec-02	31-Dec-02	2	NM4	19:35	19:40	fine	0.5	63.5	66.0	58.0
Dec-02	31-Dec-02	3	NM4	19:40	19:45	fine	0.5	63.5	66.0	58.5
Dec-02	31-Dec-02	1	NM6	20:20	20:25	fine	0.6	66.0	68.0	60.5
Dec-02	31-Dec-02	2	NM6	20:25	20:30	fine	0.6	65.0	66.0	60.0
Dec-02	31-Dec-02	3	NM6	20:30	20:35	fine	0.6	63.0	65.0	60.0
Dec-02	31-Dec-02	1	NM8	19:55	20:00	fine	0.4	64.0	67.0	61.0
Dec-02	31-Dec-02	2	NM8	20:00	20:05	fine	0.4	63.0	65.0	60.0
Dec-02	31-Dec-02	3	NM8	20:05	20:10	fine	0.4	62.5	65.0	60.0

# APPENDIX 2

24-hour TSP Monitoring Results for October 2002 to December 2002

			Receptor	Weather	Site	Filter Weight (g)	eight (g)	TSP	Flow Rate	Flow Rate (m³/min)	Average Flow	Elaps	Elapse Time	Sampling	Total	24-hour TSP
Filter No.	Month	Date	No.	condition	condition	Initial	Final	weight (g)	Initial	Final	Rate (m³/min)	Start	Finish	Time (mins.)	vol. (m³)	Level (ua/m³)
DH87	Oct-02	03-Oct-02	AM2	Cloudy	normal operation		3.7503	0.1408	1.3988	1.3227	1.3608	2475.52	2499.52	1440.00	1959.48	71.9
DH88	Oct-02	07-Oct-02	AM3	Cloudy	normal operation	3.6114	3.8362	0.2248	1.3190	1.3251	1.3221	2382.94	2406.94	1440.00	1903.75	118.1
	Oct-02	03-Oct-02	AM4	Cloudy	normal operation		3.8008	0.1786	1.6186	1.6264	1.6225	2438.23	2462.23	1440.00	2336.40	76.4
_	Oct-02	03-Oct-02	AMS	Cloudy	normal operation		3.7791	0.1576	1.3771	1.3566	1.3669	2002.92	2026.92	1440.00	1968.26	80.1
	Oct-02	09-Oct-02	AM2	Sunny	normal operation		3.8339	0.1588	1.4056	1.3173	1.3615	2499.52	2523.52	1440.00	1960.49	81.0
	Oct-02	09-Oct-02	AM3	Sunny	normal operation		3.8204	0.1605	1.3251	1.3199	1.3225	2406.94	2430.94	1440.00	1904.40	84.3
	Oct-02	09-Oct-02	AM4	Sunny	normal operation		3.8610	0.1839	1.6788	1.6718	1.6753	2462.23	2486.23	1440.00	2412.43	76.2
	Oct-02	09-Oct-02	AM5	Sunny	normal operation	3.6661	3.8288	0.1627	1.2998	1.2935	1.2967	2026.92	2020.92	1440.00	1867.18	87.1
	Oct-02	15-Oct-02	AM2	Sunny	normal operation		3.5952	0860.0	1.3998	1.3173	1.3586	2523.52	2547.52	1440.00	1956.31	50.1
	Oct-02	15-Oct-02	AM3	Sunny	normal operation		3.5833	0.0931	1.2724	1.2961	1.2843	2430.94	2454.94	1440.00	1849.32	50.3
_	Oct-02	15-Oct-02	AM4	Sunny	normal operation		3.5970	0.1157	1.6198	1.6198	1.6198	2486.23	2510.23	1440.00	2332.51	49.6
	Oct-02	15-Oct-02	AM5	Sunny	normal operation		3.5832	0.0788	1.4631	1.4631	1.4631	2050.92	2074.92	1440.00	2106.86	37.4
	Oct-02	21-Oct-02	AM2	Rainy	normal operation		3.4871	0.0633	1.4548	1.3566	1.4057	2547.52	2571.52	1440.00	2024.21	31.3
	Oct-02	21-Oct-02	AM3	Rainy	normal operation	3.3989	3.4653	0.0664	1.3673	1.3312	1.3493	2454.94	2478.94	1440.00	1942.92	34.2
	Oct-02	21-Oct-02	AM4	Rainy	normal operation	3.4504	3.5286	0.0782	1.6198	1.6340	1.6269	2510.23	2534.23	1440.00	2342.74	33.4
	Oct-02	21-Oct-02	AM5	Rainy	normal operation		3.5254	0.0751	1.3783	1.3928	1.3856	2074.92	2098.92	1440.00	1995.19	37.6
	Oct-02	26-Oct-02	AM2	Rainy	normal operation	3.6627	3.7941	0.1314	1.3566	1.3510	1.3538	2571.52	2595.52	1440.00	1949.47	67.4
	Oct-02	26-Oct-02	AM3	Rainy	normal operation	3.6839	3.8253	0.1414	1.3312	1.3258	1.3285	2478.94	2502.94	1440.00	1913.04	73.9
	Oct-02	26-Oct-02	AM4	Rainy	normal operation		3.8460	0.1535	1.5813	1.5749	1.5781	2534.23	2558.23	1440.00	2272.46	67.5
DK14	Oct-02	26-Oct-02	AM5	Rainy	normal operation	3.6940	3.8453	0.1513	1.3928	1.3859	1.3894	2098.92	2122.92	1440.00	2000.66	75.6
_	Nov-02	02-Nov-02	AM2	Sunny	normal operation		3.8336	0.1070	1.3510	1.3600	1.3555	2595.52	2619.53	1440.60	1952.73	54.8
	Nov-02	02-Nov-02	AM3	Sunny	normal operation		3.8410	0.1104	1.3259	1.3345	1.3302	2502.94	2526.94	1440.00	1915.49	97.6
_	Nov-02	02-Nov-02	AM4	Sunny	normal operation		3.8200	0.1096	1.6273	1.6382	1.6328	2558.23	2582.23	1440.00	2351.16	46.6
	Nov-02	02-Nov-02	AM5	Sunny	normal operation	3.6999	3.7747	0.0748	1.3575	1.3683	1.3629	2122.92	2146.92	1440.00	1962.58	38.1
	Nov-02	08-Nov-02	AM2	Sunny	normal operation		3.7684	0.1386	1.3705	1.3368	1.3537	2619.53	2643.53	1440.00	1949.26	71.1
DK97	Nov-02	08-Nov-02	AM3	Sunny	normal operation		3.7607	0.1346	1.2706	1.1900	1.2303	2526.94	2550.94	1440.00	1771.63	76.0
	Nov-02	08-Nov-02	AM4	Sunny	normal operation		3.7548	0.1353	1.6351	1.6176	1.6264	2582.23	2606.23	1440.00	2341.94	57.8
	Nov-02	08-Nov-02	AM5	Sunny	normal operation	3.6012	3.7360	0.1348	1.4845	1.2980	1.3913	2146.92	2170.92	1440.00	2003.40	67.3
	Nov-02	14-Nov-02	AM2	Sunny	normal operation		3.7306	0.1212	1.3591	1.3110	1.3351	2643.53	2667.53	1440.00	1922.47	63.0
	Nov-02	14-Nov-02	AM3	Sunny	normal operation	3.6266	3.7449	0.1183	1.3505	1.2093	1.2799	2550.94	2574.94	1440.00	1843.06	64.2
	Nov-02	14-Nov-02	AM4	Sunny	normal operation		3.7362	0.1137	1.6176	1.6118	1.6147	2606.23	2630.23	1440.00	2325.17	48.9
	Nov-02	14-Nov-02	AM5	Sunny	normal operation		3.7479	0.1176	1.4777	1.3158	1.3968	2170.92	2194.92	1440.00	2011.32	58.5
	Nov-02	20-Nov-02	AM2	Sunny	normal operation	3.6748	3.8390	0.1642	1.4440	1.3441	1.3941	2667.53	2691.53	1440.00	2007.43	81.8
	Nov-02	20-Nov-02	AM3	Sunny	normal operation		3.8428	0.1556	1.2549	1.2203	1.2376	2574.94	2598.94	1440.00	1782.14	87.3
DL72 I	Nov-02	20-Nov-02	AM4	Sunny	normal operation		3.8580	0.1667	1.3902	1.3201	1.3552	2630.23	2654.23	1440.00	1951.42	85.4
	Nov-02	20-Nov-02	AM5	Sunny	normal operation	3.5858	3.7472	0.1614	1.5856	1.6075	1.5966	2194.92	2218.92	1440.00	2299.03	70.2
	Nov-02	26-Nov-02	AM2	Sunny	normal operation		3.8655	0.1437	1.3441	1.3470	1.3456	2691.53	2715.53	1440.00	1937.59	74.2
	Nov-02	26-Nov-02	AM3	Sunny	normal operation		3.8536	0.1427	1.2665	1.2231	1.2448	2598.94	2622.94	1440.00	1792.51	9.62
	Nov-02	26-Nov-02	AM4	Sunny	normal operation		3.8425	0.1450	1.4043	1.3516	1.3780	2654.23	2678.23	1440.00	1984.25	73.1
DN23	Nov-02	26-Nov-02	AM5	Sunny	normal operation	3.6903	3.8506	0.1603	1.6075	1.6131	1.6103	2218.92	2242.92	1440.00	2318.83	69.1
1	70-A0N	ZO-1004-0Z	OIM	Sulliy	nomial operation		3.101.5	0.103	1.35.1	1017:	1.2000	135.3	0.010	1440.00	1027.00	0.1

		Receptor	Weather	Site	Filter Weight (g)	eight (g)	TSP	Flow Rate	(m³/min)	Flow Rate (m³/min) Average Flow	Elaps	Elapse Time	Sampling	Total	24-hour TSP
Month	Date	No.	condition	condition	Initial	Final	weight (g)	Initial	Final	Rate (m³/min)	Start	Finish	Time (mins.)	vol. (m³)	Level (ua/m³)
Dec-02	02-Dec-02	AM2	Sunny	normal operation	3.6721	3.8166	0.1445	1.4597	1.3386	1.3992	2715.53	2739.52	1439.40	2013.94	71.7
Dec-02	02-Dec-02	AM3	Sunny	normal operation	3.6547	3.7912	0.1365	1.2696	1.2147	1.2422	2622.94	2646.94	1440.00	1788.70	76.3
Dec-02	02-Dec-02	AM4	Sunny	normal operation	3.6542	3.8015	0.1473	1.3516	1.3414	1.3465	2678.23	2702.23	1440.00	1938.96	76.0
Dec-02	02-Dec-02	AM5	Sunny	normal operation	3.6505	3.7924	0.1419	1.6497	1.6326	1.6412	2242.92	2266.91	1439.40	2362.27	60.1
Dec-02	02-Dec-02	AM6	Sunny	normal operation	3.6402	3.7535	0.1133	1.3244	1.2612	1.2928	816.31	840.31	1440.00	1861.63	6.09
Dec-02	10-Dec-02	AM2	Sunny	normal operation	3.8725	4.0002	0.1277	1.4267	1.3794	1.4031	2763.52	2787.52	1440.00	2020.39	63.2
Dec-02	10-Dec-02	AM3	Sunny	normal operation	3.8866	4.0073	0.1207	1.2814	1.2562	1.2688	2670.93	2694.93	1440.00	1827.07	66.1
Dec-02	10-Dec-02	AM4	Sunny	normal operation	3.8579	3.9728	0.1149	1.3937	1.3632	1.3785	2726.22	2750.22	1440.00	1984.97	57.9
Dec-02	10-Dec-02	AM5	Sunny	normal operation	3.8765	4.0163	0.1398	1.6724	1.6692	1.6708	2290.91	2314.91	1440.00	2405.95	58.1
Dec-02	10-Dec-02	AM6	Sunny	normal operation	3.8496	3.9548	0.1052	1.3373	1.2809	1.3091	864.31	888.31	1440.00	1885.10	55.8
Dec-02	14-Dec-02	AM2	Sunny	normal operation	3.8422	3.9803	0.1381	1.4707	1.3650	1.4179	2787.52	2811.52	1440.00	2041.70	9'29
Dec-02	14-Dec-02	AM3	Sunny	normal operation	3.8264	3.9093	0.0829	1.0447	1.0340	1.0394	2694.93	2718.93	1440.00	1496.66	55.4
Dec-02	14-Dec-02	AM4	Sunny	normal operation	3.8718	4.0028	0.1310	1.3632	1.3463	1.3548	2750.22	2774.22	1440.00	1950.84	67.2
Dec-02	14-Dec-02	AM5	Sunny	normal operation	3.8292	3.9715	0.1423	1.6322	1.6043	1.6183	2314.91	2338.91	1440.00	2330.28	61.1
Dec-02	14-Dec-02	AM6	Sunny	normal operation	3.8330	3.9486	0.1156	1.3355	1.2656	1.3006	888.31	912.31	1440.00	1872.79	61.7
Dec-02	20-Dec-02	AM2	Sunny	normal operation	3.4909	3.5530	0.0621	1.4547	1.3754	1.4151	2811.52	2835.52	1440.00	2037.67	30.5
Dec-02	20-Dec-02	AM3	Sunny	normal operation	3.4981	3.5998	0.1017	1.3111	1.3224	1.3168	2742.93	2766.93	1440.00	1896.12	53.6
Dec-02	20-Dec-02	AM4	Sunny	normal operation	3.4941	3.5502	0.0561	1.3463	1.3018	1.3241	2774.22	2798.22	1440.00	1906.63	29.4
Dec-02	20-Dec-02	AM5	Sunny	normal operation	3.5140	3.5826	0.0686	1.6771	1.6983	1.6877	2338.91	2362.91	1440.00	2430.29	28.2
Dec-02	20-Dec-02	AM6	Sunny	normal operation	3.5046	3.5503	0.0457	1.3193	1.2767	1.2980	912.31	936.31	1440.00	1869.12	24.5
Dec-02	27-Dec-02	AM2	Sunny	normal operation	3.5152	3.5678	0.0526	1.4663	1.4002	1,4333	2835.52	2859.52	1440.00	2063.88	25.5
Dec-02	27-Dec-02	AM3	Sunny	normal operation	3.5090	3.6112	0.1022	1.3224	1.3246	1.3235	2766.93	2790.93	1440.00	1905.84	53.6
Dec-02	27-Dec-02	AM4	Sunny	normal operation	3.5139	3.5703	0.0564	1.4438	1.3894	1.4166	2798.22	2822.23	1440.60	2040.75	27.6
Dec-02	27-Dec-02	AM5	Sunny	normal operation	3.5022	3.5656	0.0634	1.7351	1.7392	1.7372	2362.91	2386.91	1440.00	2501.50	25.3
Dec-02	27-Dec-02	AM6	Sunny	normal operation	3.5004	3.5434	0.0430	1.3854	1.2788	1.3321	936.31	960.31	1440.00	1918.22	22.4

# APPENDIX 3

1-hour TSP Monitoring Results for October 2002 to December 2002

Month		Receptor	i	ı ııme p	eriods	Weather	Site	Temp.	Pressure	1-hour TSP
	Date	No.	Set No.	Start	Finish	condition	condition	(°C)	(mmHg)	Level (μg/g <sup>3</sup> )
Oct-02	07-Oct-02	AM2	1	13:03	14:03	Cloudy	normal operation	24.0	762.8	204.6
Oct-02	07-Oct-02	AM2	2	14:03	15:03	Cloudy	normal operation	24.0	762.8	212.3
Oct-02	07-Oct-02	AM2	3	15:03	16:03	Cloudy	normal operation	24.0	762.8	205.4
Oct-02	07-Oct-02	AM3	1	13:04	14:04	Cloudy	normal operation	24.0	762.8	206.7
Oct-02 Oct-02	07-Oct-02 07-Oct-02	AM3 AM3	2 3	14:04 15:04	15:04 16:04	Cloudy Cloudy	normal operation normal operation	24.0 24.0	762.8 762.8	212.6 204.8
Oct-02	07-Oct-02 07-Oct-02	AM4	1	9:00	10:00	Cloudy	normal operation	24.0	762.8 762.8	204.6 184.7
Oct-02	07-Oct-02	AM4	2	10:00	11:00	Cloudy	normal operation	24.0	762.8	192.2
Oct-02	07-Oct-02	AM4	3	11:00	12:00	Cloudy	normal operation	24.0	762.8	197.3
Oct-02	07-Oct-02	AM5	1	8:56	9:56	Cloudy	normal operation	24.0	762.8	182.6
Oct-02	07-Oct-02	AM5	2	9:56	10:56	Cloudy	normal operation	24.0	762.8	187.1
Oct-02	07-Oct-02	AM5	3	10:56	11:56	Cloudy	normal operation	24.0	762.8	192.8
Oct-02	07-Oct-02	AM6	1	8:58	9:58	Cloudy	normal operation	24.0	762.8	185.9
Oct-02	07-Oct-02	AM6	2	9:58	10:58	Cloudy	normal operation	24.0	762.8	189.4
Oct-02	07-Oct-02	AM6	3	10:58	11:58	Cloudy	normal operation	24.0	762.8	195.4
Oct-02	10-Oct-02	AM2	1	13:03	14:03	Sunny	normal operation	27.0	762.0	193.3
Oct-02	10-Oct-02	AM2	2	14:03	15:03	Sunny	normal operation	27.0	762.0	189.2
Oct-02	10-Oct-02	AM2	. 3	15:03	16:03	Sunny	normal operation	27.0	762.0	189.4
Oct-02	10-Oct-02	AM3	1	13:00	14:00	Sunny	normal operation	27.0	762.0	183.7
Oct-02	10-Oct-02	AM3	2	14:00	15:00	Sunny	normal operation	27.0	762.0	178.6
Oct-02	10-Oct-02	AM3	3	15:00	16:00	Sunny	normal operation	27.0	762.0	180.3
Oct-02 Oct-02	10-Oct-02 10-Oct-02	AM4 AM4	1	13:01 14:01	14:01 15:01	Sunny	normal operation normal operation	27.0	762.0	192.8
Oct-02	10-Oct-02	AM4	2 3	15:01	16:01	Sunny Sunny	normal operation	27.0 27.0	762.0 762.0	188.1 188.5
Oct-02	10-Oct-02	AM5	1	13:01	14:01	Sunny	normal operation	27.0	762.0 762.0	194.7
Oct-02	10-Oct-02	AM5	2	14:01	15:01	Sunny	normal operation	27.0	762.0	189.2
Oct-02	10-Oct-02	AM5	3	15:01	16:01	Sunny	normal operation	27.0	762.0	190.9
Oct-02	10-Oct-02	AM6	1	13:03	14:03	Sunny	normal operation	27.0	762.0	190.1
Oct-02	10-Oct-02	AM6	2	14:03	15:03	Sunny	normal operation	27.0	762.0	185.6
Oct-02	10-Oct-02	AM6	3	15:03	16:03	Sunny	normal operation	27.0	762.0	186.3
Oct-02	16-Oct-02	AM2	1	8:55	9:55	Sunny	normal operation	27.0	762.0	144.1
Oct-02	16-Oct-02	AM2	2	9:55	10:55	Sunny	normal operation	27.0	762.0	148.7
Oct-02	16-Oct-02	AM2	3	10:55	11:55	Sunny	normal operation	27.0	762.0	149.6
Oct-02	16-Oct-02	AM3	1	8:55	9:55	Sunny	normal operation	27.0	762.0	146.5
Oct-02	16-Oct-02	AM3	2	9:55	10:55	Sunny	normal operation	27.0	762.0	154.5
Oct-02	16-Oct-02	AM3	3	10:55	11:55	Sunny	normal operation	27.0	762.0	152.9
Oct-02	16-Oct-02	AM4	1	8:53	9:53	Sunny	normal operation	27.0	762.0	154.9
Oct-02 Oct-02	16-Oct-02 16-Oct-02	AM4 AM4	2	9:53 10:53	10:53	Sunny	normal operation	27.0	762.0	160.2
Oct-02	16-Oct-02	AM5	3 1	8:56	11:53 9:56	Sunny	normal operation	27.0 27.0	762.0 762.0	159.9 160.0
Oct-02	16-Oct-02	AM5	2	9:56	10:56	Sunny Sunny	normal operation normal operation	27.0	762.0 762.0	165.5
Oct-02	16-Oct-02	AM5	3	10:56	11:56	Sunny	normal operation	27.0	762.0	164.0
Oct-02	16-Oct-02	AM6	1	9:00	10:00	Sunny	normal operation	27.0	762.0	153.6
Oct-02	16-Oct-02	AM6	2	10:00	11:00	Sunny	normal operation	27.0	762.0	163.5
Oct-02	16-Oct-02	AM6	3	11:00	12:00	Sunny	normal operation	27.0	762.0	153.9
Oct-02	23-Oct-02	AM2	1	9:56	10:56	Rainy	normal operation	20.0	762.0	129.9
Oct-02	23-Oct-02	AM2	2	10:56	11:56	Rainy	normal operation	20.0	762.0	138.6
Oct-02	23-Oct-02	AM2	3	13:01	14:01	Rainy	normal operation	20.0	762.0	121.5
Oct-02	23-Oct-02	AM3	1	9:59	10:59	Rainy	normal operation	20.0	762.0	145.7
Oct-02	23-Oct-02	AM3	2	10:59	11:59	Rainy	normal operation	20.0	762.0	151.6
Oct-02	23-Oct-02	AM3	3	13:04	14:04	Rainy	normal operation	20.0	762.0	138.6
Oct-02	23-Oct-02	AM4	1	9:56	10:56	Rainy	normal operation	20.0	762.0	106.3
Oct-02	23-Oct-02	AM4	2	10:56	11:56	Rainy	normal operation	20.0	762.0	121.9
Oct-02	23-Oct-02	AM4	3	13:01	14:01	Rainy	normal operation	20.0	762.0	98.5
Oct-02 Oct-02	23-Oct-02 23-Oct-02	AM5 AM5	1 2	9:58 10:58	10:58	Rainy	normal operation	20.0	762.0	122.1
Oct-02	23-Oct-02 23-Oct-02	AM5	3	13:03	11:58 14:03	Rainy Rainy	normal operation normal operation	20.0 20.0	762.0 762.0	125.2 127.0
Oct-02	23-Oct-02 23-Oct-02	AM6	1	9:57	10:57	Rainy	normal operation	20.0	762.0 762.0	79.8
Oct-02	23-Oct-02	AM6	2	10:57	11:57	Rainy	normal operation	20.0	762.0 762.0	83.1
Oct-02	23-Oct-02	AM6	3	13:02	14:02	Rainy	normal operation	20.0	762.0	73.8

· · · · · ·		Receptor		Time r	periods	Weather	Site	Temp.	Pressure	1-hour TSP
Month	Date	No.	Set No.	Start	Finish	condition	condition	(°C)	(mmHg)	Level (µg/g <sup>3</sup> )
Oct-02	30-Oct-02	AM2	1	7:46	8:46	Rainy	normal operation	23.0	761.3	157.0
Oct-02	30-Oct-02	AM2	2	8:46	9:46	Rainy	normal operation	23.0	761.3	178.4
Oct-02	30-Oct-02	AM2	3	9:46	10:46	Rainy	normal operation	23.0	761.3	167.9
Oct-02	30-Oct-02	AM3	1	7:48	8:48	Rainy	normal operation	23.0	761.3	162.8
Oct-02	30-Oct-02	AM3	2	8:48	9:48	Rainy	normal operation	23.0	761.3	181.7
Oct-02	30-Oct-02	AM3	3	9:48	10:48	Rainy	normal operation	23.0	761.3	158.0
Oct-02	30-Oct-02	AM4	1	11:59	12:59	Rainy	normal operation	23.0	761.3	160.7
Oct-02	30-Oct-02	AM4	2	13:09	14:09	Rainy	normal operation	23.0	761.3	170.5
Oct-02 Oct-02	30-Oct-02 30-Oct-02	AM4 AM5	3 1	14:09 11:53	15:09 12:53	Rainy	normal operation	23.0	761.3	177.0
Oct-02	30-Oct-02	AM5	2	13:23	14:23	Rainy	normal operation	23.0	761.3	150.5
Oct-02	30-Oct-02	AM5	3	14:23	15:23	Rainy Rainy	normal operation normal operation	23.0 23.0	761.3 761.3	161.8 165.5
Oct-02	30-Oct-02	AM6	1	7:45	8:45	Rainy	normal operation	23.0	761.3	169.1
Oct-02	30-Oct-02	AM6	2	8:45	9:45	Rainy	normal operation	23.0	761.3	165.5
Oct-02	30-Oct-02	AM6	3	9:45	10:45	Rainy	normal operation	23.0	761.3	165.1
Nov-02	06-Nov-02	AM2	1	7:40	8:40	Sunny	normal operation	20.0	767.3	180.1
Nov-02	06-Nov-02	AM2	2	8:40	9:40	Sunny	normal operation	20.0	767.3	199.6
Nov-02	06-Nov-02	AM2	3	9:40	10:40	Sunny	normal operation	20.0	767.3	167.9
Nov-02	06-Nov-02	AM3	1	7:31	8:31	Sunny	normal operation	20.0	767.3	180.8
Nov-02	06-Nov-02	AM3	2	8:31	9:31	Sunny	normal operation	20.0	767.3	198.7
Nov-02	06-Nov-02	AM3	3	9:31	10:31	Sunny	normal operation	20.0	767.3	173.7
Nov-02	06-Nov-02	AM4	1 .	10:56	11:56	Sunny	normal operation	20.0	767.3	176.0
Nov-02	06-Nov-02	AM4	2	13:01	14:01	Sunny	normal operation	20.0	767.3	162.2
Nov-02	06-Nov-02	AM4	3	14:01	15:01	Sunny	normal operation	20.0	767.3	143.2
Nov-02	06-Nov-02	AM5	1	10:52	11:52	Sunny	normal operation	20.0	767.3	183.7
Nov-02	06-Nov-02	AM5	2	13:02	14:02	Sunny	normal operation	20.0	767.3	163.4
Nov-02	06-Nov-02	AM5	3	14:02	15:02	Sunny	normal operation	20.0	767.3	149.7
Nov-02 Nov-02	06-Nov-02	AM6	1	7:41	8:41	Sunny	normal operation	20.0	767.3	184.6
Nov-02 Nov-02	06-Nov-02 06-Nov-02	AM6 AM6	2 3	8:46	9:46	Sunny	normal operation	20.0	767.3	199.2
Nov-02 Nov-02	12-Nov-02	AM2	3 1	10:56 8:45	11:56 9:45	Sunny	normal operation	20.0 26.0	767.3 761.0	180.6
Nov-02	12-Nov-02	AM2	2	9:55	10:55	Sunny Sunny	normal operation normal operation	26.0 26.0	761.0 761.0	182.9 162.5
Nov-02	12-Nov-02	AM2	3	10:55	11:55	Sunny	normal operation	26.0	761.0 761.0	170.0
Nov-02	12-Nov-02	AM3	1	8:47	9:47	Sunny	normal operation	26.0	761.0 761.0	174.5
Nov-02	12-Nov-02	AM3	2	9:57	10:57	Sunny	normal operation	26.0	761.0	155.7
Nov-02	12-Nov-02	АМЗ	3	10:57	11:57	Sunny	normal operation	26.0	761.0	164.0
Nov-02	12-Nov-02	AM4	1	13:02	14:02	Sunny	normal operation	26.0	761.0	154.7
Nov-02	12-Nov-02	AM4	2	14:27	15:27	Sunny	normal operation	26.0	761.0	146.6
Nov-02	12-Nov-02	AM4	3	15:47	16:47	Sunny	normal operation	26.0	761.0	140.9
Nov-02	12-Nov-02	AM5	1	13:01	14:01	Sunny	normal operation	26.0	761.0	132.6
Nov-02	12-Nov-02	AM5	2	14:11	15:11	Sunny	normal operation	26.0	761.0	120.9
Nov-02	12-Nov-02	AM5	3	15:11	16:11	Sunny	normal operation	26.0	761.0	137.2
Nov-02	12-Nov-02	AM6	1	8:48	9:48	Sunny	normal operation	26.0	761.0	194.2
Nov-02	12-Nov-02	AM6	2	9:58	10:58	Sunny	normal operation	26.0	761.0	174.4
Nov-02	12-Nov-02	AM6	3	10:58	11:58	Sunny	normal operation	26.0	761.0	182.8
Nov-02	15-Nov-02	AM2	1	8:46	9:46	Sunny	normal operation	28.0	759.0	184.2
Nov-02 Nov-02	15-Nov-02	AM2	2	9:46	10:46	Sunny	normal operation	28.0	759.0	178.2
Nov-02	15-Nov-02 15-Nov-02	AM2	3	10:46	11:46	Sunny	normal operation	28.0	759.0	182.4
Nov-02	15-Nov-02	AM3 AM3	1 2	8:49 9:49	9:49 10:49	Sunny	normal operation	28.0	759.0	187.1
Nov-02	15-Nov-02	AM3	3	10:49	11:49	Sunny Sunny	normal operation normal operation	28.0	759.0	179.3
Nov-02	15-Nov-02	AM4	1	8:47	9:47	Sunny	normal operation	28.0 28.0	759.0 759.0	182.7 162.2
Nov-02	15-Nov-02	AM4	2	9:47	10:47	Sunny	normal operation	28.0	759.0 759.0	159.8
Nov-02	15-Nov-02	AM4	3	10:47	11:47	Sunny	normal operation	28.0	759.0 759.0	156.4
Nov-02	15-Nov-02	AM5	1	8:51	9:51	Sunny	normal operation	28.0	759.0 759.0	164.7
Nov-02	15-Nov-02	AM5	2	9:51	10:51	Sunny	normal operation	28.0	759.0	158.8
Nov-02	15-Nov-02	AM5	3	10:51	11:51	Sunny	normal operation	28.0	759.0	159.4
Nov-02	15-Nov-02	AM6	1	8:59	9:59	Sunny	normal operation	28.0	759.0	149.4
Nov-02	15-Nov-02	AM6	2	9:59	10:59	Sunny	normal operation	28.0	759.0	152.9
Nov-02	15-Nov-02	AM6	3	10:59	11:59	Sunny	normal operation	28.0	759.0	143.7

		Receptor		Time r	eriods	Weather	Site	Temp.	Pressure	1-hour TSP
Month	Date	No.	Set No.	Start	Finish	condition	condition	(°C)	(mmHg)	Level (μg/g <sup>3</sup> )
Nov-02	21-Nov-02	AM2	1	8:33	9:33	Sunny	normal operation	22.0	765.0	138.6
Nov-02	21-Nov-02	AM2	2	9:33	10:33	Sunny	normal operation	22.0	765.0	148.9
Nov-02	21-Nov-02	AM2	3	10:33	11:33	Sunny	normal operation	22.0	765.0	148.3
Nov-02	21-Nov-02	AM3	1	8:32	9:32	Sunny	normal operation	22.0	765.0	157.6
Nov-02	21-Nov-02	AM3	2	9:32	10:32	Sunny	normal operation	22.0	765.0	154.3
Nov-02	21-Nov-02	AM3	3	10:32	11:32	Sunny	normal operation	22.0	765.0	161.1
Nov-02	21-Nov-02	AM4	1	8:56	9:56	Sunny	normal operation	22.0	765.0	157.1
Nov-02	21-Nov-02	AM4	2	9:56	10:56	Sunny	normal operation	22.0	765.0	157.2
Nov-02	21-Nov-02	AM4	3	10:56	11:56	Sunny	normal operation	22.0	765.0	161.9
Nov-02	21-Nov-02	AM5	1	8:30	9:30	Sunny	normal operation	22.0	765.0	154.0
Nov-02	21-Nov-02	AM5	2	9:30	10:30	Sunny	normal operation	22.0	765.0	157.8
Nov-02	21-Nov-02	AM5	3	10:30	11:30	Sunny	normal operation	22.0	765.0	162.3
Nov-02	21-Nov-02	AM6	1	8:37	9:37	Sunny	normal operation	22.0	765.0	169.7
Nov-02	21-Nov-02	AM6	2	9:37	10:37	Sunny	normal operation	22.0	765.0	179.2
Nov-02	21-Nov-02	AM6	3	10:37	11:37	Sunny	normal operation	22.0	765.0	180.6
Nov-02	27-Nov-02	AM2	1	8:21	9:21	Sunny	normal operation	21.0	768.0	197.1
Nov-02	27-Nov-02	AM2	2	9:21	10:21	Sunny	normal operation	21.0	768.0	197.0
Nov-02	27-Nov-02	AM2	3	10:21	11:21	Sunny	normal operation	21.0	768.0	194.7
Nov-02	27-Nov-02	AM3	1	8:24	9:24	Sunny	normal operation	21.0	768.0	221.4
Nov-02	27-Nov-02	AM3	2	9:24	10:24	Sunny	normal operation	21.0	768.0	222.5
Nov-02	27-Nov-02	AM3	3	10:24	11:24	Sunny	normal operation	21.0	768.0	221.7
Nov-02	27-Nov-02	AM4	1	8:22	9:22	Sunny	normal operation	21.0	768.0	219.8
Nov-02	27-Nov-02	AM4	2	9:22	10:22	Sunny	normal operation	21.0	768.0	219.5
Nov-02	27-Nov-02	AM4	3	10:22	11:22	Sunny	normal operation	21.0	768.0	209.9
Nov-02	27-Nov-02	AM5	1	8:16	9:16	Sunny	normal operation	21.0	768.0	204.8
Nov-02	27-Nov-02	AM5	2	9:16	10:16	Sunny	normal operation	21.0	768.0	197.1
Nov-02	27-Nov-02	AM5	3	10:16	11:16	Sunny	normal operation	21.0	768.0	201.1
Nov-02	27-Nov-02	AM6	1	13:11	14:11	Sunny	normal operation	21.0	768.0	218.4
Nov-02	27-Nov-02	AM6	2	14:11	15:11	Sunny	normal operation	21.0	768.0	216.8
Nov-02	27-Nov-02	AM6	3	15:11	16:11	Sunny	normal operation	21.0	768.0	213.1
Dec-02	04-Dec-02	AM2	1	8:51	9:51	Sunny	normal operation	25.0	762.0	165.3
Dec-02	04-Dec-02	AM2	2	9:51	10:51	Sunny	normal operation	25.0	762.0	166.2
Dec-02	04-Dec-02	AM2	3	10:51	11:51	Sunny	normal operation	25.0	762.0	163.5
Dec-02 Dec-02	04-Dec-02 04-Dec-02	AM3	1	8:59	9:59	Sunny	normal operation	25.0	762.0 762.0	159.6 152.5
Dec-02 Dec-02	04-Dec-02 04-Dec-02	AM3 AM3	2 3	9:59 10:59	10:59 11:59	Sunny	normal operation normal operation	25.0 25.0	762.0	152.5
Dec-02 Dec-02	04-Dec-02 04-Dec-02	AM4	1	8:59	9:59	Sunny Sunny	normal operation	25.0 25.0	762.0	188.3
Dec-02 Dec-02	04-Dec-02	AM4	2	9:59	10:59	Sunny	normal operation	25.0	762.0	180.7
Dec-02 Dec-02	04-Dec-02 04-Dec-02	AM4	3	10:59	11:59	Sunny	normal operation	25.0	762.0	181.9
Dec-02 Dec-02	04-Dec-02 04-Dec-02	AM5	1	8:56	9:56	Sunny	normal operation	25.0	762.0	185.2
Dec-02 Dec-02	04-Dec-02	AM5	2	9:56	10:56	Sunny	normal operation	25.0	762.0	182.7
Dec-02	04-Dec-02	AM5	3	10:56	11:56	Sunny	normal operation	25.0	762.0	180.9
Dec-02	04-Dec-02	AM6	1	8:50	9:50	Sunny	normal operation	25.0	762.0	171.0
Dec-02	04-Dec-02	AM6	2	9:50	10:50	Sunny	normal operation	25.0	762.0	168.1
Dec-02	04-Dec-02	AM6	3	10:50	11:50	Sunny	normal operation	25.0	762.0	164.7
Dec-02 Dec-02	11-Dec-02	AM2	1	8:28	9:28	Sunny	normal operation	14.0	768.0	193.4
Dec-02	11-Dec-02	AM2	2	9:28	10:28	Sunny	normal operation	14.0	768.0	191.7
Dec-02	11-Dec-02	AM2	3	10:28	11:28	Sunny	normal operation	14.0	768.0	212.8
Dec-02	11-Dec-02	AM3	1	8:36	9:36	Sunny	normal operation	14.0	768.0	171.8
Dec-02	11-Dec-02	AM3	2	9:41	10:41	Sunny	normal operation	14.0	768.0	151.1
Dec-02	11-Dec-02	AM3	3	10:41	11:41	Sunny	normal operation	14.0	768.0	194.3
Dec-02	11-Dec-02	AM4	1	8:13	9:13	Sunny	normal operation	14.0	768.0	196.0
Dec-02	11-Dec-02	AM4	2	9:13	10:13	Sunny	normal operation	14.0	768.0	194.2
Dec-02	11-Dec-02	AM4	3	10:13	11:13	Sunny	normal operation	14.0	768.0	207.9
Dec-02	11-Dec-02	AM5	1	8:27	9:27	Sunny	normal operation	14.0	768.0	179.3
Dec-02	11-Dec-02	AM5	2	9:27	10:27	Sunny	normal operation	14.0	768.0	171.7
Dec-02	11-Dec-02	AM5	3	10:27	11:27	Sunny	normal operation	14.0	768.0	196.6
Dec-02	11-Dec-02	AM6	1	13:11	14:11	Sunny	normal operation	14.0	768.0	243.5
Dec-02	11-Dec-02	AM6	2	14:11	15:11	Sunny	normal operation	14.0	768.0	244.8
Dec-02	11-Dec-02	AM6	3	15:11	16:11	Sunny	normal operation	14.0	768.0	260.6

		Receptor		Time p	eriods	Weather	Site	Temp.	Pressure	1-hour TSP
Month	Date	No.	Set No.	Start	Finish	condition	condition	(°C)	(mmHg)	Level (μg/g³)
Dec-02	18-Dec-02	AM2	1	8:12	9:12	Sunny	normal operation	22.0	762.0	276.6
Dec-02	18-Dec-02	AM2	2	9:12	10:12	Sunny	normal operation	22.0	762.0	278.7
Dec-02	18-Dec-02	AM2	3	10:12	11:12	Sunny	normal operation	22.0	762.0	280.7
Dec-02	18-Dec-02	AM3	1	8:13	9:13	Sunny	normal operation	22.0	762.0	265.5
Dec-02	18-Dec-02	AM3	2	9:13	10:13	Sunny	normal operation	22.0	762.0	268.6
Dec-02	18-Dec-02	AM3	3	10:13	11:13	Sunny	normal operation	22.0	762.0	275.0
Dec-02	18-Dec-02	AM4	1	8:15	9:15	Sunny	normal operation	22.0	762.0	277.2
Dec-02	18-Dec-02	AM4	2	9:45	10:45	Sunny	normal operation	22.0	762.0	280.6
Dec-02	18-Dec-02	AM4	3	10:45	11:45	Sunny	normal operation	22.0	762.0	276.0
Dec-02	18-Dec-02	AM5	1	8:18	9:18	Sunny	normal operation	22.0	762.0	249.8
Dec-02	18-Dec-02	AM5	2	9:18	10:18	Sunny	normal operation	22.0	762.0	253.3
Dec-02	18-Dec-02	AM5	3	10:18	11:18	Sunny	normal operation	22.0	762.0	256.2 190.1
Dec-02	18-Dec-02	AM6	1	13:00	14:00	Sunny	normal operation	22.0	762.0 762.0	180.1
Dec-02	18-Dec-02	AM6	2	14:00	15:00	Sunny	normal operation	22.0 22.0	762.0	178.8
Dec-02	18-Dec-02	AM6	3 1	15:00 7:59	16:00 8:59	Sunny	normal operation	20.0	776.5	176.6 171.9
Dec-02	24-Dec-02	AM2 AM2	2	9:04	10:04	Sunny Sunny	normal operation normal operation	20.0	776.5 776.5	189.7
Dec-02 Dec-02	24-Dec-02 24-Dec-02	AM2	3	10:04	11:04	Sunny	normal operation	20.0	776.5	203.2
Dec-02 Dec-02	24-Dec-02 24-Dec-02	AM3	1	8:04	9:04	Sunny	normal operation	20.0	776.5	190.4
Dec-02 Dec-02	24-Dec-02	AM3	2	9:04	10:04	Sunny	normal operation	20.0	776.5	200.7
Dec-02 Dec-02	24-Dec-02	AM3	3	10:04	11:04	Sunny	normal operation	20.0	776.5	218.4
Dec-02	24-Dec-02	AM4	1	7:59	8:59	Sunny	normal operation	20.0	776.5	195.1
Dec-02	24-Dec-02	AM4	2	9:09	10:09	Sunny	normal operation	20.0	776.5	208.0
Dec-02	24-Dec-02	AM4	3	10:09	11:09	Sunny	normal operation	20.0	776.5	221.0
Dec-02	24-Dec-02	AM5	1	8:04	9:04	Sunny	normal operation	20.0	776.5	160.8
Dec-02	24-Dec-02	AM5	2	9:04	10:04	Sunny	normal operation	20.0	776.5	171.4
Dec-02	24-Dec-02	AM5	3	10:04	11:04	Sunny	normal operation	20.0	776.5	188.9
Dec-02	24-Dec-02	AM6	1	13:00	14:00	Sunny	normal operation	20.0	776.5	181.0
Dec-02	24-Dec-02	AM6	2	14:00	15:00	Sunny	normal operation	20.0	776.5	179.5
Dec-02	24-Dec-02	AM6	3	15:00	16:00	Sunny	normal operation	20.0	776.5	177.4
Dec-02	31-Dec-02	AM2	1	8:19	9:19	Sunny	normal operation	15.0	767.0	202.0
Dec-02	31-Dec-02	AM2	2	9:19	10:19	Sunny	normal operation	15.0	767.0	183.1
Dec-02	31-Dec-02	AM2	3	10:24	11:24	Sunny	normal operation	15.0	767.0	216.5
Dec-02	31-Dec-02	AM3	1	8:18	9:18	Sunny	normal operation	15.0	767.0	168.4
Dec-02	31-Dec-02	AM3	2	9:18	10:18	Sunny	normal operation	15.0	767.0	156.8
Dec-02	31-Dec-02	AM3	3	10:28	11:28	Sunny	normal operation	15.0	767.0	178.9
Dec-02	31-Dec-02	AM4	1	8:17	9:17	Sunny	normal operation	15.0	767.0	189.4
Dec-02	31-Dec-02	AM4	2	9:17	10:17	Sunny	normal operation	15.0	767.0	179.0
Dec-02	31-Dec-02	AM4	3	10:22	11:22	Sunny	normal operation	15.0	767.0	213.9
Dec-02	31-Dec-02	AM5	1	8:15	9:15	Sunny	normal operation	15.0	767.0	164.6 153.2
Dec-02	31-Dec-02	AM5	2	9:15	10:15	Sunny	normal operation	15.0	767.0	
Dec-02	31-Dec-02	AM5	3	10:25	11:25	Sunny	normal operation	15.0	767.0	180.6
Dec-02	31-Dec-02	AM6	1	8:13	9:13	Sunny	normal operation	15.0	767.0	174.1 154.9
Dec-02	31-Dec-02	AM6	2 3	9:13	10:13	Sunny	normal operation	15.0 15.0	767.0 767.0	154.9
Dec-02	31-Dec-02	AM6	3	10:18	11:18	Sunny	normal operation	15.0	101.0	191.3

### APPENDIX 4

Correspondences of the Public Complaints from Monte Vista Lee On Estate, Heng On
Estate and Kam Ying Court

本署橋沙 EP 580/E6/3/9 OUR REF: 來函檔號 YOUR REF: TEL. NO.: 2158 5823 阿文傅寫 2685 1155 FAX NO.:

電子郵件 E-MAIL: 纲 Hi.

Homepage: http://www.info.gov.hk/epd/

# **Environmental Protection Department Local Control Office/Territory North**

10/F, Sha Tin Government Offices, No. 1 Sheung Wo Che Road, Sha Tin, New Territories, Hong Kong.



環境保護署 污染管制辦事成 (新界北) 乔港新界沙田 上不米路一號

沙田政府合署 10 樓

Ove Arup & Partners Hong Kong Limited

Level 5 Festival Walk. 80 Tat Chee Avenue. Kowloon Tong, Kowloon, Hong Kong

(Attn: Mr Sam Tsoi)

25 001 2002 Progived

By Fax Only

(Fax: 2865 6493)

24 October 2002

Dear Sir.

Sha Tin New Town Stage II Contract No. ST 86/2000 Construction of Road T7 in Ma On Shan Public Complaint of 23 October 2002

I refer to the captioned project, for which you hold the position of Environmental Team Leader.

Enclosed please find a public complaint on noise generated by the works from the construction site of road T7 referred by District Lands Officer. The Environmental Team and all relevant parties in the c.c. list below should take actions to rectify the situation. Please report the outcome of the action to us within 2 weeks.

Yours faithfully,

( Jack KAN )

**Environmental Protection Officer** for Director of Environmental Protection

Encl.

c.c. (all w/e) **TDD** 

÷

(Attn: Mr. George Mak

Fax.: 2721 8630)

Maunsell

(Attn: Mr. Y H Fung

Fax.: 2643 3559)

CHEC

(Attn: Mr Chan Man

Fax.: 2492 3701)

<b>D</b>	<u>MEMO</u>
From: District Lands Officer, Sha Tin  Ref.: (13) in LND/ST 1996/37  Tel. No.: 2158 4768  Fax. No.: 2602 4093  Date: 23.10.2002	To: PM/NTE, TDD  Attn.: Mr. George K. M. MAK  Your Ref.: (93) in NTE-ST 2/643TH/108  dated: 13.8.2002 Fax. No.: 2721 8630  Total Pages: 1

# Verbal Complaint on Weak Hoarding and Noise Construction Site of T7 in Ma On Shan

A verbal complaint referred by CRE (MACL) from Mr. CHAN ( ), resident of Block 3 of Monte Vista (發揮華庭) regarding the captioned. I have talked to the complainant in order to understand his concern, he expressed that he was so worried that the zinc hoarding was not strong enough to prevent objects from falling down from the slope works site. Furthermore, he was annoyed by the noise generated by the works. Mr. Chan eagerly demand a prompt joint site visit, as the site has been handed over to your department, please arrange a joint visit with relevant parties and take follow up actions.

2. By copy of this memo, would EPD please measure the noise level and give direct advice to PMINTE, TDD.

(Ms. Susan LAM)
for District Lands Officer, Sha Tin

c.c. EPD

14:54

#### MEMO

	Y.H. Fung, CRE/T7	
From	MCAL, NTE Development	To <u>Director of Environmental Protection</u>
Ref	in <u>T7/(ST86/2000)/M05/412(0125)</u>	Attn.: Jack Kan
Tel. No	2643 9020	Your Ref. ( ) in <u>EP 580/P6/3/9</u>
Fax. No.	2643 3559	dated <u>24.10.2002</u> Fax. No. <u>2685 1155</u>
Date	25 October 2002	Total Pages

By Fax Only

# Sha Tin New Town Stage II Contract No. ST 86/2000 Construction of Road T7 in Ma On Shan. **Environmental Complaint of 23 October 2002**

I refer to your above quoted letter to OAP enclosing the particulars of the captioned complaint (copy attached for your ease of reference).

The complainant Mr. Chan, resident of Block 3 of Monte Vista, made the complaint to me in the morning of Saturday 19 October 2002. I inspected the site conditions in the early afternoon of the same day. I then discussed his complaint with him by telephone on Saturday 19 October and Monday 21 October. Mr. Chan asked me to refer his complaint to DLO/ST and I did so on Monday 21 October. The actual date of complaint should be 19 October 2002 instead of 23 October 2002.

One part of Mr. Chan's complaint is related to the daytime construction noise. On Saturday 19 October, a backhoe was deployed to place rockfill at the slope near Monte Vista, for forming a working platform for constructing a footing of Bridge TC. The method and programme of such work were previously discussed in detail with the Owners' Committee and Management Office of Monte Vista on Friday 11 October 2002. Mr. Chan complained that the backhoe started working as early as 8:30 a.m., disturbing his rest and enjoyment. I subsequently found that the noise generated from the operation of the backhoe was not excessive. Should noise measurement be taken at Mr. Chan's apartment, the noise level would be shown to be well below the permissible Leq (30 min) of 75 dB(A). I explained to Mr. Chan that noise measurement could be arranged at his apartment at any time convenient to him, but he has not come back for such measurement.

Other parts of Mr. Chan's complaint are not relevant to environmental pollution and will be separately dealt with.

Please be advised that my staff will continue monitoring the Contractor's working closely for checking its compliance with the statutory and contractual requirements.

YHF:it Encl

cc: PM/NTE, TDD - Attn : Mr. George Mak (by fax)

DLO/ST, Land D (by fax)

OAP (by fax) MCAL

Y.H. Fung Chief Resident Engineer

EP 580/E6/3/9 OUA REF. 安油机学

YOUR REF:

TEL NO.: 2158 5823 開文体本 2685 1155 FAX NO.:

心一部件 E-MAIL:

Homopage: http://www.info.gov.hk/epd/

Environmental Protection Department Local Control Office/Territory North

> 10/F. Sha Tin Government Offices. No. 1 Sheung Wo Che Road, Sha Tin, New Territories. Hong Kong.



環境保護器 污染管制辦事虛 (新界北) 存距新界沙田 上不举路一號 沙田政府合署10日

P.02/03

24 October 2002

Ove Arup & Partners Hong Kong Limited Level 5 Festival Walk. 80 Tat Chee Avenue. Kowloon Tong, Kowloon Hong Kong

(Attn: Mr Sam Tsoi)

By Fax Only (Fax: 2865 6493)

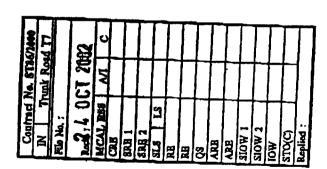
Dear Sir,

Sha Tin New Town Stage II Contract No. ST 86/2000 Construction of Road T7 in Ma On Shan Public Complaint of 23 October 2002

I refer to the captioned project, for which you hold the position of Environmental Team Leader.

Enclosed please find a public complaint on noise generated by the works from the construction site of road T7 referred by District Lands Officer. The Environmental Team and all relevant parties in the e.c. list below should take actions to rectify the situation. Please report the outcome of the action to us within 2 weeks.

(*;*:,



Yours faithfully.

( Jack KAN )

Environmental Protection Officer for Director of Environmental Protection

Encl.

c.c. (all w/e) TDD

Maunsell CHEC

(Attn: Mr. Y H Fung

(Attn: Mr. George Mak

(Attn: Mr Chan Man

Fax: 2721 8630)

Fax.: 2643 3559)

Fax.: 2492 3701)

Date:

**MEMO** 

From: District Lands Officer, Sha Tin Ref.: (13) in LND/ST 1996/37 Tel No.: 2158 4768 Fax No.: 2602 4093 23.10.2002

To: PMINTE, TOD. Atin.: Mr. George K. M. MAK Your Ref.: (93) in NTE-ST 2/643TH/108 : 2721 8630 dated: 13.8.2002 ". Fax No. Total Pages:

P.03/03

# Verbal Complaint on Weak Hoarding and Noise Construction Site of T7 in Ma On Shan

), resident of A verbal complaint referred by CRE (MACL) from Mr. CHAN ( Block 3 of Monte Vista (吳擔華庭) regarding the captioned. I have talked to the complainant in order to understand his concern, he expressed that he was so worried that the zinc hoarding was not strong enough to prevent objects from falling down from the slope works site. Furthermore, he was annoyed by the noise generated by the works. Mr. Chan eagerly demand a prompt joint site visit, as the site has been handed over to your department, please arrange a joint visit with relevant parties and take follow up actions,

By copy of this memo, would EPD please measure the noise level and give direct advice to PMINTE, IDD.

> Ms. Susan LAM for District Lands Officer, Sha Tin

**FPD** C.C.

#### **MEMO**

From Y. H. Fung - Chief Resident Engineer	To: Director of Environmental Protection
RefT9/(ST86/2000)/M05/412(0129)	Attn.; (Mr Jack Kan)
Tel. 2 643 9020	Your Ref. ( ) in EP 580/E6/3/9
Fax No .2 643 3559	dated _24.10.2002
Date 1 November, 2002	Total Pages4

By Fax Only

# Shatin New Town, Stage II Contract No. ST86/2000 Construction of Road T7 in Ma On Shan Environmental Complaint of 23 October 2002

I refer to my previous memo ref. T7/(ST86/2000)/M05/412(0125) dated 25/10/2002 responding to your above quoted letter to OAP.

TDD and we met the complainant Mr. Chan on 26/10/2002. For details, please refer to the attached TDD's letter ref. (21) in NTE-ST 2/643TH/108 Pt. 2 dated 28/10/2002. Ad hoc construction noise monitoring was subsequently conducted by OAP on 30/10/2002 and the construction noise levels were found below the allowable limit of 75 dB(A). For details, please refer to the attached OAP's letter ref. 23156/L182/ST/TC/tc dated 01/11/2002.

Should you have any query, please feel free to contact the undersigned or my SRE Mr. K. H. Cheng at telephone No. 2643 9020.

) By fax

Y. H. Fung
Chief Resident Engineer

Co: PM/NTE, TDD - Attn.: Mr. George Mak )

Enc. YHF:jc

OAP MCAL

DLO/ST, Land D

02-NUV-2002



新界東拓層處 **NEW TERRITORIES** DEVELOPMENT OF



业设位型 Your Reference T7(ST86/2000)/M05/413(0063)

本当協策 Our Reference (メ ) in NTE-ST 2/643TH/108 PL と

if Telephone

四文排写 Fax 2721 8530

2739 0076

Di Date

**(**:

28 October 2002

Chief Reisdent Engineer/T7 Chief Resident Engineer's Office Trunk Road T7 7 Lok Wo Sha Lane Ma On Shan, N.T. Hong Kong

(Atm: Mr. K. H. Cheng)

Dear Sirs.

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Sha Tin New Town, Stage II Contract No. ST86/2000 Construction of Road T7 in Ma.On Shan Verbal Complaint from Mr. Chan of Block 3, Monte Vista

I refer to your memo of 26 October 2002 and the site meeting held in the afternoon of 26 October 2002 among the complainant Mr. Chan, the undersigned, yourselves and CHEC. As discussed after the meeting, please arrange for ad-hoc construction noise impact measurement at the roof of the club house and the podium near Block 3 of Monte Vista as agreed by Mr. Chan. Also as discussed, please also consider carrying out measurement at the usual noise monitoring station at the roof of Block 1 at the same time so that useful comparison of the readings from these locations can be made.

Yours faithfully.

(George K.M Mak) for Project Manager/NTE

MCAL

(Attn: Mr J. M. Slater)





## Ove Arup & Partners 吳雅典工程顧問

Our net 23158/L182/ST/TC/fc Date 1 November 2002

Maunsell Consultants Asia Ltd Trunk Road T7 CRE's Office 7 Lok Wo Sha Land Ma On Shan, N.T.

Attention: Mr. Y H Fung

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370(C)	
Replied:	

Level G, Feethyd Walk 80 Tel Chee Average Kowloon Tong, Kowloon Hong Kong Tel +852 2528 3031, Fax +852 2288 3950 Direct Tel +852 2288 3211

www.arup.com

ARUP



Dear Mr. Fung,

į.;

Sha Tin New Town, Stage II - Contract No. ST 86/2000 Construction of Road T7 in Ma On Sha Environmental Monitoring and Audit (EM&A) Sub-consultancy Noise Monitoring at Monte Vista

We refer to TDD's letter ref.: (21) in NTE-ST 2/643TH/108 Pt.2 dated 28 October 2002 regarding the public complaint from Monte Vista.

As per the verbal request of your Mr. KH Cheng, the ad-hoc noise measurements have been conducted on 30 October 2002 at the following locations and the noise measurement result are summarised in Table I.

- 1. Roof floor of Club House, Monte Vista;
- 2. Podium floor of Block 3, Monte Vista; and
- 3. Roof floor of Block 1, Monte Vista.

Table I - Noise Measurement Results

Date of		Monitoriog Period	Weather Zondicor	Aline Spec	E (n/s	Monitorant	Rasults, dBl. Lie	o govine
		11:30 – 12:00	Cloudy	0.5	1.0	67.0	69.5	60,5
30/10/02	Podium, Block 3	14:20 - 14:50	Cloudy	0.7	1.2	68.9	87.5	60.0
	R/F., Block 1	15:10 - 15:40	Cloudy	1.0	24	72.2	75.5	67.5

The major source of the construction noise were 2 operating rock breakers, 2 operating excavators and 1 dump truck located behind Monte Vista. All measurement results indicated that the construction noise levels are below the acceptable level of 75dB(A).

CHEMPROJECTOSISALETTERSILIEZ DOC

Civic Arup & Partners Hong Kong Lat Registered in England 1359988 at 13 Pizzoy Street Landon W1T 480 An Arup Group Company 23156AL182/ST/TC/IC Mr, Y H Fong

If you require any further information, please do not hesitate to contact the undersigned or our Mr. Thomas Chan at 2268-3217.

Yours faithfully

Sam Tsoi

Ü

Associate Director

CC MCAL - Mr. John Slater (Fax: 2375-6465) (Fax only)
TDD - Mr. George K M Mak (Fax: 2739-0076) (Fax only)

# Maunsell Consultants Asia Ltd 茂盛(亞洲)工程顧問有限公司

Mannsell

Chief Resident Engineer's Office

Trunk Road T7

7 Lok Wo Sha Lane, Ma On Shan

Telephone: 2643 9020 Fax: 2643 3559

E-mail: t7cso@nervigator.com

Your Ref.:

Our Ref.: T7/(ST86/2000)/M05/412(0133)

8/F., Grand Cemral Plaza, Tower 2 138 Shatin Rural Committee Road Sha Tin, N.T., Hong Kong

> 香港新界沙田鄉事會語 138 號 新城市中央廣場第2座8 機

> > Tel (852) 2605 6262 Fax (852) 2691 2649 www.maunsell.com.hk

15 November 2002

The Agent
China Harbour Engineering Company (Group)
9 Lok Wo Sha Lane
Ma On Shan, N.T.

Dear Sir,

Sha Tin New Town Stage II
Contract No. ST 86/2000
Environmental Complaint EC-46
Noise from Night Work near Heng On Estate

I attach for your attention and necessary action a copy of TDD's letter ref. (32) in NTE-ST 2/643TH/108 Pt.2 dated 14 November 2002 regarding the captioned complaint.

You are reminded to observe the requirements of Noise Control Ordinance in respect of working in night. As discussed with your Mr. Gordon Tang yesterday, please provide the requested information as soon as possible.

23156

**7**5

Yours faithfully,

K H Cheng

Senior Resident Engineer

Encl. KHC:cc

cc: MCAL - w/o encl. CHEC - HO

OAP (by fax only)



# 新界東拓展處 NEW TERRITORIES DEVELOPMENT OF



来洛備家 Your Reference

本语标號 Our Reference

(32) in NTE-ST 2/643TH/108 Pt 2

心 满 Telephone

2301 1159

脚文佛真 Fax 2721 8630

2739 0076

17 IVI Date

14 November 2002

Chief Reisdent Engineer/T7
Chief Resident Engineer's Office
Trunk Road T7
7 Lok Wo Sha Lane
Ma On Shan, N.T.
Hong Kong

(Attn: Mr. K. H. Cheng)

Dear Sirs.

Compact No. 513/2000

IM Truck Road 17

Pile No. 2 MAUTO VITA

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Replied :

Sha Tin New Town, Stage II
Contract No. ST86/2000
Construction of Road T7 in Ma On Shan

# Complaint of Restricted Hours Construction Noise near Heng On Estate

I refer to the attached complaint from Mr  $\equiv$  made on 5 November 2002 at 2:53 a.m. which was referred to us by ICC on 13 November 2002 and to the telephone discussion (Clive Cheng/George Mak) on 14 November 2002

I would be grateful if you could investigate the complaint and report back to us the result of your investigation no later than 20 November 2002. In addition, please provide the following information to us regarding this issue -

- What time did the Contractor complete his work in the early hours of 5 November 2002?
- Did the police come to the site to investigate the complaint? If so, please provide further details on what happened after the police came.
- Please provide information on the Contractor's daily working hours after 7 p.m. opposite Heng On Estate from 5 November 2002 to to-date.





DisCorrespondenue/New 02/141102(2) doc

Suite 1213, Chinachem Golden Plaza, 77 Mody Road, Tsimshatsui East, Kowloon 九龍東沙嘎東部吳地鎮 77 聚香地原場 1213 至

> Please provide restricted hours construction noise monitoring data carried out by the ET, the RSS and/or the Contractor at the monitoring point closest to Heng On Estate.

Yours faithfully,

(George K M Mak)
for Project Manager/NTE

c.c. MCAL

(Attn: Mr J. M. Slater) - w/e

י אנו זנייווין

ICC CASE: 1-17367409 Request Type : Complaint Channel : Phone Case Creation Date : 2002-11-05 02:53:02 Acknowledgement: 2002-11-07 17:00:00 Interm Reply: 2002-11-15 14:00:00 Final Reply: 2002-12-03 13:00:00 ASSIGNMENT HISTORY: (Date/Time) (Status) (Dept) (Assigned To) 2002-11-05 02:53:03 Open HTD NT/CTO/ST EVENT DETAILS: Event Date & Time : 至03:00AM EVENT LOCATION: Room: Floor: Block No.: Building Name: 起天橋工程 Estate: 恆安邨對面 Street No.: Street Name: District: Ma On Shan (馬鞍山) Revion: NT CONTACT INFORMATION: Last Name: Mr. Z First Name:. Alt Name: Contact Address: Daytime No.: 60937093 Nightime No.: Mobile: 60937093 Alt Tel No. : Fax: Email Address: Case Source: General Public CASE DETAILS: Subject Matter: Road Works

9Z%

P. 23

Description:

己完生投货有關起天寶工程(恒安邨對面),開工至現在03:00AM仍未停工。發出噪音,已確認己先生可致電分區 春署26405200作即時行動。唯己先生仍希望可留下作記錄,如風路政署工程可已後避進

Specific Questions and Answers: 1) 請問是什麼類別的道路·天橋或建道? Ans 其他(請註明) Remark 起天青工程

- 2) 新起負責包領路工程是明暗公司? Ans: 其他-請註明 Remark 不知道
- 3) 訊提供負責權稱的合約新碼 (列於告示板上)7 Ant: 而註明 Remark 不知道
- 4) 註消除工程有什麼問題? Ans: 工程噪音 Remark

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P.84 TOTAL P.04 P.04 TOTAL P.05



# 中國港灣建設(集團)總公司

香港代表: 振華工程有限公司

CHINA HARBOUR ENGINEERING COMPANY (GROUP) HONG KONG REPRESENTATIVE: ZHEN HUA ENGINEERING CO., LTD.

Date

: 16 November 2002

Your Ref

: T7/(ST86/2000)/M05/412(0133)

Our Ref.

: T7/01.01/O/05180

Maunsell Consultants Asia Ltd. 7, Lok Wo Sha Lane

Ma On Shan

Attention: Mr. Y.H. Fung-CRE

Dear Sir,

Contract No. ST86/2000 Sha Tin New Town, Stage II

Environmental Complaint No. EC-46 - Noise from Night Work near Heng On Estate

We refer to your letter dated 15 November 2002 regarding the captioned complaint from Mr. 

☐ of Heng On Estate.

To suit the progress of bridge works, we have obtained from the EPD a Construction Noise Permit No. GW-TN-0427-2002 for segment launching works between 23:00 and 07:00 of next day effective from 28 October 2002. Such overnight works will not be carried out on each day but on ad hoc basis.

The first overnight work was carried out from 23:00 of 4 November 2002 to 07:00 of 5 November 2002. On that night permanent prestressing work was carried out, during the period silenced type generator and electrical winch with additional noise barriers were used. We understand that no police came to the site for any investigation on the captioned noise complaint on that night

Noise measurements have been conducted on 4 and 16 November 2002 on top roof of Heng Shan House at Heng On Estate, the noise level results were attached herewith for your information. The results show that the construction noise levels were below the limit level of 70dB(A)

As the bridge segment launching works at Bridge TA opposite Heng On Estate will be completed by the end of November this year, we would keep noise nuisance to the public at this area to minimal as practical as possible.

Yours faithfully, For and on behalf of China Harbour Engineering Co. (Group)

Chan Man

Project Manager

W/KCW/GT/fc

Enc.

C.C. MCAL - H.O.

OAP (by fax only)

CHEC - H.O.

香港北角英皇道 370-374 號振峯大廈 19 樟

Tel: (852) 2887 8118

Fax: (852) 2512 0427

Website: http://www.chechk.com

Sha Tin New Town Stage II, Contract No. ST86/2000 Construction of Road T7 in Ma On Shan Night works at Bridge TA Noise Monitoroing Records Noise Monitoring Point: Roof Top, Heng Shan House, Heng On Estate

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/11/2002	21:10 - 21:15	00:50:00	66.4	74.3	59.2	6.69	68.9	65.3	62.4	61.7
/11/2002	22:00 - 22:05	00:00:00	65.3	73.9	57.3	69.1	68.2	64.5	9.09	59.6
/11/2002	22:05 - 22:10	00:00:00	62.3	73.3	54.2	9.99	65.4	8.09	57.5	57.1
/11/2002	22:10 - 22:15	00:50:00	64.3	71.2	57.2	67.1	99	63.6	61.3	59.3
6/11/2002	21:00 - 21:05	00:02:00	6.7.9	74.8	50.5	71.3	70.8	67.4	62.1	58.7
6/11/2002	21:05 - 21:10	00:02:00	68.4	76.1	60.1	71.2	70.6	89	64.6	63.7
6/11/2002	21:10 - 21:15	00:00:00	68.3	75.6	56.4	71.6	71	67.8	63.9	62.5
6/11/2002	22:00 - 22:05	00:00:00	64.3	74.6	52.6	67.5	66.7	63.8	58.6	56.3
6/11/2002	22:05 - 22:10	00:50:00	64.3	72.3	52.6	9.79	66.9	63.8	58.6	57.4
2007/1/9	22:10 - 22:15	00:02:00	64.1	77.9	52.7	67.2	66.3	63.2	58.8	57.4
	3									

# MEMO

	K H Cheng, SRE/T7	
From	MCAL, NTE Development	To PM/NTE, TDD
Ref.	in T7/(ST86/2000)/M05/412(0135)	Atm.: Mr. George Mak
	2643 9020	Your Ref. (32) in NTE-ST 2/643TH/108 Pt.2
	2643 3559	dated 14.11,02 Fax. No
Date	20 November 2002	Total Pages 1+6

By Fax Only

# Sha Tin New Town Stage II Contract No. ST 86/2000 Construction of Road T7 in Ma On Shan Complaint of Restricted Hours Construction Noise near Heng On Estate

I refer to your letter of 14 November 2002 concerned the captioned complaint and would advise as follows.

- 1) The Contractor completed the stressing works at Bridge TA at about 8:00 am of 5 November 2002, i.e. working overnight on 4 November 2002.
- 2) The Police did not come to deal with the complaint.
- 3) The Contractor has worked at the concerned area until 11:00 pm daily from 5 November 2002 to date, with another overnight work on 12 November 2002, i.e. till 7:00 am of 13 November 2002.
- 4) Attached please find for your reference a copy of Page 3-1, Page 4-3 and the relevant page in Appendix 3 of the EM&A Report of October 2002, showing the evening time noise monitoring results at NM3, the podium floor of Heng Shan House. A copy of the same in November 2002 provided by the ET is also attached.

As discussed with the Contractor after receiving the complaint, it is believed that the complaint was likely due to shouting of labourers during the stressing operations since there was no noisy plant or equipment being used. A copy of the Contractor's letter ref. T7/01.01/O/05180 dated 16 November 2002 is attached for your information. As discussed with the ET on the issue, it is not intended for the time being to carry out noise monitoring in early morning at NM3 for the same reason.

Finally, the Contractor and our supervision staff have been directed to pay particular attention to any possible noise nuisance arising from such overnight works.

73156

St in Japan To TC Roy

K H Cheng Senior Resident Engineer

KHC:jt Encl.

cc : MCAL

OAP (by fax only)

ej Uszo

### 3. SUMMARY OF EM&A REQUIREMENTS

Construction noise and air quality were significant environmental impacts identified for the construction period of the project. In accordance with the Brief for EM&A, air quality and noise impact monitoring shall be performed by an ET at all specified monitoring locations during this stage.

### 3.1 Construction Noise Monitoring

#### 3.1.1 Monitoring Parameters

Construction noise monitoring shall be measured in terms of the A-weighted equivalent continuous sound pressure level ( $L_{eq}$ ).  $L_{10}$  and  $L_{90}$  will also be recorded as supplementary reference information for data auditing.

# 3.1.2 Monitoring Frequency

Construction noise measurements were required to be taken on a weekly basis according to the Brief for EM&A. The monitoring time periods, monitoring parameters and frequency are specified in Table 3-1. The monitoring programme for October 2002 and the planned schedule for November 2002 are provided in Appendix 1 and Appendix 2 respectively.

Table 3-1 - Construction noise monitoring parameters and frequency requirements.

Time Period (when construction activity is found)	Parameters	Monitoring Frequency	No. of measurements for each monitoring
Between 0700-1900 hours on normal weekdays	Lag(30 min)		1
Between 1900-2300 hours on normal weekdays		Once per week	
Between 2300-0700 hours of next day	Log(6 min)"	Office per mock	3 (consecutive)
Between 0700-1900 hours on holidays			

Remarks: The Legismin) will only be measured if construction activities are conducted in holidays and between the period of 1900 and 0700 hours during normal weekdays.

#### 3.1.3 Monitoring Locations

A total of six monitoring locations were specified. They are given in Table 3-2 and shown in Figure 3-1. The measurements shall be taken away from any nearby reflective surface and at a position of 1.2m above ground. No façade correction is required.

Table 3-2 - Noise impact monitoring locations.

NSR No.	Location	Monitoring Point
NM2	Ma On Shan Lutheran Primary School	Roof-top of the school
NM3	Heng Shan House, Heng On Estate	Podium floor of Heng Shan House
NM4	Kam Yiu House, Kam Ying Court	Roof-top of Kam Ylu House
NM6	Villa Concerto, Symphony Bay	Roof-top of Block 1
NM7	Monte Vista, Block 15	Podlum floor of Block 15
NM8	Monte Vista, Block 15	Roof floor of Block 15

Table 4-3 - Construction evening time noise monitoring results for October 2002.

adie 4-3 - Col	nstruction evening time	noise monitoring		Results Baid		
Date	of Monitoring	NM33 ex	Monitoring  NMA:	AND THE SECOND	THE PERSON NAMED IN COLUMN	NAME AND DESCRIPTION OF THE PERSON OF THE PE
Action of the Contract of		-	•	64.0	•	63.0
Week 1	07/10/02 (Mon)		-	63,5	, -	63.0
	, ,	-	-	63.0	-	63.5
		61.0	59.4	•	•	•
Week 2	16/10/02 (Wed)*	61.7	59.4	•	-	-
		63.5	58.4	-	- ,	-
		62.0	60.0	•	-	
Week 3	23/10/02 (Wed)#	63,0	60.5	-	•	•
		62.3	61.2	,	-	-
		62,5	60.0	63.0	•	65.0
Week 4	31/10/02 (Thu)	62.8	60.5	64.0	•	66.5
		61.5	60.0	62.5	-	64.8

Noted: \* Evening time noise monitoring is not required at monitoring stations NM3 and NM4 in Week 1 as no construction works was conducted near these stations.

Evening time noise monitoring is not required at monitoring station NM7 as no construction works was conducted near this station.

As the locations of the restricted hour works have been moved, the evening time noise monitoring locations at NM6 Symphony Bay and NM8 Roof of blk5, Monte Vista were no longer valid for checking the restricted hour noise impact. Therefore, the evening time noise monitoring at these 2 stations was suspended since Week 2. However, as per the request of ER, the evening time noise monitoring at NM6 and NM8 have been resumed in Week 4.

# Details of Evening time Noise Impact Monitoring

<del></del>		1	NSR	Time s	erioria	Weather	Avg, wind	No	lse Lovel dB	(A)
Month	Date	Set No.	No.	Start	Finish	condition	speed (ITV's)	Ļ	Lyp	Lyg
Oct-02	07-Od-02	1	NM6	19:00	19:05	fine	0.4	84.0	65.5	<i>5</i> 7.5
0a-02	07-Oct-02	2	NMB	19:05	19:10	กิกย	0.4	63,5	65.0	58.0
00-02	07-Oct-02	3	NM6	19:10	19;15	fine	0.4	83.0	65,0	58.0
Oct-02	07-Oct-02	1	NM8	19:20	19:25	fine	0.6	63,0	85.0	57.0
Oct-02 Oct-02	07-Oct-02	2	NM8	19:25	19:30	fine	0,6	63.0	65,5	<b>57.5</b>
Oct-02	07-Oct-02	3	NM8	19:30	19:35	fine	0.6	63.5	68.0	57.0
Oct-02	18-Oct-02	1	NM3	19:00	19:05	fine	0.4	61.0	63.0	59,5
Oci-02	18-Oct-02	2	EMIN	19:05	19:10	fine	0.4	61.7	64.0	58.0
Oct-02 Oct-02	16-Oct-02	3	NM3	19:10	19:15	fine	0.4	63,5	65.0	60.5
•	16-Oct-02	1	NM4	19:25	19:30	fine	0,4	59.4	60.0	58.5
Oct-02	16-Oct-02	2	NM4	19:30	19:35	fine	0.4	59.4	61.5	57.5
Oct-02		3	NM4	19:35	19:40	fine	0.4	58.4	60.0	56.5
Oct-02	16-Oct-02	1 :	NM3	19:00	19:05	fine	0.3	62.0	64,0	59.0
Oct-02	23-Od-02	'	NM3	19:05	19:10	line	0.3	63,0	64.5	60.0
Oct-02	23-Oct-02	2 3	NM3	19:10	19:15	fine	0.3	62,3	65.0	58.5
Oct-02	23-Oct-02	1	NM4	19:30	19:35	fine	0.4	60.0	62.0	57.0
Oct-02	23-Oct-02	1		19:35	19:40	fine	0.4	60.5	63.0	56.5
Oct-02	23-Oct-02	2	NM4		19:45	fina	0.4	61.2	62.5	57.0
Oct-02	23-Oct-02	3	NM4	19:40 19:05	19:10	fine	0.3	62.5	65.0	60.0
Oct-02	31-Oct-02	1 1	. NM3	19:05	19:15	fine	0.3	62.6	65.0	59.5
Oct-02	31-Oct-02	2	NM3	19:15	19:13	ก็กอ	0.3	61.5	65.0	60.0
Oct-02	31-Oct-02	3	NM3	1	19:45	line	0.5	60.0	63.5	57.5
Oct-02	31-Oct-02	1	NM4	19;40	19:50	fine	0.5	60.5	64.0	57.0
Oct-02	31-Oct-02	2	NM4	19:45		fine	0.5	60.0	64.0	57.0
Oct-02	31-Oct-02	3	NM4	19:50	19:55		0.6	63.0	66,5	57.5
Oct-02	31-Oct-02	1	NM6	21:00	21:05	line	0.6	64.0	68.0	57.0
Oct-02	31-0a-02	2	NM6	21:05	21:10	line	0.6	62.5	65.5	57.0
Oct-02	31-Oct-02	3	NM6	21:10	21:15	fine	0.6	65.0	68.5	57.0
Oct-02	31-Oct-02	1 1	NM8	20:15	20:20	โก6		66.5	68.4	60.0
Oct-02	31-Oct-02	5	NM8	20:20	20:25	fine	0.8		67.0	57.5
Oct-02	31-Oct-02	3	NM8	20:25	20:30	ก็กe	0.8	64.8	1 0/.U	37.3

20-N00-2002 14:34

She Tin New Town Stage II Contract Na. ST 86/2000 Construction of Acust 17 in Na On Shen Environmental Manhafre II Audit

Ove Arup & Partners

## Details of Evening time Noise Impact Monitoring

	T		NSR	Time t	periods	Wasther	Avg. wind	No	ao Layai dE	X(A)
Month	Date	Set No.	No.	Stort	Finish	candition	speed (m/s)	<u></u>	L	وا
Nov-02	07-Nov-02	1	EMN	20:00	20:05	fine	0.3	61,5	64,5	58.0
Nov-02	07-Nov-02	ا و ا	EMM	20:05	20:10	fine	0.3	<b>62.0</b>	0,88	S8.5
Nov-02	07-Nov-02	اقا	EMM	20:10	20:15	fine	0.3	60.0	63,5	SB.0
Nov-02	12-Nov-02		NM3	19;00	19:05	fine	0.2	60.5	63.0	67.S
Nov-02	12-Nov-02	;	NM3	19:05	19:10	fine	0.2	63.0	65.5	59.0
Nov-02	12-Nov-02	3	EMM	19:10	19:15	ne	0.2	81.0	ELB	58.0



沓港代衣: 孤亊上征用限公司

CHINA HARBOUR ENGINEERING COMPANY (GROUP) HONG KONG REPRESENTATIVE: ZHEN HUA ENGINEERING CO., LTD.

Date

: 16 November 2002

Your Ref

: T7/(ST86/2000)/M05/412(0133)

Our Ref.

: T7/01.01/O/05180

Maunsell Consultants Asia Ltd. 7, Lok Wo Sha Lane Ma On Shan

Attention: Mr. Y.H. Fung- CRE

Dear Sir.

Contract No. ST86/2000 Sha Tin New Town, Stage II

Environmental Complaint No. EC-46 - Noise from Night Work near Heng On Estate

We refer to your letter dated 15 November 2002 regarding the captioned complaint from Mr.  $\square$  of Heng On Estate.

To suit the progress of bridge works, we have obtained from the EPD a Construction Noise Permit No. GW-TN-0427-2002 for segment launching works between 23:00 and 07:00 of next day effective from 28 October 2002. Such overnight works will not be carried out on each day but on ad hoc basis.

The first overnight work was carried out from 23:00 of 4 November 2002 to 07:00 of 5 November 2002. On that night permanent prestressing work was carried out, during the period silenced type generator and electrical winch with additional noise barriers were used. We understand that no police came to the site for any investigation on the captioned noise complaint on that night

Noise measurements have been conducted on 4 and 16 November 2002 on top roof of Heng Shan House at Heng On Estate, the noise level results were attached herewith for your information. The results show that the construction noise levels were below the limit level of 70dB(A)

As the bridge segment launching works at Bridge TA opposite Heng On Estate will be completed by the end of November this year, we would keep noise nuisance to the public at this area to minimal as practical as possible.

Yours faithfully, For and on behalf of China Harbour Engineering Co. (Group)

Chan Man

Project Manager

CM/WW/KCW/GT/fc

Enc.

c.c.

MCAL - H.O.

OAP (by fax only)

CHEC - H.O.

Sha Tin New Town Stage II, Contract No. ST86/2000 Construction of Road T7 in Ma On Shan Night works at Bridge TA Noise Monitoroing Records Noise Monitoring Point: Roof Top, Heng Shan House, Heng On Estate

Time	Period	Measurment Time LAeq   LAmax   LAmin LA05   LA10   LA50   LA90   LA95	LAeq	LAmax	LAmin	LA05	LA10	LA50	LA90	LA95
4/11/2002	21:00 - 21:05	00:02:00	65.4	69.5	58.5	89	67.7	9	61	59.9
4/11/2002		00:02:00	68.5	73.1	58-3	72.2	71.1	67.1	60.7	59.9
4/11/2002		00:02:00	66.4	74.3	59.2	6.69	68.9	65.3	62.4	61.7
4/11/2002	22:00 - 22:05	00:05:00	65.3	73.9	57.3	69.1	68.2	64.5	60.6	59.6
4/11/2002	22:05 - 22:10	00:05:00	62.3	73.3	54.2	9.99	65.4	8.09	57.5	57.1
4/11/2002		00:05:00	64.3	71.2	57.2	67.1	99	63.6	61.3	59,3
16/11/2002	21:00 - 21:05	00:02:00	6.79	74.8	50.5	71.3	70.8	67.4	62.1	58.7
16/11/2002	21:05 - 21:10	00:05:00	68.4	76.1	60.1	71.2	70.6	89	64.6	
16/11/2002		00:05:00	68.3	75.6	l	71.6	71	67.8	63.9	62.5
16/11/2002		00:05:00	64.3	74.6	52.6	67.5	66.7	63.8	58.6	56.3
16/11/2002	22:05 - 22:10	00:02:00	64.3	72.3	52.6	67.6	6.99	63.8	58.6	57.4
16/11/2002	22:10 - 22:15	00:02:00	64.1	77.9	52.7	67.2	66.3	63.2	58.8	57.4

本署檔號 OUR REF: EP 580/E6/3/9

水函槽號 YOUR REF: 121

TEL. NO .:

岡文傳真 2158 5823 FAX NO.; 2685 1155 電子郵件

E-MAIL:

Homepage: http://www.info.gov.hk/epd/

#### **Environmental Protection Department** Local Control Office/Territory North

10/F, Sha Tin Government Offices, No. 1 Sheung Wo Che Road. Sha Tin, New Territories. Hong Kong.



環境保護署 污染管制辦事』 (新界北) 乔港新界沙田 上不從路一號 沙田政府合署 10 樓

25 November 2002

Ove Arup & Partners Hong Kong Limited Level 5 Festival Walk, 80 Tat Chee Avenue, Kowloon Tong, Kowloon. Hong Kong

(Attn: Mr Sam Tsoi)

By Fax Only (Fax: 2865 6493)

Dear Sir,

Sha Tin New Town Stage II Contract No. ST 86/2000 Construction of Road T7 in Ma On Shan Public Complaint of 23 November 2002

I refer to the captioned project, for which you hold the position of Environmental Team Leader.

Enclosed please find some particulars of a public complaint made on the date shown in the enclosure. The Environmental Team and all relevant parties in the c.c. list below should take actions to rectify the situation. Please report the outcome of the action to us within 2 weeks.

> Arup Acoustics Job No. Master Ref Project Ref.: Reply Ref.: Action Require 2 6 NOV 2002 Received Inits. Action Info. Copy

Yours faithfully,

( Jack KAN )

**Environmental Protection Officer** for Director of Environmental Protection

Encl.

c.c. (all w/e)

TDD

(Attn: Mr. George Mak

Fax.: 2721 8630)

Maunsell

(Attn: Mr. Y H Fung

Fax.: 2643 3559)

CHEC

(Attn: Mr Chan Man

Fax.: 2492 3701)

Complaint Ref.:

N01/TN/00011413-02

ICC Ref:

CASE DETAILS

(1) Incident 23/11/2002

(2) Incident Location: Monte Vista,

地址:

N01 - SHATIN

(3) TPU:

757

(4) Description:

COMPLAINT OF CONSTRUCTION NOISE AND ODOUR AT T7 ROAD FROM BETWEEN MONTE

VISTA AND LEE ON ESTATE, SHA TIN

(5) Nature

(6) Affected Party

(7) Pollution Pattern

N66-General construction noise except renovation

**DMS-Domestic Premises** 

A49-Malodour

**DMS-Domestic Premises** 

(8) Priority class:

C - Routine

i.e. substantive reply to be made on or before 16/12/2002

DETAILS OF THE SUSPECTED POLLUTER

(1) Premises Name: UNKNOWN

姓名:不知名

(2) Premises Address:

地址:

(3) Business Type: O18 - "Other, please specify in ""Remarks"""

COMPLAINANT

(1) Name:

(2) Tel. No.: Day:

Night:

Mobile:

(3) Address:

地址:

(4) Email Address:

CHANNEL OF COMPLAINT

Source channel:

06

Internet

Source code:

P

Public 市民

Remarks:

**ACTION OFFICERS** 

	Nature Code	SEPO	EPO	CI
Coordinator Officers provide inputs	N66 A49	S[TN]2 S[TN]1		CI[TN]2
to coordinator				

INFORMATION INPUTTED BY

Name: 7n.7

TNTELE

CCII COOZ ZCOJ

Date:

23/11/2002

Time:

10:50



香港代表: 振華工程有限公司

# CHINA HARBOUR ENGINEERING COMPANY (GROUP) HONG KONG REPRESENTATIVE: ZHEN HUA ENGINEERING CO., LTD.

Master RetAV

ction Require

Received

Inits

Action Info. Copy

Reply Ref.:

Arup Acoustics 能 No

Project Ref.

2 8 NOV 2002

Date

: 27 November 2002

Your Ref

: T7/(ST86/2000)/M05/412(0137)

Our Ref.

: T7/01.01/O/05271

Maunsell Consultants Asia Ltd.

7, Lok Wo Sha Lane

Ma On Shan Shatin, N.T.

Attention: Mr. Y. H. Fung- CRE

Dear Sir.

Contract No. ST86/2000 Sha Tin New Town, Stage II Construction of Road T7 in Ma On Shan

Environmental Complaint No. EC-47 – Noise and odour from Works between Monte Vista and Lee On Estate

We refer to your letter dated 26 November 2002 regarding the captioned complaint, we found that the noise and odour were mainly came from the generator located at Bridge TC Cap 13, which was switched on between the time period 22 November 2002 19:00 and 23 November 2002 01:30 as our sub-contractor staff forgot to switch off the generator after works.

A warning letter was issued to the sub-contractor and separated memorandum have been sent to all of our sub-contractors to make sure the same case would not be happened again.

Enclosed please find the copies of warning letter and memoranda for your retention. Thank you very much for your kind attention.

Yours faithfully, For and on behalf of China Harbour Engineering Co. (Group)

Chan Man

Project Manager

CM/CL/PH/G77fc c.c/ MCAL – H.O.

OAP (by fax only)

TDD - Mr. George Mak

CHEC - H.O.

Int:

WW/JC/SC



香港代表: 振華工程有限公司

CHINA HARBOUR ENGINEERING COMPANY (GROUP) HONG KONG REPRESENTATIVE: ZHEN HUA ENGINEERING CO., LTD.

Date: 27 November 2002 Our Ref: T7/10.01/O/04491

Kin Lee Civil Engineering Co., Ltd Room 1, 8/F Cosmoplitan Centre 760 Nathan Road Kowloon

Dear Sirs

Contract No. ST86/2000

Construction of Road T7 in Ma On Shan

Environmental Complaint - Noise and odour Complaint by Resident of Monte Vista

A complaint was raised from EPD that the generator G30 was found switched on during the time period between 22 November 2002 19:00 to 23 November 2002 01:30. The generator was switched off by the police at that night on 01:30. After investigation, we found that the generator, located near Bridge TC Cap 13, was used by your construction works and your staff forgot to switch off the generator after works. This was a serious mistake and would cause prosecution from the police and EPD. You must warn your staff and foreman to make sure the same case would not be happened again.

Enclosed please find the letter and photo for your reference.

Yours faithfully
For and on behalf of
China Harbour Engineering Co. ( Group )

Chan Man

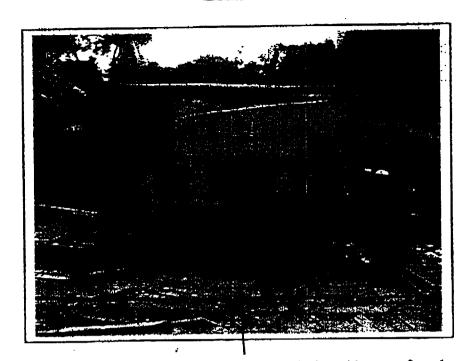
Project Manager

Encl.

CM/GL/RIL/GT/fc

C.C. Mr. George Mak (TDD) (Fax no:27218630) / Mr. Y.H. Fung (MCAL) (Fax No: 26433559) / WW. JC. SC

## **Photos**



This generator, located near Bridge TC Cap 13, was found switched on during the time period between 22 November 2002 19:00 to 23 December 2002 01:30 without the coverage of Construction Noise Permit



香港代表: 据華工程有限公司

# CHINA HARBOUR ENGINEERING COMPANY (GROUP) HONG KONG REPRESENTATIVE; ZHEN HUA ENGINEERING CO., LTD

#### Memo

To

: All Sub-contractors

From

: Mr. Phillip Leung

Date

: 27/11/2002

Our Ref

: T7/12.01/O/04495

Subject

: Operation of powered mechanical equipment under Construction Noise

Permit

Recently, we have received a complaint from EPD that the generator used by one of our sub-contractors was found switched on overnight without any coverage by the construction noise permit. The odour and noise generated affected the resident nearby and police and EPD was informed to investigate the case.

Please be reminded that this was a very serious mistake and would cause prosecution from the police and EPD. You must inform your staff and foremen to make sure all the generators or other powered mechanical equipment should be switched off at night if not cover by any construction noise permit.

Thank you for your co-operation.

Yours faithfully,

Phillip Leung

PL/GT/fc

c.c. CL/WW/ST/KCW/SMM/YYL/HH/JC Mr. Y. H. Fung (MCAL)

#### MEMO

K H Cheng, SRE/T7 From MCAL, NTE Development	To: Director of Environmental Protection
	•
Ref in <u>T7(ST86/2000)/M05/412(0141)</u>	Attn.: Mr. Jack Kan
Tel, No. <u>2643 9020</u>	Your Ref inEP 580/E6/3/9
Fax. No. <u>2643 3559</u>	dated 25.11.2002 Fax. No. 2685 1155
Date 29 November 2002	Total Pages 1+5

By Fax Only

# Sha Tin New Town, Stage II Contract No. ST 86/2000 Construction of Road T7 in Ma On Shan Public Complaint of 23 November 2002

I refer to your above quoted letter of 25 November 2002 enclosing the particulars of the captioned complaint (copy attached for your ease of reference). Please find attached for your reference the Contractor's self-explanatory letter ref. T7/01.01/O/05271 dated 27 November 2002.

As the T7 work has caused inconvenience to the nearby residents, please relay my apology to them.

K H Cheng Senior Resident Engineer

Encl.

KHC:cc

cc: PM/NTE, TDD - Attn: Mr. George Mak (by fax)

MCAL

OAP - Attn: Mr. Thomas Chan (by fax - 2268 3950)

Complaint Res	F	
AND THE TOP		

N01/TN/00011413-02

ICC Ref:

CASE DETAILS

(1) Incident

23/11/2002

(2) Incident Location: Monte Vista,

NO1 - SHATIN

地址:

(3) TPU:

757

(4) Description:

COMPLAINT OF CONSTRUCTION NOISE AND ODOUR AT T7 ROAD FROM BETWEEN MONTE

VISTA AND LEE ON ESTATE SHATIN

(5) Nature

(6) Affected Party

(7) Pollution Pattern

N66-General construction noise except rengyation

DMS-Domestic Premises

A49-Malodour

DMS-Domestic Prunises

Priority class:

- Routine

i.e. substantive reply to be made on or before 16/12/2002

# DETAILS OF THE SUSPECTED POLLUTER

(1) Premises Name: UNKNOWN

姓名:不知名

(2) Premises Address:

地址:

(3) Business Type: OI8 - "Other, please specify in ""Remarks"""

COMPLAINANT

(1) Name:

(2) Tel. No. : Day :

Night:

Mobile:

(3) Address:

地址:

Email Address:

## CHANNEL OF COMPLAINT

Source channel:

06

Internet

Source code:

P

Public 市民

Remarks:

#### **ACTION OFFICERS**

	Nature Code	SEPO	RPO	ď
Officers provide inputs	N66	S[TN]2		CI[TN]2
to coordinator	A49	S[TN]1		0.1.772
				1

Information inputted by

Name:

TNTELE

Date:

23/11/2002

Time:

10:50



香港代表: 振筝工程有限公司



Mb No : 1105/412

SRE I

ARE ARE STOW I

510W 2 צייחו

4:3 Ferlied:

SIS | L3 RB 1, 2, 3, 6

CHINA HARBOUR ENGINEERING COMPANY HONG KONG REPRESENTATIVE: ZHEN HUA ENGINEERING CO., LTD.

Date

: 27 November 2002

Your Ref

: T7/(ST86/2000)/M05/412(0137)

Our Ref.

: T7/01.01/O/05271

Maunsell Consultants Asia Ltd.

7, Lok Wo Sha Lane

Ma On Shan Shatin, N.T.

Attention: Mr. Y. H. Fung-CRE

Dear Sir.

Contract No. ST86/2000 Sha Tin New Town, Stage II

Construction of Road T7 in Ma On Shan

Environmental Complaint No. EC-47 - Noise and odour from Works between Monte Vista and Lee On Estate

We refer to your letter dated 26 November 2002 regarding the captioned complaint, we found that the noise and odour were mainly came from the generator located at Bridge TC Cap 13, which was switched on between the time period 22 November 2002 19:00 and 23 November 2002 01:30 as our sub-contractor staff forgot to switch off the generator after works.

A warning letter was issued to the sub-contractor and separated memorandum have been sent to all of our sub-contractors to make sure the same case would not be happened again.

Enclosed please find the copies of warning letter and memoranda for your retention. Thank you very much for your kind attention.

Yours faithfully, For and on behalf of China Harbour Engineering Co. (Group)

Chan Man

Project Manager

MCAL - H.O.

OAP (by fax only)

TDD - Mr. George Mak

CHEC - H.O.

Int:

WW/JC/SC



香港代表: 掘莓工程有限公司

CHINA HARBOUR ENGINEERING COMPANY (GROUP) HONG KONG REPRESENTATIVE: ZHEN HUA ENGINEERING CO., LTD.

Date: 27 November 2002 Our Ref: T7/10.01/O/04491

Kin Lee Civil Engineering Co., Ltd Room 1, 8/F Cosmoplitan Centre 760 Nathan Road Kowloon

Dear Sirs

Contract No. ST86/2000

Construction of Road T7 in Ma On Shan

Environmental Complaint - Noise and odour Complaint by Resident of Monte Vista

A complaint was raised from EPD that the generator G30 was found switched on during the time period between 22 November 2002 19:00 to 23 November 2002 01:30. The generator was switched off by the police at that night on 01:30. After investigation, we found that the generator, located near Bridge TC Cap 13, was used by your construction works and your staff forgot to switch off the generator after works. This was a serious mistake and would cause prosecution from the police and EPD. You must warn your staff and foreman to make sure the same case would not be happened again.

Enclosed please find the letter and photo for your reference.

Yours faithfully For and on behalf of China Harbour Engineering Co. ( Group )

Chan Man

Project Manager

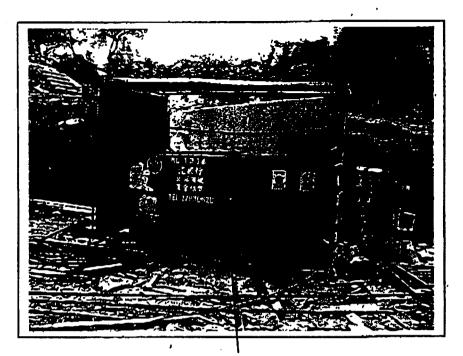
Encl.

C.C. Mr.George Mak (TDD) (Fax no:27218630) / Mr.Y.H.Fung (MCAL) (Fax No: 26433559) /

WW,JC,SC

5-NOV-2002 11:42

## **Photos**



This generator, located near Bridge TC Cap 13, was found switched on during the time period between 22 November 2002 19:00 to 23 December 2002 01:30 without the coverage of Construction Noise Permit



#### 香港代表: 摄 華工程有限公司

# CHINA HARBOUR ENGINEERING COMPANY (GROUP) HONG KONG REPRESENTATIVE: ZHEN HUA ENGINEERING CO., LTD

#### Memo

To

: All Sub-contractors

From

: Mr. Phillip Leung

Date

: 27/11/2002

Our Ref

: T7/12.01/O/04495

Subject

: Operation of powered mechanical equipment under Construction Noise

Permit

Recently, we have received a complaint from EPD that the generator used by one of our sub-contractors was found switched on overnight without any coverage by the construction noise permit. The odour and noise generated affected the resident nearby and police and EPD was informed to investigate the case.

Please be reminded that this was a very serious mistake and would cause prosecution from the police and EPD. You must inform your staff and foreman to make sure all the generators or other powered mechanical equipment should be switched off at night if not cover by any construction noise permit.

Thank you for your co-operation.

Yours faithfully,

Phillip Leung

PL/**/**T/fc

Ę.,

c.c. CL/WW/ST/KCW/SMM/YYL/HH/JC

Mr. Y. H. Fung (MCAL)

本認位號 OUR REF: EP 580/E6/3/9

來函檔號 YOUR REF: 電 請 TEL, NO.:

國文傳真 FAX NO.: 2158 5823 電子郵件 2685 1155

E-MAIL: 網址

Homepage: http://www.info.gov.hk/epd/

#### Environmental Protection Department Local Control Office/Territory North

10/F, Sha Tin Government Offices, No. 1 Sheung Wo Che Road, Sha Tin, New Territories, Hong Kong.



環境保護署 污染管制辦事處 (新界北) 香港新界沙田 上禾安縣一號 沙田政府合署 10 娘

Ove Arup & Partners Hong Kong Level 5 Festival Walk, 80 Tat Chee Avenue, Kowloon Tong, Kowloon, Hong Kong

(Attn: Mr Sam Tsoi)

	Arup Acousties File No. 2002 13186
]	Master Ref.: Project Ref.: Reply Ref.: Date
	Action Required:
	Received - 2 DEC 2002
	Inits. ST TC Action Info. Copy

By Fax Only (Fax : 2865 6493)

Dear Sir,

Sha Tin New Town Stage II Contract No. ST 86/2000 Construction of Road T7 in Ma On Shan Public Complaint of 30 November 2002

I refer to the captioned project, for which you hold the position of Environmental Team Leader.

Enclosed please find particulars of a public complaint made on the date shown in the enclosure. The Environmental Team and all relevant parties in the c.c. list below should take actions to rectify the situation. Please report the outcome of the action to us within 2 weeks.

Yours faithfully,

( Jack KAN )

Environmental Protection Officer for Director of Environmental Protection

Encl.

c.c. (all w/e)

TDD

(Attn: Mr. George Mak

Fax.: 2721 8630)

Maunsell

(Attn: Mr. Y H Fung

Fax.: 2643 3559)

CHEC

(Attn: Mr Chan Man

Fax.: 2492 3701)

1		TOTACE OF	COMILAINI	
	,			
Implaint Ref. :	N01/TN/00011730	)-02		
CC Ref:				
CASE DETAILS				
(1) Incident	30/11/2002			
(2) Incident Location	:KAM YING COU N01 - SHA TII		地址:	
	17			
(3) TPU:	757			
(4) Description:	COMPLAINT OF SU KAM YING COURT	NDAY CONSTRUCTION . SHA TIN	NOISE FROM THE CONSTRUCTION SITE O	PPOSIDE TO
(5) Nature	·	(6) Affected Party	(7) Pollution Pattern	
N66-General construction	ction noise except	DMS-Domestic Premi	ses	
(8) Priority class:	C - Routine	i.e. s	ubstantive reply to be made on or before	23/12/2002
DETAILS OF THE	SUSPECTED POLI			•
(1) Premises Name:	UNKNOWN		姓名:不知名	
(2) Premises Address	5:		地址:	
(3) Business Type:	511 - Construction	site except renovation		
COMPLAINANT				
(1) Name:			(2) Tel. No. : Day :	
	Į.		Night ; Mobile:	
(3) Address:			地址:	
	NO1 - SHA TIN	ſ		
(4) Email Address:	,	Marie Ma Marie Marie Ma		
CHANNEL OF COM	<b>IPLAINT</b>			
Source channel:	01 -	Phone		
Source code;	Р -	Public 市民		
Remarks:	先生投訴上址的地		有部發電機日日都發出噪音至凌晨12:00.十	分擾民,橢盛
ACTION OFFICERS	· 快跟進. S			

#### INFORMATION INPUTTED BY

Name:

Z0.9

Coordinator

HAUEI

+825 Se82 1122

Nature Code

N66

Date:

SEPO

S[TN]2

30/11/2002

Time: 12:10

CI

CI[TN]2

+825 S685 1155

**EPO** 

SS:SI 7007-170-70



香港代表: 振華工程有限公司

CHINA HARBOUR ENGINEERING COMPANY (GROUP) HONG KONG REPRESENTATIVE: ZHEN HUA ENGINEERING CO., LTD.

Date Your Ref : 5 December 2002

Our Ref.

: EP580/E6/3/9

: T7/02,03/O/04574

**Environmental Protection Department** Local Control Office/ Territory North 10/F., Sha Tin Government Offices, No. 1 Sheung Wo Che Road, Sha Tin, New Territories,

Attention: Mr. Jack Kan

Dear Sir.

Contract No. ST86/2000 Sha Tin New Town, Stage II Construction of Road T7 in Ma On Shan Noise nuisance from Sunday Works near Kam Ying Court

We refer to your letter dated 2 December 2002 regarding the captioned complaint from resident of Kam Ying Court on 30 November 2002, for your information, we have already obtained the Construction Noise Permit in the area of RW-D1 (CNP no: GW-TN0274-2002) and TC1 & TC2 (CNP no: GW-TN0294-2002) near Kam Leung House, Kam Ying Court to work on Sunday from

We have checked our site record and found that the generator at Bridges TC1 & TC2 would be switched off by our sub-contractor before 23:00 every night (covered by CNP no.: GW-TN0294-2002) and so the generator would not be operated until midnight. We however would keep noise nuisance to the public at this area to minimal as practical as possible.

We would keep on reminding our subcontractors to follow all the conditions and the restricted location stated in the construction noise permit.

Thank you very much for your kind attention.

Yours faithfully,

For and on behalf of

China Harbour Engineering Co. (Group)

Chan Man

Project Manager

CM/WW/PM/QZ/fc

MCAL - Mr. Y H Fung C.C.

MCAL - H.O. CHEC-H.O.

OAP - Mr. Sam Tsoi (fax: 2865 6493) TDD - Mr. George Mak (fax: 2721 8630)

Int.: CL/JC/SC

本學檔號 OUR REF: EP 580/E6/3/9

來函檔號 YOUR REF: 電話

電 語 TEL. NO.:

阔文似真 2158 5823 FAX NO.: 電子郵件 2685 1155

E-MAIL: 網 址

Homepage: http://www.info.gov.hk/epd/

#### Environmental Protection Department Local Control Office/Territory North

10/F, Sha Tin Government Offices, No. 1 Sheung Wo Che Road, Sha Tin, New Territories, Hong Kong.



環境保護智 污染管制辦事處 (新界北) 珍維新界沙田 上不樂路一號 沙田政府合著10樓

17 December 2002

Ove Arup & Partners Hong Kong Limited Level 5 Festival Walk, 80 Tat Chee Avenue, Kowloon Tong, Kowloon, Hong Kong

(Attn: Mr Sam Tsoi)

By Fax Only (Fax : 2865 6493) Total 2 pages

Dear Sir,

Sha Tin New Town Stage II Contract No. ST 86/2000 Construction of Road T7 in Ma On Shan Public Complaint of 16 December 2002

I refer to the captioned project, for which you hold the position of Environmental Team Leader.

Enclosed please find particulars of a public complaint made on the date shown in the enclosure. The Environmental Team and all relevant parties in the c.c. list below should take actions to rectify the situation. Please report the outcome of the action to us within 2 weeks.

Arup Acoustics Job No. 13156

Master Ref.: Project Ref.: Date
Action Required:

Received 17 DEC 2002

Ston Game
Inits.
Action Info.
Copy

Yours faithfully,

( Jack KAN )

Environmental Protection Officer for Director of Environmental Protection

Encl.

c.c. (all w/e)

**TDD** 

(Attn: Mr. George Mak

(Attn: Mr. Y H Fung

CHEC

Maunsell -

(Attn: Mr Chan Man

Fax.: 2721 8630)

Fax.: 2643 3559)

Fax - 2492 3701)

Complaint Ref.:

N01/TN/00012324-02

ICC Ref:

CASE DETAILS

(1) Incident

16/12/2002

(2) Incident Location : KAM YING COURT,

NO1 - SHATIN

地址:

(3) TPU:

757

(4) Description:

COMPLAINT OF SUNDAY CONSTRUCTION NOISE FROM T7 EXPRESS SITE, NEAR KAM YING

COURT . SHA TIN

(5) Nature

(6) Affected Party

(7) Pollution Pattern

N66-General construction noise except

**DMS-Domestic Premises** 

renovation

(8) Priority class:

C - Routine i.e. substantive reply to be made on or before

#### DETAILS OF THE SUSPECTED POLLUTER

(1) Premises Name: TRUNK ROAD T7 CONSTRUCTION

姓名: T7 幹線地盤

SITE
(2) Premises Address: SAI SHA ROAD,

NO5 - TAIPO

地址:

(3) Business Type: 511 - Construction site except renovation

#### POLLUTER HISTORY

Complaint Ref No.	Complainant ID	Date of Complaint	Substantive Reply Date	Nature Code
N01/TN/00009156-02		02 / 10 / 2002	16/10/2002	A42
N05/TN/00008458-02	• •	10/09/2002	19 / 09 / 2002	N66

**COMPLAINANT** 

(1) Name:

Mr

(2) Tel. No.: Day:

Night:

Mobile:

(3) Address:

23/F, BLOCK 1, KAM YING COURT,

地址:

N01 - SHA TIN

(4) Email Address:

#### CHANNEL OF COMPLAINT

Source channel:

Phone

Source code:

Public 市民

Remarks:

黎先生投訴錦英苑對開山邊近馬鞍山水務局儲水庫的17公路地盤星期日8:00~17:00開工,要求環保

岩跟進・

#### **ACTION OFFICERS**

	Nature Code	SEPO	EPO	CI
Coordinator	N66 i:	S[TN]2		CI[TN]2

#### INFORMATION INPUTTED BY

Name:

UETA4

Date:

16/12/2002

Time:

11:45

P.02 +825 S685 1155

+825 5685 1155

10:50 17-DEC-2002

# Maunsell Consultants Asia Ltd

茂盛(亞洲)工程顧問有限公司

Chief Resident Engineer's Office

Trunk Road T7

7 Lok Wo Sha Lane, Ma On Shan

Telephone: 2643 9020 Fax: 2643 3559

E-mail: t7cso@netvigator.com

Your Ref.:

Our Ref.: T7/(ST86/2000)/M05/412(0146)

8/F., Grand Central Plaza, Tower 2 138 Sharin Rural Committee Road Sha Tin, N.T., Hong Kong

> 香港新界沙田鄉宴會訊 138 號 新城市中央廣場第2座8標

> > Tel (852) 2605 6262 Fax (852) 2691 2649 www.maunsell.com.hk

19 December 2002

The Agent China Harbour Engineering Company (Group) 9 Lok Wo Sha Lane Ma On Shan, N.T.

Dear Sir,

Sha Tin New Town Stage II Contract No. ST 86/2000 Construction of Road T7 in Ma On Shan Environmental Complaint EC-49 Noise Nuisance from Works near Kam King Court

I attach for your attention and necessary action a copy of EPD's letter ref. EP 580/E6/3/9 dated 17 December 2002 regarding the captioned complaint on 16 December 2002.

> Arup Acoustics He No Master Ref Reply Ret.: Action Required 1 9 DEC 2002 Received inits Action info. Copy

Yours faithfully,

K H Cheng Senior Resident Engineer

Encl. KHC:cc

cc: MCAL

OAP - w/o encl. (by fax only)

CHEC - HO



香港代表: 振華工程有限公司

CHINA HARBOUR ENGINEERING COMPANY (GROUP) HONG KONG REPRESENTATIVE: ZHEN HUA ENGINEERING CO., LTD.

Master Ref

Reply Ref.:

Received

Inits. Action Info.

Copy

Si on loave

oustics File No.

2 7 DEC 2002

Date : 23 December 2002

Your Ref: T7/(ST86/2000)/05483

Maunsell Consultants Asia Ltd. 7. Lok Wo Sha Lane Ma On Shan Shatin, N.T.

Attention: Mr. Y.H. Fung- CRE

Dear Sir,

Contract No. ST86/2000 Sha Tin New Town, Stage II Construction of Road T7 in Ma On Shan

Environmental Complaint No. EC-49 - Noise nuisance from Works near Kam Ying Court

We refer to your letter dated 19 December 2002 regarding the captioned complaint involving the carrying out of construction works on 15 December 2002 (Sunday) near Kam Ying Court.

According to the Sunday patrol record from our site foreman, Mr. Y C Hung, the only powered mechanical equipments used near Block A of Kam Ying Court were the operation of generator, air compressor and water jet in TC1 & TC2 area from 08:00 to 17:00, which were covered by Construction Noise Permit no.: GW-TN0294-2002.

As confirmed by Mr. Mark Lam of Ken On Concrete Company Limited, no concrete was ordered and delivered on 15 December 2002 and hence, no concreting works should be carried out on that day.

We however would keep on reminding our subcontractors to compile the Noise Control Ordinance when carrying out construction works within our site and keep the noise nuisance to minimal as practical as possible.

Thank you very much for your kind attention.

Yours faithfully, For and on behalf of China Harbour Engineering Co. (Group)

Chan Man

Project Manager

MCAL - H.O.

CHEC - H.O.

OAP – Mr. Thomas Chan (F: 2268 3950)

EPD - Mr. Jack Kan (F: 2685 1155)

TDD – Mr. George Mak

WW, ST, JC, FC, SC 在港北角英夏道 370-374 號報華大廈 19 樓

While the break the same absorbe assess

T--- /061\ 2612 D427

本界信號 OUR REF: EP 580/E6/3/9

来函檔號 YOUR REF: 電 語 TEL. NO.:

TEL. NO.: 脚文傳真 2158 5823 FAX NO.: 電子郵件 2685 1155

E-MAIL: 網 址

Homepage: http://www.info.gov.hk/epd/

**Environmental Protection Department Local Control Office/Territory North** 

10/F, Sha Tin Government Offices, No. 1 Sheung Wo Che Road, Sha Tin, New Territories, Hong Kong.



污染管制辦事處 (新界北) 香港新界沙田 上未策路一號 沙田政府合署 10 楼

27 December 2002

Ove Arup & Partners Hong Kong Limited
Level 5 Festival Walk, Arup Accusines France

80 Tat Chee Avenue, Master France

Kowloon, Kowloon, Hong Kong

(Attn: Mr Sam Tsoi)

Master Feld Propert Ref.

Received 3 0 DEC 2002

St. on leave To John By Fax Only (Fax: 2865 6493)

Total 2 pages

Dear Sir,

Sha Tin New Town Stage II Contract No. ST 86/2000 Construction of Road T7 in Ma On Shan Public Complaint of 27 December 2002

I refer to the captioned project, for which you hold the position of Environmental Team Leader.

Enclosed please find particulars of a public complaint made on the date shown in the enclosure. The Environmental Team and all relevant parties in the c.c. list below should take actions to rectify the situation. Please report the outcome of the action to us within 2 weeks.

Yours faithfully,

( Jack KAN )

Environmental Protection Officer for Director of Environmental Protection

Encl.

c.c. (all w/e) TDD

ישנו

(Attn: Mr. George Mak

Fax.: 2721 8630)

Maunsell

(Attn: Mr. Y H Fung

Fax.: 2643 3559)

CHEC

(Attn: Mr Chan Man

Fax.: 2492 3701)

Complaint Ref.:

N01/TN/00012703-02

ICC Ref:

CASE DETAILS

(1) Incident

27/12/2002

(2) Incident Location: KAM YING ROAD,

N01 - SHA TIN

地址:

(3) TPU:

757

(4) Description:

COMPLAINT OF HOILDAY GENERAL CONSTRUCTION NOISE FROM T7 EXPRESS SITE BESIDES

KAM YING COURT, SHATIN ON

(5) Nature

(6) Affected Party

(7) Pollution Pattern

N66-General construction noise except

DMS-Domestic Premises

renovation

(8) Priority class:

- Routine

i.e. substantive reply to be made on or before

17/01/2003

С DETAILS OF THE SUSPECTED POLLUTER

(1) Premises Name: UNKNOWN

姓名: 不知名

(2) Premises Address:

地址:

(3) Business Type: 511 - Construction site except renovation

COMPLAINANT

(1) Name:

Ms

(2) Tel. No.: Day:

Night:

Mobile:

(3) Address:

地址:

(4) Email Address:

CHANNEL OF COMPLAINT

Source channel:

01

Phone

Source code:

Public 市民

Remarks:

25/12 STARTING FROM 0800; NOISE FROM HAMMERING WORKS

ACTION OFFICERS

CI **EPO** Nature Code **SEPO** CI[TN]2 **N66 S[TN]2** Coordinator

INFORMATION INPUTTED BY

Name: P.02 IIUE161

+825 Se82 1122

Date:

27/12/2002

Time:

10:15

+825 5682 1122

17:28 SY-DEC-2002

### Maunsell Consultants Asia Ltd 茂盛(亞洲)工程顧問有限公司

Chief Resident Engineer's Office

Trunk Road T7

7 Lok Wo Sha Lane, Ma On Shan

Telephone: 2643 9020

Fax: 2643 3559

E-mail: t7cso@netvigator.com

8/F., Grand Central Plaza, Tower 2 138 Shatin Rural Committee Road Sha Tin, N.T., Hong Kong

> 香港新界沙田鄉事會語 138 號 新城市中央廣場第2座8標

> > Tel (852) 2605 6262 Fax (852) 2691 2649

www.maunsell.com.hk

Your Ref.:

Our Ref.: T7/(ST86/2000)/M05/412(0150)

30 December 2002

The Agent China Harbour Engineering Company (Group) 9 Lok Wo Sha Lane Ma On Shan, N.T.

Dear Sir.

Sha Tin New Town Stage II Contract No. ST 86/2000 Construction of Road T7 in Ma On Shan Environmental Complaint EC-50 Noise Nuisance from Works near Kam King Court

I attach for your attention and necessary action a copy of EPD's letter ref. EP 580/E6/3/9 dated 27 December 2002 regarding the captioned on 25 December 2002.

Received

Yours faithfully,

K H Cheng Senior Resident Engineer

Encl. KHC:cc

cc: MCAL

OAP - w/o encl. (by fax only)

CHEC - HO

C.E.H

中村所號 OUR REF: EP 580/E6/3/9

來函額號 YOUR REF: TEL, NO.:

四文件工 2158 5823 FAX NO .: 2685 1155

过子弹件 E-MAIL:

址 Homopage: http://www.info.gov.hk/epd/ Local Control Office/Territory North

10/F, Sha Tin Government Offices. No. 1 Sheung Wo Che Road. Sha Tin. New Territories. Hong Kong.





27 December 2002

Ove Arup & Partners Hong Kong Limited Level 5 Festival Walk, 80 Tat Chee Avenue, Kowloon Tong, Kowloon, Hong Kong

(Atm: Mr Sam Tsoi)

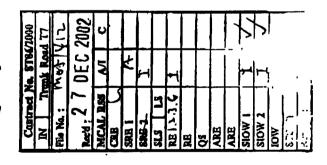
By Fax Only (Fax: 2865-6493) Total 2 pages

Dear Sir,

Sha Tin New Town Stage II Contract No. ST 86/2000 Construction of Road T7 in Ma On Shan Public Complaint of 27 December 2002

I refer to the captioned project, for which you hold the position of Environmental Team Leader.

Enclosed please find particulars of a public complaint made on the date shown in the enclosure. The Environmental Team and all relevant parties in the c.c. list below should take actions to rectify the situation. Please report the outcome of the action to us within 2 weeks.



Yours faithfully,

( Jack KAN )

Environmental Protection Officer for Director of Environmental Protection

Encl.

c.c. (all w/e)

TDD

CHEC

Maunsell

(Attn: Mr. George Mak

(Attn: Mr. Y H Fung

(Attn: Mr Chan Man

Fax: 2721 8630)

Fax.; 2643 3559)

Pax.: 2492 3701)

	•	1	
Complaint Ref. :	N01/TN/00012703-02	2	
ICC Ref:			
CASE DETAILS		t·	
(1) Incident	27/12/2002		地址:
(2) Incident Location	: KAM YING ROAL NOI - SHA TIN	),	eer.
(3) TPU:	7 <b>57</b> ·		NUCTION NOISE FROM 17 EXPRESS SITE BESIDES
(4) Description:	COMPLAINT OF HOI	LDAY GENERAL CONSTI	RUCTION NOISE FROM 17 EXPRESS SITE BESIDES
	PAM YING COURT.	(6) Affected Party	(7) Pollution Pattern
(5) Nature		DMS-Domestic Premis	es
N66-General construc	cdou node except		
renovation	C - Routine	į.e. su	abstantive reply to be made on or before .17/01/200
(8) Priority class:	_		,
DETAILS OF THE	SUSPECTED POLL	UTER	
(1) Premises Name:			姓名:不知名
(2) Premises Addres	s <b>s</b> :		地址:
(3) Business Type:	51) - Construction	site except renovation	
COMPLAINANT			
	\Z-		(2) Tel. No.: Day:
(1) Name:	Ms		Night:
			Mobile:
(3) Address:			地址:
(4) Email Address	:	,	
CHANNEL OF CO	OMPLAINT		
Source channel:	01	- Phone	•
Source code : Remarks :	P 25/12 STARTING F	- Public 市民 ROM 0800; NOISE FROM	HAMMERING WORKS

INFORMATION INPUTTED BY

Name: I[UE]61

**ACTION OFFICERS** 

Coordinator

101

Nature Code

N66

Date: 27/12/2002

Time: 10:15

ÇI

CI(TN)2

EPO

TOTAL P.02 - P.02 TOTAL P.03

+R52 2685 1155

SEPO

S[TN]2



香港代表: 振藥工程有限公司

# CHINA HARBOUR ENGINEERING COMPANY (GROUP) HONG KONG REPRESENTATIVE: ZHEN HUA ENGINEERING CO., LTD.

Date : 30 December 2002 Our Ref.: T7/02.03/O/04760

Environmental Protection Department Local Control Office/ Territory North

10/F., Sha Tin Government Offices

No. 1 Sheung Wo Che Road,

Sha Tin, New Territories, Hong Kong

Attention: Mr. Jack Kan- EPO

Dear Sirs

Contractor No. ST86/2000

Construction of Road T7 in Ma On Shan

Environmental Complaint on 25 December 2002-Noise nuisance from holiday works near Kam Ying Court

We refer to your letter dated 27 December 2002 regarding the captioned complaint involving the carrying out of holiday works on 25 December 2002 (Wednesday) near Kam Ying Court.

According to our site record, the powered mechanical equipments used near Kam Ying Court were covered by Construction Noise Permit no.: GW-TN0294-2002, and the hammering works were not carried out within the designated area.

We however would maintain our construction works compile with the Noise Control Ordinance and keep the noise nuisance to minimal as practical as possible.

Thank you very much for your kind attention.

Yours faithfully
For and on behalf of
China Harbour Engineering Co. (Group)

Chan Man

Project Manager

c,c, MCAL-H.O.

MCAL - Mr. Y. H. Fung

OAP - Mr. Thomas Chan (F: 2268 3950)

TDD - Mr. George Mak

CHEC-H.O

	ALEXANDER CO. CARRAGE	1 blo 7	2156	
Arup Acou	stics	ie No.	31.70	
Master Ref.	reconstruction and the second	1 Ref.:		
Reply Ref.	دند. المالية الكل يعم	Date		
Action Required:		e dissert the commence of the second		
Received 3	o dec	2002		
St on leave	T	77	1012	-
Action				0-
Info.	w		PL	
Copy	e de como en	أأب بينانياه ومحمد أوم		