

香港電燈有限公司  
The Hongkong Electric Co., Ltd.

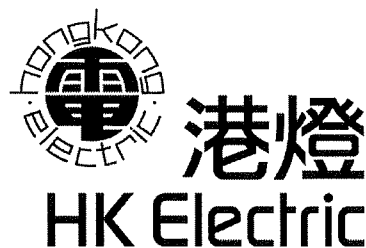


**Lamma Power Station  
Units L2, L4 & L5 Flue Gas Desulphurization  
Plants Retrofit  
Operational Phase**

**Quarterly Environmental Monitoring & Audit Report**

**January – March 2012**

香港電燈有限公司  
The Hongkong Electric Co., Ltd.



**ENVIRONMENTAL IMPACT ASSESSMENT (EIA) ORDINANCE, CAP. 499**


**ENVIRONMENTAL PERMITS NO. EP-248/2006 & EP-287/2007**

**LAMMA POWER STATION  
UNITS L2, L4 & L5 FLUE GAS DESULPHURIZATION PLANTS RETROFIT**

**ENVIRONMENTAL MONITORING & AUDIT PROGRAMME  
AT OPERATIONAL PHASE**

Report Title Quarterly EM&A Report  
(January to March 2012)

Date 30 June 2012

Certified by   
(Mr. IP Tat-Yan, Environmental Team Leader)

## TABLE OF CONTENT

### EXECUTIVE SUMMARY

<b>1.</b>	<b>INTRODUCTION.....</b>	<b>1</b>
1.1	Background	1
1.2	Project Organisation	2
1.3	Plant Availability during the Reporting Period	2
1.4	Malfunction/Outage Records of Pollution Control Equipment	2
1.5	Summary of EM&A Requirements	3
<b>2.</b>	<b>AIR QUALITY.....</b>	<b>12</b>
2.1	Monitoring Requirements	12
2.2	Summary of Results and Observations	12
<b>3.</b>	<b>WATER QUALITY.....</b>	<b>13</b>
3.1	Monitoring Requirements	13
3.2	Summary of Results and Observations	13
<b>4.</b>	<b>ENVIRONMENTAL AUDIT.....</b>	<b>15</b>
4.1	Review of Environmental Monitoring Procedures	15
4.2	Assessment of Environmental Monitoring Results	15
4.3	Status of Environmental Licensing and Permitting	17
4.4	Implementation Status of Environmental Mitigation Measures	17
4.5	Implementation Status of Event/Action Plan	18
4.6	Implementation Status of Environmental Complaint Handling Procedures	18
<b>5.</b>	<b>FUTURE KEY ISSUES.....</b>	<b>20</b>
5.1	Outage Plan for the coming 3 months	20
5.2	Key issues for the coming 3 months	20
<b>6.</b>	<b>CONCLUSION.....</b>	<b>21</b>

### LIST OF TABLES

Table 2.1	Air Quality Monitoring Parameters and Frequency
Table 3.1	Water Quality Monitoring Parameters and Frequencies
Table 4.1	Summary of Action/Limit Level Exceedances on Monitoring Parameters
Table 4.2	Amount of Gypsum and Sludge Collected for Reuse by Contractor
Table 4.3	Summary of Environmental Licensing and Permit Status
Table 4.4	Environmental Complaints / Enquiries Received
Table 4.5	Outstanding Environmental Complaints / Enquiries Carried Over

## **LIST OF FIGURES**

- Figure 1.1a Location of New Facilities for L4 & L5 FGD Plant
- Figure 1.1b Location of New Facilities for L2 FGD Plant
- Figure 1.2a General Arrangement of L4 & L5 FGD Plant
- Figure 1.2b General Arrangement of L2 FGD Plant
- Figure 1.3 Schematic Diagram of L4 & L5 FGD Plant
- Figure 1.4 Simplified Schematic Diagram of FGD Wastewater Treatment Plant
- Figure 1.5 Organization Chart at Operational Phase

## **APPENDIX**

- Appendix A Event/Action Plans in Response to Exceedance of AL Levels
- Appendix B Air Quality Monitoring Results
- Appendix C Summary Results on Water Quality Monitoring
- Appendix D Summary of EMIS

## EXECUTIVE SUMMARY

This is the quarterly Environmental Monitoring and Audit (EM&A) report for the Projects “Lamma Power Station Units L4 & L5 Flue Gas Desulphurization Plant Retrofit” and “Lamma Power Station Unit L2 Flue Gas Desulphurization Plant Retrofit” prepared by the Environmental Team (ET). This report presents the results of impact monitoring on air and water quality and environmental audit for the operation of the said projects in the period from January to March 2012.

Environmental monitoring for air quality and water quality were carried out for the purpose of this EM&A program as well as for fulfilling the requirements stipulated in the relevant licences. The results were checked against the established Action/Limit (AL) levels. The implementation status of the environmental mitigation measures, Event/Action Plan and environmental complaint handling procedures were also checked.

### Plant Availability

Units L2, L4 and L5 were out of service during the following period:

Unit	Period	Remark
L2	16/02/2012 04:09 to 21/02/2012 01:00	FGD booster fan inspection
L4	01/03/2012 23:17 to 31/03/2012 23:59	Unit overhaul and turbine upgrading
L5	21/03/2012 03:38 to 22/03/2012 07:10	Defect rectification

### Malfunction/Outage Records of Pollution Control Equipment

Major outages of the Pollution Control Equipment during the reporting period are listed below:

Equipment	Period	Cause	Actions Taken
L5 FGD	09/01/2012 15:23 to 15:50	Power supply interruption of Booster Fan oil pump.	EPD was informed by letter dated 10/01/2012.
L2 FGD	20/01/2012 11:09 to 11:40	Booster fan bearing oil temperature high.	EPD was informed by letter dated 27/01/2012.
L2 FGD	16/02/2012 04:09 to 21/02/2012 01:00	Booster Fan Inspection	EPD was informed by letter dated 22/02/2012.

For other minor outages, please refer to section 1.4 of the report.

### **Environmental Monitoring Works**

Environmental monitoring works were performed during the operation of Units L2, L4 and L5 FGD Plants in the reporting period.

#### *Air Quality*

No exceedance of Action and Limit levels for air quality were recorded in the reporting period.

#### *Water Quality*

No exceedance of Action and Limit levels for water quality were recorded in the reporting period.

### **Environmental Licensing and Permitting**

Description	Permit / Licence No.	Valid Period		Issued To	Date of Issuance
		From	To		
Environmental Permit for L4/5 FGD plants retrofit project	EP-248/2006	25/04/2006	-	HK Electric	25/04/2006
Environmental Permit for Unit L2 FGD plant retrofit project	EP-287/2007	02/10/2007	-	HK Electric	02/10/2007
Specified Processes Licence issued under APCO	L-7-002(8)	01/01/2011	31/12/2012	HK Electric	Superseded
Specified Processes Licence issued under APCO	Varied L-7-002(8)	20/04/2012	31/12/2012	HK Electric	20/04/2012
WPCO discharge licence for Ash Lagoon	WT00011131-2011	15/12/2011	31/12/2016	HK Electric	15/12/2011

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

Environmental mitigation measures were implemented in the reporting period.

### **Environmental Complaints**

Two concerns on environmental issues against Lamma Power Station were received during the reporting period, for which nothing abnormal was identified for the Power Station.

### **Future key issues**

Key issues to be considered in the coming months include:

#### *Air Impact*

- To continuously carry out the air quality monitoring for Units L2, L4 and L5.

### *Water Impact*

- To continuously carry out the water quality monitoring for FGD WWT plant.

### **Concluding Remarks**

The environmental performance of the projects was generally satisfactory.

## 1. INTRODUCTION

The Environmental Team (hereinafter called the “ET”) was formed within The Hongkong Electric Co. Ltd (HK Electric) to undertake Environmental Monitoring and Audit for the “Operation of Lamma Power Station Units L4 & L5 Flue Gas Desulfurization Plant Retrofit Project” under the requirements of Clause 2.18 of Environmental Permit (EP) No. EP-248/2006 and “Operation of Lamma Power Station Unit L2 Flue Gas Desulfurization Plant Retrofit Project” under the requirements of Clause 2.10 of Environmental Permit (EP) No. EP-287/2007.

This report summarizes the environmental monitoring and audit work for the said Projects for the period from January to March 2012.

### 1.1 Background

The Projects involves retrofitting the three existing coal-fired generating Units L2, L4 and L5 of Lamma Power Station with Flue Gas Desulphurisation (FGD) plants for reducing sulphur dioxide emissions in support of Government policy to improve the air quality of the Pearl River Delta.

The Projects include the installation and operation of FGD plants with flue gas desulphurization efficiency of 90% for the three coal-fired Units L2, L4 & L5 to reduce the overall SO<sub>2</sub> emissions from Lamma Power Station. The process adopted for the FGD plants is “Wet Limestone-Gypsum”, a technology which has already been used in, and proved effective and reliable for the existing coal-fired units L6, L7 & L8. The flue gas from the boiler is directed to the FGD absorber inside which removal of SO<sub>2</sub> is take place by reaction with limestone slurry. After passing through the absorber, the treated flue gas is heated up by a gas-gas heater to over 80°C at boiler rated capacity and directed back to the existing chimney for discharge to the atmosphere. Figure 1.1a, Figure 1.1b, Figure 1.2a, Figure 1.2b and Figure 1.3 show the location and schematic of the FGD plants.

Wastewater filtrated from the reacted limestone slurry, i.e. gypsum slurry, is produced and it is directed to the existing FGD wastewater treatment plant (WWTP). The FGD WWTP is designed to treat the effluent from FGD plants by alkalization, precipitation and neutralization processes. The schematic diagram of the FGD WWTP is illustrated in Figure 1.4.

The additional equipment for the FGD Plants retrofit projects for Units L2, L4 and L5 includes:

- Three sets of FGD absorbers and associated ductworks
- Three sets of booster fans
- Three sets of gas-gas heaters
- Two FGD Switchgear and Equipment Buildings
- Gypsum dewatering system comprising two sets of hydrocyclones and belt filters

## 1.2 Project Organisation

The management structure to oversee the Projects includes the following:

- Environmental Protection Department (The Authority);
- General Manager (Corporate Development) (The official contact person between HK Electric and EPD);
- Environmental Team Leader (ET Leader);
- Environmental Team (ET).

The organization chart for the Operation EM&A programme is shown in Figure 1.5.

## 1.3 Plant Availability during the Reporting Period

Units L2, L4 and L5 were out of service during the following period:

Unit	Period	Remark
L2	16/02/2012 04:09 to 21/02/2012 01:00	FGD booster fan inspection
L4	01/03/2012 23:17 to 31/03/2012 23:59	Unit overhaul and turbine upgrading
L5	21/03/2012 03:38 to 22/03/2012 07:10	Defect rectification

## 1.4 Malfunction/Outage Records of Pollution Control Equipment

Equipment	Period	Cause	Actions Taken
L5 FGD	09/01/2012 15:23 to 15:50	Power supply interruption of Booster Fan oil pump.	EPD was informed by letter dated 10/01/2012.
L2 FGD	20/01/2012 11:09 to 11:40	Booster fan bearing oil temperature high.	EPD was informed by letter dated 27/01/2012.
L2 FGD	16/02/2012 04:09 to 21/02/2012 01:00	Booster Fan Inspection	EPD was informed by letter dated 22/02/2012.
L4 FGD	07/01/2012 02:18 to 02:35	Routine damper exercise	EPD was informed by letter dated 11/01/2012
L5 FGD	07/01/2012 02:39 to 02:45	Routine damper exercise	EPD was informed by letter dated 11/01/2012
L4 FGD	14/01/2012 00:47 to 00:48	Routine damper exercise	EPD was informed by letter dated 18/01/2012

Equipment	Period	Cause	Actions Taken
L4 FGD	21/01/2012 02:02 to 02:04	Routine damper exercise	EPD was informed by letter dated 27/01/2012
L5 FGD	21/01/2012 02:08 to 02:10	Routine damper exercise	EPD was informed on 27/01/2012
L4 FGD	28/01/2012 02:16 to 02:18	Routine damper exercise	EPD was informed on 01/02/2012
L5 FGD	28/01/2012 02:03 to 02:05	Routine damper exercise	EPD was informed on 01/02/2012
L5 FGD	04/02/2012 00:44 to 00:46	Routine damper exercise	EPD was informed on 08/02/2012
L4 FGD	11/02/2012 02:16 to 02:18	Routine damper exercise	EPD was informed on 14/02/2012
L5 FGD	11/02/2012 02:10 to 02:13	Routine damper exercise	EPD was informed on 14/02/2012
L4 FGD	18/02/2012 03:10 to 03:17	Routine damper exercise	EPD was informed on 22/02/2012
L5 FGD	18/02/2012 02:52 to 03:03	Routine damper exercise	EPD was informed on 22/02/2012
L4 FGD	25/02/2012 02:53 to 02:55	Routine damper exercise	EPD was informed on 29/02/2012
L5 FGD	25/02/2012 03:08 to 03:12	Routine damper exercise	EPD was informed on 29/02/2012
L5 FGD	03/03/2012 01:34 to 01:36	Routine damper exercise	EPD was informed on 07/03/2012
L5 FGD	10/03/2012 01:44 to 01:52	Routine damper exercise	EPD was informed on 14/03/2012
L5 FGD	17/03/2012 02:59 to 03:02	Routine damper exercise	EPD was informed on 20/03/2012

## 1.5 Summary of EM&A Requirements

Environmental Monitoring and Audit (EM&A) requirements have been discussed in the Environmental Impact Assessment (EIA) Report/ Project Profile for the Projects. The assessment results indicate that environmental monitoring works required for the EM&A programmes of these Projects are already in place or would be implemented under Lamma Power Station Extension Environmental Permit or environmental licenses for the operation of the existing Lamma Power Station. Such monitoring works are considered adequate for the Projects and no additional EM&A activities are required. Hence, environmental monitoring for air quality and water quality are carried out for the purpose of this EM&A program as well as for fulfilling the requirements stipulated in the relevant licences.

The EM&A monitoring work for air and water quality are described in Section 2 and Section 3 respectively.

The following environmental audits are summarized in Section 4 of the report:

- Environmental monitoring results;
- The status of environmental licensing and permits for the Projects;
- The implementation status of environmental protection and pollution control / mitigation measures.

The future key issues for the Projects will be reported in Section 5 of this report.

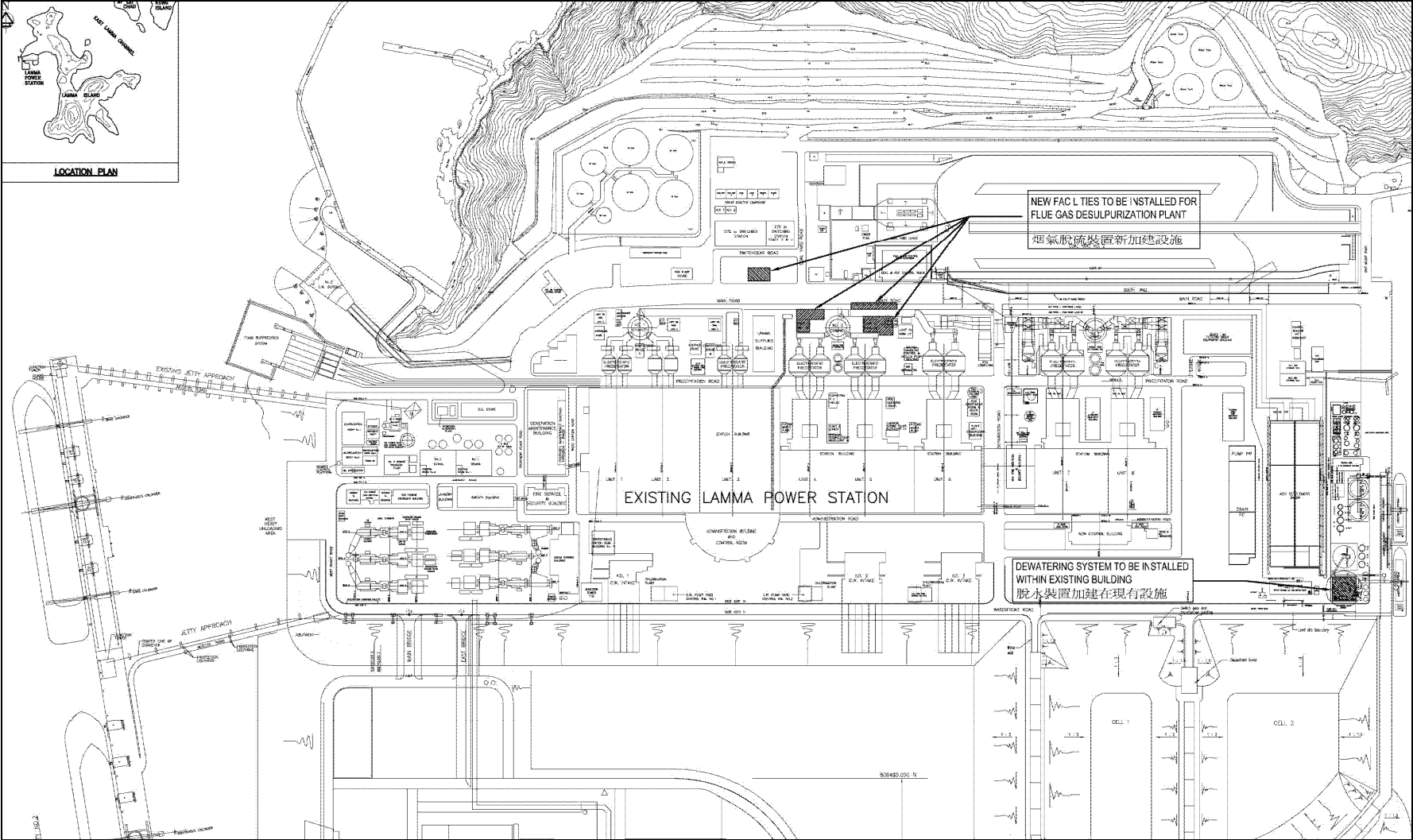


Figure 1.1a Location of New Facilities for L4 & L5 FGD Plants

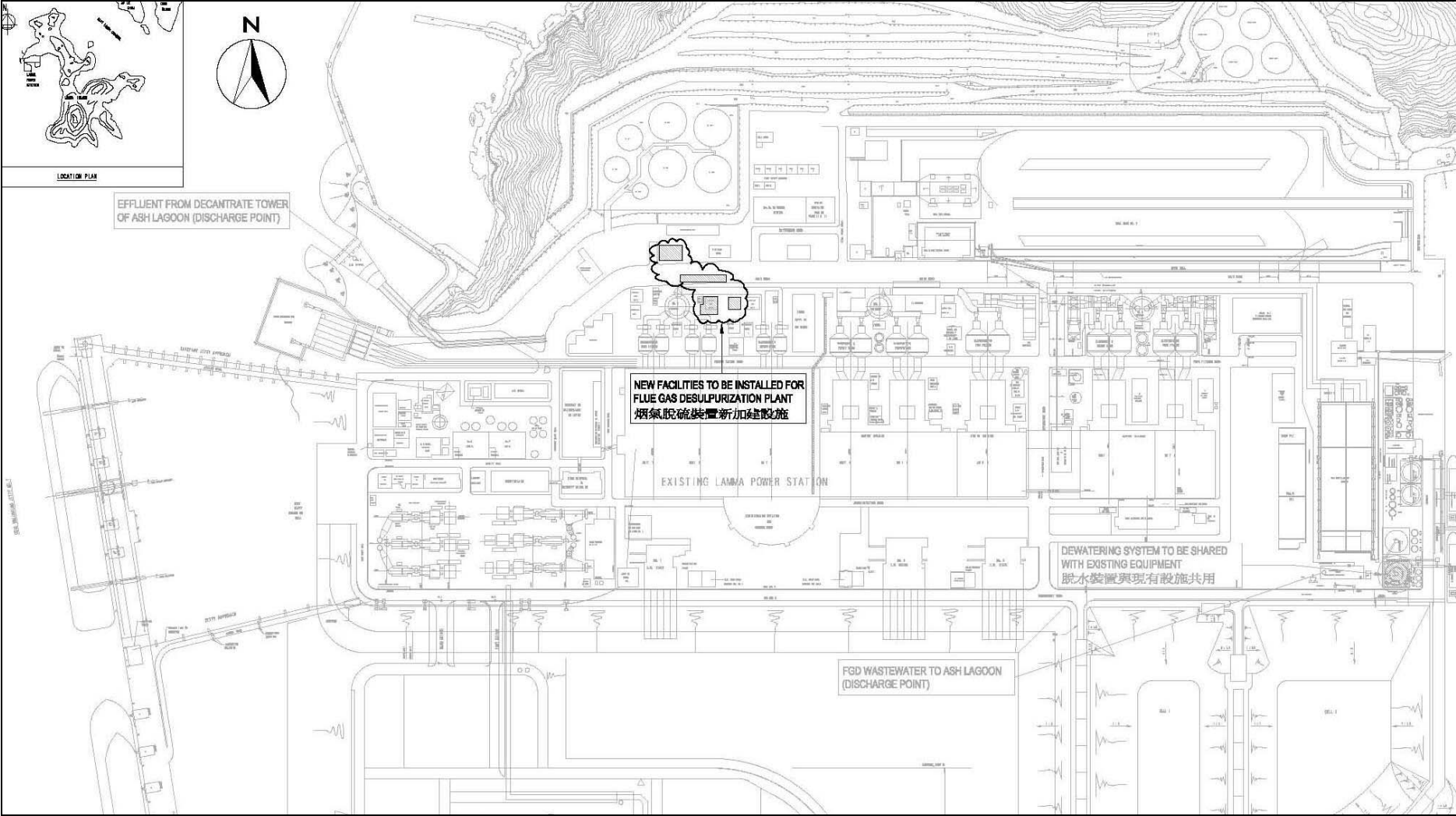


Figure 1.1b Location of New Facilities for L2 FGD Plant

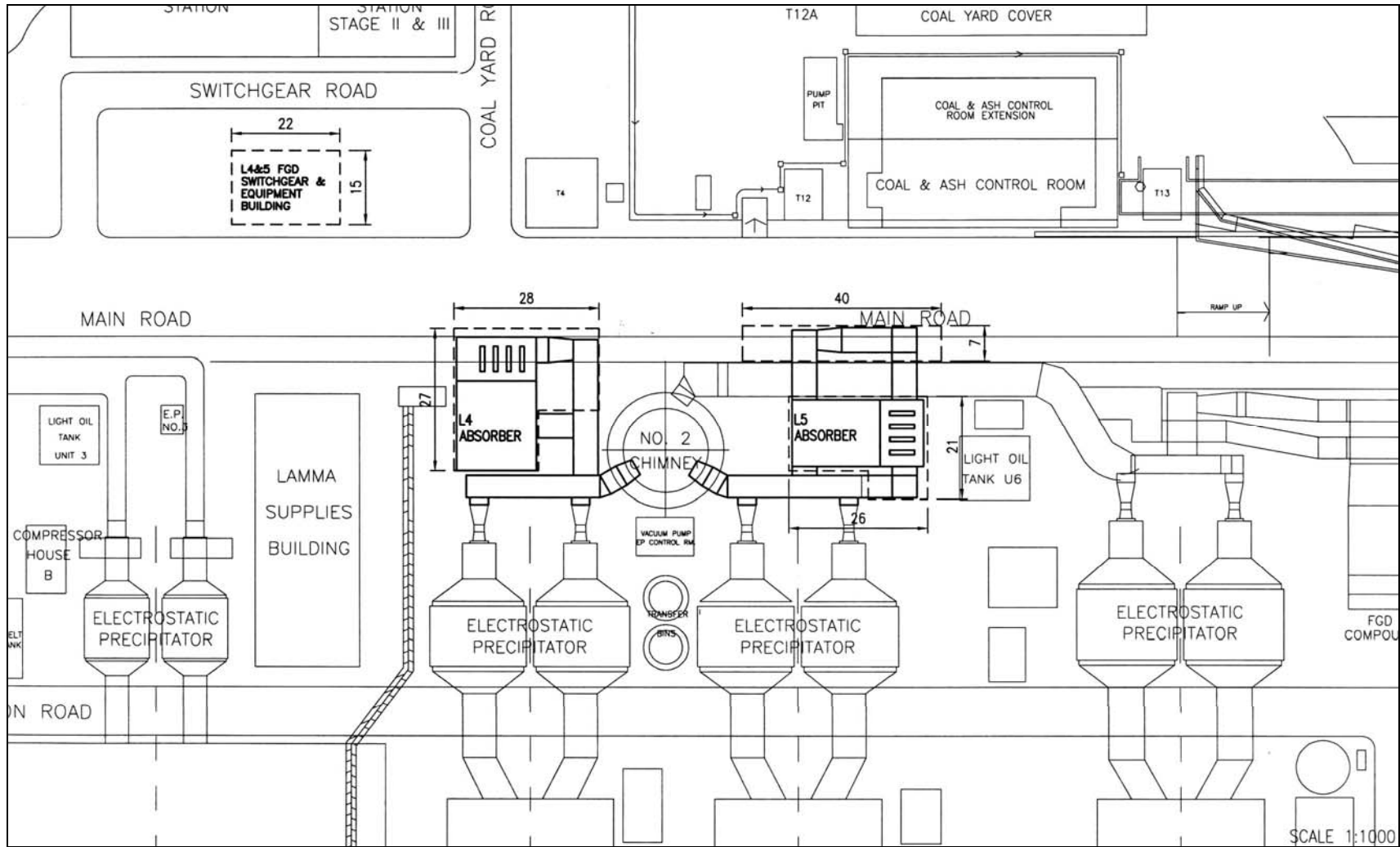


Figure 1.2a General Arrangement of L4 & L5 FGD Plants



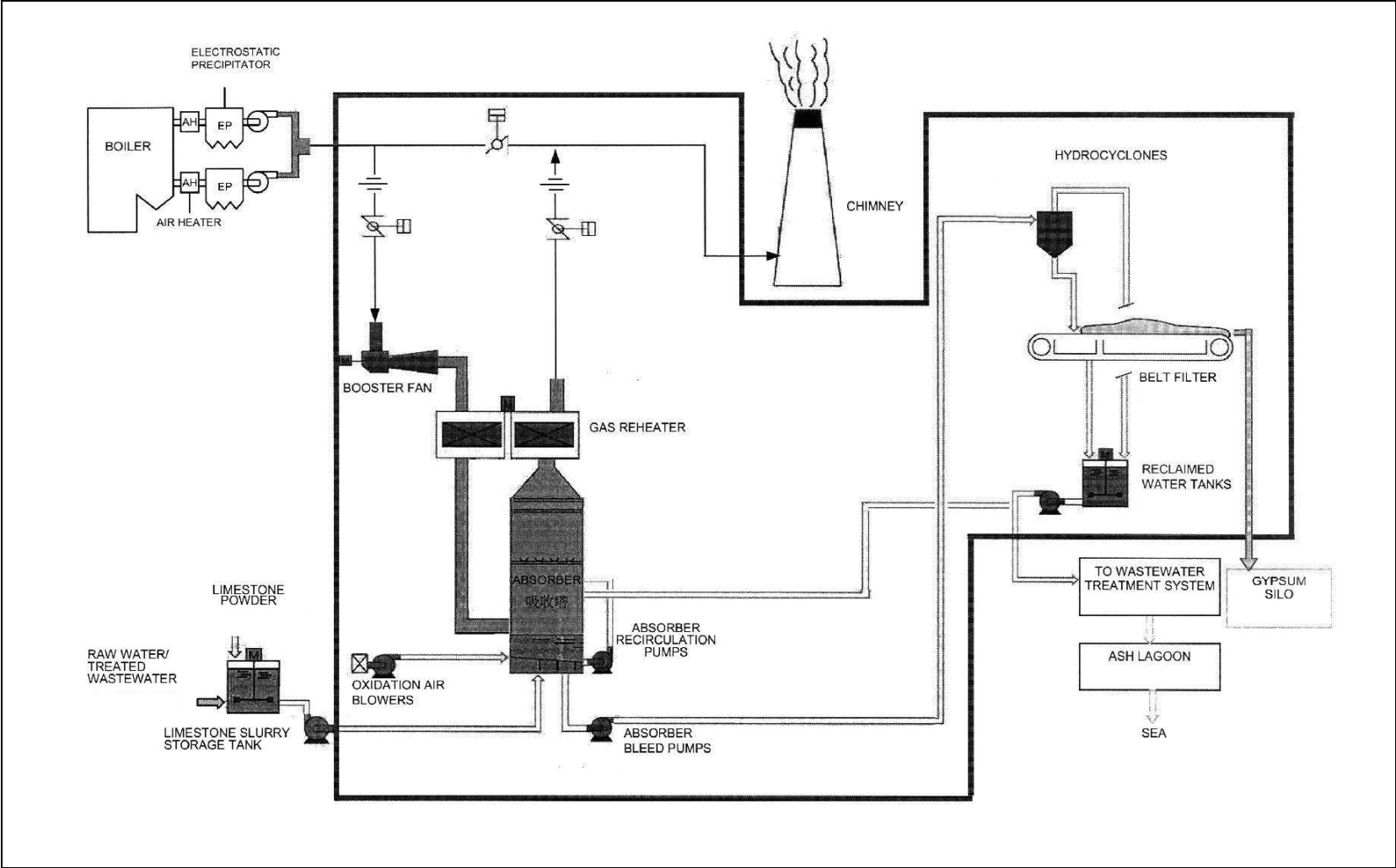


Figure 1.3 Schematic Diagram of the L4 & L5 FGD Plant

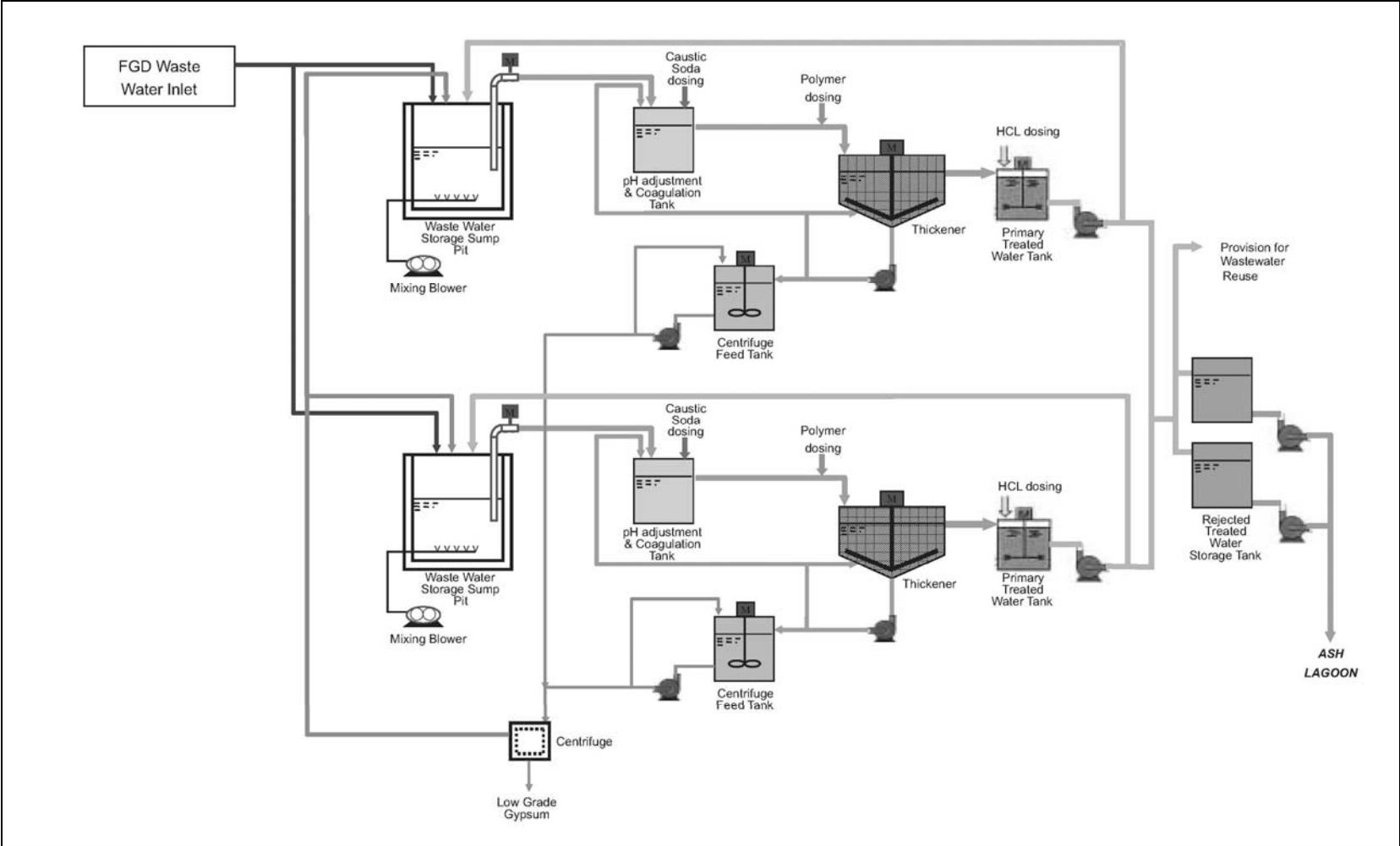


Figure 1.4 Simplified Schematic Diagram of FGD Wastewater Treatment Plant

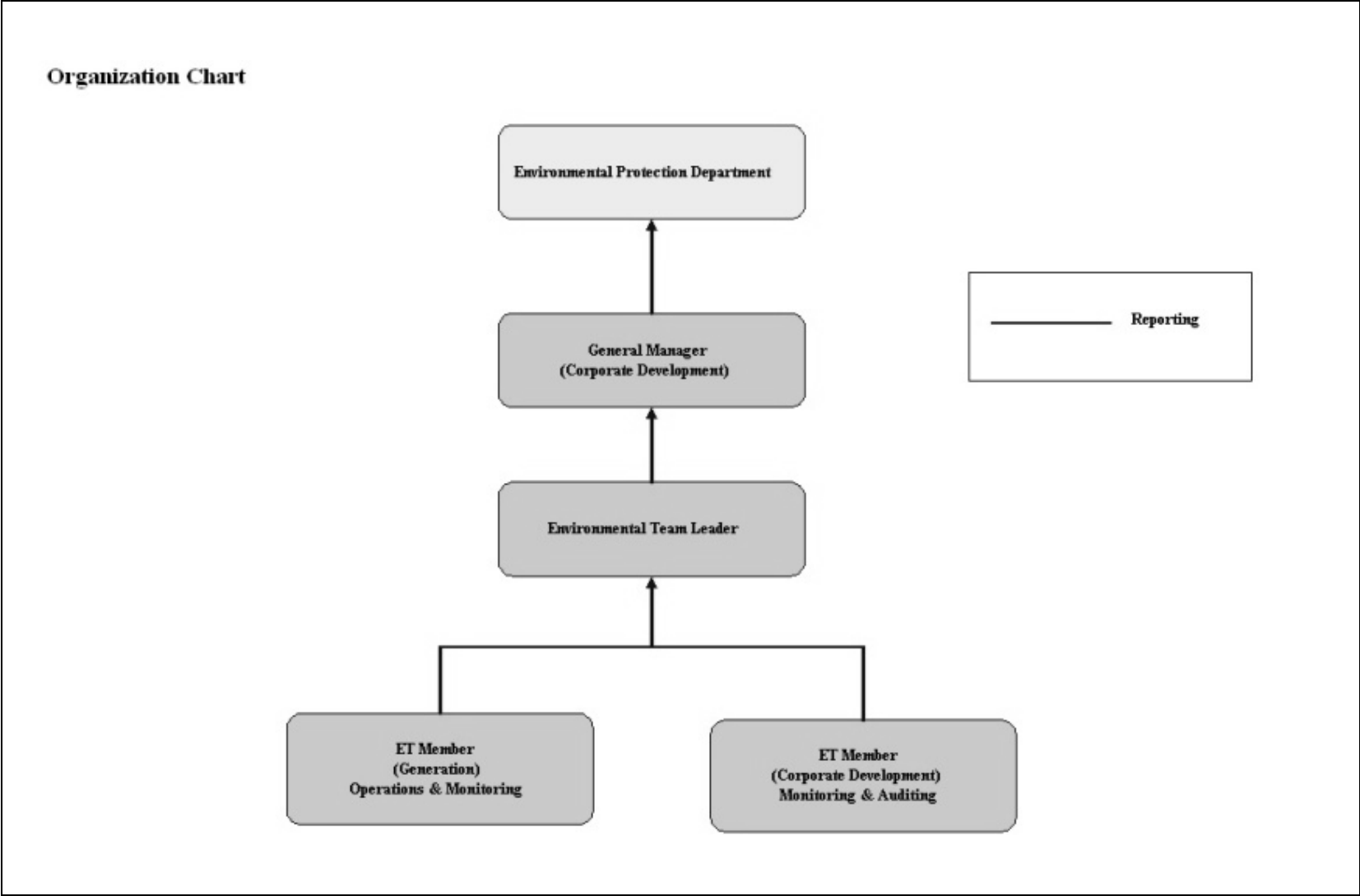


Figure 1.5 Organization Structure at Operational Phase of the Projects

## 2. AIR QUALITY

### 2.1 Monitoring Requirements

Since the Projects will bring a general air quality improvement, no additional EM&A activities are considered required, besides those already in place, such as those required by specified process licenses for the operation of the existing Lamma Power Station. In accordance with the requirements stipulated in the Specified Processes Licence issued under Air Pollution Control Ordinance, various operation parameters as stated in Table 2.1 were monitored and checked against the Action/Limit Levels shown in Appendix A.

Table 2.1 Air Quality Monitoring Parameters and Frequency

Sources of Emission	Parameter	Frequency
Steam boilers L2, L4 & L5	Particulate	Once / year
	Particulate (Opacity)	Continuous
	SO <sub>2</sub>	Continuous
	NO <sub>x</sub> expressed as NO <sub>2</sub> (For L4 and L5 only)	Continuous
Fugitive Dust (Coal, PFA, Limestone, gypsum)	Total Suspended Particulate	Once every six days
Chimney emissions	Ambient air	Continuous at existing ambient air monitoring stations
	SO <sub>2</sub>	
	NO <sub>2</sub>	

### 2.2 Summary of Results and Observations

Monitoring of various parameters as listed in Table 2.1 above was conducted during the operation of Units L2, L4 and L5 in the reporting period. A summary of monitoring data is shown in Appendix B.

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

### 3. WATER QUALITY

#### 3.1 Monitoring Requirements

According to the EIA Report/ Project Profile for the Projects, the current monitoring programme for the Lamma Power Station can cover the Projects and no additional EM&A measures are required besides those already in place. Hence, the EM&A work on water quality should strictly follow the relevant monitoring requirements stipulated in the discharge licence for Ash Lagoon issued under the Water Pollution Control Ordinance (WPCO).

Water quality monitoring was carried out for FGD Waste Water Treatment Plant (WWTP) in the reporting period. The parameters stated in Table 3.1 were monitored and checked against the Action/Limit Levels as given in Appendix A.

Table 3.1 Water Quality Monitoring Parameters and Frequencies

Item	Parameters	Frequencies
1	pH	Daily
2	Suspended Solids	Daily
3	Iron	Monthly
4	Barium	Monthly
5	Mercury	Monthly
6	Cadmium	Monthly
7	Cyanide	Monthly
8	Total Phosphorus	Monthly
9	Total Nitrogen	Monthly

#### 3.2 Summary of Results and Observations

Monitoring of various parameters as listed in Table 3.1 above was carried out during the discharge of the WWTP in the reporting period. A summary of the data is shown in Appendix C.

The data recorded for the monitoring parameters were all below their corresponding Action/Limit Levels. No Action/Limit level exceedance was recorded in the reporting period. The effluent quality was generally satisfactory.

## 4. ENVIRONMENTAL AUDIT

### 4.1 Review of Environmental Monitoring Procedures

The environmental monitoring procedures were regularly reviewed by the Environmental Team. No modification to the existing monitoring procedures was recommended.

### 4.2 Assessment of Environmental Monitoring Results

#### *Monitoring results for Air Quality and Water Quality*

The environmental monitoring results for air quality, noise and water quality are presented in Sections 2, 3 and 4 respectively are summarized in Table 4.1.

Table 4.1 Summary of Action/Limit Level Exceedances on Monitoring Parameters

Item	Parameter Monitored	Monitoring Period	No. of Exceedances In		Event/Action Plan Implementation Status and Results
			Action Level	Limit Level	
Air					
1	Annual analysis of dust particulate emission rates at chimney stacks.	01/01/12-31/03/12	N.A.	0	
2	Continuous monitoring of opacity, NOx, SO2 and CO2 in the flue gas at the chimney stacks	01/01/12-31/03/12	0	0	
3	TSP monitoring at Lamma Power Station Boundary (ie East Gate and Reservoir).	01/01/12-31/03/12	0	0	
4	Ambient SO2 & NOx monitoring at the Peak, Queen Mary Hospital, Victoria Road, Chung Hom Kok, Ap Lei Chau and	01/01/12-31/03/12	0	0	

Item	Parameter Monitored	Monitoring Period	No. of Exceedances In		Event/Action Plan Implementation Status and Results
			Action Level	Limit Level	
	Cheung Chau.				
Water					
1	pH in WWTP Effluent	01/01/12-31/03/12	0	0	
2	Suspended Solids in WWTP Effluent	01/01/12-31/03/12	0	0	
3	Iron in WWTP Effluent	01/01/12-31/03/12	0	0	
4	Barium in WWTP Effluent	01/01/12-31/03/12	0	0	
5	Mercury in WWTP Effluent	01/01/12-31/03/12	0	0	
6	Cadmium in WWTP Effluent	01/01/12-31/03/12	0	0	
7	Cyanide in WWTP Effluent	01/01/12-31/03/12	0	0	
8	Total Phosphorus in WWTP Effluent	01/01/12-31/03/12	0	0	
9	Total Nitrogen in WWTP Effluent	01/01/12-31/03/12	0	0	

### *Waste Management Records*

The quantity of FGD gypsum and sludge collected for reuse by contractor in the reporting period are shown in Table 4.2.

Table 4.2 Amount of Gypsum and Sludge Collected for Reuse by Contractor

<b>Period</b>	<b>Amount of Gypsum Collected</b>	<b>Amount of Sludge Collected</b>
January 2012	4,868.2 MT	0 MT
February 2012	5,771.2 MT	152.2 MT
March 2012	6,796.1 MT	0 MT

#### 4.3 Status of Environmental Licensing and Permitting

All permits/licenses obtained as of March 2012 are summarised in Table 4.3.

Table 4.3 Summary of Environmental Licensing and Permit Status

<b>Description</b>	<b>Permit / Licence No.</b>	<b>Valid Period</b>		<b>Status</b>
		<b>From</b>	<b>To</b>	
Environmental Permit for Units L4/5 FGD Plants Retrofit	EP-248/2006	25/04/2006	-	Valid
Environmental Permit for Unit L2 FGD Plant Retrofit	EP-287/2007	02/10/2007	-	Valid
Specified Processes Licence issued under APCO	L-7-002(8)	01/01/2011	31/12/2012	Superseded
Specified Processes Licence issued under APCO	Varied L-7-002(8)	20/04/2012	31/12/2012	Valid
WPCO discharge licence for Ash Lagoon	WT00011131-2011	15/12/2011	31/12/2016	Valid

#### 4.4 Implementation Status of Environmental Mitigation Measures

Mitigation measures detailed in the EIA Report and EP are required to be implemented. A summary of the Environmental Mitigation Implementation Schedule (EMIS) is presented in Appendix D.

#### 4.5 Implementation Status of Event/Action Plan

A list of specific actions in the event of exceedances of the various threshold levels for specific emission and discharge sources is given in Appendix A.

As no Action/Limit level exceedance was recorded, no action has been devised.

#### 4.6 Implementation Status of Environmental Complaint Handling Procedures

During the reporting period, there were two (2) concerns on “air emission” and “waste” respectively as summarized in Table 4.4.

Table 4.4 Environmental Complaints / Enquiries Received

Case Reference / Date, Time Received / Date, Time Concerned	Descriptions / Actions Taken	Conclusion / Status
<p><i>Reference:</i> EC120500171</p> <p><i>Received:</i> 11/02/2012 a.m.</p> <p><i>Concerned:</i> As received</p>	<p>A gentleman called HK Electric and stated that one chimney at Lamma Power station was emitting water vapour while other two chimneys were emitting grey smoke. He told that he had taken several photos and might send them to HK Electric. After checking, nothing abnormal was found with the stack monitoring data during the concerned period. Neither any photo nor any further enquiry was received from the enquirer afterwards.</p>	<p>Nothing abnormal was identified. Case closed.</p>
<p><i>Reference:</i> EC120500173</p> <p><i>Received:</i> 13/03/2012 a.m.</p> <p><i>Concerned:</i> Recently</p>	<p>EPD received a complaint against improper handling of waste oil from Lamma Power Station and requested HK Electric for the relevant chemical waste trip tickets and chemical waste producer registration for reference. The requested information was provided to EPD on 15/03/2012. There was no further enquiry since then.</p>	<p>Nothing abnormal was identified. Case closed.</p>

Table 4.5 Outstanding Environmental Complaints / Enquiries Carried Over

Case Reference / Date, Time Received / Date, Time Concerned	Descriptions / Actions Taken	Conclusion / Status
Nil	N/A	N/A

## 5. FUTURE KEY ISSUES

### 5.1 Outage Plan for the coming 3 months

Unit / Equipment	Period	Remark
L4	01/03/2012 to 02/07/2012	Unit overhaul

### 5.2 Key issues for the coming 3 months

Key issues to be considered in the coming 3 months include:

#### *Air Impact*

- To continuously carry out the air quality monitoring for Units L2, L4 and L5.

#### *Water Impact*

- To continuously carry out the water quality monitoring for FGD Waste Water Treatment Plant.

## 6. CONCLUSION

Environmental monitoring was performed as required in the reporting period from January to March 2012. All monitoring results were checked and reviewed.

No Action/Limit level exceedance on air quality parameters were recorded in the reporting period.

No Action/Limit level exceedance on water quality parameters were recorded in the reporting period.

Environmental mitigation measures recommended in the EIA Report and EP were implemented in the reporting period. Two concerns on environmental issues against Lamma Power Station were received during the reporting period, for which nothing abnormal was identified for the Power Station. No prosecution was received for the Projects in the reporting period.

The environmental performance of the Projects was generally satisfactory.

## Appendix A Event/Action Plans in Response to Exceedance of AL Levels

### A.1 Air

Source of Emissions	Parameters to be Monitored	Frequency	Concentration Not to Be Exceeded	Action	Limit	Proposed Action
Steam boilers L2, L4 and L5	Particulate	once/year	85 mg/Nm <sup>3</sup>	-	85	ET Leader informs Generation Division at action level. Maintenance initiated. Temporary load shift until pollution control equipment repaired and reinstated. Report to EPD.
	Particulate (Opacity)	continuous	40% (bihourly)	35	40	
	SO <sub>2</sub>	continuous	200 mg/Nm <sup>3</sup> (1h)	190	200	
	NO <sub>x</sub> expressed as NO <sub>2</sub> (For L4 and L5 only)	continuous	615 mg/Nm <sup>3</sup> (1h)	585	615	
Fugitive dust (Coal, PFA, limestone, gypsum)	TSP	Once every six days.	260 (µg/m <sup>3</sup> ) (24 hours)	-	260	Investigation of sources and additional dust suppression to be employed at Limit level. Frequency of monitoring to be increased as necessary.
Chimney emissions	Ambient air SO <sub>2</sub>	Continuous at existing ambient air monitoring stations	800 (µg/m <sup>3</sup> ) (1h)	-	800	ET to review data on post-hoc basis and check for possible power station contribution.
	NO <sub>2</sub>		300 (µg/m <sup>3</sup> ) (1h)	-	300	

## A.2 Water

Source of Discharges	Parameters to be Monitored	Frequency	Concentration Not to Be Exceeded	Action	Limit	Proposed Action
FGD Wastewater Treatment Plant	pH	Daily	6-9	-	6-9	If pH exceeds limit level, consideration to be given to adjust chemical dosing. ET Leader inform Generation Division and investigation be initiated to identify and remedy cause.  For all other parameters except pH, Generation Division to be informed, frequency of monitoring to be increased, and investigations to be initiated to identify cause and remedy if concentration exceeds action level. If problem persists to exceed the limit level, ET Leader verbally informs EPD and ensures remedial actions implemented.
	Suspended Solids	Daily	30 mg/L	25	30	
	Iron	Monthly	4 mg/L	3.6	4	
	Barium	Monthly	1.5 mg/L	1.3	1.5	
	Mercury	Monthly	0.005 mg/L	0.0045	0.005	
	Cadmium	Monthly	0.005 mg/L	0.0045	0.005	
	Cyanide	Monthly	0.1 mg/L	0.09	0.1	
	Total Phosphorus	Monthly	8 mg/L	7.2	8	
	Total Nitrogen	Monthly	400 mg/L	360	400	



## B.2 Unit L2, L4 and L5 Stack Monitoring at Lamma Power Station

### B.2.1 Monthly Summary of Stack NO<sub>x</sub> and SO<sub>2</sub> for Unit L5

Date	Daily Maximum		
	SO <sub>2</sub> concentration (mg/Nm <sup>3</sup> ) <sup>#</sup>	NO <sub>x</sub> concentration (mg/Nm <sup>3</sup> ) <sup>#</sup>	Opacity (%)
1/1/2012	18	358	27
2/1/2012	3	351	20
3/1/2012	16	345	19
4/1/2012	87	394	19
5/1/2012	75	406	20
6/1/2012	136	349	19
7/1/2012	88	453	20
8/1/2012	101	407	18
9/1/2012	103	377	19
10/1/2012	109	304	18
11/1/2012	22	330	18
12/1/2012	42	309	18
13/1/2012	63	419	18
14/1/2012	50	348	18
15/1/2012	23	392	19
16/1/2012	28	412	19
17/1/2012	43	333	18
18/1/2012	43	402	18
19/1/2012	48	443	19
20/1/2012	82	383	19
21/1/2012	54	383	18
22/1/2012	30	424	19
23/1/2012	53	451	19
24/1/2012	82	457	20
25/1/2012	100	477	20
26/1/2012	57	355	20
27/1/2012	88	396	19
28/1/2012	93	392	19
29/1/2012	106	451	19
30/1/2012	86	484	20
31/1/2012	65	377	20

Date	Daily Maximum		
	SO2 concentration (mg/Nm3) <sup>#</sup>	NOx concentration (mg/Nm3) <sup>#</sup>	Opacity (%)
1/2/2012	101	375	21
2/2/2012	57	359	22
3/2/2012	71	421	22
4/2/2012	66	437	20
5/2/2012	37	480	19
6/2/2012	58	378	21
7/2/2012	61	405	20
8/2/2012	69	478	21
9/2/2012	90	414	21
10/2/2012	96	397	20
11/2/2012	96	418	21
12/2/2012	82	332	20
13/2/2012	99	359	20
14/2/2012	133	384	20
15/2/2012	99	398	20
16/2/2012	120	387	20
17/2/2012	66	324	20
18/2/2012	36	404	20
19/2/2012	16	401	20
20/2/2012	39	354	20
21/2/2012	68	417	20
22/2/2012	75	428	20
23/2/2012	58	396	22
24/2/2012	101	368	20
25/2/2012	108	410	20
26/2/2012	116	402	20
27/2/2012	116	440	21
28/2/2012	128	332	21
29/2/2012	87	360	21

Date	Daily Maximum		
	SO2 concentration (mg/Nm3) <sup>#</sup>	NOx concentration (mg/Nm3) <sup>#</sup>	Opacity (%)
1/3/2012	101	401	20
2/3/2012	91	401	20
3/3/2012	112	360	20
4/3/2012	59	387	19
5/3/2012	93	347	22
6/3/2012	85	393	21
7/3/2012	87	405	19
8/3/2012	25	332	19
9/3/2012	70	400	21
10/3/2012	75	437	21
11/3/2012	80	416	20
12/3/2012	85	411	21
13/3/2012	74	474	21
14/3/2012	89	481	20
15/3/2012	67	431	20
16/3/2012	20	446	22
17/3/2012	22	392	19
18/3/2012	26	393	19
19/3/2012	21	405	20
20/3/2012	28	366	20
21/3/2012	29	344	19
22/3/2012	72	416	22
23/3/2012	83	458	21
24/3/2012	*	*	*
25/3/2012	17	365	21
26/3/2012	30	349	21
27/3/2012	60	372	21
28/3/2012	65	388	22
29/3/2012	68	359	21
30/3/2012	47	331	21
31/3/2012	52	419	22

Note: # - Hourly average value. Expressed as at 0°C, 101.325kPa, dry and corrected to 12% CO<sub>2</sub> condition.

\* - Unit L5 was not on load.

### B.2.2 Monthly Summary of Stack NO<sub>x</sub> and SO<sub>2</sub> for Unit L4

Date	Daily Maximum		
	SO <sub>2</sub> concentration (mg/Nm <sup>3</sup> ) <sup>#</sup>	NO <sub>x</sub> concentration (mg/Nm <sup>3</sup> ) <sup>#</sup>	Opacity (%)
1/1/2012	12	490	22
2/1/2012	10	460	21
3/1/2012	12	408	23
4/1/2012	20	411	34
5/1/2012	23	372	21
6/1/2012	43	368	20
7/1/2012	73	439	20
8/1/2012	40	441	20
9/1/2012	48	407	21
10/1/2012	47	378	21
11/1/2012	32	370	20
12/1/2012	49	452	21
13/1/2012	23	420	21
14/1/2012	23	289	20
15/1/2012	8	361	19
16/1/2012	21	373	20
17/1/2012	13	447	19
18/1/2012	26	438	21
19/1/2012	35	425	24
20/1/2012	37	438	22
21/1/2012	63	478	21
22/1/2012	19	403	20
23/1/2012	29	439	21
24/1/2012	45	441	22
25/1/2012	66	444	25
26/1/2012	97	342	24
27/1/2012	80	359	12
28/1/2012	83	374	14
29/1/2012	108	370	13
30/1/2012	88	403	15
31/1/2012	69	369	15

Date	Daily Maximum		
	SO2 concentration (mg/Nm3) <sup>#</sup>	NOx concentration (mg/Nm3) <sup>#</sup>	Opacity (%)
1/2/2012	78	441	15
2/2/2012	94	402	15
3/2/2012	82	353	24
4/2/2012	41	439	17
5/2/2012	37	303	15
6/2/2012	25	389	22
7/2/2012	41	378	14
8/2/2012	33	395	16
9/2/2012	67	398	17
10/2/2012	91	427	21
11/2/2012	92	313	16
12/2/2012	55	336	15
13/2/2012	102	373	17
14/2/2012	90	425	25
15/2/2012	111	421	20
16/2/2012	58	340	15
17/2/2012	19	289	13
18/2/2012	44	402	17
19/2/2012	20	490	14
20/2/2012	27	387	21
21/2/2012	46	413	15
22/2/2012	22	506	16
23/2/2012	113	526	24
24/2/2012	76	427	20
25/2/2012	106	464	12
26/2/2012	107	477	13
27/2/2012	62	506	17
28/2/2012	93	495	15
29/2/2012	103	432	16

Date	Daily Maximum		
	SO2 concentration (mg/Nm3) <sup>#</sup>	NOx concentration (mg/Nm3) <sup>#</sup>	Opacity (%)
1/3/2012	71	444	13
2/3/2012	*	*	*
3/3/2012	*	*	*
4/3/2012	*	*	*
5/3/2012	*	*	*
6/3/2012	*	*	*
7/3/2012	*	*	*
8/3/2012	*	*	*
9/3/2012	*	*	*
10/3/2012	*	*	*
11/3/2012	*	*	*
12/3/2012	*	*	*
13/3/2012	*	*	*
14/3/2012	*	*	*
15/3/2012	*	*	*
16/3/2012	*	*	*
17/3/2012	*	*	*
18/3/2012	*	*	*
19/3/2012	*	*	*
20/3/2012	*	*	*
21/3/2012	*	*	*
22/3/2012	*	*	*
23/3/2012	*	*	*
24/3/2012	*	*	*
25/3/2012	*	*	*
26/3/2012	*	*	*
27/3/2012	*	*	*
28/3/2012	*	*	*
29/3/2012	*	*	*
30/3/2012	*	*	*
31/3/2012	*	*	*

Note: # - Hourly average value. Expressed as at 0°C, 101.325kPa, dry and corrected to 12% CO<sub>2</sub> condition.

\* - Unit L4 was not on load.

### B.2.3 Monthly Summary of Stack SO<sub>2</sub> for Unit L2

Date	Daily Maximum	
	SO <sub>2</sub> concentration (mg/Nm <sup>3</sup> ) <sup>#</sup>	Opacity (%)
1/1/2012	*	22
2/1/2012	*	21
3/1/2012	39	23
4/1/2012	22	34
5/1/2012	28	21
6/1/2012	130	20
7/1/2012	*	20
8/1/2012	*	20
9/1/2012	109	21
10/1/2012	105	21
11/1/2012	79	20
12/1/2012	106	21
13/1/2012	79	21
14/1/2012	48	20
15/1/2012	49	19
16/1/2012	30	20
17/1/2012	23	19
18/1/2012	53	21
19/1/2012	92	24
20/1/2012	73	22
21/1/2012	*	21
22/1/2012	*	20
23/1/2012	*	21
24/1/2012	*	22
25/1/2012	*	25
26/1/2012	82	24
27/1/2012	100	12
28/1/2012	65	14
29/1/2012	77	13
30/1/2012	84	15
31/1/2012	93	15

Date	Daily Maximum	
	SO2 concentration (mg/Nm3) <sup>#</sup>	Opacity (%)
1/2/2012	82	12
2/2/2012	51	13
3/2/2012	57	13
4/2/2012	52	12
5/2/2012	*	*
6/2/2012	72	11
7/2/2012	50	11
8/2/2012	55	11
9/2/2012	68	11
10/2/2012	98	12
11/2/2012	95	11
12/2/2012	68	11
13/2/2012	99	13
14/2/2012	113	13
15/2/2012	104	12
16/2/2012	73	16
17/2/2012	FGD Plant Outage	19
18/2/2012	FGD Plant Outage	13
19/2/2012	FGD Plant Outage	12
20/2/2012	FGD Plant Outage	14
21/2/2012	66	12
22/2/2012	71	12
23/2/2012	73	12
24/2/2012	131	11
25/2/2012	99	10
26/2/2012	104	12
27/2/2012	124	12
28/2/2012	93	11
29/2/2012	88	12

Date	Daily Maximum	
	SO2 concentration (mg/Nm3) <sup>#</sup>	Opacity (%)
1/3/2012	102	11
2/3/2012	106	11
3/3/2012	132	11
4/3/2012	61	11
5/3/2012	94	13
6/3/2012	104	11
7/3/2012	55	12
8/3/2012	92	11
9/3/2012	60	12
10/3/2012	71	13
11/3/2012	*	*
12/3/2012	97	11
13/3/2012	*	*
14/3/2012	*	*
15/3/2012	*	*
16/3/2012	*	*
17/3/2012	*	*
18/3/2012	*	*
19/3/2012	94	10
20/3/2012	87	11
21/3/2012	94	10
22/3/2012	76	10
23/3/2012	64	11
24/3/2012	57	11
25/3/2012	15	10
26/3/2012	40	15
27/3/2012	27	17
28/3/2012	14	16
29/3/2012	23	18
30/3/2012	12	17
31/3/2012	15	17

Note: # - Hourly average value. Expressed as at 0°C, 101.325kPa, dry and corrected to 12% CO<sub>2</sub> condition.

\* - Unit L2 was not on load.

#### **B.2.4 Summary of Annual Stack Particulate Sampling**

No stack particulate sampling was conducted in the reporting period.

### **B.3 Ambient SO<sub>2</sub> and NO<sub>2</sub> monitoring Data at Southern District and Cheung Chau**

THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : VICTORIA PEAK  
 POLLUTANT : SULPHUR DIOXIDE  
 MONTH: JANUARY  
 YEAR : 2012  
 UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	7	6	6	6	6	6	5	6	8	8	9	9	18	21	20	15	24	12	7	6	7	7	****	4	10
2	3	4	5	5	4	4	5	5	6	6	6	8	8	10	11	10	9	10	8	8	8	8	****	9	7
3	9	8	6	6	6	6	7	7	7	7	6	8	11	10	11	12	12	11	9	9	9	8	****	12	9
4	11	9	11	9	8	8	8	10	9	8	15	13	9	8	8	11	12	10	9	14	8	8	****	8	10
5	8	6	6	9	8	10	8	8	7	7	7	8	7	7	7	6	3	2	2	2	3	3	****	4	6
6	4	4	6	5	4	4	4	4	5	7	8	7	8	7	6	6	8	8	9	11	9	14	****	12	7
7	13	13	11	6	5	5	6	5	4	3	3	2	3	6	6	5	4	3	4	5	4	4	****	3	5
8	2	2	3	3	4	4	4	6	7	8	9	8	15	21	27	39	41	30	24	13	12	11	****	13	13
9	14	7	7	7	9	13	16	10	13	15	14	14	14	15	13	13	22	37	24	18	16	17	****	33	16
10	26	10	8	6	6	6	5	6	10	11	13	13	10	7	21	16	19	24	19	21	25	29	****	9	14
11	8	7	6	5	5	4	4	5	6	8	8	7	8	12	16	15	10	8	7	8	8	9	****	7	8
12	6	6	4	3	3	2	4	4	5	5	6	7	7	8	8	8	8	7	7	8	7	7	****	6	6
13	5	6	6	6	6	7	6	7	6	6	6	5	5	3	3	3	3	2	3	3	3	3	****	3	5
14	4	4	4	3	3	4	3	2	2	3	3	3	1	2	3	2	2	2	2	0	0	0	****	0	2
15	0	0	0	0	0	0	0	0	0	0	0	1	1	3	7	4	5	3	2	2	2	2	****	0	1
16	0	1	1	1	1	4	7	17	20	15	10	12	14	19	19	16	14	10	10	11	12	5	****	5	10
17	4	4	4	5	4	4	4	4	4	4	5	4	4	7	7	7	6	5	4	3	3	****	4	5	
18	4	5	4	3	3	4	4	4	4	4	4	4	3	4	6	5	3	3	2	2	1	1	****	1	4
19	2	2	3	2	2	2	1	2	3	4	5	5	6	9	5	10	16	13	7	13	13	14	****	5	6
20	4	3	3	2	2	2	2	2	3	3	2	2	2	3	3	2	1	1	1	1	1	1	****	1	2
21	1	1	1	1	1	1	1	1	2	4	3	3	2	3	3	2	2	2	3	3	2	2	****	2	2
22	2	2	2	3	3	5	3	8	6	7	7	6	6	8	9	6	16	21	9	6	4	5	****	5	7
23	6	7	4	5	6	5	5	4	5	13	4	4	5	4	6	7	3	2	2	2	3	1	****	1	4
24	2	1	1	1	1	1	1	1	1	1	1	1	2	3	6	5	4	1	0	0	1	****	1	2	
25	3	2	2	2	2	2	2	2	4	5	6	7	5	6	6	7	6	7	7	5	5	5	****	6	4
26	7	6	6	6	6	6	5	6	6	6	6	6	6	6	6	6	7	7	6	6	5	5	****	5	6
27	5	4	4	4	4	4	5	4	5	5	4	6	5	3	3	3	3	2	3	3	2	3	****	3	4
28	4	4	4	4	4	3	4	4	4	8	10	20	22	6	8	7	12	13	17	14	16	****	9	9	
29	8	8	7	6	7	10	9	11	8	8	9	13	17	17	15	19	19	14	19	15	15	13	****	24	13
30	23	28	26	15	8	8	7	7	11	12	12	13	14	15	15	18	12	12	17	20	19	12	****	9	14
31	9	9	8	7	4	3	3	5	9	5	6	7	19	21	20	14	19	20	14	17	22	22	****	16	12

MONTHLY STATISTICS:

GEOM	ARITH	-----PERCENTILE-----					-----RANGE-----					STD GEOM	PERCENT	NO. OF TIMES			
MEAN	MEDIAN	50	90	95	98	99	1-HR					24-HR	VALID DATA	ABOVE OBJECTIVE	1-HR	24-HR	
5	6	6	15	19	24	27	0	-	41		1	-	16	3	96	0	0

- NOTES:
1. FLAGS FOR INVALID DATA :
    - \*\*\*\* : DAILY ZERO/SPAN CHECK
    - D : DYNAMIC CALIBRATION
    - T : TELEMETRY/DATALOGGR/ANALYZER FAULT
    - M : MAINTENANCE OR MACHINE SHUTDOWN
    - P : POWER FAILURE
  2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 800 OR 24-HR OBJECTIVE 350

THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : VICTORIA PEAK  
 POLLUTANT : NITROGEN DIOXIDE  
 MONTH: JANUARY  
 YEAR : 2012  
 UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	44	48	49	39	48	52	51	60	45	50	60	62	64	67	73	74	79	105	115	85	52	49	****	27	61
2	21	16	15	11	9	13	12	23	22	29	38	33	27	31	37	58	65	65	54	40	39	30	****	26	31
3	26	23	14	12	12	15	13	28	47	46	40	50	52	60	80	92	88	106	140	130	80	64	****	54	55
4	65	44	38	26	21	23	32	50	66	63	85	89	70	59	65	81	90	89	83	95	90	80	****	67	64
5	67	56	53	45	35	29	38	44	47	47	53	60	57	54	64	64	67	70	72	64	57	52	****	48	54
6	49	46	41	47	46	35	35	46	54	57	62	62	62	71	78	87	90	95	98	86	86	82	****	72	64
7	72	62	58	51	40	47	45	46	48	50	49	50	49	57	58	62	72	76	79	76	70	66	****	57	58
8	52	45	48	43	41	30	34	43	45	46	42	37	59	72	87	104	116	109	116	105	80	93	****	89	67
9	86	51	38	54	52	59	58	60	66	83	86	76	79	80	73	60	102	127	125	115	97	123	****	169	83
10	141	87	55	39	33	27	31	56	76	77	83	79	66	67	78	76	85	78	82	113	138	129	****	103	78
11	87	56	44	39	34	29	27	50	62	64	59	61	68	72	86	95	100	87	85	85	62	45	****	43	63
12	46	40	23	21	28	21	24	33	44	43	44	46	53	53	62	63	69	78	78	81	57	54	****	47	48
13	49	39	34	26	22	20	26	47	50	48	52	55	57	60	63	59	58	35	39	40	40	45	****	33	43
14	36	28	27	22	15	18	21	24	33	35	37	41	47	39	44	67	68	59	45	42	60	39	****	50	39
15	43	35	35	40	32	27	18	32	30	40	41	49	45	59	52	59	54	54	58	72	55	42	****	34	44
16	36	24	20	19	17	49	52	51	53	47	42	52	55	66	71	74	76	71	77	96	94	85	****	63	56
17	35	22	20	17	15	19	27	42	45	51	44	36	31	45	33	29	38	48	49	24	21	16	****	20	32
18	19	17	11	9	11	9	17	26	32	57	48	51	38	40	28	43	29	57	41	30	29	22	****	28	30
19	18	20	16	7	6	6	9	10	41	49	79	68	67	61	80	61	91	78	76	119	108	116	****	38	53
20	35	16	19	8	11	9	14	24	33	37	29	34	34	27	28	31	29	37	42	47	38	32	****	30	28
21	23	22	26	16	11	12	14	26	29	34	27	27	30	32	32	26	16	24	26	22	24	27	****	29	24
22	27	20	19	22	25	38	39	46	45	46	45	45	43	48	48	47	52	55	49	52	49	43	****	45	41
23	43	37	34	24	25	21	26	34	36	44	38	41	42	43	50	54	46	38	44	44	36	29	****	27	37
24	22	16	10	9	8	11	11	15	17	20	23	23	37	45	40	36	36	38	33	43	30	****	35	25	
25	37	32	16	16	13	10	21	33	49	48	43	50	44	53	55	59	60	61	55	52	57	46	****	30	41
26	27	19	15	10	7	9	9	21	30	31	30	25	27	30	21	32	27	28	48	27	20	22	****	19	23
27	21	16	16	12	10	15	16	22	30	37	42	31	49	44	53	44	57	64	39	30	35	27	****	20	32
28	20	20	18	15	10	9	7	10	11	39	54	67	67	59	53	52	70	101	103	113	112	110	****	71	52
29	62	54	81	76	66	63	55	51	41	40	44	52	62	77	74	79	82	74	73	75	75	71	****	81	66
30	78	72	64	55	32	28	36	39	51	61	59	58	63	63	67	71	64	69	73	86	120	102	****	88	65
31	45	29	26	21	23	16	22	52	63	74	58	51	61	56	54	36	43	55	77	101	131	134	****	88	57

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->			STD GEOM	PERCENT	NO. OF TIMES ABOVE OBJECTIVE	
MEAN	MEDIAN	50	90	95	98	99	1-HR		24-HR	DEVIATION	VALID DATA	1-HR	24-HR
42	46	46	83	98	116	128	6	-	169	2	96	0	0

- NOTES:
1. FLAGS FOR INVALID DATA :
    - \*\*\*\* : DAILY ZERO/SPAN CHECK
    - D : DYNAMIC CALIBRATION
    - T : TELEMETRY/DATALOGGR/ANALYZER FAULT
    - M : MAINTENANCE OR MACHINE SHUTDOWN
    - P : POWER FAILURE
  2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 300 OR 24-HR OBJECTIVE 150

THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : VICTORIA PEAK  
 POLLUTANT : SULPHUR DIOXIDE  
 MONTH: FEBRUARY  
 YEAR : 2012  
 UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	28	15	7	5	5	5	4	5	6	4	2	3	6	7	8	6	6	5	4	4	6	6	****	2	7
2	3	2	5	6	5	6	6	6	6	6	7	8	8	8	7	4	5	6	5	4	3	3	****	3	5
3	3	3	2	3	4	4	4	4	16	15	13	9	5	4	4	3	9	10	5	15	5	6	****	4	6
4	3	3	3	3	3	3	1	2	2	3	3	3	3	4	5	5	4	2	1	1	1	2	****	2	3
5	2	3	2	1	1	1	1	1	3	3	6	7	6	4	3	4	3	2	1	0	0	0	****	1	3
6	1	1	1	2	2	2	0	0	0	1	1	0	0	1	3	1	5	5	5	6	7	6	****	3	2
7	4	0	1	1	11	12	12	6	10	7	8	6	9	10	9	6	5	4	3	3	3	4	****	3	6
8	2	3	2	2	2	3	2	2	3	4	4	3	4	4	4	4	5	4	5	7	6	6	****	5	4
9	4	5	5	5	6	6	6	6	6	5	4	5	4	5	4	4	4	3	3	2	2	2	****	2	4
10	2	2	2	2	2	3	2	2	3	2	3	2	3	3	4	4	3	4	6	4	2	2	****	3	3
11	2	2	3	4	5	4	5	2	1	2	2	2	3	5	4	6	3	5	5	5	3	3	****	4	3
12	4	5	5	5	4	3	2	3	3	4	4	5	6	7	8	7	3	3	2	2	3	4	****	2	4
13	1	2	2	2	4	4	3	3	3	2	3	3	3	4	4	2	2	2	2	1	1	****	2	3	
14	2	2	3	2	1	1	1	0	1	1	1	1	1	1	1	0	1	0	0	0	0	0	****	1	1
15	0	0	0	1	0	0	0	1	1	1	1	2	2	3	3	3	3	3	2	2	2	2	****	1	2
16	0	0	0	0	0	0	0	1	1	0	2	2	2	16	18	11	7	4	4	6	9	9	****	1	4
17	1	1	3	2	1	1	2	3	12	9	8	10	6	4	6	5	5	2	2	2	3	6	****	7	4
18	7	5	7	7	7	8	9	10	6	6	7	6	6	4	4	6	8	10	7	7	7	9	****	10	7
19	9	9	8	9	9	11	16	18	16	20	19	15	15	15	12	13	13	12	8	6	5	4	****	5	12
20	4	4	4	5	6	6	6	7	10	11	10	8	7	7	6	3	3	1	0	0	0	2	****	4	5
21	4	3	4	4	4	4	4	3	3	3	4	4	4	5	3	2	2	2	2	1	1	1	****	2	3
22	2	2	2	2	2	2	2	1	1	1	2	2	1	0	0	2	3	3	3	3	3	2	****	0	2
23	1	1	0	0	1	1	1	1	1	1	2	2	2	3	3	3	3	4	3	3	2	1	****	0	2
24	1	2	2	2	2	1	1	2	2	1	1	1	3	3	2	2	1	2	1	1	1	1	****	1	2
25	2	1	2	2	2	2	1	2	1	1	0	1	1	1	2	1	2	1	1	1	1	0	****	1	1
26	1	1	1	1	2	2	2	2	2	2	2	2	3	3	3	3	1	2	1	2	0	1	****	2	2
27	2	2	2	2	2	2	1	1	1	2	1	2	1	1	1	1	1	1	2	2	2	3	****	2	2
28	1	3	2	2	1	2	0	0	0	0	1	3	6	6	2	1	1	1	1	1	1	1	****	2	2
29	1	1	1	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	1	1	****	1	1

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->			STD GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR
2	3	4	3	7	10	15	16	0	- 28	3	96	0	0

- NOTES:
1. FLAGS FOR INVALID DATA :
    - \*\*\*\* : DAILY ZERO/SPAN CHECK
    - D : DYNAMIC CALIBRATION
    - T : TELEMETRY/DATALOGGR/ANALYZER FAULT
    - M : MAINTENANCE OR MACHINE SHUTDOWN
    - P : POWER FAILURE
  2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 800 OR 24-HR OBJECTIVE 350

THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : VICTORIA PEAK  
POLLUTANT : NITROGEN DIOXIDE  
MONTH: FEBRUARY  
YEAR : 2012  
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	128	102	30	22	11	14	17	37	48	58	45	35	42	51	42	40	27	57	77	91	50	44	****	46	48
2	41	26	12	13	13	15	19	30	32	45	46	51	37	43	61	63	68	50	32	42	39	39	****	23	37
3	21	15	12	9	10	11	18	33	59	64	64	52	51	47	58	60	64	72	70	82	72	61	****	34	45
4	30	19	12	12	11	13	13	22	28	31	33	52	49	49	50	60	54	30	27	28	33	57	****	20	32
5	13	11	11	8	8	9	14	11	23	30	42	46	47	45	27	39	42	38	31	29	17	17	****	18	25
6	19	13	8	7	6	6	8	15	19	36	51	42	43	37	50	42	38	24	15	23	17	13	****	30	24
7	43	12	8	14	45	43	43	40	50	45	49	46	60	64	71	77	72	70	73	70	63	67	****	46	51
8	45	39	30	22	20	21	33	35	43	47	45	40	42	42	48	47	63	66	66	61	56	46	****	39	43
9	31	25	20	19	23	23	28	33	33	26	28	30	31	37	36	34	32	29	30	27	23	****	28	29	
10	33	30	19	22	17	18	23	38	56	51	62	60	59	66	77	87	87	84	73	73	67	60	****	52	53
11	50	48	47	45	43	39	35	31	34	40	42	44	41	44	52	71	77	83	90	83	57	61	****	35	52
12	40	36	26	31	27	16	13	13	16	25	25	29	36	36	36	35	49	49	50	48	35	37	****	23	32
13	13	19	10	7	13	7	7	11	19	34	49	52	44	44	44	41	59	55	42	41	25	15	****	13	29
14	16	7	13	8	4	4	4	13	43	55	47	54	54	56	51	33	36	51	71	56	37	67	****	34	35
15	21	9	32	6	1	0	5	19	30	66	57	55	46	42	68	59	70	72	58	72	67	36	****	15	39
16	13	17	7	7	1	0	5	36	55	61	65	66	66	78	74	75	77	79	79	76	74	72	****	58	50
17	47	42	42	40	37	34	37	42	48	53	52	62	57	53	65	68	62	75	98	89	73	64	****	35	56
18	37	31	37	39	30	31	32	49	49	45	45	40	37	29	38	46	58	73	75	65	55	50	****	32	45
19	26	20	19	20	18	17	32	47	45	55	54	45	48	47	49	56	48	46	37	45	35	38	****	21	38
20	19	18	15	12	12	13	15	27	58	70	52	41	31	38	41	86	71	45	33	20	14	17	****	17	33
21	14	9	9	9	8	9	13	23	36	40	35	31	34	42	30	49	46	25	21	15	23	16	****	15	24
22	13	10	7	11	9	10	16	39	53	82	34	36	35	41	50	53	54	49	46	43	31	33	****	20	34
23	12	6	4	2	2	2	14	24	26	31	34	24	18	23	39	23	36	32	32	24	21	****	16	20	
24	12	8	6	5	2	2	6	24	37	41	45	44	37	46	55	37	56	52	74	57	46	41	****	16	33
25	14	12	11	9	13	10	12	30	39	44	41	43	32	32	70	66	83	71	59	50	48	45	****	37	38
26	27	31	28	33	31	31	33	37	37	41	40	35	32	39	38	53	56	56	57	59	48	39	****	41	40
27	38	36	25	20	19	19	22	28	40	42	37	35	34	37	46	50	49	44	47	48	42	42	****	38	36
28	39	41	39	36	29	27	19	31	28	25	59	75	80	63	64	49	25	36	52	48	31	22	****	20	41
29	22	20	12	10	8	9	10	14	19	25	25	26	28	28	33	40	45	58	47	33	52	27	****	32	27

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->				STD GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR	
31	37	38	37	66	73	82	87	0	- 128	2	96	0	0	

- NOTES: 1. FLAGS FOR INVALID DATA :  
 \*\*\*\* : DAILY ZERO/SPAN CHECK  
 D : DYNAMIC CALIBRATION  
 T : TELEMETRY/DATALOGGR/ANALYZER FAULT  
 M : MAINTENANCE OR MACHINE SHUTDOWN  
 P : POWER FAILURE
2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 300 OR 24-HR OBJECTIVE 150

THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : VICTORIA PEAK  
POLLUTANT : SULPHUR DIOXIDE  
MONTH: MARCH  
YEAR : 2012  
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	2	2	1	1	2	1	1	1	<----- T ----->	1	0	0	0	0	0	0	1	1	0	0	0	****	1	1	
2	1	1	1	1	1	0	0	0	1	1	2	1	1	2	9	8	1	0	0	1	1	****	0	1	
3	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	****	1	0	
4	1	1	1	0	0	0	1	1	1	1	2	2	1	0	1	3	1	2	1	1	1	****	1	1	
5	1	1	1	1	1	1	1	2	2	1	1	1	2	2	1	1	1	2	1	1	1	****	2	1	
6	2	2	2	2	3	2	2	6	2	3	3	2	4	4	6	6	5	3	3	4	7	5	****	4	4
7	4	3	3	4	4	3	3	2	2	3	3	4	3	4	4	4	5	4	3	4	4	4	****	4	4
8	4	4	4	4	4	5	4	4	3	3	3	3	4	4	3	4	3	2	1	1	1	****	0	3	
9	0	1	1	1	1	1	1	1	1	1	<--- M --->	3	2	3	6	10	13	13	15	11	10	****	10	5	
10	8	8	9	8	9	9	10	13	14	14	14	13	15	17	17	15	22	21	18	21	16	14	****	14	14
11	14	14	13	12	12	11	12	13	14	13	14	13	15	13	13	12	18	14	15	12	11	11	****	12	13
12	12	13	12	12	10	10	10	10	10	10	11	10	9	9	9	9	8	9	10	9	8	9	****	9	10
13	9	9	9	10	10	10	10	7	8	8	8	9	9	9	11	M	0	6	4	3	2	****	1	7	
14	1	2	3	4	4	3	3	4	4	2	5	6	4	5	7	8	6	5	4	6	4	3	****	2	4
15	1	1	0	1	0	1	1	0	1	2	1	2	2	4	4	5	6	7	5	4	2	2	****	2	2
16	1	1	1	1	1	1	1	1	1	1	1	4	4	3	1	1	1	3	16	10	2	****	2	3	
17	1	2	2	2	2	2	2	2	2	0	0	3	5	1	3	13	5	6	7	3	9	7	****	1	4
18	9	10	6	3	1	1	1	3	5	2	2	5	5	8	9	7	8	13	11	3	1	16	****	1	6
19	0	1	1	1	1	7	8	2	2	1	0	0	1	1	1	2	2	2	2	2	1	1	****	2	2
20	2	2	1	1	1	1	1	1	1	1	1	4	3	2	2	2	3	1	2	2	2	****	1	2	
21	1	1	1	1	1	1	0	1	1	2	3	2	2	3	2	3	2	2	1	2	1	2	****	2	2
22	3	2	2	3	3	2	2	2	2	2	1	1	1	1	1	2	3	4	4	4	1	1	****	1	2
23	1	1	2	2	1	1	2	0	1	2	17	20	18	29	49	40	31	16	13	10	7	5	****	4	12
24	5	3	5	7	8	4	7	8	11	11	12	12	12	13	10	9	12	19	10	6	6	9	****	7	9
25	7	5	5	7	6	7	8	9	10	11	12	13	13	10	9	5	5	8	9	5	8	7	****	5	8
26	4	6	5	5	5	6	6	8	8	6	6	7	7	6	6	7	6	6	5	5	7	10	****	6	6
27	7	7	7	8	9	9	10	10	8	9	8	9	8	6	5	<--- M --->	5	6	6	5	4	****	3	7	
28	3	3	4	4	3	3	5	5	5	4	4	6	2	0	4	4	3	3	2	2	2	****	2	3	
29	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	2	3	1	2	2	****	3	1
30	2	2	2	2	1	1	1	2	3	2	1	3	3	2	4	1	0	1	0	1	1	0	****	1	2
31	1	0	0	0	0	0	2	1	4	3	10	5	2	3	5	5	1	2	3	1	2	2	****	4	2

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->				STD GEOM	PERCENT	NO. OF TIMES ABOVE OBJECTIVE	
MEAN	MEDIAN	50	90	95	98	99	1-HR		24-HR	DEVIATION	VALID DATA	1-HR	24-HR	
3	3	3	11	13	17	20	0	-	49	3	95	0	0	

- NOTES: 1. FLAGS FOR INVALID DATA :  
 \*\*\*\* : DAILY ZERO/SPAN CHECK  
 D : DYNAMIC CALIBRATION  
 T : TELEMETRY/DATALOGGR/ANALYZER FAULT  
 M : MAINTENANCE OR MACHINE SHUTDOWN  
 P : POWER FAILURE
2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 800 OR 24-HR OBJECTIVE 350

THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : VICTORIA PEAK  
POLLUTANT : NITROGEN DIOXIDE  
MONTH: MARCH  
YEAR : 2012  
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	37	19	9	7	14	8	10	17	<----- T ----->	61	44	36	59	48	68	38	61	44	46	26	****	13	33		
2	10	8	6	6	5	5	7	11	23	38	55	40	65	50	58	55	42	43	20	27	27	20	****	15	28
3	12	21	28	18	17	20	25	27	24	22	23	29	31	31	34	30	35	39	36	29	19	15	****	20	25
4	23	21	18	15	13	9	15	17	16	20	21	24	17	30	33	40	26	48	40	29	28	30	****	14	24
5	11	10	9	7	7	8	10	13	21	22	21	20	21	20	16	19	20	26	23	26	24	19	****	17	17
6	15	12	9	7	14	11	14	27	25	22	21	19	18	20	23	27	23	17	19	22	24	21	****	21	19
7	18	12	12	15	17	15	18	22	27	27	31	35	27	41	53	71	89	88	77	58	51	32	****	28	37
8	25	15	18	13	15	12	17	30	40	57	49	48	40	44	43	46	62	79	74	51	36	33	****	34	38
9	30	18	25	28	31	21	21	29	32	36	<--- M --->	41	46	51	66	70	66	64	68	61	54	****	49	43	
10	47	42	40	37	33	34	37	43	48	50	54	52	57	66	69	70	72	74	72	71	69	66	****	62	55
11	63	59	50	39	33	38	42	51	48	53	56	53	57	53	57	56	67	64	66	51	43	45	****	46	52
12	47	44	36	29	12	16	23	33	38	54	65	48	49	50	57	71	59	71	72	58	55	35	****	24	45
13	28	36	38	33	25	20	29	49	53	59	59	54	56	58	65	69	M	84	87	85	66	52	****	21	51
14	24	20	22	20	16	14	17	27	36	49	42	40	50	47	58	60	51	46	76	53	26	25	****	18	36
15	14	11	7	9	9	10	15	17	33	42	39	38	30	44	62	71	90	86	63	24	16	16	****	10	33
16	12	7	6	8	7	6	9	23	42	42	27	51	48	50	46	43	47	48	59	59	49	30	****	35	33
17	34	37	30	13	16	9	8	10	16	30	47	53	44	29	29	38	28	38	65	49	48	25	****	17	31
18	52	51	44	34	8	4	5	19	27	21	23	27	23	26	30	44	49	65	37	25	51	****	10	30	
19	6	4	3	4	4	45	48	35	37	42	55	53	45	41	43	68	63	75	66	33	37	20	****	19	37
20	15	13	10	9	9	17	14	17	17	36	62	70	67	71	74	72	76	83	91	90	62	26	****	26	45
21	17	17	14	13	13	11	14	17	20	26	23	25	25	19	18	20	25	28	21	19	18	16	****	18	19
22	17	14	9	7	9	9	14	30	39	29	20	15	14	19	17	30	55	49	39	40	18	15	****	23	23
23	25	7	7	5	5	5	6	20	22	28	65	72	66	121	95	71	66	59	57	52	45	39	****	27	42
24	23	24	21	23	26	16	21	35	43	53	55	51	48	45	48	55	67	76	79	69	53	45	****	50	45
25	45	24	20	25	27	26	33	41	53	68	61	57	35	32	31	20	18	23	38	42	34	31	****	22	35
26	19	18	15	14	12	13	19	25	64	73	49	45	35	36	33	35	29	27	25	33	31	36	****	21	31
27	19	17	13	10	10	10	16	28	41	46	50	38	32	26	31	<-- M -->	37	32	22	19	21	****	11	25	
28	9	10	9	5	5	6	11	21	30	33	28	29	28	21	20	30	28	24	22	19	14	11	****	13	18
29	22	13	12	10	5	6	9	13	14	24	19	21	14	10	13	15	18	27	24	13	12	11	****	14	15
30	9	8	6	5	5	6	7	12	17	19	26	41	47	55	59	24	16	18	21	37	23	39	****	31	23
31	44	14	19	17	9	40	30	24	37	50	62	64	56	58	73	78	36	32	45	39	36	38	****	29	40

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->			STD GEOM	PERCENT	NO. OF TIMES			
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR		
27	28	33	28	63	71	78	87	3	- 121	15	- 55	2	95	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :  
 \*\*\*\* : DAILY ZERO/SPAN CHECK  
 D : DYNAMIC CALIBRATION  
 T : TELEMETRY/DATALOGGR/ANALYZER FAULT  
 M : MAINTENANCE OR MACHINE SHUTDOWN  
 P : POWER FAILURE
2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 300 OR 24-HR OBJECTIVE 150









THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : CHUNG HOM KOK ZONE SUBSTATION MONTH: MARCH YEAR : 2012  
POLLUTANT : SULPHUR DIOXIDE UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	3	0	0	0	1	2	0	0	0	2	T	1	3	1	2	2	1	1	0	0	0	0	****	0	1
2	2	0	0	0	0	2	0	0	0	1	2	0	0	0	1	2	0	0	0	0	2	0	****	0	1
3	2	2	0	0	0	2	3	0	0	0	1	1	0	0	0	2	1	0	0	1	1	0	****	0	1
4	0	1	0	0	0	0	1	0	0	0	1	3	1	0	0	2	2	0	0	1	3	2	****	0	1
5	0	1	2	1	1	1	2	2	1	1	1	3	3	2	2	4	5	3	2	1	3	3	****	3	2
6	2	2	4	2	2	1	1	1	0	0	0	1	3	0	1	0	1	1	0	0	0	0	****	0	1
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	****	0	0
8	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0	0	1	3	2	0	0	0	****	1	1
9	0	0	1	4	0	0	0	1	2	0	0	0	3	4	1	5	6	3	2	0	0	0	****	1	1
10	0	0	0	2	0	0	0	2	2	0	0	0	2	3	1	1	1	3	4	1	0	1	****	1	1
11	0	0	1	2	0	0	0	0	1	1	0	0	1	1	0	0	0	1	0	0	0	0	****	0	0
12	0	0	0	0	0	0	0	1	0	0	0	2	2	0	0	0	1	1	0	0	1	2	****	0	0
13	0	3	2	0	0	1	3	1	0	0	1	2	1	1	0	2	5	0	0	0	3	2	****	1	1
14	0	3	1	0	2	2	2	1	0	0	0	3	1	0	0	2	3	1	0	1	2	5	****	0	1
15	0	2	3	1	0	0	3	3	0	0	0	2	1	0	0	1	4	1	0	0	0	2	****	0	1
16	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	****	0	0
17	0	0	0	0	0	0	0	0	0	2	0	2	1	0	8	0	2	0	2	0	2	2	****	0	1
18	0	0	0	0	0	1	1	0	1	9	56	109	74	53	35	37	14	42	31	9	2	0	****	1	21
19	0	1	0	2	0	8	1	2	3	0	2	0	2	4	0	0	1	0	2	0	0	0	****	2	1
20	0	0	0	1	2	0	0	1	3	3	1	0	0	0	<--- D --->	4	2	4	9	8	2	****	1	2	
21	0	0	0	1	1	0	0	0	1	0	0	1	0	1	0	0	0	1	0	0	0	0	****	1	0
22	0	0	1	2	2	0	0	0	0	1	0	0	1	3	5	3	2	3	4	2	0	0	****	1	1
23	2	1	1	3	8	4	4	11	18	64	144	92	107	47	47	31	18	7	1	0	0	0	****	0	27
24	0	0	0	2	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	****	1	0
25	0	0	0	2	1	0	7	5	8	10	10	6	4	3	0	0	0	1	1	0	0	0	****	0	2
26	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	1	1	****	0	0
27	1	0	0	0	1	1	0	0	0	0	M	7	8	8	11	8	9	9	9	8	5	4	****	2	4
28	6	3	3	3	5	7	5	5	5	5	7	6	4	6	11	7	3	3	5	6	2	****	3	5	
29	3	5	4	5	4	7	8	6	4	4	5	6	5	6	5	6	6	5	8	6	8	8	****	6	5
30	6	7	8	6	6	6	6	5	6	5	4	6	2	0	1	3	4	0	0	0	4	5	****	4	4
31	2	3	3	2	1	0	1	3	0	0	2	3	12	26	3	1	2	1	0	1	1	1	****	0	3

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->		STD GEOM	PERCENT	NO. OF TIMES		
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR
1	1	3	1	6	8	29	50	0	- 144	5	95	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :  
 \*\*\*\* : DAILY ZERO/SPAN CHECK  
 D : DYNAMIC CALIBRATION  
 T : TELEMETRY/DATALOGGR/ANALYZER FAULT  
 M : MAINTENANCE OR MACHINE SHUTDOWN  
 P : POWER FAILURE
2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 800 OR 24-HR OBJECTIVE 350

THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : CHUNG HOM KOK ZONE SUBSTATION      MONTH: MARCH      YEAR : 2012  
 POLLUTANT : NITROGEN DIOXIDE      UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	10	9	7	7	7	7	8	13	12	11	T	20	18	21	20	23	13	21	22	18	11	9	****	9	14
2	10	17	12	13	5	9	13	17	20	11	9	10	9	12	14	12	11	10	14	16	16	16	****	12	13
3	13	11	19	23	12	18	21	16	15	18	18	19	15	14	14	17	19	16	12	10	10	8	****	9	15
4	8	10	10	10	11	10	10	11	13	14	11	9	13	11	11	15	14	16	6	10	12	18	****	9	11
5	7	7	9	9	9	10	20	22	21	20	20	19	20	16	14	21	26	36	47	42	23	22	****	19	20
6	14	9	8	10	10	12	13	24	25	23	13	11	9	10	14	12	19	17	20	30	28	19	****	31	17
7	25	24	27	31	28	20	20	24	21	15	15	18	14	14	14	14	17	15	12	14	13	10	****	12	18
8	11	9	9	9	9	8	10	13	10	11	15	14	14	10	10	11	11	14	15	11	12	10	****	8	11
9	8	8	23	14	14	13	15	16	15	14	13	16	22	22	29	39	50	44	46	48	30	26	****	29	24
10	35	34	34	27	18	16	18	23	25	16	17	14	21	17	25	34	61	60	65	66	60	44	****	14	32
11	11	12	21	19	19	11	11	15	12	14	16	17	26	35	28	22	34	28	21	22	21	19	****	14	19
12	13	14	12	11	8	10	13	14	12	14	13	16	20	20	27	24	28	21	32	23	13	8	****	7	16
13	6	14	16	12	8	8	12	18	20	27	24	23	28	28	31	35	36	41	48	38	30	20	****	11	23
14	9	9	13	16	10	8	10	12	12	12	15	14	13	18	14	14	15	15	16	14	11	9	****	4	12
15	6	4	5	10	8	10	9	12	14	13	8	9	12	7	5	8	13	14	14	13	12	15	****	6	10
16	14	8	6	6	5	6	11	19	23	19	21	13	13	14	23	37	57	48	37	19	23	****	7	19	
17	5	7	7	5	1	2	5	11	21	15	29	20	26	26	13	28	23	33	57	59	49	34	****	14	21
18	7	9	9	17	9	3	8	18	24	35	51	58	53	36	35	34	30	57	58	47	59	28	****	54	32
19	38	37	27	12	37	51	37	17	16	16	16	16	13	15	15	13	11	11	10	13	15	14	****	10	20
20	13	10	8	8	10	7	8	12	9	17	11	12	18	15	<--- D --->	18	16	12	18	19	12	****	11	13	
21	7	7	8	8	7	6	10	14	14	15	15	18	16	13	12	13	12	11	9	9	11	9	****	9	11
22	10	7	9	7	8	6	8	10	11	11	6	9	11	12	16	16	14	15	10	15	13	11	****	8	11
23	7	6	8	18	37	27	25	42	54	70	74	64	81	125	86	73	76	73	65	52	47	43	****	29	51
24	19	18	11	11	9	7	10	16	17	15	19	23	17	27	20	30	27	24	11	10	9	10	****	16	16
25	18	10	12	13	12	10	23	19	21	30	27	32	30	17	22	24	29	24	17	14	10	13	****	5	19
26	8	7	8	8	7	7	8	13	12	17	20	18	14	15	20	23	18	13	10	12	16	15	****	8	13
27	8	8	6	5	6	8	8	9	11	12	11	13	17	17	21	17	13	15	14	13	8	****	9	11	
28	9	8	6	4	5	6	10	12	12	13	12	14	14	14	14	25	22	14	14	13	14	11	****	7	12
29	8	8	8	7	5	6	10	14	15	11	13	15	14	18	15	18	21	14	12	9	9	12	****	11	12
30	9	7	13	8	6	6	6	8	12	10	17	14	16	13	17	18	19	14	9	4	7	4	****	4	11
31	7	5	4	4	5	6	16	10	14	18	27	49	69	77	30	19	25	14	14	20	16	10	****	8	20

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->			STD GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR
15	14	18	14	32	48	61	72	1	- 125	2	95	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :  
 \*\*\*\* : DAILY ZERO/SPAN CHECK  
 D : DYNAMIC CALIBRATION  
 T : TELEMETRY/DATALOGGR/ANALYZER FAULT  
 M : MAINTENANCE OR MACHINE SHUTDOWN  
 P : POWER FAILURE
2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 300 OR 24-HR OBJECTIVE 150

THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : VICTORIA ROAD SUBSTATION  
 POLLUTANT : SULPHUR DIOXIDE  
 MONTH: JANUARY  
 YEAR : 2012  
 UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	5	5	5	5	5	6	7	6	6	18	22	25	22	16	14	13	10	10	6	4	4	4	****	3	10
2	3	3	3	3	3	3	3	4	4	4	6	6	7	6	6	6	6	5	5	4	4	5	****	7	5
3	6	6	4	4	4	4	4	5	5	4	5	7	10	18	16	10	6	11	5	5	5	5	****	8	7
4	8	6	7	6	5	6	5	5	6	6	8	7	6	6	6	6	7	6	6	7	7	7	****	9	6
5	7	6	7	7	7	8	7	7	7	6	6	6	6	6	6	6	3	1	1	1	2	1	****	2	5
6	2	2	6	9	9	5	8	11	17	21	17	14	18	20	16	18	16	13	19	18	21	12	****	14	13
7	14	17	15	16	21	19	20	15	23	10	5	11	13	10	13	10	14	10	6	10	10	8	****	6	13
8	10	14	12	11	10	7	9	16	14	16	32	32	22	29	34	42	36	36	30	17	12	15	****	19	21
9	17	9	6	10	12	17	17	17	26	24	28	30	23	20	15	15	38	23	18	15	16	19	****	16	19
10	16	11	8	14	9	6	6	6	9	24	20	12	25	22	25	19	29	31	23	20	17	20	****	23	17
11	19	12	9	8	8	7	7	8	8	8	9	8	9	23	27	29	18	8	7	8	7	7	****	7	11
12	6	6	4	4	5	5	5	5	6	7	7	8	8	9	9	9	8	10	9	8	10	8	****	7	7
13	7	6	6	6	6	6	6	7	6	5	4	4	7	4	3	5	19	22	17	6	11	****	10	8	
14	6	4	4	3	5	9	12	25	28	23	21	27	25	15	20	30	25	19	15	15	22	35	****	55	19
15	45	43	50	55	51	33	30	38	45	31	39	46	28	25	15	23	16	14	26	21	22	26	****	30	33
16	20	11	10	11	13	17	15	26	30	26	20	22	33	37	33	20	13	7	6	7	7	5	****	7	17
17	8	9	29	32	24	8	9	11	13	5	4	3	3	4	4	2	2	2	2	2	3	2	****	3	8
18	3	4	3	2	2	2	2	4	4	12	9	25	23	26	19	19	5	15	19	15	32	8	****	14	11
19	20	37	24	19	12	11	11	13	28	78	58	38	31	29	27	34	15	16	16	8	7	8	****	18	24
20	53	51	14	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	****	1	6
21	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	****	4	1
22	6	2	4	0	0	2	3	1	4	2	2	1	4	7	5	17	11	1	5	4	3	1	****	0	4
23	1	2	2	5	1	1	2	1	6	5	3	2	3	8	5	7	4	1	2	3	2	2	****	2	3
24	2	2	2	2	2	2	2	2	2	2	2	2	2	9	8	6	4	6	2	2	1	2	2	3	3
25	3	2	2	2	2	1	1	2	4	5	7	11	10	9	11	7	4	5	4	5	6	5	****	11	5
26	4	3	5	3	3	3	4	3	3	3	3	3	4	3	3	3	3	3	3	3	3	3	****	2	3
27	2	2	2	3	7	9	5	10	12	11	8	21	29	38	28	24	27	60	55	53	45	37	****	30	22
28	36	29	47	38	43	51	26	42	45	35	39	52	43	18	13	5	18	30	24	32	38	44	****	35	34
29	33	28	25	31	27	28	27	22	24	20	18	25	29	28	31	28	19	21	28	27	27	21	****	24	26
30	23	32	29	19	7	6	5	5	9	11	11	19	15	7	12	16	10	11	21	23	26	22	****	15	15
31	5	3	3	2	3	2	2	3	12	9	4	8	20	22	14	10	26	13	7	7	8	14	****	12	9

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->			STD GEOM	PERCENT	NO. OF TIMES ABOVE OBJECTIVE	
MEAN	MEDIAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR	
7	8	8	29	37	46	53	0	- 78	3	96	0	0	

- NOTES:
1. FLAGS FOR INVALID DATA :
    - \*\*\*\* : DAILY ZERO/SPAN CHECK
    - D : DYNAMIC CALIBRATION
    - T : TELEMETRY/DATALOGGR/ANALYZER FAULT
    - M : MAINTENANCE OR MACHINE SHUTDOWN
    - P : POWER FAILURE
  2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 800 OR 24-HR OBJECTIVE 350



THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : VICTORIA ROAD SUBSTATION  
POLLUTANT : SULPHUR DIOXIDE  
MONTH: FEBRUARY  
YEAR : 2012  
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	
1	14	13	5	3	3	3	2	3	5	14	14	4	6	4	4	4	4	4	4	4	4	7	****	5	6	
2	5	4	4	4	4	4	4	5	4	5	5	6	5	6	6	6	4	4	4	3	2	2	****	2	4	
3	2	2	1	1	1	1	2	2	2	8	13	13	8	4	4	3	3	6	10	6	7	4	5	****	2	5
4	2	2	2	1	1	1	1	1	1	1	1	0	14	15	10	10	25	9	1	0	0	5	****	9	5	
5	19	20	19	23	31	38	18	18	49	57	32	31	26	25	19	17	22	32	17	3	1	1	****	1	22	
6	0	0	9	6	2	1	32	27	26	60	32	36	22	41	16	11	9	17	7	2	3	1	****	3	16	
7	5	6	2	3	9	13	13	7	6	3	3	7	7	5	4	15	3	2	3	3	2	0	****	0	5	
8	0	0	0	0	0	1	1	1	1	1	2	1	1	1	2	1	2	3	3	4	4	4	****	3	2	
9	3	4	5	5	5	5	6	6	6	5	5	3	3	3	3	3	2	2	2	2	2	2	****	2	4	
10	2	3	11	13	18	13	7	5	10	13	28	27	27	20	18	19	24	12	10	10	9	18	****	12	14	
11	15	16	17	9	5	7	9	13	11	12	6	5	3	4	5	5	5	7	9	12	19	18	****	5	9	
12	3	3	3	3	3	3	7	10	9	5	3	4	5	15	17	21	22	17	21	35	15	26	****	22	12	
13	25	28	31	26	23	26	27	27	37	47	72	72	83	46	17	16	23	24	8	8	12	3	****	19	30	
14	18	31	17	19	23	19	21	15	38	38	18	24	21	25	25	41	36	22	10	9	12	16	****	24	23	
15	24	25	20	17	13	11	9	11	37	74	66	26	23	48	33	21	23	10	7	22	16	9	****	3	24	
16	2	2	2	4	11	19	21	34	23	32	25	16	33	26	26	21	20	14	10	12	15	10	****	5	17	
17	5	6	9	5	3	3	6	5	7	6	8	7	4	2	6	10	9	14	28	9	7	5	****	5	7	
18	5	4	4	4	4	5	4	4	5	4	5	4	3	2	2	5	8	6	4	5	5	5	****	6	4	
19	5	5	6	6	6	8	9	15	14	15	15	10	10	24	12	9	8	9	7	5	5	4	****	3	9	
20	3	3	2	4	4	5	4	6	7	9	6	5	3	4	5	7	5	3	2	1	1	****	1	4		
21	1	0	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	3	0	0	0	0	****	0	1	
22	0	5	8	13	10	31	22	11	14	15	18	39	32	20	42	<-- M -->	49	48	45	49	42	****	25	26		
23	26	22	18	24	45	29	32	22	27	44	27	23	25	35	16	<-- M -->	2	1	0	0	0	****	1	20		
24	0	8	3	4	0	0	0	0	19	21	24	18	26	26	15	27	23	15	8	8	10	****	22	12		
25	18	19	31	29	41	45	35	38	41	36	28	16	21	10	15	22	8	6	8	4	2	2	****	1	21	
26	0	0	0	2	2	2	2	3	2	2	2	2	2	2	3	2	3	3	2	1	0	****	1	2		
27	1	2	1	1	3	4	0	0	0	0	0	0	0	0	0	0	0	2	2	1	3	****	1	1		
28	4	5	6	2	2	2	0	2	4	5	13	9	13	13	19	13	27	34	41	19	5	3	****	2	11	
29	1	0	0	0	0	0	0	0	0	0	<-- M -->	1	1	1	1	1	0	1	1	8	11	12	****	23	3	

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->			STD GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR	
6	5	5	27	36	46	53	0	- 83	4	95	0	0	

- NOTES: 1. FLAGS FOR INVALID DATA :  
 \*\*\*\* : DAILY ZERO/SPAN CHECK  
 D : DYNAMIC CALIBRATION  
 T : TELEMETRY/DATALOGGR/ANALYZER FAULT  
 M : MAINTENANCE OR MACHINE SHUTDOWN  
 P : POWER FAILURE
2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 800 OR 24-HR OBJECTIVE 350

THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : VICTORIA ROAD SUBSTATION  
 POLLUTANT : NITROGEN DIOXIDE  
 MONTH: FEBRUARY  
 YEAR : 2012  
 UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	121	116	60	35	24	26	55	71	78	76	56	29	34	28	41	46	41	57	87	117	75	107	****	79	63
2	57	26	14	17	16	18	26	36	36	39	36	39	30	38	54	62	68	50	35	27	27	28	****	18	35
3	15	12	10	9	10	14	26	46	60	62	59	55	52	51	55	58	68	74	77	76	75	62	****	28	46
4	26	23	17	14	13	14	16	23	28	29	42	57	59	57	42	50	67	61	38	36	43	74	****	78	39
5	78	72	70	69	72	72	66	64	71	73	68	72	80	68	82	80	93	105	88	34	20	17	****	12	66
6	15	6	44	33	21	14	71	76	73	82	79	83	75	79	72	74	83	96	93	58	72	45	****	46	60
7	37	33	16	28	47	44	39	40	48	47	44	48	54	60	72	72	68	68	79	66	61	56	****	45	51
8	38	31	24	20	20	21	34	41	43	44	38	33	35	40	43	38	61	65	67	62	51	40	****	45	41
9	28	22	19	18	18	21	27	32	32	28	25	26	25	29	30	37	40	37	46	28	27	33	****	35	29
10	29	29	52	55	61	50	49	60	64	66	67	69	73	69	79	88	93	80	67	61	58	57	****	48	62
11	45	44	43	38	33	33	33	35	35	43	46	45	43	50	57	72	78	85	88	90	90	80	****	35	54
12	38	38	28	29	39	44	53	60	52	31	31	37	41	49	47	64	70	81	101	101	75	90	****	80	56
13	86	81	77	74	73	78	84	89	97	100	102	97	99	97	49	53	79	92	59	52	73	23	****	95	79
14	79	92	53	63	63	57	67	71	78	76	78	73	79	86	73	95	90	73	74	82	95	87	****	83	77
15	80	77	72	70	64	58	60	63	74	78	78	73	62	72	67	71	81	83	78	91	85	58	****	38	71
16	26	21	14	19	38	53	54	66	62	64	63	56	59	64	65	67	72	75	75	76	76	69	****	53	56
17	47	43	43	39	31	32	37	44	50	51	53	54	52	48	57	39	39	57	104	90	72	49	****	35	51
18	35	24	31	25	20	24	28	41	44	39	38	33	26	24	29	49	45	32	59	38	30	25	****	21	33
19	18	17	14	15	15	17	30	46	52	49	50	35	34	56	26	27	30	32	27	27	27	29	****	18	30
20	15	12	11	10	10	12	16	48	66	72	49	41	28	33	45	64	71	50	32	19	15	13	****	13	32
21	8	6	7	7	7	7	14	28	33	31	28	20	26	34	27	48	44	51	29	23	21	20	****	19	23
22	22	35	33	52	45	75	74	77	87	83	78	90	86	81	96	<-- M -->	108	109	98	108	98	98	****	82	77
23	79	73	66	62	67	67	74	87	84	83	74	70	66	75	50	<-- M -->	52	45	38	34	25	****	24	62	
24	30	44	35	33	11	10	32	36	27	48	51	52	55	59	67	70	81	86	82	69	76	74	****	72	52
25	73	71	70	70	73	71	66	66	66	66	65	47	52	48	57	66	51	56	63	53	48	44	****	37	60
26	32	29	30	32	30	31	34	36	35	38	38	37	33	40	40	51	52	53	52	51	48	41	****	39	39
27	38	36	31	26	24	29	26	30	38	42	40	37	36	36	46	48	49	45	48	48	41	44	****	40	38
28	39	35	36	34	31	24	23	38	46	54	58	54	56	66	74	73	79	82	84	61	41	29	****	20	49
29	15	15	10	9	8	8	12	18	21	20	<-- M -->	23	21	22	M	54	62	63	87	93	85	****	84	37	

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->				STD GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR	
44	48	51	48	82	90	99	106	6	- 121	2	95	0	0	

- NOTES:
1. FLAGS FOR INVALID DATA :
    - \*\*\*\* : DAILY ZERO/SPAN CHECK
    - D : DYNAMIC CALIBRATION
    - T : TELEMETRY/DATALOGGR/ANALYZER FAULT
    - M : MAINTENANCE OR MACHINE SHUTDOWN
    - P : POWER FAILURE
  2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 300 OR 24-HR OBJECTIVE 150

THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : VICTORIA ROAD SUBSTATION  
POLLUTANT : SULPHUR DIOXIDE  
MONTH: MARCH  
YEAR : 2012  
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	
1	12	25	22	21	15	18	15	17	37	47	<-- T -->	39	40	33	34	28	25	28	36	36	40	****	21	28		
2	25	21	13	14	18	17	14	30	62	50	60	46	32	47	44	6	4	5	18	47	41	39	****	53	31	
3	37	56	40	28	11	7	6	5	4	4	3	3	8	3	18	8	5	6	3	12	7	3	****	3	12	
4	2	1	1	1	2	10	8	2	2	2	13	25	30	30	42	31	34	32	27	45	29	41	****	4	18	
5	3	3	2	2	2	2	2	2	3	3	3	3	4	6	6	7	8	6	3	3	3	3	****	3	4	
6	3	4	3	2	7	6	5	12	7	8	6	8	12	10	20	14	6	7	10	17	8	****	3	8		
7	3	2	2	2	2	1	2	2	2	12	20	24	37	47	44	25	28	24	13	9	8	3	****	12	14	
8	3	7	14	18	15	9	3	7	5	16	18	13	10	14	14	4	20	35	14	8	6	8	****	14	12	
9	16	5	2	4	12	4	2	2	2	2	2	1	1	13	22	12	5	4	4	6	3	****	2	6		
10	2	1	2	2	2	2	2	3	5	6	5	6	22	23	18	20	17	8	13	14	9	6	****	8	9	
11	11	6	6	4	4	4	3	6	5	7	5	4	7	7	14	16	7	5	5	4	3	3	****	3	6	
12	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	1	1	****	1	2	
13	1	1	1	1	3	4	3	4	7	3	3	2	3	6	13	20	40	55	39	20	9	10	****	3	11	
14	4	4	4	4	4	4	3	2	3	5	2	11	18	17	6	18	24	25	22	19	9	2	0	****	0	9
15	0	0	0	0	0	0	0	0	1	1	1	8	7	23	23	20	36	42	40	53	57	19	****	8	15	
16	12	2	6	3	3	6	16	18	24	37	46	38	33	15	7	3	2	9	23	24	10	8	****	6	15	
17	5	7	2	2	2	1	1	2	5	23	22	28	25	10	53	43	48	32	15	15	15	13	****	5	16	
18	12	4	9	44	13	5	4	5	18	16	60	36	32	10	44	32	36	44	31	26	13	10	****	6	22	
19	9	7	6	4	4	6	7	6	3	3	3	3	3	3	8	15	19	34	23	17	23	13	****	3	10	
20	3	3	2	2	2	5	9	24	29	47	44	41	80	59	64	40	60	36	37	36	28	38	****	4	30	
21	3	2	2	3	2	2	1	2	3	2	2	2	2	2	2	2	2	2	1	1	1	1	****	1	2	
22	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	0	0	0	****	15	1	
23	15	37	26	22	21	25	17	29	51	100	141	97	49	55	43	46	32	13	8	8	6	3	****	3	37	
24	3	3	3	3	3	2	6	4	6	6	19	16	7	11	18	17	20	12	7	6	6	6	****	4	8	
25	4	3	2	4	4	5	5	8	22	26	20	28	20	10	7	4	4	5	6	7	6	4	****	5	9	
26	3	4	3	2	2	2	2	2	3	3	4	4	2	2	3	3	6	3	1	1	2	3	****	1	3	
27	2	1	1	1	1	1	2	3	2	3	3	3	3	3	3	2	3	2	3	2	2	2	****	2	2	
28	2	2	1	2	2	1	1	1	1	2	16	38	5	3	12	5	3	1	0	0	0	0	****	0	4	
29	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	****	0	0	
30	0	0	0	0	0	0	0	0	0	0	0	0	0	15	7	1	0	0	0	1	0	0	****	3	1	
31	1	0	9	4	1	2	8	2	3	3	3	12	9	4	4	5	1	0	0	0	0	0	****	0	3	

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->						<-----RANGE----->				STD GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR	
5	4	11	4	34	44	53	60	0	-	141	4	96	0	0	

- NOTES: 1. FLAGS FOR INVALID DATA :  
 \*\*\*\* : DAILY ZERO/SPAN CHECK  
 D : DYNAMIC CALIBRATION  
 T : TELEMETRY/DATALOGGR/ANALYZER FAULT  
 M : MAINTENANCE OR MACHINE SHUTDOWN  
 P : POWER FAILURE
2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 800 OR 24-HR OBJECTIVE 350

THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : VICTORIA ROAD SUBSTATION MONTH: MARCH YEAR : 2012  
 POLLUTANT : NITROGEN DIOXIDE UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	68	78	75	68	56	62	63	65	76	80	<--- T --->	74	81	82	88	92	98	101	97	98	95	****	76	80	
2	73	72	62	56	53	48	60	68	72	80	72	69	63	67	62	18	27	40	79	81	82	86	****	82	64
3	70	77	71	62	26	23	29	34	31	31	26	28	41	43	60	57	50	52	44	62	45	26	****	27	44
4	22	8	16	14	14	30	36	28	28	27	46	56	61	68	67	66	68	74	82	94	80	93	****	16	48
5	10	7	7	7	7	14	28	36	45	33	33	37	32	21	22	25	34	56	46	51	43	40	****	36	29
6	31	25	13	10	26	24	35	43	43	41	31	29	22	25	29	40	43	42	42	46	45	34	****	29	33
7	21	13	14	15	17	16	24	32	30	46	54	55	61	67	78	86	95	96	94	86	75	44	****	53	51
8	13	37	58	58	53	37	31	63	58	79	76	77	67	67	76	64	85	98	94	87	73	70	****	76	65
9	67	24	21	27	47	32	26	36	37	39	37	44	44	45	48	55	60	66	68	61	59	52	****	45	45
10	43	40	36	35	30	24	28	36	44	49	48	52	50	53	64	65	69	70	70	70	68	62	****	63	51
11	60	55	39	31	32	38	42	48	50	51	51	48	49	53	55	57	56	59	60	56	47	43	****	46	49
12	45	40	29	24	15	16	27	35	39	50	59	51	46	45	57	63	69	74	81	68	46	25	****	33	45
13	31	36	43	40	50	50	58	59	59	61	57	56	56	60	59	64	72	79	82	80	75	66	****	41	58
14	40	23	18	23	18	19	30	51	57	51	56	65	72	57	72	83	90	101	113	75	24	17	****	15	51
15	11	7	6	6	7	11	16	26	41	37	33	49	57	72	75	74	97	106	114	117	130	64	****	51	52
16	54	7	36	15	16	45	68	74	74	81	82	58	54	40	41	22	20	42	82	91	81	75	****	82	54
17	80	77	61	56	35	6	32	42	59	69	72	52	46	21	48	52	62	74	50	87	74	64	****	46	55
18	46	42	37	53	35	19	30	37	53	58	64	40	40	18	42	37	46	50	67	66	55	46	****	36	44
19	24	6	2	4	10	33	45	39	26	31	27	34	21	30	38	62	78	103	100	108	110	70	****	11	44
20	9	3	2	2	2	23	46	77	83	85	77	88	101	92	94	91	115	106	104	105	102	104	****	20	67
21	11	8	8	9	9	10	16	23	29	30	24	26	20	16	18	22	20	21	18	16	13	13	****	15	17
22	12	9	5	5	5	8	27	44	47	42	30	25	20	25	21	21	34	65	32	32	20	15	****	77	27
23	85	88	80	77	70	73	76	87	93	99	99	84	92	127	70	72	69	61	51	49	48	41	****	32	75
24	22	18	15	17	14	12	24	33	39	42	48	55	47	51	63	56	59	41	74	82	62	40	****	24	41
25	24	15	17	24	23	37	64	65	64	72	67	56	62	34	23	19	17	22	30	31	25	19	****	19	36
26	15	14	11	9	9	9	12	15	41	57	34	25	22	23	20	22	25	24	21	19	20	18	****	12	21
27	9	8	6	5	5	7	13	21	31	41	38	30	24	25	27	32	36	31	24	21	21	19	****	15	21
28	9	7	6	6	5	7	14	24	34	29	25	30	22	18	22	18	22	15	24	15	13	10	****	12	17
29	7	5	5	4	9	9	17	27	25	24	20	16	20	24	22	24	18	25	26	18	13	10	****	14	17
30	8	7	6	5	5	7	17	29	27	25	25	31	31	87	55	32	37	24	31	36	21	28	****	74	28
31	52	22	66	46	34	46	53	30	40	47	49	82	78	59	61	59	27	26	37	24	24	21	****	19	44

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->		STD GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR
35	41	41	81	92	102	107	2	- 130	2	96	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :  
 \*\*\*\* : DAILY ZERO/SPAN CHECK  
 D : DYNAMIC CALIBRATION  
 T : TELEMETRY/DATALOGGR/ANALYZER FAULT  
 M : MAINTENANCE OR MACHINE SHUTDOWN  
 P : POWER FAILURE
2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 300 OR 24-HR OBJECTIVE 150

THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : QUEEN MARY HOSPITAL  
 POLLUTANT : SULPHUR DIOXIDE  
 MONTH: JANUARY  
 YEAR : 2012  
 UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	8	8	8	7	8	7	6	7	8	10	24	24	34	20	14	20	18	15	8	6	6	6	****	4	12
2	4	4	5	4	4	5	5	5	6	6	6	7	8	8	8	7	8	8	6	7	7	7	****	9	6
3	9	9	6	6	6	8	7	8	7	6	7	9	11	10	24	21	12	28	20	12	11	10	****	12	11
4	11	10	10	9	8	9	8	6	8	9	9	7	6	7	7	7	8	7	7	7	9	9	****	10	8
5	7	6	7	7	8	8	9	9	7	7	7	7	6	7	5	3	2	2	2	2	2	3	****	4	6
6	4	4	11	9	9	5	6	10	19	20	15	13	17	15	12	15	13	13	17	19	19	10	****	12	12
7	13	16	14	17	20	22	19	11	15	20	15	12	11	9	11	8	10	4	6	9	7	7	****	6	12
8	11	11	5	5	4	6	12	12	15	20	12	20	19	22	31	43	36	31	28	17	12	17	****	25	18
9	19	9	8	15	18	30	16	25	30	25	29	24	18	19	19	17	28	25	22	25	30	27	****	27	22
10	32	24	16	14	13	12	10	8	12	28	15	10	16	17	24	14	21	32	20	21	24	17	****	16	18
11	12	7	6	5	5	4	5	6	6	7	7	7	19	21	16	8	5	6	7	6	6	6	****	6	8
12	6	5	4	4	4	4	4	5	6	6	7	7	9	9	10	8	9	7	8	10	7	7	****	7	7
13	6	6	7	6	7	8	7	7	11	7	6	5	8	11	4	3	5	23	38	34	16	10	****	4	10
14	5	4	5	4	5	8	5	3	6	12	11	13	18	15	13	31	24	17	11	9	20	25	****	29	13
15	30	36	39	48	55	42	24	36	64	42	20	50	27	21	14	14	10	6	13	21	25	41	****	30	31
16	15	7	5	3	4	14	16	31	32	25	16	16	24	25	27	18	10	5	4	5	5	4	****	7	14
17	3	3	2	3	5	3	9	7	3	3	2	2	1	3	2	1	2	2	1	1	2	1	****	2	3
18	2	4	3	3	4	4	7	6	4	7	5	23	17	20	21	22	16	14	15	9	31	4	****	6	11
19	15	49	15	4	2	3	2	4	16	55	57	20	24	25	25	19	23	7	8	7	11	12	****	5	18
20	10	11	2	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	1	****	0	1
21	0	0	0	1	10	3	6	8	13	11	6	2	2	2	3	1	1	1	1	1	1	1	****	2	4
22	1	2	1	1	1	1	3	2	4	3	3	3	5	3	3	22	8	2	3	3	3	1	****	0	3
23	1	1	1	6	0	2	3	2	3	3	2	3	3	7	6	7	5	3	4	4	4	2	****	2	3
24	3	2	2	2	2	2	2	2	1	1	2	2	2	9	8	6	5	5	1	1	0	1	****	1	3
25	3	0	0	1	1	0	0	0	3	5	7	7	4	7	8	3	2	3	2	4	6	6	****	9	4
26	3	3	4	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	5	4	3	****	3	4
27	3	2	3	3	3	3	3	4	3	3	4	26	18	20	13	17	18	48	51	41	58	35	****	32	18
28	28	22	54	41	25	43	19	40	38	37	38	35	26	24	9	4	10	23	23	32	36	39	****	30	29
29	32	22	22	29	25	26	25	20	21	21	16	23	23	26	28	29	22	21	27	27	29	22	****	25	24
30	39	40	32	13	7	6	5	4	8	11	9	17	14	10	10	12	9	10	24	24	22	25	****	8	16
31	4	4	3	3	3	3	3	3	8	6	5	6	22	20	13	14	20	18	11	10	13	16	****	13	10

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->			STD GEOM	PERCENT	NO. OF TIMES ABOVE OBJECTIVE	
MEAN	MEDIAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR	
7	7	7	26	32	42	50	0	64	3	96	0	0	

- NOTES:
1. FLAGS FOR INVALID DATA :
    - \*\*\*\* : DAILY ZERO/SPAN CHECK
    - D : DYNAMIC CALIBRATION
    - T : TELEMETRY/DATALOGGR/ANALYZER FAULT
    - M : MAINTENANCE OR MACHINE SHUTDOWN
    - P : POWER FAILURE
  2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 800 OR 24-HR OBJECTIVE 350

THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : QUEEN MARY HOSPITAL  
POLLUTANT : NITROGEN DIOXIDE  
MONTH: JANUARY  
YEAR : 2012  
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	31	32	33	42	47	43	20	25	25	36	47	54	58	42	34	43	50	56	58	55	32	30	****	20	40
2	18	15	12	9	10	11	10	17	21	23	21	18	19	21	29	33	39	35	29	32	35	24	****	21	22
3	23	17	13	12	11	14	13	23	35	18	18	19	30	36	52	66	78	92	107	93	40	31	****	46	39
4	41	33	30	26	19	21	22	34	55	54	53	44	43	39	48	58	63	69	70	69	75	66	****	61	48
5	55	50	38	33	28	23	36	41	39	35	35	37	37	31	45	50	50	54	52	45	45	41	****	42	41
6	46	46	43	43	39	37	39	45	48	51	53	52	51	55	59	63	68	73	73	72	66	57	****	52	53
7	49	46	47	45	43	40	42	42	43	45	42	44	45	48	55	51	61	55	70	71	68	61	****	52	51
8	53	51	39	32	32	31	41	43	46	44	31	42	43	58	77	92	95	103	104	96	82	78	****	75	60
9	75	54	55	54	49	50	44	50	50	48	52	53	58	69	75	87	94	109	98	101	103	104	****	130	72
10	137	101	69	63	56	42	46	47	65	67	70	65	58	58	63	63	72	72	81	83	109	80	****	93	72
11	80	50	35	31	29	24	32	52	51	53	45	48	50	57	67	78	81	72	75	72	47	30	****	30	52
12	29	26	19	24	28	15	21	30	38	32	29	25	36	35	55	62	52	91	73	74	57	52	****	44	41
13	46	46	34	22	18	18	36	49	47	47	42	42	49	52	48	53	60	69	80	79	56	46	****	31	47
14	33	29	32	25	32	33	33	28	43	51	52	51	54	56	51	63	68	70	71	67	72	74	****	82	51
15	83	91	90	92	91	78	61	71	74	63	43	56	51	45	44	51	42	45	44	50	52	51	****	62	62
16	49	42	27	33	35	48	45	47	52	48	46	48	57	66	70	71	69	65	69	79	79	70	****	72	56
17	63	43	18	15	19	21	41	51	32	41	25	24	28	32	29	23	47	56	48	35	35	23	****	27	34
18	23	15	10	12	13	17	27	42	48	52	45	55	54	57	64	67	72	93	91	53	91	17	****	26	45
19	45	84	43	11	12	28	19	34	58	75	73	64	55	50	55	43	63	58	69	83	97	97	****	48	55
20	77	61	16	11	10	10	11	20	39	40	31	34	30	28	31	36	34	43	47	47	53	43	****	35	34
21	27	15	21	8	32	18	30	42	50	47	40	30	34	39	42	42	24	29	30	34	32	28	****	32	32
22	40	27	19	16	22	35	39	41	40	37	35	35	36	36	37	41	43	42	39	40	37	35	****	34	35
23	33	28	23	21	16	18	23	30	33	35	31	33	35	34	33	41	41	40	32	33	33	23	****	19	30
24	20	13	11	11	12	14	14	20	14	20	24	28	26	36	32	32	30	29	29	19	16	20	****	23	21
25	28	17	11	13	10	8	13	22	37	36	34	39	40	44	41	42	46	48	55	57	55	50	****	46	34
26	36	22	23	10	8	7	10	19	26	28	23	26	24	29	28	37	43	47	59	17	26	30	****	22	26
27	13	15	16	18	18	19	25	35	40	56	57	62	61	62	62	63	70	76	82	83	81	79	****	70	51
28	68	60	64	63	44	58	36	56	52	55	53	53	39	32	22	18	28	57	91	101	98	81	****	54	56
29	47	48	49	45	40	36	34	34	32	30	30	35	46	45	48	52	55	59	63	64	64	61	****	61	47
30	64	56	55	44	26	19	21	23	45	52	44	42	44	36	42	49	56	67	101	106	103	95	****	73	55
31	47	32	30	26	26	12	25	19	43	59	48	51	49	46	38	24	34	51	62	58	70	102	****	109	46

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->				STD GEOM	PERCENT	NO. OF TIMES ABOVE OBJECTIVE			
MEAN	MEDIAN	50	90	95	98	99	1-HR	24-HR		DEVIATION	VALID DATA	1-HR	24-HR			
40	43	43	74	91	101	104	7	-	137	21	-	72	2	96	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :  
 \*\*\*\* : DAILY ZERO/SPAN CHECK  
 D : DYNAMIC CALIBRATION  
 T : TELEMETRY/DATALOGGR/ANALYZER FAULT  
 M : MAINTENANCE OR MACHINE SHUTDOWN  
 P : POWER FAILURE
2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 300 OR 24-HR OBJECTIVE 150

THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : QUEEN MARY HOSPITAL  
POLLUTANT : SULPHUR DIOXIDE  
MONTH: FEBRUARY  
YEAR : 2012  
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	15	9	8	6	4	8	10	12	11	23	6	4	10	5	4	4	5	3	4	6	5	4	****	4	7
2	5	4	4	4	4	5	5	6	6	6	6	7	6	6	7	14	10	5	5	5	5	4	****	4	6
3	3	3	3	3	3	3	3	5	5	7	16	12	6	7	5	3	4	7	9	11	6	5	****	4	6
4	2	2	2	2	3	2	1	1	1	1	1	1	1	15	19	15	30	5	1	1	1	2	****	3	5
5	2	3	2	9	55	42	7	17	48	50	33	24	18	6	6	16	5	6	4	2	0	0	****	0	15
6	0	0	5	2	1	3	9	13	16	35	32	24	16	26	15	6	2	1	8	2	1	1	****	10	10
7	5	3	2	4	13	17	12	6	7	4	5	10	9	5	5	8	5	6	6	5	4	3	****	4	6
8	3	3	3	2	2	3	3	3	3	4	4	3	3	3	3	3	4	5	5	5	5	5	****	4	3
9	4	5	6	5	6	6	6	7	7	5	5	4	4	4	4	3	3	3	3	3	3	3	****	3	4
10	2	2	9	7	14	11	4	8	4	13	31	15	3	9	11	14	12	10	7	8	8	7	****	<--	9
11																									
12																									
13																									
14	8	15	8	16	20	22	7	8	25	37	18	15	9	15	21	24	63	29	25	19	6	3	****	17	19
15	11	15	13	4	5	11	4	4	9	23	57	21	23	34	30	6	19	5	19	21	19	10	****	3	16
16	7	3	3	7	17	23	24	16	6	13	29	32	31	61	29	19	18	13	8	14	12	15	****	6	18
17	7	12	10	7	5	5	7	7	10	10	12	9	7	7	8	14	17	28	26	11	10	7	****	6	10
18	6	6	6	5	6	6	5	6	7	5	7	6	4	4	5	6	7	12	6	7	9	8	****	9	6
19	9	9	9	9	9	11	13	18	15	17	16	13	12	24	19	17	12	13	10	9	8	7	****	6	12
20	4	4	4	6	7	7	6	6	8	9	8	6	6	6	6	6	8	7	4	4	4	3	****	4	6
21	3	2	3	2	2	3	3	5	6	4	4	4	3	3	3	1	2	1	1	2	1	1	****	2	3
22	1	1	5	9	17	23	19	10	17	16	19	28	36	21	30	41	39	46	29	6	6	3	****	2	18
23	1	0	2	28	2	5	0	0	0	1	10	4	2	7	7	3	1	1	1	1	1	1	****	1	4
24	1	1	1	1	1	1	1	1	1	3	15	33	22	10	8	9	20	18	8	5	5	4	****	17	8
25	15	17	26	27	30	29	21	13	16	38	19	23													
26																									
27																									
28	7	10	7	3	6	3	0	1	0	3	15	11	18	12	13	19	19	23	22	13	4	3	****	2	9
29	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	3	10	11	15	****	9	3

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->				STD	GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID	DATA	1-HR	24-HR	
6	6	9	6	21	29	37	47	0	- 63	3	- 19	3	79	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :  
 \*\*\*\* : DAILY ZERO/SPAN CHECK  
 D : DYNAMIC CALIBRATION  
 T : TELEMETRY/DATALOGGR/ANALYZER FAULT  
 M : MAINTENANCE OR MACHINE SHUTDOWN  
 P : POWER FAILURE
2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 800 OR 24-HR OBJECTIVE 350

THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : QUEEN MARY HOSPITAL  
POLLUTANT : NITROGEN DIOXIDE  
MONTH: FEBRUARY  
YEAR : 2012  
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	96	74	90	50	33	31	28	41	67	64	45	38	40	33	37	39	49	71	86	89	84	92	****	54	58
2	39	28	14	16	16	16	19	32	39	41	35	33	31	37	38	54	55	46	27	30	36	28	****	22	32
3	17	11	10	10	10	10	17	33	52	57	55	47	42	36	40	51	63	64	69	70	68	61	****	39	41
4	36	27	19	16	14	16	16	21	21	25	41	48	41	45	45	44	57	41	40	36	32	60	****	31	34
5	16	13	12	28	65	55	30	42	55	57	51	51	58	37	26	65	29	29	43	45	10	7	****	6	36
6	7	5	21	12	7	9	24	40	55	62	60	56	54	61	55	38	19	14	26	10	10	9	****	44	30
7	25	12	6	21	44	41	34	36	45	31	35	48	47	50	59	59	59	47	45	43	42	48	****	31	39
8	35	28	24	20	19	20	30	35	25	31	32	25	23	25	24	45	56	58	57	58	42	27	****	40	34
9	21	17	14	14	17	18	23	35	38	33	20	32	33	36	40	38	48	47	39	28	43	35	****	36	31
10	33	27	36	31	43	38	27	48	53	54	58	59	49	61	73	80	82	71	61	56	53	48	****	41	51
11	40	39	37	32	27	28	29	30	35	37	37	34	34	40	50	61	68	73	76	74	72	73	****	32	46
12	37	34	32	31	32	22	19	32	26	27	25	27	25	28	42	48	42	51	50	84	79	78	****	57	40
13	55	52	67	50	57	70	73	77	80	84	83	76	75	40	<-- D -->	53	71	67	36	16	16	****	34	59	
14	29	41	29	48	47	39	22	42	68	70	67	59	62	68	71	69	78	80	79	72	58	52	****	67	57
15	66	60	58	42	48	49	43	51	58	61	68	58	51	56	62	43	63	39	67	83	79	63	****	16	56
16	43	29	22	24	36	48	53	56	53	58	59	56	56	69	63	66	65	67	64	71	69	63	****	49	54
17	41	39	38	37	30	30	34	37	44	45	50	48	47	46	56	46	55	77	90	80	61	39	****	21	47
18	23	28	37	27	24	25	30	43	43	27	22	20	20	19	28	40	48	43	46	33	28	23	****	26	31
19	24	21	17	14	13	17	26	39	45	44	44	33	27	42	29	32	31	29	25	30	26	26	****	23	29
20	17	13	10	9	10	10	10	10	23	29	30	29	27	26	35	44	54	50	37	30	23	17	****	14	24
21	10	8	14	7	7	6	12	27	35	33	24	23	24	25	37	47	53	31	27	24	28	21	****	13	23
22	12	7	15	26	51	46	46	50	70	69	65	53	72	65	76	92	91	98	87	28	37	27	****	16	52
23	11	9	14	39	6	15	7	3	7	14	26	24	16	23	21	24	12	9	4	2	2	3	****	5	13
24	4	5	3	2	2	2	3	4	8	20	43	48	42	36	48	32	60	72	57	44	50	39	****	53	29
25	65	63	60	57	59	52	46	43	51	61	51	54	51	49	59	60	59	59	56	37	40	39	****	28	52
26	26	28	27	29	27	27	30	31	31	31	33	37	32	37	42	46	46	48	48	46	40	37	****	37	35
27	36	32	27	20	20	23	21	27	29	35	25	25	23	27	34	37	33	34	44	42	38	39	****	35	31
28	37	33	33	31	30	19	15	28	9	38	60	49	55	66	70	70	70	70	75	69	44	36	****	25	45
29	23	17	13	9	8	7	10	12	16	13	18	31	31	33	38	38	48	77	63	74	75	65	****	50	33

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->				STD GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR	
33	37	39	37	68	75	83	90	2	- 98	2	96	0	0	

- NOTES:
1. FLAGS FOR INVALID DATA :
    - \*\*\*\* : DAILY ZERO/SPAN CHECK
    - D : DYNAMIC CALIBRATION
    - T : TELEMETRY/DATALOGGR/ANALYZER FAULT
    - M : MAINTENANCE OR MACHINE SHUTDOWN
    - P : POWER FAILURE
  2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 300 OR 24-HR OBJECTIVE 150

THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : QUEEN MARY HOSPITAL  
POLLUTANT : SULPHUR DIOXIDE  
MONTH: MARCH  
YEAR : 2012  
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	8	14	28	21	17	18	14	11	39	33	<-- T -->	25	32	32	34	21	20	29	21	33	24	****	16	23	
2	14	9	6	5	4	3	3	6	22	35	56	36	27	30	38	17	8	10	14	28	41	32	****	35	21
3	22	22	37	10	23	14	7	3	4	3	9	21	9	27	7	5	10	21	15	3	2	2	****	2	12
4	3	3	3	2	4	4	7	6	0	2	15	18	34	28	38	33	26	30	15	7	15	33	****	5	14
5	3	2	2	2	1	1	1	0	1	0	2	2	2	4	16	19	10	2	1	1	1	1	****	1	3
6	1	1	1	1	1	3	2	2	6	3	4	2	4	4	8	13	5	3	2	5	6	4	****	2	4
7	2	1	2	2	1	1	1	1	1	9	9	20	23	32	39	18	20	18	14	16	18	12	****	12	12
8	4	5	12	24	15	5	9	3	3	14	11	9	10	5	15	4	8	21	4	5	3	5	****	4	9
9	4	1	3	2	2	2	3	2	2	2	2	2	2	M	20	7	6	5	6	6	5	****	3	4	
10	2	2	2	2	2	2	2	2	4	7	5	5	17	20	11	18	11	5	11	10	3	3	****	4	7
11	7	3	3	1	1	1	1	5	4	3	2	1	3	6	7	8	5	8	6	4	2	3	****	3	4
12	2	1	2	2	2	2	2	2	2	2	2	2	2	3	2	1	1	2	2	2	1	0	****	0	2
13	0	0	1	2	6	6	3	6	4	3	2	3	7	7	12	19	39	37	24	23	9	4	****	1	9
14	1	1	3	4	6	6	3	8	7	3	9	11	6	4	9	19	15	40	34	8	5	5	****	1	9
15	0	0	1	0	1	0	4	4	9	4	13	8	4	9	20	14	41	39	39	34	16	8	****	5	12
16	6	2	6	1	1	2	8	9	6	9	18	38	34	29	9	5	4	8	21	13	11	14	****	12	12
17	9	6	4	2	2	1	1	1	2	5	11	15	24	5	41	16	31	14	12	5	12	9	****	2	10
18	2	0	1	4	3	1	1	1	3	4	17	44	11	11	15	23	17	24	21	7	3	7	****	2	10
19	3	6	4	2	2	3	13	16	3	2	2	2	2	4	17	14	33	16	6	13	11	****	2	8	
20	2	2	1	0	1	3	19	18	28	47	49	46	67	50	52	40	40	34	33	22	33	24	****	17	27
21	7	2	3	4	4	3	2	5	5	3	3	3	3	2	3	3	3	3	2	1	1	1	****	2	3
22	2	3	3	3	2	2	3	3	3	21	14	5	3	3	4	4	6	5	4	3	3	2	****	8	5
23	6	6	4	3	4	3	4	3	6	14	86	60	32	50	50	45	33	17	10	8	6	4	****	4	20
24	3	5	6	6	5	4	6	6	8	8	8	8	8	8	22	16	32	21	10	8	8	8	****	6	10
25	6	5	4	7	9	14	9	10	14	25	21	19	17	10	9	6	6	7	10	7	8	8	****	4	10
26	5	7	6	5	5	5	7	8	6	7	6	5	5	5	6	8	7	6	5	5	8	10	****	6	6
27	7	7	7	8	8	8	8	8	7	8	7	6	7	6	5	5	5	6	6	7	5	4	****	3	6
28	4	5	5	5	5	5	7	6	7	6	6	6	5	5	4	4	4	3	3	3	3	2	****	3	5
29	3	3	3	4	4	4	4	3	3	3	2	2	2	2	2	2	2	3	3	3	3	2	****	3	3
30	2	2	2	2	2	2	1	2	2	1	0	1	4	18	13	5	2	1	1	0	1	17	****	3	4
31	4	3	2	2	2	8	35	6	4	4	4	9	11	6	8	7	5	4	5	3	4	3	****	5	6

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->			STD GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	50	90	95	98	99	1-HR		24-HR	DEVIATION	VALID DATA	1-HR	24-HR
5	5	5	24	34	41	50	0	-	86	3	95	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :  
 \*\*\*\* : DAILY ZERO/SPAN CHECK  
 D : DYNAMIC CALIBRATION  
 T : TELEMETRY/DATALOGGR/ANALYZER FAULT  
 M : MAINTENANCE OR MACHINE SHUTDOWN  
 P : POWER FAILURE
2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 800 OR 24-HR OBJECTIVE 350

THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : QUEEN MARY HOSPITAL  
 POLLUTANT : NITROGEN DIOXIDE  
 MONTH: MARCH  
 YEAR : 2012  
 UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	51	53	68	57	42	46	42	32	65	71	<-- T -->	63	66	70	71	79	83	94	87	86	77	****	47	64	
2	58	52	34	26	30	17	20	36	53	69	65	62	56	50	51	38	49	63	75	78	78	76	****	62	52
3	46	49	52	23	44	35	26	21	22	21	30	37	28	50	39	40	49	73	57	24	16	12	****	22	36
4	30	27	21	14	17	16	23	26	16	18	37	38	45	47	46	49	48	60	72	39	56	82	****	23	37
5	5	4	3	2	2	4	5	5	6	6	9	10	12	12	18	25	27	17	6	7	6	6	****	7	9
6	7	7	4	5	11	8	10	15	12	13	7	8	12	13	14	19	11	9	12	15	14	11	****	7	11
7	8	6	7	9	10	9	10	12	7	27	36	42	46	56	71	64	71	76	84	82	84	60	****	48	40
8	24	30	42	54	38	22	33	41	51	67	61	53	59	40	60	42	46	89	76	84	61	57	****	36	51
9	36	16	21	27	32	30	22	29	32	33	24	32	30	38	M	55	59	60	58	56	54	47	****	41	38
10	40	37	33	33	27	24	29	33	40	47	45	46	48	48	57	61	65	63	64	65	62	57	****	54	47
11	57	51	35	31	28	31	37	46	48	47	45	44	47	54	52	55	56	60	59	54	43	46	****	42	46
12	40	37	27	24	20	21	20	27	35	42	36	38	35	39	45	38	27	54	54	50	46	26	****	16	34
13	16	40	31	25	36	43	29	50	39	47	48	46	55	53	62	62	70	80	81	80	67	50	****	32	50
14	26	22	23	25	24	22	22	41	44	43	46	46	37	38	46	66	72	101	102	55	24	20	****	19	42
15	9	8	6	10	7	10	24	26	40	41	47	39	40	41	57	57	86	94	102	98	65	27	****	41	42
16	26	6	29	5	4	6	28	56	60	48	52	57	49	56	47	33	32	66	90	84	84	79	****	76	47
17	71	69	52	27	11	9	4	7	19	27	54	45	39	13	38	25	42	35	57	33	24	15	****	7	32
18	13	3	22	20	14	0	5	13	28	33	41	34	14	15	19	25	24	29	44	24	3	35	****	1	20
19	5	6	3	1	6	17	38	44	47	47	36	36	38	36	35	54	61	83	66	51	89	84	****	25	39
20	18	21	5	3	6	15	48	55	73	77	70	73	82	68	71	76	89	94	96	91	91	79	****	54	59
21	27	13	11	8	8	7	11	21	24	20	12	15	14	10	12	15	19	31	19	16	14	10	****	15	15
22	14	12	8	6	6	8	16	39	52	54	33	21	8	16	18	38	49	53	55	59	42	33	****	39	29
23	52	39	23	16	29	21	30	32	37	44	87	64	71	108	61	61	58	55	48	44	43	34	****	24	47
24	17	13	14	17	11	10	15	23	30	32	36	38	33	41	60	54	72	50	54	50	50	28	****	36	34
25	35	23	17	21	16	30	21	27	29	56	53	43	35	19	19	7	8	14	28	29	20	15	****	16	25
26	18	14	11	10	8	9	10	12	28	40	34	22	20	24	21	18	16	17	16	22	24	27	****	18	19
27	15	11	9	6	6	6	9	17	29	38	39	32	28	22	28	34	35	29	31	21	19	17	****	12	22
28	13	11	10	7	6	7	10	21	32	37	27	28	27	23	15	24	28	14	16	11	14	5	****	11	17
29	18	11	10	8	3	5	6	13	26	23	15	12	4	3	3	3	8	15	16	7	6	8	****	9	10
30	5	6	3	2	3	3	3	6	8	7	7	10	20	59	61	20	8	6	18	16	12	68	****	28	16
31	46	23	18	17	10	40	43	16	20	24	28	56	62	45	45	41	25	21	37	33	28	25	****	21	31

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->			STD GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR	
26	30	30	66	79	88	94	0	- 108	2	95	0	0	

- NOTES: 1. FLAGS FOR INVALID DATA :  
 \*\*\*\* : DAILY ZERO/SPAN CHECK  
 D : DYNAMIC CALIBRATION  
 T : TELEMETRY/DATALOGGR/ANALYZER FAULT  
 M : MAINTENANCE OR MACHINE SHUTDOWN  
 P : POWER FAILURE
2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 300 OR 24-HR OBJECTIVE 150

THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : AP LEI CHAU  
 POLLUTANT : SULPHUR DIOXIDE  
 MONTH: JANUARY  
 YEAR : 2012  
 UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN												
1	9	8	8	7	7	7	7	7	9	9	9	11	11	15	12	7	7	7	7	9	8	****	5	8													
2	6	7	8	6	7	7	8	8	9	9	8	10	10	10	11	10	11	11	11	11	10	11	****	14	9												
3	13	11	10	8	10	10	10	11	8	8	10	13	10	21	13	12	11	11	11	11	11	11	****	13	11												
4	12	13	13	9	12	10	12	11	16	14	12	8	9	9	11	9	9	9	9	11	11	9	****	10	11												
5	9	9	10	9	10	8	8	9	8	8	8	8	8	8	8	8	5	4	4	4	4	5	****	6	7												
6	5	5	6	7	8	5	6	8	13	24	25	15	23	24	21	22	15	17	20	18	23	20	****	15	15												
7	15	13	11	7	9	12	8	6	5	4	2	3	6	11	8	7	5	4	5	5	7	5	****	5	7												
8	3	3	4	4	6	5	7	7	8	9	39	51	31	31	31	42	41	46	39	21	14	15	****	22	21												
9	15	8	8	8	12	15	26	21	18	24	29	28	30	23	18	21	33	24	23	27	35	27	****	27	22												
10	19	10	10	8	7	8	8	7	11	11	12	10	18	25	17	25	13	14	29	28	20	21	****	14	15												
11	15	8	8	8	7	7	9	9	12	13	13	9	9	26	33	25	13	8	9	8	8	8	****	9	12												
12	8	7	8	5	6	5	8	6	8	8	9	9	10	11	11	11	10	10	10	10	10	9	****	11	9												
13	9	8	9	11	9	9	10	10	8	8	7	7	6	5	5	6	7	17	19	9	12	****	6	9													
14	7	7	7	7	5	5	5	4	4	5	5	4	4	4	4	30	27	17	31	48	15	12	****	140	17												
15	74	84	67	57	82	67	23	29	80	41	26	24	21	24	17	23	17	13	10	7	6	5	****	6	35												
16	8	3	15	6	23	25	19	34	43	28	22	20	37	38	33	20	10	4	5	10	9	3	****	1	18												
17	5	33	28	7	4	3	4	4	2	4	3	3	5	4	4	5	4	4	6	8	6	****	7	7													
18	7	9	8	5	7	8	7	7	5	5	5	5	4	3	10	5	5	4	4	3	2	3	****	3	5												
19	2	13	16	3	1	1	1	3	4	5	3	2	15	5	4	59	9	27	18	8	11	6	****	10	10												
20	18	10	3	3	2	3	2	2	2	2	2	2	3	3	4	4	4	4	5	4	4	3	****	3	4												
21	4	4	4	4	4	4	4	4	3	4	5	4	5	4	4	5	4	4	4	4	4	4	****	4	4												
22	4	3	5	3	3	3	3	5	4	5	6	9	8	12	9	15	5	8	6	10	5	6	****	5	6												
23	6	5	6	6	6	6	6	4	6	10	6	6	5	6	7	6	3	3	2	1	2	2	****	2	5												
24	2	2	2	2	3	3	3	3	4	4	4	4	4	8	16	11	8	7	5	3	6	6	****	5	5												
25	5	4	3	3	3	3	3	4	5	6	8	8	10	6	10	12	10	10	8	7	5	5	****	5	6												
26	3	4	5	5	5	5	5	5	5	5	6	6	8	9	8	8	8	8	8	8	8	6	****	6	6												
27	7	6	5	5	6	4	<-----	----->																	74	44	2	1	1	2	7	30	27	27	31	****	26
28	24	24	21	23	22	22	24	21	21	21	20	21	28	32	34	27	21	21	26	25	25	25	****	23	24												
29	28	26	30	11	7	6	6	11	7	14	15	17	20	11	19	29	19	14	29	26	25	26	****	19	18												
30	7	6	5	4	4	5	3	5	7	15	8	21	16	10	<-- D -->	7	7	10	10	9	13	****	9	9													

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->			STD GEOM	PERCENT	NO. OF TIMES ABOVE OBJECTIVE	
MEAN	MEDIAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR	
9	8	8	25	31	44	67	1	- 140	2	92	0	0	

- NOTES:
1. FLAGS FOR INVALID DATA :
    - \*\*\*\* : DAILY ZERO/SPAN CHECK
    - D : DYNAMIC CALIBRATION
    - T : TELEMETRY/DATALOGGR/ANALYZER FAULT
    - M : MAINTENANCE OR MACHINE SHUTDOWN
    - P : POWER FAILURE
  2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 800 OR 24-HR OBJECTIVE 350

THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : AP LEI CHAU  
 POLLUTANT : NITROGEN DIOXIDE  
 MONTH: JANUARY  
 YEAR : 2012  
 UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	16	23	30	17	28	40	43	43	41	29	23	23	21	25	24	16	15	17	19	17	21	15	****	14	24
2	9	10	10	9	9	11	10	12	17	15	13	18	24	17	13	16	19	15	15	14	14	13	****	16	14
3	18	16	13	11	12	13	12	22	28	38	36	37	26	52	28	18	20	27	63	43	27	34	****	48	28
4	60	43	35	26	23	22	33	46	68	66	61	47	45	46	59	62	70	71	84	86	85	75	****	53	55
5	56	49	42	39	32	23	27	35	30	32	37	38	37	41	47	48	52	56	57	51	46	43	****	47	42
6	46	41	36	40	40	37	39	44	46	51	56	57	51	57	62	67	73	79	80	78	73	68	****	59	56
7	62	55	53	44	38	43	42	44	32	28	19	27	32	52	54	52	46	44	59	70	62	56	****	47	46
8	44	36	41	38	26	26	34	38	38	29	41	56	53	65	84	98	102	112	117	109	92	86	****	85	63
9	85	56	46	47	57	60	61	63	67	70	68	66	64	72	81	92	92	105	73	106	85	123	****	106	76
10	111	75	49	31	23	22	38	66	79	81	81	72	59	69	47	47	36	43	59	81	80	122	****	105	64
11	96	38	27	26	31	30	30	53	62	66	61	58	54	66	82	89	85	80	80	60	54	46	****	52	58
12	41	31	29	19	22	23	27	37	27	30	36	39	38	43	52	55	61	78	66	50	51	40	****	26	40
13	46	38	25	23	22	22	33	45	47	52	43	44	48	43	49	51	64	56	64	59	33	49	****	19	42
14	17	19	19	13	9	10	24	29	43	42	43	42	38	41	44	63	66	71	71	73	67	52	****	102	43
15	94	92	86	80	93	86	59	57	61	61	55	46	48	45	44	46	44	42	45	51	46	45	****	47	60
16	51	15	32	20	40	45	44	45	47	47	45	45	55	66	71	72	71	64	70	82	87	86	****	43	54
17	35	69	52	25	16	16	24	37	36	32	25	21	16	20	8	12	18	22	18	13	14	9	****	12	24
18	11	12	9	7	8	10	12	21	26	32	22	22	9	5	19	10	15	34	26	22	8	15	****	10	16
19	39	53	44	20	10	14	15	43	52	41	10	17	48	24	15	56	17	53	25	16	79	45	****	52	34
20	58	27	14	10	9	9	12	19	12	12	11	10	10	10	16	24	12	20	22	22	16	17	****	21	17
21	16	17	15	13	9	9	13	15	18	20	20	15	16	17	15	15	14	15	15	17	18	16	****	31	16
22	27	23	20	16	20	28	33	37	35	36	35	38	35	36	37	43	42	44	47	49	46	39	****	40	35
23	38	34	34	25	21	23	25	28	30	34	32	30	31	31	33	36	33	33	31	26	21	****	17	29	
24	18	10	11	8	9	10	15	12	18	18	23	26	29	34	32	31	33	36	35	35	39	****	37	24	
25	37	30	19	14	12	11	22	33	43	44	40	40	46	43	46	47	48	52	59	58	53	36	****	37	38
26	32	17	14	10	9	8	12	17	14	15	29	20	14	16	15	23	23	21	33	25	15	15	****	18	18
27	18	12	11	12	12	18	28	37	43	50	47	40	38	49	61	57	78	85	79	57	51	48	****	33	42
28	39	23	16	11	12	20	26	54	55	55	43	52	37	7	3	2	18	41	104	106	106	99	****	67	43
29	60	54	48	50	46	44	40	38	37	34	34	40	45	46	50	53	58	62	62	67	69	67	****	72	51
30	74	66	57	46	28	26	32	44	48	54	51	44	49	37	51	60	61	77	109	120	118	115	****	94	64
31	48	28	29	25	26	22	28	44	57	62	56	57	32	23	<-- D -->	24	26	23	27	78	91	****	66	42	

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->			STD GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR	
34	38	38	73	86	105	110	2	- 123	2	96	0	0	

- NOTES: 1. FLAGS FOR INVALID DATA :  
 \*\*\*\* : DAILY ZERO/SPAN CHECK  
 D : DYNAMIC CALIBRATION  
 T : TELEMETRY/DATALOGGR/ANALYZER FAULT  
 M : MAINTENANCE OR MACHINE SHUTDOWN  
 P : POWER FAILURE
2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 300 OR 24-HR OBJECTIVE 150

THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : AP LEI CHAU  
 POLLUTANT : SULPHUR DIOXIDE  
 MONTH: FEBRUARY  
 YEAR : 2012  
 UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	23	15	6	5	5	4	4	5	5	4	4	5	4	4	5	4	4	4	4	3	4	4	****	5	6
2	5	6	5	6	5	5	6	7	6	7	6	8	7	8	8	8	8	8	8	7	6	7	****	6	7
3	5	5	5	5	4	5	3	4	10	7	11	9	5	5	5	6	5	7	6	4	4	7	****	3	6
4	5	5	5	5	5	4	3	4	4	4	3	4	4	11	4	5	5	5	5	5	5	6	****	7	5
5	5	6	6	6	6	6	8	6	6	7	8	8	8	5	6	5	4	3	3	2	2	2	****	1	5
6	2	1	1	1	1	1	1	1	2	2	3	4	2	4	6	3	5	3	2	2	2	2	****	6	2
7	10	12	7	11	15	17	15	4	7	9	10	8	9	6	8	13	4	4	3	4	3	6	****	2	8
8	2	3	4	3	3	4	4	3	3	5	4	4	4	4	4	5	5	4	5	8	8	****	7	4	
9	7	8	9	8	8	9	10	10	10	8	7	7	7	7	6	7	7	6	6	5	6	****	4	7	
10	4	4	4	4	3	5	4	5	5	4	32	39	8	33	26	17	25	20	13	12	9	14	****	10	13
11	14	12	16	12	4	5	5	3	3	5	1	2	2	12	11	10	9	11	13	19	23	17	****	6	9
12	2	5	4	3	5	2	1	1	1	0	1	2	2	5	28	9	44	22	8	29	7	30	****	8	10
13	9	3	30	24	24	43	38	30	30	74	114	69	41	8	2	2	2	2	2	2	2	2	****	7	24
14	5	3	5	2	1	2	1	1	1	24	21	29	21	5	7	7	1	1	1	2	1	1	****	1	6
15	1	2	2	2	8	15	9	4	5	10	6	3	3	6	33	6	8	4	4	4	4	4	****	4	7
16	3	3	3	3	3	18	30	36	5	7	5	19	32	22	10	10	18	8	6	7	8	4	****	4	12
17	5	4	5	3	5	3	4	6	8	13	5	9	18	3	3	4	5	4	9	6	6	6	****	6	6
18	4	6	6	6	6	5	5	5	6	6	6	5	5	4	4	6	7	6	8	8	10	10	****	10	6
19	11	11	10	11	10	12	14	15	14	14	12	11	12	11	10	9	12	12	9	8	7	6	****	3	11
20	3	3	4	6	6	8	8	6	10	10	8	7	7	7	8	11	11	9	7	5	6	5	****	6	7
21	5	4	4	4	4	4	4	3	4	3	4	4	4	4	3	2	2	2	2	1	2	1	****	2	3
22	1	1	1	1	1	2	1	1	2	8	5	2	11	15	31	31	29	23	18	17	15	18	****	13	11
23	4	5	5	28	34	23	9	5	3	6	11	10	10	4	6	4	4	4	2	2	1	1	****	2	8
24	1	1	2	2	2	1	1	2	2	1	2	1	2	2	2	2	1	2	2	2	2	2	****	3	2
25	2	2	2	2	1	1	2	1	1	1	2	15	28	27	19	17	5	3	2	2	2	2	****	2	6
26	1	3	1	3	3	5	3	3	3	3	2	2	4	3	3	4	6	6	10	4	2	1	****	0	3
27	1	2	3	4	3	3	1	1	3	3	2	2	2	2	2	3	3	3	3	3	3	3	****	3	2
28	4	7	6	2	2	4	2	4	2	5	13	14	14	14	26	20	49	52	33	6	2	2	****	2	12
29	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	****	0	0

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->				STD GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR	
5	5	7	5	15	25	33	42	0	- 114	3	96	0	0	

- NOTES: 1. FLAGS FOR INVALID DATA :  
 \*\*\*\* : DAILY ZERO/SPAN CHECK  
 D : DYNAMIC CALIBRATION  
 T : TELEMETRY/DATALOGGR/ANALYZER FAULT  
 M : MAINTENANCE OR MACHINE SHUTDOWN  
 P : POWER FAILURE
2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 800 OR 24-HR OBJECTIVE 350

THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : AP LEI CHAU  
 POLLUTANT : NITROGEN DIOXIDE  
 MONTH: FEBRUARY  
 YEAR : 2012  
 UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	120	113	39	14	18	19	26	46	54	41	22	11	6	7	8	9	8	8	24	38	39	62	****	45	34
2	31	19	10	10	11	15	16	17	12	18	17	13	6	9	14	11	17	15	13	25	13	18	****	7	15
3	7	8	6	6	7	11	23	39	55	47	44	45	29	32	34	51	60	67	69	69	61	30	****	18	36
4	19	15	13	13	13	16	18	23	31	31	28	39	41	30	17	14	25	22	16	24	12	20	****	51	23
5	41	40	24	23	26	28	42	36	20	15	17	13	23	19	19	21	21	20	25	13	10	10	****	7	22
6	5	3	3	8	7	10	22	32	43	38	32	26	11	52	33	39	39	56	16	7	11	6	****	12	22
7	22	40	15	24	42	42	37	39	44	43	49	51	59	58	61	57	60	63	74	48	55	53	****	38	47
8	38	35	23	20	20	21	27	33	38	40	38	33	28	30	33	36	48	56	55	44	43	39	****	39	35
9	31	25	18	16	16	18	21	18	20	14	15	13	13	14	15	16	17	18	20	15	19	16	****	19	18
10	20	18	15	13	20	21	34	47	57	55	70	68	45	67	69	87	91	85	70	66	63	62	****	47	52
11	46	43	42	38	35	33	33	29	33	39	39	35	29	41	58	69	74	81	86	73	83	74	****	32	50
12	26	26	25	22	32	32	20	21	29	20	19	18	18	24	42	30	61	60	58	72	67	59	****	39	36
13	55	24	59	56	66	70	71	65	81	88	95	85	72	42	16	9	20	23	24	16	12	14	****	31	48
14	24	9	17	4	6	9	25	31	50	70	65	62	67	38	40	41	11	17	24	38	11	22	****	20	30
15	23	37	30	20	38	42	44	63	64	48	21	10	11	19	46	48	54	57	33	29	33	19	****	20	35
16	10	12	10	7	6	40	64	60	55	50	54	60	57	56	43	49	64	56	58	65	66	46	****	35	45
17	38	40	38	37	33	32	34	39	46	52	50	54	50	29	31	34	16	38	71	66	45	39	****	35	41
18	35	31	29	30	25	25	28	36	40	40	32	22	15	15	19	42	37	18	19	20	16	15	****	12	26
19	11	11	10	11	10	16	24	29	31	36	32	23	19	22	12	12	12	17	19	24	20	17	****	9	19
20	8	8	7	7	8	12	22	31	49	55	35	36	22	24	22	27	36	30	28	12	8	10	****	21	23
21	17	8	8	7	6	7	12	22	24	24	21	18	14	19	21	28	40	37	28	13	17	11	****	14	18
22	14	9	7	10	9	10	15	28	40	74	62	25	53	67	83	102	104	103	99	115	107	96	****	70	57
23	41	58	42	52	53	49	30	27	22	37	34	44	70	48	36	9	5	7	7	6	5	5	****	7	30
24	4	5	6	5	2	1	2	14	22	21	27	27	24	35	40	41	40	39	31	23	22	17	****	24	21
25	31	17	13	7	8	11	20	34	35	48	56	55	58	59	64	57	63	60	41	40	30	28	****	23	37
26	28	25	24	28	26	25	27	29	32	32	31	22	23	27	28	38	49	49	50	49	40	31	****	32	32
27	29	27	20	17	14	16	17	19	30	29	31	32	28	33	38	39	42	40	41	39	36	37	****	32	30
28	35	35	34	31	26	24	25	34	37	32	44	63	60	50	61	74	76	81	74	58	35	16	****	12	44
29	11	8	8	8	6	7	9	14	18	20	16	15	15	23	24	29	31	37	24	25	16	11	****	14	17

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->			STD GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR
26	28	32	28	62	70	86	101	1	- 120	2	96	0	0

- NOTES:
1. FLAGS FOR INVALID DATA :
    - \*\*\*\* : DAILY ZERO/SPAN CHECK
    - D : DYNAMIC CALIBRATION
    - T : TELEMETRY/DATALOGGR/ANALYZER FAULT
    - M : MAINTENANCE OR MACHINE SHUTDOWN
    - P : POWER FAILURE
  2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 300 OR 24-HR OBJECTIVE 150

THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : AP LEI CHAU  
 POLLUTANT : SULPHUR DIOXIDE  
 MONTH: MARCH  
 YEAR : 2012  
 UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	0	0	0	14	8	10	7	13	1	20	<-- T -->	23	2	1	1	3	2	3	7	3	5	****	8	6	
2	21	27	94	107	114	37	93	35	32	24	2	4	1	2	0	0	0	1	1	1	24	2	****	1	27
3	1	10	9	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	****	3	2
4	1	1	1	1	2	1	1	1	1	2	1	4	3	3	6	39	13	21	4	2	2	6	****	2	5
5	1	1	2	2	2	3	3	2	4	4	4	4	12	13	12	16	21	7	5	5	4	4	****	4	6
6	5	9	5	6	13	9	17	17	16	16	13	18	13	43	16	31	17	10	19	25	40	10	****	5	16
7	5	2	2	3	3	2	2	2	1	1	2	2	1	1	0	0	1	0	0	0	0	0	****	0	1
8	0	0	0	0	0	0	0	0	1	1	1	2	1	1	1	1	1	2	1	2	2	1	****	3	1
9	2	2	1	6	3	5	2	2	2	3	3	3	3	4	5	26	1	5	5	9	4	2	****	5	4
10	5	5	6	2	2	2	4	4	2	2	8	2	12	12	26	11	6	9	12	8	3	3	****	4	7
11	3	1	2	1	0	0	0	2	0	1	1	4	2	0	2	2	1	0	0	0	0	0	****	0	1
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	****	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	15	33	38	24	4	2	1	****	0	5
14	0	1	2	4	3	2	1	1	0	1	1	1	5	4	2	1	1	0	1	1	0	0	****	0	1
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	****	0	0
16	0	0	0	0	0	0	0	4	4	14	4	1	4	0	0	1	0	3	71	43	35	6	****	1	8
17	3	1	1	0	0	0	0	0	0	2	13	17	18	9	46	15	36	35	11	31	19	21	****	11	13
18	7	4	4	26	25	7	3	3	8	10	17	130	59	42	62	39	40	33	37	33	34	40	****	15	30
19	44	21	17	11	8	12	13	4	2	3	3	2	2	1	2	1	2	4	5	4	3	3	****	1	7
20	3	2	1	1	1	1	1	1	2	37	47	5	11	21	10	4	26	65	30	6	11	6	****	2	13
21	1	1	2	2	2	0	0	1	2	1	0	0	0	0	0	2	4	3	3	1	2	1	****	1	1
22	2	1	2	3	3	2	2	2	2	2	2	2	2	2	4	2	4	4	3	4	2	1	****	1	2
23	0	0	10	38	28	52	46	36	21	97	144	115	39	48	46	45	33	13	8	6	5	2	****	2	36
24	2	3	5	5	5	3	5	6	8	8	8	7	11	14	16	18	20	8	8	7	7	7	****	7	8
25	7	5	5	7	7	7	8	9	14	32	13	12	11	9	7	6	7	9	8	7	6	5	****	6	9
26	8	11	9	7	5	6	6	7	6	5	4	5	5	5	5	7	6	5	4	5	7	7	****	4	6
27	4	5	5	6	7	6	7	6	5	5	4	4	5	4	4	4	4	5	5	6	4	3	****	3	5
28	4	3	3	4	5	4	5	6	6	5	5	5	5	5	4	5	5	4	3	3	3	2	****	4	4
29	3	4	4	5	4	5	5	4	4	4	3	2	3	4	2	4	3	6	7	5	5	5	****	6	4
30	5	5	5	5	4	4	4	5	6	5	4	3	3	3	3	3	5	3	4	4	4	3	****	3	4
31	3	3	5	5	4	4	5	4	4	6	9	14	16	8	6	6	4	3	5	5	5	4	****	4	6

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->		STD GEOM	PERCENT	NO. OF TIMES		
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	ABOVE OBJECTIVE	
												1-HR	24-HR
3	3	8	3	19	36	47	82	0	- 144	5	96	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :  
 \*\*\*\* : DAILY ZERO/SPAN CHECK  
 D : DYNAMIC CALIBRATION  
 T : TELEMETRY/DATALOGGR/ANALYZER FAULT  
 M : MAINTENANCE OR MACHINE SHUTDOWN  
 P : POWER FAILURE
2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 800 OR 24-HR OBJECTIVE 350

THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : AP LEI CHAU  
 POLLUTANT : NITROGEN DIOXIDE  
 MONTH: MARCH  
 YEAR : 2012  
 UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	21	15	11	42	33	40	48	62	38	53	<-- T -->	40	18	25	25	34	45	45	77	68	72	****	80	42	
2	82	68	72	74	74	58	66	61	58	58	11	12	5	9	0	0	1	2	3	16	52	12	****	8	35
3	8	35	40	19	15	20	31	31	33	25	32	33	27	23	27	36	34	33	32	21	13	11	****	16	26
4	16	12	10	10	9	9	17	16	18	19	18	23	14	21	22	59	43	60	36	11	11	17	****	4	21
5	3	3	4	2	1	4	5	5	8	5	4	2	9	15	13	12	13	7	8	10	7	6	****	9	7
6	9	16	6	7	17	15	20	25	17	12	5	7	8	22	11	19	15	9	22	23	31	11	****	9	15
7	10	10	15	22	22	16	16	13	14	9	43	41	22	41	44	38	43	44	46	37	36	24	****	17	27
8	18	17	15	12	9	10	16	31	35	53	46	41	25	34	37	50	60	81	64	45	43	35	****	39	36
9	37	16	16	31	30	27	21	31	27	26	36	31	31	43	50	59	51	60	63	63	56	49	****	45	39
10	43	41	39	34	28	27	35	38	45	47	51	49	49	56	70	71	69	69	73	70	66	58	****	60	52
11	60	51	42	31	24	33	39	46	44	45	46	48	48	45	47	50	59	61	59	50	43	41	****	38	46
12	38	35	33	18	17	20	20	28	24	41	44	44	38	43	53	51	54	54	61	45	17	10	****	22	35
13	27	37	34	30	23	21	22	43	48	51	42	45	36	49	50	56	66	76	74	64	37	42	****	12	43
14	18	16	14	15	10	13	16	25	29	31	19	18	52	41	35	33	42	27	15	12	10	6	****	9	22
15	6	5	1	4	3	7	10	13	15	21	18	19	12	11	17	27	18	27	24	20	17	7	****	4	13
16	2	1	1	1	4	6	23	56	69	96	59	28	26	5	0	3	8	35	90	83	98	47	****	33	34
17	72	25	24	33	16	18	6	25	9	36	47	31	21	6	29	20	33	23	12	35	27	33	****	66	28
18	61	55	50	55	51	29	16	22	46	26	18	53	40	29	44	35	32	34	44	46	70	73	****	32	42
19	42	22	16	11	24	34	43	18	14	30	40	43	28	25	28	34	33	30	41	32	20	14	****	9	27
20	9	7	5	8	7	8	18	42	61	81	75	45	36	34	42	26	63	104	71	23	34	20	****	10	36
21	7	7	6	6	6	5	7	8	16	16	8	8	7	4	5	7	14	12	5	4	6	5	****	8	8
22	14	11	7	4	4	8	19	40	39	18	9	5	3	12	12	15	26	28	16	25	15	23	****	26	16
23	27	26	38	68	60	70	70	62	80	73	89	78	71	113	67	65	64	56	51	46	43	38	****	27	60
24	22	20	16	15	18	14	20	32	35	38	42	46	51	52	59	45	47	18	33	27	31	31	****	42	33
25	40	20	17	15	15	17	20	30	48	65	35	29	16	16	10	7	7	11	20	23	13	10	****	14	22
26	18	18	13	8	6	9	19	32	31	27	21	24	15	10	11	18	15	10	9	10	14	14	****	9	16
27	9	9	6	6	6	10	13	22	27	27	23	13	7	10	13	21	31	40	39	16	11	8	****	10	16
28	7	8	7	7	6	9	10	17	29	28	14	19	14	17	11	16	13	15	16	8	6	5	****	11	13
29	11	7	7	7	5	8	12	16	16	17	17	11	1	2	3	3	4	18	15	8	6	5	****	8	9
30	5	4	5	4	2	7	10	12	14	9	6	3	3	1	0	1	1	2	9	25	19	13	****	16	7
31	28	12	24	17	15	21	45	24	38	40	48	67	80	68	49	40	9	11	14	10	9	7	****	8	30

MONTHLY STATISTICS:

GEOM	ARITH	-----PERCENTILE-----					-----RANGE-----				STD GEOM	PERCENT	NO. OF TIMES		
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR		
20	22	28	22	59	69	77	82	0	- 113	7	- 60	3	96	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :  
 \*\*\*\* : DAILY ZERO/SPAN CHECK  
 D : DYNAMIC CALIBRATION  
 T : TELEMETRY/DATALOGGR/ANALYZER FAULT  
 M : MAINTENANCE OR MACHINE SHUTDOWN  
 P : POWER FAILURE
2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 300 OR 24-HR OBJECTIVE 150

THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : CHEUNG CHAU  
 POLLUTANT : SULPHUR DIOXIDE  
 MONTH: JANUARY  
 YEAR : 2012  
 UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	9	9	10	12	8	7	8	13	12	18	23	21	21	14	10	14	11	6	8	10	9	10	****	8	12
2	6	5	5	5	7	5	5	5	9	9	11	9	9	10	9	9	8	8	8	8	8	8	****	11	8
3	12	11	10	8	7	8	8	8	8	11	12	12	15	13	11	10	12	8	9	11	8	11	****	21	11
4	17	10	13	8	7	7	6	5	6	6	7	7	8	8	8	8	9	7	9	7	8	10	****	8	8
5	5	5	6	6	6	7	8	8	13	13	12	15	17	16	14	14	10	4	4	6	7	6	****	4	9
6	3	2	3	2	3	3	3	3	3	4	5	5	5	6	6	6	8	10	9	8	9	****	11	5	
7	7	6	6	5	5	5	5	5	6	8	9	10	10	12	10	8	8	7	8	8	7	8	****	7	7
8	6	5	5	5	5	7	8	10	10	13	21	18	16	18	14	31	25	47	43	28	24	26	****	27	18
9	20	17	17	14	13	9	9	10	10	9	11	13	14	16	16	17	16	13	12	15	18	****	12	13	
10	14	16	17	15	18	22	15	13	16	12	11	10	11	10	6	10	8	7	10	10	13	15	****	9	13
11	9	13	13	7	7	7	9	10	9	10	7	9	8	10	10	9	7	5	8	9	10	12	****	19	9
12	20	17	13	12	6	8	9	9	12	9	12	11	14	10	10	12	10	9	6	9	13	12	****	13	11
13	11	10	10	13	11	7	10	11	15	17	17	18	17	16	10	10	12	10	7	7	6	5	****	8	11
14	7	6	6	5	5	6	6	8	11	12	13	12	12	9	12	6	8	6	3	4	7	6	****	5	8
15	5	7	7	8	13	12	12	12	13	12	17	18	15	12	6	4	5	4	4	5	7	12	****	10	10
16	11	6	5	4	3	4	9	13	25	58	43	24	19	27	29	30	12	5	4	3	3	3	****	4	15
17	4	4	5	6	9	11	7	5	7	12	13	11	9	5	4	3	3	2	2	4	4	5	****	5	6
18	5	6	5	5	6	6	5	5	6	7	8	6	3	4	5	7	3	6	9	11	10	8	****	7	6
19	9	14	10	8	10	10	12	10	22	23	10	8	13	12	24	23	24	35	26	31	30	24	****	14	17
20	15	14	8	4	8	5	3	2	5	6	4	4	3	4	2	4	3	2	2	3	2	2	****	5	5
21	3	2	5	4	3	3	2	2	4	4	3	4	3	4	6	4	3	3	3	5	5	5	****	4	4
22	7	5	5	5	9	3	2	2	3	3	3	3	3	3	3	3	2	2	2	2	2	2	****	3	3
23	4	4	5	5	3	2	4	4	5	3	2	3	2	3	2	2	2	4	4	4	6	8	****	14	4
24	14	7	9	8	7	8	6	6	8	9	7	6	5	4	4	3	3	2	1	1	2	2	****	1	5
25	1	1	1	2	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	3	4	****	2	2
26	2	4	3	4	3	5	7	6	8	9	8	9	11	10	9	11	11	11	12	12	13	11	****	9	8
27	9	7	8	8	10	10	8	9	12	19	21	18	22	21	18	14	11	11	9	15	13	11	****	10	13
28	8	8	8	6	7	10	13	17	16	12	11	16	13	7	8	4	4	5	8	16	17	15	****	15	11
29	15	15	16	14	11	11	12	10	10	10	12	14	9	8	8	9	9	11	13	21	24	19	****	10	13
30	11	14	18	14	12	7	6	5	5	5	5	8	5	6	6	6	6	7	12	21	21	17	****	19	10
31	16	10	5	3	3	3	4	4	5	5	6	9	14	17	7	9	11	9	10	7	8	12	****	11	8

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->			STD GEOM	PERCENT	NO. OF TIMES ABOVE OBJECTIVE	
MEAN	MEDIAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR	
7	8	8	16	21	26	30	1	- 58	2	96	0	0	

- NOTES: 1. FLAGS FOR INVALID DATA :  
 \*\*\*\* : DAILY ZERO/SPAN CHECK  
 D : DYNAMIC CALIBRATION  
 T : TELEMETRY/DATALOGGR/ANALYZER FAULT  
 M : MAINTENANCE OR MACHINE SHUTDOWN  
 P : POWER FAILURE
2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 800 OR 24-HR OBJECTIVE 350

THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : CHEUNG CHAU  
 POLLUTANT : NITROGEN DIOXIDE  
 MONTH: JANUARY  
 YEAR : 2012  
 UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	20	16	25	58	35	35	40	61	49	55	62	56	34	24	21	26	30	18	19	26	21	22	****	23	34
2	18	10	13	11	25	13	10	10	19	17	17	20	17	11	13	11	15	15	15	14	13	13	****	13	14
3	17	15	13	16	13	17	18	16	18	32	41	36	41	41	26	16	22	17	26	29	18	35	****	61	25
4	51	28	31	21	16	17	16	22	30	35	34	31	31	37	40	39	44	45	49	49	49	52	****	40	35
5	43	35	25	20	16	20	24	25	39	40	44	48	51	55	56	62	62	59	58	59	59	57	****	50	44
6	48	45	43	41	40	37	35	34	32	33	34	36	41	49	51	60	78	89	88	83	77	74	****	67	53
7	58	54	51	48	44	42	32	29	33	35	40	47	48	51	51	61	70	75	76	75	74	68	****	59	53
8	57	52	48	45	41	43	42	44	38	42	44	49	47	38	36	80	73	106	109	101	91	88	****	84	61
9	77	72	71	66	60	54	47	46	38	38	37	40	51	62	66	65	63	53	61	108	111	97	****	110	65
10	114	114	111	109	107	88	79	69	61	54	52	54	45	43	42	29	17	23	31	32	76	91	****	73	66
11	70	71	71	48	43	36	39	47	41	43	36	42	47	53	53	69	78	62	71	72	71	69	****	65	57
12	60	62	54	47	30	32	39	44	45	34	46	48	54	62	65	71	80	85	77	84	91	88	****	81	60
13	66	70	62	60	49	48	52	53	57	61	65	62	63	72	70	73	74	72	61	66	58	46	****	64	62
14	56	39	26	18	15	32	34	47	46	54	51	50	60	42	36	28	66	70	62	60	81	77	****	37	47
15	51	66	65	57	54	66	71	67	59	60	56	61	49	45	45	46	49	45	45	47	49	53	****	65	55
16	65	56	20	24	22	42	43	43	44	51	49	46	52	62	58	62	57	56	52	51	52	57	****	53	49
17	61	60	56	55	55	52	48	41	38	48	43	42	38	30	6	6	7	11	11	11	11	21	****	18	33
18	14	14	22	23	33	20	21	21	22	20	32	19	5	8	11	18	7	48	93	98	86	74	****	73	34
19	75	87	69	72	65	63	70	56	68	63	17	19	44	21	32	43	44	78	96	89	74	82	****	55	60
20	54	68	34	15	24	15	11	14	25	29	19	17	18	15	11	15	18	19	25	21	17	12	****	35	23
21	36	19	27	22	12	14	17	18	25	17	15	23	15	19	52	29	27	50	37	62	63	67	****	50	31
22	50	36	25	39	47	24	22	22	24	28	25	25	24	28	26	29	26	25	28	24	23	23	****	24	28
23	25	25	23	17	17	15	23	24	27	22	18	17	19	25	23	23	25	33	36	34	41	47	****	48	26
24	44	30	32	26	25	28	22	31	38	38	32	32	29	30	26	21	19	16	17	19	23	20	****	17	27
25	15	12	7	6	5	6	9	12	13	19	21	22	25	26	26	25	29	32	32	30	28	33	****	33	20
26	31	30	21	18	14	21	30	25	28	36	41	33	41	41	39	46	49	58	54	52	50	55	****	47	37
27	51	34	25	24	40	39	38	46	60	72	61	63	64	65	64	67	71	80	88	90	86	84	****	72	60
28	67	68	54	39	33	36	67	68	65	57	31	50	32	18	29	8	16	28	105	106	96	87	****	61	53
29	52	51	55	47	44	45	40	37	34	33	33	35	38	42	43	48	54	60	68	69	68	67	****	67	49
30	62	58	54	50	47	40	30	27	29	42	34	35	32	40	32	26	28	63	81	101	90	82	****	68	50
31	64	49	19	15	14	13	22	25	27	32	29	39	48	46	16	16	22	23	27	22	63	101	****	93	36

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->				STD GEOM	PERCENT	NO. OF TIMES			
MEAN	MEDIAN	50	90	95	98	99	1-HR	24-HR		DEVIATION	VALID DATA	1-HR	24-HR			
37	41	41	73	86	100	108	5	-	114	14	-	66	2	96	0	0

- NOTES:
1. FLAGS FOR INVALID DATA :
    - \*\*\*\* : DAILY ZERO/SPAN CHECK
    - D : DYNAMIC CALIBRATION
    - T : TELEMETRY/DATALOGGR/ANALYZER FAULT
    - M : MAINTENANCE OR MACHINE SHUTDOWN
    - P : POWER FAILURE
  2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 300 OR 24-HR OBJECTIVE 150

THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : CHEUNG CHAU  
 POLLUTANT : SULPHUR DIOXIDE  
 MONTH: FEBRUARY  
 YEAR : 2012  
 UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	13	9	17	13	7	10	8	4	8	14	13	5	4	3	4	3	5	3	2	3	4	5	****	13	7
2	9	8	5	4	5	4	9	8	7	8	8	9	7	6	5	5	6	6	6	6	6	4	****	7	6
3	4	3	3	3	3	5	6	12	11	6	11	10	12	13	12	10	17	14	14	11	9	5	****	7	9
4	4	5	4	4	5	5	4	3	4	8	4	4	6	11	9	7	3	3	2	3	3	5	****	6	5
5	6	5	5	8	7	7	8	10	12	11	9	8	12	11	7	11	7	9	9	11	7	4	****	7	8
6	8	4	3	3	2	4	6	5	9	7	14	14	14	17	13	15	12	15	13	9	17	13	****	9	10
7	10	8	5	8	22	15	10	7	4	4	4	6	5	5	5	9	4	3	5	8	3	****	2	7	
8	3	2	2	2	2	2	3	5	10	9	10	9	9	7	6	7	5	5	8	11	14	17	****	6	7
9	11	11	11	11	9	11	10	11	11	11	11	14	15	17	16	16	17	13	7	11	8	14	****	12	12
10	9	7	7	8	7	8	13	10	16	15	11	14	18	14	18	34	25	19	15	15	10	6	****	6	13
11	5	5	4	6	7	5	4	5	4	4	5	8	9	7	9	10	9	9	9	12	12	10	****	8	7
12	8	7	9	9	12	16	20	16	17	18	6	8	11	11	11	12	13	10	10	8	7	7	****	8	11
13	12	15	17	26	19	16	13	14	15	14	15	19	22	18	13	8	5	7	7	9	9	9	****	12	14
14	12	13	11	11	9	9	10	14	13	19	22	18	18	12	17	8	6	5	7	5	5	4	****	3	11
15	4	5	6	6	4	7	8	12	22	24	17	5	5	10	8	4	3	4	3	4	3	3	****	4	7
16	3	2	2	3	2	5	6	7	10	12	24	25	<----- D ----->	9	8	9	10	11	12	11	11	****	7	9	
17	8	9	14	6	4	4	3	7	6	6	6	6	7	11	12	10	5	7	8	11	12	11	****	18	8
18	13	10	11	8	6	6	6	7	10	12	15	13	7	9	6	9	8	6	6	10	10	9	****	16	9
19	13	15	17	11	10	18	20	22	22	22	22	24	17	18	12	11	12	14	10	12	9	9	****	8	15
20	9	5	6	7	8	10	13	18	17	18	26	24	10	9	10	10	11	14	9	12	15	9	****	6	12
21	6	5	6	4	4	6	5	6	7	11	12	18	9	6	5	7	3	4	6	6	5	4	****	5	7
22	4	4	3	5	5	6	5	5	6	7	12	16	12	15	14	16	19	22	19	18	16	14	****	12	11
23	15	13	11	8	12	11	8	9	12	19	19	20	19	16	25	24	20	14	12	11	8	4	****	6	14
24	6	7	9	9	16	10	7	5	4	6	6	8	9	10	9	9	8	4	6	4	5	8	****	8	8
25	6	7	6	6	8	7	7	7	7	14	7	5	7	6	4	3	3	3	3	4	4	4	****	5	6
26	4	3	3	2	2	2	3	4	5	6	6	11	12	9	6	9	5	5	4	6	7	4	****	2	5
27	2	2	2	4	4	3	6	9	10	8	7	9	7	6	4	3	4	6	5	6	6	5	****	6	5
28	4	3	2	2	2	2	2	2	6	9	10	10	14	9	9	8	13	15	17	21	23	7	****	8	9
29	5	4	3	4	3	4	5	7	12	14	15	17	13	10	12	9	7	7	7	7	11	13	****	8	9

MONTHLY STATISTICS:

GEOM	MEDIAN	ARITH MEAN	<-----PERCENTILE----->					<-----RANGE----->			STD GEOM DEVIATION	PERCENT VALID DATA	NO. OF TIMES ABOVE OBJECTIVE				
MEAN			50	90	95	98	99	1-HR		24-HR			1-HR	24-HR			
8	8	9	8	16	19	22	24	2	-	34	5	-	15	2	95	0	0

- NOTES:
1. FLAGS FOR INVALID DATA :
    - \*\*\*\* : DAILY ZERO/SPAN CHECK
    - D : DYNAMIC CALIBRATION
    - T : TELEMETRY/DATALOGGR/ANALYZER FAULT
    - M : MAINTENANCE OR MACHINE SHUTDOWN
    - P : POWER FAILURE
  2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 800 OR 24-HR OBJECTIVE 350

THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : CHEUNG CHAU  
 POLLUTANT : NITROGEN DIOXIDE  
 MONTH: FEBRUARY  
 YEAR : 2012  
 UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	91	60	79	58	49	77	49	15	31	56	47	15	7	8	9	7	11	8	9	11	11	23	****	91	36
2	74	44	11	12	14	11	33	18	15	16	12	15	11	10	10	9	10	15	14	18	19	19	****	19	19
3	11	10	10	7	9	21	33	47	36	35	37	38	44	44	48	57	63	63	71	67	55	33	****	23	37
4	19	22	20	13	25	32	27	17	21	33	21	23	41	45	44	33	16	12	11	10	10	33	****	68	26
5	62	57	53	51	50	42	59	54	43	23	14	14	49	70	27	55	55	70	111	102	76	40	****	58	54
6	54	36	29	25	28	16	21	26	58	28	65	68	72	74	77	79	80	87	84	76	93	74	****	42	56
7	44	44	28	43	47	42	37	27	23	30	32	41	40	41	42	44	55	43	48	50	55	32	****	27	40
8	26	17	14	13	11	12	20	30	38	43	41	36	38	32	40	48	45	45	54	58	60	61	****	40	36
9	42	38	34	27	19	28	29	33	26	23	21	32	33	37	36	38	45	36	21	32	24	38	****	35	32
10	30	22	19	28	20	33	45	37	56	48	51	60	64	64	82	81	76	66	61	55	47	48	****	44	49
11	41	40	41	39	38	35	32	30	27	25	25	29	37	39	47	61	67	75	82	80	78	78	****	30	47
12	33	34	32	31	37	46	50	50	49	50	15	15	34	31	38	39	47	50	44	55	37	35	****	57	40
13	70	75	72	75	81	77	72	74	68	66	74	76	62	47	36	22	16	17	18	40	44	24	****	53	55
14	73	63	48	42	29	37	52	72	74	77	77	80	78	72	71	33	19	16	34	22	26	19	****	15	49
15	38	49	52	40	28	44	52	58	62	62	50	12	13	20	22	15	19	27	26	26	28	22	****	35	35
16	28	11	11	16	8	20	36	34	64	68	62	57	<----- D ----->		44	48	56	57	55	73	60	****	54	43	
17	55	51	46	35	30	30	26	32	33	38	33	37	44	47	48	38	18	24	34	74	72	54	****	65	42
18	56	45	35	29	21	19	25	28	31	38	41	42	25	20	24	38	37	22	16	22	20	18	****	22	29
19	17	21	21	14	15	35	33	44	42	39	38	39	37	34	17	16	15	24	18	20	19	20	****	16	26
20	17	11	12	13	15	25	40	55	52	63	76	84	24	12	16	13	19	26	31	29	26	41	****	45	32
21	26	12	19	13	9	17	23	33	25	32	31	34	40	20	11	47	73	85	83	44	72	27	****	59	36
22	59	30	21	27	32	47	32	47	80	87	80	71	72	83	90	96	110	116	115	113	106	100	****	88	74
23	85	85	76	52	70	68	60	61	63	71	71	84	83	75	83	86	85	67	70	70	50	18	****	40	68
24	46	41	44	45	43	40	37	21	20	29	36	41	53	59	61	71	52	16	59	30	38	58	****	68	44
25	65	72	54	44	52	41	50	48	35	74	57	30	62	34	37	23	30	29	37	36	29	38	****	41	44
26	40	36	31	25	17	17	21	23	25	26	23	28	32	30	33	42	44	40	41	47	45	39	****	35	32
27	31	26	23	26	24	21	29	38	40	39	40	41	38	39	44	44	49	50	49	46	45	44	****	41	38
28	38	36	31	30	27	23	23	25	30	38	43	44	52	51	62	65	75	77	83	85	79	16	****	31	46
29	26	27	25	28	20	28	26	28	37	34	32	33	36	39	51	64	64	76	77	54	83	88	****	43	44

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->				STD GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR	
36	38	42	38	74	82	88	101	7	- 116	2	95	0	0	

- NOTES:
1. FLAGS FOR INVALID DATA :
    - \*\*\*\* : DAILY ZERO/SPAN CHECK
    - D : DYNAMIC CALIBRATION
    - T : TELEMETRY/DATALOGGR/ANALYZER FAULT
    - M : MAINTENANCE OR MACHINE SHUTDOWN
    - P : POWER FAILURE
  2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 300 OR 24-HR OBJECTIVE 150

THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : CHEUNG CHAU  
 POLLUTANT : SULPHUR DIOXIDE  
 MONTH: MARCH  
 YEAR : 2012  
 UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	8	10	8	8	7	6	7	9	10	12	<-- T -->	12	12	13	11	9	9	9	9	6	8	****	6	9	
2	7	8	9	10	16	27	29	32	37	11	28	24	9	5	5	5	3	2	3	3	3	****	4	12	
3	9	15	15	10	5	6	6	8	6	5	5	11	10	8	9	7	6	6	8	9	6	5	****	3	8
4	2	2	3	3	4	3	7	7	10	7	7	9	8	8	10	16	16	15	8	4	4	6	****	4	7
5	4	2	2	2	3	3	4	5	8	10	9	11	10	12	19	16	10	8	8	8	9	13	****	7	8
6	11	11	11	10	10	15	21	32	27	24	14	10	13	14	10	5	5	3	4	7	7	12	****	10	12
7	7	4	4	3	4	3	4	8	9	11	20	15	6	17	10	9	8	8	7	6	10	9	****	6	8
8	4	4	3	4	3	4	5	7	9	9	10	8	8	9	7	5	7	7	5	6	6	8	****	6	6
9	6	4	3	3	6	7	8	11	13	9	4	6	5	8	8	6	3	2	2	1	1	1	****	1	5
10	1	1	1	1	1	1	1	2	2	5	8	10	5	6	6	5	5	5	5	7	8	8	****	5	4
11	5	4	3	3	2	2	2	2	3	3	3	3	3	2	3	3	2	2	2	3	7	5	****	4	3
12	3	2	2	5	10	11	10	7	8	10	10	8	10	10	7	7	7	7	7	6	9	8	****	3	7
13	5	3	3	3	3	4	9	14	19	27	32	22	21	24	14	9	8	6	5	9	10	7	****	10	12
14	10	6	8	7	8	8	7	9	16	15	11	8	9	11	11	10	9	9	5	14	9	14	****	7	10
15	4	2	2	2	1	1	3	3	6	10	12	4	7	9	11	8	7	8	13	13	20	19	****	5	7
16	3	3	4	4	4	7	13	9	15	26	33	29	14	12	4	6	10	9	6	5	8	9	****	7	10
17	8	9	10	11	10	10	12	13	22	14	12	9	5	7	7	5	54	51	39	48	40	25	****	22	19
18	11	23	22	18	18	19	15	29	35	41	37	23	11	12	15	28	14	15	9	9	7	8	****	5	19
19	10	11	8	7	8	7	12	11	9	10	10	9	9	13	13	8	11	9	5	6	5	7	****	10	9
20	8	7	6	6	5	6	7	11	19	28	47	13	7	14	6	6	10	5	5	5	8	11	****	9	11
21	4	3	4	4	4	3	3	7	5	3	4	4	5	3	3	7	4	13	7	5	5	7	****	11	5
22	9	6	4	5	6	7	7	9	18	17	8	4	5	6	6	8	8	5	7	11	7	10	****	6	8
23	21	35	32	44	49	37	30	34	36	32	31	34	24	39	29	25	24	20	13	7	6	6	****	7	27
24	5	6	6	7	6	6	7	9	9	10	13	11	11	11	10	10	10	9	7	8	9	****	7	9	
25	6	6	6	6	7	7	22	17	22	31	21	17	18	15	11	8	8	10	9	10	9	7	****	8	12
26	8	8	10	7	7	9	15	16	25	27	25	9	8	8	9	10	9	8	10	8	9	11	****	10	12
27	10	7	9	8	10	10	9	10	14	10	13	10	9	8	7	10	10	8	8	7	9	11	****	7	9
28	5	4	4	5	6	6	6	7	8	10	11	10	10	12	7	5	9	7	5	5	3	3	****	5	7
29	4	7	6	6	6	10	14	8	10	10	6	5	3	3	5	4	5	4	5	6	7	4	****	4	6
30	4	6	6	6	6	7	9	10	9	9	10	11	10	7	4	3	2	2	4	14	18	15	****	8	8
31	8	5	5	7	6	9	13	7	5	4	4	5	8	7	9	15	9	4	4	4	5	6	****	6	7

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->			STD GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	50	90	95	98	99	1-HR		24-HR	DEVIATION	VALID DATA	1-HR	24-HR
8	8	8	18	27	35	40	1	-	54	2	96	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :  
 \*\*\*\* : DAILY ZERO/SPAN CHECK  
 D : DYNAMIC CALIBRATION  
 T : TELEMETRY/DATALOGGR/ANALYZER FAULT  
 M : MAINTENANCE OR MACHINE SHUTDOWN  
 P : POWER FAILURE
2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 800 OR 24-HR OBJECTIVE 350

THE HONGKONG ELECTRIC COMPANY, LTD.  
AIR QUALITY DATA MONTHLY TIME SERIES REPORT

STATION : CHEUNG CHAU  
 POLLUTANT : NITROGEN DIOXIDE  
 MONTH: MARCH  
 YEAR : 2012  
 UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	59	47	34	28	32	28	41	57	47	51	<-- T -->	63	71	71	76	79	87	91	95	87	86	****	79	62	
2	79	78	74	70	70	71	70	73	63	50	57	49	16	8	8	6	11	7	3	22	25	9	****	11	40
3	43	56	69	43	18	35	41	44	32	22	22	31	50	29	58	50	40	45	91	97	55	39	****	19	45
4	19	19	33	28	24	16	32	47	63	54	41	48	43	41	43	63	82	92	68	18	22	37	****	26	42
5	35	12	9	12	13	10	13	17	31	14	15	37	28	13	21	25	27	18	22	25	36	63	****	22	23
6	29	29	28	25	26	38	40	38	32	21	13	11	6	6	9	6	10	11	15	29	25	26	****	24	22
7	22	19	25	30	30	24	26	40	43	47	51	55	31	59	63	81	87	88	92	92	89	78	****	34	52
8	20	33	26	24	28	39	53	62	69	74	79	74	71	68	69	52	73	69	71	70	58	77	****	58	57
9	64	37	28	34	41	35	41	39	37	33	30	34	35	38	43	50	52	53	54	53	51	45	****	34	42
10	31	25	20	18	16	15	17	21	25	41	32	35	35	44	50	51	58	60	66	67	66	63	****	35	39
11	36	29	23	21	21	15	20	25	26	38	29	34	37	36	30	39	46	41	41	50	53	49	****	43	34
12	35	27	20	30	35	33	35	29	37	38	47	45	44	46	46	54	63	66	78	74	79	57	****	21	45
13	54	43	42	32	25	28	41	47	50	56	49	51	58	60	57	60	64	67	71	79	53	33	****	49	51
14	52	44	33	26	28	29	25	25	36	50	41	17	33	29	24	29	22	28	16	80	52	34	****	24	34
15	14	13	15	11	10	16	17	17	41	41	23	12	38	21	59	42	34	42	110	76	105	117	****	39	40
16	26	20	55	44	31	44	71	65	82	89	85	86	49	52	11	21	46	51	23	31	27	59	****	35	48
17	49	59	63	69	71	72	69	58	63	55	33	20	3	21	9	4	50	65	68	69	74	70	****	63	51
18	39	56	61	59	64	55	57	58	64	53	50	33	16	16	21	40	37	59	40	40	31	49	****	40	45
19	47	52	42	40	43	40	51	37	42	80	79	75	63	57	44	59	66	33	10	11	16	43	****	83	48
20	49	19	25	28	27	38	56	69	89	93	96	30	16	28	12	15	21	12	13	11	15	23	****	38	36
21	17	13	15	12	11	10	13	22	12	10	14	11	14	13	11	22	13	34	21	18	21	24	****	32	17
22	32	30	20	22	19	30	42	56	61	62	22	12	6	7	10	28	44	19	25	73	28	77	****	72	35
23	87	98	93	92	88	83	87	83	81	69	66	73	61	82	60	53	58	60	56	44	35	32	****	34	69
24	26	23	16	14	12	11	14	19	22	28	27	43	29	27	25	18	18	20	19	15	17	21	****	24	21
25	23	20	18	22	19	24	84	59	57	64	49	36	26	21	17	11	9	11	17	22	22	19	****	22	29
26	18	15	22	11	10	24	60	69	79	90	90	31	21	22	23	17	17	24	24	25	26	29	****	26	34
27	18	10	16	13	18	21	13	26	58	23	44	24	19	20	13	28	57	40	31	19	26	33	****	45	27
28	34	31	24	10	15	20	20	25	33	54	40	36	34	39	17	19	19	14	14	18	9	10	****	16	24
29	26	46	34	21	18	39	79	33	40	61	21	12	4	2	5	4	5	8	17	21	45	6	****	10	24
30	7	12	24	43	32	33	65	75	31	37	43	41	27	22	16	9	8	10	19	90	97	91	****	58	39
31	75	59	51	59	39	47	61	35	27	32	28	39	49	41	48	71	38	8	10	12	13	12	****	10	37

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->		STD GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR
32	34	34	73	83	91	94	2 - 117	17 - 69	2	96	0	0

- NOTES:
1. FLAGS FOR INVALID DATA :
    - \*\*\*\* : DAILY ZERO/SPAN CHECK
    - D : DYNAMIC CALIBRATION
    - T : TELEMETRY/DATALOGGR/ANALYZER FAULT
    - M : MAINTENANCE OR MACHINE SHUTDOWN
    - P : POWER FAILURE
  2. BRACKETED READINGS EXCEED 1-HR OBJECTIVE 300 OR 24-HR OBJECTIVE 150

## Appendix C Summary Results on Water Quality Monitoring

### LAMMA POWER STATION FGD WASTEWATER TREATMENT PLANT EFFLUENT DISCHARGE TO ASH LAGOON SUSPENDED SOLIDS AND PH

Period : January – March 2012

Week Ending	No. of Samples	Suspended Solids, mg/L			pH		
		Maximum	Minimum	Average	Maximum	Minimum	Average
07/01/12	2*	19	15	17	8.2	8.1	8.2
14/01/12	0*	N/A	N/A	N/A	N/A	N/A	N/A
21/01/12	1*	13	13	13	8.2	8.2	8.2
28/01/12	6*	15	12	13	8.0	7.8	7.9
04/02/12	5*	16	13	15	8.1	7.9	8.0
11/02/12	5*	16	12	14	8.1	7.9	8.0
18/02/12	4*	14	11	12	8.1	8.0	8.1
25/02/12	2*	14	13	14	8.1	8.1	8.1
03/03/12	4*	15	12	13	8.0	7.9	8.0
10/03/12	5*	16	11	13	8.0	7.9	8.0
17/03/12	4*	14	11	13	8.1	7.9	8.0
24/03/12	4*	15	11	13	8.2	8.1	8.1
31/03/12	3*	13	11	12	8.2	8.1	8.2

Remark :

\* - No sampling for the remaining day(s) of the week / no sampling due to no discharge

**LAMMA POWER STATION  
FGD WASTEWATER TREATMENT PLANT  
EFFLUENT DISCHARGE TO ASH LAGOON  
TRACE METAL, TOTAL PHOSPHORUS  
AND TOTAL NITROGEN ANALYSIS**

Period : January – March 2012

Sampling date		5/1/2012	6/2/2012	7/3/2012
Barium,	ug/L	<150	<150	<150
Mercury,	ug/L	<0.5	<0.5	<0.5
Cadmium,	ug/L	4	4	4
Iron,	ug/L	<400	<400	<400
Total Phosphorous,	mg/L	<0.8	<0.8	<0.8
Total Nitrogen,	mg/L	81	120	139
Cyanide,	mg/L	0.01	0.02	<0.01

Remark:

According to the WPCO Ash Lagoon Discharge Licence, contents at exact levels of trace metals below 1/10 th of the WPCO Licence permitted limits will not be reported. When the concentration of a metal exceeds 1/10 th of the limit, the exact value of the metal concentration will be reported.

## Appendix D Summary of EMIS

<b>EM&amp;A Log Ref.</b>	<b>Mitigation Measures</b>	<b>Implementation Status</b>
	<b>GENERAL</b>	
A1	No other process, except the Wet Limestone-Gypsum process used in the FGD plants of the coal-fired Units L6, L7 and L8 within the Lamma Power Station, shall be used in the FGD plants for the projects unless otherwise agreed by EPD.	Complied
	<b>WATER QUALITY</b>	
B1	All wastewater arising from the operation of the projects shall be collected and directed to the existing wastewater treatment plant within the Lamma Power Station for treatment.	Complied
B2	The operational plant effluent from the FGD plants should be reused as much as possible in order to minimise discharge to the WWTP.	Complied
B3	Maintenance of the WWTP should be performed regularly to ensure the effluent from the WWTP would not exceed the current requirements stipulated in the WPCO licence for Ash Lagoon.	Complied
	<b>WASTE</b>	
C1	No gypsum or sludge arising from the operation of the projects shall be disposed of anywhere. All gypsum and sludge shall be collected and reused.	Complied
	<b>NOISE</b>	
D1	Equipments including the Absorber Recirculation Pump, Oxidation Air Blower, Booster Fan and Booster Fan Motor of the FGD plants shall be acoustically insulated and the Gas-Gas Heater (untreated side) of the FGD plants shall be provided with reinforced lagging to reduce the noise impact.	Complied