# Appendix F

## The QA/QC Procedures and Results

# HIGH VOLUME AIR SAMPLER
# SITE VISIT LOG SHEET

| | | | |
|---|---|---|---|
| Site Name: | R.C. | Site No.: | AM1 |
| Date of visit: | 14-2-05 | Hour of Visit: | 1:20 |
| Staff name: | W.L.MAK. | HVAS S/N: | 2198. |
| Used filter paper no.: | LR90 | New filter paper no.: | LR92. |
| Type of filter: | Glass-fibre | | |

## I. Ambient Conditions

Temperature, $T_a$ = 18.5 + 273 = 291.5 K  Pressure, $P_a$ = 1014 mb

## II. Correction of manometer reading

| Calibration orifice No. | Manometer reading at site conditions corresponds to $Q_{STD}$ = 40 $ft^3$/min. (inch $H_2O$) |
|---|---|
| 1534(09/2004) | $\Delta H_a = 18.33(T_a/P_a)$ = 5.26. |

Manometer reading before calibration: 5.5
Adjustment of flow controller (Y/N): Y
Manometer reading after calibration: 5.4

Note: Tolerance Limit of HVAS flow: ± 1.0 $ft^3$/min. Corresponding limits for manometer : ± 0.2 inch $H_2O$

## III. General Conditions of HVAS

## IV. Remarks

File Name: C:\monitor\ambient\hvprical\HVASCAL04.doc

# HIGH VOLUME AIR SAMPLER
# SITE VISIT LOG SHEET

| | | | |
|---|---|---|---|
| Site Name: | E.G. | Site No.: | AM2 |
| Date of visit: | 14-2-05 | Hour of Visit: | 10:00 |
| Staff name: | W.L.MAK, H.K.TSANG | HVAS S/N: | 2195 |
| Used filter paper no.: | LR91 | New filter paper no.: | LR93 |
| Type of filter: | Glass-fibre | | |

## I. Ambient Conditions

Temperature, $T_a$ = 17.1 + 273 = 290.1 K  Pressure, $P_a$ = 1019 mb

## II. Correction of manometer reading

| Calibration orifice No. | Manometer reading at site conditions corresponds to $Q_{STD}$ = 40 $ft^3$/min. (inch $H_2O$) |
|---|---|
| 1534(09/2004) | $\Delta H_a = 18.33(T_a/P_a)$ = 5.2 |

Manometer reading before calibration: 5.3
Adjustment of flow controller (Y/N): N
Manometer reading after calibration: 5.3

Note: Tolerance Limit of HVAS flow: ± 1.0 $ft^3$/min. Corresponding limits for manometer : ± 0.2 inch $H_2O$

## III. General Conditions of HVAS

## IV. Remarks

File Name: C:\monitor\ambient\hvprical\HVASCAL04.doc

PARTISOL TSP SAMPLER
SITE VISIT LOG SHEET

Site Name: A.L. Site Number: AM3

Date of Visit: 14-2-05 Hour of Visit: 10:50

Staff Name: W.L.MAK Partisol S/N: 2000B 2055 00001

Used Filter No.: PC 41 New Filter No.: PC 42

Ambient temperature: 18.5°C Ambient pressure: 1016 mbar.

I. General Services

1. Replace control unit Large In-line Filter X
2. Clean the sample inlet head ✓
3. Clean sample tube X
4. Clean / Replace pump head X
5. Clean / Replace piston X

II. Operational Audits (3 months interval as recommended by manufacturer)

1. Temperature Check (Ambient temperature ± 2°C)

18.2 °C Calibration: Y / N N 18.5 °C
Before After

2. Pressure Check (Ambient pressure ± 20 mbar)(factor = 0.000987)

(1.007)1020 mbar Calibration: Y / N N mbar
Before After

3. Flow Check (16.7± 1.1 litre/min)

16.7 l/min Calibration: Y / N N 16.7 l/min
Before After

III. Remarks

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_____

_____

_____

MINI VOLUME AIR SAMPLER

SITE VISIT LOG SHEET

| | | | |
|---|---|---|---|
| Site Name: | TYV | Site No.: | AM4 |
| Date of visit: | 14-2-05 | Hour of Visit: | 10:55 |
| Staff name: | H.K.TSANG | MINIVOL S/N: | 3393 |
| Used filter paper no.: | MH26 | New filter paper no.: | MH27 |

Type of filter: ~~Cellulose~~ / Glass-fibre

(Delete as appropriate)

I. Calibration is performed by using Drycal DC-2 Flow Calibrator

5 Sl/min set point is recommended

4.965 Before 5.00 After

II. General Service of Mini Vol Air Sampler

1. Clean Rotameter: X
2. Clean / replace Pump Valves: X
3. Clean / replace Pump Diaphragms: X
4. Clean Impaction Inlet: ✓
5. Replace Timer Battery Every 6 months: X
6. Replace Inlet Filter: ✓

III. Remarks

_____

_____

_____

# THE HONGKONG ELECTRIC CO., LTD.
# LAMMA POWER STATION EXTENSION
# TEOM 1400A CONTINUOUS DUST MONITOR
# DATA QUALITY ASSURANCE LOG SHEET

Month : February Year : 2005

| Reservoir (AM1) | | | | | |
|---|---|---|---|---|---|
| Date | Frequency (Hz) (230 – 260) | Noise (< 0.1) | Operation Mode (Mode 4) | Main Flow (l/min) (0.94 – 1.06) | Aux. Flow (l/min) (14.67 – 16.67) |
| 6/2/2005 | 252.93 | 0.040 | 4 | 1.00 | 15.68 |
| 12/2/2005 | 255.49 | 0.034 | 4 | 1.00 | 15.68 |
| 18/2/2005 | 255.26 | 0.033 | 4 | 1.00 | 15.68 |
| 24/2/2005 | 254.86 | 0.036 | 4 | 1.00 | 15.68 |

| East Gate (AM2) | | | | | |
|---|---|---|---|---|---|
| Date | Frequency (Hz) (230 – 250) | Noise (< 0.1) | Operation Mode (Mode 4) | Main Flow (l/min) (0.94 – 1.06) | Aux. Flow (l/min) (14.67 – 16.67) |
| 6/2/2005 | 244.62 | 0.031 | 4 | 0.99 | 15.67 |
| 12/2/2005 | 244.42 | 0.029 | 4 | 1.00 | 15.65 |
| 18/2/2005 | 245.21 | 0.050 | 4 | 1.00 | 15.64 |
| 24/2/2005 | 244.86 | 0.057 | 4 | 0.99 | 15.64 |

| Ash Lagoon (AM3) | | | | | |
|---|---|---|---|---|---|
| Date | Frequency (Hz) (230 – 260) | Noise (< 0.1) | Operation Mode (Mode 4) | Main Flow (l/min) (0.94 – 1.06) | Aux. Flow (l/min) (14.67 – 16.67) |
| 6/2/2005 | 261.69 | 0.017 | 4 | 1.01 | 15.69 |
| 12/2/2005 | 261.57 | 0.024 | 4 | 1.01 | 15.68 |
| 19/2/2005* | 261.36 | 0.035 | 4 | 1.01 | 15.67 |
| 24/2/2005 | 261.08 | 0.020 | 4 | 1.01 | 15.67 |

| Maintenance Record | | | |
|---|---|---|---|
| | Reservoir | East Gate | Ash Lagoon |
| TEOM Filter Exchange | ✓ | ✓ | ✓ |
| Clean TSP Inlet | ✓ | ✓ | ✓ |
| Replace flow in-line filter | | | |
| Pump Repair | | | |
| Leak Check | | | |
| Flow Audit | | | |
| Flow Controller Calibration | | | |
| A/C filter cleaning | ✓ | ✓ | ✓ |

Remarks:

* TEOM 1-hr TSP sampler at AM3 (Ash Lagoon) was found defective on 18/2/2005. A make-up 1-hr sample for AM3 was carried out on 19/2/2005.

Prepared by : _____

Checked by : _____

THE HONGKONG ELECTRIC CO., LTD.
LAMMA POWER STATION EXTENSION
NOISE MONITORING STATION
SITE VISIT LOG SHEET

Location ~~Ash Lagoon~~/Ching Lam*

Date 17-2-05 Time 10:40

Equipment ~~Rion NA-27~~/B&K 2238F* Sound Level Meter

Serial Number ~~00111465/00111466/00111467/2343838~~/2356907*

Staff Attended W.L.MAK ; H.K.TSANG

1. Calibration

   Acoustic calibrator used B&K 4231 ~~Rion NC-74~~

   Calibration level before adjustment (dB(A)) 94.0

   Calibration level after adjustment (dB(A)) 94

2. Weather Conditions

   a. ~~Sunny/fine~~/cloudy/~~showery/heavy rain*~~

   b. ~~Strong wind/breeze~~/calm*

3. Remark/Observation

Note: * - Please delete where inappropriate

18/5/2004

THE HONGKONG ELECTRIC CO., LTD.
LAMMA POWER STATION EXTENSION
NOISE MONITORING STATION
SITE VISIT LOG SHEET

Location Ash Lagoon/~~Ching Lam*~~

Date 18-2-05 Time 11:00

Equipment Rion NA-27/~~B&K 2238F*~~ Sound Level Meter

Serial Number ~~00111465/00111466~~/00111467/~~2343838/2356907~~*

Staff Attended W.L. MAK, H.K. TSANG

1. Calibration

   Acoustic calibrator used ~~Rion NC-74~~ BJK 4231

   Calibration level before adjustment (dB(A)) 93.8

   Calibration level after adjustment (dB(A)) 94

2. Weather Conditions

   a. ~~Sunny/fine~~/cloudy/~~showery/heavy rain*~~

   b. ~~Strong wind/breeze~~/calm*

3. Remark/Observation

Note: * - Please delete where inappropriate

# Equipment Calibration Record for February 2005

Site: Civil works for 275kV Cable Route from Lamma Island to Cyberport

Noise Equipment Used: RION NL-31

Calibrator Used: RION NC-74

Measurement Location: N4 – Pak Kok Tsui No. 2

| Date | Calibration Level before Measurement (dB(A)) | Calibration Level after Measurement (dB(A)) | Calibrated by |
|---|---|---|---|
| 01/02/2005 | 94.0 | 94.0 | Anthony Wong |
| 04/02/2005 | 94.0 | 94.0 | Anthony Wong |
| 08/02/2005 | 94.0 | 94.0 | Anthony Wong |
| 12/02/2005 | 94.0 | 94.0 | Anthony Wong |
| 15/02/2005 | 94.0 | 94.0 | Anthony Wong |
| 18/02/2005 | 94.0 | 94.0 | Anthony Wong |
| 22/02/2005 | 94.0 | 94.0 | Anthony Wong |
| 25/02/2005 | 94.0 | 94.0 | Anthony Wong |
| | | | |

Measurement Location: N5 – Pak Kok Tsui No. 8

| Date | Calibration Level before Measurement (dB(A)) | Calibration Level after Measurement (dB(A)) | Calibrated by |
|---|---|---|---|
| 01/02/2005 | 94.0 | 94.0 | Anthony Wong |
| 04/02/2005 | 94.0 | 94.0 | Anthony Wong |
| 08/02/2005 | 94.0 | 94.0 | Anthony Wong |
| 12/02/2005 | 94.0 | 94.0 | Anthony Wong |
| 15/02/2005 | 94.0 | 94.0 | Anthony Wong |
| 18/02/2005 | 94.0 | 94.0 | Anthony Wong |
| 22/02/2005 | 94.0 | 94.0 | Anthony Wong |
| 25/02/2005 | 94.0 | 94.0 | Anthony Wong |
| | | | |

Note: Measurement accepted as valid only if the calibration levels from before and after the noise measurement agreed to within 1.0 dB.