

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

October – December 2014

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 (October to December 2014)
Date	20 March 2015
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	4
2.	AIR QUALITY.....	12
2.1	Monitoring Requirements	12
2.2	Summary of Results and Observations	12
3.	WATER QUALITY	14
3.1	Monitoring Requirements	14
3.2	Summary of Results and Observations	14
4.	ENVIRONMENTAL AUDIT	16
4.1	Review of Environmental Monitoring Procedures	16
4.2	Assessment of Environmental Monitoring Results	16
4.3	Status of Environmental Licensing and Permitting	18
4.4	Implementation Status of Environmental Mitigation Measures	18
4.5	Implementation Status of Event/Action Plan	18
4.6	Implementation Status of Environmental Complaint Handling Procedures	18
5.	FUTURE KEY ISSUES.....	20
5.1	Outage Plan for the coming 3 months	20
5.2	Key issues for the coming 3 months	20
6.	CONCLUSION	21

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 Received
Table 4.5	Outstanding Environmental Complaints 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 L2, 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 October to December 2014.

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

Plant Availability

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

Unit	Period	Remark
L2	19/11/2014 00:03 to 21/12/2014 22:41	Unit Overhaul
L4	03/10/2014 21:24 to 06/10/2014 05:17	Defect Rectification
L4	18/10/2014 14:43 to 19/10/2014 09:33	Defect Rectification
L5	23/10/2014 20:31 to 27/10/2014 06:08	Defect Rectification
L5	23/12/2014 16:30 to 31/12/2014 24:00	Defect Rectification

Malfunction/Outage Records of Pollution Control Equipment

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

Equipment	Period	Cause	Actions Taken
L2 FGD	19/11/2014 00:03 to 24/12/2014 09:57	FGD plant was bypassed for defect rectification works, system washing and inspection. Re-commissioning test also conducted during the outage period	EPD was informed by letter dated 31/12/2014
L2 FGD	28/12/2014 04:43 to 05:16	FGD plant was bypassed due to the low flue gas temperature at FGD plant inlet	EPD was informed by letter dated 31/12/2014

Equipment	Period	Cause	Actions Taken
L4 FGD	27/10/2014 00:05 to 30/11/2014 14:58	FGD plant was bypassed for GGH washing, inspection and defect rectifications	EPD was informed by letter dated 03/12/2014
L4 FGD	20/12/2014 00:30 to 23/12/2014 01:00	FGD plant was bypassed for conducting limestone slurry feed pump tie in and commissioning work	EPD was informed by letter dated 24/12/2014
L5 FGD	08/12/2014 01:01 to 31/12/2014 24:00	FGD plant was bypassed for defect rectification	EPD was informed by letter dated 20/01/2015

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 Process Licence issued under APCO	L-7-002(9)	01/01/2013	31/12/2014	HK Electric	28/12/2012
Specified Process Licence issued under APCO	L-7-002(10)	01/01/2015	31/12/2016	HK Electric	23/12/2014
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 complaint 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 October to December 2014.

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

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

Unit	Period	Remark
L2	19/11/2014 00:03 to 21/12/2014 22:41	Unit Overhaul
L4	03/10/2014 21:24 to 06/10/2014 05:17	Defect Rectification
L4	18/10/2014 14:43 to 19/10/2014 09:33	Defect Rectification
L5	23/10/2014 20:31 to 27/10/2014 06:08	Defect Rectification
L5	23/12/2014 16:30 to 31/12/2014 24:00	Defect Rectification

1.4 Malfunction/Outage Records of Pollution Control Equipment

Equipment	Period	Cause	Actions Taken
L2 FGD	06/10/2014 03:40 to 03:50	FGD plant bypass damper was opened due to excess differential pressure across bypass damper caused by furnace draft fluctuation	EPD was informed by letter dated 08/10/2014

Equipment	Period	Cause	Actions Taken
L2 FGD	24/10/2014 09:16 to 09:28	FGD plant bypass damper was opened due to excess differential pressure across bypass damper caused by furnace draft fluctuation	EPD was informed by letter dated 29/10/2014
L2 FGD	31/10/2014 01:38 to 01:43	Routine damper exercise	EPD was informed on 04/11/2014
L2 FGD	19/11/2014 00:03 to 24/12/2014 09:57	FGD plant was bypassed for defect rectification works, system washing and inspection. Re-commissioning test also conducted during the outage period	EPD was informed by letter dated 31/12/2014
L2 FGD	28/12/2014 04:43 to 05:16	FGD plant was bypassed due to the low flue gas temperature at FGD plant inlet	EPD was informed by letter dated 31/12/2014
L4 FGD	27/10/2014 00:05 to 30/11/2014 14:58	FGD plant was bypassed for GGH washing, inspection and defect rectifications	EPD was informed by letter dated 03/12/2014
L4 FGD	13/12/2014 01:48 to 01:53	Routine damper exercise	EPD was informed by letter dated 17/12/2014
L4 FGD	20/12/2014 00:30 to 23/12/2014 01:00	FGD plant was bypassed for conducting limestone slurry feed pump tie in and commissioning work	EPD was informed by letter dated 24/12/2014
L5 FGD	04/10/2014 02:24 to 02:29	Routine damper exercise	EPD was informed on 06/10/2014
L5 FGD	11/10/2014 02:09 to 02:14	Routine damper exercise	EPD was informed on 14/10/2014
L5 FGD	18/10/2014 01:36 to 01:39	Routine damper exercise	EPD was informed on 22/10/2014
L5 FGD	01/11/2014 01:41 to 01:45	Routine damper exercise	EPD was informed on 04/11/2014
L5 FGD	08/11/2014 03:10 to 03:20	Routine damper exercise	EPD was informed on 11/11/2014
L5 FGD	15/11/2014 01:28 to 01:30	Routine damper exercise	EPD was informed on 18/11/2014

Equipment	Period	Cause	Actions Taken
L5 FGD	22/11/2014 03:18 to 03:21	Routine damper exercise	EPD was informed on 26/11/2014
L5 FGD	29/11/2014 01:19 to 01:40	Routine damper exercise	EPD was informed by letter 03/12/2014
L5 FGD	08/12/2014 01:01 to 31/12/2014 24:00	FGD plant was bypassed for defect rectification	EPD was informed by letter dated 20/01/2015

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.

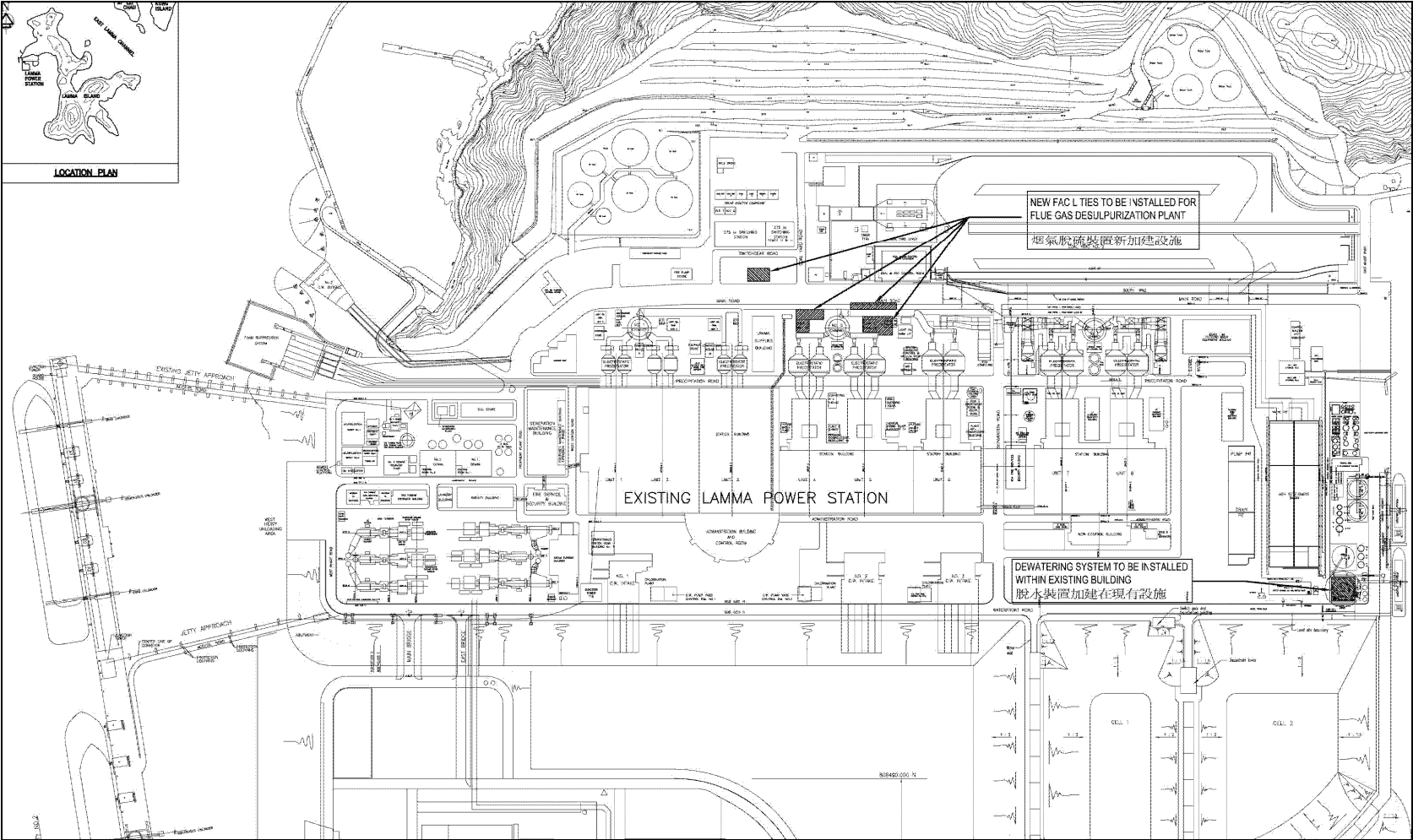


Figure 1.1a Location of New Facilities for L4 & L5 FGD Plants

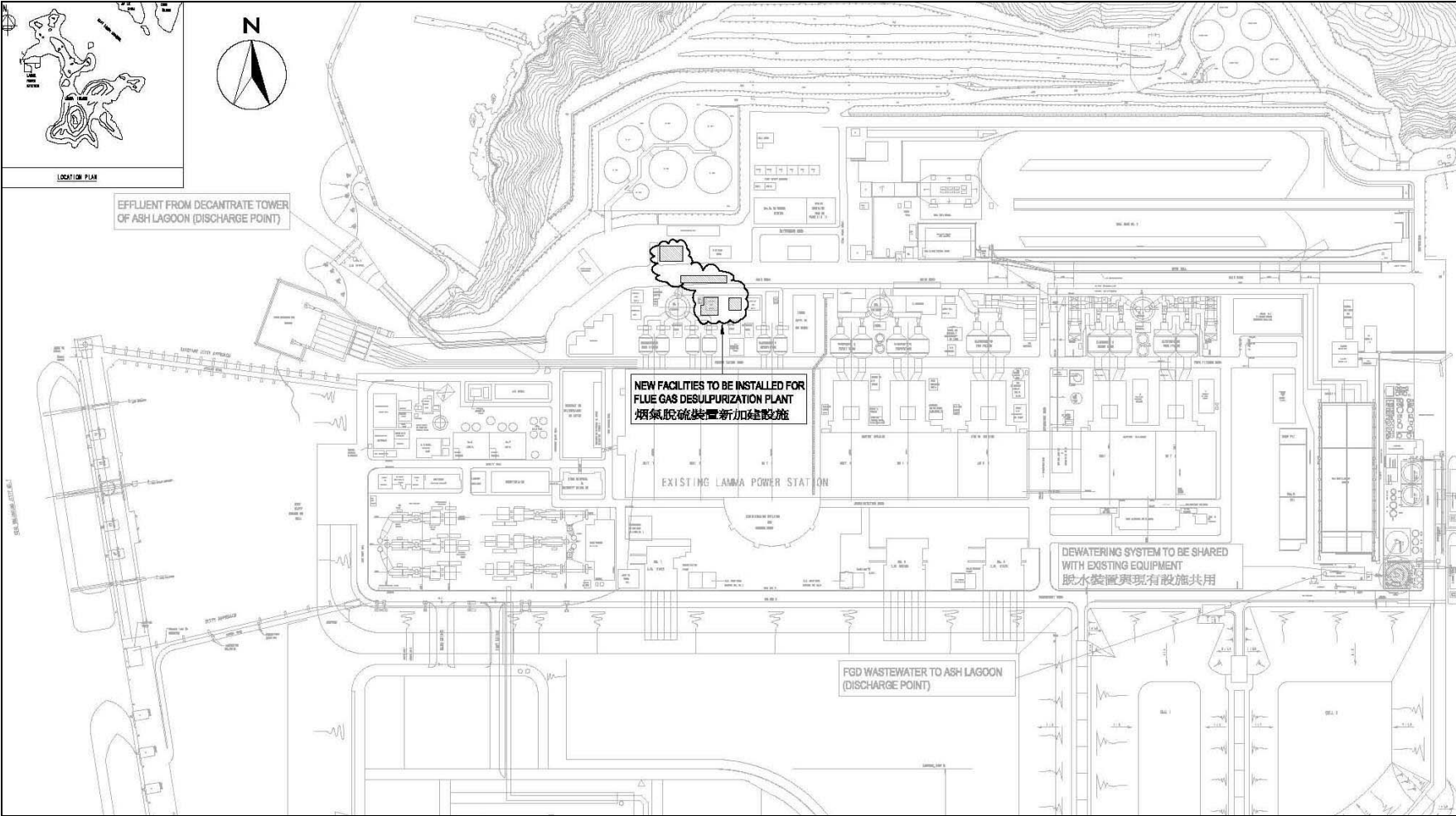


Figure 1.1b Location of New Facilities for L2 FGD Plant

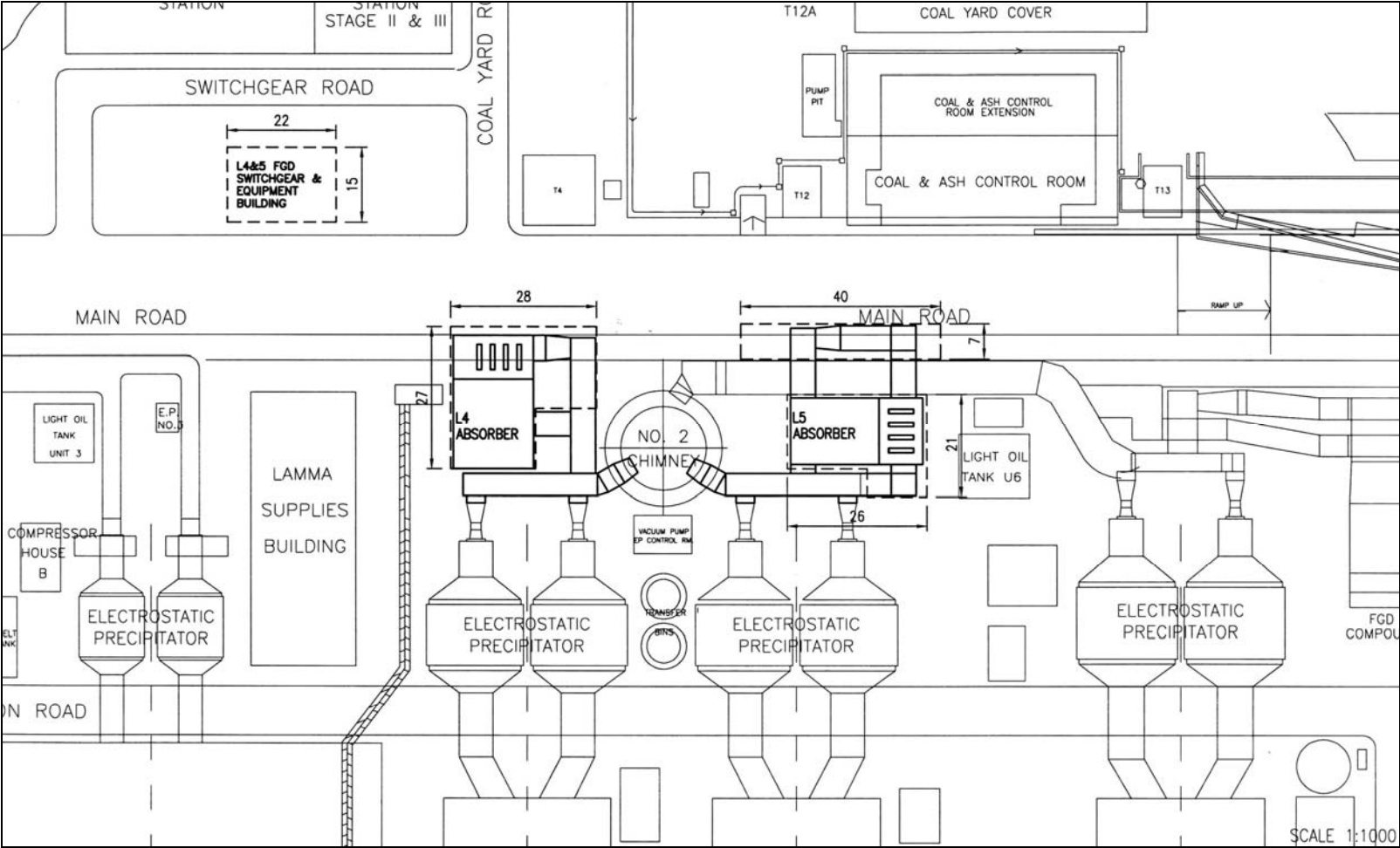


Figure 1.2a General Arrangement of L4 & L5 FGD Plants

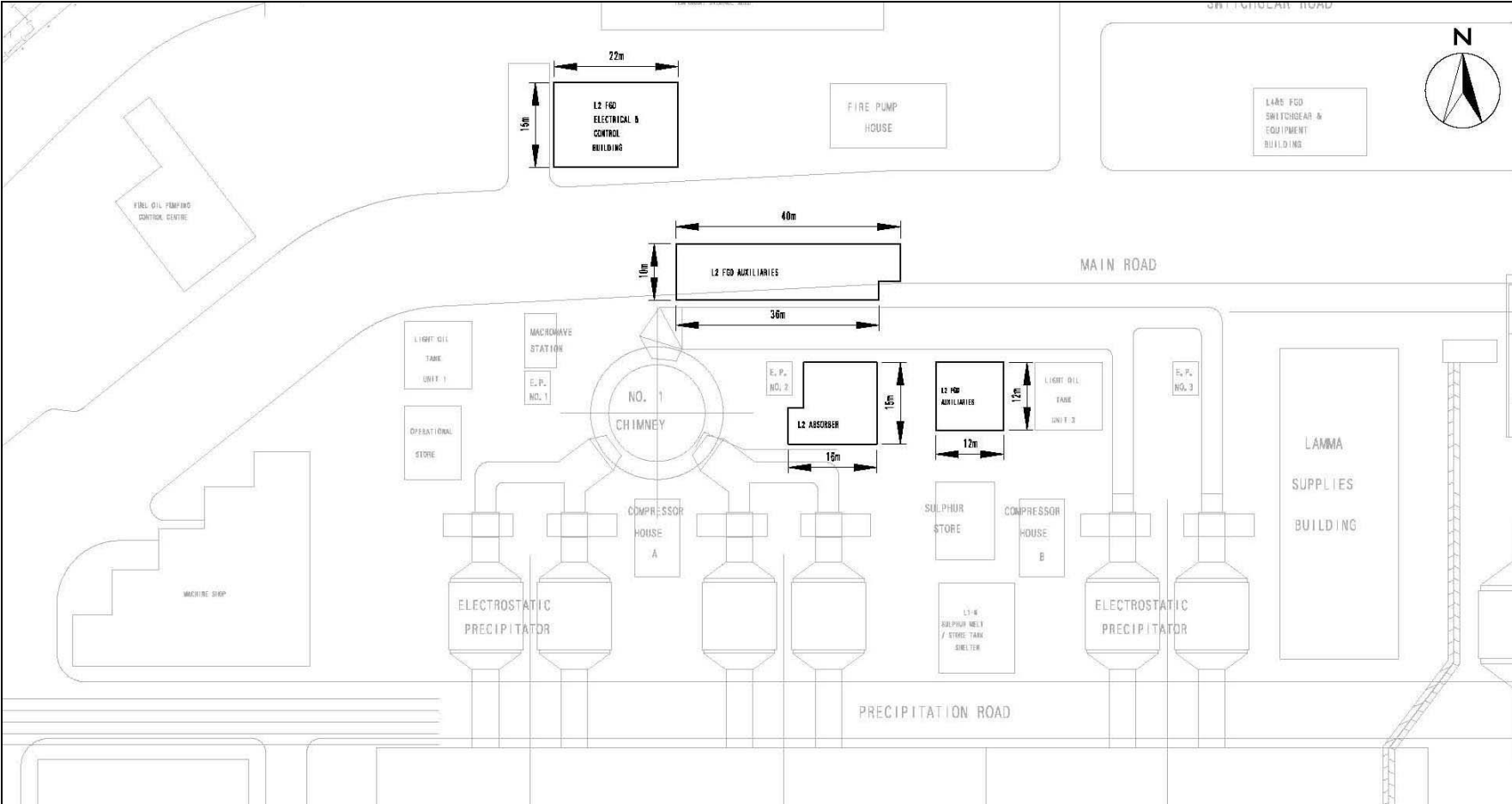


Figure 1.2b General Arrangement of L2 FGD Plant

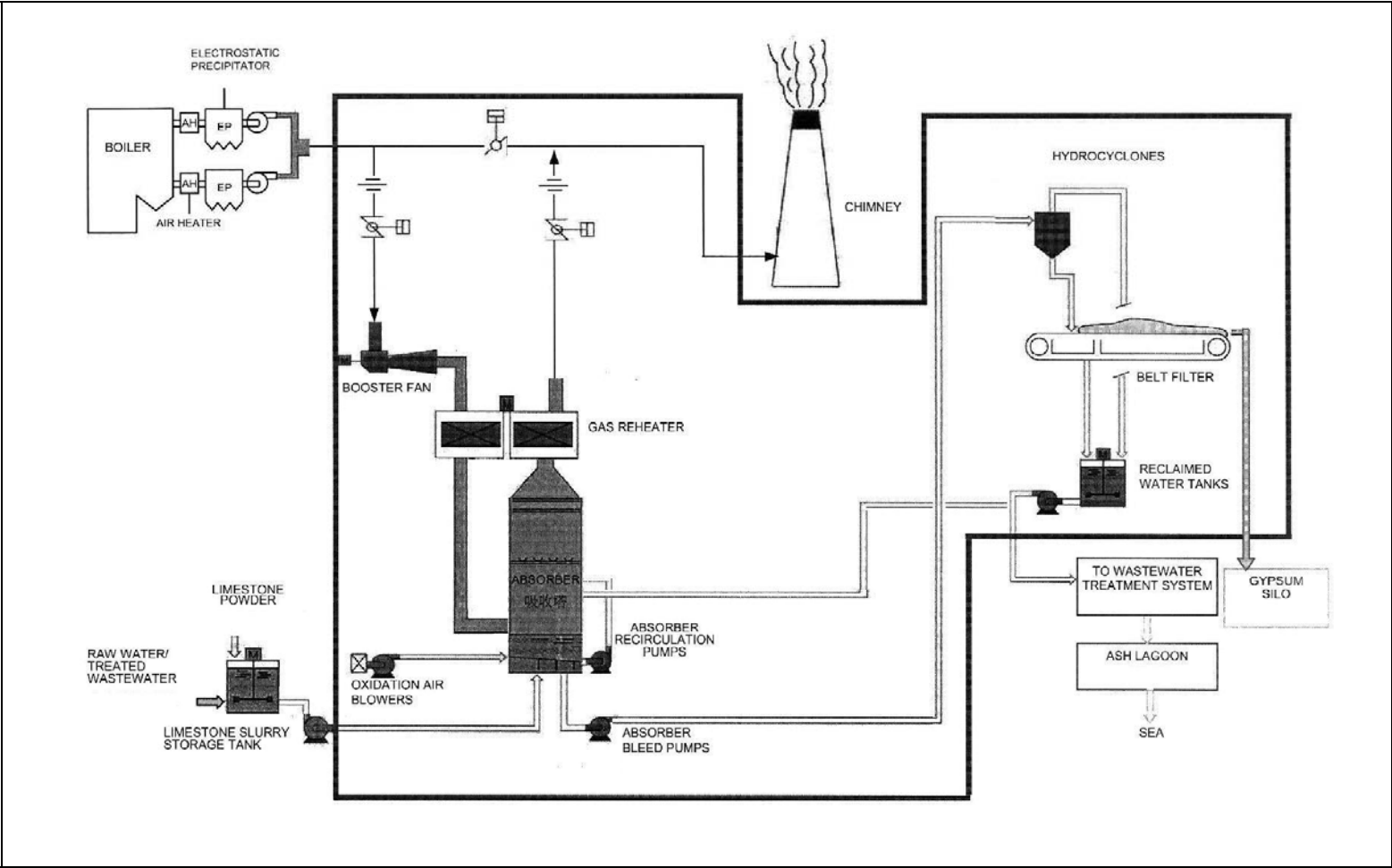


Figure 1.3 Schematic Diagram of the L2, L4 & L5 FGD Plant

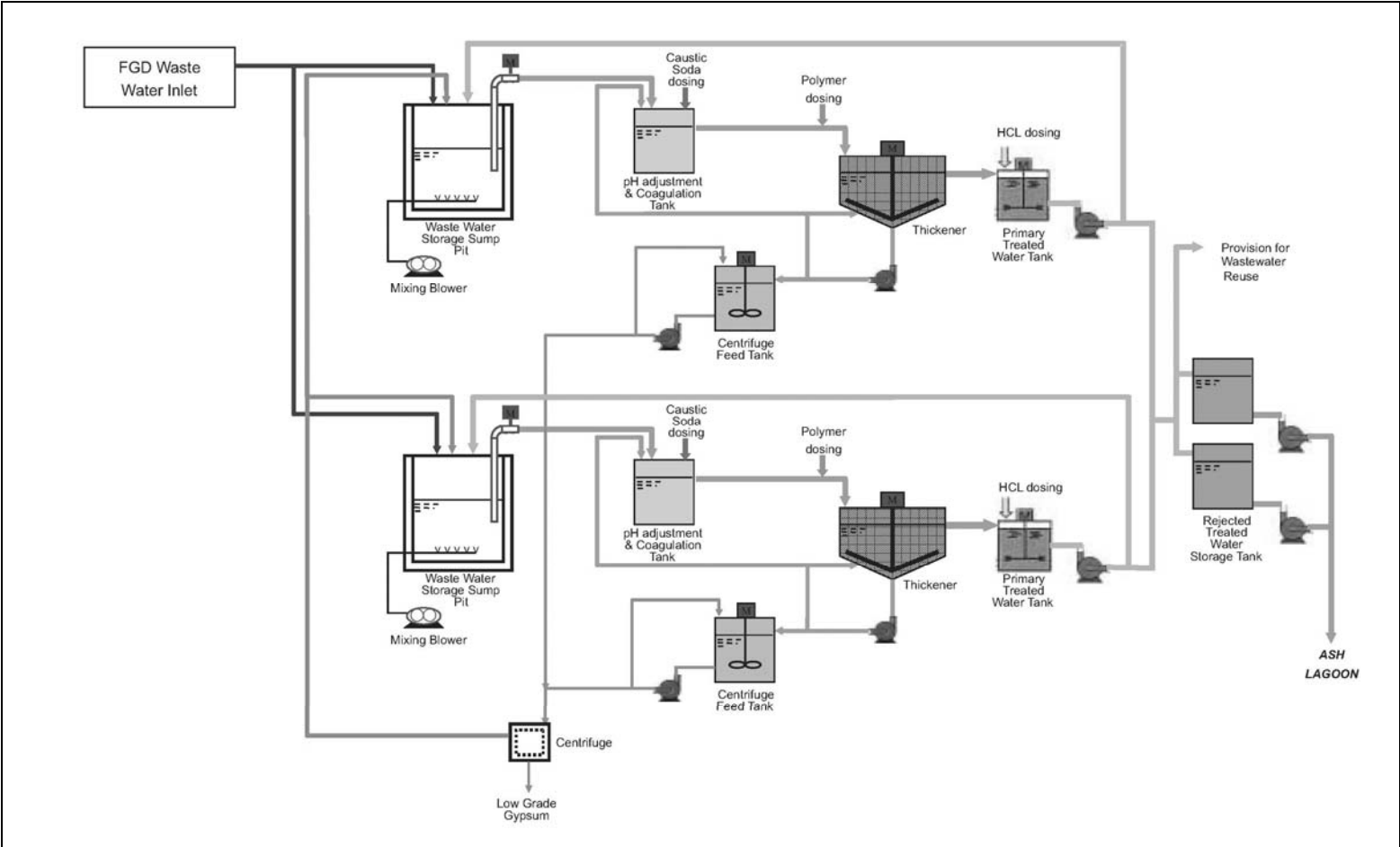


Figure 1.4 Simplified Schematic Diagram of FGD Wastewater Treatment Plant

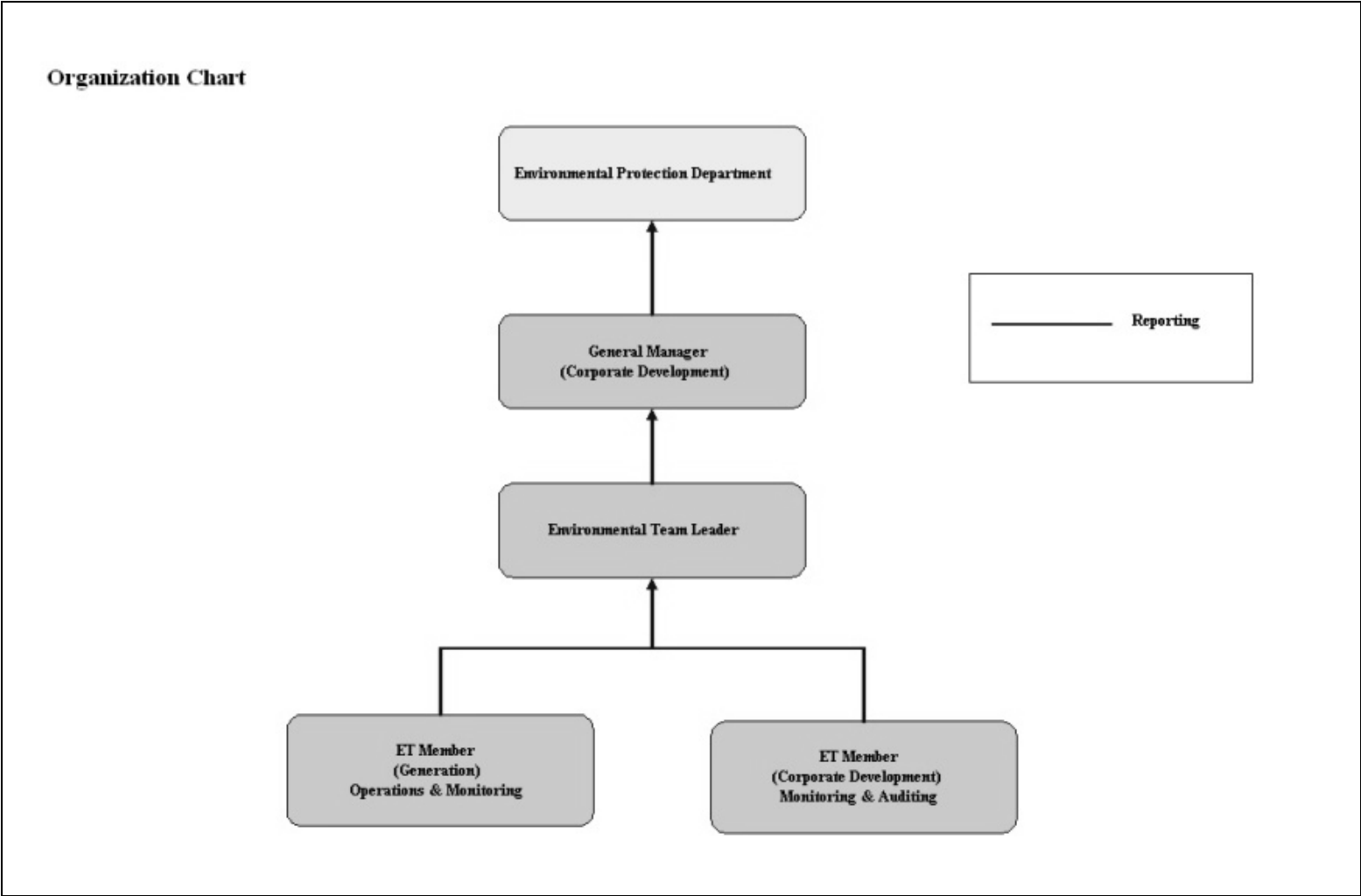


Figure 1.5 Organization Structure at Operational Phase of the Projects

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.

Ambient air monitoring at Queen Mary Hospital was temporarily suspended since November 2013 due to the re-development of the Senior Staff Quarter building of

Queen Mary Hospital. The installation and commissioning work of a new ambient air monitoring station at Pok Fu Lam, which is to replace Queen Mary Hospital ambient air monitoring station was completed on 31/12/2014. The new station commenced operation on 1/1/2015.

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.	01/10/14-31/12/14	N.A.	0	
2	Continuous monitoring of opacity, NOx, SO2 and CO2 in the flue gas at the chimney stacks	01/10/14-31/12/14	0	0	
3	TSP monitoring at Lamma Power Station Boundary (ie East Gate and Reservoir).	01/10/14-31/12/14	0	0	
4	Ambient SO2 & NOx monitoring at the Peak, Queen Mary Hospital, Victoria Road, Chung Hom Kok, Ap Lei Chau and	01/10/14-31/12/14	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	01/10/14-31/12/14	0	0	
2	Suspended Solids in WWTP Effluent	01/10/14-31/12/14	0	0	
3	Iron in WWTP Effluent	01/10/14-31/12/14	0	0	
4	Barium in WWTP Effluent	01/10/14-31/12/14	0	0	
5	Mercury in WWTP Effluent	01/10/14-31/12/14	0	0	
6	Cadmium in WWTP Effluent	01/10/14-31/12/14	0	0	
7	Cyanide in WWTP Effluent	01/10/14-31/12/14	0	0	
8	Total Phosphorus in WWTP Effluent	01/10/14-31/12/14	0	0	
9	Total Nitrogen in WWTP Effluent	01/10/14-31/12/14	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
October 2014	5485.3 MT	0 MT
November 2014	5859.0 MT	0 MT
December 2014	1724.3 MT	0 MT

4.3 Status of Environmental Licensing and Permitting

All permits/licenses obtained as of December 2014 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 Process Licence issued under APCO	L-7-002(9)	01/01/2013	31/12/2014	Valid
Specified Process Licence issued under APCO	L-7-002(10)	01/01/2015	31/12/2016	To be effective
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 complaint against the operation of Lamma Power Station.

Table 4.4 Environmental Complaints 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 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

No major outage plan for the coming three months.

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 October to December 2014. 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 complaint 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 Particulate (Opacity) SO2 NOx expressed as NO2 (For L4 and L5 only)	once/year continuous continuous continuous	50 mg/Nm3 40% (bihourly) 200 mg/Nm3 (1h) 615 mg/Nm3 (1h)	- 35 190 585	50 40 200 615	ET Leader informs Generation Division at action level. Maintenance initiated. Temporary load shift until pollution control equipment repaired and reinstated. Report to EPD.
Fugitive dust (Coal, PFA, limestone, gypsum)	TSP	Once every six days.	260 (µg/m3) (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 SO2 NO2	Continuous at existing ambient air monitoring stations	800 (µg/m3) (1h) 300 (µg/m3) (1h)	- -	800 300	ET to review data on post-hoc basis and check for possible power station contribution.

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.
	Suspended Solids	Daily	30 mg/L	25	30	
	Iron	Monthly	4 mg/L	3.6	4	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.
	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: Fourth Quarter of 2014 (October - December)

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. (%)
05/10/2014	73	67	23.1	100	73
11/10/2014	78	72	15.6	030	59
17/10/2014	88	82	33.0	100	66
23/10/2014	56	57	34.8	100	81
29/10/2014	39	52	33.4	100	75
04/11/2014	86	78	26.2	100	75
10/11/2014	40	36	30.0	100	79
16/11/2014	75	68	15.1	080	73
22/11/2014	54	50	23.3	100	80
28/11/2014	41	39	21.5	090	83
04/12/2014	24	27	42.4	030	80
10/12/2014	99	92	21.7	050	78
16/12/2014	178	169	44.5	020	46
22/12/2014	97	90	31.4	060	52
28/12/2014	57	53	26.1	010	83

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 NOx and SO2 for Unit L5

Date	Daily Maximum		
	SO2 concentration (mg/Nm3) #	NOx concentration (mg/Nm3) #	Opacity (%)
1/10/2014	16	467	17
2/10/2014	17	431	17
3/10/2014	18	461	18
4/10/2014	19	424	18
5/10/2014	30	416	19
6/10/2014	36	462	17
7/10/2014	30	418	18
8/10/2014	43	461	19
9/10/2014	74	465	22
10/10/2014	33	468	18
11/10/2014	48	363	18
12/10/2014	31	464	17
13/10/2014	95	462	19
14/10/2014	18	449	19
15/10/2014	17	493	19
16/10/2014	14	472	22
17/10/2014	19	413	20
18/10/2014	19	410	20
19/10/2014	16	459	20
20/10/2014	15	461	22
21/10/2014	23	422	20
22/10/2014	66	452	20
23/10/2014	22	382	22
24/10/2014	*	*	*
25/10/2014	*	*	*
26/10/2014	*	*	*
27/10/2014	19	378	21
28/10/2014	17	438	21
29/10/2014	17	459	22
30/10/2014	20	447	22
31/10/2014	18	482	22

Date	Daily Maximum		
	SO2 concentration (mg/Nm3) #	NOx concentration (mg/Nm3) #	Opacity (%)
1/11/2014	23	450	22
2/11/2014	32	405	20
3/11/2014	36	454	22
4/11/2014	64	400	24
5/11/2014	62	472	24
6/11/2014	99	453	25
7/11/2014	39	450	24
8/11/2014	26	385	23
9/11/2014	28	415	21
10/11/2014	21	406	22
11/11/2014	23	481	22
12/11/2014	24	440	23
13/11/2014	28	479	24
14/11/2014	27	467	22
15/11/2014	21	431	23
16/11/2014	23	498	21
17/11/2014	25	462	22
18/11/2014	21	447	24
19/11/2014	20	430	24
20/11/2014	19	445	24
21/11/2014	23	422	24
22/11/2014	42	395	26
23/11/2014	81	482	22
24/11/2014	35	430	23
25/11/2014	57	442	23
26/11/2014	127	426	23
27/11/2014	47	423	23
28/11/2014	72	461	24
29/11/2014	48	441	23
30/11/2014	34	412	22

Date	Daily Maximum		
	SO2 concentration (mg/Nm3) [#]	NOx concentration (mg/Nm3) [#]	Opacity (%)
1/12/2014	34	396	22
2/12/2014	39	482	24
3/12/2014	27	439	24
4/12/2014	26	449	24
5/12/2014	22	476	24
6/12/2014	26	511	24
7/12/2014	28	451	24
8/12/2014	20	458	26
9/12/2014	FGD Plant Outage	453	25
10/12/2014	FGD Plant Outage	363	24
11/12/2014	FGD Plant Outage	354	24
12/12/2014	FGD Plant Outage	370	24
13/12/2014	FGD Plant Outage	461	23
14/12/2014	*	*	*
15/12/2014	FGD Plant Outage	398	26
16/12/2014	FGD Plant Outage	449	24
17/12/2014	FGD Plant Outage	327	25
18/12/2014	FGD Plant Outage	304	24
19/12/2014	FGD Plant Outage	477	24
20/12/2014	*	*	*
21/12/2014	*	*	*
22/12/2014	*	*	*
23/12/2014	*	*	*
24/12/2014	*	*	*
25/12/2014	*	*	*
26/12/2014	*	*	*
27/12/2014	*	*	*
28/12/2014	*	*	*
29/12/2014	*	*	*
30/12/2014	*	*	*
31/12/2014	*	*	*

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

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

Date	Daily Maximum		
	SO2 concentration (mg/Nm3) #	NOx concentration (mg/Nm3) #	Opacity (%)
1/10/2014	47	371	23
2/10/2014	57	372	23
3/10/2014	64	347	27
4/10/2014	*	*	*
5/10/2014	*	*	*
6/10/2014	39	384	25
7/10/2014	101	411	19
8/10/2014	87	419	20
9/10/2014	89	411	22
10/10/2014	107	426	25
11/10/2014	92	451	23
12/10/2014	83	447	22
13/10/2014	67	462	27
14/10/2014	71	426	24
15/10/2014	42	410	23
16/10/2014	44	450	24
17/10/2014	42	416	24
18/10/2014	36	441	23
19/10/2014	10	396	21
20/10/2014	24	418	25
21/10/2014	42	480	25
22/10/2014	38	480	25
23/10/2014	24	410	25
24/10/2014	18	448	25
25/10/2014	23	405	25
26/10/2014	23	356	26
27/10/2014	FGD Plant Outage	385	28
28/10/2014	FGD Plant Outage	348	25
29/10/2014	FGD Plant Outage	404	26
30/10/2014	FGD Plant Outage	410	26
31/10/2014	FGD Plant Outage	454	26

Date	Daily Maximum		
	SO2 concentration (mg/Nm3) #	NOx concentration (mg/Nm3) #	Opacity (%)
1/11/2014	FGD Plant Outage	478	25
2/11/2014	*	*	*
3/11/2014	FGD Plant Outage	441	25
4/11/2014	FGD Plant Outage	494	27
5/11/2014	FGD Plant Outage	389	26
6/11/2014	FGD Plant Outage	408	26
7/11/2014	FGD Plant Outage	410	27
8/11/2014	FGD Plant Outage	428	26
9/11/2014	*	*	*
10/11/2014	FGD Plant Outage	527	27
11/11/2014	FGD Plant Outage	496	27
12/11/2014	FGD Plant Outage	422	27
13/11/2014	FGD Plant Outage	526	28
14/11/2014	FGD Plant Outage	510	27
15/11/2014	FGD Plant Outage	387	27
16/11/2014	*	*	*
17/11/2014	FGD Plant Outage	490	28
18/11/2014	FGD Plant Outage	455	28
19/11/2014	FGD Plant Outage	376	17
20/11/2014	FGD Plant Outage	359	17
21/11/2014	FGD Plant Outage	426	18
22/11/2014	FGD Plant Outage	435	18
23/11/2014	FGD Plant Outage	377	17
24/11/2014	FGD Plant Outage	288	20
25/11/2014	FGD Plant Outage	342	21
26/11/2014	FGD Plant Outage	374	19
27/11/2014	FGD Plant Outage	411	18
28/11/2014	FGD Plant Outage	385	19
29/11/2014	FGD Plant Outage	375	19
30/11/2014	22	453	22

Date	Daily Maximum		
	SO2 concentration (mg/Nm3) [#]	NOx concentration (mg/Nm3) [#]	Opacity (%)
1/12/2014	38	413	19
2/12/2014	29	437	19
3/12/2014	25	350	23
4/12/2014	17	430	21
5/12/2014	34	457	23
6/12/2014	21	435	21
7/12/2014	15	488	22
8/12/2014	21	447	19
9/12/2014	24	409	20
10/12/2014	45	435	20
11/12/2014	41	455	20
12/12/2014	14	473	20
13/12/2014	27	469	21
14/12/2014	26	469	23
15/12/2014	28	472	24
16/12/2014	17	475	23
17/12/2014	37	504	25
18/12/2014	14	443	27
19/12/2014	18	479	25
20/12/2014	FGD Plant Outage	488	26
21/12/2014	*	*	*
22/12/2014	FGD Plant Outage	420	26
23/12/2014	19	489	29
24/12/2014	34	493	29
25/12/2014	12	490	27
26/12/2014	26	498	26
27/12/2014	40	497	27
28/12/2014	29	490	27
29/12/2014	40	482	28
30/12/2014	56	477	33
31/12/2014	20	490	31

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 (%)
1/10/2014	*	*
2/10/2014	*	*
3/10/2014	29	20
4/10/2014	31	18
5/10/2014	91	17
6/10/2014	105	19
7/10/2014	*	*
8/10/2014	*	*
9/10/2014	*	*
10/10/2014	*	*
11/10/2014	*	*
12/10/2014	*	*
13/10/2014	*	*
14/10/2014	*	*
15/10/2014	*	*
16/10/2014	*	*
17/10/2014	*	*
18/10/2014	*	*
19/10/2014	*	*
20/10/2014	*	*
21/10/2014	*	*
22/10/2014	*	*
23/10/2014	*	*
24/10/2014	40	23
25/10/2014	16	21
26/10/2014	13	21
27/10/2014	24	22
28/10/2014	16	21
29/10/2014	20	21
30/10/2014	24	23
31/10/2014	37	22

Date	Daily Maximum	
	SO2 concentration (mg/Nm3) [#]	Opacity (%)
1/11/2014	35	22
2/11/2014	58	21
3/11/2014	36	18
4/11/2014	*	*
5/11/2014	*	*
6/11/2014	*	*
7/11/2014	*	*
8/11/2014	*	*
9/11/2014	*	*
10/11/2014	21	22
11/11/2014	20	23
12/11/2014	26	20
13/11/2014	*	*
14/11/2014	*	*
15/11/2014	*	*
16/11/2014	*	*
17/11/2014	*	*
18/11/2014	*	*
19/11/2014	*	*
20/11/2014	*	*
21/11/2014	*	*
22/11/2014	*	*
23/11/2014	*	*
24/11/2014	*	*
25/11/2014	*	*
26/11/2014	*	*
27/11/2014	*	*
28/11/2014	*	*
29/11/2014	*	*
30/11/2014	*	*

Date	Daily Maximum	
	SO2 concentration (mg/Nm3) [#]	Opacity (%)
1/12/2014	*	*
2/12/2014	*	*
3/12/2014	*	*
4/12/2014	*	*
5/12/2014	*	*
6/12/2014	*	*
7/12/2014	*	*
8/12/2014	*	*
9/12/2014	*	*
10/12/2014	*	*
11/12/2014	*	*
12/12/2014	*	*
13/12/2014	*	*
14/12/2014	*	*
15/12/2014	*	*
16/12/2014	*	*
17/12/2014	*	*
18/12/2014	*	*
19/12/2014	*	*
20/12/2014	*	*
21/12/2014	FGD Plant Outage	37 [^]
22/12/2014	FGD Plant Outage	30
23/12/2014	FGD Plant Outage	24
24/12/2014	33	5
25/12/2014	*	*
26/12/2014	*	*
27/12/2014	44	12
28/12/2014	52	7
29/12/2014	51	9
30/12/2014	47	17
31/12/2014	26	14

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

* - Unit L2 was not on load.

[^] - The maximum bi-hourly Opacity reading on 21/12/2014 was not greater than 35.

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:OCTOBER

STATION : VICTORIA PEAK
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2014
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	10	9	0	0	0	0	0	1	1	0	0	1	1	1	1	1	1	1	2	4	2	1	1	2	2
2	2	1	0	1	0	0	0	0	2	3	26	38	19	12	11	10	13	13	29	14	8	9	7	8	9
3	7	5	5	4	5	13	19	15	25	19	19	10	12	1	0	0	0	1	2	2	0	0	0	2	7
4	0	0	0	0	0	0	0	1	0	1	2	4	2	3	2	3	2	2	4	3	5	4	4	4	2
5	3	3	2	1	1	2	1	3	3	4	5	5	7	8	9	11	6	6	8	7	7	6	5	5	5
6	4	4	4	3	3	3	4	7	15	16	9	6	5	5	5	5	5	5	6	7	6	8	7	5	6
7	5	4	4	4	5	6	7	11	11	11	11	11	12	11	9	8	7	6	6	6	7	7	6	7	8
8	6	6	5	7	7	6	6	13	14	13	12	14	12	8	10	9	7	6	4	3	4	6	7	5	8
9	4	5	18	13	5	11	10	7	21	22	21	15	17	15	10	8	7	5	4	4	4	4	4	3	10
10	2	5	7	6	7	6	8	15	12	20	24	18	12	6	6	5	6	5	8	7	8	15	8	8	9
11	9	10	10	10	8	8	9	11	11	32	21	7	6	6	14	26	17	17	21	27	22	20	24	18	15
12	20	24	19	11	D	11	11	12	11	10	9	10	9	8	9	13	11	9	12	6	6	9	10	9	11
13	11	11	9	9	9	7	7	9	13	11	10	11	7	8	8	7	7	7	5	5	7	9	7	8	8
14	10	10	11	9	8	8	7	8	7	8	10	9	7	6	7	11	9	7	7	6	6	7	8	7	8
15	6	6	6	7	8	9	8	9	16	16	12	12	11	7	7	7	7	7	5	5	5	5	5	3	8
16	3	3	3	3	4	3	4	5	6	5	7	8	7	6	5	6	6	5	4	5	4	3	3	5	5
17	4	4	3	3	4	4	5	7	11	12	14	12	12	11	11	10	8	6	8	6	5	5	6	7	7
18	4	3	3	2	2	2	2	2	3	3	4	5	4	4	5	5	4	5	5	4	4	3	2	2	3
19	3	3	2	2	1	1	1	1	2	3	4	5	5	4	5	5	6	5	4	5	4	4	5	5	4
20	4	4	3	3	2	2	1	2	3	4	4	4	5	4	4	4	5	4	4	4	3	7	6	6	4
21	7	8	6	5	7	8	6	5	6	31	44	30	31	46	26	26	35	30	12	11	6	3	25	13	18
22	18	13	11	34	44	37	19	15	29	17	12	17	15	18	14	7	4	4	7	8	5	3	2	0	15
23	1	2	2	2	1	1	1	1	1	1	1	2	3	4	3	4	5	6	6	3	2	2	2	2	2
24	3	3	5	5	4	4	3	2	2	2	2	3	3	4	6	7	6	7	6	4	5	5	4	4	4
25	3	3	3	3	4	4	4	4	4	4	4	4	3	3	2	1	1	1	1	3	3	2	2	3	3
26	2	2	4	3	2	2	2	3	4	6	5	5	5	6	6	5	4	6	5	5	5	5	3	3	4
27	2	3	2	3	3	5	4	4	8	8	8	7	7	9	11	9	5	3	2	1	2	1	1	2	5
28	2	2	2	2	3	5	5	6	5	6	4	4	4	3	2	3	3	2	2	1	0	1	0	0	3
29	1	1	0	0	0	0	0	1	2	4	5	5	6	4	3	2	2	2	2	1	1	2	2	1	2
30	1	1	2	1	1	1	1	1	1	1	1	1	2	2	2	2	2	1	1	0	1	2	1	1	1
31	1	0	0	0	0	1	1	2	2	3	3	2	2	2	2	2	2	2	1	0	1	1	2	1	1

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----							-----RANGE-----				STN GEOM	PERCENT	NO. OF TIMES		
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR	DEVIATION	VALID DATA	ABOVE OBJECTIVE			
5	5	6	5	13	19	26	32	0	-	46	1	-	18	2	100	0

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

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

STATION : VICTORIA PEAK
POLLUTANT : NITROGEN DIOXIDE

YEAR : 2014
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	17	23	0	0	1	1	5	7	7	7	2	1	0	0	0	0	1	2	3	7	3	0	1	5	4
2	3	1	0	4	3	4	5	13	20	34	52	56	35	23	21	31	52	51	66	61	46	31	25	20	27
3	5	3	3	4	6	13	20	27	55	60	58	42	26	17	6	6	19	20	17	5	4	1	7	6	18
4	2	0	0	2	0	0	2	8	7	27	25	11	8	11	10	9	17	11	10	12	5	0	1	1	7
5	4	11	11	4	0	1	3	12	14	15	17	17	12	13	19	15	6	10	14	9	8	4	7	5	10
6	6	7	1	1	0	0	10	25	45	56	44	31	20	11	15	15	21	16	7	17	13	9	7	7	16
7	1	1	0	0	0	1	7	22	34	36	33	24	12	13	14	21	12	13	14	12	5	5	3	2	12
8	2	5	2	1	1	0	4	19	37	37	38	36	25	18	33	45	24	25	7	0	0	0	3	17	16
9	20	21	57	14	4	11	24	51	67	65	54	41	37	32	25	22	18	20	6	11	33	3	0	18	27
10	0	0	2	18	17	6	16	30	52	74	82	54	41	20	23	38	37	42	59	38	41	56	38	35	34
11	34	21	9	9	7	5	12	17	45	73	64	29	17	19	29	28	14	27	57	66	40	25	23	11	28
12	10	26	45	16	D	9	9	25	14	35	35	19	22	24	19	22	30	34	56	34	45	40	39	20	27
13	11	3	0	0	0	0	6	23	41	48	55	52	24	18	26	33	10	4	2	1	2	4	0	4	15
14	32	18	11	4	2	5	15	32	36	50	29	32	23	28	24	M	20	18	35	24	38	25	25	19	24
15	18	6	10	10	9	9	13	25	50	60	50	50	35	30	30	18	13	10	8	5	5	4	3	0	20
16	0	0	0	0	0	3	11	20	23	22	13	12	5	3	2	4	6	11	8	0	0	0	0	0	6
17	0	0	0	0	0	0	0	6	16	23	19	22	31	39	58	55	37	10	6	6	4	0	0	0	14
18	0	0	0	0	0	0	4	11	20	17	13	17	10	16	23	45	35	47	5	0	1	0	0	0	11
19	0	0	0	0	0	0	0	0	0	1	5	9	5	2	0	6	23	8	9	21	7	3	6	2	4
20	0	0	0	0	0	0	0	4	12	6	7	7	5	7	12	21	25	16	40	11	6	35	15	22	10
21	13	5	10	1	0	0	1	0	41	88	79	66	68	49	27	39	43	53	15	67	16	5	27	17	30
22	35	23	18	76	88	96	79	55	66	59	50	50	48	54	57	49	43	52	50	35	16	4	12	M	48
23	4	0	0	0	0	0	0	1	6	18	12	11	3	8	7	4	9	15	12	5	10	11	3	0	6
24	0	0	0	0	0	0	0	3	3	8	5	6	11	16	15	14	19	14	9	7	9	6	0	0	6
25	0	0	0	0	0	0	0	0	2	10	8	5	3	5	29	28	37	35	19	19	10	2	5	0	9
26	0	0	0	0	0	0	0	2	5	5	10	7	6	16	18	18	37	69	66	66	54	38	22	16	19
27	13	3	2	2	0	0	5	25	40	23	17	18	8	15	11	10	3	3	0	0	0	0	0	0	8
28	0	0	0	0	0	0	0	5	11	8	8	6	2	11	15	7	6	3	0	0	0	0	0	0	3
29	0	0	0	0	0	0	0	8	20	17	16	23	19	19	14	13	11	11	1	2	8	6	2	0	8
30	0	0	0	0	0	0	0	4	8	21	14	17	13	14	12	21	15	15	8	1	1	5	4	4	7
31	3	0	0	0	0	0	0	7	26	48	30	27	25	35	33	53	61	68	52	50	76	58	16	29	29

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----							-----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		
13	10	16	10	45	56	66	75	0	-	96	3	-	48	3	100	0

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

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

STATION : VICTORIA PEAK
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2014
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	3	3	3	5	3	1	3	5	5	4	5	5	4	5	4	3	4	5	7	8	7	6	4
2	4	2	1	1	1	1	1	1	1	1	6	16	8	8	5	4	3	2	4	9	8	7	6	6	4
3	6	12	5	7	6	7	7	9	11	11	12	9	10	11	8	6	7	7	11	7	6	2	2	8	
4	2	2	3	1	3	5	4	5	4	4	5	5	4	5	6	6	6	7	6	6	7	8	6	5	
5	6	6	6	5	4	4	5	5	4	3	4	3	4	4	3	2	2	2	1	1	1	2	2	1	3
6	3	4	3	3	3	4	3	3	5	6	4	4	5	4	8	8	9	8	4	3	2	2	2	3	4
7	1	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	0	1	1	0	0	3	1	2	1	1
9	0	0	0	2	0	0	0	3	1	1	1	2	1	1	0	0	1	3	2	1	1	1	1	0	1
10	0	0	0	0	0	0	0	0	0	1	1	2	1	1	1	2	3	1	2	1	0	1	1	1	1
11	1	1	1	0	0	1	0	1	1	1	2	2	1	3	2	4	4	5	4	3	1	1	1	2	2
12	1	1	1	1	1	1	1	1	4	2	3	4	3	4	7	10	5	4	5	5	6	5	1	0	3
13	0	0	0	0	0	0	0	2	6	10	6	2	3	2	2	1	2	4	7	7	3	4	2	2	3
14	2	2	2	3	3	3	4	5	4	5	8	5	5	3	4	4	3	2	2	2	2	2	2	2	3
15	2	1	1	2	2	2	3	2	4	4	3	3	2	2	2	2	3	2	1	1	3	2	1	2	2
16	1	1	2	2	2	1	1	2	3	3	8	27	17	14	6	5	5	6	9	13	14	8	6	6	7
17	7	7	8	7	6	6	5	6	25	23	18	12	6	3	4	5	5	4	9	10	9	4	4	4	8
18	5	5	6	6	5	5	6	8	19	13	13	7	5	6	8	13	19	17	13	13	15	7	4	4	9
19	4	4	4	4	5	4	4	5	7	10	11	10	10	13	25	33	24	10	7	6	6	4	4	3	9
20	2	2	1	1	1	1	1	2	3	4	D	D	4	4	3	2	2	2	1	1	1	2	1	0	2
21	0	1	1	1	1	1	0	2	2	3	3	3	3	3	4	3	3	2	2	1	2	6	4	2	
22	4	3	3	2	3	3	3	5	7	6	6	7	6	4	4	4	3	3	3	3	2	2	1	1	4
23	1	0	0	0	0	0	1	1	1	1	1	2	3	3	3	2	4	3	2	2	1	2	2	1	2
24	1	0	0	0	0	1	1	2	4	4	4	3	2	2	1	2	2	1	0	0	0	1	1	0	1
25	0	0	0	0	0	0	0	0	1	2	9	23	21	15	22	47	37	14	13	11	11	8	11	18	11
26	20	23	26	33	28	20	15	11	8	6	5	6	5	4	4	4	2	2	2	2	2	1	1	1	10
27	1	1	1	1	1	1	0	0	1	2	2	2	2	1	0	0	1	1	1	1	1	1	0	0	1
28	0	0	0	1	1	1	0	2	1	2	3	4	2	2	2	2	1	1	0	2	2	3	4	4	2
29	4	4	3	3	2	1	1	1	1	2	3	3	3	1	1	1	1	0	0	0	0	0	0	0	1
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										RANGE-----		STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE OBJECTIVE		
3	2	4	2	8	13	21	25	0	-	47	0	-	11	2	100	0

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

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

STATION : VICTORIA PEAK
POLLUTANT : NITROGEN DIOXIDE

YEAR : 2014
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	45	67	55	51	34	1	0	48	60	44	17	19	26	30	22	31	47	101	119	107	85	57	1	45
2	5	2	1	0	0	0	0	6	9	32	41	37	25	27	22	21	19	20	40	45	36	34	24	26	20
3	16	21	8	9	2	4	12	29	52	54	59	57	62	63	60	63	72	62	65	77	45	35	15	9	40
4	5	2	1	0	1	2	3	14	24	18	23	19	10	19	33	29	46	28	10	3	2	3	1	0	12
5	0	0	0	0	0	0	0	0	7	29	29	19	7	15	21	31	41	26	1	4	0	0	0	M	10
6	0	0	0	4	2	0	1	18	38	56	53	43	32	31	34	27	48	41	12	3	0	5	2	6	19
7	0	0	0	0	0	0	0	0	2	2	6	4	3	7	12	19	19	3	1	0	0	0	0	0	3
8	0	0	0	0	0	0	3	19	50	56	59	M	46	54	51	43	68	69	46	37	74	64	65	63	38
9	48	32	30	46	31	26	14	20	12	8	10	9	6	2	5	6	8	14	10	6	4	2	2	0	15
10	0	0	0	0	0	0	0	0	6	11	7	8	0	4	21	18	17	18	4	12	1	0	1	0	5
11	0	0	0	0	0	0	0	0	4	13	19	43	20	21	40	65	71	88	62	36	17	1	6	15	22
12	15	11	13	16	12	5	16	37	57	50	49	53	54	62	73	76	81	84	76	62	55	49	42	29	45
13	25	15	5	1	1	0	14	36	46	50	39	27	34	29	41	39	47	55	58	58	44	38	22	31	31
14	22	13	6	2	0	0	3	16	34	38	48	48	39	42	46	56	60	59	48	38	12	0	0	0	26
15	0	0	0	0	0	0	0	6	24	31	32	22	7	15	18	17	29	31	27	14	22	15	25	15	15
16	16	6	3	3	0	3	16	23	18	26	35	48	32	23	16	24	26	51	105	123	99	51	37	24	34
17	19	8	2	0	0	5	16	22	52	62	57	51	17	15	28	22	33	32	58	53	47	30	22	38	29
18	31	29	14	8	4	5	15	27	50	41	46	34	13	32	40	42	55	72	62	58	57	30	14	19	33
19	16	M	4	2	2	1	11	22	42	52	50	43	42	46	81	104	75	77	64	39	4	5	5	2	34
20	0	0	0	0	0	0	0	12	24	29	D	D	18	31	33	41	30	23	12	11	13	13	7	13	14
21	11	11	9	8	8	10	16	27	44	51	43	38	39	55	70	68	71	91	123	129	66	56	36	47	47
22	44	29	27	17	17	15	21	30	49	38	35	29	16	27	24	32	29	20	25	22	17	17	18	15	26
23	10	13	9	7	7	6	8	9	13	21	19	14	12	14	11	10	16	16	15	17	21	13	14	10	13
24	12	10	9	8	6	6	9	16	30	39	41	50	30	28	31	39	37	32	7	11	9	9	8	5	20
25	6	7	4	4	4	3	11	30	43	54	63	66	68	43	46	60	70	74	81	59	63	56	42	39	42
26	35	53	85	119	90	92	94	61	48	50	36	37	25	32	42	45	44	26	17	15	14	15	11	10	46
27	10	9	9	9	10	9	13	25	41	54	58	58	48	56	42	47	43	39	17	23	19	16	12	14	28
28	16	12	11	12	10	10	11	22	40	50	54	66	49	60	67	54	50	59	35	24	16	11	12	20	32
29	14	13	11	9	7	8	8	15	31	37	38	40	33	40	41	53	39	30	17	14	13	14	13	9	23
30	10	12	9	8	11	12	11	12	14	12	14	22	22	17	16	46	59	62	61	49	32	20	43	29	25

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----							-----RANGE-----					STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	ABOVE OBJECTIVE				
20	19	26	19	59	68	87	104	0	-	129	3	-	47	3	99	0

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

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

STATION : VICTORIA PEAK
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2014
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	1	2	4	3	4	2	3	4	4	5	2	4	4	8	13	11	5	1	1	0	3
2	0	0	0	0	1	1	0	1	1	2	1	1	1	1	1	1	1	0	0	0	0	0	0	0	1
3	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
4	1	3	1	0	0	0	0	0	2	3	4	6	2	1	4	2	4	1	7	8	5	3	2	1	3
5	1	1	2	2	2	2	2	2	11	9	6	10	6	7	4	3	4	3	3	4	6	8	8	8	5
6	7	5	5	5	5	6	5	5	6	7	8	6	6	4	3	3	2	1	2	1	1	1	1	2	4
7	2	2	2	2	2	4	5	6	6	6	7	6	5	5	4	5	7	6	7	8	23	19	22	17	7
8	14	9	9	6	6	5	5	5	6	8	12	9	6	5	4	4	4	3	3	4	3	2	1	2	6
9	2	3	3	3	4	4	4	5	8	8	9	10	9	8	7	7	7	5	4	4	3	3	2	2	5
10	3	3	2	3	3	5	5	4	5	3	6	11	19	13	17	26	36	33	37	42	32	25	25	14	16
11	17	9	11	10	8	11	11	12	16	17	17	16	22	21	22	23	30	20	16	17	17	15	14	12	16
12	11	11	10	9	8	8	7	8	14	10	15	17	16	16	17	16	16	17	18	23	28	22	22	17	15
13	17	18	18	18	17	16	16	16	18	18	18	13	11	11	13	22	17	9	8	10	12	14	14	14	15
14	13	12	12	12	12	11	12	12	14	15	16	17	15	18	13	11	11	12	10	9	9	9	6	6	12
15	5	4	3	4	4	6	7	7	7	8	8	8	8	8	7	6	5	6	3	4	18	19	12	8	7
16	9	11	17	22	26	22	19	19	35	23	12	11	12	13	16	19	21	22	29	37	39	38	33	29	22
17	29	25	22	20	17	15	14	15	24	22	24	M	21	15	17	14	17	15	24	29	25	15	13	12	19
18	14	15	13	11	12	13	14	16	33	21	14	15	15	13	11	11	10	16	11	10	12	14	10	5	14
19	5	6	6	5	3	2	1	1	3	1	0	1	1	0	1	1	2	4	4	2	3	1	1	2	2
20	2	3	3	4	6	9	10	10	11	14	11	10	6	4	5	5	5	4	6	8	4	3	2	2	6
21	2	2	2	2	3	4	6	7	9	11	13	20	17	15	13	13	12	12	14	20	24	25	28	30	13
22	31	25	26	34	31	27	24	23	33	39	25	17	16	15	13	14	13	12	11	11	14	17	12	11	21
23	10	11	11	11	11	11	13	16	17	12	10	12	12	10	6	5	3	3	3	4	5	6	4	3	9
24	2	2	2	2	2	2	2	1	2	4	4	5	5	3	2	0	0	0	0	2	3	4	4	5	2
25	4	5	5	5	8	8	9	13	12	9	3	1	1	2	1	1	1	1	1	0	0	0	0	0	4
26	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1	1	1	0	0	1	1	1	1	0
27	2	2	2	3	2	2	2	2	2	2	2	1	2	1	1	1	0	1	0	2	3	1	1	1	2
28	0	1	0	0	1	3	2	2	4	2	2	4	5	7	8	6	5	3	3	4	4	4	4	5	3
29	4	4	3	3	3	6	4	3	7	20	12	7	7	4	3	2	2	1	1	1	1	2	2	5	4
30	5	4	3	3	2	2	5	12	24	35	9	7	8	6	4	4	4	6	7	6	6	6	7	5	8
31	4	4	4	3	3	4	7	9	17	18	19	15	13	34	38	23	21	22	23	20	17	30	11	8	15

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										RANGE-----		STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE OBJECTIVE		
6	5	8	5	20	25	33	36	0	-	42	0	-	22	3	100	24-HR
																0

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

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

STATION : VICTORIA PEAK
POLLUTANT : NITROGEN DIOXIDE

YEAR : 2014
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	22	22	14	21	16	19	29	32	45	52	50	M	51	57	48	55	63	73	73	65	52	38	34	41	42
2	32	26	21	19	16	18	17	29	37	41	42	46	40	43	48	51	54	54	48	47	45	37	34	22	36
3	21	15	12	11	11	14	16	19	30	35	36	32	22	36	39	55	53	53	36	23	31	38	25	47	30
4	67	58	37	15	10	11	15	24	52	63	65	60	41	38	66	58	67	66	71	71	66	49	46	39	48
5	43	20	22	16	16	21	31	56	73	75	70	71	51	66	54	57	70	67	53	60	76	58	43	53	51
6	43	34	22	19	19	21	25	33	50	43	40	31	26	32	34	31	32	27	21	14	12	11	13	11	27
7	11	11	9	10	10	12	13	18	20	24	29	32	41	45	44	55	51	48	53	80	86	89	87	75	40
8	67	46	37	26	28	18	30	54	71	74	74	54	30	33	35	30	27	51	68	63	33	17	15	11	41
9	13	11	10	10	10	12	21	39	55	58	51	40	27	36	58	67	55	55	28	24	22	21	22	20	32
10	18	14	15	14	14	16	26	38	53	65	74	73	71	85	100	121	132	155	163	177	146	86	88	95	77
11	44	21	22	20	19	18	27	49	96	90	77	79	80	80	91	95	113	126	101	90	80	81	87	82	70
12	67	39	25	22	18	16	26	48	61	44	44	43	44	42	56	46	50	56	54	64	68	57	57	58	46
13	59	35	30	29	26	25	29	47	65	69	68	51	39	46	65	73	77	89	72	65	68	65	46	50	54
14	46	41	22	20	18	17	18	30	39	42	39	45	44	42	35	24	23	26	28	40	24	17	24	21	30
15	20	12	12	12	12	12	15	30	56	60	57	62	48	61	70	80	97	122	46	75	124	122	93	46	56
16	56	41	53	50	42	28	24	36	61	49	29	26	27	28	34	36	34	56	52	52	47	42	33	24	40
17	22	18	14	12	11	11	17	31	53	48	55	M	43	35	54	48	61	72	87	95	91	59	45	50	45
18	40	M	23	14	14	19	35	58	83	68	55	49	45	51	60	67	67	96	83	76	61	56	49	35	52
19	33	20	18	17	21	22	29	42	78	66	63	59	52	40	44	61	71	97	100	80	66	47	37	19	49
20	30	25	19	11	8	8	14	27	65	89	69	52	23	22	30	25	20	20	15	17	7	6	7	8	26
21	11	9	8	6	6	11	18	28	37	35	43	43	40	37	39	42	54	52	48	64	53	40	40	45	34
22	36	20	22	30	24	19	21	46	80	100	62	35	24	30	34	32	37	68	49	58	54	53	43	28	42
23	25	16	15	14	15	15	25	48	84	75	62	65	53	63	62	57	53	70	65	66	62	61	47	43	48
24	45	33	24	19	14	16	19	26	46	78	74	66	51	38	37	29	31	21	21	11	16	14	17	13	32
25	16	10	11	3	4	5	8	13	11	14	17	19	21	19	20	24	24	30	47	31	26	21	20	16	18
26	13	8	8	10	4	4	4	9	8	8	12	9	10	19	20	15	19	26	23	22	17	19	14	9	13
27	9	9	6	6	7	5	8	12	18	25	29	34	40	39	43	51	69	67	50	67	63	62	58	48	34
28	47	40	34	24	16	24	26	33	39	34	29	32	42	48	38	46	54	44	39	29	21	23	25	23	34
29	25	21	12	10	12	20	22	32	56	71	58	57	55	43	33	43	45	30	29	65	72	54	24	14	38
30	12	6	13	39	74	19	9	31	90	100	66	45	42	28	23	19	19	45	31	22	23	17	36	26	35
31	17	14	9	7	12	11	11	12	64	110	109	89	66	98	95	85	78	131	193	128	90	141	27	47	69

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										-----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			
33	37	41	37	74	90	111	130	3	-	193	13	-	77	2	100	0	

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

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

STATION : CHUNG HOM KOK ZONE SUBSTATION
POLLUTANT : SULPHUR DIOXIDE

MONTH:OCTOBER

YEAR :2014

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	9	0	0	0	1	2	2	2	2	2	2	3	2	2	2	3	4	4	4	3	4	3	8	3
2	6	2	1	3	2	3	4	3	4	3	2	14	13	10	9	8	7	14	18	16	13	15	33	26	10
3	29	30	32	14	20	19	14	21	19	7	8	5	4	4	4	2	4	4	5	6	1	1	1	2	11
4	1	2	2	2	2	2	3	2	1	2	4	5	6	5	5	5	4	8	7	5	6	10	6	4	4
5	5	5	5	4	3	5	5	4	5	5	6	6	7	8	6	8	8	9	9	8	7	6	6	6	6
6	6	8	8	7	6	7	7	9	9	9	9	8	7	6	7	6	6	8	8	7	7	8	7	6	7
7	6	5	5	7	9	7	9	13	11	12	10	13	12	9	7	6	6	7	7	7	7	6	6	5	8
8	6	6	6	8	7	6	6	9	7	9	8	9	7	6	6	5	4	2	4	8	8	8	5	6	7
9	8	6	5	5	5	4	6	8	14	10	10	10	8	8	9	8	6	5	5	5	6	5	5	5	7
10	6	9	8	9	6	6	9	9	6	6	7	7	4	4	6	9	8	7	8	8	8	9	10	9	7
11	10	10	10	11	11	10	9	9	8	9	7	7	7	6	6	6	12	16	26	22	35	25	18	12	13
12	12	11	9	9	7	11	13	12	9	9	8	6	7	7	10	15	13	7	7	7	8	10	9	8	9
13	9	10	10	10	9	9	8	9	8	7	7	6	6	7	7	7	7	6	6	7	8	9	9	15	8
14	11	9	8	8	8	8	7	8	9	9	10	10	9	9	9	9	8	7	6	7	9	10	13	8	9
15	8	8	9	9	10	10	10	12	11	11	10	9	7	7	8	8	9	6	5	7	7	7	6	6	8
16	6	5	5	5	6	6	7	9	8	6	9	10	7	6	5	7	6	6	5	5	6	5	5	6	6
17	5	4	5	6	6	7	8	10	11	12	14	13	12	11	10	9	9	8	9	9	7	7	7	6	9
18	6	5	5	4	6	5	4	5	5	5	6	6	7	7	6	6	7	7	7	7	8	7	4	3	6
19	4	3	3	4	4	3	3	3	4	4	6	7	6	6	7	8	7	6	4	5	6	6	8	8	5
20	7	6	5	5	5	4	4	4	5	5	4	4	5	3	4	5	4	5	4	4	5	8	8	10	5
21	14	12	9	8	8	8	7	7	10	75	70	52	55	33	36	44	32	46	58	68	75	83	45	102	40
22	54	46	39	85	40	35	16	13	7	6	6	6	7	15	21	5	5	5	6	8	8	7	7	5	19
23	5	5	4	4	3	2	3	2	2	4	4	5	5	5	6	6	6	5	5	5	5	4	4	M	4
24	6	7	9	9	7	8	6	4	4	5	4	5	5	6	8	8	8	7	6	8	9	8	9	7	7
25	6	8	8	8	9	7	7	6	7	8	9	9	7	7	5	5	5	5	5	6	6	5	7	6	7
26	4	4	6	7	6	5	5	7	7	8	8	9	9	9	9	10	10	9	9	13	11	9	9	9	8
27	9	8	9	9	10	9	10	13	14	10	9	9	13	15	15	10	5	4	3	4	3	4	4	5	9
28	5	4	5	6	5	6	7	8	7	8	7	6	5	5	4	4	5	4	5	3	3	4	2	4	5
29	4	4	5	4	4	3	4	5	7	9	8	9	10	8	6	6	5	5	5	4	6	8	7	9	6
30	6	6	5	5	5	5	4	5	4	4	4	5	5	5	6	5	3	4	5	5	9	7	8	8	5
31	6	6	6	6	5	5	9	7	6	6	6	6	5	5	5	4	4	4	4	8	9	11	14	15	7

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										RANGE-----		STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE OBJECTIVE		
7	7	9	7	12	16	41	57	0	-	102	3	-	40	2	100	24-HR
																0

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

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

STATION : CHUNG HOM KOK ZONE SUBSTATION
POLLUTANT : NITROGEN DIOXIDE

MONTH:OCTOBER

YEAR :2014

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	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	1	1	0	0	0	2	1	1
2	0	0	0	1	0	0	0	0	0	4	1	10	6	4	6	5	7	18	26	10	3	0	16	9	5
3	7	9	16	0	3	1	4	22	30	9	7	1	1	0	4	0	5	11	13	5	0	1	0	1	6
4	0	0	0	0	0	0	1	0	2	5	2	1	2	1	1	3	6	6	3	1	3	1	0	0	2
5	0	1	1	0	0	0	0	0	2	1	1	2	7	6	3	4	9	7	0	1	1	0	0	1	2
6	0	0	0	0	0	0	0	4	6	6	2	1	0	0	0	1	1	1	1	0	0	0	0	4	1
7	2	0	0	0	2	1	6	13	11	11	5	5	5	5	7	7	8	6	1	1	2	2	1	2	4
8	0	M	1	2	1	1	2	7	6	6	5	9	7	4	9	10	7	6	2	5	4	1	0	4	4
9	5	1	5	17	1	5	17	24	20	11	17	14	10	12	16	13	17	23	5	2	6	3	0	5	10
10	0	0	0	6	8	3	5	4	10	17	22	19	1	4	7	10	10	9	16	20	21	11	9	10	9
11	8	5	3	2	2	2	3	7	10	14	8	5	6	9	6	8	15	24	27	21	24	18	12	4	10
12	3	1	0	0	1	1	0	1	0	1	4	3	2	5	18	25	26	12	22	17	11	7	3	2	7
13	0	0	0	0	0	0	2	7	10	12	25	11	3	6	6	4	5	7	9	6	0	0	0	4	5
14	7	4	1	0	0	0	0	4	7	7	6	4	9	6	8	10	7	3	0	0	0	3	7	1	4
15	2	0	0	0	0	0	1	7	8	8	8	2	4	5	2	3	6	6	4	10	4	4	2	1	4
16	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	0	1	2	0	0	2	0	0	1	0
17	0	0	0	0	0	0	0	4	3	3	4	4	4	5	4	5	8	8	2	0	1	1	2	2	3
18	0	0	0	0	0	0	0	1	1	0	0	0	0	1	3	1	3	4	3	3	0	1	0	0	1
19	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	2	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	1	1	3	0	0	5	1	1	0	1
21	0	0	0	0	0	0	2	10	13	55	60	47	48	32	38	47	38	44	36	45	62	95	100	82	36
22	49	M	79	86	81	82	32	9	4	17	19	16	18	23	23	7	6	8	14	4	3	1	1	0	25
23	0	0	0	0	0	0	0	1	0	0	2	2	1	2	1	2	3	1	1	1	0	0	1	M	1
24	0	0	0	0	0	0	0	0	0	1	1	1	1	2	2	5	4	3	0	1	2	1	2	1	1
25	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
26	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	5	5	0	0	1	0	0	0	0	1
27	0	0	0	0	0	0	0	6	9	2	0	1	0	0	1	1	0	0	0	0	0	0	0	0	1
28	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	1	1	0	0	0
30	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	1	1	4	2	2	1	1	0	1
31	0	0	0	0	0	0	1	1	0	0	0	1	0	0	2	0	2	5	0	3	1	2	1	5	1

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										RANGE-----		STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE OBJECTIVE		
4	1	5	1	11	21	44	61	0	-	100	0	-	36	3	100	0

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

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

STATION : CHUNG HOM KOK ZONE SUBSTATION
POLLUTANT : SULPHUR DIOXIDE

MONTH: NOVEMBER

YEAR : 2014

UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	12	11	6	5	7	9	4	6	9	7	10	7	8	6	9	6	15	23	21	16	22	14	12	10	11
2	8	6	5	6	5	6	6	8	6	6	7	8	6	7	7	8	7	8	7	7	7	5	5	7	7
3	8	9	9	9	11	11	13	15	13	13	11	10	10	11	12	12	14	14	14	15	13	12	9	7	11
4	7	8	9	10	14	14	13	11	10	10	10	10	11	12	13	12	12	12	13	13	16	14	14	12	12
5	14	13	12	11	11	10	14	11	8	9	11	12	11	10	10	9	8	8	9	10	10	11	11	11	11
6	12	11	9	10	11	13	11	12	11	10	10	11	12	12	13	13	13	11	13	13	11	11	10	14	12
7	11	8	7	7	8	8	8	9	10	11	11	11	12	10	10	10	9	9	9	8	10	10	11	10	9
8	10	11	10	11	11	11	12	11	11	11	11	10	10	10	10	10	9	10	10	10	10	10	10	11	10
9	11	12	11	11	12	12	12	12	12	13	14	15	14	14	14	14	16	16	16	17	16	15	15	13	14
10	12	12	13	13	12	13	14	13	14	16	15	15	17	16	16	16	16	16	16	17	17	17	19	18	15
11	18	18	19	18	20	20	19	18	19	21	21	21	21	22	22	24	25	25	23	25	23	23	24	24	21
12	24	25	25	25	24	22	22	22	21	21	M	M	M	M	M	14	14	16	19	17	16	17	16	20	
13	16	16	16	16	16	17	17	19	18	17	18	18	18	18	20	19	20	20	19	19	19	19	19	19	18
14	20	22	21	21	21	22	23	22	22	22	22	25	24	21	21	20	20	21	21	22	20	20	21	20	21
15	19	19	19	19	19	20	20	22	22	21	19	19	19	19	18	19	22	20	19	21	21	20	20	24	20
16	23	24	24	24	23	21	21	20	20	26	24	23	21	22	23	25	21	21	22	24	22	23	23	25	23
17	25	25	24	23	21	21	20	21	21	23	21	21	21	19	19	19	20	22	21	21	20	19	18	21	21
18	21	21	21	21	23	23	22	23	23	21	21	22	21	21	21	21	21	22	23	23	23	22	21	22	22
19	21	22	23	22	22	21	23	24	24	26	M	9	M	8	7	7	8	6	6	5	6	4	3	4	14
20	5	5	3	4	3	4	3	4	5	5	5	5	5	5	4	4	5	4	3	4	4	3	2	2	4
21	2	3	3	3	2	4	3	4	4	4	6	6	4	4	3	3	3	3	4	6	9	11	10	12	5
22	7	7	7	6	6	7	8	9	8	8	6	6	8	5	5	3	5	7	5	3	3	4	3	2	6
23	1	1	1	1	1	1	2	2	2	2	3	4	4	5	6	5	5	3	3	2	4	5	4	4	3
24	5	4	4	4	4	5	7	9	9	8	7	6	5	5	5	6	5	6	5	3	5	18	14	8	7
25	15	7	1	0	1	2	0	0	2	26	2	11	10	11	39	30	38	33	35	28	51	26	18	26	17
26	36	39	39	48	49	34	19	13	8	6	7	5	7	5	6	5	4	4	4	3	5	4	3	2	15
27	3	2	2	3	2	3	1	2	2	3	3	4	2	2	3	3	5	5	4	5	5	3	2	1	3
28	2	2	3	5	4	3	5	8	6	7	9	8	8	6	7	6	5	5	7	9	10	8	8	5	6
29	7	9	7	5	3	2	2	2	3	3	6	6	4	1	2	2	1	1	0	0	1	1	0	0	3
30	0	0	0	0	1	1	1	0	0	0	1	0	0	0	1	1	1	1	0	0	2	2	3	3	1

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----							-----RANGE-----					STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR			DEVIATION	VALID DATA	ABOVE OBJECTIVE	
9	11	12	11	22	24	26	36	0	-	51	1	-	23	2	99	0

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

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

STATION : CHUNG HOM KOK ZONE SUBSTATION
POLLUTANT : NITROGEN DIOXIDE

MONTH: NOVEMBER

YEAR : 2014

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	8	0	3	8	4	4	1	1	1	1	3	17	35	10	0	5	0	2	0	4	
2	0	0	0	0	0	0	0	0	0	0	5	4	0	4	4	8	12	13	8	3	4	2	1	7	3	
3	6	6	2	5	1	2	7	9	16	30	24	24	11	6	7	8	14	20	24	18	12	4	1	1	11	
4	0	0	0	0	0	1	1	1	2	2	2	3	2	5	4	7	9	5	4	5	6	1	2	1	3	
5	0	M	0	0	0	0	4	6	5	4	6	1	1	2	3	4	3	6	3	1	3	0	3	6	3	
6	3	1	0	1	1	1	0	2	6	3	6	3	1	2	7	15	17	10	7	6	4	2	4	3	4	
7	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	1	0	0	0	0	0	0	0	0	
8	0	0	0	0	0	0	0	0	2	1	8	11	5	5	7	3	2	1	0	1	0	1	0	1	30	3
9	36	31	18	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
10	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	2	0	0	2	0	2	0	0	1	0	
11	0	0	0	0	0	0	0	1	1	2	4	0	0	1	1	5	0	0	0	0	0	0	0	0	2	1
12	6	1	0	0	0	0	0	0	0	3	2	2	4	5	28	30	15	11	22	52	34	13	9	1	10	
13	3	0	2	0	0	0	0	7	20	4	3	2	1	3	4	10	8	20	11	2	1	1	2	3	4	
14	3	2	1	0	0	1	2	6	8	7	9	15	13	7	5	4	9	5	3	2	2	1	1	1	4	
15	0	0	0	0	0	0	0	0	0	2	1	0	0	1	0	1	2	2	0	0	0	0	0	0	0	
16	4	1	2	4	2	0	0	4	9	13	9	7	4	6	9	21	14	5	9	27	11	13	10	5	8	
17	2	0	0	0	0	0	0	4	8	16	21	4	0	0	2	10	17	15	14	7	6	2	4	11	6	
18	9	4	1	1	5	5	5	12	10	7	3	8	6	7	6	8	8	10	7	9	9	7	5	6	7	
19	5	M	1	0	0	0	4	9	10	11	M	8	M	7	8	13	10	1	0	0	1	0	0	5	4	
20	5	4	2	1	0	1	2	5	6	4	3	3	4	3	4	5	8	7	4	3	3	3	2	0	3	
21	0	0	0	0	0	0	0	1	3	5	1	1	1	0	5	3	5	1	1	1	1	2	4	9	2	
22	5	4	4	3	0	2	5	6	6	1	1	0	1	1	3	1	7	8	4	3	1	1	1	0	3	
23	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4	6	1	1	0	2	3	1	1	1	
24	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	1	0	2	0	0	2	17	12	8	2	
25	16	2	0	0	0	0	0	5	12	27	4	5	7	11	29	32	50	55	50	42	64	89	94	83	28	
26	118	127	113	117	117	105	53	21	8	3	3	1	1	5	6	8	5	5	3	1	5	6	1	0	35	
27	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	4	5	2	0	0	1	0	0	0	1	
28	0	0	0	1	0	0	1	5	2	2	2	4	4	3	3	1	2	5	7	8	4	6	9	2	3	
29	1	0	0	0	0	0	0	0	2	2	9	9	10	4	2	2	0	2	1	0	1	1	0	2	2	
30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4	3	9	4	0	0	2	0	0	1	1	

MONTHLY STATISTICS:

GEOM	ARITH ----- PERCENTILES -----							----- RANGE -----					STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR			DEVIATION	VALID DATA	ABOVE OBJECTIVE	
4	1	5	1	11	20	48	88	0	-	127	0	-	35	3	99	0

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

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

STATION : CHUNG HOM KOK ZONE SUBSTATION
POLLUTANT : SULPHUR DIOXIDE

MONTH: DECEMBER

YEAR : 2014

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	8	3	3	2	2	2	9	5	3	3	2	2	2	4	3	3	3	2	1	0	1	3	
2	1	2	1	2	3	4	5	6	5	5	5	4	5	5	4	4	3	3	3	3	3	3	3	2	4	
3	3	3	2	3	2	4	2	3	2	2	2	2	2	2	2	2	1	1	1	1	3	4	1	0	2	
4	0	1	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	1	1	1	2	1	3	1	
5	3	3	4	4	5	5	5	6	6	6	7	7	7	6	6	7	8	7	7	8	12	11	10	9	7	
6	9	10	9	10	10	10	9	10	11	12	12	10	10	8	6	5	5	5	5	4	4	3	3	3	8	
7	4	4	4	4	5	6	9	9	8	8	8	7	6	6	7	7	11	9	9	10	9	9	9	9	7	
8	9	10	11	8	7	5	5	5	8	7	7	7	7	6	6	7	7	8	8	7	5	4	4	5	7	
9	5	5	5	5	7	6	7	9	8	9	11	11	9	8	8	T	8	9	8	6	6	6	5	3	7	
10	4	5	5	5	6	7	8	9	5	5	5	4	4	4	4	4	6	20	20	26	41	38	29	14	12	
11	10	7	8	11	10	11	11	12	14	13	13	D	D	20	22	22	17	13	17	17	16	17	16	10	14	
12	11	10	10	9	7	7	6	8	7	6	8	9	10	10	10	10	11	12	14	16	17	17	17	17	11	
13	18	17	15	15	13	12	12	12	12	12	11	12	11	9	10	10	10	10	12	14	14	14	12	15	14	13
14	14	14	14	14	13	13	14	14	15	16	16	14	12	12	11	13	13	13	11	9	10	9	6	6	12	
15	6	4	5	5	8	8	9	8	8	8	7	7	8	8	7	6	6	4	5	5	12	31	20	19	9	
16	18	13	18	27	24	20	18	18	17	10	8	8	9	11	13	18	19	21	25	30	33	32	32	26	20	
17	24	21	19	17	14	13	13	13	12	12	11	10	11	9	9	8	8	9	11	10	10	11	9	9	12	
18	10	10	10	10	11	13	13	14	14	13	12	12	12	10	9	10	9	9	10	9	10	10	10	9	11	
19	9	10	11	8	7	5	2	1	2	2	3	4	4	2	1	1	2	1	1	2	1	1	2	2	4	
20	3	3	3	5	8	10	10	12	10	10	8	5	4	4	5	5	5	5	5	12	4	4	4	2	6	
21	2	3	3	3	4	7	7	8	10	9	10	12	13	14	12	9	10	13	14	16	19	22	23	24	11	
22	22	21	20	20	20	20	18	18	17	16	16	15	14	12	13	14	13	12	13	13	13	14	13	13	16	
23	13	13	13	13	12	13	14	16	14	11	11	13	13	10	8	7	6	5	5	4	5	4	4	36	11	
24	4	1	5	5	1	0	0	0	0	0	0	0	0	1	0	0	1	1	2	4	4	5	4	4	2	
25	5	6	5	5	6	6	10	14	11	8	5	3	2	2	2	2	1	1	1	1	1	2	1	1	4	
26	1	0	0	1	1	0	1	1	2	2	2	3	4	3	3	3	2	2	3	4	5	5	5	5	2	
27	7	7	6	6	7	6	6	6	6	5	3	1	1	2	2	1	1	2	2	1	2	2	1	1	4	
28	0	1	1	2	2	2	2	1	2	3	2	3	3	3	3	3	4	6	7	7	7	6	5	6	3	
29	6	7	6	5	4	4	4	4	4	4	3	2	2	2	3	2	3	3	4	2	3	4	8	6	4	
30	6	5	4	5	5	4	5	6	9	7	4	5	6	6	6	6	8	5	8	9	6	6	7	8	6	
31	6	6	6	6	9	12	12	11	11	48	91	74	17	9	8	10	9	23	37	48	42	16	9	11	22	

MONTHLY STATISTICS:

GEOM	ARITH ----- PERCENTILES -----										----- RANGE -----				STN GEOM	PERCENT	NO. OF TIMES
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE OBJECTIVE			
6	7	8	7	16	20	27	37	0	-	91	1	-	22	2	100	0	

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

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

STATION : CHUNG HOM KOK ZONE SUBSTATION
 POLLUTANT : NITROGEN DIOXIDE

MONTH:DECEMBER

YEAR :2014

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	6	0	0	0	3	11	36	36	30	34	28	19	20	29	30	33	18	3	1	0	1	14
2	3	1	0	0	0	0	2	5	6	7	7	6	8	9	11	12	11	13	9	8	8	6	6	4	6
3	1	M	0	1	1	3	1	3	1	1	1	3	1	2	2	5	4	3	3	1	2	5	4	25	3
4	35	42	19	3	0	1	2	9	23	31	24	19	8	16	14	24	21	34	29	12	8	6	1	1	16
5	2	1	0	0	0	1	2	7	7	4	7	8	8	7	13	9	9	14	14	11	14	17	13	11	7
6	10	9	8	7	6	8	5	5	9	7	6	4	4	4	4	3	3	3	3	2	3	2	2	3	5
7	2	1	1	1	2	3	4	6	4	5	4	7	9	15	12	13	19	16	12	14	11	9	10	6	8
8	5	6	4	2	3	3	3	9	33	15	7	5	6	4	6	7	5	9	7	6	5	3	3	5	7
9	5	3	2	2	3	3	5	11	13	12	13	10	8	8	9	T	8	10	8	7	5	6	5	3	7
10	2	2	3	5	5	6	8	10	8	8	13	12	12	10	12	16	21	56	82	98	125	123	112	47	33
11	31	15	6	7	5	4	10	27	34	46	61	D	D	55	58	68	63	51	50	48	55	50	35	27	37
12	25	32	24	14	13	13	18	27	37	36	30	25	22	24	28	28	35	40	40	32	23	19	15	21	26
13	24	19	13	11	9	8	10	12	17	19	12	13	15	12	14	13	14	9	13	16	20	20	17	12	14
14	13	19	18	15	15	13	12	13	15	19	18	18	17	17	14	18	20	17	11	10	14	13	10	9	15
15	10	8	8	10	10	11	11	18	22	20	19	17	17	21	16	20	33	25	22	30	65	95	105	112	30
16	114	90	40	35	18	14	14	16	18	19	29	31	24	19	23	27	26	20	19	18	18	17	16	11	28
17	9	M	6	6	6	6	7	10	11	14	13	11	12	14	13	16	16	22	27	19	16	17	10	11	13
18	11	10	8	8	8	9	12	18	19	18	19	21	21	18	19	20	23	28	24	16	16	20	21	15	17
19	13	12	15	13	12	11	11	16	27	52	64	73	73	63	51	49	64	51	64	60	49	21	13	8	37
20	7	9	10	7	6	7	10	20	30	27	20	13	11	8	9	10	11	11	10	27	13	10	10	7	13
21	7	7	8	8	8	8	13	12	13	14	17	15	19	17	16	18	18	19	17	13	14	14	14	14	13
22	13	10	8	9	9	9	11	18	21	15	14	16	14	12	13	14	12	11	14	15	15	16	16	14	13
23	13	12	12	13	14	14	17	22	21	24	24	29	28	24	23	23	30	25	25	16	18	15	13	61	22
24	19	11	21	21	10	8	7	9	10	8	9	14	18	14	13	12	16	15	15	10	8	11	9	7	12
25	9	10	8	7	7	8	11	15	13	13	13	11	9	10	10	12	13	13	13	10	12	10	11	11	11
26	9	8	10	9	8	7	7	9	9	9	10	10	10	10	11	10	11	10	11	11	12	12	11	9	10
27	9	9	8	9	10	9	10	10	11	10	9	11	16	16	20	22	23	27	28	22	20	18	21	25	16
28	34	35	38	30	24	23	16	19	24	33	31	27	26	23	28	24	28	28	26	20	23	24	22	21	26
29	19	14	11	12	12	14	14	18	22	22	25	19	17	9	12	12	15	24	14	6	10	10	14	11	15
30	10	8	9	9	8	10	7	19	35	34	20	18	12	12	13	12	16	12	9	11	10	12	16	17	14
31	11	M	10	9	8	9	13	14	34	86	104	98	33	15	18	19	29	31	48	85	91	27	14	15	36

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										-----RANGE-----				STN GEOM	PERCENT	NO. OF TIMES
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE OBJECTIVE			
12	13	17	13	31	49	75	98	0	-	125	3	-	37	2	99	0	

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

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

STATION : VICTORIA ROAD SUBSTATION
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2014
UNIT : MICROGRAMS/CUBIC METER

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

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										RANGE-----		STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE OBJECTIVE		
2	1	2	1	4	5	10	12	0	-	24	0	-	9	2	100	0

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

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

STATION : VICTORIA ROAD SUBSTATION
POLLUTANT : NITROGEN DIOXIDE

YEAR : 2014
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	9	1	0	0	0	1	2	3	2	2	2	3	4	4	3	2	3	3	6	4	3	2	4	3
2	2	0	0	0	0	1	5	9	8	19	22	16	12	12	6	10	11	13	15	13	15	9	16	13	9
3	6	5	3	3	1	4	14	21	26	29	28	20	14	13	16	11	21	14	14	10	6	4	3	6	12
4	3	1	1	0	0	1	9	11	9	16	14	17	11	10	8	9	7	9	13	8	6	7	6	8	8
5	6	4	3	1	0	0	3	4	4	5	5	7	6	6	10	5	9	9	8	7	6	4	6	8	5
6	6	4	1	0	0	0	7	14	18	17	16	11	9	8	8	8	10	10	14	14	13	9	7	8	9
7	4	2	1	2	1	3	7	12	13	13	12	12	9	8	9	11	14	13	14	11	10	11	11	12	9
8	8	M	3	2	1	3	7	13	15	15	15	13	10	9	10	16	15	15	12	8	7	6	9	21	10
9	17	16	24	14	8	14	13	22	29	26	21	22	33	18	11	13	13	16	17	17	21	16	14	14	18
10	9	3	0	5	5	2	10	19	24	28	27	20	19	15	23	19	23	26	29	15	13	13	22	23	16
11	14	8	4	3	1	2	9	12	14	20	19	15	13	16	15	18	17	16	24	37	37	36	26	20	17
12	14	9	9	13	17	3	4	5	3	5	3	4	6	6	9	11	12	14	17	15	12	13	11	8	9
13	3	1	0	0	0	0	3	10	14	17	16	13	14	11	8	13	12	12	10	8	8	10	7	14	9
14	13	9	3	1	0	1	6	15	14	15	10	10	10	11	11	12	14	19	17	30	42	33	27	22	14
15	18	7	5	4	2	4	8	16	17	20	16	12	12	11	12	11	14	11	9	7	6	5	4	3	10
16	1	0	0	0	0	1	5	9	9	7	8	6	6	5	5	9	9	9	8	5	3	2	1	2	5
17	0	0	0	0	0	0	2	5	8	7	6	8	9	11	14	D	29	20	16	13	11	7	6	4	8
18	1	0	0	0	0	0	3	4	4	5	5	5	6	7	9	9	13	16	10	7	4	4	2	3	5
19	2	0	0	0	0	0	0	1	1	1	2	2	2	3	3	4	8	9	10	15	21	18	14	8	5
20	3	1	0	0	0	0	2	5	6	5	5	6	4	6	7	11	12	14	24	26	21	19	16	22	9
21	19	12	10	10	5	7	9	18	22	28	18	21	27	31	29	25	23	33	44	29	25	13	14	25	21
22	24	M	28	28	30	31	26	23	22	18	15	19	16	19	24	22	23	24	24	19	11	8	7	7	20
23	4	1	0	0	0	0	2	4	6	8	6	4	5	5	6	7	8	8	9	8	7	8	4	4	5
24	2	1	1	0	0	1	3	7	7	7	6	7	9	10	10	13	12	14	12	10	9	9	5	5	7
25	3	1	1	0	0	0	2	4	4	5	6	4	4	4	8	9	11	12	13	15	13	6	7	5	6
26	2	0	0	0	0	0	0	2	4	4	4	4	4	6	6	8	14	18	24	25	28	25	15	14	9
27	9	3	2	1	1	8	10	24	24	11	9	7	6	7	8	11	10	7	4	1	2	2	1	3	7
28	2	0	0	0	0	0	2	5	5	5	5	4	4	5	6	6	7	8	6	5	4	2	1	2	4
29	1	0	0	0	0	0	1	5	7	6	6	6	7	6	8	8	7	10	9	8	5	5	4	2	5
30	0	0	0	0	0	0	1	4	4	5	5	4	5	5	5	9	10	7	M	5	4	7	5	5	4
31	3	0	0	0	0	0	2	7	7	7	6	5	5	1	2	5	6	16	18	21	17	18	9	14	7

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										RANGE-----		STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE OBJECTIVE		
8	7	9	7	20	25	29	32	0	-	44	3	-	21	2	99	1-HR
																0

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

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

STATION : VICTORIA ROAD SUBSTATION
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2014
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	1	1	2	17	5	5	2	8	4	7	5	3	3	3	2	2	2	2	2	3
2	1	1	0	0	0	0	0	0	0	0	1	2	1	1	0	1	1	1	1	1	1	1	1	1	1
3	1	2	1	2	2	2	2	2	2	3	2	2	3	3	3	3	2	2	2	3	3	2	1	1	2
4	0	0	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1
5	1	1	1	1	0	1	1	1	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0
6	0	1	1	1	1	1	1	1	2	3	6	2	1	1	1	1	1	1	1	1	1	0	0	1	1
7	0	0	0	0	0	0	0	0	0	0	0	1	1	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	1	1	2	2	4	4	3	3	1
9	2	3	5	5	3	2	2	2	3	2	1	1	1	1	1	1	1	1	1	1	1	0	0	1	2
10	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	1	0	0	0
11	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	2	2	2	1	1	1	1	1
12	1	1	1	1	1	1	1	1	2	1	4	4	4	4	5	5	6	3	4	4	2	2	1	1	3
13	1	1	1	0	0	0	0	1	1	2	2	2	2	1	1	1	1	2	2	2	1	1	1	1	1
14	1	1	1	1	1	1	1	1	1	1	2	2	1	1	2	2	1	1	1	1	1	1	0	1	1
15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1
16	1	1	1	1	1	2	2	2	4	4	9	8	3	4	2	3	3	1	1	2	4	3	2	2	3
17	2	2	2	2	2	1	1	1	2	4	4	2	2	1	1	1	1	1	1	2	2	1	1	1	2
18	1	1	1	1	1	1	1	2	2	2	2	1	1	1	3	5	5	4	3	3	3	2	1	1	2
19	1	1	0	1	1	1	1	1	2	2	2	3	6	4	6	8	4	2	2	2	2	1	1	1	2
20	1	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1
21	0	0	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
22	1	1	1	1	1	1	1	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	0	0	1
23	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	1	0	1	0
24	0	0	0	0	0	0	1	1	1	2	1	1	0	1	1	1	1	1	0	0	1	1	1	1	1
25	1	1	1	1	0	0	0	1	3	11	15	8	11	9	9	8	5	5	4	3	4	6	6	5	5
26	8	10	9	7	7	6	6	4	3	2	2	2	2	1	1	1	1	1	1	1	1	0	0	0	3
27	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1	0	1	0	1	1	0	0	0	0
28	0	0	0	0	0	0	0	0	1	1	1	3	2	1	3	2	1	1	2	4	2	2	2	1	1
29	1	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0	1	4	5	5	4	5	3	2	4	3	3	5	2

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----									RANGE-----		STN GEOM	PERCENT	NO. OF TIMES		
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	ABOVE OBJECTIVE				
2	1	1	1	3	5	8	9	0	-	17	0	-	5	2	100	0

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

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

STATION : VICTORIA ROAD SUBSTATION
POLLUTANT : NITROGEN DIOXIDE

YEAR : 2014
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	11	7	6	6	5	7	13	17	18	9	9	4	13	7	14	7	8	13	23	25	27	30	27	19	14
2	10	3	1	0	0	0	4	4	3	5	7	6	6	6	6	6	7	10	9	11	8	6	7	7	6
3	4	3	1	1	0	0	2	8	11	15	15	14	16	14	16	23	18	23	17	24	16	13	9	5	11
4	5	1	0	0	0	0	2	5	6	6	7	7	8	8	10	12	14	14	13	9	7	8	6	6	6
5	4	M	2	2	1	1	4	7	7	6	7	7	7	8	9	9	10	10	11	10	11	11	9	7	7
6	7	3	2	1	2	3	10	16	19	20	23	13	10	7	7	9	13	15	14	13	10	8	7	8	10
7	5	3	2	1	1	1	2	5	6	6	7	7	7	6	7	8	9	7	8	7	6	6	6	7	5
8	6	4	3	1	1	1	6	11	14	15	14	16	17	15	20	17	21	28	30	23	21	20	17	15	14
9	14	13	11	11	9	6	8	11	12	8	7	7	7	5	5	6	7	8	10	7	7	5	5	5	8
10	3	2	1	1	1	1	4	7	6	6	5	5	6	7	8	9	13	15	12	10	8	6	5	5	6
11	3	2	1	1	1	1	5	6	8	9	8	14	13	12	12	20	27	28	31	29	17	11	11	12	12
12	12	9	7	4	4	4	10	17	20	18	17	12	13	14	18	19	23	25	20	18	17	13	10	10	14
13	7	4	2	1	0	0	3	8	11	13	14	13	14	14	14	16	20	20	21	17	17	16	12	14	11
14	12	10	6	3	5	6	4	9	11	13	14	15	15	14	14	21	23	25	29	21	12	7	6	6	13
15	4	3	2	2	2	2	4	7	10	13	13	12	10	8	8	9	12	16	17	16	13	10	12	15	9
16	12	9	5	4	4	7	13	13	17	14	19	23	14	15	9	10	13	11	26	29	34	21	20	14	15
17	11	6	4	2	2	3	6	11	14	16	15	13	14	10	13	14	25	22	22	21	19	14	13	16	13
18	9	9	6	4	4	3	7	13	12	14	14	13	11	15	24	24	29	26	24	20	20	14	12	11	14
19	10	M	5	3	3	4	7	13	13	18	16	22	33	28	41	41	29	32	48	40	16	13	12	7	20
20	5	4	2	2	2	3	5	10	15	14	14	11	13	13	15	19	18	16	13	11	9	7	6	5	10
21	3	2	1	1	1	1	4	9	10	14	12	11	11	12	15	23	19	19	22	28	24	26	23	22	13
22	14	9	6	5	3	4	11	16	12	11	11	8	7	7	10	9	10	11	11	10	9	7	6	5	9
23	3	2	0	0	1	1	1	2	3	3	4	5	4	5	5	5	8	7	8	14	10	8	7	7	5
24	5	1	0	0	0	1	4	7	11	12	10	10	10	12	10	12	12	10	11	10	14	11	9	14	8
25	11	10	5	7	0	0	7	15	14	15	22	24	19	17	17	21	21	27	34	31	25	25	22	22	17
26	34	37	38	36	40	35	35	26	18	14	11	9	8	7	9	11	12	10	11	9	8	8	5	5	18
27	3	3	2	2	2	2	5	10	13	14	14	15	14	13	13	12	14	14	10	8	7	5	4	5	9
28	3	2	1	1	0	1	4	8	9	9	10	25	16	13	17	14	12	16	15	19	17	8	8	9	10
29	6	3	0	0	0	0	1	2	3	6	5	6	9	7	5	8	6	6	5	3	3	3	2	3	4
30	1	0	0	0	0	0	1	1	1	1	2	4	4	10	10	12	13	20	14	17	15	16	13	18	7

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										RANGE-----		STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE OBJECTIVE		
8	9	11	9	21	25	32	36	0	-	48	4	-	20	2	100	0

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

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

STATION : VICTORIA ROAD SUBSTATION
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2014
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	6	8	7	3	2	2	2	1	2	3	2	3	3	2	2	1	2	1	2	2	1	0	1	3
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1
3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	1	2	1	1	0	0	0	0	0	0	0	0	0	0	1	0	M	1	1	1	1	0	0	1	0
5	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	1	1	2	1	1	2	3	2	3	2
6	3	3	3	2	2	3	2	2	3	3	3	3	2	2	2	1	1	1	1	1	1	1	1	1	2
7	1	1	1	1	1	1	1	1	2	2	2	1	2	1	1	2	2	2	2	3	3	2	3	2	2
8	2	2	2	1	1	1	1	1	2	3	4	5	3	2	1	2	1	1	1	1	1	1	1	1	2
9	1	1	0	0	0	1	1	1	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1
10	1	1	1	1	1	1	2	1	1	1	1	5	4	9	8	9	8	7	6	8	8	10	10	5	5
11	4	3	3	2	2	2	2	2	3	3	3	5	4	3	4	4	3	3	4	6	4	3	3	3	3
12	3	3	2	2	2	2	1	2	2	2	2	1	2	2	2	2	2	2	3	3	3	3	3	3	2
13	3	3	3	3	3	3	3	3	4	3	2	2	3	3	5	5	3	2	2	2	2	3	3	3	3
14	2	2	2	2	2	2	2	2	3	2	3	5	6	4	3	2	2	3	2	2	2	2	1	1	2
15	1	1	1	1	1	1	1	2	2	2	2	2	2	2	7	7	11	9	8	15	13	8	8	6	5
16	6	6	6	6	5	5	4	3	4	2	1	1	1	1	2	2	3	4	4	5	5	5	5	4	4
17	4	4	3	3	2	1	1	2	2	2	2	1	1	1	1	2	2	2	3	3	3	2	2	2	2
18	2	3	2	2	2	2	2	3	4	4	3	3	3	2	2	2	2	3	2	2	2	3	2	2	2
19	1	2	2	2	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	1	1	1	2
20	1	2	1	1	2	2	2	2	3	4	3	3	1	1	1	1	1	1	1	2	1	1	1	1	2
21	0	1	1	0	1	1	3	2	2	2	2	3	3	2	2	2	2	2	2	2	3	3	3	4	2
22	3	3	3	4	3	3	3	2	3	3	3	2	3	3	2	2	2	2	2	2	2	3	2	2	3
23	2	2	2	2	2	2	2	3	3	2	D	D	4	3	3	3	3	2	3	3	3	4	4	4	3
24	4	5	3	3	3	3	3	4	5	8	9	9	9	10	2	1	1	1	1	5	4	4	4	2	4
25	2	1	1	1	2	2	2	2	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
26	1	1	1	1	1	0	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1
28	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	2	2	2	2	2	2	2	2	2	2
29	2	2	1	1	1	2	1	2	2	3	2	2	2	2	3	2	2	1	1	1	2	1	1	2	2
30	2	1	1	1	1	1	3	5	8	10	12	12	4	2	2	2	2	2	2	2	2	2	2	1	3
31	1	1	1	1	1	1	2	2	4	8	9	12	14	13	10	5	6	9	8	6	7	6	3	2	6

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										RANGE-----		STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE OBJECTIVE		
2	2	2	2	4	7	9	11	0	-	15	0	-	6	2	100	24-HR
																0

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

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

STATION : VICTORIA ROAD SUBSTATION
POLLUTANT : NITROGEN DIOXIDE

YEAR : 2014
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	16	14	11	2	2	3	8	10	14	11	13	12	10	10	11	14	16	17	17	13	8	5	9	11
2	6	2	0	0	0	0	2	5	8	8	7	7	7	8	9	10	11	12	12	10	10	6	6	5	6
3	3	M	1	0	0	1	3	6	7	8	8	8	7	8	9	12	13	15	14	13	13	13	9	17	8
4	18	15	9	3	1	1	2	7	12	16	17	15	13	12	16	18	M	19	19	18	18	14	13	14	13
5	15	8	7	4	4	4	7	12	16	21	22	20	18	22	22	19	23	28	27	24	26	23	20	18	17
6	17	12	8	6	5	5	7	10	13	13	12	12	11	11	11	12	12	11	10	9	8	7	7	5	10
7	4	3	2	2	1	2	3	4	5	7	9	7	11	9	10	14	13	15	14	19	18	18	18	18	9
8	15	10	6	4	3	1	4	10	13	15	15	17	16	15	13	17	11	17	29	24	16	9	7	6	12
9	5	4	3	3	3	3	6	11	12	13	16	14	14	14	11	12	21	22	17	12	10	9	8	7	10
10	6	5	3	2	2	3	7	13	17	19	25	28	31	38	37	38	41	39	40	42	46	52	49	30	26
11	25	15	13	9	6	7	8	15	24	21	21	25	23	24	29	32	37	40	43	40	29	25	24	27	23
12	23	14	8	5	3	3	4	10	16	13	13	14	12	13	15	20	20	20	23	20	21	15	14	17	14
13	16	14	10	8	6	6	8	11	14	16	17	18	19	20	28	26	22	27	33	34	34	31	23	30	20
14	20	19	13	10	10	9	11	12	14	14	17	20	21	17	15	17	17	19	17	19	17	14	13	11	15
15	10	8	6	5	5	6	10	15	19	21	22	23	21	22	31	36	43	42	45	42	43	43	44	37	25
16	40	35	35	21	19	14	11	16	17	19	18	16	15	16	18	18	19	22	21	17	15	13	12	12	19
17	11	M	8	6	5	5	7	11	15	16	17	17	16	16	19	21	23	25	29	29	28	21	18	23	17
18	19	15	13	10	10	12	15	22	27	28	27	25	24	24	29	30	35	38	39	33	29	28	25	19	24
19	17	13	12	11	12	12	13	20	27	32	32	31	35	34	35	38	39	41	38	38	30	26	29	25	27
20	26	25	19	12	8	7	8	13	24	28	30	32	20	15	15	14	13	14	15	18	14	11	11	9	17
21	7	8	7	6	7	9	16	16	15	13	13	15	14	14	15	15	14	15	14	15	14	12	13	15	13
22	12	10	8	6	5	5	7	14	21	23	22	19	16	13	14	14	16	27	32	26	25	21	19	16	16
23	14	11	10	10	8	8	12	15	21	25	D	D	39	33	32	32	36	42	48	47	45	41	44	39	28
24	38	40	37	29	31	30	32	37	39	49	47	45	46	52	37	32	27	25	24	37	33	34	33	23	36
25	27	21	21	18	18	19	20	21	22	24	24	25	25	25	26	26	27	25	24	24	24	22	22	20	23
26	20	19	17	15	16	17	19	20	20	20	21	20	20	22	23	23	23	25	24	24	24	23	22	21	21
27	21	19	18	18	17	17	19	19	21	23	24	24	25	23	24	28	32	33	33	31	32	29	27	24	24
28	24	23	22	22	20	18	20	20	19	20	20	21	24	26	26	28	28	28	27	25	23	22	21	21	23
29	21	19	16	15	14	16	19	23	28	33	33	33	33	34	34	35	36	31	32	37	36	40	35	30	28
30	21	17	14	14	23	14	23	26	35	39	49	51	36	30	25	26	25	27	28	32	31	30	26	25	28
31	17	M	13	11	10	11	17	32	37	40	43	52	59	57	49	37	38	47	55	65	53	54	38	23	37

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										RANGE-----		STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	ABOVE OBJECTIVE				
16	17	19	17	36	40	47	52	0	-	65	6	-	37	2	99	0

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

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

STATION : AP LEI CHAU
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2014
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	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	4	1	0	0	7	1
2	3	0	0	0	0	0	0	0	0	23	41	21	5	15	2	6	10	26	12	16	10	14	9	24	10
3	22	6	4	1	5	9	8	16	11	1	0	3	0	1	2	0	0	0	0	0	0	0	0	5	4
4	0	0	0	0	1	0	0	0	0	0	3	10	3	3	1	2	2	2	3	2	2	4	3	6	2
5	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	4	5	1	1	1	1	7	1
6	0	0	0	0	0	0	1	2	2	3	3	2	1	0	0	0	0	1	1	1	0	0	0	10	1
7	4	2	3	3	2	3	5	6	7	8	8	8	10	8	5	4	3	4	1	2	3	2	3	8	5
8	2	1	0	2	4	2	2	3	2	2	7	8	6	3	1	0	1	1	0	1	3	3	3	7	3
9	1	1	2	2	4	0	0	2	7	10	7	9	22	5	4	4	2	2	1	0	2	2	2	10	4
10	4	3	3	4	2	2	5	8	15	6	7	9	4	1	8	13	10	11	14	7	7	9	6	12	7
11	5	4	5	6	5	4	8	5	7	17	19	22	4	6	11	9	5	15	21	32	27	27	23	17	13
12	11	10	6	4	4	8	8	5	5	6	5	3	3	2	8	10	7	17	22	4	2	2	3	10	7
13	8	8	7	6	5	5	4	5	6	7	7	6	10	5	3	4	5	6	3	2	3	5	5	9	6
14	5	5	6	4	4	3	3	2	3	4	6	7	4	1	2	4	5	3	0	1	2	3	8	7	4
15	2	0	2	3	3	4	3	3	5	4	6	4	3	1	1	1	2	3	0	1	0	0	2	6	2
16	1	0	0	0	0	0	1	2	1	1	2	4	4	3	2	1	1	0	0	0	0	0	0	7	1
17	3	2	2	2	3	4	4	6	7	8	11	9	9	8	7	5	5	4	2	4	3	2	2	7	5
18	3	0	0	0	0	0	0	0	0	0	2	1	2	2	2	1	0	4	2	0	1	0	0	6	1
19	3	1	0	2	1	0	0	1	1	2	3	4	4	3	3	3	4	4	3	1	3	4	2	9	3
20	5	4	4	4	3	1	0	0	0	1	3	0	0	0	0	0	0	1	5	1	1	0	1	7	2
21	5	7	5	3	5	4	7	30	69	73	52	30	59	80	48	38	25	38	43	52	47	46	50	68	37
22	50	42	53	41	39	37	12	6	8	13	9	5	2	9	12	6	8	8	9	7	1	2	2	4	16
23	2	1	0	0	0	0	0	0	0	0	0	1	1	0	1	1	1	1	3	0	1	0	0	3	1
24	2	2	4	4	3	4	2	0	0	1	0	0	2	1	3	3	4	2	1	2	3	4	3	5	2
25	2	1	1	3	3	1	2	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	6	1
26	2	0	2	4	3	2	1	2	5	5	5	4	5	3	3	0	2	4	2	3	3	5	4	6	3
27	3	4	5	4	4	4	7	6	7	7	3	M	M	13	14	9	2	1	1	0	0	0	0	5	5
28	3	1	1	2	1	2	2	4	3	4	3	3	2	3	2	1	1	0	0	0	0	0	0	3	2
29	1	0	0	0	0	0	0	0	1	3	5	4	5	3	1	0	M	15	20	12	13	14	14	17	6
30	14	13	12	12	12	12	12	12	11	11	12	14	11	12	11	11	14	13	10	12	11	12	13	15	12
31	15	12	12	12	13	11	13	13	12	14	13	12	11	10	10	13	12	13	10	9	16	15	16	24	13

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										RANGE-----		STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE OBJECTIVE		
4	3	6	3	13	21	41	51	0	-	80	1	-	37	3	100	24-HR
																0

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

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

STATION : AP LEI CHAU
 POLLUTANT : NITROGEN DIOXIDE

YEAR : 2014
 UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	21	17	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2
2	1	9	0	0	0	1	6	13	17	40	59	33	17	25	13	14	15	35	18	12	12	15	21	27	17
3	28	14	6	4	11	20	29	63	56	24	11	20	2	5	18	22	2	0	0	7	7	0	1	12	15
4	0	0	0	1	2	0	0	0	0	1	5	8	0	0	0	0	0	5	19	28	25	27	24	17	7
5	30	28	16	6	0	2	4	8	11	11	9	9	7	7	2	0	1	0	2	2	1	0	9	15	8
6	15	11	2	1	2	4	12	20	26	33	23	15	7	7	6	9	5	6	3	18	23	22	2	3	11
7	0	0	0	0	0	2	11	25	27	16	11	8	5	2	1	1	1	0	4	9	2	3	10	18	7
8	13	M	6	0	0	2	5	18	17	18	22	23	20	17	12	6	0	0	8	10	11	11	6	36	11
9	27	17	21	13	12	12	31	59	57	46	37	26	45	3	0	0	0	0	3	15	1	13	16	21	20
10	16	7	3	4	14	12	20	36	49	56	59	51	23	16	27	32	27	23	32	67	74	73	56	56	35
11	38	24	12	3	8	8	20	24	31	48	53	41	6	11	16	21	12	25	18	39	14	29	13	3	22
12	3	4	0	0	2	6	2	5	7	11	9	7	8	9	12	16	14	44	56	40	40	44	16	12	15
13	4	0	0	0	0	0	4	17	22	36	38	35	22	3	0	0	0	0	0	2	10	10	18	24	10
14	17	15	5	0	0	2	8	21	23	22	13	12	2	0	0	0	0	1	3	13	25	19	26	26	11
15	23	27	9	3	2	2	7	16	21	16	9	2	0	0	0	0	0	0	0	0	0	0	0	0	6
16	0	0	0	0	0	0	4	11	10	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
17	0	0	0	0	0	0	0	0	1	0	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	3	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	4	10	4	1	2	1
20	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	12	13	0	3	9	30	3
21	17	7	7	0	6	8	31	44	50	74	57	52	53	55	40	26	15	38	69	91	85	83	76	83	44
22	81	M	81	78	80	83	71	48	43	50	47	43	39	54	50	30	29	43	35	29	1	0	2	3	44
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	M	M	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	3	0
25	0	0	0	0	0	0	1	0	2	4	0	1	0	0	5	5	5	4	9	18	6	1	0	0	3
26	0	0	0	0	0	0	0	1	1	1	0	1	1	1	0	6	11	32	56	61	40	1	0	1	9
27	0	0	1	0	0	3	23	36	20	6	M	M	M	5	1	2	0	0	0	0	0	0	0	0	5
28	0	0	0	0	0	0	0	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	8	1
29	1	0	0	1	0	1	4	17	11	8	7	9	9	6	5	M	M	8	3	6	7	5	7	0	5
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	2	3	0	4	4	4	0	1
31	0	0	0	0	0	0	1	5	0	2	0	0	0	0	0	0	0	0	7	6	1	0	12	3	2

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										RANGE-----		STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE OBJECTIVE		
9	2	10	2	32	50	68	79	0	-	91	0	-	44	3	99	1-HR
																0

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

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

STATION : AP LEI CHAU
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2014
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	18	17	16	13	14	14	17	28	26	16	16	16	17	13	14	15	17	28	26	21	22	22	19	20	19
2	16	15	13	12	13	13	14	14	13	12	14	17	12	18	18	17	15	16	14	14	16	13	13	24	15
3	18	20	15	15	16	17	18	19	21	20	22	19	19	17	16	16	17	17	17	18	18	17	14	16	18
4	13	13	14	14	16	18	19	18	16	15	15	14	15	17	18	17	17	17	16	18	19	18	19	21	17
5	17	17	15	15	14	14	17	15	12	12	15	16	16	14	16	11	7	15	15	14	15	16	15	19	15
6	18	17	15	13	14	14	14	15	15	14	15	13	15	15	16	16	13	14	16	16	14	16	14	21	15
7	17	15	12	10	9	11	13	12	10	13	13	14	13	12	13	10	11	12	11	10	11	11	12	13	12
8	12	14	10	11	10	12	12	12	11	10	12	11	10	12	12	11	11	11	10	11	11	15	25	21	12
9	16	23	24	21	16	13	12	14	12	12	12	15	16	13	12	11	12	15	15	15	12	14	15	16	15
10	13	12	13	14	12	12	13	10	9	13	13	14	15	13	12	13	15	16	15	14	13	11	12	17	13
11	14	15	12	10	12	15	15	14	13	14	14	15	13	14	16	15	16	24	16	15	14	12	14	14	14
12	12	14	13	12	13	15	13	13	13	11	15	33	24	24	31	33	36	18	13	21	18	18	13	14	18
13	12	13	12	11	12	9	10	13	21	13	15	13	14	14	13	11	12	15	19	16	11	13	19	17	14
14	12	16	18	15	14	18	16	15	18	15	15	17	15	18	18	M	M	17	12	8	10	14	10	9	15
15	4	6	6	3	6	7	4	6	9	7	9	8	8	5	5	7	6	1	1	2	5	7	7	9	6
16	8	6	6	10	9	9	3	7	27	27	59	32	9	7	7	10	9	6	1	12	18	20	10	12	14
17	7	10	16	13	10	9	5	6	18	18	21	15	6	3	5	11	9	5	0	4	5	2	2	13	9
18	11	8	7	11	9	10	7	11	19	17	15	12	10	13	16	22	23	19	12	8	8	10	11	10	12
19	5	7	8	10	7	9	10	9	11	14	13	16	32	28	23	13	10	12	8	9	10	5	4	8	12
20	6	7	6	4	6	4	5	8	6	7	7	10	10	10	8	6	5	3	3	3	6	8	4	6	6
21	3	7	4	4	3	3	4	2	6	6	9	3	4	5	3	4	4	4	2	2	6	5	4	11	5
22	9	10	5	6	8	7	6	12	11	12	12	11	9	6	6	5	8	7	5	5	6	4	5	7	8
23	4	5	3	5	2	5	3	5	4	4	5	6	8	7	6	6	8	6	2	5	3	7	6	4	5
24	4	3	3	0	1	2	2	6	10	9	2	10	8	1	1	1	0	1	1	0	0	1	8	9	3
25	5	3	2	1	0	2	3	9	40	67	77	23	45	40	17	46	22	12	17	34	51	54	41	32	27
26	24	37	44	45	36	32	26	11	7	3	4	4	7	3	2	2	0	2	3	2	1	1	0	0	12
27	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	M	0	0	0	0	0	0	0	1	0
28	2	1	2	1	2	3	2	6	4	3	5	5	3	2	3	3	2	1	3	5	8	9	8	6	4
29	8	6	3	1	0	0	0	0	1	2	4	5	3	0	0	1	0	0	0	0	0	0	0	0	1
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	8	5	1	0	0	0	1	43	2

MONTHLY STATISTICS:

GEOM		ARITH -----PERCENTILES-----							-----RANGE-----				STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	ABOVE OBJECTIVE				
												24-HR				
10	11	11	11	19	24	36	45	0	-	77	0	-	27	2	100	0

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

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

STATION : AP LEI CHAU
POLLUTANT : NITROGEN DIOXIDE

YEAR : 2014
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	0	4	9	34	34	27	15	3	0	0	1	1	2	0	0	15	14	2	2	30	26	23	10	
2	8	1	0	0	0	0	0	2	0	6	22	12	9	19	21	20	18	14	27	31	28	17	12	27	12	
3	22	14	5	8	2	3	11	28	41	53	54	53	54	39	33	24	16	34	23	52	43	33	13	7	28	
4	0	6	0	0	0	2	5	16	6	1	1	1	1	0	2	2	3	0	0	0	0	0	0	0	43	4
5	0	M	0	0	0	0	0	0	0	0	0	1	3	0	0	M	M	0	0	0	0	1	7	1	1	
6	4	15	10	8	15	7	14	38	20	13	11	5	0	0	0	1	4	3	1	0	0	4	1	9	8	
7	3	0	0	0	0	0	2	3	4	4	4	4	3	1	0	2	2	1	1	0	0	1	2	0	2	
8	0	0	0	0	0	0	5	20	38	37	32	40	29	34	39	41	59	63	31	27	40	29	54	51	28	
9	51	47	44	43	36	22	6	11	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
10	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	17	12	4	0	0	0	0	0	2
11	0	0	0	0	0	0	0	0	1	4	1	2	5	0	0	6	19	30	35	22	6	3	5	20	7	
12	12	3	2	0	9	12	25	33	31	28	34	41	38	35	46	58	64	57	62	64	53	48	33	28	34	
13	25	12	5	1	0	0	9	30	41	39	35	23	24	18	19	23	55	62	58	46	22	26	26	37	27	
14	19	12	4	0	0	2	6	20	21	25	30	24	9	1	12	M	M	13	25	18	3	0	0	1	11	
15	0	0	0	0	0	0	2	6	9	9	9	3	0	0	0	0	5	7	6	10	4	4	7	7	4	
16	11	4	1	1	0	9	15	27	42	40	47	22	2	1	1	1	1	5	29	92	108	96	61	31	27	
17	29	15	4	1	0	2	15	26	35	43	39	35	4	1	7	36	43	57	58	41	33	27	19	33	25	
18	25	25	15	8	8	8	19	31	41	48	29	3	5	19	25	30	37	48	47	37	33	28	19	30	26	
19	16	M	2	1	0	4	14	28	21	13	18	21	51	52	49	4	7	22	49	31	19	7	7	0	19	
20	0	0	0	0	0	0	2	10	11	7	7	2	1	2	0	0	0	0	0	0	5	9	1	0	2	
21	0	0	0	0	0	0	0	9	12	7	1	0	0	0	0	0	0	20	7	4	1	35	24	43	7	
22	32	15	3	1	0	1	11	22	6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0
24	0	0	0	0	0	0	1	7	10	4	0	2	6	0	0	0	0	0	12	16	20	18	32	11	6	
25	3	14	2	0	2	9	37	40	47	40	51	20	22	30	25	42	51	38	49	63	65	76	68	88	37	
26	38	69	106	109	104	101	105	47	11	6	1	0	1	0	2	0	0	1	0	0	0	0	0	0	0	29
27	0	0	0	0	0	0	0	4	9	8	15	17	1	1	1	M	16	16	12	11	9	6	7	15	6	
28	14	13	11	10	9	11	16	26	25	25	21	20	24	17	19	18	18	27	22	19	10	10	13	13	17	
29	11	11	9	8	7	8	12	15	19	17	20	18	21	14	20	26	20	23	17	13	12	13	10	8	15	
30	9	9	7	8	7	9	10	9	11	11	13	13	14	13	8	9	25	32	32	64	39	49	60	64	22	

MONTHLY STATISTICS:

GEOM	ARITH ----- PERCENTILES -----							----- RANGE -----					STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR			DEVIATION	VALID DATA	ABOVE OBJECTIVE	
12	7	14	7	41	52	64	92	0	-	109	0	-	37	3	99	0

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

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

STATION : AP LEI CHAU
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2014
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	32	0	33	54	1	1	3	4	7	3	4	7	8	9	10	9	7	12	9	5	2	0	0	1	9
2	1	3	4	4	4	3	3	4	4	6	4	5	4	3	4	4	4	2	2	2	3	2	2	1	3
3	2	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3	0
4	1	0	0	0	0	0	0	1	0	3	1	2	2	1	1	3	0	1	3	8	2	1	0	1	1
5	0	2	2	1	2	2	2	4	10	7	1	2	6	6	4	2	3	2	3	2	6	9	9	10	4
6	10	7	7	6	7	8	8	8	9	9	11	10	9	5	4	3	4	2	2	2	3	2	1	5	6
7	3	3	2	2	1	6	6	7	5	6	6	6	4	3	3	3	5	6	6	7	8	10	12	15	6
8	14	13	12	11	6	7	7	7	12	29	23	10	7	6	3	T	6	3	3	5	4	3	3	5	9
9	4	5	5	2	4	6	4	5	7	8	10	9	8	6	7	9	8	3	5	4	5	4	2	5	6
10	5	5	4	7	8	9	8	7	5	3	4	13	11	42	33	43	35	21	26	50	38	78	44	17	22
11	13	11	9	10	7	10	11	11	14	19	20	29	24	18	22	28	20	17	14	15	19	12	11	11	16
12	8	9	7	5	5	6	6	6	13	8	15	15	14	15	16	15	11	11	16	22	20	15	15	16	12
13	16	18	18	17	16	15	15	15	13	7	5	8	8	10	28	11	8	8	6	10	10	12	12	12	12
14	11	11	11	11	11	11	11	11	10	7	11	13	10	10	10	11	10	8	5	7	8	7	5	9	10
15	7	4	2	2	4	5	6	5	5	5	6	6	6	5	4	4	3	23	22	17	50	33	20	28	11
16	20	21	15	21	22	20	15	15	22	19	11	9	9	12	14	18	20	17	20	26	30	31	30	19	19
17	16	15	12	11	8	6	6	7	5	0	0	2	6	2	4	2	1	2	4	5	4	1	7	5	5
18	8	9	9	9	9	9	9	12	11	9	7	M	10	9	7	5	7	8	6	7	7	7	7	7	8
19	5	7	7	5	4	2	2	2	4	3	2	2	1	1	4	3	5	10	6	M	2	5	5	1	4
20	0	0	0	0	0	0	2	1	3	0	9	6	0	0	0	0	0	0	0	2	0	0	0	0	1
21	0	0	0	0	0	0	0	0	0	0	2	3	5	3	2	1	1	1	1	2	7	13	16	16	3
22	17	16	14	13	18	19	13	16	20	7	D	D	0	0	0	0	0	0	0	0	0	0	0	0	7
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	M	2	0	0	0	0	3	0	0
24	0	0	0	0	0	0	0	0	0	0	M	3	24	33	14	0	0	0	0	0	0	0	0	0	3
25	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0	1	0	0	0	1	1	2	0
27	4	3	2	2	0	1	1	0	0	0	M	31	1	3	10	9	10	8	9	10	8	9	13	11	6
28	5	6	9	7	8	16	12	14	18	12	11	14	15	13	13	16	8	7	11	14	14	15	15	7	12
29	8	8	9	6	6	6	5	4	5	1	1	5	6	14	5	0	0	0	0	0	1	2	5	3	4
30	1	3	2	3	0	0	6	13	28	23	65	8	3	1	2	1	2	1	0	1	5	2	3	3	7
31	1	1	0	2	2	3	3	6	50	22	39	49	46	31	19	25	22	42	34	33	48	29	6	9	22

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										RANGE-----		STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE OBJECTIVE		
6	5	7	5	18	25	36	47	0	-	78	0	-	22	3	99	24-HR
																0

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

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

STATION : AP LEI CHAU
POLLUTANT : NITROGEN DIOXIDE

YEAR : 2014
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	21	43	53	12	15	25	36	45	51	52	50	51	55	50	49	60	70	69	61	59	37	34	30	45
2	26	22	19	15	14	15	19	28	31	32	29	27	35	33	38	36	42	39	37	37	36	24	24	18	28
3	18	M	12	12	12	16	17	15	19	18	16	16	16	19	21	31	31	37	30	30	32	37	38	63	24
4	71	60	37	14	9	10	17	28	45	60	58	50	48	41	58	62	61	70	66	70	60	54	41	32	47
5	34	27	17	13	14	16	23	41	56	61	49	51	42	41	26	20	45	67	80	62	73	62	53	53	43
6	60	41	20	19	17	18	19	28	25	21	19	16	14	13	16	16	17	20	12	7	8	9	7	6	19
7	6	7	5	6	8	9	9	11	12	17	20	20	33	35	36	31	35	35	38	50	55	56	60	48	27
8	43	37	27	24	20	17	25	49	61	63	59	33	13	13	14	T	13	27	47	46	13	6	5	6	29
9	7	5	4	5	6	7	11	22	28	29	17	14	5	3	7	9	11	14	12	7	6	7	11	9	11
10	8	6	7	6	7	9	12	19	17	24	48	56	49	72	60	101	103	98	115	127	136	143	151	101	61
11	41	29	16	22	12	12	22	42	60	84	73	71	69	61	66	84	99	117	108	96	91	75	75	74	62
12	71	47	23	15	12	13	28	49	62	55	47	42	42	45	50	53	52	58	74	61	54	45	44	54	46
13	44	26	20	19	16	16	24	33	44	48	48	23	13	17	57	17	14	26	62	74	55	64	74	64	37
14	54	25	17	12	10	10	12	15	17	18	16	16	8	7	7	5	9	12	21	18	15	13	13	11	15
15	13	6	7	7	7	11	23	42	49	42	33	27	39	42	39	40	53	90	81	65	115	124	117	118	50
16	111	94	68	46	27	22	18	29	39	41	37	29	26	23	28	31	40	45	34	32	30	30	26	19	39
17	16	M	9	7	6	8	19	34	37	36	36	34	23	30	32	44	43	57	69	70	55	47	39	46	35
18	45	30	15	13	12	18	26	47	50	47	39	M	24	27	34	29	58	66	53	61	50	33	34	31	37
19	26	16	15	15	14	18	23	32	57	69	74	76	55	55	65	80	80	90	93	M	63	52	40	29	49
20	37	33	24	15	11	11	17	28	46	65	64	52	10	15	10	8	13	8	8	16	7	5	6	7	22
21	9	6	6	6	6	13	17	26	32	39	30	26	26	26	22	23	25	32	36	33	31	32	33	34	24
22	31	21	16	13	22	25	28	50	66	70	D	D	0	0	4	5	8	6	16	19	23	30	27	9	22
23	6	4	4	3	3	7	18	27	40	36	43	32	40	41	37	36	41	52	64	59	37	65	69	81	35
24	78	73	62	43	34	34	40	49	48	53	47	41	56	71	30	8	2	4	2	2	1	2	6	2	33
25	0	0	0	0	0	0	4	4	4	5	7	7	8	6	7	7	11	15	21	15	8	6	6	6	6
26	3	2	2	3	1	0	0	0	0	0	1	1	0	4	7	8	6	8	9	10	8	6	2	4	4
27	1	4	1	1	2	2	9	7	10	12	12	18	21	25	30	29	35	33	39	54	30	39	54	51	22
28	47	44	37	26	22	25	35	37	32	30	25	24	28	37	34	33	40	30	29	19	15	24	31	24	30
29	23	16	14	10	16	15	30	48	48	50	49	46	38	42	19	9	6	1	13	32	37	27	15	14	26
30	8	6	5	15	26	25	8	41	75	75	79	15	1	0	0	0	0	1	9	14	28	22	19	16	20
31	23	M	5	2	6	11	19	49	96	96	96	98	74	46	19	25	31	81	130	122	143	110	47	26	59

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										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		
23	27	32	27	66	80	109	121	0	-	151	4	-	62	3	99	0

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

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

STATION : CHEUNG CHAU
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2014
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	22	12	2	0	0	0	0	0	1	0	1	2	1	1	0	0	0	0	0	1	1	1	1	1	4	2
2	6	4	5	3	3	1	3	0	10	11	7	6	5	4	8	6	2	3	3	3	2	2	2	3	4	
3	2	1	0	0	0	0	0	0	8	9	12	11	4	0	0	0	1	5	6	1	0	1	1	0	3	
4	0	0	0	0	0	0	0	0	0	0	0	1	3	3	3	4	6	9	8	7	5	5	4	4	3	
5	4	4	4	7	9	6	5	8	11	10	10	7	7	9	7	9	9	8	7	7	7	5	5	5	7	
6	4	4	6	4	6	10	12	8	9	8	9	8	6	4	3	5	7	6	6	6	10	7	5	7	7	
7	5	6	5	4	4	6	7	10	14	13	11	10	12	9	7	5	7	7	7	11	8	7	7	7	8	
8	8	7	9	10	8	8	7	8	13	12	11	13	14	12	10	10	6	6	4	5	7	7	9	8	9	
9	6	8	9	10	10	15	15	11	12	22	13	15	15	12	12	10	11	16	11	8	7	10	9	7	11	
10	7	10	9	8	12	9	13	11	14	12	13	11	9	10	8	10	10	12	9	10	8	9	10	9	10	
11	12	15	15	18	18	23	16	12	14	17	14	14	15	17	14	11	14	13	13	12	10	9	14	8	14	
12	8	7	7	6	10	14	12	11	12	11	12	9	8	8	9	12	18	19	24	22	15	10	14	11	12	
13	16	10	11	10	10	10	11	14	13	10	10	9	10	9	13	10	9	10	8	9	10	12	10	13	11	
14	11	9	10	11	11	11	10	10	15	14	13	13	14	12	11	10	10	11	14	12	10	10	10	10	11	
15	12	11	14	13	15	14	14	16	20	20	20	19	13	10	10	11	11	10	9	9	10	9	9	10	13	
16	9	7	8	9	8	10	8	9	11	10	14	15	15	11	9	10	9	11	11	9	8	10	9	9	10	
17	10	10	9	9	9	11	11	12	15	22	29	21	19	17	16	14	16	17	13	13	13	11	10	11	14	
18	10	9	10	9	8	9	9	10	11	11	10	13	14	12	11	13	12	14	12	11	11	12	10	9	11	
19	9	9	9	9	9	9	9	10	11	11	12	13	13	13	12	12	14	13	12	10	11	12	14	14	11	
20	13	13	13	12	12	12	12	12	14	13	13	12	13	14	12	13	15	13	17	17	16	17	15	20	14	
21	23	21	22	25	32	37	36	42	60	52	39	D	D	8	3	8	8	6	8	10	7	7	5	5	21	
22	5	4	6	8	20	19	5	1	3	2	2	1	2	1	1	3	6	15	9	5	4	2	1	0	5	
23	0	1	0	0	0	0	0	0	1	0	2	1	1	2	2	2	1	3	4	3	1	2	2	1	1	
24	1	1	2	3	3	3	2	4	3	1	2	4	4	3	5	7	6	3	5	7	5	4	4	4	4	
25	3	4	4	2	3	5	2	3	3	3	3	3	8	3	5	4	2	1	2	2	1	1	1	2	3	
26	1	0	1	1	3	3	1	3	2	4	5	6	2	5	3	4	2	3	3	5	3	4	4	3	3	
27	3	5	6	6	10	11	8	6	17	15	9	5	5	8	8	7	3	1	3	0	0	1	0	1	6	
28	1	1	1	1	1	2	2	3	4	4	7	8	5	5	8	5	2	1	1	0	0	0	0	0	3	
29	0	0	0	0	0	0	0	1	2	6	6	8	5	4	2	0	1	1	1	1	2	1	2	1	2	
30	2	0	0	0	0	0	0	1	4	8	2	5	5	1	1	1	0	1	0	2	2	2	3	2	2	
31	1	1	0	0	1	1	1	1	2	2	5	1	1	0	2	4	7	7	10	6	14	13	11	9	4	

MONTHLY STATISTICS:

GEOM	ARITH -----PERCENTILES-----										RANGE-----				STN GEOM	PERCENT	NO. OF TIMES
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE OBJECTIVE			
6	8	8	8	14	17	22	27	0	-	60	1	-	21	2	100	0	

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

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

STATION : CHEUNG CHAU
POLLUTANT : NITROGEN DIOXIDE

YEAR : 2014
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	106	72	17	7	4	17	14	15	14	17	23	10	3	2	2	1	1	2	3	5	2	2	0	8	14
2	14	6	9	10	11	9	24	9	38	33	16	17	17	11	13	14	7	11	9	3	2	2	4	2	12
3	5	3	6	5	3	1	2	8	32	41	26	18	14	10	10	23	16	22	17	8	3	5	11	15	13
4	3	1	2	0	2	1	1	3	2	3	2	5	2	2	2	5	7	12	12	8	5	4	7	6	4
5	5	8	21	39	33	18	54	32	33	34	28	27	17	10	7	9	9	7	7	7	8	8	6	8	18
6	9	15	20	4	12	23	45	24	24	29	24	29	28	16	7	13	20	20	15	15	16	20	12	7	19
7	11	19	13	3	5	19	48	39	49	52	30	29	12	5	5	3	6	6	9	24	11	9	8	11	18
8	12	M	38	27	26	41	29	22	36	34	38	37	28	24	23	22	6	8	3	5	8	6	11	26	22
9	33	44	32	35	38	54	64	63	60	67	34	28	26	21	12	8	11	20	12	7	9	15	10	28	30
10	18	34	45	37	58	26	37	33	41	38	38	32	25	30	21	30	37	46	44	64	62	68	76	77	42
11	74	65	53	41	38	45	43	23	25	44	30	38	35	31	18	13	18	20	21	25	57	65	26	6	36
12	5	4	13	37	23	33	23	26	22	22	22	19	20	18	22	31	52	51	77	88	91	61	52	41	36
13	33	10	10	15	12	13	24	32	35	36	26	26	28	24	17	5	5	5	4	4	6	8	7	13	17
14	42	31	32	25	25	20	25	23	38	47	40	42	41	24	8	8	7	8	9	14	11	26	57	45	27
15	55	33	31	29	27	21	32	45	58	61	60	22	11	5	5	5	4	4	5	5	5	4	4	6	22
16	5	3	4	5	5	13	20	16	22	15	15	13	13	7	4	4	4	10	11	6	5	5	5	8	9
17	15	17	16	9	9	19	20	15	14	21	24	20	18	10	9	8	10	12	7	9	11	10	5	8	13
18	6	5	11	12	3	5	8	14	12	13	13	9	10	4	4	7	7	10	8	5	8	8	5	8	8
19	5	4	3	4	4	11	17	18	12	9	13	13	17	8	3	4	8	6	7	5	11	8	8	8	9
20	8	11	18	8	8	6	9	12	13	8	3	2	4	4	4	5	5	3	8	7	6	4	6	19	8
21	27	31	39	52	65	81	84	70	71	64	53	D	D	36	21	24	19	18	23	27	50	66	96	97	51
22	67	M	43	44	78	77	31	17	27	40	20	20	24	31	33	34	46	110	91	78	8	6	9	24	42
23	29	34	8	9	8	13	13	18	18	9	11	7	2	5	4	4	4	12	12	13	8	12	12	7	11
24	6	5	6	9	7	7	6	20	16	6	6	16	15	7	12	16	11	3	15	23	17	13	15	11	11
25	8	11	11	6	8	13	12	12	13	17	10	8	20	15	15	20	15	14	22	14	13	7	12	4	13
26	6	4	7	8	19	10	8	13	11	14	14	10	3	7	7	9	7	7	15	18	41	13	10	9	11
27	19	10	18	13	44	40	51	51	52	35	21	12	5	8	7	6	4	7	17	0	9	23	22	34	21
28	24	23	31	26	21	24	10	10	18	14	18	24	20	16	23	19	11	5	8	5	2	3	3	6	15
29	2	2	10	19	20	21	7	15	16	19	10	15	8	7	6	3	3	3	6	12	10	7	10	17	10
30	14	10	4	1	1	2	12	18	18	15	6	12	11	3	3	3	2	4	3	8	5	5	7	6	7
31	5	1	1	3	4	4	6	9	10	21	47	3	4	1	4	7	8	10	20	14	29	23	16	12	11

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										RANGE-----		STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE OBJECTIVE		
12	12	19	12	41	57	74	83	0	-	110	4	-	51	3	99	0

NOTES:

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

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

STATION : CHEUNG CHAU
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2014
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	6	10	7	6	5	7	13	30	20	8	8	8	7	6	9	10	10	10	11	14	11	10	5	10
2	5	5	3	1	2	1	1	3	4	4	4	3	2	2	1	3	2	2	4	3	2	0	0	1	2
3	1	2	3	3	5	5	7	8	7	8	7	6	7	9	9	9	8	9	10	9	10	8	10	8	7
4	T	T	T	T	T	T	T	T	T	T	T	4	5	7	7	13	5	4	5	5	6	9	6	5	
5	4	6	6	4	3	3	3	7	4	2	3	3	4	2	3	2	2	1	1	2	4	4	4	4	3
6	7	6	4	5	4	3	7	8	6	9	11	6	D	D	8	8	10	8	7	7	6	6	6	9	7
7	6	3	2	2	3	1	1	3	4	5	5	4	6	4	4	3	2	1	1	1	1	1	2	2	3
8	2	2	1	2	3	4	7	2	2	2	2	1	1	2	1	1	3	4	6	7	4	3	3	6	3
9	5	4	5	5	3	2	3	5	7	9	15	8	5	5	5	4	4	4	5	6	5	4	5	3	5
10	2	2	2	3	2	2	3	4	3	5	10	7	15	24	7	4	3	4	7	5	5	5	4	5	6
11	5	4	5	4	3	4	4	4	5	8	8	9	7	4	4	7	16	12	7	7	7	6	5	8	6
12	14	14	10	9	7	5	4	5	6	8	6	5	5	4	3	3	5	4	6	5	2	2	2	2	6
13	1	1	1	1	2	3	2	3	3	4	6	6	4	4	5	6	6	7	6	8	10	7	5	6	4
14	4	5	7	9	7	6	9	7	8	10	10	9	10	13	12	7	7	7	6	7	6	5	4	4	7
15	4	3	4	5	4	4	4	6	6	7	6	6	4	4	5	4	8	9	5	5	5	5	6	6	5
16	7	7	7	10	14	11	6	9	16	16	14	9	14	10	9	12	14	14	15	11	10	14	26	11	12
17	10	11	10	9	7	8	8	7	7	9	10	9	9	10	9	8	7	6	7	7	6	5	6	T	8
18	T	T	T	T	T	T	T	T	T	T	T	T	12	10	11	9	10	8	9	12	12	15	14	10	
19	11	11	11	10	13	11	10	10	14	14	18	21	18	14	15	14	14	15	13	10	9	8	6	8	12
20	7	7	6	7	6	7	7	7	20	15	10	10	10	9	6	6	5	7	6	7	7	7	7	8	8
21	9	9	11	9	11	8	6	6	9	10	10	10	8	8	6	5	6	5	7	15	10	10	10	10	9
22	11	17	19	15	13	9	11	9	11	14	10	9	9	6	7	6	6	8	8	13	9	14	14	20	11
23	20	10	5	4	14	18	13	13	9	6	6	8	6	6	7	6	7	6	4	8	7	7	8	9	9
24	7	8	5	6	4	5	7	8	11	13	12	8	10	8	7	5	6	7	9	7	4	7	8	11	8
25	11	11	10	11	10	12	27	30	27	15	12	14	17	20	15	10	12	12	11	9	7	8	8	8	14
26	10	13	24	27	33	30	27	25	24	12	13	14	10	9	8	7	7	8	6	12	7	7	5	6	14
27	7	12	17	20	15	6	6	5	6	7	6	6	9	8	16	11	8	7	10	17	19	19	26	16	12
28	10	9	12	7	8	9	10	10	10	12	11	10	10	13	12	8	6	7	11	13	10	9	10	13	10
29	12	10	11	9	8	7	8	10	10	9	8	9	9	7	6	13	10	7	7	5	5	5	7	5	8
30	6	8	6	6	6	6	6	6	6	7	6	8	7	6	11	15	13	12	9	9	9	8	9	9	8

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----							-----RANGE-----				STN GEOM	PERCENT	NO. OF TIMES		
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR	DEVIATION	VALID DATA	ABOVE OBJECTIVE			
7	7	8	7	14	16	21	27	0	-	33	2	-	14	2	96	0

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

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

STATION : CHEUNG CHAU
POLLUTANT : NITROGEN DIOXIDE

YEAR : 2014
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	5	6	14	20	23	32	39	45	54	34	11	10	11	8	5	9	11	20	13	13	18	12	17	6	18
2	12	13	15	7	13	13	4	8	12	33	30	22	21	26	23	33	40	35	37	35	25	21	19	18	21
3	17	13	14	12	15	15	18	20	25	38	35	38	36	35	41	62	59	72	80	68	64	63	55	T	39
4	T	T	T	T	T	T	T	T	T	T	T	9	13	16	17	23	11	8	8	8	9	14	9	8	
5	10	M	20	7	6	5	6	14	8	5	7	6	8	5	5	7	6	5	4	4	12	9	7	9	8
6	13	12	12	15	13	14	15	22	23	35	30	14	D	D	9	11	13	11	8	8	6	12	9	17	15
7	14	11	15	16	15	16	15	21	16	22	18	12	13	8	4	5	6	6	5	7	5	7	11	13	12
8	15	15	20	21	21	40	56	30	31	32	35	30	28	32	28	40	62	67	76	71	63	59	55	51	41
9	48	43	36	33	25	17	26	30	34	39	38	23	15	29	29	26	20	13	25	22	18	19	17	5	26
10	3	4	5	14	4	4	15	16	11	11	19	13	20	30	13	7	7	11	26	18	15	14	11	14	13
11	19	14	12	8	11	15	14	14	15	17	17	19	14	5	6	24	80	55	16	21	14	10	8	31	19
12	53	60	49	47	43	28	30	34	32	33	37	42	40	43	50	54	62	58	69	57	34	25	26	20	43
13	18	17	12	13	11	16	17	20	24	30	34	38	40	44	43	55	61	58	48	60	57	38	33	34	34
14	27	27	27	31	20	18	29	27	33	47	44	46	47	52	47	31	21	49	30	33	23	14	6	6	31
15	5	5	13	18	12	9	8	25	30	32	31	27	6	4	7	7	14	22	18	14	20	17	24	17	16
16	20	19	27	66	74	46	31	36	49	41	36	28	20	13	11	15	23	22	27	69	81	82	101	37	41
17	23	23	19	16	12	16	23	25	23	38	35	36	34	36	45	43	48	43	48	37	32	29	31	T	30
18	T	T	T	T	T	T	T	T	T	T	T	T	42	39	42	26	18	17	17	49	53	59	53	49	
19	42	M	35	25	31	32	34	37	51	50	64	61	47	45	35	23	23	23	22	19	12	12	11	17	33
20	8	9	9	11	8	10	10	12	28	27	25	12	13	9	5	6	6	10	6	9	11	12	14	14	12
21	20	14	21	10	20	11	24	34	33	37	31	14	11	7	8	7	8	7	12	24	11	12	19	59	19
22	88	108	111	75	46	16	22	13	30	40	8	6	6	4	7	7	6	9	11	16	10	13	14	18	29
23	21	10	6	3	17	21	13	14	8	7	8	10	5	4	5	4	9	9	5	13	12	10	11	21	10
24	11	15	9	10	7	7	10	21	27	41	15	10	25	11	8	6	11	11	12	8	4	11	15	20	14
25	35	52	63	49	25	52	74	64	56	40	29	23	24	43	49	30	37	45	40	33	62	86	91	82	49
26	84	75	84	98	108	115	110	103	73	23	15	12	8	9	9	9	9	11	8	13	11	12	8	13	43
27	12	20	23	24	17	9	12	11	20	27	27	38	38	11	17	19	13	9	16	21	23	25	26	19	20
28	13	14	19	8	12	12	16	14	19	21	30	12	21	35	24	10	6	10	21	24	8	11	13	27	17
29	33	11	13	9	8	11	19	29	18	17	17	15	18	13	13	23	21	18	19	18	13	11	16	7	16
30	14	15	16	13	12	18	16	13	12	16	11	37	25	17	20	24	24	23	17	20	31	28	49	35	21

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										RANGE-----		STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	ABOVE OBJECTIVE				
19	18	25	18	50	63	82	98	3	-	115	8	-	49	2	96	0

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

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

STATION : CHEUNG CHAU
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2014
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	13	22	19	9	8	8	8	8	9	8	8	8	7	7	8	7	7	7	7	6	5	5	4	9
2	5	5	5	6	7	8	8	9	10	9	10	9	10	11	9	9	9	11	9	10	7	7	7	8	
3	7	7	6	6	6	7	8	8	11	11	8	T	7	8	8	7	7	7	6	9	13	7	9	8	
4	8	7	6	5	5	5	4	4	4	5	5	5	5	5	5	4	5	5	6	6	6	7	6	7	5
5	6	7	7	7	7	7	8	8	8	12	13	16	15	14	11	11	12	12	15	16	17	17	20	26	12
6	34	29	16	20	17	19	13	12	14	15	16	16	14	11	10	9	8	8	8	9	8	8	7	9	14
7	8	8	9	8	8	9	11	13	13	12	12	13	12	13	12	11	12	14	14	13	13	13	13	12	12
8	11	10	8	7	9	8	8	8	10	10	13	17	16	17	15	15	15	14	18	17	17	13	10	9	12
9	10	9	9	8	9	10	10	10	15	19	18	18	15	13	12	14	12	11	11	16	14	11	10	10	12
10	10	12	8	12	12	12	13	13	13	12	10	13	13	16	14	14	14	13	12	14	16	17	18	25	14
11	16	16	16	16	17	21	23	22	21	22	22	21	23	25	24	23	24	24	21	19	21	21	17	14	20
12	14	13	13	12	12	12	13	14	14	18	20	19	16	16	16	18	20	20	21	21	21	21	21	23	17
13	23	23	24	22	22	21	22	22	21	21	23	22	24	23	23	23	20	26	22	20	18	18	18	21	22
14	18	23	28	30	23	25	25	25	23	23	23	22	21	19	18	17	16	17	17	22	17	18	14	14	21
15	13	14	13	12	14	14	14	16	22	26	25	16	18	17	25	22	24	26	19	20	22	28	23	23	19
16	24	36	50	41	35	28	26	27	26	24	22	23	19	18	20	22	22	23	26	28	30	32	35	31	28
17	32	29	26	22	19	18	19	20	19	19	18	16	17	18	17	16	14	15	16	17	16	17	16	15	19
18	17	18	22	22	20	18	18	19	20	22	23	20	20	19	20	18	17	19	17	18	18	19	19	13	19
19	12	12	13	12	9	8	6	7	8	7	7	7	7	8	9	9	9	9	8	7	7	7	7	8	8
20	8	8	10	10	13	16	16	18	19	18	22	22	23	19	12	11	12	18	19	15	12	10	9	11	15
21	8	10	9	9	10	11	20	13	16	18	18	19	20	20	18	16	15	16	18	19	21	24	26	26	17
22	26	27	26	26	27	25	25	24	24	23	25	28	30	43	31	18	25	25	28	20	17	19	18	19	25
23	18	18	18	17	18	19	20	22	26	24	22	18	18	16	14	16	14	11	11	11	12	12	11	10	17
24	10	10	11	10	10	10	10	10	11	13	14	17	16	24	22	23	24	19	16	13	13	14	14	14	15
25	16	15	14	16	26	20	18	25	37	25	18	12	9	9	10	10	8	9	10	11	11	9	9	8	15
26	8	8	8	10	9	9	9	9	11	18	20	19	22	13	12	15	13	11	11	10	11	12	12	16	12
27	19	14	18	16	13	15	13	13	12	14	14	14	17	15	14	14	13	14	12	11	14	15	13	10	14
28	9	9	9	9	9	11	10	10	13	12	12	14	14	16	17	13	11	10	11	12	13	14	14	13	12
29	15	16	14	13	14	14	13	14	15	17	15	15	16	15	15	17	15	14	15	16	15	13	14	14	15
30	15	19	27	24	16	15	19	25	29	23	20	25	24	20	18	17	16	18	17	17	18	17	15	18	20
31	16	15	16	17	15	13	13	15	23	35	35	M	16	20	19	11	17	14	14	13	15	11	15	12	17

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										-----RANGE-----				STN GEOM	PERCENT	NO. OF TIMES
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE OBJECTIVE			
14	14	15	14	24	26	30	35	4	-	50	5	-	28	2	100	24-HR	
																0	

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

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

STATION : CHEUNG CHAU
POLLUTANT : NITROGEN DIOXIDE

YEAR : 2014
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	42	49	61	53	11	12	19	22	26	36	34	31	37	35	26	26	37	42	42	36	29	25	23	21	32
2	20	18	15	12	16	22	21	27	32	36	41	42	43	45	49	49	52	59	66	66	67	45	46	21	38
3	26	M	12	13	18	14	18	28	29	29	24	T	19	23	24	25	26	32	29	30	74	79	50	79	32
4	62	45	27	13	15	14	14	16	23	33	23	25	24	22	24	28	28	39	39	31	31	30	31	25	28
5	23	21	15	11	11	9	14	21	28	44	46	42	42	41	38	48	46	65	90	98	83	77	70	59	43
6	66	60	47	45	34	40	30	24	29	21	19	21	15	17	15	14	11	13	12	20	18	15	20	28	26
7	22	12	22	11	16	16	15	18	24	31	37	43	60	54	54	50	56	58	53	52	55	47	48	40	37
8	39	32	19	13	13	12	21	30	44	43	43	49	47	50	52	61	77	108	145	127	122	38	23	22	51
9	25	21	15	9	9	10	10	21	50	58	53	35	15	10	10	14	13	13	13	20	16	17	14	13	20
10	13	15	15	28	31	35	41	22	26	22	27	62	43	59	77	58	52	57	57	55	64	76	100	86	47
11	49	57	39	25	22	26	23	30	40	51	48	49	63	73	73	78	78	79	67	61	47	51	41	33	50
12	32	26	22	18	18	19	27	33	36	44	41	39	31	30	32	42	41	45	42	50	42	33	31	28	33
13	28	27	24	17	17	16	21	27	28	32	37	43	46	51	49	38	21	28	39	41	35	31	47	56	33
14	40	52	52	48	35	39	44	57	52	73	46	46	24	15	15	15	13	13	17	23	20	17	20	48	34
15	26	18	13	13	18	19	27	49	76	97	73	58	67	72	88	92	110	125	131	127	130	138	134	93	75
16	105	115	108	99	76	39	23	29	31	37	35	37	29	30	28	25	26	34	46	39	38	31	28	24	46
17	21	M	18	13	11	12	12	20	22	23	27	24	26	31	32	33	37	48	51	52	49	48	46	33	30
18	29	27	37	36	29	24	28	34	45	65	60	54	59	55	59	65	64	74	80	80	70	62	61	59	52
19	58	42	33	29	26	28	35	43	65	61	63	60	53	60	58	58	60	56	51	50	52	59	36	41	49
20	29	21	25	16	14	14	22	31	34	39	49	51	53	34	10	7	9	17	19	14	18	8	13	11	23
21	8	11	8	11	9	21	46	38	35	49	32	29	38	43	43	31	33	35	43	39	35	29	30	29	30
22	26	23	20	20	20	18	22	28	36	49	53	46	19	20	23	28	26	24	29	25	25	28	32	36	28
23	27	17	15	15	18	28	42	56	69	72	66	63	62	60	60	69	78	72	70	69	74	81	71	62	55
24	59	58	44	38	33	31	39	46	51	68	68	73	62	68	54	78	117	110	102	20	22	102	98	23	61
25	25	60	41	17	34	25	19	25	35	27	24	34	30	16	23	22	41	44	67	96	60	17	15	12	34
26	16	16	35	45	17	10	12	14	13	23	23	20	21	18	21	24	17	15	25	32	33	15	13	19	21
27	21	12	23	14	12	15	20	24	13	33	24	39	57	57	51	57	61	68	65	67	71	69	66	43	41
28	35	27	43	41	39	36	31	27	31	31	31	28	29	30	33	33	32	39	41	31	32	32	34	31	33
29	28	28	24	21	19	22	28	36	38	44	43	41	42	37	40	30	12	15	14	21	26	69	90	99	36
30	101	111	121	116	91	74	97	107	99	65	61	69	37	15	12	13	8	13	12	14	19	21	48	42	57
31	45	M	71	73	51	39	58	75	77	87	75	63	75	69	46	17	32	32	68	95	152	48	108	105	68

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										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		
34	33	40	33	73	92	110	126	7	-	152	20	-	75	2	99	0

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

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 : October – December 2014

Week Ending	No. of Samples	Suspended Solids, mg/L			pH		
		Maximum	Minimum	Average	Maximum	Minimum	Average
04/10/14	5*	16	13	14	8.2	8.1	8.1
11/10/14	4*	16	11	14	8.3	8.1	8.2
18/10/14	3*	18	13	16	8.2	8.1	8.1
25/10/14	2*	18	16	17	8.2	8.2	8.2
01/11/14	5*	18	13	15	8.2	8.1	8.1
08/11/14	6*	14	11	12	8.2	8.1	8.2
15/11/14	7	14	11	12	8.3	8.1	8.2
22/11/14	5*	13	11	12	8.2	8.2	8.2
29/11/14	7	15	11	13	8.2	8.1	8.2
06/12/14	4*	14	11	12	8.2	8.1	8.2
13/12/14	4*	14	11	13	8.3	8.1	8.2
20/12/14	2*	13	11	12	8.2	8.1	8.2
27/12/14	7	14	11	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 : October – December 2014

Sampling date		7/10/2014	3/11/2014	2/12/2014
Barium,	ug/L	<150	176	165
Mercury,	ug/L	<0.5	<0.5	<0.5
Cadmium,	ug/L	<1	<1	<1
Iron,	ug/L	<400	<400	<400
Total Phosphorous,	mg/L	<0.8	<0.8	<0.8
Total Nitrogen,	mg/L	56	108	85
Cyanide,	mg/L	<0.01	<0.01	0.06

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`