Interim Notifications of Environmental Quality Limits Exceedances

Incident Report on Action Level or Limit Level Non-compliance

Project	Tsuen Wan Drainage Tunnel
Date	14-May-09
Time	7:15 AM
Monitoring Location	Podium level of Greenview Terrace facing to the construction site (NSR9)
Parameter	Noise
Action & Limit Levels	When one documented complaint is received / 75 dB(A)
Measured Level	N/A
Possible reason for Action or Limit Level Non-compliance	Construction works
Actions taken / to be taken	Following on-site noise mitigation measures were provided: (1)· For the idling plant, it was switched off to reduce noise level generated. (2)· The sound insulation sheets and noise insulation materials were placed to enclose the breaking tip tightly and also aside or surround the breaking activities. (3)· Noise monitoring frequency was increased in order to check the effectiveness of the mitigation measures. The 2nd measurement on 27 May 2009 was also taken after all the measures implemented. The noise level (Leq, 30 min) was 70.9 dB (A), which comply with the limit level in accordance with the EIAO-TM.
Remarks	Please refer to the Complaint Investigation Report attached for details.

Prepared by: Terence Kong

Designation: Environmental Team Leader

Signature: 

Date: 4-Jun-09

Complaint Investigation Report

Contractor: Maeda – CREC – SELI Joint Venture	**Received Date:** 15 May 2009	**Ref:** CIR - 003
Project: Design and Construction of Tsuen Wan Drainage Tunnel		
COMPLAINANT		
Name: Unknown (refer from EPD) Tel: Unknown Fax: Unknown	Address: Unknown	
COMPLAINT INVESTIGATION		

Description (cause of impact, type of impact and location, etc.)

Details of the Complaint

EPD has received a complaint (EPD ref: EP/RW/080206) regarding to daytime construction rock breaking at 7:15 am and dusty at the outfall construction site on 14 May 2009.

Findings/ Observations

Regular 1-hour TSP and daytime construction noise monitoring, in accordance with EM&A Manual are performed by Environmental Team. The monitoring station concerned is ASR9 and NSR9 (i.e. at the podium level of Greenview Terrace facing to the construction site) and the distance between the construction site and the monitoring station is approximately 90m.

The closest date to the complaint for the 1-hour TSP monitoring & daytime construction noise monitoring was on 12, 18 and 27 May 2009 at Greenview Terrace, ASR9 and NSR9. Soil nailing, excavation, rock breaking, loading and unloading the materials were observed during monitoring period. The monitoring results were summarised below:

Parameter	Monitoring Location	Monitoring Date	Measured Value, dB (A)	Limit Level, dB (A)	Level Exceeded
$L_{eq, 30\ min}$	NSR9	12 May 2009	71.1	75	Comply
$L_{eq, 30\ min}$	NSR9	18 May 2009	70.8	75	Comply
$L_{eq, 30\ min}$	NSR9	27 May 2009	72.2	75	Comply

In accordance with EIAO-TM, the daytime construction noise limit is 75 dB(A) for NSR9. The measured noise levels complied with the limit level in accordance with the EIAO-TM. Since a complaint was received at NSR9, these case would also be treated an action level exceedance on noise and would be reported in next EM&A report.

For 1-hour TSP monitoring, the monitoring results are summarised below:

Parameter	Sampling Date	Recorded Level, $\mu g/m^3$	Action Level, $\mu g/m^3$	Limit Level, $\mu g/m^3$
1-hour TSP at ASR9	12 May 2009	41.2	329.5	500.0
		82.4		
		70.6		
	18 May 2009	145.9		
		77.7		
		104.7		
	22 May 2009	25.9		
		29.4		
		36.5		
	27 May 2009	34.1		
		27.1		
		51.8		

In accordance with the EM&A Manual and the Baseline Monitoring Report, all 1-hour TSP concentrations at ASR9 were below the established Action and Limit Levels. No 1-hour TSP exceedance was recorded including all monitoring events in April and May 2009.

The contractor and the environmental team were also undertaken site investigation on the subject area in response to the complaint. Air quality mitigation measures as recommended in EIA have been implemented by the Contractor. However, noise mitigation measures could be further improved. The mitigation measures during the site investigation were observed as follows:

Air Quality

- Water spraying was provided to the exposed surface.
- Several automatic sprinklers were provided at the outfall construction site for water spraying of the haul road.
- Water spraying was provided during rock breaking and soil nailing works.

Noise

- Quiet equipment e.g. generator and air compressor was used on-site.
- The equipments are generally maintaining in good operation condition.
- Few sound insulation sheets were used during rock breaking but not well in place.

Conclusion/Proposed Action

Based on our site inspection and monitoring results, the complaint for dust is considered not justifiable since no action & limit level exceedance on construction dust is identified. Air quality mitigation measures as recommended in EIA have also been implemented in order to control and minimise the air quality impact arising from the construction activities. In view of the recent dry and sunny weather, the haul road and the exposed area would be dry very quickly. The Contractor was recommended to enhance water spraying especially in the dry and sunny weather.

On the other hand, the complaint for noise is considered due to works and the Contractor was agreed to improve the on-site noise mitigation measures such as the following measures. ET's site inspection and the joint inspection with relevant parties was conducted on 29 May 2009 and 4 June 2009 respectively to confirm all the below measures have been implemented.

- For the idling plant, it should be switched off to reduce noise level generated.
- The sound insulation sheets and noise insulation materials should be placed to enclose the breaking tip tightly and also aside or surrounding the breaking activities as recommended in the following photos 1-3 in noise mitigation measures.
- Noise monitoring frequency was increased in order to check the effectiveness of the mitigation measures. The 2nd measurement on 27 May 2009 was also taken after all the measures implemented. The noise level ($L_{eq, 30\ min}$) was 70.9 dB (A), which comply with the limit level in accordance with the EIAO-TM.

FOLLOW UP ACTION (S)

For dust & noise complaint, ET will continuously review the condition of the site during the routine site inspections and provide reminder to the Contractor. This case will also be reported an action level exceedance on noise and also in complaint log in the coming monthly EM&A report.

Prepared & Confirmed by:

Name: Terence Kong (ET Leader) Signature:  Date: 4 June 2009

ATTACHMENTS:

Photos record for air & noise quality mitigation measures.

Noise Mitigation Measures

1. Sound insulation sheet erected with the green net.

2. Sound insulation sheet surrounding the rock breaking activities as far as possible.

3. Noise insulation material for rock breaking.

Air Quality Mitigation Measures

1. Water spraying for the exposed area.

2. Automatic sprinkler spraying the haul road.

3. Water spraying during rock breaking.

4. Water Spraying for soil nail work.