

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

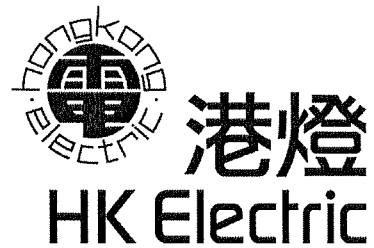


**Lamma Power Station
Units L2, L4 & L5 Flue Gas Desulphurization
Plants Retrofit
Operational Phase**

Quarterly Environmental Monitoring & Audit Report

January – March 2013

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 2013)
Date	21 June 2013
Certified by	 (Mr. IP Tat-Yan, Environmental Team Leader)

TABLE OF CONTENT

EXECUTIVE SUMMARY

1.	INTRODUCTION.....	1
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
2.	AIR QUALITY.....	11
2.1	Monitoring Requirements	11
2.2	Summary of Results and Observations	11
3.	WATER QUALITY.....	12
3.1	Monitoring Requirements	12
3.2	Summary of Results and Observations	12
4.	ENVIRONMENTAL AUDIT.....	14
4.1	Review of Environmental Monitoring Procedures	14
4.2	Assessment of Environmental Monitoring Results	14
4.3	Status of Environmental Licensing and Permitting	16
4.4	Implementation Status of Environmental Mitigation Measures	16
4.5	Implementation Status of Event/Action Plan	17
4.6	Implementation Status of Environmental Complaint Handling Procedures	17
5.	FUTURE KEY ISSUES.....	18
5.1	Outage Plan for the coming 3 months	18
5.2	Key issues for the coming 3 months	18
6.	CONCLUSION.....	19

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 2013.

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

Unit L2 was fully available in the reporting period. Units L4 and L5 were out of service during the following period:

Unit	Period	Remark
L4	17/2/2013 16:14 to 31/3/2013 23:59	Unit Overhaul
L5	1/1/2013 00:00 to 15/3/2013 21:17	Unit Overhaul

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
L4 FGD	23/01/2013 03:12 to 25/01/2013 14:00	FGD plant was bypassed due to BUF bearing lube oil leakage.	EPD was informed by letter dated 28/01/2013
L2 FGD	05/02/2013 02:00 to 05/02/2013 07:20	FGD plant was bypassed for BUF lube oil system check and priming.	EPD was informed by letter on 08/02/2013
L5 FGD	17/03/2013 02:59 to 17/03/2013 17:00	FGD plant was bypassed for the 275kV switch station busbar I maintenance	EPD was informed by letter dated 20/03/2013

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(9)	01/01/2013	31/12/2014	HK Electric	28/12/2012
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

No environmental concern against the operation of Lamma Power Station was received during the reporting period.

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 Desulphurization 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 Desulphurization 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 2013.

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 SO₂ 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 SO₂ 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

Unit L2 was fully available in the reporting period. Units L4 and L5 were out of service during the following period:

Unit	Period	Remark
L4	17/2/2013 16:14 to 31/3/2013 23:59	Unit Overhaul
L5	1/1/2013 00:00 to 15/3/2013 21:17	Unit Overhaul

1.4 Malfunction/Outage Records of Pollution Control Equipment

Equipment	Period	Cause	Actions Taken
L2 FGD	14/01/2013 22:32 to 22:49	Bypass before shut down but the it was cancelled later	EPD was informed by letter on 16/01/2013
L2 FGD	01/02/2013 01:50 to 01:53	Routine damper exercise	EPD was informed on 04/02/2013
L2 FGD	05/02/2013 02:00 to 07:20	FGD plant was bypassed for BUF lube oil system check and priming.	EPD was informed by letter on 08/02/2013
L2 FGD	14/02/2013 02:00 to 02:05	Routine damper exercise	EPD was informed on 15/02/2013
L2 FGD	22/02/2013 01:28 to 01:35	Routine damper exercise	EPD was informed on 28/02/2013
L4 FGD	04/01/2013 23:53 to 23:56	Routine damper exercise	EPD was informed on 08/01/2013

Equipment	Period	Cause	Actions Taken
L4 FGD	19/01/2013 02:03 to 02:32	Routine damper exercise	EPD was informed on 23/01/2013
L4 FGD	23/01/2013 03:12 to 25/01/2013 14:00	FGD plant was bypassed due to BUF bearing lube oil leakage.	EPD was informed by letter dated 28/01/2013
L4 FGD	02/02/2013 01:35 to 01:38	Routine damper exercise	EPD was informed on 04/02/2013
L4 FGD	09/02/2013 01:28 to 01:44	Routine damper exercise	EPD was informed on 15/02/2013
L5 FGD	17/03/2013 02:59 to 17/03/2013 17:00	FGD plant was bypassed for the 275kV switch station busbar I maintenance	EPD was informed by letter dated 20/03/2013

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.

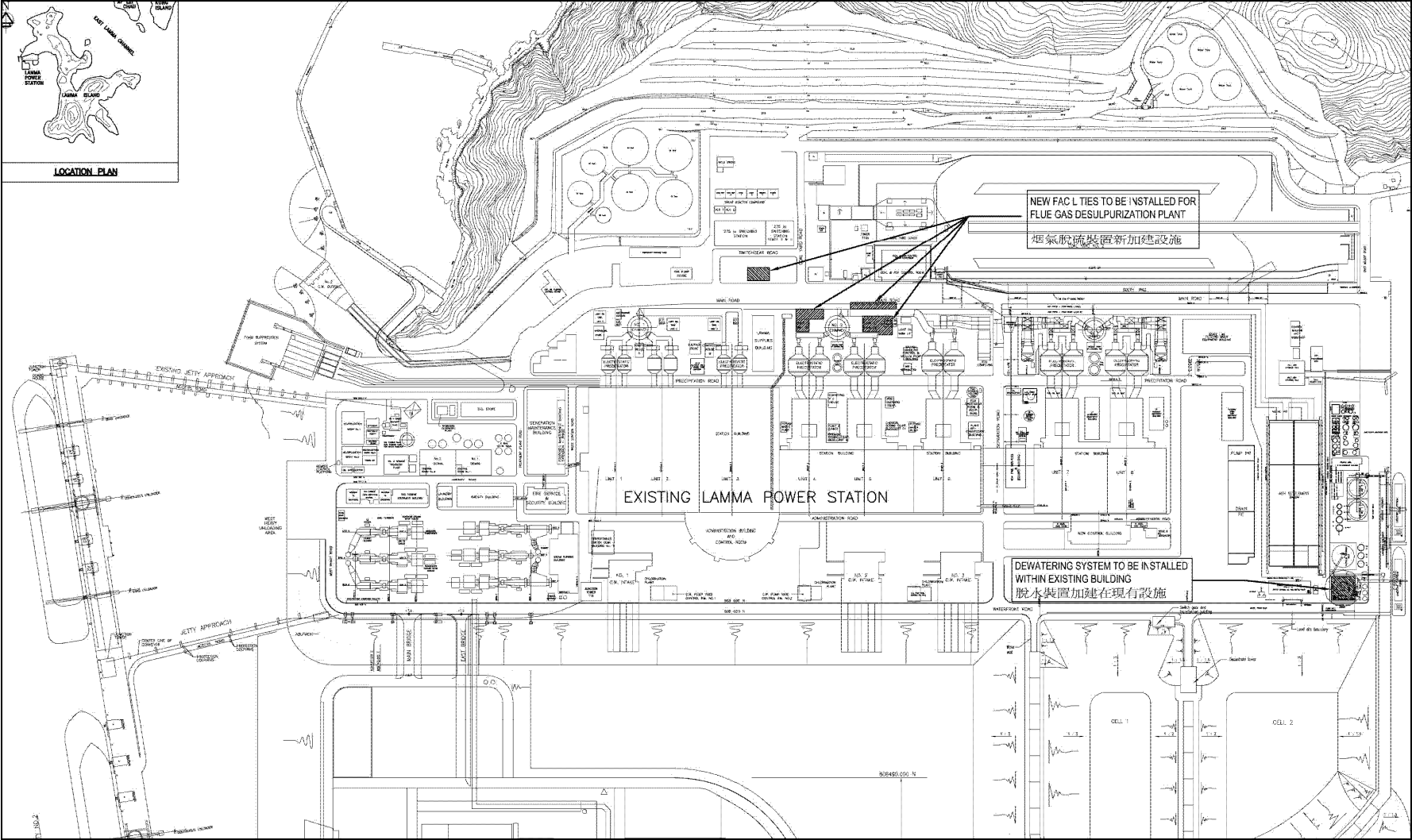


Figure 1.1a Location of New Facilities for L4 & L5 FGD Plants

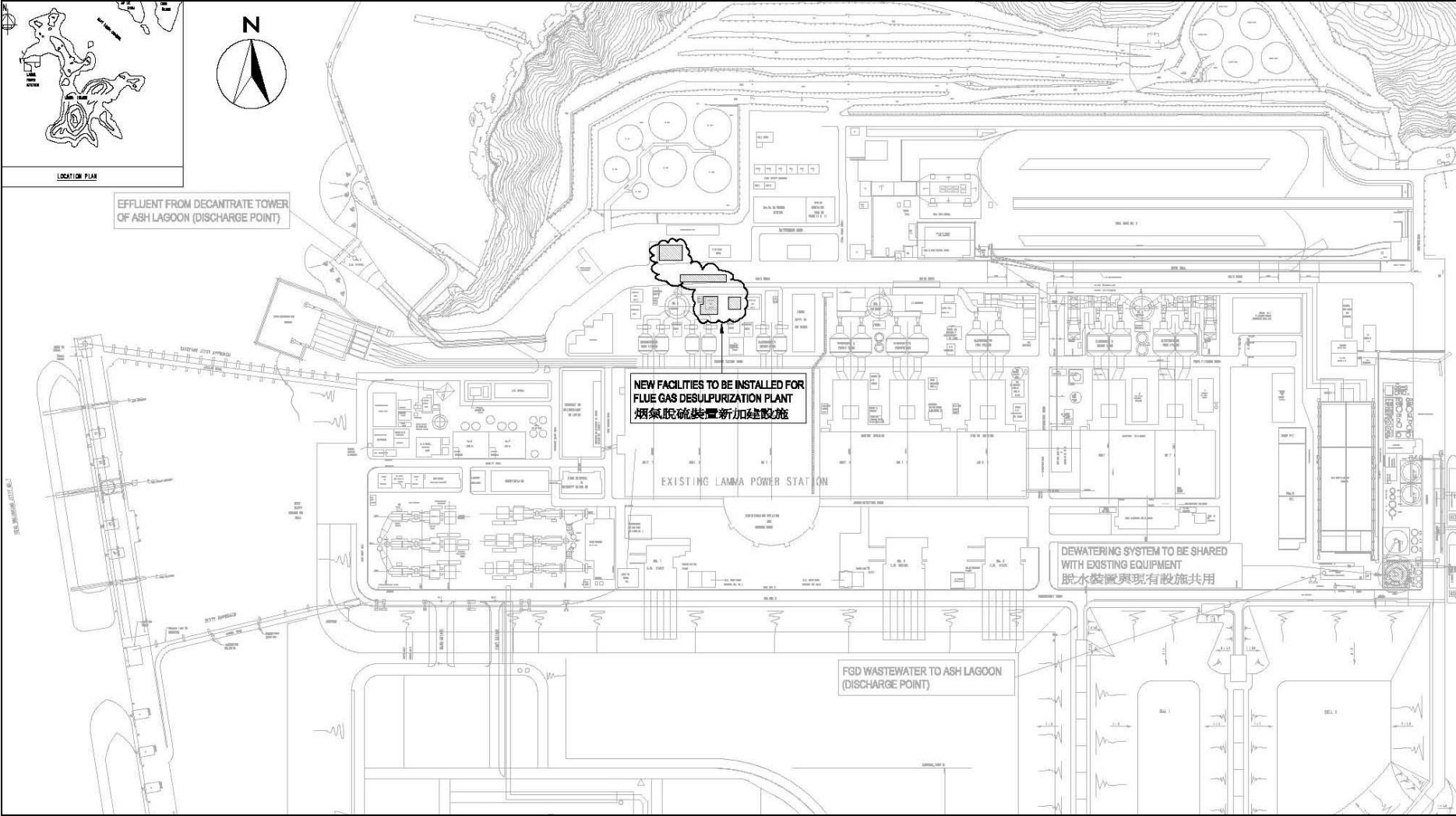


Figure 1.1b Location of New Facilities for L2 FGD Plant

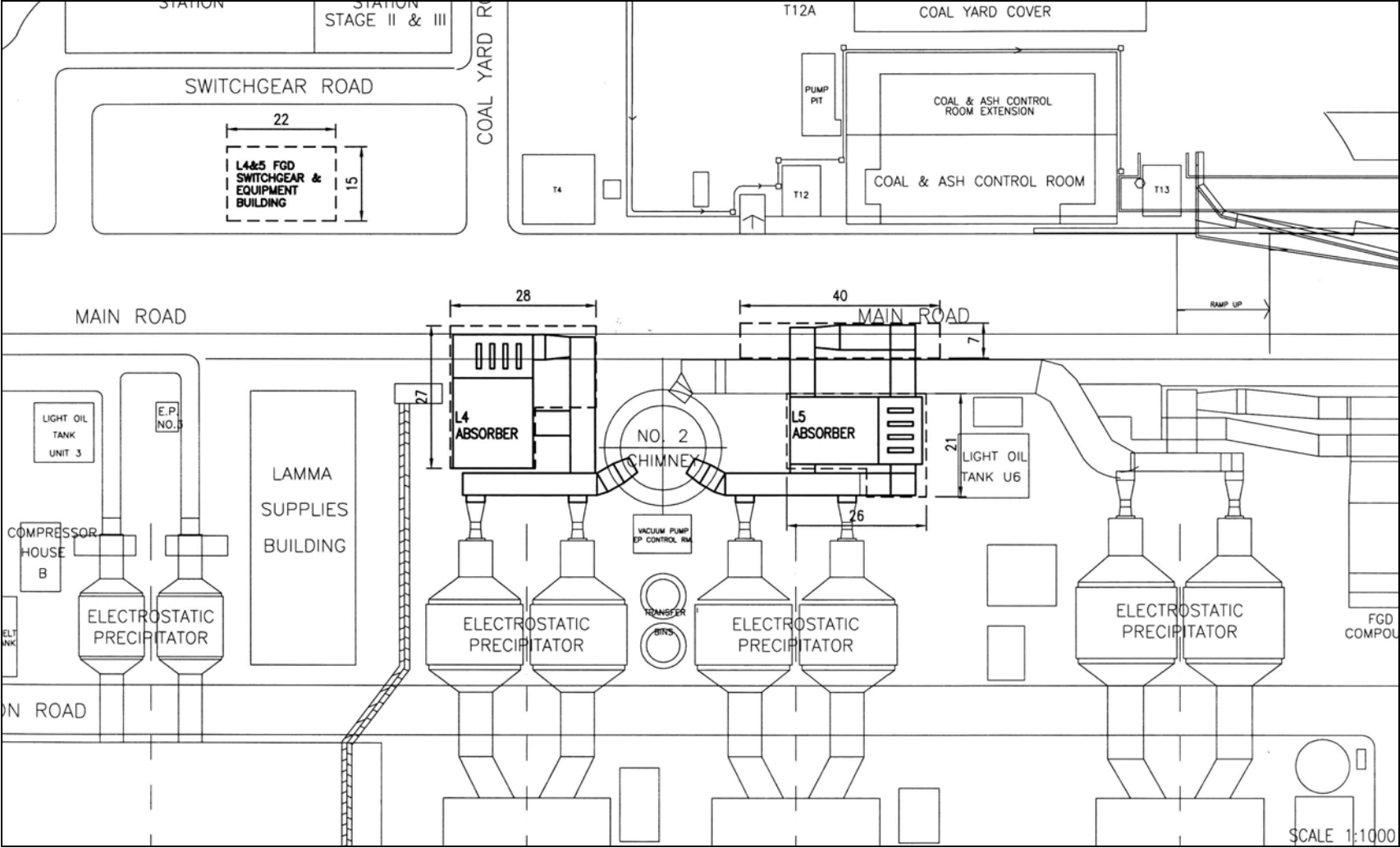


Figure 1.2a General Arrangement of L4 & L5 FGD Plants

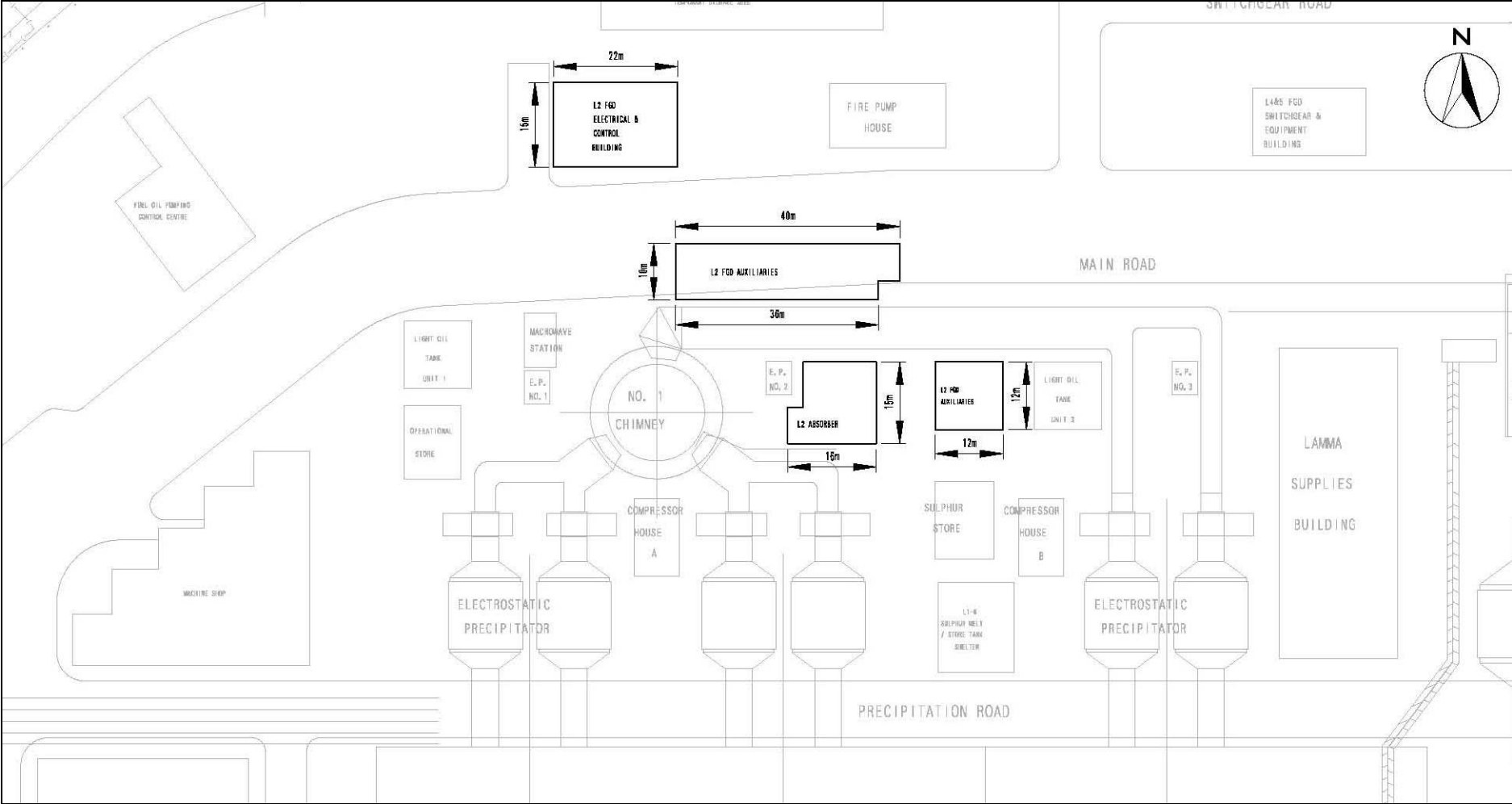


Figure 1.2b General Arrangement of L2 FGD Plant

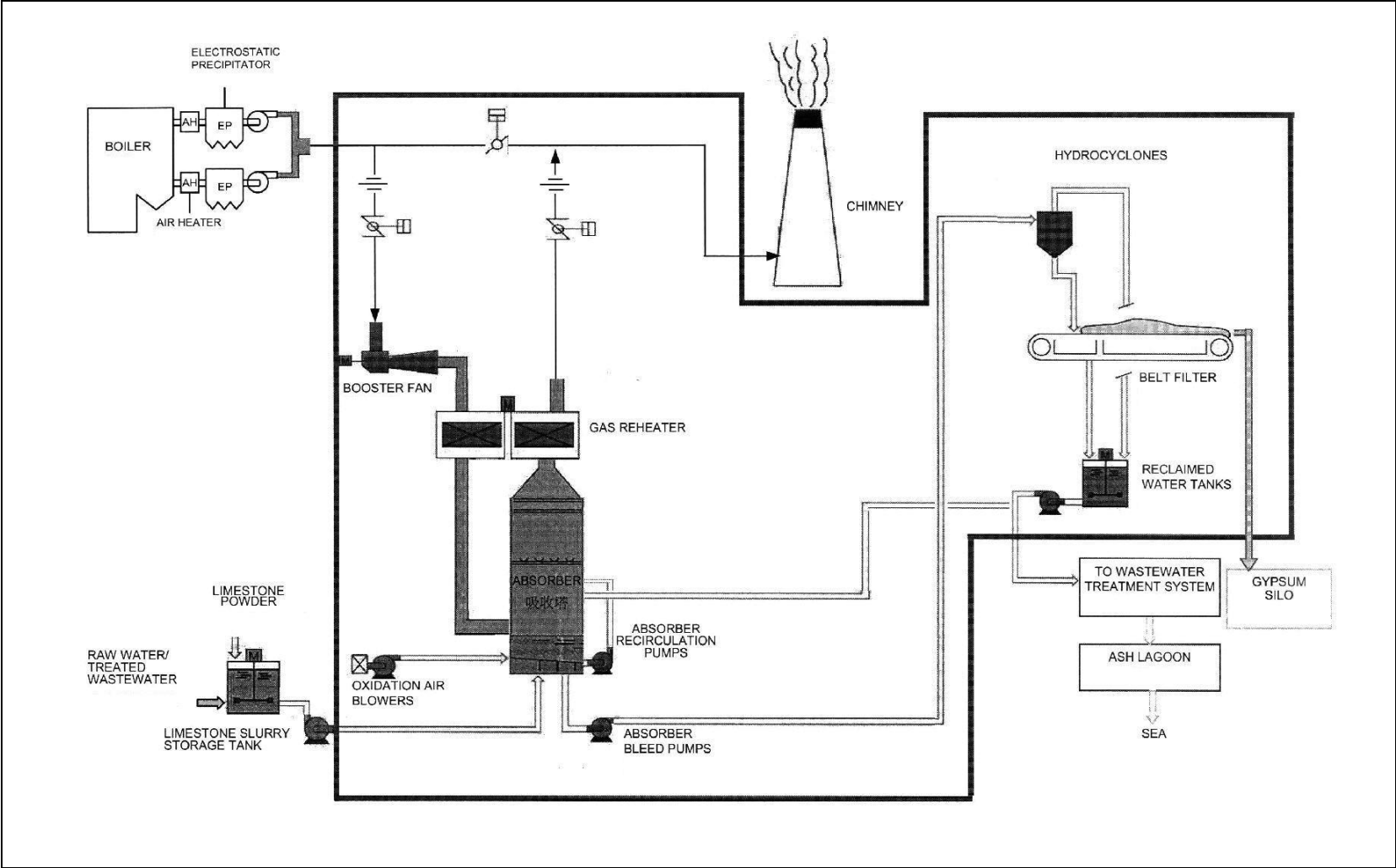


Figure 1.3 Schematic Diagram of the L4 & L5 FGD Plant

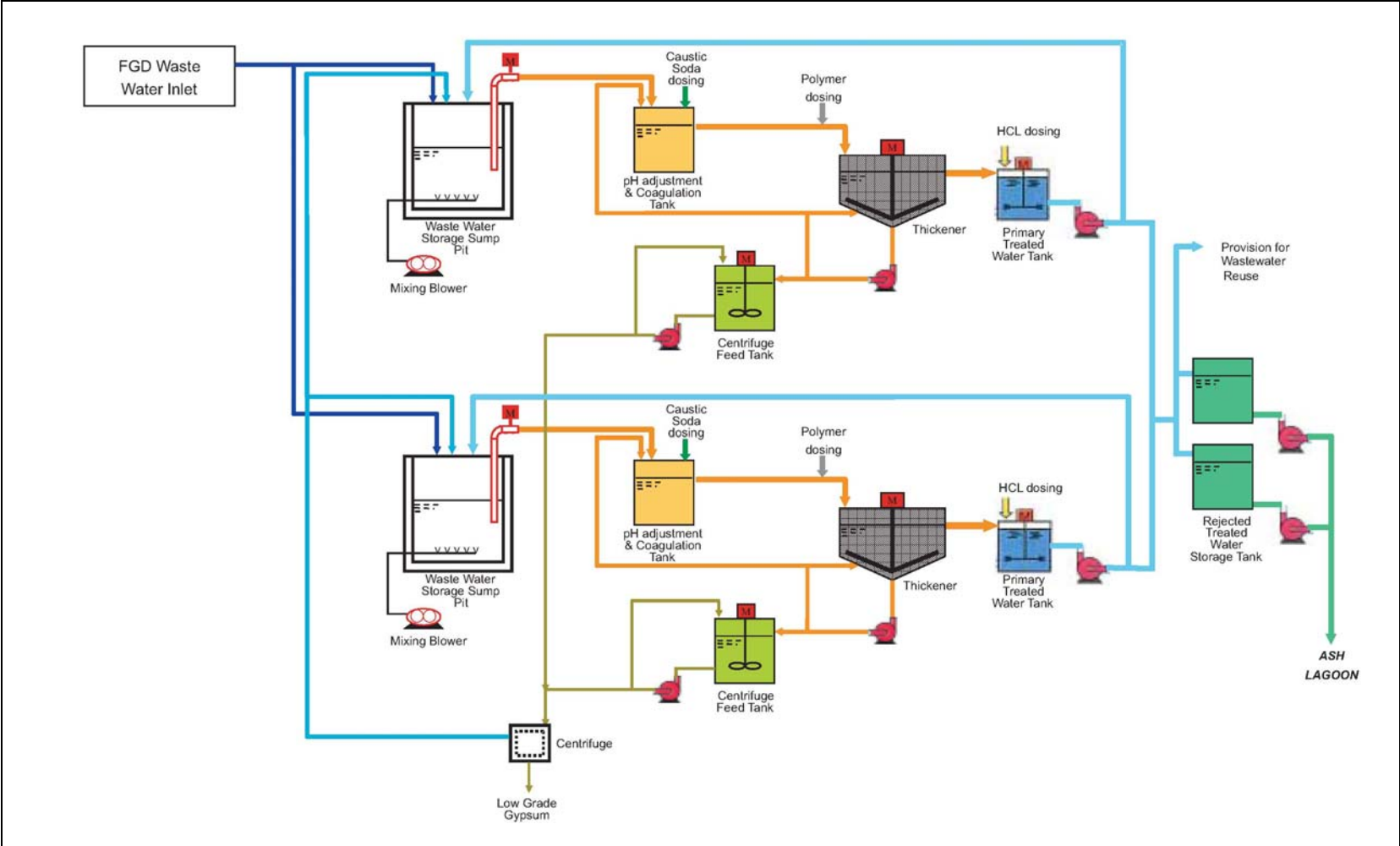


Figure 1.4 Simplified Schematic Diagram of FGD Wastewater Treatment Plant

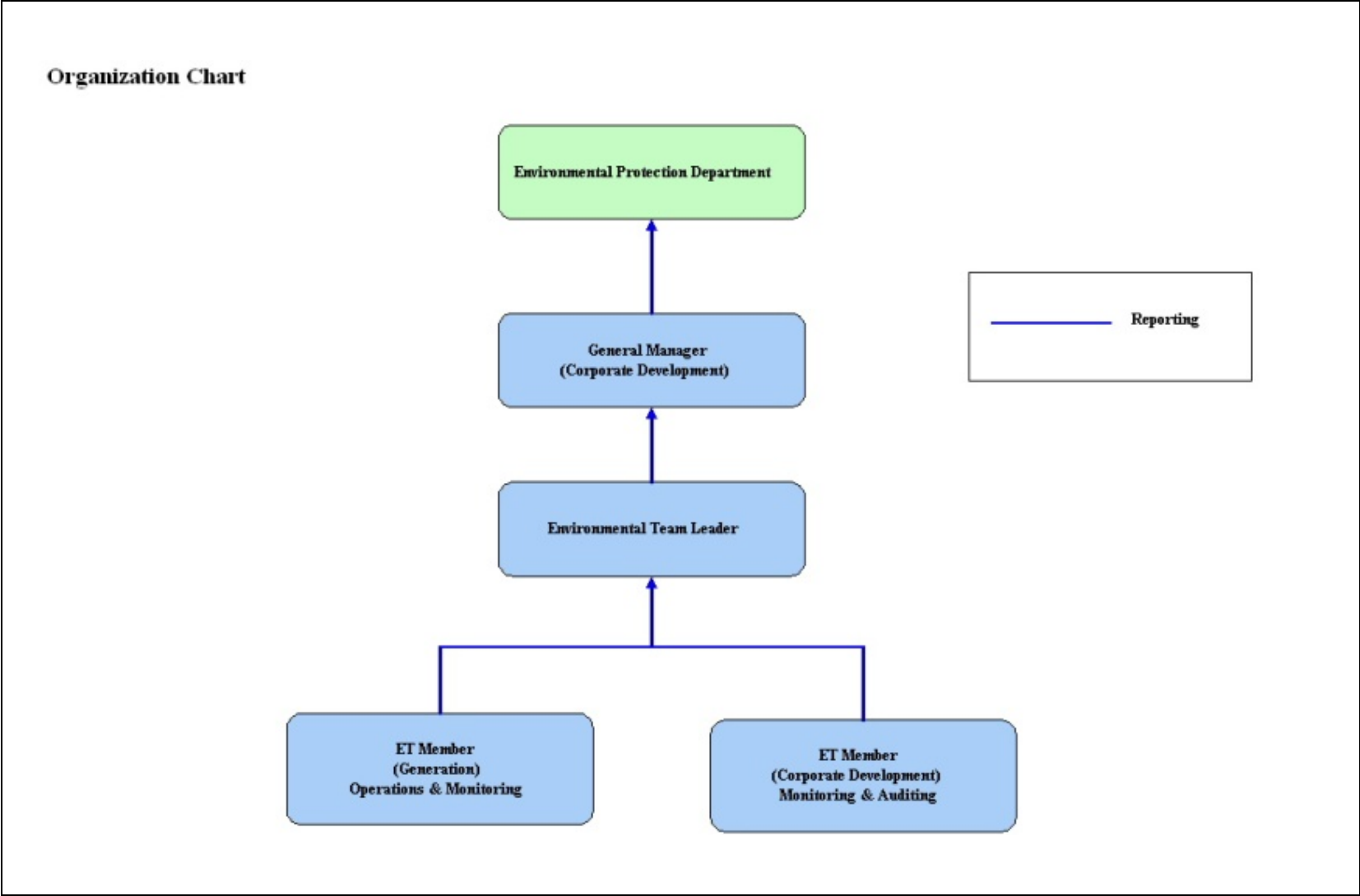


Figure 1.5 Organization Structure at Operational Phase of the Projects

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 ₂	Continuous
	NO _x expressed as NO ₂ (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 ₂	
	NO ₂	

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.	01/01/13-31/03/13	N.A.	0	
2	Continuous monitoring of opacity, NOx, SO2 and CO2 in the flue gas at the chimney stacks	01/01/13-31/03/13	0	0	
3	TSP monitoring at Lamma Power Station Boundary (ie East Gate and Reservoir).	01/01/13-31/03/13	0	0	
4	Ambient SO2 & NOx monitoring at the Peak, Queen Mary Hospital, Victoria Road, Chung Hom Kok, Ap Lei Chau and	01/01/13-31/03/13	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	01/01/13-31/03/13	0	0	
2	Suspended Solids in WWTP Effluent	01/01/13-31/03/13	0	0	
3	Iron in WWTP Effluent	01/01/13-31/03/13	0	0	
4	Barium in WWTP Effluent	01/01/13-31/03/13	0	0	
5	Mercury in WWTP Effluent	01/01/13-31/03/13	0	0	
6	Cadmium in WWTP Effluent	01/01/13-31/03/13	0	0	
7	Cyanide in WWTP Effluent	01/01/13-31/03/13	0	0	
8	Total Phosphorus in WWTP Effluent	01/01/13-31/03/13	0	0	
9	Total Nitrogen in WWTP Effluent	01/01/13-31/03/13	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

Period	Amount of Gypsum Collected	Amount of Sludge Collected
January 2013	5930.3 MT	110.5 MT
February 2013	6088.6 MT	0 MT
March 2013	3466.5 MT	0 MT

4.3 Status of Environmental Licensing and Permitting

All permits/licenses obtained as of March 2013 are summarised in Table 4.3.

Table 4.3 Summary of Environmental Licensing and Permit Status

Description	Permit / Licence No.	Valid Period		Status
		From	To	
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(9)	01/01/2013	31/12/2014	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 was no environmental concern against the operation of Lamma Power Station.

Table 4.4 Environmental Complaints / Enquiries Received

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

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	17/2/2013 to 20/04/2013	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 2013. 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. No environmental concern against the operation of Lamma Power Station was received during the reporting period. 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 ³	-	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 ₂	continuous	200 mg/Nm ³ (1h)	190	200	
	NO _x expressed as NO ₂ (For L4 and L5 only)	continuous	615 mg/Nm ³ (1h)	585	615	
Fugitive dust (Coal, PFA, limestone, gypsum)	TSP	Once every six days.	260 (µg/m ³) (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 ₂	Continuous at existing ambient air monitoring stations	800 (µg/m ³) (1h)	-	800	ET to review data on post-hoc basis and check for possible power station contribution.
	NO ₂		300 (µg/m ³) (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	

Appendix B

Air Quality Monitoring Results

B.1 Ambient Total Suspended Particulate Monitoring at Lamma Power Station

Date: First Quarter of 2013 (January - March)

DATE	TSP CONCENTRATION ($\mu\text{g}/\text{m}^3$)		WEATHER INFORMATION (from Hong Kong Observatory)		
	Reservoir	East Gate	Mean Wind Speed (km/hr)	Prevailing Wind Dir. ($^{\circ}$)	Mean R.H. (%)
01/01/2013	63	61	18.0	030	54
07/01/2013	144	(1)	15.0	010	71
10/01/2013	-	124	25.2	020	65
13/01/2013	189	208	10.1	010	69
19/01/2013	84	79	28.7	070	70
25/01/2013	73	96	16.6	060	74
31/01/2013	69	67	23.8	060	66
06/02/2013	24	23	17.0	050	87
12/02/2013	64	54	17.1	020	73
18/02/2013	46	40	8.4	040	84
24/02/2013	73	68	33.2	070	73
02/03/2013	30	29	30.2	030	88
08/03/2013	89	72	9.7	250	49
14/03/2013	76	63	33.8	090	82
20/03/2013	32	27	11.2	200	81
26/03/2013	40	39	31.7	060	97

Remark: (1) Breakdown of High Volume Air Sampler

	TSP ($\mu\text{g}/\text{m}^3$)
Action Level	-
Limit Level	260

Equipment used: Reservoir & East Gate : High Volume Air Sampler

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

B.2.1 Monthly Summary of Stack NO_x and SO₂ for Unit L5

Date	Daily Maximum		
	SO ₂ concentration (mg/Nm ³) [#]	NO _x concentration (mg/Nm ³) [#]	Opacity (%)
1/1/2013	*	*	*
2/1/2013	*	*	*
3/1/2013	*	*	*
4/1/2013	*	*	*
5/1/2013	*	*	*
6/1/2013	*	*	*
7/1/2013	*	*	*
8/1/2013	*	*	*
9/1/2013	*	*	*
10/1/2013	*	*	*
11/1/2013	*	*	*
12/1/2013	*	*	*
13/1/2013	*	*	*
14/1/2013	*	*	*
15/1/2013	*	*	*
16/1/2013	*	*	*
17/1/2013	*	*	*
18/1/2013	*	*	*
19/1/2013	*	*	*
20/1/2013	*	*	*
21/1/2013	*	*	*
22/1/2013	*	*	*
23/1/2013	*	*	*
24/1/2013	*	*	*
25/1/2013	*	*	*
26/1/2013	*	*	*
27/1/2013	*	*	*
28/1/2013	*	*	*
29/1/2013	*	*	*
30/1/2013	*	*	*
31/1/2013	*	*	*

Date	Daily Maximum		
	SO2 concentration (mg/Nm3) [#]	NOx concentration (mg/Nm3) [#]	Opacity (%)
1/2/2013	*	*	*
2/2/2013	*	*	*
3/2/2013	*	*	*
4/2/2013	*	*	*
5/2/2013	*	*	*
6/2/2013	*	*	*
7/2/2013	*	*	*
8/2/2013	*	*	*
9/2/2013	*	*	*
10/2/2013	*	*	*
11/2/2013	*	*	*
12/2/2013	*	*	*
13/2/2013	*	*	*
14/2/2013	*	*	*
15/2/2013	*	*	*
16/2/2013	*	*	*
17/2/2013	*	*	*
18/2/2013	*	*	*
19/2/2013	*	*	*
20/2/2013	*	*	*
21/2/2013	*	*	*
22/2/2013	*	*	*
23/2/2013	*	*	*
24/2/2013	*	*	*
25/2/2013	*	*	*
26/2/2013	*	*	*
27/2/2013	*	*	*
28/2/2013	*	*	*

Date	Daily Maximum		
	SO2 concentration (mg/Nm3) [#]	NOx concentration (mg/Nm3) [#]	Opacity (%)
1/3/2013	*	*	*
2/3/2013	*	*	*
3/3/2013	*	*	*
4/3/2013	*	*	*
5/3/2013	*	*	*
6/3/2013	*	*	*
7/3/2013	*	*	*
8/3/2013	*	*	*
9/3/2013	*	*	*
10/3/2013	*	*	*
11/3/2013	*	*	*
12/3/2013	*	*	*
13/3/2013	*	*	*
14/3/2013	*	*	*
15/3/2013	*	*	*
16/3/2013	74	485	15
17/3/2013	94	440	18
18/3/2013	86	462	15
19/3/2013	102	451	15
20/3/2013	80	373	16
21/3/2013	73	453	15
22/3/2013	41	437	15
23/3/2013	25	459	15
24/3/2013	23	383	14
25/3/2013	48	397	14
26/3/2013	16	469	14
27/3/2013	15	416	14
28/3/2013	73	414	15
29/3/2013	21	404	14
30/3/2013	19	444	15
31/3/2013	21	430	14

Note: # - Hourly average value. Expressed as at 0°C, 101.325kPa, dry and corrected to 12% CO₂ condition.

* - Unit L5 was not on load.

B.2.2 Monthly Summary of Stack NO_x and SO₂ for Unit L4

Date	Daily Maximum		
	SO ₂ concentration (mg/Nm ³) [#]	NO _x concentration (mg/Nm ³) [#]	Opacity (%)
1/1/2013	4	510	18
2/1/2013	12	466	17
3/1/2013	34	484	14
4/1/2013	78	475	14
5/1/2013	36	486	14
6/1/2013	40	518	14
7/1/2013	57	497	15
8/1/2013	61	435	15
9/1/2013	65	427	18
10/1/2013	87	434	15
11/1/2013	74	412	14
12/1/2013	55	425	17
13/1/2013	69	466	18
14/1/2013	101	432	16
15/1/2013	116	458	12
16/1/2013	115	457	12
17/1/2013	74	441	12
18/1/2013	69	400	13
19/1/2013	74	344	12
20/1/2013	51	376	15
21/1/2013	121	432	16
22/1/2013	73	359	19
23/1/2013	2	460	21
24/1/2013	FGD Plant Outage	344	21
25/1/2013	12	469	20
26/1/2013	34	370	17
27/1/2013	57	449	17
28/1/2013	17	391	16
29/1/2013	14	376	12
30/1/2013	42	355	13
31/1/2013	16	342	12

Date	Daily Maximum		
	SO2 concentration (mg/Nm3) [#]	NOx concentration (mg/Nm3) [#]	Opacity (%)
1/2/2013	14	379	14
2/2/2013	35	359	13
3/2/2013	33	404	13
4/2/2013	19	350	14
5/2/2013	43	372	18
6/2/2013	23	340	16
7/2/2013	35	338	14
8/2/2013	18	320	12
9/2/2013	30	450	12
10/2/2013	20	390	10
11/2/2013	13	358	11
12/2/2013	37	339	11
13/2/2013	23	364	11
14/2/2013	41	348	16
15/2/2013	18	422	22
16/2/2013	62	405	13
17/2/2013	23	424	13
18/2/2013	*	*	*
19/2/2013	*	*	*
20/2/2013	*	*	*
21/2/2013	*	*	*
22/2/2013	*	*	*
23/2/2013	*	*	*
24/2/2013	*	*	*
25/2/2013	*	*	*
26/2/2013	*	*	*
27/2/2013	*	*	*
28/2/2013	*	*	*

Date	Daily Maximum		
	SO2 concentration (mg/Nm3) [#]	NOx concentration (mg/Nm3) [#]	Opacity (%)
1/3/2013	*	*	*
2/3/2013	*	*	*
3/3/2013	*	*	*
4/3/2013	*	*	*
5/3/2013	*	*	*
6/3/2013	*	*	*
7/3/2013	*	*	*
8/3/2013	*	*	*
9/3/2013	*	*	*
10/3/2013	*	*	*
11/3/2013	*	*	*
12/3/2013	*	*	*
13/3/2013	*	*	*
14/3/2013	*	*	*
15/3/2013	*	*	*
16/3/2013	*	*	*
17/3/2013	*	*	*
18/3/2013	*	*	*
19/3/2013	*	*	*
20/3/2013	*	*	*
21/3/2013	*	*	*
22/3/2013	*	*	*
23/3/2013	*	*	*
24/3/2013	*	*	*
25/3/2013	*	*	*
26/3/2013	*	*	*
27/3/2013	*	*	*
28/3/2013	*	*	*
29/3/2013	*	*	*
30/3/2013	*	*	*
31/3/2013	*	*	*

Note: # - Hourly average value. Expressed as at 0°C, 101.325kPa, dry and corrected to 12% CO₂ condition.

* - Unit L4 was not on load.

B.2.3 Monthly Summary of Stack SO₂ for Unit L2

Date	Daily Maximum	
	SO ₂ concentration (mg/Nm ³) [#]	Opacity (%)
1/1/2013	12	14
2/1/2013	18	13
3/1/2013	66	13
4/1/2013	78	13
5/1/2013	62	14
6/1/2013	66	14
7/1/2013	67	14
8/1/2013	*	*
9/1/2013	*	*
10/1/2013	*	*
11/1/2013	*	*
12/1/2013	*	*
13/1/2013	*	*
14/1/2013	84	21
15/1/2013	108	14
16/1/2013	99	13
17/1/2013	68	14
18/1/2013	66	15
19/1/2013	60	14
20/1/2013	*	*
21/1/2013	74	14
22/1/2013	73	15
23/1/2013	33	16
24/1/2013	29	18
25/1/2013	32	15
26/1/2013	19	14
27/1/2013	49	14
28/1/2013	93	14
29/1/2013	72	15
30/1/2013	50	16
31/1/2013	32	14

Date	Daily Maximum	
	SO2 concentration (mg/Nm3) [#]	Opacity (%)
1/2/2013	35	17
2/2/2013	42	15
3/2/2013	42	15
4/2/2013	36	18
5/2/2013	41	16
6/2/2013	64	16
7/2/2013	80	16
8/2/2013	53	15
9/2/2013	5	15
10/2/2013	6	13
11/2/2013	13	14
12/2/2013	50	14
13/2/2013	62	13
14/2/2013	76	13
15/2/2013	68	12
16/2/2013	113	13
17/2/2013	98	12
18/2/2013	90	13
19/2/2013	86	13
20/2/2013	96	12
21/2/2013	92	12
22/2/2013	94	12
23/2/2013	84	12
24/2/2013	*	*
25/2/2013	86	12
26/2/2013	104	12
27/2/2013	28	14
28/2/2013	11	15

Date	Daily Maximum	
	SO2 concentration (mg/Nm3) [#]	Opacity (%)
1/3/2013	24	14
2/3/2013	43	13
3/3/2013	*	*
4/3/2013	34	14
5/3/2013	58	14
6/3/2013	49	15
7/3/2013	49	15
8/3/2013	60	16
9/3/2013	24	15
10/3/2013	*	*
11/3/2013	32	15
12/3/2013	113	16
13/3/2013	51	16
14/3/2013	18	18
15/3/2013	16	14
16/3/2013	11	18
17/3/2013	*	*
18/3/2013	*	*
19/3/2013	20	14
20/3/2013	16	16
21/3/2013	59	17
22/3/2013	43	14
23/3/2013	40	14
24/3/2013	38	13
25/3/2013	44	16
26/3/2013	39	13
27/3/2013	37	13
28/3/2013	*	*
29/3/2013	*	*
30/3/2013	*	*
31/3/2013	*	*

Note: # - Hourly average value. Expressed as at 0°C, 101.325kPa, dry and corrected to 12% CO₂ condition.

* - Unit L2 was not on load.

B.3 Ambient SO₂ and NO₂ monitoring Data at Southern District and Cheung Chau

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

STATION : VICTORIA PEAK
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2013
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	7	8	9	8	8	25	37	22	25	21	18	19	26	31	27	13	8	8	8	8	8	7	6	15
2	7	7	7	8	8	7	8	11	12	12	12	10	10	11	13	12	16	15	12	12	11	9	9	8	10
3	6	4	4	6	8	11	9	9	12	13	12	11	9	8	8	9	9	10	14	17	13	11	10	9	10
4	8	8	9	8	7	5	5	6	11	10	10	13	5	5	7	11	7	8	14	7	11	14	20	10	9
5	7	14	15	11	6	8	4	5	6	7	9	13	13	18	17	20	19	13	19	27	17	10	5	4	12
6	5	5	7	6	5	8	9	9	13	16	14	9	12	15	10	11	8	10	13	10	10	13	14	12	10
7	12	8	7	7	4	2	1	1	5	10	10	13	10	8	7	11	14	20	27	31	38	33	27	16	13
8	15	15	16	11	8	10	12	15	19	22	34	18	8	32	26	21	30	20	16	33	37	41	29	33	22
9	35	33	34	26	15	10	8	13	16	12	15	14	14	15	13	10	8	9	9	14	12	12	11	14	16
10	18	18	16	14	12	10	12	14	16	16	14	18	13	11	9	8	7	8	9	9	12	9	9	8	12
11	8	7	8	8	8	6	6	8	10	12	11	16	21	29	21	19	18	19	25	32	28	19	9	9	15
12	11	21	31	17	11	11	13	15	11	22	21	16	8	8	11	11	13	13	20	22	29	26	30	42	18
13	42	36	28	28	22	34	26	20	29	30	27	24	24	27	36	31	26	26	28	22	16	18	21	22	27
14	8	6	5	4	3	2	2	3	6	6	8	28	29	22	21	18	6	5	4	3	4	6	6	3	9
15	3	2	3	4	3	3	3	4	4	3	4	5	6	6	5	5	11	13	13	10	8	3	3	2	5
16	2	3	3	1	2	2	3	2	2	3	4	6	15	22	14	8	5	6	5	8	9	7	5	4	6
17	3	3	3	4	4	4	5	6	8	12	12	12	11	11	11	10	9	7	7	8	6	5	4	3	7
18	3	2	3	4	5	6	4	4	7	7	8	7	6	7	6	5	5	4	4	4	4	3	5	6	5
19	6	6	5	5	4	5	6	6	8	11	13	12	9	8	9	8	5	3	3	5	4	4	2	1	6
20	0	0	1	1	0	0	0	2	2	4	4	3	3	2	1	2	1	2	3	4	3	2	1	1	2
21	3	3	2	3	2	1	1	1	2	1	1	2	2	2	3	3	2	1	1	1	1	1	1	1	2
22	1	2	2	2	2	0	1	0	1	1	0	1	6	19	17	18	17	20	19	23	20	15	8	2	8
23	2	2	0	0	0	0	1	1	2	2	1	1	1	1	2	4	4	3	3	3	4	3	2	5	2
24	3	2	2	3	1	0	1	2	3	4	5	24	26	20	14	28	22	11	14	35	30	18	14	15	12
25	13	20	10	6	5	4	3	3	6	10	4	3	5	6	7	5	7	9	8	9	9	8	8	4	7
26	4	4	3	3	4	4	6	6	7	8	6	5	5	5	5	6	7	5	5	5	3	2	0	0	5
27	0	0	0	0	0	0	1	1	2	2	4	6	5	5	4	4	2	4	3	3	5	8	6	5	3
28	6	5	5	5	6	10	11	11	12	14	16	15	13	13	12	11	11	11	11	8	8	4	4	5	9
29	3	3	3	6	4	3	4	5	7	6	7	6	3	2	2	3	3	4	3	6	4	1	1	4	4
30	0	3	1	0	0	0	3	2	7	8	4	M	6	7	5	4	4	3	2	3	3	3	5	2	3
31	2	3	3	3	3	6	7	6	6	7	8	7	8	7	5	4	3	3	3	4	3	2	1	1	4

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->					STN	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
7	7	9		7	21	28	33	36	0	-	42	2	-	27	2	100	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
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
MONTH: JANUARY

STATION : VICTORIA PEAK
POLLUTANT : NITROGEN DIOXIDE

YEAR : 2013
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	57	44	38	30	36	82	78	67	88	86	82	88	92	93	94	84	87	71	98	68	38	28	50	69
2	33	M	25	20	20	25	28	51	99	104	97	85	72	71	93	116	111	129	92	149	131	68	28	21	73
3	31	25	19	18	19	21	28	43	56	70	63	62	58	64	69	88	98	89	103	92	85	79	74	64	59
4	52	49	50	43	39	37	39	43	47	53	59	59	53	62	64	69	84	89	76	72	75	75	70	64	59
5	59	54	54	49	39	35	17	17	53	66	84	83	80	78	93	122	126	123	134	123	113	111	80	61	77
6	73	82	83	55	32	58	62	57	54	54	60	56	60	75	70	69	61	80	94	90	90	86	84	85	70
7	76	67	69	58	31	34	33	59	72	79	95	99	91	93	97	104	110	178	177	175	154	145	143	124	98
8	117	86	75	43	30	30	35	75	105	113	122	111	52	91	98	89	100	116	94	160	170	209	182	146	102
9	137	135	134	117	79	48	46	69	73	71	78	84	69	70	76	73	72	90	87	105	94	93	86	83	86
10	82	78	57	50	41	29	44	64	76	81	73	80	69	83	70	65	59	74	82	78	68	58	46	39	64
11	35	34	24	23	21	17	29	45	59	73	72	67	60	79	65	65	69	91	118	174	174	160	115	130	75
12	106	106	107	95	63	65	58	76	71	80	91	84	55	72	79	97	107	125	149	156	145	138	140	155	101
13	150	149	120	103	44	89	56	44	68	66	64	67	67	76	86	81	82	102	127	117	132	121	108	100	92
14	89	71	42	23	9	13	38	56	78	82	86	78	72	73	70	72	77	98	42	17	19	16	14	16	52
15	13	13	12	10	11	11	11	21	36	43	46	53	51	71	89	92	114	128	128	129	95	100	83	65	59
16	17	M	15	9	15	9	8	14	61	91	118	95	87	77	73	69	82	133	117	95	65	47	33	35	59
17	29	28	20	14	8	10	18	21	53	66	65	70	61	61	75	75	71	79	84	95	84	73	65	41	53
18	48	39	33	26	21	27	25	34	61	61	56	45	22	34	56	43	39	35	27	31	30	25	17	16	35
19	15	11	10	9	10	13	15	30	50	51	63	68	34	41	78	97	90	85	48	35	18	13	8	8	38
20	8	7	11	6	5	3	5	11	12	15	16	18	20	21	22	20	21	19	21	17	18	10	11	8	14
21	13	10	8	8	6	6	6	16	36	43	41	52	42	54	63	51	48	44	39	67	35	43	55	48	35
22	52	32	24	15	11	7	15	35	77	90	64	58	57	78	70	76	74	79	100	161	144	112	62	50	64
23	59	38	23	16	16	20	23	41	60	64	64	73	68	78	75	67	71	88	96	119	104	32	25	41	57
24	40	17	23	16	17	12	20	43	72	83	84	94	88	63	54	74	63	60	88	173	198	170	184	166	79
25	121	123	45	30	24	19	23	59	67	83	69	66	40	36	61	49	53	40	44	25	29	25	31	25	49
26	24	20	17	13	14	14	18	30	56	62	52	46	43	67	68	86	75	128	148	150	103	104	78	71	62
27	77	88	69	53	36	29	25	29	35	44	36	36	45	51	46	58	52	57	48	50	28	20	18	18	44
28	17	10	9	8	7	9	13	28	47	51	52	45	34	38	52	70	78	41	28	32	17	18	18	20	31
29	17	15	10	14	11	8	14	29	63	75	75	69	58	42	58	50	55	84	96	63	48	14	13	12	41
30	10	M	19	10	5	4	11	15	32	31	31	M	24	40	48	22	23	23	14	9	10	10	10	13	19
31	11	8	6	6	5	7	7	11	38	53	56	43	47	49	39	46	78	71	39	35	21	26	11	0	30

MONTHLY STATISTICS:

GEOM		ARITH	<-----PERCENTILE----->					<-----RANGE----->					STN GEOM	PERCENT	NO. OF TIMES		
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	24-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR	ABOVE OBJECTIVE	ABOVE OBJECTIVE
46	58	60	58	110	132	160	174	0	-	209	14	-	102	2	99	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
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 : 2013
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	1	0	0	1	2	2	1	2	8	7	8	8	3	9	6	9	11	10	13	7	5	0	0	0	5
2	0	0	0	0	0	0	0	0	3	6	6	4	3	3	9	6	4	3	1	0	0	0	0	0	2
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4	0	0	0	0	0	0	0	0	0	7	7	10	6	7	20	25	27	35	37	23	15	13	15	20	11
5	16	11	6	3	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2
6	0	0	0	0	0	0	0	0	0	0	0	2	17	10	3	2	0	0	0	0	0	0	0	0	1
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	2	2	1	4	4	3	3	4	3	3	1	1	1	0	1
10	0	0	0	1	1	2	2	2	2	2	1	2	5	4	1	0	1	1	0	0	0	0	0	0	1
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	9	20	15	13	13	9	11	18	15	4	7	1	1	4	6
13	4	3	2	2	1	1	1	2	5	1	1	1	1	3	1	1	0	0	0	0	0	0	0	0	1
14	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	2	1	1	2	11	29	27	19	25	28	24	22	26	11	0	10
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	1	M	42	23	18	15	21	17	23	28	15	17	19	24	4	12
19	3	2	1	0	24	13	0	5	14	7	6	14	14	11	7	9	12	15	1	0	0	0	0	0	7
20	0	0	0	0	0	0	1	1	2	2	2	2	2	2	5	13	13	8	9	2	2	1	2	2	3
21	1	1	1	1	1	1	1	1	2	2	2	3	3	3	2	3	3	7	12	12	24	8	4	2	4
22	2	3	3	4	3	4	4	4	11	9	8	9	8	6	14	30	22	15	10	14	11	4	3	2	8
23	1	1	1	2	1	1	2	2	3	5	4	3	3	3	3	5	9	5	5	4	4	3	3	3	3
24	3	3	3	3	3	3	3	2	2	4	4	4	3	2	2	2	2	4	4	3	3	1	1	1	3
25	1	2	2	3	5	6	6	5	3	3	4	4	4	4	4	2	1	1	1	2	1	1	0	0	3
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0
27	0	0	0	0	0	0	0	5	7	16	23	31	24	21	31	29	24	26	16	13	18	13	10	9	13
28	14	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->					STN GEOM	PERCENT	NO. OF TIMES			
MEAN	MEDIAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR					
4	0	3	0	12	19	26	29	0	-	42	0	-	13	3	100	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
D : DYNAMIC CALIBRATION
T : TELEMETRY/DATALOGGR FAULT
M : MAINTENANCE OR ANALYZER FAULT
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 : 2013
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	3	8	1	3	26	101	89	107	88	62	48	32	34	67	81	86	80	72	9	1	1	42
2	2	15	5	0	1	11	6	23	45	75	88	61	31	21	23	21	22	19	25	25	21	12	8	10	24
3	6	5	3	2	1	3	3	5	5	4	10	15	15	29	23	28	27	38	4	17	22	19	17	20	13
4	8	9	9	7	4	0	3	10	22	65	69	72	83	88	87	81	95	108	116	116	109	101	113	115	62
5	106	91	46	11	3	0	4	13	16	19	34	42	23	15	9	45	24	21	11	16	30	2	20	11	26
6	25	8	0	0	0	0	1	2	15	13	19	31	27	26	8	11	8	7	6	0	0	0	3	15	9
7	10	3	1	0	0	0	0	2	28	25	24	30	23	6	20	34	56	59	39	25	23	6	2	15	18
8	8	3	1	0	0	0	0	1	5	6	3	4	6	13	20	20	24	21	15	27	28	19	23	18	11
9	24	24	15	27	24	19	25	30	28	31	36	34	36	37	41	51	52	64	76	75	77	72	68	48	42
10	44	52	49	16	19	15	13	20	16	8	14	38	46	40	34	47	42	40	16	22	19	10	16	12	27
11	5	1	3	2	1	0	0	2	1	5	6	13	8	18	25	23	11	9	5	6	3	3	2	2	6
12	5	4	2	2	3	8	5	5	6	8	58	57	48	49	50	43	54	69	103	78	85	61	56	62	38
13	60	M	47	38	26	23	25	40	46	37	38	24	21	23	30	35	10	10	15	16	16	15	6	6	26
14	10	5	4	8	7	6	10	13	40	33	43	42	30	33	37	46	56	32	43	85	55	20	14	6	28
15	2	8	0	3	0	0	23	19	9	67	63	54	58	77	73	65	68	92	85	82	89	97	65	15	46
16	14	2	1	0	0	0	2	3	5	9	8	5	2	3	5	6	12	11	3	3	0	0	1	6	4
17	2	3	1	0	0	0	2	7	21	24	30	21	39	32	34	34	38	48	42	5	4	5	5	20	17
18	1	0	1	0	0	4	6	13	14	29	M	91	58	42	37	39	39	55	79	69	67	90	53	6	34
19	3	5	0	0	10	4	1	7	39	39	47	59	50	39	29	47	66	68	16	11	14	8	7	4	24
20	6	3	0	0	0	1	8	18	28	30	36	32	28	35	42	55	74	80	81	73	40	17	5	14	29
21	13	7	7	5	1	2	5	20	32	39	37	39	30	30	23	27	33	73	83	110	129	117	105	36	42
22	36	23	19	21	20	26	24	44	54	65	59	67	55	61	63	75	60	74	93	121	115	66	31	32	54
23	27	24	9	11	1	5	10	14	30	40	31	27	26	34	36	34	44	55	30	13	15	16	10	11	23
24	9	6	3	2	0	2	6	10	8	13	14	11	8	15	14	11	21	26	9	2	1	2	1	1	8
25	1	0	0	0	0	0	2	10	19	18	28	40	23	27	34	21	17	18	8	19	7	3	1	5	13
26	1	1	0	0	0	0	1	8	16	30	28	23	8	13	12	12	14	35	67	38	13	3	31	28	16
27	25	M	0	0	0	0	5	22	34	52	52	51	44	40	42	38	44	52	54	52	56	51	43	43	35
28	44	28	22	11	3	2	4	8	15	17	24	26	16	23	27	31	34	32	15	42	18	25	9	8	20

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->				STN	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	
17	19	26		19	67	84	104	114	0	-	129	4	-	62	3	100	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
D : DYNAMIC CALIBRATION
T : TELEMETRY/DATALOGGR FAULT
M : MAINTENANCE OR ANALYZER FAULT
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 : 2013
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	3	1	2	1	1	1
3	1	1	1	1	1	1	1	1	1	9	8	3	5	8	11	6	5	7	5	7	6	5	5	6	4
4	6	6	7	8	10	10	11	12	19	19	14	8	7	10	9	12	15	16	17	13	8	9	7	6	11
5	7	8	8	8	8	8	7	7	6	6	6	8	10	11	9	9	8	11	12	10	9	8	6	6	8
6	6	6	6	7	7	9	10	11	12	12	13	12	11	9	9	9	9	8	7	4	2	2	1	2	8
7	4	6	7	6	5	5	7	5	4	6	42	49	37	31	28	31	27	23	67	97	23	20	17	12	23
8	9	6	4	4	4	4	4	4	4	5	7	27	27	14	13	10	10	15	14	21	84	378	12	7	29
9	7	4	259	91	5	5	4	5	6	6	6	7	10	11	12	11	13	15	17	7	7	5	5	1	22
10	1	2	2	2	1	1	1	1	1	3	13	30	26	28	22	28	38	53	27	22	37	46	33	24	18
11	22	12	6	3	0	6	1	1	0	0	0	2	2	3	3	4	4	4	2	1	2	2	2	2	3
12	1	1	1	1	1	1	1	1	2	2	2	3	4	9	5	5	5	5	4	2	1	1	1	0	2
13	4	0	0	0	0	0	0	0	8	22	28	30	28	31	24	20	12	7	7	7	10	8	1	6	11
14	7	41	10	15	17	16	12	3	2	0	1	3	2	2	2	1	1	2	2	1	2	3	2	4	6
15	3	4	4	3	4	4	4	5	5	6	8	6	3	4	4	4	3	3	4	4	4	6	5	5	4
16	5	4	4	3	2	2	5	5	4	6	6	6	4	2	2	3	4	4	3	2	1	2	2	10	4
17	4	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	2	0
18	0	4	35	9	2	1	8	41	17	0	0	1	1	1	0	0	1	1	0	1	1	3	8	2	6
19	3	4	3	2	1	1	1	2	3	3	2	2	4	5	3	2	2	3	1	1	3	6	5	7	3
20	2	1	2	0	0	1	10	2	4	3	17	4	1	0	21	41	46	18	5	5	2	1	3	1	8
21	2	4	11	10	25	43	16	8	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	5	6
22	4	5	3	4	2	4	4	5	6	4	2	1	10	22	15	3	1	2	48	15	2	1	1	0	7
23	0	0	0	0	0	0	0	0	2	6	8	7	5	7	6	4	24	12	1	3	203	67	10	3	15
24	4	4	2	0	15	46	67	37	16	1	1	2	1	10	17	36	6	19	25	23	11	19	23	11	17
25	7	4	6	8	13	6	5	4	4	6	3	2	1	0	0	0	0	0	0	0	0	0	0	0	3
26	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	2	1	1	1	1	0	0	0	0
27	0	0	0	0	1	2	2	4	9	3	M	M	13	11	4	1	7	5	4	2	1	1	0	3	3
28	4	4	7	5	4	2	1	2	2	1	1	1	2	1	1	1	1	10	2	1	1	0	0	0	2
29	0	0	0	0	0	1	0	0	0	1	4	7	15	5	17	7	2	1	1	1	1	0	0	0	3
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->					STN	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
5	3	7		3	16	27	44	67	0	-	378	0	-	29	3	100	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
D : DYNAMIC CALIBRATION
T : TELEMETRY/DATALOGGR FAULT
M : MAINTENANCE OR ANALYZER FAULT
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 : 2013
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	12	6	5	6	1	2	16	28	35	17	20	15	16	18	16	19	20	23	31	21	21	20	17	16
2	2	0	0	0	6	8	5	4	15	17	14	24	23	20	27	38	37	53	56	55	52	49	44	48	25
3	44	40	31	21	22	23	21	31	32	37	38	38	39	44	59	59	59	67	53	58	52	44	60	47	42
4	37	24	20	19	19	19	33	62	77	76	75	47	33	39	21	22	33	47	71	124	29	17	25	23	41
5	25	5	6	9	9	9	15	32	46	39	31	32	24	12	20	26	20	30	42	16	12	16	33	18	22
6	20	16	9	6	5	5	11	19	50	71	72	64	63	46	36	79	76	65	70	20	10	10	8	5	35
7	17	11	6	2	1	2	1	8	30	100	122	102	76	58	61	79	78	68	142	204	96	20	24	11	55
8	3	0	0	0	0	0	0	3	6	37	34	45	55	29	26	22	34	48	67	102	131	228	27	11	38
9	8	1	183	43	1	0	2	17	34	38	37	38	30	28	31	33	50	62	106	96	78	80	62	20	45
10	11	3	2	1	0	0	1	5	30	30	44	52	36	37	34	32	43	68	91	106	114	115	115	93	44
11	99	61	25	7	0	9	6	14	18	18	22	20	17	17	28	37	46	72	65	40	18	14	10	10	28
12	11	7	3	5	5	4	6	25	55	75	45	33	40	41	59	58	42	70	67	44	17	7	3	7	30
13	28	M	0	0	0	0	2	11	31	59	47	31	38	37	32	35	30	20	37	22	21	9	2	6	22
14	9	40	18	34	46	65	57	15	25	18	29	27	22	20	22	27	21	33	30	14	10	13	18	17	26
15	14	12	11	8	9	8	13	13	18	28	31	26	20	25	32	40	37	32	41	49	22	12	16	16	22
16	15	6	6	5	6	4	10	9	20	40	40	53	48	12	12	49	65	84	82	79	58	9	7	22	31
17	16	16	5	3	1	2	0	6	6	14	19	21	9	9	17	17	22	29	30	35	35	26	11	11	15
18	5	3	34	9	2	0	13	29	22	3	3	5	3	5	6	1	1	2	2	4	8	11	28	13	9
19	10	8	0	0	1	0	1	4	13	10	6	6	9	14	11	13	11	7	5	3	9	14	16	11	8
20	0	0	0	0	0	0	29	9	9	11	21	1	0	0	15	23	24	22	17	28	12	11	13	6	10
21	20	30	27	33	45	44	36	44	43	25	26	25	18	20	26	33	45	37	26	22	29	18	17	28	30
22	25	21	11	17	7	15	17	36	44	42	20	4	34	40	27	28	24	19	41	37	14	15	31	11	24
23	11	4	0	2	3	3	19	43	55	59	61	52	31	30	35	22	26	19	32	28	66	70	37	11	30
24	9	8	2	0	15	50	36	18	19	4	10	8	4	25	29	24	16	40	45	26	41	40	57	31	23
25	14	17	14	29	42	15	13	9	12	9	5	8	4	9	13	13	10	11	5	5	2	4	1	9	11
26	6	0	0	0	0	0	3	10	25	27	27	22	24	37	45	38	65	57	70	62	30	25	13	31	26
27	14	M	40	54	44	25	29	50	74	79	M	M	75	74	76	41	82	80	87	47	51	26	17	20	52
28	21	15	14	12	7	9	8	15	30	30	42	50	51	55	78	68	73	92	52	49	41	9	28	8	36
29	5	12	5	1	9	8	17	30	18	45	46	69	74	49	79	82	49	14	30	29	17	3	5	1	29
30	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	10	28	10	18	8	17	4
31	22	17	11	9	8	7	7	10	10	14	16	11	21	16	16	19	12	10	19	22	17	13	9	14	14

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->					STN	GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN		50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID	DATA	1-HR	24-HR	
19	20	27		20	62	76	99	115	0	-	228	4	-	55	3	99	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
D : DYNAMIC CALIBRATION
T : TELEMETRY/DATALOGGR FAULT
M : MAINTENANCE OR ANALYZER FAULT
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
POLLUTANT : SULPHUR DIOXIDE

MONTH:JANUARY

YEAR : 2013
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	10	12	12	11	12	10	9	14	11	9	9	8	8	9	9	9	11	9	10	10	10	8	8	10
2	11	10	11	11	11	12	15	14	14	13	13	12	12	14	18	27	23	17	13	15	14	12	13	11	14
3	8	6	6	13	15	15	14	15	16	13	13	13	13	11	13	12	11	12	13	13	12	10	10	10	12
4	10	10	10	10	9	10	8	7	7	6	5	5	5	3	3	7	9	8	14	10	10	15	9	8	8
5	5	10	19	11	7	9	8	13	6	7	19	44	29	9	5	6	7	6	7	8	9	7	6	6	11
6	7	7	7	7	8	7	7	7	10	9	8	13	15	22	19	15	12	10	14	16	18	17	24	19	12
7	15	11	8	6	5	4	4	4	5	7	17	28	24	14	26	16	5	7	21	42	37	39	32	26	17
8	24	22	27	27	23	19	16	17	20	41	65	30	5	6	7	6	9	11	15	29	32	30	19	17	22
9	26	25	22	19	12	10	10	10	10	11	10	9	25	18	16	15	14	10	10	10	11	11	12	12	14
10	12	13	13	12	11	10	10	11	11	11	12	11	11	11	10	9	10	11	10	12	11	11	11	11	11
11	10	10	11	11	9	8	9	11	11	12	12	12	11	10	10	10	10	15	22	22	12	12	10	9	12
12	8	8	9	10	11	9	6	5	19	31	22	12	7	6	13	15	16	16	21	23	28	43	37	33	17
13	20	23	26	36	28	30	32	29	30	36	35	33	33	63	41	36	30	28	26	25	25	36	21	12	31
14	3	2	0	0	0	0	0	0	3	6	9	8	4	2	1	1	0	2	3	2	4	3	5	3	3
15	2	3	5	5	3	2	3	4	3	3	4	5	6	6	4	3	2	1	0	1	1	3	8	16	4
16	2	3	2	3	3	3	1	0	3	34	7	2	3	2	3	3	5	6	9	9	9	5	4	4	5
17	4	3	4	5	3	3	4	6	9	11	11	10	10	11	9	9	8	6	3	3	4	4	2	2	6
18	2	2	2	2	1	2	3	3	5	5	5	4	5	7	4	4	4	4	3	3	2	3	5	7	4
19	7	6	5	5	4	5	6	7	11	11	12	11	11	13	10	7	5	5	6	6	5	4	2	1	7
20	0	2	2	3	2	2	2	3	3	7	6	5	4	2	2	3	1	4	5	4	3	1	2	1	3
21	2	1	2	2	1	0	0	1	0	0	0	1	1	1	2	3	2	2	3	2	2	2	4	1	1
22	4	4	3	4	3	2	1	1	2	1	0	0	3	2	0	2	1	13	2	0	0	3	7	3	3
23	4	1	1	0	0	0	1	1	0	1	2	3	4	2	5	5	5	5	5	9	7	7	11	7	4
24	4	2	2	0	0	1	0	2	1	1	1	1	1	8	12	13	17	12	12	19	11	17	37	6	8
25	15	9	4	4	4	3	2	2	2	1	1	1	5	7	8	7	10	9	11	13	11	10	8	6	6
26	6	4	3	4	4	5	5	5	4	4	2	0	2	2	2	4	3	3	3	2	5	1	0	0	3
27	0	0	0	0	0	0	0	0	1	1	3	4	4	3	3	1	1	2	2	3	6	8	4	4	2
28	6	5	5	4	5	8	9	10	11	13	14	13	13	13	11	11	12	10	8	4	3	1	2	3	8
29	1	1	2	4	3	3	4	5	5	6	7	5	4	3	4	7	7	4	9	7	11	4	5	3	5
30	3	2	1	0	1	1	3	4	9	6	3	4	6	6	5	4	2	1	0	2	3	5	3	3	3
31	3	2	3	2	2	8	9	7	7	7	9	9	7	6	4	3	5	7	6	4	4	2	1	1	5

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->					STN	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	7	9		7	19	27	35	38	0	-	65	1	-	31	2	100	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
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
POLLUTANT : NITROGEN DIOXIDE

MONTH:JANUARY

YEAR : 2013
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	12	18	16	14	13	13	20	40	33	28	23	20	21	23	26	35	19	9	15	15	13	12	14	19
2	17	M	16	13	14	15	19	17	18	19	29	26	19	20	23	25	23	32	33	15	24	24	18	17	21
3	16	12	12	12	14	18	20	20	24	28	24	25	27	32	29	30	33	39	36	33	30	29	25	30	25
4	22	23	28	31	34	25	21	21	20	26	23	21	21	18	21	47	55	61	70	71	77	73	64	63	39
5	38	45	38	39	21	37	38	40	26	26	38	59	51	28	18	22	21	18	24	24	22	24	26	11	31
6	13	16	18	21	19	14	18	23	42	44	40	44	59	79	79	74	76	78	100	99	98	96	95	89	56
7	84	71	55	20	18	23	22	21	40	45	50	65	67	71	88	73	21	34	83	167	162	150	145	146	72
8	145	141	136	120	118	107	91	90	79	83	92	64	22	22	27	25	41	40	45	72	147	138	32	58	81
9	124	125	78	61	28	26	34	47	56	57	59	44	60	58	57	64	53	48	59	69	54	36	43	30	57
10	41	61	40	32	22	9	11	15	21	22	25	28	22	24	32	27	28	27	16	23	23	21	21	21	26
11	21	15	15	17	14	11	13	25	26	28	26	25	25	25	28	29	27	42	49	76	33	27	27	23	27
12	27	26	44	51	79	67	52	16	37	73	71	43	18	18	66	92	113	133	148	155	161	159	146	147	81
13	123	116	126	122	106	95	89	88	87	88	100	94	88	119	104	98	95	117	140	139	119	146	133	87	109
14	29	15	6	9	3	1	2	4	6	12	19	20	13	15	14	18	19	21	13	10	18	13	15	12	13
15	10	9	9	9	8	8	10	18	15	16	16	12	17	17	22	31	36	54	35	32	52	52	58	80	26
16	22	M	15	21	24	21	13	7	15	69	36	27	31	24	27	22	24	13	11	14	19	16	16	15	22
17	17	14	11	10	8	6	12	19	21	20	18	21	17	22	22	22	29	26	22	22	22	17	16	15	18
18	15	11	8	7	7	6	9	15	19	18	18	12	13	17	17	19	21	23	20	17	18	16	14	12	15
19	11	9	7	8	8	9	11	14	17	19	21	19	20	20	22	19	20	23	14	15	14	10	9	9	15
20	6	9	8	7	6	5	6	9	9	14	10	11	10	8	7	8	6	11	14	10	9	7	7	7	9
21	9	6	6	7	6	6	6	8	8	10	10	8	11	9	12	13	16	12	11	15	16	17	20	14	11
22	15	15	14	12	10	10	8	8	13	24	22	17	21	16	10	14	17	48	41	30	27	30	25	31	20
23	23	18	19	17	18	16	19	28	29	30	32	27	33	27	29	32	36	46	15	26	20	13	26	19	25
24	18	13	14	8	11	15	10	15	15	22	23	24	17	29	34	37	48	44	78	147	111	107	137	53	43
25	52	25	14	12	13	13	15	19	34	30	17	19	17	16	20	25	30	36	45	19	13	18	14	14	22
26	14	11	10	11	11	11	11	17	19	21	16	14	14	16	20	24	36	32	36	36	34	31	24	20	20
27	19	13	12	12	10	12	14	15	17	17	17	20	19	21	23	30	34	38	16	15	15	16	10	10	18
28	10	9	9	9	8	9	10	16	15	14	13	14	16	19	18	22	26	23	18	13	11	9	8	9	14
29	5	6	7	9	7	9	9	14	13	15	17	12	14	14	18	20	25	15	28	20	23	16	15	14	14
30	10	M	7	7	7	7	12	17	21	17	17	15	18	18	13	18	16	15	14	14	14	13	14	11	14
31	11	8	7	7	6	14	16	15	19	16	17	16	13	15	14	10	12	20	20	13	18	10	10	10	13

MONTHLY STATISTICS:

GEOM		ARITH	<-----PERCENTILE----->					<-----RANGE----->				STN	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	
22	20	31	20	76	107	142	147	1	-	167	9	-	109	2	100	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
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
POLLUTANT : SULPHUR DIOXIDE

MONTH: FEBRUARY

YEAR : 2013
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	6	1	3	3	0	0	0	0	0	0	1	11	17	0	0	0	0	0	1	0	0	4	11	0	2
2	0	0	0	2	5	2	8	57	43	99	145	88	26	2	12	3	2	0	0	0	0	0	0	0	21
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	1	1	0
4	1	0	0	0	0	0	0	0	0	0	0	10	0	0	4	25	13	0	4	4	2	11	5	1	3
5	3	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0	0	10	7	8	4	2	5	0	0	0	M	M	2
10	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
11	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
12	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
13	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
14	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	M	59	39	70	45	31	19	4	0	12
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	2	5	1	0	0	0	0	0	0	0	10	18	5	3	10	13	4	0	2	3
19	2	2	1	0	0	0	0	0	8	8	10	8	5	1	1	4	17	7	0	0	0	0	0	0	3
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
22	0	0	0	0	0	0	0	0	0	2	4	12	12	11	9	36	31	28	13	2	1	0	0	7	
23	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	2	2	1	1	0	0	0	0	
24	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	2	4	6	6	7	4	0	0	1	
25	0	0	0	0	4	3	2	3	1	2	3	3	2	3	2	1	0	1	2	2	0	0	0	1	
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	
27	0	0	0	19	13	2	5	7	15	3	0	0	0	10	22	104	89	62	35	44	65	50	57	29	26
28	24	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->				STN	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	
5	0	4		0	7	18	49	67	0	-	145	0	-	26	4	83	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
D : DYNAMIC CALIBRATION
T : TELEMETRY/DATALOGGR FAULT
M : MAINTENANCE OR ANALYZER FAULT
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
POLLUTANT : NITROGEN DIOXIDE

MONTH: FEBRUARY

YEAR : 2013
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	10	11	11	6	6	15	10	14	17	33	39	46	15	13	17	19	18	32	41	27	44	67	36	23
2	25	11	6	11	18	18	38	79	68	83	86	88	57	15	19	14	13	14	8	8	8	8	8	9	30
3	8	5	7	6	6	6	8	7	8	9	11	6	6	6	4	9	13	19	16	11	13	7	11	13	9
4	11	6	7	5	6	5	8	13	14	17	33	42	30	29	34	63	49	25	42	57	61	77	71	47	31
5	64	25	20	22	9	13	16	23	16	23	16	16	13	12	12	20	16	18	16	22	19	17	21	17	19
6	21	11	6	4	3	6	8	22	21	15	13	13	10	8	7	5	13	24	12	13	15	10	27	10	12
7	9	8	8	8	6	7	12	12	13	12	13	12	12	13	16	12	16	18	13	12	8	8	5	6	11
8	8	5	6	5	6	7	6	8	11	10	11	11	10	10	9	10	13	13	12	18	20	21	14	13	11
9	13	14	11	10	8	8	9	14	14	14	15	14	14	32	34	43	41	41	53	62	66	49	34	5	26
10	10	9	12	15	13	9	10	10	8	9	11	26	52	20	15	19	24	16	12	5	6	5	6	7	14
11	5	5	6	5	6	4	7	10	9	8	5	7	7	9	9	9	12	16	15	11	9	9	8	7	8
12	6	6	6	5	6	7	8	20	28	28	46	46	20	18	24	37	77	91	96	67	30	25	29	48	32
13	46	M	45	26	17	8	10	17	17	10	13	13	13	14	14	15	20	25	21	14	11	8	8	8	17
14	11	5	7	7	5	4	8	9	12	11	11	8	8	8	10	18	16	14	19	27	27	27	20	9	13
15	6	14	27	13	14	12	14	20	30	21	14	18	16	62	57	49	73	69	100	108	102	70	10	7	39
16	7	8	7	6	8	8	10	11	11	12	11	12	12	10	11	9	9	10	9	11	14	13	16	9	10
17	9	6	5	6	6	5	6	6	8	12	13	12	13	17	15	16	15	10	8	7	12	7	6	4	9
18	6	5	4	4	8	19	40	45	39	27	27	21	13	8	9	24	32	22	21	45	36	22	23	23	22
19	26	34	30	27	26	32	41	42	39	36	33	32	23	15	11	19	35	32	14	9	7	8	7	10	25
20	8	8	7	7	7	8	13	16	14	14	15	15	16	18	26	26	19	19	14	12	13	14	16	12	14
21	10	7	10	7	8	8	10	16	14	17	18	16	15	19	16	20	25	27	23	50	38	23	19	10	18
22	10	8	11	11	13	14	16	24	28	27	36	36	34	42	50	41	77	88	110	51	26	13	10	11	33
23	12	11	8	9	9	7	8	9	15	18	17	11	14	16	22	17	19	17	15	12	13	10	9	8	13
24	6	6	7	5	5	5	7	8	9	9	12	12	7	12	12	20	31	26	15	13	11	10	6	7	11
25	8	4	4	4	7	6	6	9	9	8	8	10	9	9	5	6	7	4	8	10	8	8	7	6	7
26	9	9	8	6	7	7	8	17	13	9	11	16	11	11	15	17	16	9	20	16	9	10	8	8	11
27	12	M	10	55	58	39	51	57	62	55	30	24	20	26	35	53	60	58	53	69	70	70	73	64	48
28	51	20	19	14	10	10	10	9	11	11	10	10	10	8	9	9	9	8	5	6	9	9	7	8	12

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->				STN GEOM	PERCENT	NO. OF TIMES				
MEAN	MEDIAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR					
14	12	19	12	42	59	75	88	3	-	110	7	-	48	2	100	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
D : DYNAMIC CALIBRATION
T : TELEMETRY/DATALOGGR FAULT
M : MAINTENANCE OR ANALYZER FAULT
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
POLLUTANT : SULPHUR DIOXIDE

MONTH: MARCH

YEAR : 2013
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	9	10	23	16	2	2	2	5	3	2	3	3
4	3	3	4	6	5	5	5	4	5	6	5	5	6	4	4	3	4	3	4	6	6	7	4	6	5
5	7	7	6	6	7	8	6	6	5	4	6	33	29	M	8	4	4	4	2	1	0	0	0	0	7
6	0	0	0	0	0	0	0	0	1	2	2	1	0	0	0	0	0	1	1	3	0	4	0	1	1
7	1	1	0	0	0	0	0	0	0	1	12	13	23	8	7	8	39	58	39	30	17	17	28	10	13
8	9	10	10	6	9	26	12	20	22	28	41	108	69	45	26	24	23	34	36	19	15	5	14	12	26
9	11	12	11	7	9	7	3	12	6	14	11	9	9	5	13	14	10	27	11	14	25	12	10	13	11
10	14	7	8	5	2	7	8	7	7	11	9	0	9	22	15	34	64	53	50	45	32	20	14	15	19
11	15	13	19	12	5	7	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	1	3	
12	0	0	0	0	0	0	0	0	0	0	1	1	3	1	3	2	3	1	0	0	0	0	0	0	1
13	5	5	0	1	1	1	0	0	0	0	12	36	13	18	37	27	28	20	21	19	8	10	5	1	11
14	3	5	22	21	26	24	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	5
15	1	2	2	2	4	3	3	3	4	5	5	1	1	3	3	1	2	1	2	1	2	3	2	3	2
16	3	3	2	1	0	2	3	2	2	3	3	3	2	2	1	1	2	0	0	0	3	8	6	4	2
17	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	1	10	31	12	14	31	34	11	4	22	27	32	21	17	11	3	5	12	12
19	21	27	24	17	7	7	7	8	9	11	9	6	9	16	9	6	11	3	2	4	4	4	6	13	10
20	7	9	4	4	7	11	9	4	3	0	4	6	8	18	11	9	9	24	13	21	9	49	57	23	13
21	18	10	14	42	36	29	21	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
22	0	0	2	0	0	0	0	3	2	2	0	1	0	0	0	1	1	5	3	5	4	2	0	0	1
23	0	0	0	1	0	0	0	0	3	4	0	1	7	6	9	9	20	7	11	1	5	109	59	53	13
24	47	22	14	14	2	0	3	1	3	21	23	14	25	46	24	39	42	45	26	2	11	10	11	7	19
25	8	10	7	7	10	9	8	5	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0	0	20	12	0	0	0	0	0	0	0	0	3	1
28	4	8	5	3	2	0	0	1	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	1
29	0	0	0	0	0	0	0	0	0	0	49	28	2	0	0	0	0	0	0	0	0	0	0	0	3
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->				STN	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	
7	1	6		1	20	29	45	53	0	-	109	0	-	26	3	100	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
D : DYNAMIC CALIBRATION
T : TELEMETRY/DATALOGGR FAULT
M : MAINTENANCE OR ANALYZER FAULT
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
POLLUTANT : NITROGEN DIOXIDE

MONTH: MARCH

YEAR : 2013
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	7	6	6	7	5	7	12	10	13	10	12	18	15	16	20	23	30	42	29	32	33	27	21	17
2	14	12	10	12	4	4	9	9	7	8	10	12	15	14	14	16	24	25	23	20	18	19	19	15	14
3	15	13	15	18	16	17	17	18	15	17	34	25	30	44	48	65	65	51	59	52	44	46	26	15	32
4	9	12	7	8	7	7	7	11	24	29	19	14	19	16	14	14	24	20	6	7	8	12	11	12	13
5	11	8	8	6	8	10	8	11	10	7	9	10	10	M	15	15	19	15	8	12	13	16	14	11	11
6	8	9	6	6	5	6	8	10	20	25	18	16	16	19	17	28	25	33	27	22	21	22	14	13	16
7	13	11	7	8	8	9	14	41	40	36	48	26	44	27	16	18	67	81	60	55	44	67	128	30	37
8	18	16	14	10	13	35	12	41	72	68	69	111	94	87	57	49	56	60	66	46	51	24	36	24	47
9	33	21	13	10	9	9	5	19	27	32	25	18	15	11	16	18	24	52	27	30	34	15	14	12	20
10	20	12	10	6	5	7	12	19	24	26	19	6	20	29	25	50	56	62	58	57	51	52	35	56	30
11	47	34	33	25	12	15	10	13	15	11	12	12	16	12	12	17	16	13	12	13	14	17	11	10	17
12	8	6	6	8	9	8	8	14	13	11	16	13	15	14	19	20	27	16	7	28	10	16	4	19	13
13	18	M	5	10	13	7	9	18	38	30	48	56	31	28	37	36	37	34	42	43	43	26	50	35	30
14	63	71	72	71	71	70	47	17	16	15	17	20	21	19	15	19	20	21	18	16	16	15	14	14	32
15	10	10	8	9	12	11	15	22	20	20	22	18	14	16	21	22	21	20	20	16	16	14	11	16	16
16	14	12	9	7	8	8	14	13	16	16	16	18	17	16	17	18	24	19	15	7	10	15	12	10	14
17	8	6	7	5	5	5	7	10	20	14	15	24	25	20	18	17	24	34	32	29	27	27	20	37	18
18	17	8	5	4	8	9	20	42	51	36	30	41	42	28	17	35	38	43	40	29	27	7	28	43	27
19	47	40	36	31	21	17	19	26	24	23	21	13	15	23	23	21	24	23	15	20	20	19	25	20	24
20	16	15	10	7	10	13	12	7	7	6	6	7	8	13	11	16	12	29	26	48	36	47	43	47	19
21	46	39	38	48	46	43	44	38	18	11	9	7	6	6	6	7	8	6	9	7	8	8	10	9	20
22	11	10	12	9	8	7	8	12	14	14	13	14	10	12	14	12	14	22	20	29	18	9	9	11	13
23	11	6	8	6	7	5	20	22	32	37	25	25	27	23	28	19	28	15	35	27	50	56	56	55	26
24	53	34	26	37	17	15	18	22	31	45	44	32	44	40	28	26	36	46	48	24	51	45	51	48	36
25	47	49	46	42	30	30	30	22	20	16	12	14	13	12	13	13	13	13	12	9	10	10	10	8	21
26	7	6	8	6	5	6	7	10	10	7	9	10	10	10	9	12	10	12	19	10	9	8	11	5	9
27	8	M	14	25	19	14	11	20	42	34	20	32	57	58	47	41	40	42	31	16	12	16	13	12	27
28	10	9	8	7	7	6	6	13	8	11	9	9	48	48	34	46	35	74	81	13	17	10	11	7	22
29	7	7	6	6	4	7	8	8	14	20	68	71	24	31	27	24	17	15	8	8	6	6	5	5	17
30	5	5	4	4	6	5	5	7	8	10	11	9	9	11	14	13	10	10	18	33	34	7	7	5	10
31	4	5	5	6	7	5	5	6	6	9	11	14	12	7	14	12	13	15	20	10	7	6	6	7	9

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->				STN	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	
16	15	21		15	46	56	68	72	4	-	128	9	-	47	2	100	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
D : DYNAMIC CALIBRATION
T : TELEMETRY/DATALOGGR FAULT
M : MAINTENANCE OR ANALYZER FAULT
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 : 2013
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	1	1	2	1	2	7	11	23	17	14	17	20	28	26	9	7	1	1	1	1	3	2	0	8
2	0	0	0	0	0	0	1	5	5	8	11	10	25	30	24	51	46	32	25	15	7	4	2	4	13
3	7	0	0	2	5	9	5	4	7	7	6	4	17	18	4	5	5	5	7	10	6	4	3	3	6
4	4	2	2	1	1	0	0	0	1	1	8	15	4	0	5	8	12	27	15	1	12	17	9	13	7
5	14	12	18	20	30	24	18	21	30	25	29	14	21	11	14	34	22	22	23	19	13	8	7	0	19
6	21	24	21	19	18	18	12	20	23	12	12	5	12	15	10	7	4	7	2	5	10	10	12	23	13
7	31	27	14	5	8	2	1	5	13	24	16	8	6	3	7	18	20	25	37	37	41	34	29	27	18
8	36	31	29	17	28	24	25	26	32	29	28	31	29	13	7	47	30	15	21	27	34	33	31	33	27
9	34	31	26	32	16	17	5	18	17	6	12	28	26	18	14	17	12	11	12	13	13	14	14	14	18
10	25	31	22	15	13	13	13	18	17	22	26	20	18	20	35	40	18	9	10	10	12	10	9	9	18
11	9	9	10	10	9	7	7	9	11	13	11	16	27	39	15	18	22	25	29	34	31	29	38	26	19
12	33	33	23	24	20	20	18	14	25	26	27	20	21	22	16	18	20	26	37	34	35	30	32	46	26
13	36	34	35	40	50	52	41	45	49	50	56	37	46	60	42	34	31	29	40	37	42	31	38	27	41
14	21	8	6	6	15	14	7	7	12	27	29	41	32	16	29	16	6	5	4	4	5	6	6	5	14
15	5	4	5	6	5	4	4	5	4	3	4	4	6	7	5	6	8	8	10	13	10	13	26	37	8
16	36	28	20	12	11	9	18	31	39	59	55	87	28	26	20	14	11	48	27	15	11	9	6	6	26
17	5	5	4	5	5	4	6	6	8	12	13	12	17	14	13	15	16	7	6	6	6	4	4	4	8
18	5	4	4	4	5	6	5	6	9	13	9	8	7	7	7	6	6	6	5	5	4	6	7	6	6
19	8	8	7	6	6	6	7	8	9	12	13	14	14	9	6	4	3	1	1	1	2	1	1	0	6
20	0	0	0	0	0	0	1	1	1	3	3	2	3	1	1	1	1	1	2	2	2	2	1	1	1
21	2	1	1	2	1	1	0	1	1	1	1	1	1	16	26	11	6	27	46	42	54	12	16	5	11
22	3	4	4	4	19	23	23	38	24	27	49	55	40	31	44	44	42	39	40	17	21	47	24	50	30
23	50	16	4	2	2	2	2	3	3	5	3	3	5	5	5	8	7	6	5	5	4	4	4	9	7
24	7	3	2	3	2	2	2	3	14	24	61	36	37	37	28	31	50	74	55	51	51	151	60	40	34
25	69	58	57	15	9	6	5	4	4	7	8	10	12	10	12	10	10	11	10	10	10	10	10	6	16
26	6	7	4	5	5	5	6	6	8	8	7	6	6	10	19	8	7	15	22	14	13	19	22	12	10
27	43	14	7	6	3	12	4	3	4	4	6	7	7	7	6	9	19	11	5	5	7	10	7	7	9
28	8	7	7	7	7	11	12	12	12	14	16	15	13	13	12	10	11	12	11	11	9	5	4	5	10
29	3	2	3	4	4	6	4	13	10	9	21	33	46	31	17	5	4	5	4	4	9	8	22	3	11
30	3	4	2	1	1	0	1	2	6	8	4	5	6	5	5	4	4	3	4	4	4	5	5	4	4
31	2	2	3	2	3	4	6	5	14	25	25	6	6	5	4	10	16	30	20	7	12	14	3	5	10

MONTHLY STATISTICS:

GEOM		ARITH	<-----PERCENTILE----->					<-----RANGE----->				STN GEOM	PERCENT	NO. OF TIMES			
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	1-HR	24-HR		
10	10	15	10	34	43	52	59	0	-	151	1	-	41	3	100	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
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: JANUARY

YEAR : 2013
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	62	61	50	49	37	37	62	83	82	70	74	72	74	84	81	50	30	57	81	101	90	67	57	59	65
2	63	M	20	17	22	19	57	73	92	89	83	62	52	65	50	80	88	91	133	134	148	110	68	38	72
3	25	18	16	15	15	21	30	38	55	61	48	46	65	58	53	76	84	95	95	82	75	71	69	56	53
4	40	42	40	39	33	31	33	38	41	45	40	40	47	53	54	59	71	72	67	60	61	61	58	55	49
5	48	41	42	42	42	38	41	46	52	53	52	51	57	71	88	116	124	126	118	105	96	103	105	62	72
6	82	75	66	60	55	50	47	47	48	42	39	36	56	69	63	57	51	77	78	83	84	79	74	77	62
7	75	68	61	57	55	49	52	65	64	67	50	50	54	62	81	114	139	176	180	160	140	136	134	134	93
8	132	128	112	102	95	87	86	87	92	92	86	91	60	57	35	68	108	98	104	166	163	163	186	123	105
9	111	115	108	111	88	77	46	61	66	63	65	46	29	26	20	43	46	80	74	75	75	64	65	58	67
10	60	61	42	28	21	21	31	45	52	54	47	51	54	60	66	68	43	43	80	70	55	44	14	13	47
11	6	6	2	3	2	2	16	31	37	36	17	17	22	35	9	14	24	53	65	121	143	131	127	107	43
12	93	88	79	71	63	55	72	66	54	43	50	59	56	65	68	77	97	118	140	144	134	127	126	128	86
13	119	105	91	87	80	75	72	74	70	74	85	68	75	101	74	75	78	106	139	144	141	119	118	107	95
14	95	48	34	38	63	58	58	73	66	74	61	60	58	54	49	22	11	69	55	23	16	9	13	4	46
15	1	1	1	1	1	1	5	13	13	11	6	16	35	39	49	66	93	93	103	109	113	119	122	120	47
16	112	M	70	45	28	23	52	77	81	97	81	91	49	24	19	15	25	114	133	143	116	65	52	15	66
17	13	2	2	2	1	1	9	10	29	34	34	41	35	27	36	43	67	32	42	50	40	43	35	20	27
18	36	23	15	7	4	7	15	25	44	37	30	23	8	9	24	27	29	21	18	21	16	12	10	7	20
19	3	1	1	1	1	1	7	20	30	27	19	23	9	5	7	11	17	15	9	20	3	2	8	1	10
20	1	1	1	1	1	1	2	1	0	1	1	1	0	0	1	1	0	2	1	1	1	1	1	1	1
21	1	1	1	1	1	0	2	11	14	12	5	6	3	25	34	26	27	64	96	96	92	67	83	51	30
22	54	40	18	10	29	46	56	74	70	68	68	72	59	48	42	72	83	91	109	143	136	121	87	83	70
23	78	58	16	9	6	10	22	34	45	45	39	30	48	42	23	15	21	58	85	89	63	52	29	65	41
24	62	6	5	2	9	4	20	82	75	45	69	79	69	65	60	49	69	127	147	148	169	164	162	157	77
25	148	139	94	30	9	14	15	46	45	52	43	58	25	20	31	27	34	55	48	46	28	10	15	15	44
26	13	6	1	1	1	4	19	26	34	27	21	29	21	28	43	14	13	38	50	87	40	56	75	53	29
27	89	82	69	50	30	50	20	22	24	27	19	18	23	32	27	37	43	32	35	41	20	14	10	7	34
28	5	1	1	1	1	1	8	21	23	20	13	9	14	13	13	18	26	28	22	34	16	14	11	5	13
29	3	3	1	1	1	4	39	69	71	70	54	50	58	49	23	9	34	25	60	62	68	31	88	9	37
30	5	M	1	1	1	1	5	13	19	14	8	8	6	5	6	6	4	9	8	9	9	2	2	3	6
31	1	1	1	1	1	1	8	25	42	63	44	3	4	3	2	17	52	82	93	68	74	78	12	17	29

MONTHLY STATISTICS:

GEOM		ARITH	<-----PERCENTILE----->					<-----RANGE----->					STN GEOM	PERCENT	NO. OF TIMES		
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	24-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR		
29	46	50	46	105	128	145	163	0	-	186	1	-	105	4	100	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
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: FEBRUARY

YEAR : 2013
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	4	2	2	4	2	2	2	2	5	7	5	8	16	29	6	36	36	63	49	29	21	37	21	12	17
2	13	47	98	124	91	27	17	29	54	76	74	91	115	41	10	10	5	4	3	1	1	1	0	1	39
3	0	0	0	0	1	1	1	1	1	1	1	1	1	3	1	7	20	4	6	14	17	45	53	53	10
4	48	55	71	52	43	49	71	64	44	61	46	54	42	72	96	55	60	121	32	38	75	83	67	65	61
5	52	31	50	30	49	30	29	39	26	30	55	55	41	7	2	9	5	1	0	2	24	18	9	22	26
6	25	13	1	9	15	20	1	2	1	1	4	39	16	16	2	9	2	5	1	3	0	0	0	0	8
7	1	0	0	0	0	0	0	0	0	0	0	1	10	0	0	13	29	13	2	4	0	0	0	0	3
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
9	0	0	0	1	0	0	2	1	4	2	3	4	14	14	14	6	7	7	5	10	6	3	3	2	5
10	1	2	4	2	2	2	2	3	3	3	25	21	19	34	49	21	44	29	5	1	1	0	0	0	11
11	0	0	0	0	0	0	0	1	0	0	1	9	10	6	1	4	0	1	0	0	0	0	0	0	1
12	0	0	0	0	0	5	7	15	18	30	57	65	48	39	37	37	41	47	74	40	11	5	2	8	24
13	7	7	7	4	3	4	13	9	13	55	30	33	27	6	3	3	1	1	1	1	1	2	1	1	10
14	2	1	1	2	4	12	22	30	16	9	12	19	20	16	19	22	32	33	36	44	23	5	13	8	17
15	21	15	26	31	32	37	78	75	83	18	11	30	52	34	40	33	28	28	32	23	21	21	17	1	33
16	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	1	1	0	0	1	1	3	1	0
17	0	0	0	0	0	3	1	1	2	16	14	12	27	13	20	42	38	13	33	25	25	30	20	17	15
18	29	19	42	48	37	44	58	58	49	115	153	26	20	18	10	21	40	57	33	59	45	25	41	51	46
19	28	8	6	11	6	6	9	26	41	68	55	42	18	25	11	31	36	43	35	20	0	0	0	0	22
20	0	0	0	0	0	0	1	1	1	1	1	1	2	3	13	8	10	23	23	8	2	2	3	2	4
21	2	1	1	2	1	1	1	1	2	2	2	3	3	4	15	27	19	9	15	15	18	15	9	4	7
22	4	4	5	7	6	5	8	19	26	44	26	24	32	24	26	31	44	27	29	28	28	20	5	2	20
23	1	2	1	2	1	1	1	1	2	4	3	3	2	3	8	8	7	5	4	4	4	3	3	4	3
24	3	3	4	3	3	2	2	1	1	1	2	2	4	1	2	1	2	3	3	3	2	2	0	0	2
25	0	0	0	1	2	2	3	2	1	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	1
26	0	3	0	0	16	18	22	36	54	50	60	45	31	1	1	1	1	34	26	15	19	44	34	39	23
27	41	58	40	25	29	31	62	52	56	71	63	38	24	48	46	40	40	31	41	44	59	57	24	22	43
28	31	11	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->					STN	GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN		50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID	DATA	1-HR	24-HR	
9	4	16		4	48	58	75	92	0	-	153	0	-	61	4	100	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
D : DYNAMIC CALIBRATION
T : TELEMETRY/DATALOGGR FAULT
M : MAINTENANCE OR ANALYZER FAULT
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 : 2013
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	1	1	1	2	2	3	16	55	66	73	55	51	21	26	2	24	38	78	100	97	98	84	94	77	44
2	75	84	86	81	72	58	57	89	87	90	93	96	88	37	4	3	6	6	6	6	2	1	1	0	47
3	0	1	1	1	1	0	0	0	0	0	0	1	3	12	21	28	45	40	54	67	58	76	81	84	24
4	76	74	75	67	65	65	67	68	57	60	52	64	60	68	73	74	78	85	79	84	86	87	87	90	73
5	86	77	75	66	64	40	51	51	38	41	51	54	28	12	3	29	31	22	15	33	61	49	36	55	45
6	52	20	2	23	38	25	3	25	27	30	27	35	10	13	0	5	10	27	33	25	5	3	2	1	18
7	1	1	1	1	1	1	1	2	6	6	1	11	33	11	10	30	48	63	61	50	14	2	1	1	15
8	1	1	1	1	1	1	1	0	0	0	0	0	0	3	7	10	17	12	14	24	20	12	15	9	6
9	14	11	5	12	7	4	13	17	19	18	21	20	18	15	20	26	29	43	53	51	55	52	50	49	26
10	34	36	42	7	8	5	16	16	10	3	22	31	24	34	37	34	57	54	33	19	11	6	8	2	23
11	2	1	1	1	1	1	0	0	0	1	8	13	7	7	2	9	10	2	2	2	1	1	1	1	3
12	1	1	1	1	1	18	36	41	46	47	46	43	34	32	37	46	45	56	105	101	55	51	37	54	39
13	50	M	35	23	20	16	19	28	27	34	33	28	18	4	0	3	9	12	2	8	11	10	6	4	17
14	4	1	1	1	3	18	46	57	47	44	28	43	38	30	37	37	64	78	86	88	63	39	87	81	43
15	81	75	73	68	67	67	74	84	77	35	33	31	52	44	48	38	45	73	80	58	58	53	57	1	57
16	0	0	0	0	0	0	2	1	1	0	0	1	0	0	0	1	0	1	1	0	0	0	1	1	0
17	1	1	1	1	1	4	4	9	23	35	36	41	35	17	37	51	61	48	80	84	83	85	76	72	37
18	72	65	66	68	63	62	73	67	68	63	71	23	15	16	10	14	36	44	32	62	58	33	56	58	50
19	60	49	39	42	38	34	37	46	51	56	52	47	24	20	9	30	47	64	68	43	6	3	2	1	36
20	3	1	1	1	1	1	4	16	18	19	15	18	21	15	17	16	22	36	58	56	29	10	4	3	16
21	1	1	1	1	0	1	5	20	21	18	17	18	15	1	13	23	20	10	16	53	98	104	103	45	25
22	34	27	19	22	15	26	42	50	47	50	45	44	53	57	70	60	91	96	105	91	98	53	27	20	52
23	9	15	4	4	1	1	5	14	20	25	16	11	14	21	19	11	17	24	39	13	7	9	2	5	13
24	2	1	1	1	1	1	1	2	2	1	1	1	6	4	5	6	10	34	18	1	1	0	1	1	4
25	1	1	1	1	1	1	1	2	5	5	1	2	0	0	1	2	4	4	3	4	5	1	1	2	2
26	3	13	1	1	20	23	49	69	79	80	82	62	41	1	13	15	23	72	77	63	72	71	68	70	45
27	71	M	67	61	55	60	68	71	73	67	42	31	29	34	39	40	48	41	62	66	62	59	51	53	54
28	52	25	3	1	0	0	0	2	7	3	3	2	1	0	1	4	6	8	5	1	0	0	0	0	5

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->					STN GEOM	PERCENT	NO. OF TIMES			
MEAN	MEDIAN	50	90	95	98	99	1-HR	24-HR	24-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR	ABOVE OBJECTIVE	ABOVE OBJECTIVE	
14	20	29	20	73	84	92	98	0	-	105	0	-	73	5	100	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
D : DYNAMIC CALIBRATION
T : TELEMETRY/DATALOGGR FAULT
M : MAINTENANCE OR ANALYZER FAULT
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 : 2013
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	0	0	2	0	0	0	1	0	0	0	0	0	0	0	1	2	1	2	2	1	4	1
2	5	36	37	74	30	53	57	3	0	0	0	0	0	0	0	0	0	2	4	5	2	2	2	2	13
3	3	2	2	1	2	2	1	0	4	18	8	3	12	9	22	14	11	13	10	9	7	5	6	7	7
4	7	8	8	9	11	11	12	13	14	13	12	12	31	25	22	15	9	14	9	15	8	8	7	8	13
5	8	8	8	8	8	7	7	6	5	5	6	8	9	10	9	7	5	7	8	9	13	35	19	5	9
6	6	5	6	7	7	7	7	8	10	15	29	46	35	10	8	8	8	9	8	6	5	5	3	6	11
7	7	4	11	8	4	4	4	5	18	80	94	45	39	46	22	30	31	25	36	29	35	23	13	41	27
8	16	25	17	10	8	18	4	6	18	86	68	62	21	17	18	11	14	41	53	29	13	15	13	8	25
9	14	8	15	44	8	8	4	5	11	16	11	19	28	18	17	17	21	33	18	9	11	7	6	2	15
10	2	2	2	3	1	1	1	4	8	45	53	38	39	42	32	28	41	25	19	18	20	17	12	15	20
11	18	13	14	14	12	7	2	0	0	0	0	1	2	3	3	3	4	7	3	2	2	2	2	2	5
12	1	0	0	0	1	0	0	1	7	26	22	7	14	5	3	3	4	4	6	14	8	17	22	39	9
13	17	11	9	11	23	12	28	22	27	44	48	30	41	36	44	25	10	10	20	19	8	9	3	2	21
14	10	16	17	36	22	29	27	5	3	2	3	4	3	3	2	2	2	2	3	2	2	3	3	4	9
15	4	4	5	4	5	5	5	6	6	6	8	6	4	5	6	4	3	4	5	4	4	5	5	7	5
16	6	4	5	3	2	2	4	5	5	6	5	4	3	2	2	1	1	2	11	12	11	5	21	27	6
17	40	15	7	15	65	46	43	24	4	4	1	1	1	1	1	2	1	1	2	0	25	51	69	27	19
18	25	1	0	2	16	9	15	26	30	4	6	13	2	2	5	6	11	9	7	11	17	7	3	12	10
19	15	15	15	12	13	7	12	14	14	17	12	12	17	18	9	5	4	9	2	3	8	11	12	22	12
20	8	5	9	2	5	8	18	7	11	5	19	4	3	3	15	30	17	15	13	54	42	52	61	19	18
21	18	16	23	43	33	48	30	65	25	4	1	1	0	0	0	0	0	0	0	0	0	0	0	3	13
22	2	2	2	3	1	2	4	27	23	42	43	55	44	27	11	12	8	33	16	7	7	6	4	3	16
23	3	1	3	20	19	15	22	35	24	36	9	20	10	15	8	8	14	9	21	46	40	26	17	14	18
24	25	19	20	13	16	14	10	9	22	21	19	40	80	73	15	31	22	43	54	32	47	29	37	57	31
25	84	78	46	67	35	27	9	5	5	8	5	3	2	1	0	0	0	1	1	0	0	0	0	0	16
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	3	6	2	0	1	1	0	1
27	0	0	0	2	15	18	20	27	35	59	27	68	53	20	20	5	10	28	22	40	44	30	18	19	24
28	14	12	22	11	5	3	0	1	2	1	0	0	2	17	2	22	18	13	5	6	3	0	0	1	7
29	0	0	2	7	2	1	1	13	17	34	8	17	20	27	11	12	5	1	1	1	0	0	0	0	8
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	1
31	17	1	0	0	0	0	0	1	3	0	0	0	0	2	19	2	0	0	1	0	0	0	0	0	2

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->				STN	GEOM	PERCENT	NO. OF TIMES		
MEAN	MEDIAN	MEAN		50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID	DATA	1-HR	24-HR	
9	7	12		7	35	45	61	71	0	-	94	1	-	31	3	100	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
D : DYNAMIC CALIBRATION
T : TELEMETRY/DATALOGGR FAULT
M : MAINTENANCE OR ANALYZER FAULT
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: MARCH

YEAR : 2013
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	1	1	1	1	1	5	6	10	7	12	2	6	9	8	10	11	27	31	45	49	55	37	44	47	18
2	46	55	52	56	44	50	50	9	6	4	3	13	18	13	11	25	28	44	49	50	47	39	33	33	32
3	32	28	19	8	9	11	7	15	21	24	22	22	20	21	39	40	46	49	49	46	34	25	39	28	27
4	23	13	11	8	4	10	15	45	60	55	51	31	39	23	16	9	17	17	25	74	71	24	15	3	27
5	6	0	0	0	0	0	4	19	22	10	4	6	6	0	0	4	3	11	12	67	78	125	99	10	20
6	5	2	1	1	1	1	17	55	52	54	58	76	63	16	15	12	14	28	49	63	97	72	45	65	36
7	54	53	56	23	7	2	29	109	111	109	93	73	57	52	30	42	46	44	169	176	169	104	69	92	74
8	34	36	22	12	29	70	57	99	147	147	119	87	54	34	33	23	42	59	158	168	79	73	56	22	69
9	52	17	34	65	16	22	66	88	76	62	23	24	41	19	21	28	29	44	68	74	61	53	42	46	45
10	39	20	22	15	13	19	23	66	43	64	54	41	44	39	26	29	40	30	43	78	86	65	58	81	43
11	56	64	76	71	65	19	13	20	21	17	13	13	16	14	25	27	26	50	74	64	27	23	14	11	34
12	9	5	2	2	4	3	16	39	54	71	63	31	41	14	21	15	22	20	43	84	70	83	85	70	36
13	45	M	56	60	66	46	73	83	89	85	81	46	53	45	47	34	12	26	35	42	24	48	22	45	51
14	52	56	57	63	59	65	63	20	22	18	22	21	21	20	21	19	19	24	26	18	17	19	20	16	32
15	12	10	10	7	7	10	31	23	26	24	24	27	25	21	22	21	26	31	63	92	68	41	48	18	29
16	17	8	6	4	5	4	11	23	22	21	20	25	24	20	22	15	9	20	97	113	109	94	97	109	37
17	113	79	74	74	99	81	87	64	28	28	18	19	13	13	12	14	19	19	43	39	84	90	89	81	53
18	68	10	9	19	57	51	70	79	46	28	19	14	12	8	9	10	13	14	36	47	60	43	23	36	33
19	41	34	18	15	22	12	30	32	38	26	18	13	20	22	18	29	36	43	32	31	28	30	28	32	27
20	20	9	7	0	4	10	34	21	21	13	10	2	0	0	4	13	18	10	12	47	49	49	44	33	18
21	41	41	40	56	47	61	60	60	46	15	10	7	7	6	7	10	25	42	37	23	22	23	13	30	30
22	26	14	3	7	3	10	29	55	53	62	65	64	51	34	18	18	34	69	80	48	47	28	34	28	37
23	17	9	14	44	44	32	45	67	71	54	40	39	24	36	26	21	30	30	56	68	61	64	64	42	42
24	45	42	40	28	18	32	36	37	42	47	57	47	47	48	29	23	31	37	51	61	66	62	60	55	43
25	54	55	47	50	44	46	30	22	19	18	12	11	11	8	9	12	11	12	10	7	5	4	3	6	21
26	4	1	2	1	1	2	8	11	13	12	8	6	7	8	24	14	16	50	68	44	19	26	39	36	18
27	17	M	23	36	57	59	54	59	64	61	50	80	76	72	74	56	60	76	78	84	84	83	72	51	62
28	42	47	54	22	11	12	19	20	35	32	13	31	50	75	80	83	84	88	102	103	77	27	28	19	48
29	14	11	19	39	26	24	54	65	71	71	59	76	73	65	34	46	41	39	48	38	25	8	7	8	40
30	3	1	0	0	0	0	1	3	3	5	6	5	4	3	2	5	5	17	22	15	17	15	13	53	8
31	57	15	4	6	3	4	11	19	18	12	18	16	20	18	65	23	9	10	16	10	8	5	5	6	16

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->					STN GEOM	PERCENT	NO. OF TIMES			
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR				
25	28	36	28	74	85	109	123	0	-	176	8	-	74	3	100	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
D : DYNAMIC CALIBRATION
T : TELEMETRY/DATALOGGR FAULT
M : MAINTENANCE OR ANALYZER FAULT
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
MONTH: JANUARY

STATION : QUEEN MARY HOSPITAL
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2013
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	11	11	10	10	9	12	15	19	20	17	19	24	39	39	26	14	10	10	13	11	11	9	11	16
2	11	9	9	14	12	13	13	18	14	19	16	22	35	43	40	50	68	38	38	27	18	15	15	13	24
3	12	9	8	10	15	17	14	13	16	15	14	15	15	31	24	14	13	14	17	19	14	10	10	12	15
4	12	11	12	10	10	9	8	9	11	10	18	25	11	8	13	21	20	34	21	10	23	31	19	20	16
5	21	21	27	24	41	35	19	29	34	32	35	22	18	21	23	37	34	29	28	27	22	18	25	9	26
6	11	34	36	32	33	31	23	31	35	24	21	13	18	23	16	13	11	14	11	15	16	18	22	26	22
7	26	35	17	14	13	7	6	7	17	23	26	15	12	11	16	23	29	35	42	44	50	43	37	35	24
8	40	24	31	20	21	26	19	27	24	35	38	29	47	41	26	36	32	25	26	44	45	47	48	48	33
9	43	39	39	37	22	23	13	24	22	15	20	22	17	18	12	13	10	10	11	12	12	13	14	16	20
10	29	31	23	17	14	12	13	15	16	18	20	19	19	23	30	41	21	11	11	12	16	12	11	10	19
11	10	9	10	10	9	8	8	10	12	20	18	27	28	39	18	23	19	23	28	40	43	43	49	18	22
12	35	38	34	28	33	16	14	18	29	27	28	24	25	21	21	19	24	33	36	34	37	33	40	43	29
13	40	43	36	44	42	45	41	46	51	53	57	38	39	49	44	37	30	31	38	37	37	38	38	26	41
14	18	9	7	5	6	6	8	6	13	28	31	41	32	17	32	20	13	8	9	6	4	6	6	5	14
15	4	4	5	6	5	5	4	5	6	6	5	7	6	5	6	10	8	6	6	6	8	8	11	17	7
16	12	31	37	33	30	16	21	8	7	21	53	95	52	24	16	11	19	28	8	31	12	9	6	5	24
17	5	5	5	5	5	4	7	7	10	13	14	13	24	17	16	20	14	7	6	7	7	7	5	4	9
18	5	4	4	4	5	5	6	5	7	7	8	8	7	7	7	5	5	6	5	4	5	4	4	7	6
19	9	8	8	7	7	7	8	9	10	15	15	16	24	10	9	7	4	3	4	5	5	3	2	1	8
20	0	0	0	1	1	1	1	2	2	4	5	4	4	3	2	3	2	3	3	5	4	3	2	3	2
21	4	4	4	3	3	2	2	2	2	3	3	3	2	18	15	28	11	5	4	38	13	2	2	10	8
22	5	3	3	3	3	4	2	1	2	9	42	81	73	42	26	38	34	28	16	23	24	20	17	48	23
23	28	11	9	18	13	12	11	12	7	6	5	4	6	5	5	9	7	5	4	4	4	5	4	8	8
24	7	5	3	5	6	17	10	6	24	46	55	37	34	40	24	35	40	34	25	50	26	37	17	21	25
25	32	28	13	8	8	6	5	4	5	9	7	10	18	25	18	15	8	10	10	10	10	10	9	7	12
26	7	7	5	5	6	5	7	7	9	9	8	6	6	17	21	28	11	12	15	12	11	6	6	12	10
27	33	4	3	3	7	8	4	3	4	5	6	8	8	7	7	8	33	26	8	6	7	10	8	7	9
28	8	7	7	7	7	10	12	12	13	15	17	16	14	14	14	11	12	12	14	33	10	6	6	5	12
29	4	3	3	6	6	13	22	18	22	18	29	38	37	31	23	10	6	3	4	6	8	6	5	2	13
30	2	4	3	2	2	1	3	4	7	10	6	5	7	8	7	6	5	4	4	4	4	5	5	3	5
31	3	3	5	4	4	5	8	6	6	11	7	7	9	7	5	5	4	5	11	41	47	32	28	4	11

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->					STN GEOM	PERCENT	NO. OF TIMES			
MEAN	MEDIAN	50	90	95	98	99	1-HR	95	24-HR	41	DEVIATION	VALID DATA	1-HR	24-HR	ABOVE OBJECTIVE		
12	12	17	12	37	42	48	53	0	-	95	2	-	41	2	100	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
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
MONTH: JANUARY

STATION : QUEEN MARY HOSPITAL
POLLUTANT : NITROGEN DIOXIDE

YEAR : 2013
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	66	60	34	22	25	22	44	46	66	82	83	79	76	85	85	74	43	39	75	75	85	70	31	50	59
2	23	M	16	27	19	23	31	45	79	83	79	76	68	67	64	81	102	96	157	144	133	86	55	43	69
3	38	25	14	12	13	19	25	35	59	64	37	55	57	71	68	75	76	81	88	71	62	33	31	23	47
4	16	32	36	41	34	32	33	40	45	49	43	45	53	56	58	67	78	78	67	64	64	64	59	57	50
5	49	43	45	40	42	40	40	46	54	61	59	52	58	70	82	114	133	132	121	107	100	107	106	38	72
6	76	76	72	62	58	53	47	48	49	41	40	37	54	68	62	57	53	83	85	84	84	80	76	74	63
7	71	70	56	56	46	23	31	46	57	60	59	54	57	63	84	112	147	172	180	163	145	138	138	142	90
8	137	99	113	78	59	76	57	85	80	101	96	93	80	90	77	79	111	111	117	169	174	179	198	128	108
9	125	124	117	115	88	70	46	61	68	56	60	70	25	33	35	45	45	60	65	63	58	62	54	55	67
10	67	63	43	32	19	23	33	50	52	60	54	58	63	67	72	76	56	48	44	45	52	53	25	26	49
11	17	10	6	3	2	2	2	10	36	37	34	31	34	49	29	40	33	64	89	119	155	142	134	95	49
12	99	96	86	76	70	41	45	65	52	48	54	64	71	65	74	84	110	130	149	149	139	135	137	138	91
13	126	104	98	93	86	79	75	75	73	78	89	70	70	87	78	76	82	110	142	135	137	132	129	114	97
14	90	43	7	2	12	25	36	52	77	77	70	64	53	45	58	46	41	55	86	32	18	21	22	15	44
15	5	2	1	1	1	1	5	20	28	28	19	29	21	27	58	87	90	79	102	100	105	112	117	119	48
16	69	M	108	99	95	38	25	9	10	81	97	100	79	44	30	26	62	94	88	137	50	37	18	30	62
17	26	22	10	3	1	1	1	8	23	30	32	37	57	45	44	58	61	33	44	47	41	46	37	21	30
18	36	24	16	4	0	3	14	24	29	25	18	11	9	11	25	27	32	23	13	30	28	24	16	11	19
19	5	4	0	0	0	0	3	10	16	27	28	26	29	4	17	19	15	13	25	50	14	1	0	0	13
20	0	0	0	0	0	0	0	1	1	2	5	4	5	5	5	4	10	9	6	4	0	0	0	1	3
21	1	1	1	1	1	1	1	2	12	23	17	18	5	27	29	40	35	28	30	94	30	2	3	43	19
22	34	7	5	1	2	3	2	1	2	41	74	82	92	66	42	52	61	89	65	90	117	115	70	68	49
23	66	54	53	58	37	28	39	42	42	49	42	46	53	53	45	36	48	60	98	82	94	63	10	32	51
24	26	8	1	5	4	27	33	44	71	69	80	87	80	69	56	72	85	106	98	166	141	171	100	123	72
25	142	113	25	9	4	3	5	42	36	58	56	56	52	53	52	40	14	8	12	5	3	4	11	12	34
26	17	10	7	1	1	1	6	24	40	40	31	19	20	42	56	70	43	55	93	124	107	86	60	84	43
27	92	64	39	20	34	28	9	13	17	21	18	15	10	28	20	38	68	61	34	36	18	17	9	13	30
28	14	2	0	0	0	0	2	18	39	40	24	23	18	9	20	36	50	47	50	88	28	17	26	11	23
29	8	0	0	3	1	8	31	54	71	72	63	50	49	47	33	25	37	54	81	95	76	7	6	2	36
30	0	M	17	1	0	0	0	8	22	14	5	13	15	17	19	8	4	12	21	11	9	17	2	0	9
31	0	0	0	0	0	0	0	1	3	23	7	8	20	12	5	19	15	47	49	108	105	84	82	3	25

MONTHLY STATISTICS:

GEOM		ARITH	<-----PERCENTILE----->					<-----RANGE----->					STN	GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	3	108	DEVIATION	VALID DATA	1-HR	24-HR	ABOVE OBJECTIVE	ABOVE OBJECTIVE
33	44	49	44	102	129	144	165	0	-	198	3	-	108	3	100	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
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
MONTH: FEBRUARY

STATION : QUEEN MARY HOSPITAL
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2013
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	2	3	2	2	2	2	2	3	5	5	7	27	6	28	24	56	37	12	19	16	1	1	11
2	1	11	77	68	41	18	4	3	9	15	41	50	37	6	11	10	5	5	2	2	2	2	1	1	18
3	1	1	1	1	1	1	1	1	6	2	2	2	1	1	3	11	2	2	13	27	20	37	31	24	8
4	51	41	30	14	11	16	53	68	33	52	36	44	45	57	82	56	36	73	56	43	38	38	25	42	43
5	39	32	26	11	37	29	18	12	26	45	20	22	36	15	11	18	12	4	1	4	4	7	18	14	19
6	9	4	4	3	3	3	3	4	3	2	8	14	21	22	4	4	0	1	0	0	0	0	0	0	5
7	0	0	0	0	0	0	0	1	1	1	1	2	15	6	1	7	29	3	0	0	0	0	0	0	3
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
9	0	0	0	2	1	1	2	3	11	7	6	5	11	12	11	5	3	5	4	7	3	3	3	2	4
10	1	2	2	2	2	2	2	4	4	17	26	13	17	17	38	22	22	5	2	1	1	1	1	0	9
11	0	1	1	1	0	0	0	1	1	0	0	11	7	16	7	16	8	2	1	0	1	1	0	0	3
12	1	0	0	0	0	1	0	10	11	23	33	39	23	35	29	39	29	28	40	23	7	3	3	2	16
13	4	5	4	4	3	3	10	7	8	40	25	24	27	8	3	3	2	1	1	0	0	1	1	2	8
14	2	1	2	1	4	4	3	3	8	2	3	4	22	17	19	20	28	19	29	26	37	25	8	4	12
15	3	1	1	0	6	7	3	14	42	41	42	40	43	36	34	25	19	24	31	24	22	21	19	2	21
16	1	1	1	0	0	0	1	0	1	0	1	1	1	1	2	2	2	2	2	1	1	1	3	1	1
17	0	0	0	1	1	0	2	1	1	1	1	1	18	20	19	33	32	16	27	17	7	10	17	10	10
18	21	11	19	39	11	6	21	23	29	58	91	56	29	27	22	25	48	34	23	45	24	18	20	33	31
19	16	14	21	14	9	6	5	12	26	47	62	50	25	24	18	22	36	21	16	14	0	0	0	0	19
20	0	0	0	0	0	0	1	2	2	3	2	2	2	3	10	19	11	25	47	16	3	2	3	2	6
21	3	2	2	2	1	2	1	2	2	2	3	3	4	4	12	22	31	21	20	13	23	17	12	11	9
22	11	12	10	11	9	9	10	10	24	24	18	23	16	12	26	34	34	24	25	28	25	17	6	1	17
23	1	2	1	2	1	1	1	1	2	3	3	3	3	3	11	9	14	10	8	3	3	2	2	4	4
24	3	3	5	4	4	3	3	2	3	2	3	3	3	2	2	2	5	4	4	5	3	4	2	1	3
25	1	2	2	3	4	5	6	5	3	2	3	3	3	4	3	2	1	1	1	2	1	1	1	1	3
26	1	2	1	0	19	20	14	29	46	32	44	46	57	9	3	2	11	23	20	13	10	16	15	35	20
27	40	24	12	4	8	5	2	3	26	31	45	37	32	42	45	36	34	39	34	22	20	45	26	11	26
28	16	17	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->					STN GEOM	PERCENT	NO. OF TIMES		
MEAN	MEDIAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	1-HR	24-HR		
7	4	4	35	42	55	59	0	-	91	0	-	43	4	100	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
D : DYNAMIC CALIBRATION
T : TELEMETRY/DATALOGGR FAULT
M : MAINTENANCE OR ANALYZER FAULT
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
MONTH: FEBRUARY

STATION : QUEEN MARY HOSPITAL
POLLUTANT : NITROGEN DIOXIDE

YEAR : 2013
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	0	0	0	0	0	3	42	69	62	36	37	6	32	42	85	83	59	108	63	0	1	30
2	1	39	78	74	71	49	5	3	26	39	78	80	58	7	11	14	16	11	14	9	7	3	1	1	29
3	3	2	1	1	1	1	1	1	6	0	0	2	0	0	13	39	25	29	66	77	70	79	75	76	24
4	84	70	59	22	16	23	58	74	64	64	57	70	71	74	76	78	85	94	98	96	99	102	99	104	72
5	101	94	61	32	68	49	35	38	49	49	61	59	47	36	20	44	47	9	16	30	34	41	69	67	48
6	51	12	6	4	7	1	7	13	29	16	39	37	11	20	1	0	0	10	4	0	0	0	1	1	11
7	0	0	0	0	0	0	0	6	23	24	20	9	38	14	7	34	53	43	26	25	35	1	0	2	15
8	6	4	9	10	23	5	7	2	3	1	0	0	5	7	6	6	17	14	22	14	13	9	22	5	9
9	14	15	9	13	12	11	17	23	22	23	25	25	23	19	25	35	35	47	52	59	52	49	46	27	28
10	18	33	43	23	12	2	13	12	9	15	32	34	28	32	44	47	48	33	22	29	30	5	10	5	24
11	2	1	1	1	1	1	1	1	0	1	0	13	7	17	9	20	20	7	5	5	2	2	1	0	5
12	0	2	0	0	0	0	0	31	43	50	45	35	22	33	32	46	43	39	77	65	46	13	32	28	28
13	44	47	35	24	21	19	24	34	36	39	38	28	24	5	0	4	11	7	12	13	20	20	22	3	22
14	5	2	0	0	5	3	10	13	34	22	28	30	40	27	34	37	60	69	86	92	86	87	38	38	35
15	49	14	8	0	32	29	10	44	58	70	59	48	47	54	45	31	39	63	71	64	57	54	62	9	42
16	6	1	0	0	0	0	1	6	9	14	8	2	2	1	0	0	1	1	4	14	4	0	0	1	3
17	0	0	0	0	0	0	1	5	19	22	32	15	38	30	32	43	50	54	80	84	64	71	64	40	31
18	74	43	61	70	20	12	40	49	69	71	74	54	32	22	16	19	41	50	44	64	48	43	63	56	47
19	45	46	61	56	45	37	37	47	56	59	57	53	36	33	23	34	55	69	49	32	6	7	13	1	40
20	2	0	0	0	0	0	1	10	16	15	14	15	11	15	27	41	46	54	91	76	42	16	1	12	21
21	2	0	0	0	0	0	1	15	24	34	24	17	16	18	19	29	47	44	75	84	114	96	79	55	33
22	34	31	22	24	21	23	38	41	59	53	45	48	51	49	57	66	70	94	104	94	108	75	21	6	51
23	5	10	2	2	0	0	1	4	13	15	7	14	16	24	39	24	29	29	29	5	14	23	9	13	14
24	6	1	1	0	0	0	6	0	0	0	0	0	2	0	0	6	10	19	19	5	1	5	1	0	3
25	0	0	0	0	0	0	0	1	4	1	6	9	6	10	9	9	2	1	5	6	0	0	0	1	3
26	1	1	1	1	16	14	10	43	72	68	78	64	54	10	9	3	43	74	72	79	74	74	65	76	42
27	76	M	52	11	32	17	8	15	63	53	45	37	36	33	35	34	42	53	67	63	62	55	45	36	42
28	49	39	7	1	0	0	0	3	3	3	10	7	5	4	14	18	8	13	0	1	0	0	0	1	8

MONTHLY STATISTICS:

GEOM		ARITH	<-----PERCENTILE----->					<-----RANGE----->				STN GEOM	PERCENT	NO. OF TIMES			
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	1-HR	24-HR		
18	19	27	19	69	78	94	100	0	-	114	3	-	72	4	100	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
D : DYNAMIC CALIBRATION
T : TELEMETRY/DATALOGGR FAULT
M : MAINTENANCE OR ANALYZER FAULT
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 : 2013
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	1	0	3	2	1	1	1	0	2	0	0	0	0	0	0	1	0	0	0	0	0	1
2	0	1	4	9	4	32	6	1	0	0	0	1	0	1	1	1	1	3	3	4	3	3	3	3	4
3	3	3	3	2	3	3	2	2	5	22	8	4	8	8	16	9	8	11	8	12	7	6	7	8	7
4	8	9	10	10	12	13	14	15	16	15	12	13	19	23	16	18	22	22	15	16	12	10	8	7	14
5	8	9	9	10	10	10	9	8	7	7	8	9	11	12	11	9	8	10	12	17	18	47	32	13	13
6	7	6	7	8	9	9	10	9	21	46	37	53	31	15	10	9	9	9	9	8	6	5	3	3	14
7	4	7	7	5	16	6	5	5	6	51	68	60	37	59	26	20	33	17	18	12	8	7	7	7	20
8	13	7	3	3	3	3	5	8	6	8	25	40	21	21	14	8	11	14	25	17	12	9	7	8	12
9	10	6	8	28	19	40	7	5	7	8	9	19	20	12	15	14	15	17	15	7	6	3	4	2	12
10	2	2	3	2	1	0	1	1	2	10	33	32	39	37	20	31	38	24	25	20	13	17	15	10	16
11	10	19	11	3	1	8	2	0	0	0	0	1	3	4	4	3	9	6	6	2	3	2	3	4	4
12	2	1	1	1	1	0	3	1	21	30	27	25	18	12	5	7	6	9	19	3	0	1	7	16	9
13	19	2	3	5	4	4	4	1	27	22	12	16	38	22	23	21	9	6	6	8	5	3	1	3	11
14	7	19	16	35	23	28	20	6	4	2	3	4	4	3	3	2	2	2	3	2	2	3	3	4	8
15	5	4	5	4	4	5	6	6	6	7	9	6	4	5	6	3	3	3	3	3	8	9	9	6	5
16	6	4	4	3	3	2	4	6	5	7	6	5	4	2	1	1	2	4	6	6	12	21	35	14	7
17	13	6	4	4	12	7	14	10	8	11	1	0	0	0	0	1	0	0	0	2	3	2	3	4	4
18	0	6	0	1	0	0	2	10	19	1	2	11	2	1	5	4	3	1	1	1	4	3	3	4	4
19	5	5	5	4	4	2	3	4	4	6	4	5	8	6	4	2	3	6	1	2	5	4	5	6	4
20	2	1	3	1	2	6	4	1	2	2	9	3	1	2	10	M	16	4	2	12	7	4	2	10	5
21	10	10	13	34	51	44	36	28	36	6	1	1	0	0	0	0	0	0	1	3	6	6	0	3	12
22	3	4	4	3	2	2	3	5	9	36	26	57	74	46	22	7	4	23	13	12	7	5	3	1	15
23	0	0	0	5	3	0	1	2	2	28	18	14	9	5	5	17	14	7	109	28	33	17	7	5	14
24	14	13	18	12	24	12	63	43	12	5	2	6	12	43	9	29	9	38	34	24	16	25	23	27	21
25	27	19	12	31	32	22	11	7	5	8	5	3	2	1	0	0	1	0	1	0	0	0	0	0	8
26	0	0	0	0	0	0	0	0	0	0	M	M	0	0	2	0	0	1	3	2	1	2	1	1	1
27	0	0	0	1	8	25	15	24	25	60	35	53	39	14	6	6	9	18	28	9	19	36	7	3	18
28	5	9	11	7	5	3	1	2	3	2	2	1	2	2	2	14	18	13	4	9	4	2	1	0	5
29	1	0	3	5	4	8	5	2	6	11	5	10	11	26	27	16	17	13	5	1	1	0	0	0	7
30	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	1	1	0	0	1	2	10	1
31	7	3	1	5	5	1	1	7	22	3	1	1	2	11	16	4	2	2	2	1	0	0	0	0	4

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->					STN	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
6	5	9		5	23	33	44	55	0	-	109	1	-	21	3	100	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
D : DYNAMIC CALIBRATION
T : TELEMETRY/DATALOGGR FAULT
M : MAINTENANCE OR ANALYZER FAULT
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 : 2013
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	1	1	1	1	1	5	5	8	32	14	0	3	1	0	0	1	1	1	1	1	1	1	1	0	3
2	0	2	14	33	10	38	5	1	11	7	5	16	10	9	8	24	27	45	50	47	48	36	37	36	22
3	35	31	20	14	16	13	14	22	32	28	26	26	24	26	39	39	47	61	58	57	33	28	47	42	32
4	32	18	18	13	8	13	15	47	70	59	48	47	30	29	13	14	32	40	39	69	54	9	25	14	32
5	13	0	0	0	0	0	0	2	5	10	5	4	2	1	10	15	8	18	35	32	39	130	112	35	20
6	8	11	5	0	0	0	0	0	25	72	72	77	54	36	23	31	36	47	81	118	64	29	22	5	34
7	8	3	0	0	18	0	2	24	56	103	92	78	66	69	41	27	62	51	60	29	16	1	0	1	34
8	0	1	0	0	0	0	1	6	6	48	64	65	40	31	22	13	29	47	68	28	23	2	2	5	21
9	11	1	8	83	32	91	1	0	10	31	17	25	23	12	16	19	28	30	32	14	3	0	0	0	20
10	0	0	0	0	0	0	0	0	15	22	50	34	32	28	11	27	28	32	64	39	33	20	21	17	20
11	18	93	55	6	2	21	5	16	21	21	19	12	21	19	21	22	29	60	74	87	42	33	22	2	30
12	4	1	0	0	0	0	8	21	53	63	54	41	33	17	14	39	36	38	92	38	0	1	67	76	29
13	40	M	36	42	27	30	33	12	75	83	M	26	46	26	23	32	18	13	24	17	6	3	0	39	30
14	22	37	45	54	47	51	55	17	19	17	22	18	17	17	25	25	24	33	35	27	16	22	16	20	28
15	10	8	1	0	2	3	12	27	20	15	21	13	10	14	17	25	24	29	49	89	61	60	34	14	23
16	17	7	2	0	1	0	7	16	5	8	18	17	20	5	6	15	18	54	89	57	91	109	111	44	30
17	93	42	19	17	46	21	38	18	16	27	0	0	0	0	1	5	0	4	0	0	40	48	34	11	20
18	2	1	0	0	0	0	2	18	28	0	0	12	0	0	0	0	0	2	1	11	14	22	6	4	5
19	0	0	0	0	0	0	0	3	2	2	0	0	0	1	0	0	1	4	0	0	0	0	0	0	1
20	0	0	0	0	0	3	0	0	0	0	1	0	0	0	1	M	12	1	7	24	13	5	5	24	4
21	33	36	34	43	49	57	50	53	63	15	12	13	14	8	10	22	46	37	46	31	44	35	22	21	33
22	24	15	8	5	6	7	21	44	32	55	54	55	66	47	28	23	17	70	97	98	86	72	44	0	41
23	1	0	0	1	0	2	2	29	26	58	46	35	19	8	15	12	11	23	30	50	54	51	14	0	20
24	8	12	27	11	17	43	42	24	16	17	4	22	19	33	12	23	11	44	39	22	39	51	53	56	27
25	52	41	24	45	45	36	27	18	15	6	5	3	0	3	3	1	1	1	0	0	0	0	0	1	14
26	1	1	1	0	0	0	0	0	1	1	M	M	5	6	19	4	13	33	41	25	7	22	8	27	10
27	18	M	27	25	52	62	51	57	64	68	59	79	74	69	70	67	70	81	87	77	82	79	26	20	59
28	27	38	22	13	5	4	9	20	43	25	30	36	37	34	57	65	79	66	65	95	36	5	5	3	34
29	2	1	9	18	9	4	9	21	42	51	51	58	59	75	78	63	72	82	33	4	9	5	5	1	32
30	1	0	0	0	0	0	0	0	0	0	1	4	3	2	0	0	0	24	15	2	0	10	6	34	4
31	30	13	2	6	7	0	3	13	30	9	14	18	15	25	55	28	4	9	13	7	5	0	0	3	13

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->					STN	GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN		50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID	DATA	1-HR	24-HR	
16	17	23		17	59	74	90	96	0	-	130	1	-	59	3	99	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
D : DYNAMIC CALIBRATION
T : TELEMETRY/DATALOGGR FAULT
M : MAINTENANCE OR ANALYZER FAULT
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 : 2013
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	7	8	10	9	9	10	23	15	24	37	29	20	39	26	9	9	8	10	9	9	10	9	7	15
2	8	8	7	9	9	8	8	11	11	11	11	15	16	11	17	26	21	34	46	32	12	11	9	14	15
3	15	10	7	9	14	15	14	13	14	14	13	12	13	9	10	9	10	12	14	15	15	12	10	9	12
4	8	7	8	9	8	7	6	6	7	7	9	13	4	2	6	14	8	23	26	7	14	20	17	18	11
5	14	17	19	18	21	23	20	21	25	25	33	28	27	28	24	28	35	27	22	25	24	14	6	5	22
6	8	13	10	14	13	15	14	14	21	20	17	12	17	24	17	13	10	11	12	13	14	19	16	19	15
7	20	17	20	8	7	6	4	6	12	21	22	18	16	12	15	27	24	22	32	37	44	40	33	26	20
8	27	27	32	20	17	21	23	23	26	52	46	49	10	9	7	13	24	22	37	25	45	37	32	45	28
9	42	36	33	27	14	12	14	18	23	13	14	22	23	16	12	13	19	19	12	11	12	11	11	14	18
10	21	20	19	15	13	11	12	11	14	13	19	17	19	35	39	29	9	11	11	11	11	10	11	10	16
11	10	8	9	9	9	7	7	9	10	10	11	10	15	15	9	11	21	30	32	37	28	22	41	34	17
12	28	25	27	25	18	18	19	27	34	28	28	27	68	30	16	16	20	23	36	34	34	29	26	40	28
13	36	34	39	40	49	54	40	37	44	47	48	37	50	66	44	45	34	34	42	40	37	38	39	23	42
14	13	9	6	6	8	5	4	4	10	14	37	53	36	30	15	6	5	4	6	6	6	8	8	6	13
15	5	5	6	7	5	4	4	5	4	4	5	6	7	6	5	11	6	11	14	31	29	37	70	58	14
16	36	8	7	8	7	8	4	4	5	66	65	41	29	21	7	5	7	17	19	9	10	8	7	5	17
17	4	3	4	4	4	3	5	6	7	11	13	11	11	12	10	9	9	7	5	5	5	4	3	5	7
18	5	5	5	4	5	5	6	5	7	7	8	8	7	9	9	7	7	7	6	6	6	6	7	8	6
19	9	8	7	6	6	7	8	9	11	12	14	13	12	10	9	9	7	5	6	6	7	3	1	3	8
20	1	1	3	2	2	2	2	2	2	4	5	4	4	2	3	3	2	3	4	4	3	2	3	2	3
21	2	2	2	3	3	2	1	1	2	2	2	2	2	2	3	4	3	2	3	2	13	2	2	3	3
22	2	3	4	4	4	6	6	2	4	6	13	55	68	20	35	60	68	56	44	32	106	34	10	7	27
23	5	4	3	3	3	3	4	3	3	4	4	4	4	5	6	7	7	8	7	8	10	7	6	7	5
24	6	4	3	4	3	2	2	3	4	3	12	39	35	61	36	27	39	38	55	48	41	137	104	42	31
25	191	105	45	9	7	5	4	3	8	5	5	10	7	8	8	8	11	10	9	13	12	11	10	7	21
26	7	7	5	6	6	7	8	9	8	8	8	4	5	4	4	5	6	10	8	8	8	3	1	2	6
27	4	9	1	2	2	4	4	4	5	5	8	8	8	7	7	24	21	7	6	6	8	12	8	7	7
28	9	8	7	7	7	11	12	12	12	16	17	15	14	14	13	12	13	12	12	10	9	5	7	2	11
29	1	1	1	3	3	2	2	3	5	3	5	4	26	41	1	3	3	3	2	3	13	6	3	5	6
30	4	5	5	3	3	3	4	6	12	11	6	8	8	8	7	7	6	5	5	5	6	7	8	4	6
31	4	4	5	4	4	7	8	7	7	7	9	8	7	6	6	5	4	6	4	5	4	3	2	5	5

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->				STN	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			
10	9	15	9	35	42	56	68	1	-	191	3	-	42	2	100	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
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 : 2013
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	69	56	53	47	38	32	62	67	69	70	75	62	47	63	56	29	23	28	55	63	42	49	38	52	52
2	45	M	22	21	22	26	39	58	71	82	76	59	40	26	47	56	47	97	114	151	140	78	60	38	62
3	39	24	18	22	24	25	23	37	52	56	46	44	42	27	45	77	93	96	85	89	86	76	67	60	52
4	56	47	45	42	39	37	39	43	46	51	52	49	42	34	47	67	72	78	74	69	68	67	67	64	54
5	57	48	49	49	48	45	48	47	52	56	56	56	56	66	83	105	129	130	121	111	109	104	63	56	73
6	75	81	69	68	59	59	59	56	53	54	47	42	58	74	69	64	56	75	91	88	87	85	82	81	68
7	81	78	72	63	54	49	56	65	70	71	63	57	61	66	86	114	120	138	173	171	150	139	137	139	95
8	138	133	122	104	100	95	91	89	90	95	92	87	30	34	32	41	58	59	89	134	171	175	170	144	99
9	122	125	124	110	57	55	68	66	71	70	70	61	56	55	60	72	66	59	105	103	101	88	86	77	80
10	77	78	67	52	43	36	43	53	64	66	71	70	71	81	82	73	24	28	38	49	60	42	30	28	55
11	27	26	21	20	19	17	27	43	42	36	22	25	30	26	18	19	43	71	74	103	93	145	130	127	50
12	113	106	98	96	83	79	74	73	77	70	71	74	88	81	82	94	118	133	155	158	147	141	139	145	104
13	136	131	112	107	96	90	85	82	83	86	94	84	88	113	87	87	87	108	139	145	147	139	130	112	107
14	99	71	48	33	44	35	45	63	72	69	78	80	71	67	42	17	14	22	19	52	33	32	30	20	48
15	16	17	15	14	12	13	16	23	24	24	24	32	39	43	64	83	99	114	119	116	120	124	128	119	58
16	108	M	39	35	31	35	38	67	71	100	83	59	49	35	22	16	23	96	106	75	77	49	54	45	57
17	46	37	21	17	13	13	24	26	29	38	29	38	31	20	16	31	67	78	78	73	66	64	61	39	40
18	41	34	25	27	25	25	29	41	51	49	33	25	21	22	21	17	18	20	20	28	20	18	16	14	27
19	14	13	12	11	12	15	23	21	34	35	22	26	19	16	29	33	37	39	47	32	25	16	13	13	23
20	17	16	19	12	12	11	17	21	16	17	19	18	17	16	16	18	18	21	19	21	16	11	11	11	16
21	16	12	11	11	10	11	16	28	26	18	22	21	18	14	25	20	19	25	36	64	91	60	30	48	27
22	42	26	25	23	27	29	44	60	74	51	47	63	71	32	39	54	75	78	72	104	119	102	56	42	56
23	53	45	25	21	22	27	28	43	35	36	32	29	31	29	25	21	22	26	23	23	56	69	49	51	34
24	51	37	22	20	22	23	36	60	51	48	44	78	70	92	69	64	82	152	185	191	194	197	201	182	90
25	172	155	97	35	22	20	30	57	71	64	53	70	18	16	15	16	15	20	20	23	30	22	27	32	46
26	32	29	22	19	19	21	26	20	26	26	28	16	19	18	16	20	36	59	48	47	75	92	84	69	36
27	60	83	74	56	39	24	29	29	36	35	28	27	34	42	47	64	55	26	20	29	37	26	31	22	40
28	21	16	16	15	15	17	21	32	28	21	16	15	17	17	17	20	22	22	29	30	20	17	19	20	20
29	20	13	14	18	18	18	38	59	71	44	52	28	64	73	17	12	12	13	16	23	36	30	35	32	32
30	24	M	17	16	15	17	25	20	19	17	18	17	17	17	20	13	13	15	14	16	16	17	18	25	18
31	20	15	13	11	11	14	16	22	22	17	21	19	15	22	17	17	35	48	40	35	35	23	17	14	22

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->				STN	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	
42	43	53		43	105	133	153	173	10	-	201	16	-	107	2	100	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
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 : 2013
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	6	3	3	5	2	4	3	2	3	4	13	37	49	31	10	18	24	47	91	74	51	53	54	15	25
2	18	31	12	42	60	45	15	20	33	93	78	98	91	15	12	7	4	3	2	1	0	0	0	0	28
3	0	0	0	0	0	1	0	1	1	0	1	0	0	0	0	0	1	1	1	1	3	7	3	15	2
4	7	15	14	54	8	2	2	11	20	67	56	57	47	36	73	100	119	42	24	68	87	68	69	21	44
5	31	20	13	5	5	1	3	30	1	11	66	91	21	2	1	1	0	0	0	0	0	0	0	4	13
6	4	4	1	1	1	1	1	1	1	1	1	18	17	9	1	8	1	2	1	1	2	2	4	0	3
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8	0	1	1	1	0	1	0	0	1	0	0	0	1	1	1	1	0	1	1	1	2	1	1	0	1
9	0	0	0	0	0	0	0	0	0	1	2	2	11	14	14	8	9	10	8	7	4	3	2	1	4
10	1	1	1	2	3	3	3	3	4	3	9	28	19	47	20	16	41	11	1	0	0	0	0	2	9
11	2	2	2	2	2	1	1	2	2	2	1	2	2	1	2	2	2	3	2	2	2	2	1	1	2
12	0	0	0	0	0	16	9	16	29	50	108	51	42	17	41	38	36	58	61	42	14	3	16	7	27
13	7	4	5	3	3	3	4	5	8	7	21	41	17	3	3	1	1	1	1	0	2	2	1	1	6
14	2	1	1	1	2	1	1	1	1	1	1	1	1	4	26	29	43	17	5	1	1	1	3	0	6
15	19	6	9	3	9	39	8	4	23	3	1	3	53	60	34	43	30	29	47	22	20	21	8	3	21
16	0	1	1	1	0	1	1	0	0	1	1	1	2	1	2	1	1	1	1	1	1	1	4	0	1
17	0	0	0	0	0	0	1	0	0	0	0	6	9	1	12	74	10	0	1	0	16	14	0	1	6
18	3	1	2	2	3	41	67	58	42	67	51	18	18	20	57	10	29	30	64	45	39	13	33	54	32
19	21	6	2	2	1	2	23	30	23	48	34	29	16	8	6	31	39	36	2	2	0	0	0	0	15
20	0	0	0	0	0	0	0	1	1	1	1	1	2	1	2	3	3	2	1	1	1	2	3	4	1
21	3	2	3	2	1	2	2	3	3	3	4	5	6	6	5	6	6	5	10	24	21	10	5	2	6
22	2	4	4	5	5	5	5	4	17	39	36	30	48	23	28	38	37	33	35	31	18	10	2	2	19
23	2	2	1	2	2	2	2	2	2	4	4	3	2	2	2	2	4	4	5	4	5	4	4	5	3
24	4	4	4	4	4	3	2	2	3	2	3	4	4	2	3	3	3	3	5	6	5	6	3	2	4
25	2	3	5	5	5	8	7	4	3	3	3	4	3	3	3	4	2	1	2	2	2	2	2	3	3
26	1	2	2	2	1	2	2	2	2	1	1	8	2	1	1	1	1	6	18	4	2	2	10	1	3
27	1	20	79	37	28	46	47	63	56	101	38	28	40	43	51	85	29	22	15	32	48	37	29	30	42
28	33	9	4	2	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	0	1	3

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->				STN 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	3	12		3	41	55	74	91	0	-	119	0	-	44	4	100	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
D : DYNAMIC CALIBRATION
T : TELEMETRY/DATALOGGR FAULT
M : MAINTENANCE OR ANALYZER FAULT
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 : 2013
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	11	15	17	20	35	54	58	64	72	85	56	45	32	36	47	92	101	104	114	111	106	93	58
2	70	74	76	84	79	80	67	77	84	96	96	97	86	31	16	16	17	17	22	19	21	14	12	10	53
3	10	10	9	11	9	11	11	12	12	10	16	17	17	20	25	27	35	48	55	56	51	45	26	74	26
4	63	59	52	78	35	22	40	50	68	73	61	67	71	60	76	99	97	59	62	79	92	97	97	66	68
5	81	85	70	24	20	12	29	52	20	37	56	60	29	9	8	8	10	10	17	14	9	10	13	25	30
6	23	20	11	11	10	8	7	11	11	11	21	31	23	16	7	9	4	8	9	5	8	8	19	12	13
7	12	11	12	10	9	10	9	11	12	15	19	19	13	8	9	15	12	59	61	38	30	20	18	16	19
8	12	12	11	9	9	10	11	11	12	11	9	11	11	13	23	23	27	22	19	39	41	41	41	39	19
9	33	28	22	25	27	28	28	32	33	32	35	34	35	36	43	44	51	57	61	81	83	80	72	44	44
10	53	47	37	28	26	29	29	31	27	13	29	51	45	51	36	38	70	53	46	25	19	22	31	28	36
11	21	15	15	14	11	11	12	14	14	14	15	15	12	7	8	10	11	11	13	13	10	12	10	12	13
12	13	14	13	13	18	35	39	50	53	59	66	50	45	27	50	52	51	63	94	74	85	63	70	70	49
13	69	M	59	49	41	37	40	44	48	41	38	46	28	11	11	10	11	11	11	13	16	18	15	14	30
14	17	10	11	11	13	14	19	26	29	36	40	49	36	28	67	63	82	74	75	75	65	36	53	59	41
15	90	94	69	50	54	70	54	60	62	27	29	22	56	64	66	65	69	78	99	78	79	86	65	19	63
16	16	14	12	11	10	10	12	13	13	14	11	13	15	12	10	9	10	10	11	11	10	10	13	12	12
17	13	14	12	12	13	12	18	27	35	37	44	39	39	21	39	74	40	18	46	68	98	101	83	68	40
18	57	31	22	21	36	65	80	79	86	75	57	36	24	23	39	18	34	47	65	59	51	34	68	73	49
19	53	31	30	35	28	38	55	60	59	60	59	54	33	18	19	50	58	59	23	28	18	14	11	12	38
20	14	13	16	14	11	15	21	29	28	25	29	26	25	33	23	23	28	31	28	27	22	17	14	13	22
21	15	18	15	13	12	14	19	32	38	32	32	30	23	24	20	16	13	20	46	60	110	128	77	46	36
22	40	26	27	27	28	33	40	47	62	64	65	56	58	58	55	78	81	90	120	115	67	69	20	20	56
23	19	18	19	17	13	12	19	27	31	33	22	19	14	14	18	27	21	19	17	20	18	20	21	21	20
24	18	14	13	12	11	11	14	16	23	21	22	28	30	27	27	32	27	29	33	31	23	16	16	13	21
25	14	12	10	10	11	13	15	18	19	13	13	16	12	13	18	22	17	17	24	15	16	12	9	8	14
26	9	9	8	9	9	19	26	41	30	13	11	32	9	6	8	10	12	28	89	63	58	37	59	13	25
27	12	M	93	85	66	66	80	84	86	71	50	35	36	34	45	57	51	41	40	73	75	53	41	45	57
28	57	33	25	18	14	13	15	16	15	14	16	16	14	14	15	16	18	17	18	27	29	27	16	9	20

MONTHLY STATISTICS:

GEOM		ARITH	<-----PERCENTILE----->					<-----RANGE----->				STN	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	ABOVE OBJECTIVE	ABOVE OBJECTIVE	
26	26	35	26	74	85	97	105	4	-	128	12	-	68	2	100	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
D : DYNAMIC CALIBRATION
T : TELEMETRY/DATALOGGR FAULT
M : MAINTENANCE OR ANALYZER FAULT
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 : 2013
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	1	0	0	0	0	0	0	0	1	0	0	1	1	1	1	1	0	1	1	1	1	1	0	1
2	0	0	0	12	2	9	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	1
3	2	3	3	2	2	2	1	1	2	19	7	2	12	11	22	13	8	13	6	9	8	6	5	7	7
4	6	7	8	9	11	11	10	10	14	14	11	20	12	7	7	6	6	5	6	10	8	10	9	5	9
5	7	8	7	7	7	6	6	6	5	4	6	9	10	12	10	9	9	11	12	10	9	7	6	6	8
6	7	6	6	7	8	9	9	10	10	11	12	10	9	9	8	8	8	9	8	9	8	10	8	15	9
7	14	11	8	6	13	7	8	8	45	132	181	120	29	24	25	36	27	34	44	40	44	44	31	30	40
8	24	60	32	16	10	34	37	24	19	28	32	28	35	18	21	11	16	36	31	22	13	11	14	35	25
9	22	30	22	16	37	31	13	13	18	16	15	16	25	27	19	22	18	29	19	34	16	15	15	9	21
10	4	4	5	5	2	2	2	3	50	48	129	42	41	43	31	45	51	36	37	53	34	25	43	32	32
11	22	14	16	18	4	6	0	0	0	0	0	0	1	1	1	2	2	1	2	1	1	2	3	2	4
12	1	1	1	1	1	0	0	1	1	5	6	1	2	3	1	3	2	2	0	0	0	0	0	27	2
13	9	8	4	6	54	26	5	9	15	40	48	56	36	37	69	33	19	11	20	12	13	20	13	26	25
14	35	24	28	20	20	24	20	4	2	1	2	3	3	3	2	M	M	2	3	2	2	3	4	3	10
15	3	4	4	3	4	5	5	5	5	6	7	4	2	4	5	3	2	3	3	3	5	6	4	7	4
16	6	6	6	4	3	3	6	6	6	7	6	5	3	3	2	3	0	3	2	1	3	7	5	9	4
17	11	10	3	2	24	14	2	1	2	2	2	3	2	3	1	1	2	2	2	1	2	7	3	14	5
18	32	2	2	1	4	22	31	64	44	16	11	17	14	6	10	32	15	21	10	17	28	11	18	82	21
19	49	39	26	36	23	16	24	47	17	34	18	22	24	46	16	12	5	6	4	9	12	29	15	52	24
20	15	9	13	8	9	26	22	13	9	16	12	22	22	12	11	21	19	41	36	45	46	88	104	20	27
21	23	18	36	64	47	71	58	62	14	3	1	1	1	1	1	1	0	0	0	1	1	1	1	0	17
22	0	1	2	1	2	1	2	3	7	3	7	0	1	0	1	0	20	15	6	4	3	4	3	0	4
23	2	6	10	20	6	3	35	66	18	7	8	4	4	8	5	15	12	6	2	9	36	41	33	39	16
24	54	38	27	12	19	7	4	6	21	28	23	21	125	39	8	35	27	73	47	32	20	26	23	36	31
25	79	115	31	24	14	9	9	5	5	6	3	1	1	0	0	0	0	0	0	0	0	0	0	2	13
26	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	4	1	1	2	1	1	2	1
27	1	0	1	2	2	3	5	33	48	15	10	72	65	34	10	4	5	11	4	4	8	4	2	1	14
28	4	5	8	5	4	0	0	2	1	0	0	0	2	0	0	6	0	19	4	0	0	0	0	0	3
29	0	0	0	0	1	10	0	0	1	19	35	P	P	P	P	P	P	P	13	24	42	39	48	58	17
30	49	52	44	40	42	41	40	38	36	37	36	41	37	35	7	4	4	4	5	14	4	5	3	6	26
31	4	4	4	4	4	4	4	4	4	4	4	4	5	4	5	4	5	5	7	4	4	3	3	1	4

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->				STN	GEOM	PERCENT	NO. OF TIMES		
MEAN	MEDIAN	MEAN		50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID	DATA	1-HR	24-HR	
8	6	14		6	37	47	65	86	0	-	181	1	-	40	3	99	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
D : DYNAMIC CALIBRATION
T : TELEMETRY/DATALOGGR FAULT
M : MAINTENANCE OR ANALYZER FAULT
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 : 2013
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	15	16	14	14	15	20	26	28	21	12	11	11	10	9	9	9	12	12	11	13	20	12	14	14
2	12	37	54	52	44	38	39	17	19	19	17	25	24	21	25	27	47	48	65	57	62	60	56	55	38
3	55	50	40	31	32	34	35	38	39	46	43	40	44	43	61	64	73	78	58	68	69	62	64	54	51
4	42	37	30	31	31	36	48	72	80	73	68	58	33	16	12	11	12	19	23	60	38	32	38	32	39
5	27	14	16	16	16	18	27	37	30	25	23	15	11	14	11	13	12	16	22	19	16	21	41	30	20
6	37	32	19	17	16	18	23	34	55	44	25	18	17	14	12	14	15	16	15	45	44	27	32	38	26
7	60	58	40	30	50	25	39	77	99	104	127	106	43	30	29	40	38	45	129	183	119	107	60	62	71
8	47	82	47	29	19	50	84	66	96	73	71	44	72	53	51	33	44	65	61	51	34	53	49	68	56
9	57	34	33	24	59	50	24	19	30	25	21	34	43	35	33	39	30	40	24	42	23	21	19	53	34
10	19	18	13	12	10	10	36	48	75	57	75	60	43	32	28	49	51	59	79	80	51	49	82	58	46
11	63	33	28	70	21	19	17	20	21	20	19	20	18	13	14	18	19	32	26	19	19	25	22	21	25
12	19	14	14	14	14	15	22	35	25	27	32	15	15	12	10	13	14	14	12	12	25	21	21	59	20
13	20	M	61	35	63	40	31	79	100	90	72	63	44	42	67	54	50	36	49	28	33	46	40	48	52
14	66	71	68	61	61	74	62	18	20	17	21	19	19	20	18	M	M	23	21	18	17	20	21	18	34
15	19	18	17	16	17	18	22	19	19	24	26	22	15	15	16	16	17	20	26	38	24	24	24	19	20
16	19	15	15	14	17	18	25	28	25	31	26	25	15	12	13	11	10	25	47	41	32	44	64	54	26
17	70	90	64	35	58	61	36	18	14	12	13	13	12	11	10	9	9	14	12	37	55	42	51	31	
18	45	19	6	8	18	41	41	61	44	23	19	30	26	21	26	32	29	43	27	29	50	20	19	57	31
19	44	38	26	35	29	23	28	32	17	23	15	16	21	32	25	19	17	16	16	20	20	31	25	30	25
20	16	12	12	9	15	27	28	17	15	16	16	24	22	18	16	19	19	47	50	49	53	59	64	46	28
21	54	55	63	73	61	71	60	60	44	22	18	18	22	23	16	24	32	28	25	22	21	18	16	24	36
22	21	19	17	16	16	15	21	26	38	36	28	12	11	15	11	10	24	27	28	23	26	17	18	20	21
23	20	18	22	36	20	34	60	64	66	45	33	23	16	18	16	23	19	21	27	54	72	68	41	37	36
24	52	53	53	36	38	23	28	43	42	47	49	50	58	32	18	34	34	55	54	64	48	42	60	57	45
25	59	60	58	54	48	30	27	25	22	19	15	14	14	14	18	16	17	16	14	13	11	10	11	12	25
26	14	10	11	9	9	10	11	13	16	18	15	12	11	12	34	41	46	66	65	50	33	28	21	31	24
27	32	M	42	53	58	43	52	60	63	51	47	79	82	80	73	45	58	71	44	67	63	52	28	21	55
28	20	17	18	12	13	13	18	16	23	25	21	30	58	68	43	75	58	92	104	59	45	22	32	25	38
29	17	25	23	22	37	49	34	50	46	53	73	P	P	P	P	P	P	P	##	##	##	##	##	##	##
30	##	##	##	##	##	##	##	##	##	##	##	##	##	##	17	13	14	25	34	45	18	20	13	10	
31	24	20	18	16	13	14	22	23	19	20	18	14	20	16	15	12	13	12	23	15	16	14	13	13	17

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->					STN GEOM		PERCENT		NO. OF TIMES		
MEAN	MEDIAN	MEAN		50	90	95	98	99	1-HR		24-HR			DEVIATION	VALID DATA	1-HR	24-HR	ABOVE OBJECTIVE		
28	26	34		26	63	72	84	104	6	-	183	14	-	71	2	96	0	0		

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

REMARKS: ##: DATA WAS INVALIDATED DUE TO INTERFERENCE FROM UNKNOWN LOCALIZED SOURCES

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

STATION : CHEUNG CHAU
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2013
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	12	11	11	9	9	10	11	14	18	16	12	10	11	13	16	11	11	12	13	20	20	13	13	13
2	11	12	12	10	8	9	9	13	20	17	17	21	20	21	19	18	19	18	10	15	21	22	26	16	16
3	12	11	7	6	11	12	13	11	16	16	23	M	34	30	19	14	18	20	15	15	14	11	10	9	15
4	8	8	7	6	6	6	6	6	9	7	8	15	15	14	14	11	8	8	15	22	14	9	8	8	10
5	8	6	5	5	5	4	4	4	6	7	13	15	15	20	24	15	16	20	17	15	15	13	12	14	12
6	13	11	12	10	9	8	8	7	8	10	16	18	18	18	20	18	12	14	14	15	20	18	17	21	14
7	18	16	11	6	5	4	4	4	7	7	7	8	9	9	9	8	11	14	18	24	33	37	36	39	14
8	43	41	31	27	20	20	24	23	20	19	20	25	28	15	12	14	14	16	10	10	11	18	24	23	21
9	27	36	35	32	28	26	21	20	17	13	12	14	13	12	13	12	12	14	17	15	15	15	13	15	19
10	14	14	14	13	14	17	16	17	16	16	16	17	17	17	18	22	19	10	11	12	15	21	25	11	16
11	10	9	9	9	9	7	9	12	11	14	14	15	16	15	16	16	16	14	12	20	27	31	34	37	16
12	38	33	30	29	28	24	16	12	15	20	25	27	21	19	18	16	15	13	13	26	31	42	43	35	25
13	30	25	27	26	23	22	33	45	67	64	52	55	40	29	28	21	26	35	48	40	26	21	23	29	35
14	19	12	8	5	4	4	6	6	8	8	8	13	17	16	14	10	7	4	5	5	6	5	7	8	9
15	4	4	4	5	5	6	6	8	7	11	11	10	8	9	13	13	7	6	6	6	6	5	6	5	7
16	7	8	10	14	14	13	11	9	18	24	21	26	22	12	9	9	10	6	5	8	9	7	9	9	12
17	5	5	5	7	6	6	7	8	11	15	14	17	15	11	11	12	11	8	6	7	5	6	6	7	9
18	7	7	12	7	5	6	8	10	13	18	14	13	11	8	9	7	6	6	5	7	7	6	6	7	9
19	7	7	8	8	5	5	5	7	9	11	16	17	17	14	13	9	8	5	6	6	6	6	6	4	9
20	5	3	3	4	5	6	5	6	4	5	7	7	5	5	6	5	4	3	6	6	5	5	5	4	5
21	3	3	3	7	6	6	7	6	9	7	8	10	12	10	8	6	5	3	3	8	12	13	15	12	8
22	7	5	5	5	6	7	9	17	37	28	28	19	21	20	20	14	17	16	13	15	16	19	27	10	16
23	6	6	4	3	3	3	2	3	4	4	4	3	6	6	6	11	15	22	7	6	7	7	7	13	7
24	13	12	12	8	6	6	3	4	7	9	10	11	14	16	18	16	16	18	17	25	22	19	19	37	14
25	22	18	14	16	9	11	15	16	13	12	22	14	16	11	12	14	13	14	9	10	13	13	12	9	14
26	9	9	9	7	8	8	9	10	10	10	11	8	7	7	7	9	10	9	11	9	9	11	7	6	9
27	6	15	4	4	6	8	11	16	16	15	21	17	14	10	10	10	11	12	8	7	10	12	11	8	11
28	10	9	9	8	9	10	12	13	14	21	20	20	16	16	15	13	13	12	14	11	11	9	7	5	12
29	6	6	7	5	6	6	8	8	8	14	14	15	16	14	24	18	10	7	5	7	6	7	8	7	10
30	8	6	4	5	7	7	6	6	9	10	7	11	15	10	8	6	5	3	2	3	4	4	7	6	7
31	7	7	7	7	7	6	11	10	10	10	17	12	10	10	10	14	13	9	9	8	7	6	7	6	9

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->					STN	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
11	11	13		11	22	29	37	43	2	-	67	5	-	35	2	100	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
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 : 2013
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	72	44	26	24	23	32	43	44	45	50	34	24	23	36	42	54	27	22	21	76	111	92	22	65	44
2	48	M	46	33	23	29	36	59	72	44	65	72	57	74	74	53	29	28	84	122	152	169	175	141	73
3	105	30	14	18	43	49	51	32	50	56	54	M	36	35	38	51	64	78	54	50	53	46	40	40	47
4	36	30	27	20	17	19	19	19	20	27	31	31	34	38	47	54	53	68	66	62	57	53	50	47	39
5	46	43	39	37	35	32	31	28	27	27	29	41	53	67	76	83	97	102	94	96	92	89	88	83	60
6	81	74	64	56	50	49	47	41	36	39	33	47	57	58	66	64	56	78	87	82	81	73	66	65	60
7	61	60	52	39	39	40	41	39	37	33	34	38	49	56	64	70	105	132	149	142	136	134	129	119	75
8	113	110	96	100	83	95	90	85	67	61	63	71	65	18	21	29	28	33	19	21	43	109	129	104	69
9	90	86	83	85	83	67	60	53	47	42	37	32	46	55	60	52	63	74	81	58	58	68	53	37	61
10	40	39	24	14	11	19	23	23	29	41	42	39	43	48	54	63	52	10	20	35	72	87	77	22	39
11	21	14	14	11	17	8	24	49	30	17	19	11	15	11	13	15	23	28	29	88	114	108	102	101	37
12	99	94	88	85	84	83	71	53	51	59	64	68	69	74	83	92	102	107	117	141	137	146	142	107	92
13	100	98	108	105	86	83	71	68	66	64	67	74	60	60	54	59	83	116	143	122	109	95	111	101	88
14	99	84	40	8	7	10	26	36	33	29	37	51	42	29	15	10	10	5	10	7	10	8	30	20	27
15	12	6	7	11	4	26	24	27	16	27	19	37	54	57	65	61	47	55	73	65	69	56	67	57	39
16	80	M	93	105	102	95	92	82	70	53	55	64	44	26	12	12	15	33	72	31	18	47	91	91	60
17	32	43	24	16	4	11	14	13	22	34	28	25	14	5	7	9	9	19	38	33	26	32	30	29	22
18	29	24	25	15	4	8	20	33	40	60	42	35	17	4	5	3	4	3	12	26	14	9	7	18	
19	6	4	4	6	1	3	3	8	19	40	22	17	21	8	12	5	13	9	16	13	12	8	28	22	13
20	22	12	3	5	9	14	22	21	5	11	15	19	15	24	26	22	10	28	53	24	12	8	7	3	16
21	3	3	3	13	10	12	37	39	66	17	38	40	43	20	15	7	3	0	27	55	108	110	110	98	37
22	80	63	56	36	39	38	51	63	71	67	70	52	46	33	45	23	27	31	49	67	73	72	92	51	54
23	24	21	10	8	7	8	7	10	17	12	14	18	18	14	18	19	34	56	16	28	80	82	47	58	26
24	79	87	81	35	21	10	4	10	13	15	12	15	17	19	22	26	36	58	56	59	95	128	124	123	48
25	114	140	117	85	12	23	48	55	43	38	72	63	54	11	9	10	15	16	11	16	26	18	12	11	42
26	13	17	16	9	11	8	7	8	11	12	13	3	2	4	7	15	22	20	23	21	36	78	88	45	20
27	75	85	32	25	26	29	37	57	52	53	51	43	52	42	41	40	44	21	9	6	13	20	19	8	37
28	11	15	16	18	17	12	8	9	14	21	12	14	12	11	11	8	8	5	12	8	7	7	15	7	12
29	8	8	13	8	11	10	7	23	13	49	18	36	26	16	25	12	12	13	3	10	10	10	18	46	17
30	45	M	13	36	66	54	31	5	5	5	3	13	20	12	9	1	1	0	2	2	1	2	7	38	16
31	50	9	10	10	4	2	7	4	5	3	13	5	1	5	8	13	50	24	16	6	4	2	4	2	11

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->				STN 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		
28	33	42		33	91	108	130	142	0	-	175	11	-	92	3	99	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
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 : 2013
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	5	4	5	6	9	7	6	9	29	19	16	12	12	14	18	18	18	15	17	19	17	17	11	13
2	11	15	13	31	43	31	22	19	16	15	12	15	37	46	10	12	6	7	4	3	3	4	2	2	16
3	1	2	3	3	3	3	3	3	4	3	4	4	4	3	5	6	6	8	9	5	5	6	8	12	5
4	11	8	9	11	12	10	7	10	11	22	28	25	20	18	15	15	16	25	21	24	21	17	17	16	16
5	21	21	17	13	13	10	5	7	11	15	27	M	M	19	12	7	11	9	6	9	4	3	1	1	11
6	1	2	0	2	6	3	2	0	0	0	6	7	2	2	9	12	23	11	5	4	5	2	1	0	4
7	0	0	0	2	0	0	1	1	0	4	5	4	2	1	2	5	6	5	3	2	2	0	0	0	2
8	0	0	0	0	0	0	0	0	0	1	2	4	3	2	0	0	0	0	0	1	4	2	1	3	1
9	5	2	1	1	1	1	1	2	5	4	5	7	5	7	4	6	6	4	3	7	8	4	5	11	4
10	10	8	10	11	9	12	12	14	14	20	15	14	13	16	17	14	16	14	10	4	3	3	3	3	11
11	2	2	1	2	2	2	2	2	3	2	3	3	2	2	2	2	1	1	1	2	1	1	1	2	2
12	1	2	1	1	6	12	3	3	3	5	8	12	17	25	22	21	16	9	6	13	8	6	4	3	9
13	3	3	3	2	2	2	2	3	4	4	6	12	17	11	8	8	4	2	3	2	2	3	4	3	5
14	5	4	5	5	6	4	5	4	5	7	8	7	11	13	12	21	6	3	3	5	8	14	8	8	7
15	10	13	13	15	24	29	31	22	38	24	18	15	11	16	20	15	17	14	21	26	34	17	15	11	20
16	5	2	3	2	3	3	2	2	3	3	6	4	6	4	2	2	2	1	2	3	3	3	3	2	3
17	4	3	9	12	18	24	10	9	7	7	18	16	14	14	18	10	3	2	3	3	4	5	3	9	
18	6	7	7	8	9	9	10	10	28	41	46	28	15	5	11	10	3	10	21	21	14	14	5	3	14
19	2	6	6	5	4	10	10	15	14	18	18	17	15	18	22	15	11	11	20	22	20	3	4	5	12
20	5	3	2	2	4	4	6	4	5	6	8	7	8	9	6	5	12	13	8	6	5	4	3	11	6
21	5	4	4	4	3	2	2	3	4	6	12	13	11	12	11	8	10	13	7	6	8	9	8	4	7
22	3	4	4	4	4	10	21	13	11	10	8	8	7	9	10	16	21	22	25	28	40	39	7	5	14
23	4	6	9	13	5	7	5	3	3	4	8	8	8	9	7	6	6	7	6	6	8	7	7	5	7
24	4	4	5	6	16	6	4	4	5	6	7	6	7	7	7	8	10	6	7	6	10	13	16	7	7
25	12	11	7	12	6	10	10	13	19	12	11	9	7	6	7	12	6	5	5	13	11	6	4	4	9
26	3	3	7	6	6	4	6	9	13	16	15	14	13	6	2	3	3	4	5	4	4	5	7	7	7
27	7	10	8	10	10	13	17	17	23	24	29	37	40	29	20	16	13	17	9	13	12	9	9	11	17
28	12	25	7	6	4	2	3	2	4	5	3	4	2	2	3	3	3	2	3	2	1	2	2	1	4

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->					STN	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
6	6	9		6	18	24	30	38	0	-	46	1	-	20	2	100	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
D : DYNAMIC CALIBRATION
T : TELEMETRY/DATALOGGR FAULT
M : MAINTENANCE OR ANALYZER FAULT
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 : 2013
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	13	25	33	29	34	41	57	49	34	40	32	16	21	29	39	65	44	64	73	61	64	36
2	76	70	65	91	100	87	74	68	61	53	49	67	75	52	10	7	8	19	18	14	22	7	8	3	46
3	3	16	29	38	20	17	7	7	14	0	14	14	12	8	9	51	52	31	17	7	2	7	37	78	20
4	57	48	40	37	57	46	25	54	41	61	69	72	49	40	25	21	27	51	82	81	66	52	65	63	51
5	64	67	66	62	61	28	9	29	35	48	46	37	M	18	10	3	14	17	16	33	17	15	8	13	31
6	6	7	0	31	44	38	12	0	0	2	17	36	2	1	10	12	22	28	17	6	7	2	8	2	13
7	0	0	4	25	3	10	8	3	2	14	10	5	3	0	5	27	53	77	80	33	14	3	7	5	16
8	10	9	1	0	0	0	8	0	2	8	8	10	8	6	2	2	7	3	3	17	36	28	25	23	9
9	24	15	11	7	6	4	5	9	15	16	18	14	12	18	16	23	23	24	23	31	28	27	28	44	18
10	42	39	45	48	41	43	40	35	27	32	24	26	26	30	38	49	50	58	44	2	1	2	4	9	31
11	5	6	2	9	0	1	0	7	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	5	2
12	2	7	5	1	21	32	6	11	14	16	25	20	19	21	18	14	17	11	19	25	31	29	23	14	17
13	13	M	11	3	1	4	6	8	21	28	28	28	24	11	3	2	1	0	3	1	0	1	3	2	9
14	11	9	11	12	20	0	15	4	28	40	62	30	31	30	48	48	12	3	1	11	13	18	3	51	21
15	38	78	87	82	88	87	81	69	71	29	24	22	14	23	32	45	46	50	74	107	72	54	53	67	58
16	34	2	1	3	16	9	3	6	10	5	11	6	12	3	0	0	0	0	6	6	1	0	0	0	6
17	9	1	17	19	35	37	18	14	37	43	40	54	57	50	34	32	12	1	0	5	2	25	12	0	23
18	12	40	46	33	26	29	36	36	61	62	49	25	6	2	10	23	0	18	35	55	34	58	15	18	30
19	10	17	18	21	22	55	68	65	55	51	38	31	31	41	51	44	50	53	46	64	68	3	4	8	38
20	10	4	2	4	6	6	17	13	19	24	29	29	30	18	5	2	15	15	13	9	7	1	0	11	12
21	3	12	7	5	0	0	0	5	9	10	11	9	6	9	6	2	9	11	7	9	40	71	60	8	13
22	8	6	5	7	15	60	84	73	46	40	31	33	28	31	23	22	31	39	74	86	77	70	12	9	38
23	2	18	34	37	6	7	1	3	12	11	19	10	8	11	5	3	7	4	3	5	9	7	8	5	10
24	3	1	1	4	16	1	3	10	17	23	21	18	17	27	28	34	13	2	3	3	20	15	9	7	12
25	8	6	3	4	2	8	8	11	21	11	10	10	1	2	4	18	3	3	5	77	54	24	0	0	12
26	0	5	31	18	19	16	43	70	62	70	49	36	24	5	0	0	0	21	16	8	10	14	30	9	23
27	8	M	20	28	28	53	70	66	63	36	41	36	29	25	21	14	24	28	32	46	39	61	45	22	36
28	36	44	20	17	3	1	3	0	6	6	2	6	2	2	5	7	8	7	7	1	0	1	2	0	8

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->					STN 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	ABOVE OBJECTIVE	ABOVE OBJECTIVE	
15	15	23	15	60	70	79	86	0	-	107	2	-	58	3	100	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
D : DYNAMIC CALIBRATION
T : TELEMETRY/DATALOGGR FAULT
M : MAINTENANCE OR ANALYZER FAULT
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 : 2013
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	1	2	3	3	3	2	2	3	3	5	3	4	6	6	8	10	8	9	8	16	13	17	14	16	7	
2	15	11	11	13	12	17	20	8	7	3	9	9	3	4	4	4	6	7	10	7	7	5	7	7	9	
3	4	4	3	4	2	3	3	3	6	5	6	6	6	8	7	8	7	7	8	9	8	8	11	9	6	
4	8	11	11	12	12	12	11	12	13	12	14	19	17	14	13	18	16	13	13	9	8	11	10	8	12	
5	9	16	11	9	9	15	17	18	17	10	7	23	25	16	24	17	11	12	14	12	16	16	20	13	15	
6	13	8	9	11	10	11	11	12	14	15	18	M	M	M	13	10	12	14	9	13	15	15	20	12	13	
7	14	21	22	24	25	21	18	25	34	33	32	21	19	16	19	35	26	19	15	15	12	10	10	16	21	
8	14	9	9	11	13	17	13	18	45	82	56	38	30	27	40	26	17	13	10	7	8	12	10	12	22	
9	12	11	8	9	8	10	11	15	30	29	24	19	12	10	10	14	16	18	18	25	34	48	32	34	19	
10	28	24	24	23	19	18	25	30	55	38	27	13	4	5	11	21	18	13	6	8	10	12	13	15	19	
11	10	10	10	16	16	23	11	5	7	9	10	12	11	8	8	6	5	5	3	3	4	4	6	6	9	
12	4	5	6	5	4	7	6	9	7	7	8	5	9	8	6	5	17	13	7	13	19	14	16	18	9	
13	18	13	13	12	14	10	11	17	19	19	24	21	23	16	21	15	9	7	9	10	14	14	16	13	15	
14	11	8	7	10	12	20	21	16	13	13	14	22	33	31	15	18	10	15	16	13	14	13	12	14	15	
15	13	10	11	11	9	10	11	10	10	12	12	10	7	8	9	9	7	6	5	8	7	9	9	8	9	
16	10	9	11	11	9	10	9	10	10	16	12	10	9	8	7	6	6	6	4	5	5	9	10	17	9	
17	15	19	17	17	18	20	20	13	9	10	10	11	8	7	7	8	5	6	7	6	10	10	10	14	12	
18	13	14	14	14	11	14	17	31	24	29	16	10	8	8	10	9	8	8	7	7	8	12	16	25	14	
19	35	35	25	16	14	19	11	7	10	16	13	13	4	2	3	4	2	0	0	1	2	2	1	2	10	
20	1	1	1	1	1	0	1	3	6	9	9	5	3	3	8	8	10	5	6	9	13	10	13	10	6	
21	8	14	17	18	17	18	17	16	31	12	4	3	4	3	2	8	10	5	5	6	6	4	6	6	10	
22	3	5	4	7	3	3	4	7	13	8	13	19	18	11	12	11	20	20	15	7	4	3	2	5	9	
23	5	5	7	10	15	26	27	31	52	31	22	20	32	64	40	42	21	15	12	13	14	9	8	9	22	
24	9	8	6	3	4	9	9	10	12	10	7	19	21	23	14	15	10	9	11	11	5	15	25	28	12	
25	23	21	34	26	28	23	13	12	14	10	6	5	4	4	6	2	2	1	2	1	1	1	1	1	10	
26	2	2	1	1	1	1	1	1	2	2	2	1	1	0	2	2	5	5	8	7	8	5	8	5	3	
27	8	5	4	5	3	4	9	7	9	21	26	19	13	8	7	12	8	11	7	15	17	12	6	7	10	
28	7	7	9	10	8	4	6	4	5	5	4	3	1	5	9	9	9	4	5	3	5	2	2	2	5	
29	3	3	2	2	1	3	6	6	12	14	26	15	13	13	13	10	4	5	4	8	6	3	6	1	7	
30	1	3	7	5	7	5	11	9	9	12	2	7	3	2	1	0	0	1	1	3	1	4	3	2	4	
31	3	3	3	3	2	5	4	7	11	13	4	2	3	2	3	2	3	4	4	4	4	5	2	2	4	4

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->				STN	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	
8	10	11		10	21	27	34	41	0	-	82	3	-	22	2	100	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
D : DYNAMIC CALIBRATION
T : TELEMETRY/DATALOGGR FAULT
M : MAINTENANCE OR ANALYZER FAULT
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 : 2013
 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	12	17	4	12	3	6	8	13	32	4	14	30	18	5	2	0	0	11	82	56	49	61	67	21
2	65	63	67	66	65	67	67	19	11	5	19	19	12	11	6	13	42	39	49	37	40	35	37	30	37
3	22	17	12	11	5	7	8	11	17	20	22	18	23	34	36	40	37	39	42	43	36	33	33	21	24
4	9	14	12	11	8	10	15	25	22	29	32	43	39	12	3	13	10	9	9	5	3	11	11	9	15
5	8	13	2	1	2	19	34	47	47	25	8	16	12	3	14	10	1	0	3	1	48	61	113	122	25
6	92	35	30	8	5	4	3	12	23	49	45	M	M	M	5	6	11	23	12	38	122	101	113	26	36
7	28	104	138	138	115	93	102	102	101	88	72	37	36	33	30	45	36	39	34	34	56	100	71	61	71
8	74	97	69	53	51	43	37	61	105	112	91	60	58	53	60	38	32	34	29	31	23	51	60	102	59
9	69	78	62	49	59	63	65	71	90	69	20	27	6	9	7	15	18	32	48	64	65	92	55	109	52
10	102	81	86	92	69	58	77	68	80	80	66	33	5	9	21	34	32	27	32	56	63	51	47	69	56
11	60	66	67	62	49	60	22	11	15	20	19	15	11	9	8	8	7	8	7	6	8	10	17	14	24
12	11	19	17	11	10	22	22	24	14	14	12	5	12	8	4	4	22	18	19	32	65	72	83	71	25
13	42	M	34	43	44	35	59	74	63	55	51	35	45	32	28	26	22	21	34	37	57	43	72	72	45
14	50	27	38	51	56	70	75	35	29	25	25	31	39	36	19	28	21	30	29	22	25	25	20	23	35
15	25	19	21	22	13	13	16	10	10	11	10	9	6	6	9	13	11	10	8	11	7	12	18	16	13
16	18	17	18	16	11	31	20	13	13	20	18	12	9	6	6	9	14	14	10	8	8	13	36	99	18
17	81	95	71	68	71	79	74	28	13	11	14	13	6	8	8	7	6	13	14	19	90	65	63	65	41
18	48	56	53	48	22	36	55	68	56	55	24	13	10	18	9	2	3	15	16	9	24	39	44	39	32
19	54	48	34	22	21	38	29	19	16	18	10	12	3	1	3	11	10	3	5	14	23	10	6	6	17
20	1	3	8	0	4	2	1	23	10	21	18	10	0	0	3	6	10	22	23	17	50	44	46	47	15
21	46	63	73	69	56	65	75	61	51	21	7	10	16	14	16	30	24	13	19	20	21	17	16	15	34
22	14	15	18	21	14	17	17	41	65	35	46	49	43	23	15	15	18	40	33	20	11	7	5	24	25
23	39	26	37	50	56	67	62	58	59	46	32	25	36	54	37	33	33	38	44	55	57	41	48	28	44
24	46	40	20	20	37	49	45	49	36	40	17	39	30	24	15	24	15	24	53	58	32	51	57	31	36
25	45	38	48	44	49	49	33	23	23	12	6	7	7	14	17	7	5	6	6	3	2	3	3	5	19
26	10	8	6	3	3	4	8	4	10	18	7	6	7	12	9	17	53	84	102	74	52	38	64	27	26
27	51	M	42	60	29	25	42	43	46	61	48	49	58	73	65	56	33	44	49	84	84	65	28	21	50
28	19	13	19	27	25	9	16	12	16	14	8	21	35	58	57	64	65	74	95	55	53	14	38	14	34
29	29	32	34	18	14	31	43	39	47	63	66	54	61	54	22	22	11	11	17	54	24	11	15	3	32
30	4	8	21	14	22	18	22	11	18	21	8	15	10	3	2	4	2	26	38	56	15	52	34	9	18
31	33	36	25	26	7	24	26	37	45	56	23	4	8	11	7	20	15	21	17	16	12	7	6	10	21

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->				STN 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	
22	24	32		24	67	81	102	111	0	-	138	13	-	71	3	99	0	0

- NOTES: 1. FLAGS FOR INVALID DATA :
 D : DYNAMIC CALIBRATION
 T : TELEMETRY/DATALOGGR FAULT
 M : MAINTENANCE OR ANALYZER FAULT
 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 2013

Week Ending	No. of Samples	Suspended Solids, mg/L			pH		
		Maximum	Minimum	Average	Maximum	Minimum	Average
05/01/13	0*	N/A	N/A	N/A	N/A	N/A	N/A
12/01/13	1*	19	19	19	7.8	7.8	7.8
19/01/13	2*	13	12	13	8.1	8.1	8.1
26/01/13	7	18	12	13	8.3	8.1	8.2
02/02/13	7	15	11	12	8.2	7.8	8.1
09/02/13	7	14	9	11	8.3	7.9	8.1
16/02/13	6*	16	8	13	8.3	7.9	8.1
23/02/13	7	16	10	13	8.1	7.8	8.0
02/03/13	7	13	10	12	8.3	8.0	8.2
09/03/13	7	13	11	12	8.2	8.0	8.1
16/03/13	5*	18	10	13	8.3	8.0	8.1
23/03/13	7	13	10	12	8.3	8.1	8.2
30/03/13	6*	13	10	12	8.2	8.1	8.1

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 2013

Sampling date		8/1/2013	18/2/2013	12/3/2013
Barium,	ug/L	<150	<150	<150
Mercury,	ug/L	<0.5	<0.5	<0.5
Cadmium,	ug/L	2	2	<1
Iron,	ug/L	<400	<400	<400
Total Phosphorous,	mg/L	<0.8	<0.8	<0.8
Total Nitrogen,	mg/L	126	84	139
Cyanide,	mg/L	<0.01	0.02	0.02

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

EM&A Log Ref.	Mitigation Measures	Implementation Status
	GENERAL	
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
	WATER QUALITY	
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
	WASTE	
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
	NOISE	
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