

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 2013**

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



ENVIRONMENTAL IMPACT ASSESSMENT (EIA) ORDINANCE, CAP. 499

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

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

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


Report Title	Quarterly EM&A Report (October to December 2013)
Date	20 March 2014
Certified by	 (Mr. IP Tat-Yan, Environmental Team Leader)

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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 2013.

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

Plant Availability

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

Unit	Period	Remark
L2	17/10/2013 19:20 to 21/10/2013 06:50	Defect Rectification
L4	31/10/2013 23:57 to 31/12/2013 05:34	Unit Overhaul

Malfunction/Outage Records of Pollution Control Equipment

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

Equipment	Period	Cause	Actions Taken
L5 FGD	07/10/2013 00:02 to 17/10/2013 17:25	FGD was bypassed for the rectification of steam leakage problem of the sootblowers of Gas Gas Heater	EPD was informed by letter dated 21/10/2013
L5 FGD	19/11/2013 06:00 to 20/11/2013 19:46	FGD was bypassed for conducting the necessary defect rectification work of Gas Gas Heater seal air pipeline	EPD was informed by letter dated 23/11/2013

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

Environmental Monitoring Works

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

Air Quality

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

Water Quality

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

Environmental Licensing and Permitting

Description	Permit / Licence No.	Valid Period		Issued To	Date of Issuance
		From	To		
Environmental Permit for L4/5 FGD plants retrofit project	EP-248/2006	25/04/2006	-	HK Electric	25/04/2006
Environmental Permit for Unit L2 FGD plant retrofit project	EP-287/2007	02/10/2007	-	HK Electric	02/10/2007
Specified Processes Licence issued under APCO	L-7-002(9)	01/01/2013	31/12/2014	HK Electric	28/12/2012
WPCO discharge licence for Ash Lagoon	WT00011131-2011	15/12/2011	31/12/2016	HK Electric	15/12/2011

Implementation Status of Environmental Mitigation Measures

Environmental mitigation measures were implemented in the reporting period.

Environmental Complaints

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

Future key issues

Key issues to be considered in the coming months include:

Air Impact

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

Water Impact

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

Concluding Remarks

The environmental performance of the projects was generally satisfactory.

1. INTRODUCTION

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

This report summarizes the environmental monitoring and audit work for the said Projects for the period from October to December 2013.

1.1 Background

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

The Projects include the installation and operation of FGD plants with flue gas desulphurization efficiency of 90% for the three coal-fired Units L2, L4 & L5 to reduce the overall SO₂ emissions from Lamma Power Station. The process adopted for the FGD plants is “Wet Limestone-Gypsum”, a technology which has already been used in, and proved effective and reliable for the existing coal-fired units L6, L7 & L8. The flue gas from the boiler is directed to the FGD absorber inside which removal of SO₂ is take place by reaction with limestone slurry. After passing through the absorber, the treated flue gas is heated up by a gas-gas heater to over 80°C at boiler rated capacity and directed back to the existing chimney for discharge to the atmosphere. Figure 1.1a, Figure 1.1b, Figure 1.2a, Figure 1.2b and Figure 1.3 show the location and schematic of the FGD plants.

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

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

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

1.2 Project Organisation

The management structure to oversee the Projects includes the following:

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

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

1.3 Plant Availability during the Reporting Period

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

Unit	Period	Remark
L2	17/10/2013 19:20 to 21/10/2013 06:50	Defect Rectification
L4	31/10/2013 23:57 to 31/12/2013 05:34	Unit Overhaul

1.4 Malfunction/Outage Records of Pollution Control Equipment

Equipment	Period	Cause	Actions Taken
L4 FGD	05/10/2013 02:19 to 02:21	Routine damper exercise	EPD was informed on 09/10/2013
L4 FGD	12/10/2013 02:14 to 02:19	Routine damper exercise	EPD was informed on 17/10/2013
L4 FGD	19/10/2013 00:27 to 00:44	Routine damper exercise	EPD was informed on 21/10/2013
L5 FGD	05/10/2013 02:25 to 02:32	Routine damper exercise	EPD was informed on 09/10/2013
L5 FGD	07/10/2013 00:02 to 17/10/2013 17:25	FGD was bypassed for the rectification of steam leakage problem of the sootblowers of Gas Gas Heater	EPD was informed by letter dated 21/10/2013

Equipment	Period	Cause	Actions Taken
L5 FGD	27/10/2013 02:12 to 02:17	Routine damper exercise	EPD was informed on 31/10/2013
L5 FGD	09/11/2013 02:09 to 02:24	Routine damper exercise	EPD was informed on 13/11/2013
L5 FGD	16/11/2013 01:32 to 01:36	Routine damper exercise	EPD was informed on 18/11/2013
L5 FGD	19/11/2013 06:00 to 20/11/2013 19:46	FGD was bypassed for conducting the necessary defect rectification work of Gas Gas Heater seal air pipeline	EPD was informed by letter dated 23/11/2013
L5 FGD	30/11/2013 00:37 to 00:39	Routine damper exercise	EPD was informed on 04/12/2013
L5 FGD	07/12/2013 01:52 to 02:07	Routine damper exercise	EPD was informed on 11/12/2013
L5 FGD	14/12/2013 01:31 to 01:38	Routine damper exercise	EPD was informed on 18/12/2013
L5 FGD	21/12/2013 02:53 to 03:10	Routine damper exercise	EPD was informed on 24/12/2013
L5 FGD	28/12/2013 02:21 to 02:24	Routine damper exercise	EPD was informed on 02/01/2014

1.5 Summary of EM&A Requirements

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

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

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

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

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

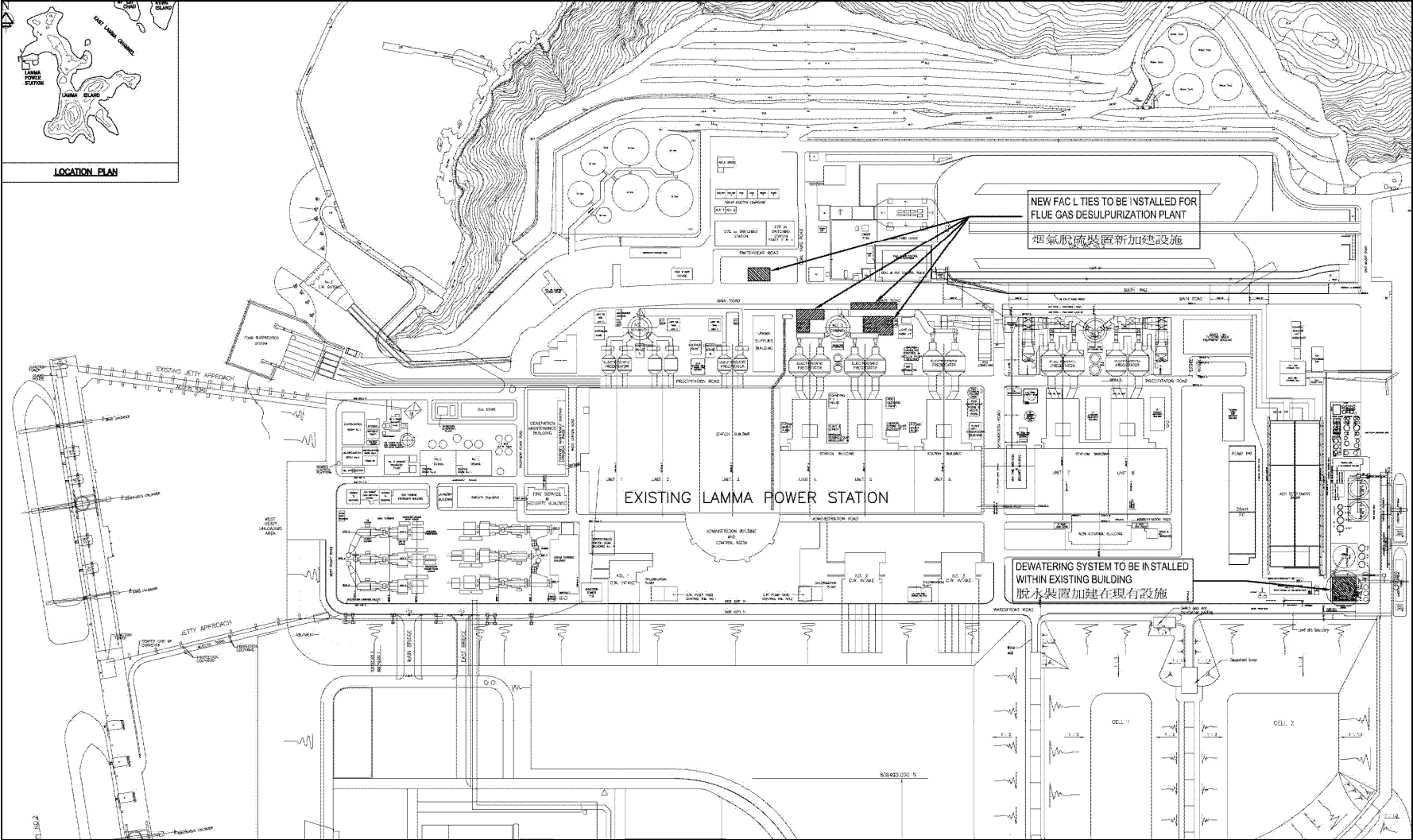


Figure 1.1a Location of New Facilities for L4 & L5 FGD Plants

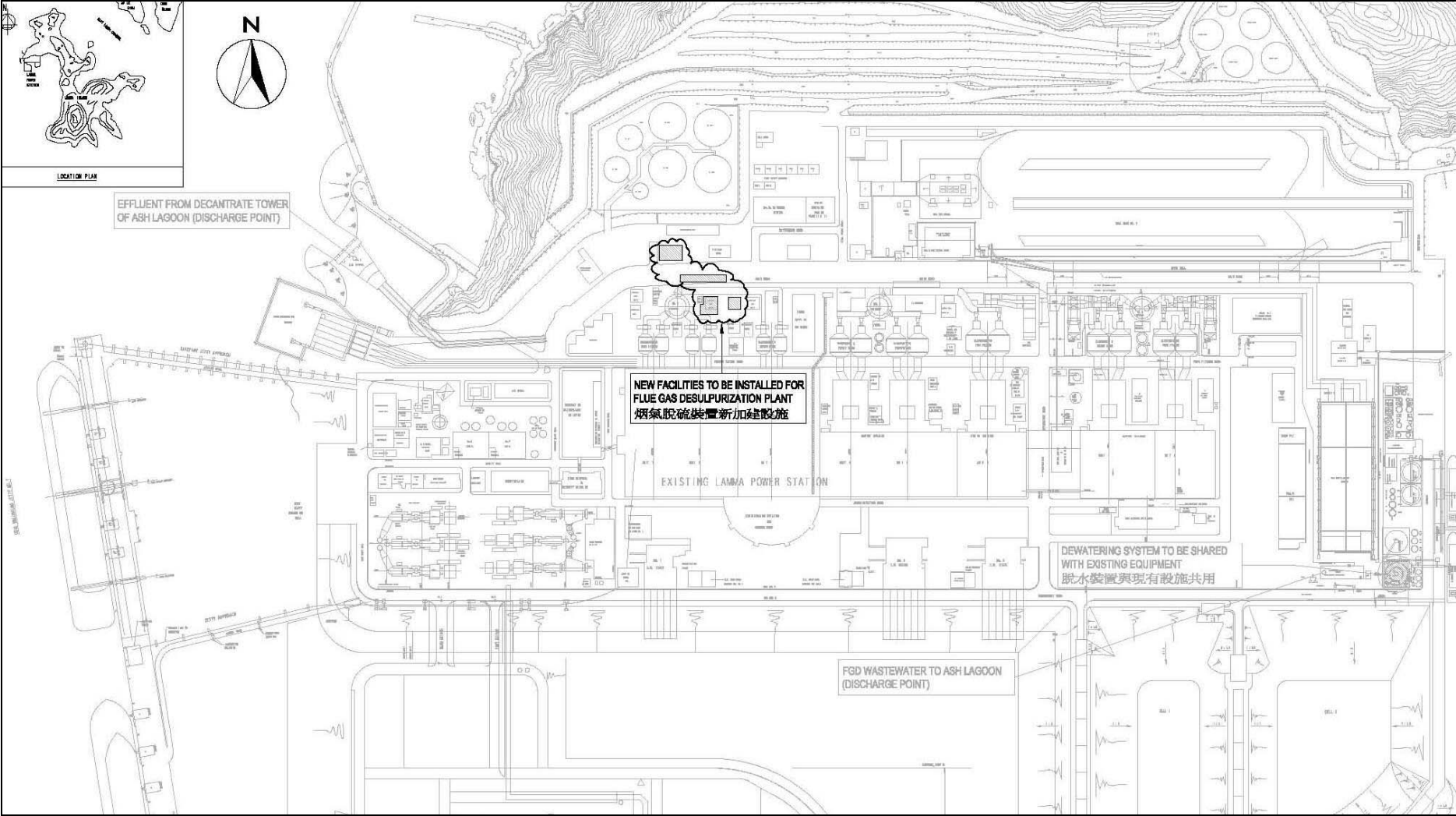


Figure 1.1b Location of New Facilities for L2 FGD Plant

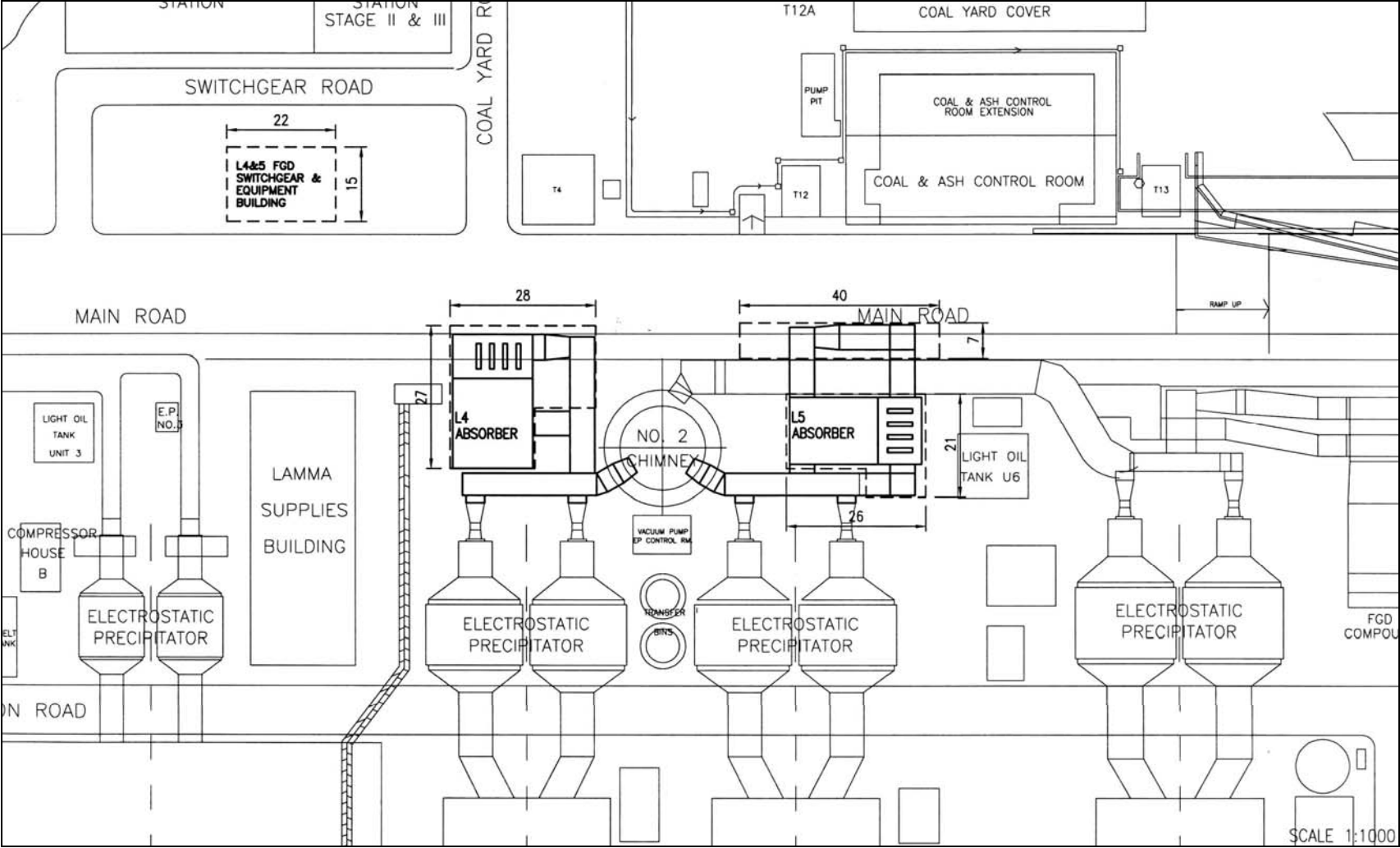


Figure 1.2a General Arrangement of L4 & L5 FGD Plants

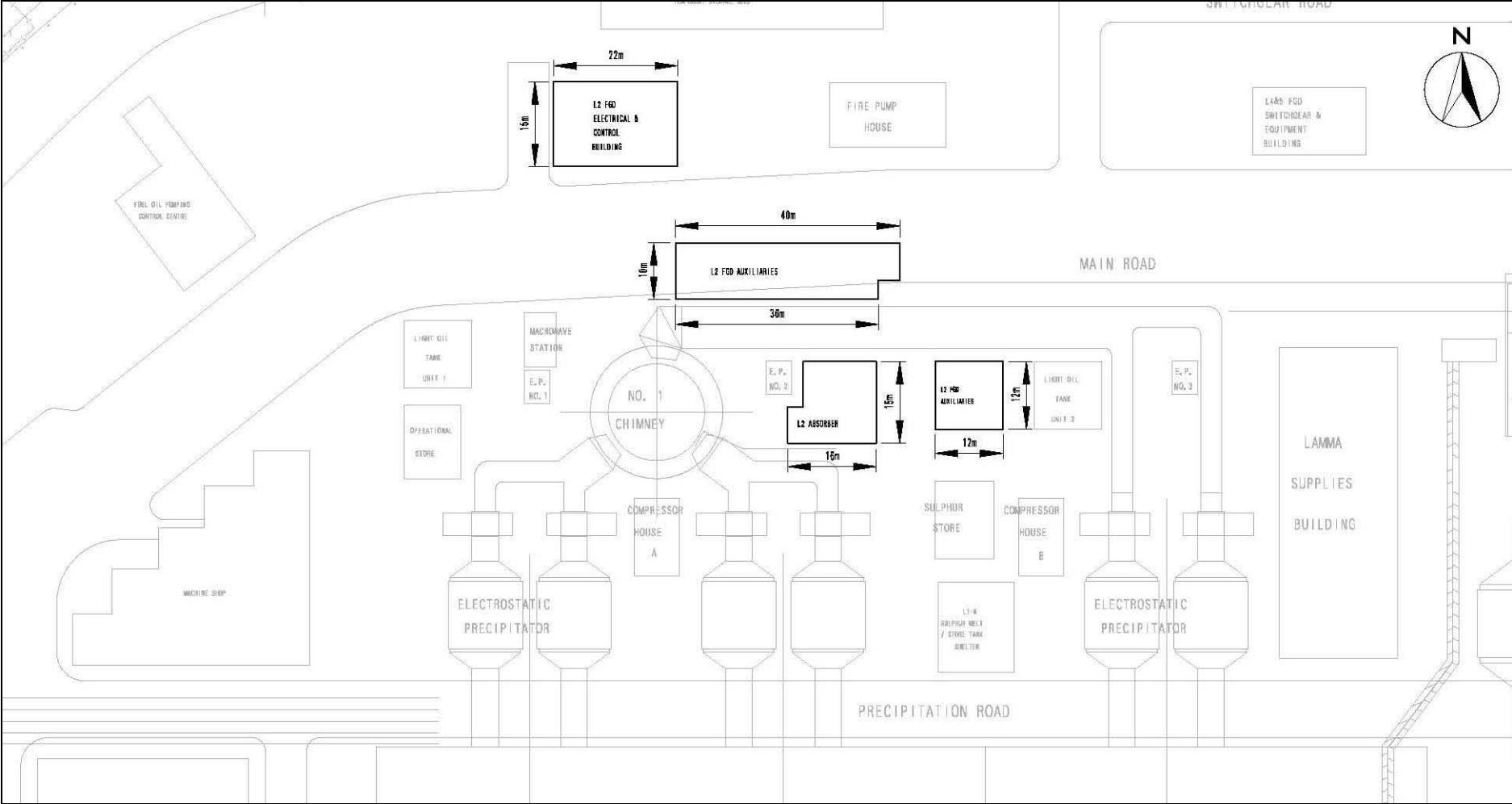


Figure 1.2b General Arrangement of L2 FGD Plant

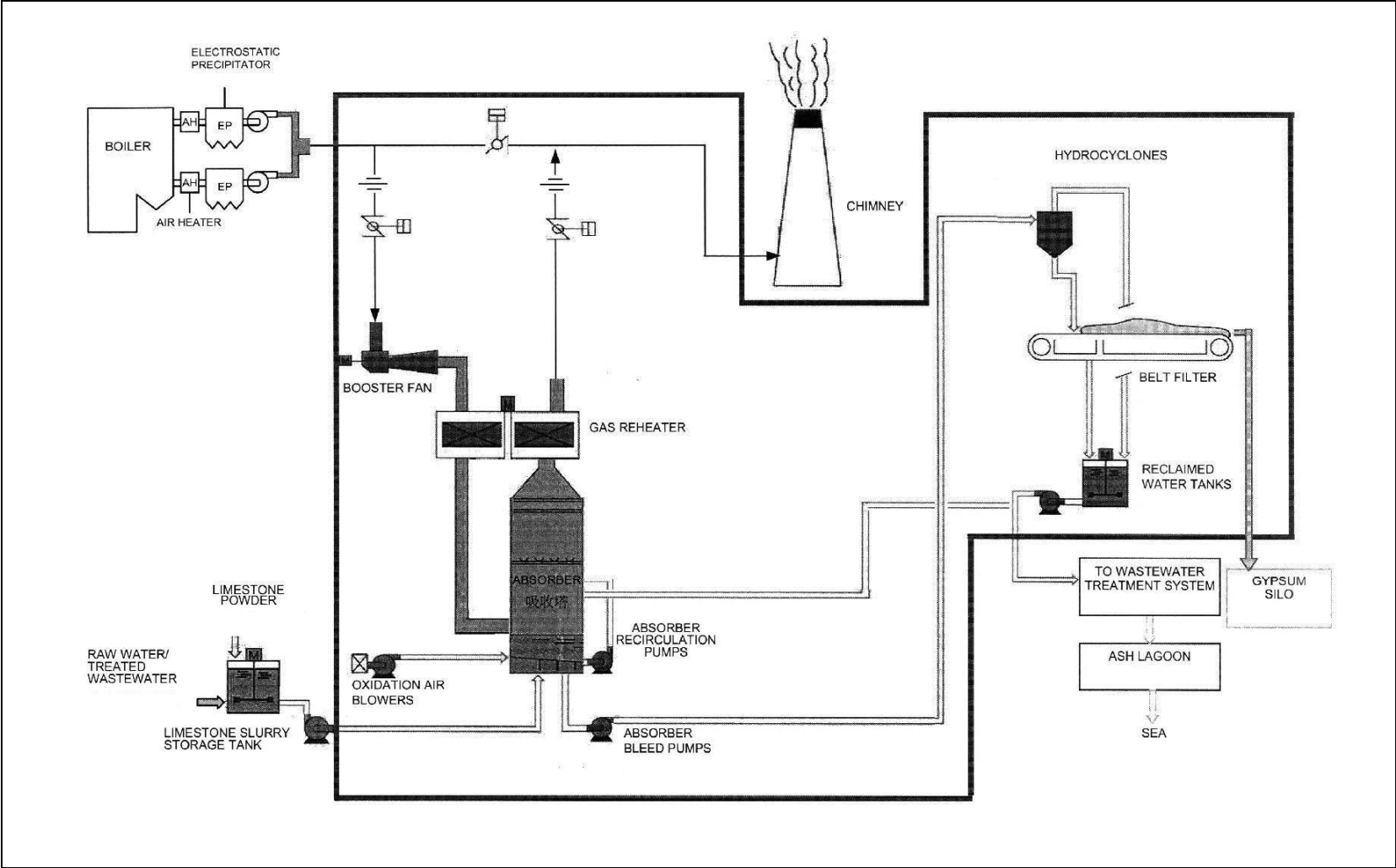


Figure 1.3 Schematic Diagram of the L4 & L5 FGD Plant

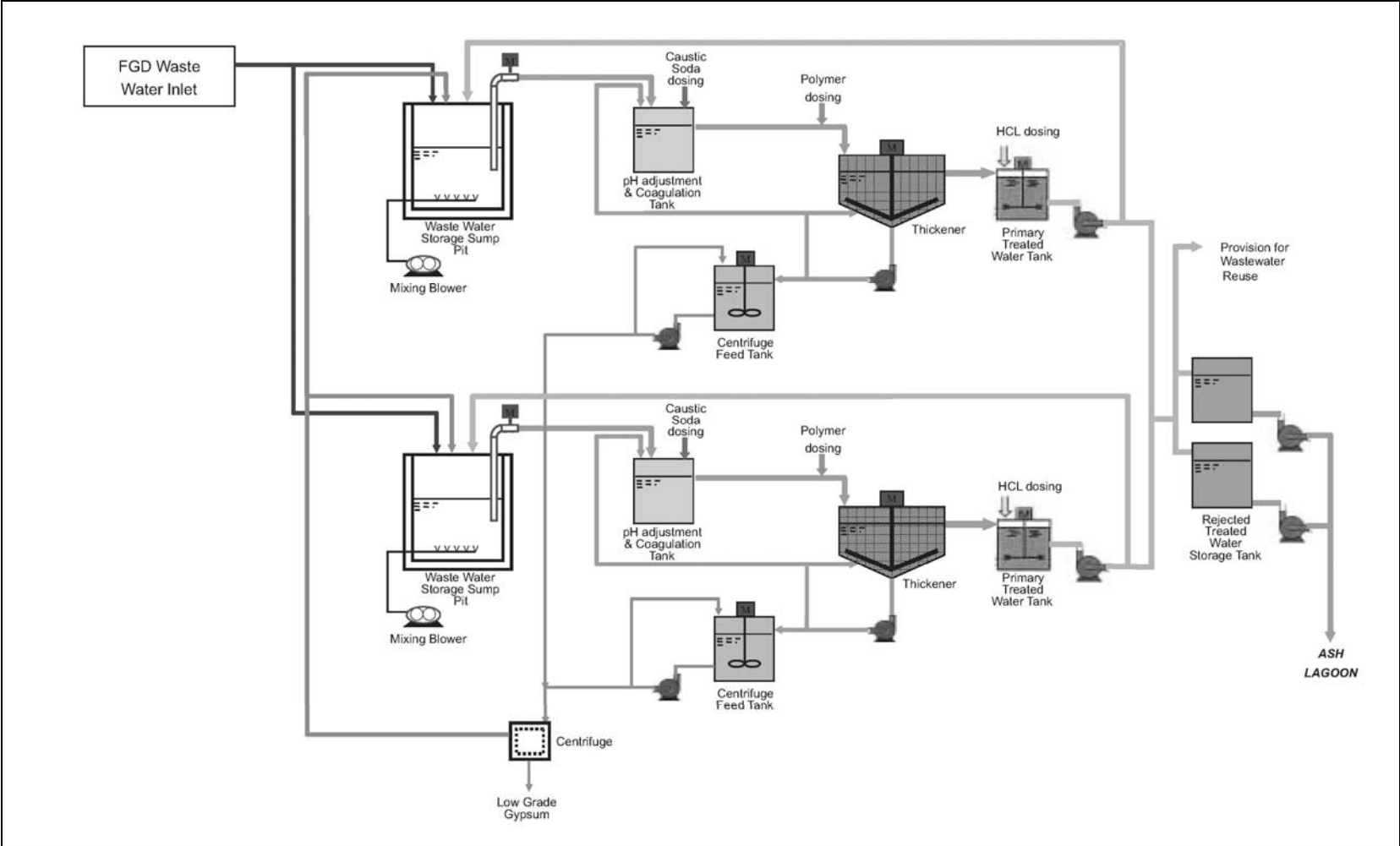


Figure 1.4 Simplified Schematic Diagram of FGD Wastewater Treatment Plant

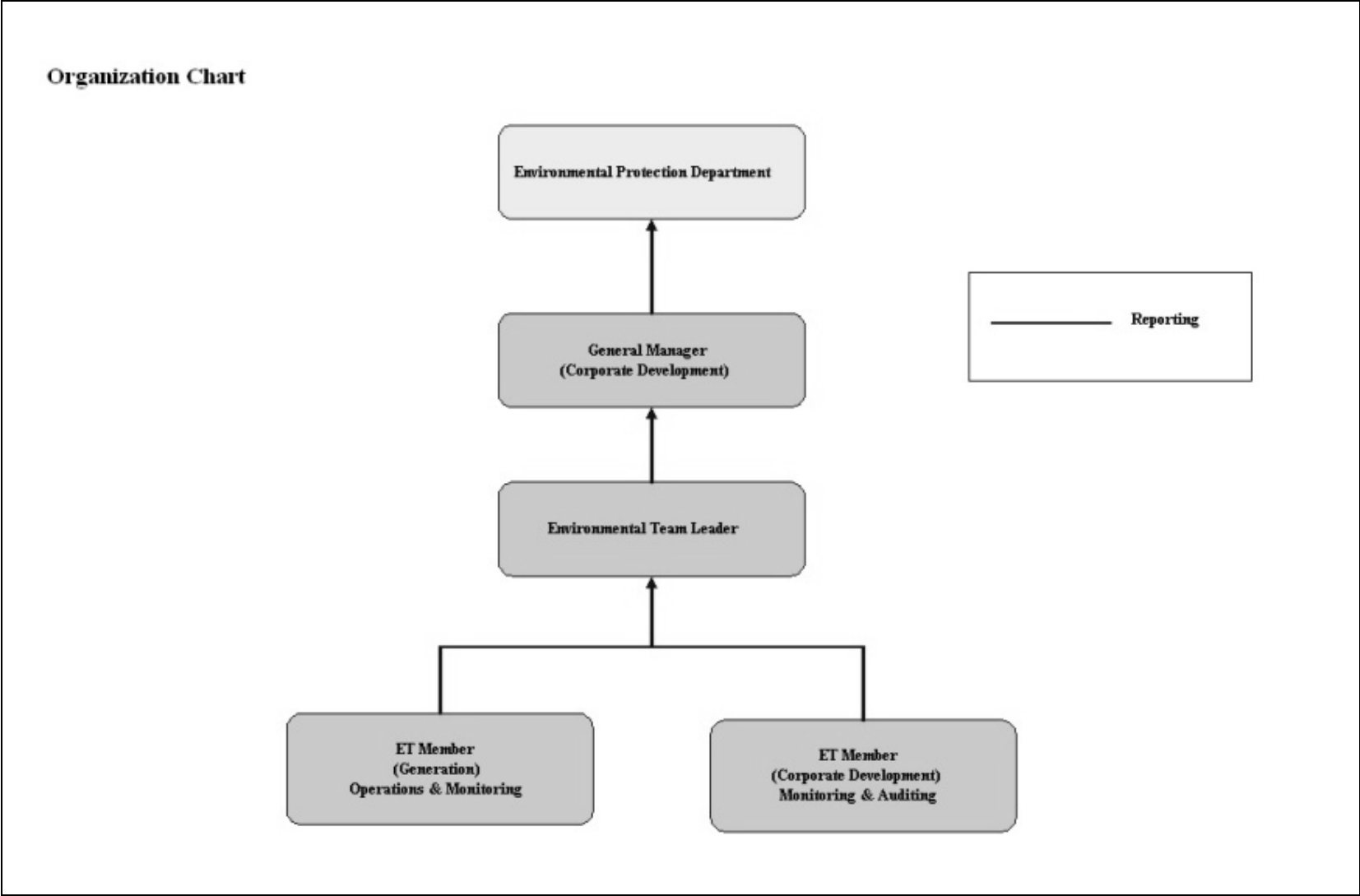


Figure 1.5 Organization Structure at Operational Phase of the Projects

2. AIR QUALITY

2.1 Monitoring Requirements

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

Table 2.1 Air Quality Monitoring Parameters and Frequency

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

2.2 Summary of Results and Observations

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

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

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. Site searching for a suitable location for the replacement station was in progress.

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.	01/10/13-31/12/13	N.A.	0	
2	Continuous monitoring of opacity, NOx, SO2 and CO2 in the flue gas at the chimney stacks	01/10/13-31/12/13	0	0	
3	TSP monitoring at Lamma Power Station Boundary (ie East Gate and Reservoir).	01/10/13-31/12/13	0	0	
4	Ambient SO2 & NOx monitoring at the Peak, Queen Mary Hospital, Victoria Road, Chung Hom Kok, Ap Lei Chau and	01/10/13-31/12/13	0	0	

Item	Parameter Monitored	Monitoring Period	No. of Exceedances In		Event/Action Plan Implementation Status and Results
			Action Level	Limit Level	
	Cheung Chau.				
Water					
1	pH in WWTP Effluent	01/10/13-31/12/13	0	0	
2	Suspended Solids in WWTP Effluent	01/10/13-31/12/13	0	0	
3	Iron in WWTP Effluent	01/10/13-31/12/13	0	0	
4	Barium in WWTP Effluent	01/10/13-31/12/13	0	0	
5	Mercury in WWTP Effluent	01/10/13-31/12/13	0	0	
6	Cadmium in WWTP Effluent	01/10/13-31/12/13	0	0	
7	Cyanide in WWTP Effluent	01/10/13-31/12/13	0	0	
8	Total Phosphorus in WWTP Effluent	01/10/13-31/12/13	0	0	
9	Total Nitrogen in WWTP Effluent	01/10/13-31/12/13	0	0	

Waste Management Records

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

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

Period	Amount of Gypsum Collected	Amount of Sludge Collected
October 2013	4557.2 MT	223.9 MT
November 2013	4157.0 MT	0 MT
December 2013	3361.7 MT	0 MT

4.3 Status of Environmental Licensing and Permitting

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

Table 4.3 Summary of Environmental Licensing and Permit Status

Description	Permit / Licence No.	Valid Period		Status
		From	To	
Environmental Permit for Units L4/5 FGD Plants Retrofit	EP-248/2006	25/04/2006	-	Valid
Environmental Permit for Unit L2 FGD Plant Retrofit	EP-287/2007	02/10/2007	-	Valid
Specified Processes Licence issued under APCO	L-7-002(9)	01/01/2013	31/12/2014	Valid
WPCO discharge licence for Ash Lagoon	WT00011131-2011	15/12/2011	31/12/2016	Valid

4.4 Implementation Status of Environmental Mitigation Measures

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

4.5 Implementation Status of Event/Action Plan

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

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

4.6 Implementation Status of Environmental Complaint Handling Procedures

During the reporting period, there was no environmental concern against the operation of Lamma Power Station.

Table 4.4 Environmental Complaints / Enquiries Received

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

Table 4.5 Outstanding Environmental Complaints / Enquiries Carried Over

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

5. FUTURE KEY ISSUES

5.1 Outage Plan for the coming 3 months

Unit / Equipment	Period	Remark
L2	07/02/2014 to 01/04/2014	Unit overhaul
L5	04/03/2014 to 26/05/2014	Unit overhaul

5.2 Key issues for the coming 3 months

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

Air Impact

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

Water Impact

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

6. CONCLUSION

Environmental monitoring was performed as required in the reporting period from October to December 2013. All monitoring results were checked and reviewed.

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

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

Environmental mitigation measures recommended in the EIA Report and EP were implemented in the reporting period. No environmental concern against the operation of Lamma Power Station was received during the reporting period. No prosecution was received for the Projects in the reporting period.

The environmental performance of the Projects was generally satisfactory.

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

A.1 Air

Source of Emissions	Parameters to be Monitored	Frequency	Concentration Not to Be Exceeded	Action	Limit	Proposed Action
Steam boilers L2, L4 and L5	Particulate	once/year	50 mg/Nm ³	-	50	ET Leader informs Generation Division at action level. Maintenance initiated. Temporary load shift until pollution control equipment repaired and reinstated. Report to EPD.
	Particulate (Opacity)	continuous	40% (bihourly)	35	40	
	SO ₂	continuous	200 mg/Nm ³ (1h)	190	200	
	NO _x expressed as NO ₂ (For L4 and L5 only)	continuous	615 mg/Nm ³ (1h)	585	615	
Fugitive dust (Coal, PFA, limestone, gypsum)	TSP	Once every six days.	260 (µg/m ³) (24 hours)	-	260	Investigation of sources and additional dust suppression to be employed at Limit level. Frequency of monitoring to be increased as necessary.
Chimney emissions	Ambient air SO ₂	Continuous at existing ambient air monitoring stations	800 (µg/m ³) (1h)	-	800	ET to review data on post-hoc basis and check for possible power station contribution.
	NO ₂		300 (µg/m ³) (1h)	-	300	

A.2 Water

Source of Discharges	Parameters to be Monitored	Frequency	Concentration Not to Be Exceeded	Action	Limit	Proposed Action
FGD Wastewater Treatment Plant	pH	Daily	6-9	-	6-9	If pH exceeds limit level, consideration to be given to adjust chemical dosing. ET Leader inform Generation Division and investigation be initiated to identify and remedy cause.
	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 2013 (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. (%)
4/10/2013	113	104	11.2	120	72
10/10/2013	32	31	20.7	080	82
16/10/2013	83	87	40.1	100	71
22/10/2013	92	96	14.1	030	63
28/10/2013	71	75	28.8	080	70
3/11/2013	57	53	39.8	040	71
11/11/2013	49	49	39.9	070	74
17/11/2013	51	49	23.8	030	72
23/11/2013	67	76	31.2	070	66
29/11/2013	114	112	30.3	070	78
03/12/2013	78	70	24.8	060	66
09/12/2013	109	108	18.4	030	61
15/12/2013	22	20	38.3	050	98
21/12/2013	115	95	25.0	030	62
27/12/2013	202	(1)	36.5	030	43
30/12/2013	-	135	10.3	030	50

Remark: (1) Breakdown of High Volume Air Sampler

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

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

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

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

Date	Daily Maximum		
	SO ₂ concentration (mg/Nm ³) [#]	NO _x concentration (mg/Nm ³) [#]	Opacity (%)
1/10/2013	45	410	19
2/10/2013	141	352	21
3/10/2013	107	408	21
4/10/2013	76	439	22
5/10/2013	54	362	21
6/10/2013	24	359	19
7/10/2013	FGD Plant Outage	421	23
8/10/2013	FGD Plant Outage	397	20
9/10/2013	FGD Plant Outage	410	19
10/10/2013	FGD Plant Outage	348	19
11/10/2013	FGD Plant Outage	378	19
12/10/2013	FGD Plant Outage	484	18
13/10/2013	FGD Plant Outage	426	14
14/10/2013	FGD Plant Outage	398	14
15/10/2013	FGD Plant Outage	377	20
16/10/2013	FGD Plant Outage	394	22
17/10/2013	26	413	19
18/10/2013	28	410	18
19/10/2013	18	343	18
20/10/2013	20	419	17
21/10/2013	31	424	19
22/10/2013	23	410	18
23/10/2013	104	435	19
24/10/2013	36	399	18
25/10/2013	62	387	19
26/10/2013	91	375	19
27/10/2013	13	491	17
28/10/2013	54	449	22
29/10/2013	43	429	19
30/10/2013	47	432	19
31/10/2013	50	455	18

Date	Daily Maximum		
	SO2 concentration (mg/Nm3) [#]	NOx concentration (mg/Nm3) [#]	Opacity (%)
1/11/2013	56	406	19
2/11/2013	22	380	19
3/11/2013	56	470	18
4/11/2013	40	459	19
5/11/2013	86	421	19
6/11/2013	97	372	18
7/11/2013	78	366	18
8/11/2013	107	319	18
9/11/2013	79	349	18
10/11/2013	68	384	18
11/11/2013	69	400	19
12/11/2013	78	375	19
13/11/2013	115	384	18
14/11/2013	98	424	18
15/11/2013	117	432	19
16/11/2013	107	404	23
17/11/2013	53	474	17
18/11/2013	109	422	19
19/11/2013	51	445	22
20/11/2013	66	430	20
21/11/2013	123	453	17
22/11/2013	133	431	17
23/11/2013	68	399	15
24/11/2013	80	447	14
25/11/2013	73	417	16
26/11/2013	67	438	15
27/11/2013	85	398	15
28/11/2013	80	419	14
29/11/2013	41	443	13
30/11/2013	21	358	13

Date	Daily Maximum		
	SO2 concentration (mg/Nm3) [#]	NOx concentration (mg/Nm3) [#]	Opacity (%)
1/12/2013	15	359	12
2/12/2013	17	457	12
3/12/2013	27	464	12
4/12/2013	10	435	12
5/12/2013	6	308	11
6/12/2013	7	398	11
7/12/2013	26	453	12
8/12/2013	25	487	13
9/12/2013	48	482	15
10/12/2013	114	446	14
11/12/2013	92	445	13
12/12/2013	53	440	13
13/12/2013	31	460	13
14/12/2013	41	409	14
15/12/2013	42	438	12
16/12/2013	44	458	13
17/12/2013	43	475	13
18/12/2013	28	436	13
19/12/2013	25	417	14
20/12/2013	27	387	13
21/12/2013	30	472	12
22/12/2013	25	449	11
23/12/2013	21	456	12
24/12/2013	8	460	13
25/12/2013	10	423	10
26/12/2013	30	274	10
27/12/2013	29	417	14
28/12/2013	38	414	11
29/12/2013	43	425	12
30/12/2013	38	370	13
31/12/2013	25	420	11

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

* - Unit L5 was not on load.

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

Date	Daily Maximum		
	SO ₂ concentration (mg/Nm ³) [#]	NO _x concentration (mg/Nm ³) [#]	Opacity (%)
1/10/2013	62	404	10
2/10/2013	80	355	14
3/10/2013	68	426	13
4/10/2013	117	426	14
5/10/2013	74	459	14
6/10/2013	17	482	11
7/10/2013	72	404	13
8/10/2013	73	354	11
9/10/2013	89	425	14
10/10/2013	73	445	16
11/10/2013	38	364	15
12/10/2013	18	384	13
13/10/2013	22	472	8
14/10/2013	41	445	8
15/10/2013	113	413	13
16/10/2013	81	419	13
17/10/2013	94	428	15
18/10/2013	37	387	15
19/10/2013	34	437	15
20/10/2013	9	422	9
21/10/2013	61	380	17
22/10/2013	66	421	13
23/10/2013	55	428	12
24/10/2013	51	418	12
25/10/2013	83	430	9
26/10/2013	*	*	*
27/10/2013	*	*	*
28/10/2013	43	409	10
29/10/2013	23	413	10
30/10/2013	36	397	11
31/10/2013	78	377	11

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

Date	Daily Maximum		
	SO2 concentration (mg/Nm3) [#]	NOx concentration (mg/Nm3) [#]	Opacity (%)
1/12/2013	*	*	*
2/12/2013	*	*	*
3/12/2013	*	*	*
4/12/2013	*	*	*
5/12/2013	*	*	*
6/12/2013	*	*	*
7/12/2013	*	*	*
8/12/2013	*	*	*
9/12/2013	*	*	*
10/12/2013	*	*	*
11/12/2013	*	*	*
12/12/2013	*	*	*
13/12/2013	*	*	*
14/12/2013	*	*	*
15/12/2013	*	*	*
16/12/2013	*	*	*
17/12/2013	*	*	*
18/12/2013	*	*	*
19/12/2013	*	*	*
20/12/2013	*	*	*
21/12/2013	*	*	*
22/12/2013	*	*	*
23/12/2013	*	*	*
24/12/2013	*	*	*
25/12/2013	*	*	*
26/12/2013	*	*	*
27/12/2013	*	*	*
28/12/2013	*	*	*
29/12/2013	*	*	*
30/12/2013	*	*	*
31/12/2013	38	456	14

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	
	SO2 concentration (mg/Nm3) [#]	Opacity (%)
1/10/2013	*	*
2/10/2013	*	*
3/10/2013	110	13
4/10/2013	77	16
5/10/2013	*	*
6/10/2013	*	*
7/10/2013	82	15
8/10/2013	45	13
9/10/2013	20	15
10/10/2013	24	16
11/10/2013	27	17
12/10/2013	62	16
13/10/2013	35	14
14/10/2013	32	14
15/10/2013	17	19
16/10/2013	30	15
17/10/2013	30	15
18/10/2013	*	*
19/10/2013	*	*
20/10/2013	*	*
21/10/2013	18	15
22/10/2013	27	17
23/10/2013	*	*
24/10/2013	*	*
25/10/2013	*	*
26/10/2013	*	*
27/10/2013	*	*
28/10/2013	*	*
29/10/2013	*	*
30/10/2013	*	*
31/10/2013	*	*

Date	Daily Maximum	
	SO2 concentration (mg/Nm3) [#]	Opacity (%)
1/11/2013	40	17
2/11/2013	5	16
3/11/2013	*	*
4/11/2013	30	15
5/11/2013	38	16
6/11/2013	38	17
7/11/2013	37	17
8/11/2013	40	17
9/11/2013	50	17
10/11/2013	*	*
11/11/2013	48	17
12/11/2013	41	17
13/11/2013	37	17
14/11/2013	43	16
15/11/2013	38	17
16/11/2013	*	*
17/11/2013	*	*
18/11/2013	60	18
19/11/2013	59	18
20/11/2013	60	20
21/11/2013	65	20
22/11/2013	59	20
23/11/2013	*	*
24/11/2013	*	*
25/11/2013	54	17
26/11/2013	70	18
27/11/2013	58	19
28/11/2013	33	17
29/11/2013	35	17
30/11/2013	17	16

Date	Daily Maximum	
	SO2 concentration (mg/Nm3) [#]	Opacity (%)
1/12/2013	*	*
2/12/2013	18	16
3/12/2013	30	17
4/12/2013	28	15
5/12/2013	22	15
6/12/2013	34	15
7/12/2013	*	*
8/12/2013	*	*
9/12/2013	*	*
10/12/2013	87	17
11/12/2013	97	18
12/12/2013	33	17
13/12/2013	19	18
14/12/2013	34	17
15/12/2013	59	18
16/12/2013	49	20
17/12/2013	40	18
18/12/2013	30	19
19/12/2013	60	19
20/12/2013	58	17
21/12/2013	*	*
22/12/2013	*	*
23/12/2013	*	*
24/12/2013	*	*
25/12/2013	*	*
26/12/2013	*	*
27/12/2013	*	*
28/12/2013	*	*
29/12/2013	*	*
30/12/2013	*	*
31/12/2013	*	*

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

* - Unit L2 was not on load.

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

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

STATION : VICTORIA PEAK
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	2	2	2	2	1	1	2	3	4	4	4	4	4	5	4	5	5	4	5	4	7	6	7	7	4
2	4	3	2	2	3	4	7	11	16	15	16	16	11	21	27	25	20	22	19	25	25	22	11	8	14
3	6	5	3	4	8	7	6	9	21	9	9	9	14	23	17	16	9	10	12	10	9	7	9	6	10
4	8	6	6	5	11	5	4	5	11	14	15	13	14	17	12	8	7	8	12	12	13	19	19	12	11
5	13	11	12	12	9	7	5	5	5	8	14	12	10	18	22	18	32	19	38	48	20	25	24	24	17
6	22	22	15	13	13	12	15	12	12	12	12	10	13	19	15	14	13	18	18	19	21	15	12	15	
7	11	10	10	10	15	16	16	20	22	21	17	14	11	11	11	10	8	6	7	4	5	6	8	9	12
8	15	12	16	15	10	11	10	18	16	12	11	10	8	9	9	7	7	5	3	3	3	3	3	4	9
9	4	5	4	3	3	3	4	4	5	7	6	6	5	6	4	4	2	2	2	3	3	2	1	0	4
10	0	1	1	1	1	1	0	1	1	1	1	2	1	3	3	3	2	3	2	2	4	5	7	5	2
11	8	17	19	16	11	10	6	5	7	6	5	10	13	7	6	23	25	21	26	11	10	9	10	5	12
12	4	2	1	1	3	2	2	3	4	7	7	6	6	6	8	8	8	6	7	7	7	6	4	2	5
13	2	2	3	3	3	4	6	7	8	8	6	5	4	4	5	4	4	5	4	3	2	1	2	2	4
14	2	2	2	2	2	2	4	6	6	6	6	6	4	4	4	5	5	5	5	6	6	5	4	3	4
15	3	2	3	4	6	6	6	8	9	8	8	8	7	6	9	11	10	10	10	6	4	3	2	2	6
16	3	2	4	5	3	4	6	9	10	8	8	7	7	7	7	4	3	3	3	3	2	2	5	3	5
17	3	3	4	4	4	4	4	5	6	6	7	8	8	7	8	8	9	9	7	6	6	5	5	5	6
18	4	4	5	4	3	4	4	6	7	6	4	3	4	4	5	5	6	6	7	6	6	7	5	6	5
19	8	9	9	8	8	9	9	10	11	11	11	16	15	13	22	30	23	28	27	26	14	8	8	6	14
20	7	5	5	6	7	10	13	16	15	12	13	11	11	26	17	15	15	16	14	17	17	11	9	9	12
21	9	6	5	5	7	9	9	8	9	9	8	8	8	19	12	10	7	6	11	10	8	9	10	7	9
22	7	6	8	10	9	10	10	11	19	16	18	10	16	25	27	19	45	42	41	28	25	16	16	16	19
23	16	19	22	22	22	21	21	22	28	24	22	22	22	19	26	27	18	22	22	25	36	21	18	21	22
24	23	25	24	26	24	23	24	25	29	26	23	19	14	14	14	13	22	23	15	13	13	16	15	16	20
25	18	18	18	20	22	22	21	21	25	26	22	18	17	17	16	16	18	16	15	15	16	17	18	20	19
26	20	20	19	19	19	20	20	20	19	20	19	18	17	16	16	15	16	16	15	14	15	13	13	11	17
27	11	12	11	9	9	9	9	8	9	10	12	14	13	13	13	13	9	10	11	8	8	7	7	6	10
28	6	5	5	5	5	7	7	8	8	9	9	10	8	8	7	8	7	5	5	6	7	6	6	6	7
29	6	5	4	4	3	4	6	5	6	5	5	5	4	4	5	5	6	7	7	7	7	9	8	6	6
30	5	4	3	4	4	4	3	4	6	6	6	5	6	5	4	4	4	4	6	5	7	6	4	4	5
31	3	4	3	4	4	5	7	7	8	7	5	5	6	6	7	8	7	9	10	8	8	6	5	3	6

MONTHLY STATISTICS:

GEOM		ARITH	<-----PERCENTILE----->					<-----RANGE----->				STN GEOM	PERCENT	NO. OF TIMES			
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	1-HR	24-HR		
8	8	10	8	21	24	27	30	0	-	48	2	-	22	2	100	0	0

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

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

STATION : VICTORIA PEAK
POLLUTANT : NITROGEN DIOXIDE

MONTH:OCTOBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	0	1	0	0	0	0	2	4	4	6	9	6	6	11	15	42	44	28	5	7	7	7	5	25	10
2	15	11	8	6	6	6	12	34	59	78	65	52	51	34	42	47	31	64	119	128	163	132	86	19	53
3	29	17	14	10	30	23	27	68	90	58	69	50	51	53	48	48	44	92	66	36	8	3	6	9	40
4	4	1	2	2	14	9	15	36	54	80	64	56	39	32	31	48	42	58	58	61	109	131	65	16	43
5	13	8	4	5	4	5	14	36	38	70	69	51	33	41	35	27	39	43	93	74	65	97	83	95	43
6	54	44	28	30	31	17	20	23	34	55	46	38	28	32	39	33	37	29	44	40	39	45	31	22	35
7	22	12	10	9	14	14	19	29	39	47	45	38	33	28	28	28	37	37	41	24	29	38	33	31	29
8	45	34	35	31	23	23	24	49	55	57	51	41	27	32	35	39	46	37	44	47	58	62	60	39	41
9	48	46	31	21	13	14	29	35	38	25	9	15	2	6	5	8	14	15	3	0	0	0	0	0	16
10	0	0	0	0	0	0	3	17	25	27	14	12	0	13	30	38	18	31	31	39	56	79	83	93	25
11	97	96	62	62	66	68	62	53	51	65	66	50	29	23	23	49	54	45	53	29	6	0	4	7	47
12	13	12	6	3	8	11	20	45	65	72	37	15	7	18	26	28	31	13	6	4	9	6	2	8	19
13	7	7	4	5	4	5	10	16	21	19	19	14	2	12	20	25	19	3	4	7	0	2	5	3	10
14	8	2	0	0	0	0	1	3	5	4	8	9	4	8	27	33	27	20	3	2	4	7	8	5	8
15	3	1	0	2	1	3	12	31	42	49	53	48	14	14	17	27	30	37	16	4	3	1	0	1	17
16	3	1	0	1	0	0	8	23	30	35	22	8	4	15	21	15	24	16	7	6	3	4	11	8	11
17	6	6	4	3	1	3	2	7	12	28	22	20	9	17	24	32	37	37	24	16	17	10	7	6	15
18	2	1	2	1	1	2	14	31	43	54	21	22	31	40	52	48	45	78	111	51	32	19	17	48	32
19	71	60	43	19	11	11	16	27	53	61	69	70	56	52	55	60	51	62	70	52	64	67	57	43	50
20	17	20	19	21	22	M	38	49	38	35	31	22	20	43	27	30	29	38	65	68	80	30	27	26	35
21	11	14	13	14	17	16	32	43	66	79	75	49	46	60	52	40	40	41	72	92	29	30	40	37	42
22	27	19	28	27	17	21	27	51	61	74	66	55	48	51	46	26	79	83	102	81	88	82	76	55	54
23	39	20	13	14	12	11	21	59	84	90	86	64	56	50	44	53	36	51	68	67	98	72	57	62	51
24	54	31	23	26	18	14	36	46	91	106	69	61	43	45	51	47	59	67	73	67	83	79	64	48	54
25	30	21	18	15	16	17	24	38	63	86	69	56	52	47	45	51	58	78	84	92	108	74	69	55	53
26	47	35	31	18	13	20	28	55	74	102	92	55	50	32	29	31	17	21	20	19	18	17	19	19	36
27	16	21	23	19	14	12	28	43	32	27	14	17	16	14	8	6	5	8	16	10	22	15	9	4	17
28	5	5	4	3	4	4	8	15	18	20	28	46	22	22	24	20	23	20	13	30	47	32	12	8	18
29	5	3	1	1	1	1	7	14	24	30	23	21	7	18	24	34	14	12	11	49	28	16	14	10	15
30	6	6	2	0	0	0	1	10	19	27	29	9	10	4	9	14	13	11	21	8	9	13	15	14	10
31	12	7	1	4	6	7	15	31	50	60	50	36	33	42	32	27	40	37	22	10	10	8	15	11	24

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->					STN GEOM	PERCENT	NO. OF TIMES			
MEAN	MEDIAN	50	90	95	98	99	1-HR	24-HR	24-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR	ABOVE OBJECTIVE	ABOVE OBJECTIVE	
21	24	31	24	66	80	95	107	0	-	163	8	-	54	3	100	0	0

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

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

STATION : VICTORIA PEAK
POLLUTANT : SULPHUR DIOXIDE

MONTH: NOVEMBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

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

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->					STN	GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN		50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID	DATA	1-HR	24-HR	
6	7	8		7	14	17	23	28	0	-	33	1	-	16	2	100	0	0

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

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

STATION : VICTORIA PEAK
POLLUTANT : NITROGEN DIOXIDE

MONTH: NOVEMBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	8	6	7	15	24	20	25	61	74	80	62	35	26	36	49	52	37	109	89	106	104	98	85	70	53
2	57	37	31	29	14	11	23	40	48	57	64	53	45	44	43	50	50	63	51	58	38	34	34	22	42
3	16	7	3	4	8	8	14	28	23	34	39	36	27	26	40	38	29	45	44	36	28	30	27	33	26
4	24	4	0	0	0	0	4	21	45	35	27	36	33	39	37	40	56	50	35	38	31	19	13	19	25
5	16	5	4	1	0	0	1	15	21	39	26	25	19	24	48	45	54	57	58	51	50	38	36	35	28
6	22	14	9	13	10	7	19	45	53	68	66	62	62	47	47	43	60	89	118	143	108	90	69	61	55
7	34	15	5	3	1	1	6	22	24	24	29	15	8	9	12	13	22	15	9	2	0	2	2	2	11
8	0	1	1	0	0	0	0	2	13	14	25	49	30	40	64	77	81	63	56	24	28	35	26	20	27
9	18	13	11	8	7	8	10	12	17	23	24	13	12	12	14	13	9	8	5	1	2	2	5	6	11
10	1	1	1	1	0	0	3	5	4	4	3	2	3	3	1	2	4	5	4	8	10	6	5	0	3
11	0	0	0	0	0	0	0	0	0	2	4	2	1	0	0	0	0	1	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	1	5	6	6	0	2	6	5	4	3	4	1	0	0	1	5	2
13	4	9	6	6	5	7	12	27	34	42	46	42	41	43	53	57	62	63	63	50	41	21	27	23	33
14	23	20	11	25	20	23	23	32	38	43	38	41	38	38	47	53	66	91	64	59	65	53	50	59	43
15	53	50	37	22	23	40	40	40	49	61	54	44	24	29	35	33	63	46	30	22	32	41	42	32	39
16	37	30	23	23	29	33	43	43	51	80	75	82	57	52	56	59	83	144	144	88	103	94	89	112	68
17	67	29	15	16	24	26	26	53	52	35	31	20	19	20	26	7	27	67	84	70	78	88	58	54	41
18	38	22	9	6	3	6	13	31	49	46	32	14	8	19	14	42	28	19	21	15	19	22	32	25	22
19	36	15	15	12	21	14	19	42	52	72	40	19	19	19	24	24	31	27	22	27	12	17	12	12	25
20	5	M	5	3	3	4	8	21	26	38	26	24	23	36	49	37	34	47	38	35	22	35	34	20	25
21	16	11	6	6	7	7	10	21	54	55	55	44	29	46	57	83	51	43	46	33	23	12	3	8	30
22	1	3	0	0	0	1	7	18	29	40	41	37	13	20	32	34	29	36	27	26	20	5	13	10	18
23	5	2	0	0	0	0	2	9	12	D	D	D	5	19	21	27	20	39	8	0	1	0	0	3	8
24	2	1	0	0	0	0	0	2	12	7	10	23	38	19	31	25	37	94	41	58	36	31	20	36	22
25	29	18	15	9	7	8	13	38	53	73	72	70	51	75	87	68	44	52	37	59	77	65	37	32	45
26	31	21	13	11	10	9	18	23	38	46	45	37	20	60	78	53	55	35	23	24	22	19	10	10	30
27	7	2	3	3	3	4	11	27	49	58	60	62	42	56	76	95	111	89	79	76	56	43	42	30	45
28	21	10	7	5	1	2	6	21	36	53	60	52	39	37	45	56	55	61	54	60	44	35	33	29	34
29	18	9	3	2	0	0	4	26	49	62	51	42	34	42	64	82	81	92	97	88	83	69	40	40	45
30	35	18	14	26	21	12	24	38	65	61	49	61	46	53	56	59	66	87	83	100	115	97	68	75	55

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->				STN	GEOM	PERCENT	NO. OF TIMES		
MEAN	MEDIAN	MEAN		50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA		ABOVE OBJECTIVE		
																1-HR	24-HR	
22	25	31		25	65	83	97	109	0	-	144	0	-	68	3	99	0	0

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

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

STATION : VICTORIA PEAK
POLLUTANT : SULPHUR DIOXIDE

MONTH:DECEMBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	13	13	13	13	14	15	17	18	20	18	16	15	11	20	19	13	13	12	12	13	23	18	18	21	16
2	19	16	15	13	13	14	15	16	27	19	15	15	12	10	11	10	10	11	10	14	13	10	8	10	14
3	9	8	8	9	10	10	10	11	12	16	16	12	11	11	10	10	10	9	9	9	7	9	10	12	10
4	13	12	16	12	12	41	32	41	46	43	39	33	30	25	23	22	25	31	33	33	27	24	24	25	28
5	23	22	21	21	20	20	20	21	20	19	18	16	14	15	14	14	14	13	15	16	38	35	20	19	20
6	23	24	21	19	23	20	20	21	34	31	24	20	16	19	20	20	19	21	24	27	27	24	22	18	22
7	14	11	11	10	12	13	12	14	15	14	14	11	11	13	37	36	35	24	24	33	34	20	12	10	18
8	9	8	10	11	11	14	14	15	16	16	18	19	16	16	17	16	15	14	16	13	16	17	17	14	15
9	10	10	10	11	12	22	41	48	40	33	32	31	28	24	21	24	35	21	20	26	31	33	33	32	26
10	32	32	31	33	35	36	34	31	38	33	26	25	24	20	20	21	20	19	15	16	15	15	15	15	25
11	16	16	16	16	14	15	19	29	32	34	37	36	35	35	36	36	35	37	38	36	38	35	34	31	29
12	31	29	26	24	23	25	26	27	28	30	30	25	22	20	22	22	22	21	20	22	23	27	24	26	25
13	23	19	17	15	15	11	12	12	14	12	12	23	32	25	23	18	22	33	22	22	20	20	19	16	19
14	14	15	16	13	13	16	19	21	24	23	21	22	16	15	11	9	8	7	5	6	3	2	2	2	13
15	2	2	3	3	3	3	3	3	2	3	3	4	3	3	3	2	2	2	2	2	3	3	3	3	3
16	3	3	3	4	6	5	4	4	4	6	5	7	6	6	4	4	6	5	4	4	3	3	3	3	4
17	2	2	2	2	2	2	2	2	4	5	5	7	5	5	6	5	6	6	7	9	8	6	16	8	5
18	3	3	3	4	3	4	5	5	6	8	8	8	7	7	6	6	7	5	5	5	5	5	6	5	5
19	5	5	5	5	5	5	5	6	8	12	8	9	7	7	6	9	8	7	8	10	16	10	10	8	8
20	7	6	7	7	8	8	11	16	19	19	18	16	15	18	18	17	30	24	18	15	17	13	12	14	15
21	18	16	14	18	16	15	15	24	29	28	28	35	32	28	22	18	17	22	21	25	27	30	36	32	24
22	28	27	40	47	45	48	61	52	51	43	32	23	22	20	27	38	39	50	40	29	28	24	23	24	36
23	23	22	21	20	22	23	22	22	23	26	30	29	27	30	30	28	33	52	50	34	27	31	24	22	28
24	20	21	22	23	25	26	27	28	42	41	29	23	17	17	14	17	18	47	54	29	23	26	29	28	27
25	28	30	29	27	27	28	28	24	27	37	45	34	33	35	40	45	50	77	57	38	31	29	27	27	36
26	28	29	29	28	28	29	29	30	32	35	35	33	31	25	25	25	25	25	27	32	30	31	34	34	30
27	36	37	36	40	43	41	50	56	62	61	60	57	54	49	54	56	57	55	58	66	68	73	72	69	55
28	67	66	65	63	61	57	54	53	58	57	49	46	47	41	37	40	38	32	27	23	22	22	24	22	45
29	20	20	19	18	20	21	23	23	23	24	23	22	21	21	23	23	22	21	21	21	22	23	24	25	22
30	24	22	21	21	21	21	22	24	31	40	41	33	54	34	37	61	56	57	80	94	83	70	53	35	43
31	36	42	38	31	30	26	25	25	45	43	45	38	30	41	46	49	65	68	62	72	62	65	52	56	46

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->					STN GEOM	PERCENT	NO. OF TIMES ABOVE OBJECTIVE			
MEAN	MEDIAN	50	90	95	98	99	1-HR	24-HR	24-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR			
18	21	23	21	42	56	65	70	2	-	94	3	-	55	2	100	0	0

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

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

STATION : VICTORIA PEAK
POLLUTANT : NITROGEN DIOXIDE

MONTH:DECEMBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	59	38	60	28	43	31	36	54	45	41	34	40	14	30	33	19	37	59	66	93	123	102	53	44	49
2	106	82	41	18	11	13	15	34	87	79	63	63	36	25	41	27	43	57	8	9	8	10	4	3	37
3	5	4	4	4	3	4	7	21	42	54	57	58	22	57	82	63	70	61	27	5	2	7	0	1	28
4	3	M	15	7	10	24	29	62	60	151	132	93	57	64	62	66	75	100	89	67	76	78	55	41	62
5	35	28	18	9	3	1	7	31	52	64	67	61	37	54	48	47	49	32	43	93	110	95	96	75	48
6	56	38	35	22	17	21	51	64	114	113	79	57	32	48	61	53	62	106	93	103	108	68	69	32	63
7	44	39	27	11	27	17	15	23	47	55	77	52	37	66	81	92	77	100	118	127	152	55	36	25	58
8	18	17	13	14	13	11	12	15	17	23	25	20	19	26	30	24	15	11	15	17	25	19	21	17	18
9	20	40	16	12	11	13	33	70	74	85	70	76	60	56	72	76	103	78	79	100	90	52	40	34	57
10	30	33	21	30	30	27	21	38	84	91	59	37	31	29	38	42	28	32	26	26	20	17	19	22	35
11	20	14	14	14	13	16	27	42	77	109	95	80	67	85	90	85	90	88	69	79	55	55	47	35	57
12	25	18	18	15	17	14	20	32	46	47	55	42	33	36	50	60	71	48	31	26	21	24	31	34	34
13	27	20	19	19	29	21	22	46	70	75	79	103	111	110	115	94	103	105	118	116	99	77	46	18	68
14	21	14	15	12	11	13	23	40	42	45	48	68	48	70	75	85	80	72	61	49	40	22	14	13	41
15	8	6	7	6	5	4	5	14	15	15	21	25	19	19	29	26	17	16	21	17	15	17	14	16	15
16	13	11	12	17	21	27	22	28	34	40	42	47	45	47	40	46	64	59	43	43	36	32	35	26	35
17	20	15	12	9	13	19	25	31	43	45	44	51	43	48	52	51	49	49	49	46	21	24	38	37	35
18	20	M	4	2	0	2	4	10	20	22	19	22	17	18	25	24	25	28	33	34	32	29	32	33	20
19	28	14	12	8	5	8	15	30	40	49	37	40	41	44	50	70	70	75	71	77	93	65	51	55	44
20	49	24	13	5	5	7	20	31	52	67	62	57	61	64	73	99	93	105	103	73	62	59	48	46	53
21	45	41	38	21	15	M	26	51	71	75	79	81	68	71	69	64	62	93	87	92	66	61	59	43	60
22	26	30	40	40	31	40	59	57	55	37	30	15	18	21	40	63	75	96	88	82	82	53	27	37	48
23	26	48	37	17	18	20	21	5	34	88	118	115	90	105	110	117	111	129	161	115	81	86	56	81	75
24	51	38	48	18	19	22	26	38	82	120	109	78	26	47	29	31	43	97	132	111	69	78	53	54	59
25	57	62	41	25	22	28	33	21	45	54	75	62	62	69	79	92	91	142	140	123	96	101	63	36	67
26	32	20	14	14	9	12	17	25	34	42	50	50	45	35	39	46	60	59	71	71	47	40	27	24	37
27	20	11	10	8	8	9	16	31	46	49	53	55	52	54	56	60	57	64	64	71	69	69	59	98	45
28	73	75	59	47	43	31	41	67	105	119	115	111	92	73	69	76	96	112	95	80	97	74	58	39	77
29	27	17	8	6	5	7	21	44	45	46	41	27	23	17	17	25	30	27	31	40	50	63	54	43	30
30	42	44	43	25	20	17	16	35	108	130	139	113	104	77	86	118	142	131	170	183	172	201	179	78	99
31	30	34	25	18	21	16	20	28	105	130	145	140	92	98	111	125	110	87	158	166	102	99	71	76	84

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->				STN GEOM	PERCENT	NO. OF TIMES ABOVE OBJECTIVE				
MEAN	MEDIAN	50	90	95	98	99	1-HR	24-HR		DEVIATION	VALID DATA	1-HR	24-HR				
37	42	50	42	99	115	139	156	0	-	201	15	-	99	2	100	0	0

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

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

STATION : CHUNG HOM KOK ZONE SUBSTATION
POLLUTANT : SULPHUR DIOXIDE

MONTH:OCTOBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	0	0	0	0	0	0	0	3	4	3	2	2	3	3	4	1	1	2	1	5	5	5	2	5	2
2	1	0	1	1	0	2	6	8	8	10	8	7	6	6	5	7	6	4	6	6	7	9	M	4	5
3	3	4	2	2	3	4	3	5	6	6	6	7	5	4	5	5	5	6	6	6	4	5	8	5	5
4	4	5	5	3	2	1	0	0	3	8	10	8	7	6	4	3	4	8	12	12	11	13	17	16	7
5	13	12	10	9	6	5	3	3	3	3	7	10	14	12	2	2	3	3	6	23	35	47	52	30	13
6	27	16	11	10	10	9	10	10	9	8	8	7	6	6	10	9	7	9	13	15	12	12	10	8	11
7	6	4	4	4	5	9	10	14	16	9	6	6	4	4	3	3	2	1	2	1	1	2	3	4	5
8	4	4	3	3	2	2	2	3	6	4	4	4	4	4	5	4	4	3	1	0	0	0	1	0	3
9	0	0	0	0	0	0	0	1	1	3	3	2	2	2	1	0	0	1	6	2	2	3	0	0	1
10	0	0	0	0	0	1	0	0	0	0	0	0	2	2	0	0	2	1	0	5	3	7	6	2	1
11	2	2	14	21	26	19	11	5	4	3	4	2	0	0	0	6	13	18	10	7	6	9	8	3	8
12	0	0	0	0	0	0	0	0	0	2	3	2	2	5	4	2	2	1	3	4	3	1	0	1	1
13	1	1	1	1	2	3	6	8	7	8	5	3	3	3	3	3	3	2	1	0	0	1	0	0	3
14	0	0	0	0	0	0	0	3	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	2	4	4	5	9	6	5	6	7	6	7	8	9	7	9	6	3	1	0	0	0	4
16	0	0	1	2	1	1	4	5	5	5	5	5	4	5	3	0	0	0	0	0	0	1	0	0	2
17	0	0	0	0	0	0	0	0	0	0	0	2	2	2	4	4	3	0	0	1	0	0	0	2	1
18	2	2	2	2	1	2	1	3	4	2	2	1	0	1	1	3	3	4	3	4	3	3	2	3	2
19	5	5	6	7	6	6	6	8	8	8	9	8	8	7	6	7	6	6	6	6	6	5	5	4	6
20	4	3	4	3	4	8	11	11	12	11	9	6	4	3	4	4	6	8	11	9	7	7	6	7	7
21	6	4	5	5	7	6	6	6	7	6	7	7	5	6	5	4	7	5	6	9	7	8	6	6	6
22	7	7	8	7	7	7	7	7	7	10	9	9	13	9	7	10	16	19	21	13	14	16	15	16	11
23	15	19	20	20	20	22	20	18	18	17	17	15	28	25	19	15	15	24	28	29	31	21	21	19	21
24	20	22	23	23	21	20	19	19	18	17	15	15	14	10	15	17	22	26	40	21	12	13	13	15	19
25	16	16	17	17	19	19	19	19	18	18	17	15	15	13	13	15	15	15	14	15	17	17	18	21	17
26	22	20	20	20	19	19	18	18	18	19	19	18	17	16	15	16	16	15	16	14	14	14	14	12	17
27	12	12	11	10	9	9	9	10	9	11	13	14	13	13	12	9	7	8	9	7	8	6	6	6	10
28	6	6	5	6	7	8	8	8	8	10	9	10	8	7	7	7	6	5	6	7	8	6	7	5	7
29	4	3	4	2	2	3	4	4	4	4	4	4	1	3	2	4	4	5	7	6	6	9	7	6	4
30	5	3	3	4	4	3	3	4	5	6	8	8	6	6	6	6	5	4	6	4	6	6	3	1	5
31	1	1	1	1	2	3	3	5	6	4	3	2	3	2	2	2	6	5	4	3	4	2	3	2	3

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->					STN	GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN		50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA		ABOVE OBJECTIVE	1-HR	24-HR
6	5	7		5	16	19	23	28	0	-	52	0	-	21	2	100	0	0

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

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

STATION : CHUNG HOM KOK ZONE SUBSTATION
POLLUTANT : NITROGEN DIOXIDE

MONTH:OCTOBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	7	5	6	5	4	4	5	9	10	10	11	11	14	18	21	15	25	30	16	16	15	12	9	6	12
2	5	6	11	7	5	9	11	17	18	34	28	21	22	18	21	21	26	18	21	22	24	20	M	7	17
3	4	5	4	10	8	9	8	13	23	16	11	19	18	16	20	19	19	24	11	18	10	9	10	9	13
4	9	6	5	8	10	9	6	12	25	28	25	23	22	19	26	25	22	27	25	22	22	14	19	21	18
5	12	10	8	7	7	8	9	12	26	24	19	29	42	34	28	19	22	16	22	39	59	79	94	101	30
6	108	50	20	18	16	22	37	39	34	31	28	33	34	26	45	46	37	53	59	61	46	39	28	23	39
7	17	11	10	9	10	14	25	48	48	31	33	42	35	36	30	37	35	25	22	20	22	21	28	29	27
8	31	25	20	19	18	19	20	40	53	43	41	44	28	27	26	27	28	35	30	28	25	22	17	16	28
9	12	M	12	13	12	16	15	23	23	15	8	11	8	9	10	12	14	18	28	19	16	12	15	8	14
10	5	3	3	2	3	6	6	11	6	6	6	8	8	7	13	13	18	21	14	8	5	10	9	5	8
11	27	47	81	90	86	79	60	49	26	21	18	11	12	11	13	24	31	45	29	41	27	13	7	5	36
12	5	5	4	4	3	2	8	10	25	27	15	18	30	18	18	14	16	10	11	10	7	8	8	7	12
13	6	6	5	5	6	7	9	11	11	11	10	11	11	11	17	16	17	18	13	10	7	7	5	5	10
14	4	4	4	4	3	4	5	10	9	7	6	8	6	6	11	12	10	12	18	14	9	8	7	6	8
15	5	4	3	5	6	8	9	15	15	20	16	15	15	15	17	20	25	27	21	14	11	10	14	7	13
16	6	4	6	6	5	6	15	19	18	17	13	13	13	14	15	13	13	13	11	11	10	10	9	8	11
17	8	7	7	6	6	8	9	16	14	14	13	11	15	15	18	22	24	19	15	12	12	11	11	8	13
18	8	6	6	5	6	8	9	12	15	13	10	8	10	18	17	24	21	14	8	8	8	8	8	16	11
19	16	16	14	13	13	13	15	17	23	18	21	18	23	30	36	28	30	19	17	11	11	9	11	9	18
20	9	9	13	9	14	26	13	13	14	16	15	12	18	16	20	22	26	25	16	14	13	9	9	7	15
21	8	7	10	9	9	9	9	14	15	17	23	22	18	24	24	25	44	29	11	22	16	11	9	9	16
22	13	16	15	11	10	11	15	17	29	25	24	29	33	39	13	19	35	50	50	26	18	15	27	16	23
23	14	M	11	9	9	12	12	14	28	42	32	30	46	55	39	34	45	54	26	24	26	40	28	15	28
24	15	13	11	12	11	10	11	18	25	19	24	32	23	24	40	41	46	49	41	41	27	15	12	12	24
25	13	11	10	9	9	10	12	16	21	22	21	23	19	19	19	24	27	25	24	23	19	16	15	15	18
26	14	11	10	10	11	9	10	12	21	21	18	23	18	20	21	27	24	22	13	11	11	12	12	12	16
27	13	10	10	11	14	16	15	15	13	15	17	17	17	16	20	28	20	18	18	9	11	9	11	8	15
28	9	8	9	10	9	10	11	15	17	16	11	11	11	15	18	20	16	17	13	11	11	16	11	11	13
29	8	6	6	5	5	6	11	15	12	11	12	10	8	13	15	18	20	24	16	9	12	16	13	8	12
30	8	6	5	5	6	5	7	13	13	12	10	11	11	10	14	16	19	17	14	8	10	9	9	8	10
31	8	8	6	5	7	8	11	17	27	24	17	14	17	16	23	19	31	39	18	9	14	9	10	8	15

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->					STN	GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN		50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA		ABOVE OBJECTIVE	1-HR	24-HR
14	14	17		14	31	41	53	72	2	-	108	8	-	39	2	100	0	0

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

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

STATION : CHUNG HOM KOK ZONE SUBSTATION
POLLUTANT : SULPHUR DIOXIDE

MONTH: NOVEMBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

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

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->					STN	GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN		50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA		ABOVE OBJECTIVE	1-HR	24-HR
5	4	5		4	11	14	16	19	0	-	39	0	-	13	2	100	0	0

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

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

STATION : CHUNG HOM KOK ZONE SUBSTATION
POLLUTANT : NITROGEN DIOXIDE

MONTH: NOVEMBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	10	7	6	15	12	12	31	45	42	27	16	15	12	16	27	18	15	14	7	17	13	16	15	23	18
2	18	23	25	22	13	11	11	13	14	16	14	14	12	12	13	16	15	17	14	14	15	13	13	11	15
3	12	11	10	10	9	9	10	10	10	10	10	10	9	12	13	12	13	16	15	15	14	16	14	17	12
4	14	13	12	11	10	10	14	18	18	17	18	17	12	15	20	26	21	17	9	9	11	14	13	13	15
5	12	11	12	8	7	7	10	15	12	11	10	11	10	12	15	16	22	26	22	19	14	20	17	16	14
6	15	M	17	13	17	17	17	27	34	36	24	23	42	23	25	27	26	32	45	20	22	16	17	11	24
7	12	7	7	7	8	9	13	19	14	18	13	16	11	14	15	22	22	24	17	15	11	13	12	9	14
8	7	8	8	7	8	9	11	16	13	14	11	11	14	23	25	29	17	14	11	15	10	11	8	8	13
9	9	9	10	10	10	8	8	9	9	9	9	7	6	7	6	7	6	6	5	5	6	6	5	4	7
10	4	4	4	5	4	4	5	6	5	5	6	5	6	5	7	10	12	9	9	15	18	12	11	12	8
11	5	6	5	7	8	6	8	9	8	8	9	8	7	8	8	9	9	9	7	7	7	7	7	9	8
12	6	5	5	5	5	5	7	10	9	10	11	9	10	13	17	17	14	12	10	9	8	8	9	7	9
13	7	6	6	6	8	10	13	17	16	15	14	13	16	15	16	18	22	23	20	19	19	18	16	12	14
14	11	14	16	14	12	13	14	18	25	18	14	14	15	13	17	49	72	57	62	65	72	58	45	46	31
15	33	37	31	24	22	22	23	37	42	40	17	9	13	11	13	17	18	13	8	7	12	19	24	16	21
16	19	20	17	11	13	9	9	9	12	17	21	48	56	65	69	52	41	38	59	59	58	59	102	41	38
17	24	15	8	8	7	6	6	9	15	14	15	20	13	14	13	15	16	15	9	15	20	20	22	17	14
18	21	10	9	8	8	10	13	16	21	21	14	12	9	10	16	19	18	12	10	8	8	10	14	13	13
19	19	17	20	19	19	16	20	27	25	24	19	18	18	21	20	18	20	12	12	9	13	11	12	9	17
20	9	M	8	8	10	9	10	14	14	16	14	13	13	15	18	20	20	19	14	11	14	12	14	12	13
21	12	10	9	10	13	13	14	17	18	16	15	15	12	13	18	24	18	13	10	13	11	9	9	7	13
22	6	6	5	5	6	8	8	13	15	14	10	10	10	9	12	14	13	12	12	10	9	9	11	6	10
23	7	4	5	7	5	5	6	9	9	9	11	10	10	9	10	11	16	13	9	10	11	11	14	9	9
24	6	8	5	5	6	7	6	10	14	15	18	14	16	14	17	19	18	32	68	43	39	30	34	30	20
25	31	24	16	13	10	8	12	26	30	39	50	51	54	79	59	57	24	17	14	19	21	18	14	9	29
26	13	19	18	15	13	13	16	21	20	17	15	14	13	13	15	15	18	17	13	9	9	9	9	9	14
27	8	7	7	7	7	11	11	17	16	14	13	14	20	15	31	109	84	42	73	61	46	27	24	13	28
28	16	14	7	7	6	7	13	16	13	19	18	14	26	25	25	30	33	24	21	18	13	12	12	9	17
29	7	6	4	4	4	5	10	11	10	13	12	14	18	27	28	17	15	15	22	26	19	16	15	13	14
30	14	9	10	9	7	6	8	8	10	16	13	16	19	19	16	17	14	11	10	18	15	18	19	22	14

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->				STN GEOM		PERCENT		NO. OF TIMES	
MEAN	MEDIAN	MEAN		50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE OBJECTIVE			
															1-HR	24-HR		
13	13	16		13	26	42	59	69	4	-	109	7	-	38	2	100	0	0

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

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

STATION : CHUNG HOM KOK ZONE SUBSTATION
POLLUTANT : SULPHUR DIOXIDE

MONTH:DECEMBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	12	10	11	11	10	14	13	15	14	12	11	10	9	8	9	8	8	8	9	9	11	12	13	15	11
2	13	11	13	12	11	12	13	16	19	17	13	13	12	10	10	11	10	10	11	12	10	10	9	6	12
3	6	7	7	9	9	8	8	9	12	14	14	12	10	9	9	11	10	8	9	10	12	13	12	11	10
4	12	15	11	9	11	19	24	23	28	45	37	40	21	17	17	17	18	21	24	23	23	21	21	21	22
5	21	21	20	19	17	18	19	19	18	17	15	13	13	11	10	12	10	11	14	13	13	18	16	16	16
6	18	19	17	17	17	14	15	17	18	17	16	15	12	13	14	15	15	16	18	19	20	20	20	14	17
7	12	12	11	11	11	13	14	16	15	13	11	11	9	8	8	10	10	10	12	15	15	12	12	7	12
8	7	7	8	10	11	12	13	13	15	15	17	17	15	14	16	15	15	14	14	12	14	14	15	9	13
9	8	6	7	8	8	12	16	17	20	18	14	12	9	18	33	34	29	39	17	18	20	23	26	26	18
10	25	24	24	26	27	26	21	22	23	23	23	22	19	18	19	18	17	13	13	14	14	13	13	13	20
11	13	14	15	16	13	14	18	24	26	29	30	29	29	28	27	26	28	30	30	30	28	29	28	27	24
12	27	24	22	17	19	22	24	23	23	25	23	21	22	21	22	20	20	18	19	20	22	26	22	24	22
13	22	20	16	14	12	12	14	14	12	12	12	12	14	38	22	14	38	21	22	21	19	18	18	11	18
14	9	10	12	9	12	15	20	19	22	22	20	17	11	18	10	9	8	4	3	2	2	2	2	2	11
15	2	3	2	2	3	4	14	2	3	3	3	3	3	2	2	2	2	2	2	2	2	3	3	3	3
16	2	2	6	1	2	1	2	3	3	5	4	5	6	3	3	2	3	2	2	3	2	1	2	1	3
17	1	0	1	1	1	1	1	6	9	7	6	5	7	7	9	9	10	12	10	9	6	4	5	6	6
18	3	2	3	3	3	3	3	4	5	7	7	6	6	6	6	6	6	6	5	5	5	6	6	7	5
19	7	6	6	6	6	5	6	8	8	8	8	6	5	6	M	M	10	11	12	12	14	10	9	8	8
20	8	8	9	9	10	10	12	12	13	12	12	12	11	10	35	15	11	14	13	10	12	12	12	12	12
21	14	15	15	14	14	15	15	15	16	15	D	17	17	17	17	19	16	18	18	21	20	23	23	22	17
22	22	21	22	23	25	27	26	27	24	23	22	21	18	18	17	17	17	17	25	21	24	23	23	22	22
23	20	20	19	20	21	20	24	22	21	19	18	18	24	31	16	14	15	31	33	21	20	19	18	20	21
24	20	18	18	19	21	20	20	20	17	17	17	17	15	14	16	14	14	15	17	19	24	28	25	26	19
25	24	23	25	23	22	23	23	23	21	25	37	33	33	41	32	30	29	44	48	27	30	27	24	22	29
26	24	25	24	22	22	23	24	24	27	25	27	26	24	21	21	22	22	21	21	24	25	27	30	29	24
27	32	33	32	35	38	39	45	46	47	45	44	42	36	34	39	45	51	50	50	58	60	59	55	55	45
28	54	53	53	52	50	48	45	41	40	38	38	36	36	44	37	41	41	31	26	24	22	21	21	19	38
29	18	18	17	17	18	18	18	19	19	20	21	19	19	19	20	21	21	21	20	20	21	22	25	24	20
30	22	21	19	21	22	24	23	22	22	23	67	61	25	30	35	41	47	54	67	61	76	72	58	67	41
31	58	47	35	34	35	38	29	25	24	22	40	59	69	41	38	48	40	63	47	45	54	76	56	36	44

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->				STN GEOM	PERCENT	NO. OF TIMES ABOVE OBJECTIVE			
MEAN	MEDIAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR				
14	17	17	35	45	58	62	0	-	76	3	-	45	2	100	0	0

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

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

STATION : CHUNG HOM KOK ZONE SUBSTATION
POLLUTANT : NITROGEN DIOXIDE

MONTH:DECEMBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	16	11	13	12	9	11	8	11	20	14	10	14	17	17	15	15	16	7	13	12	11	13	14	14	13
2	17	9	10	9	8	10	9	13	25	22	22	26	21	17	15	19	21	16	11	13	15	15	12	9	15
3	9	8	9	11	11	10	9	12	11	15	15	17	14	14	17	19	21	12	10	11	13	14	15	14	13
4	11	12	7	8	19	47	58	80	81	106	105	90	32	21	19	17	21	28	21	19	14	14	13	15	36
5	12	10	8	6	5	6	10	14	17	19	20	15	13	14	15	16	16	9	M	19	76	49	23	17	
6	19	14	11	12	12	11	10	15	30	42	27	23	17	21	27	18	19	29	36	32	18	18	17	10	20
7	13	15	11	10	9	10	9	19	12	15	13	13	12	11	15	25	28	13	12	21	18	12	17	12	14
8	15	13	11	11	12	12	13	15	17	18	18	16	15	18	22	21	19	21	17	12	14	14	15	14	16
9	12	12	25	26	27	18	23	32	53	55	32	23	23	39	88	85	70	86	36	31	24	22	18	15	36
10	16	15	21	19	19	14	11	12	16	19	16	15	14	15	20	19	19	21	16	16	15	13	13	13	16
11	12	12	12	13	13	16	22	28	32	34	27	26	25	25	23	26	27	27	35	31	22	23	25	22	23
12	21	19	17	14	15	16	19	22	23	21	20	17	16	19	24	23	25	23	20	17	19	21	19	20	20
13	18	18	16	15	14	11	16	16	16	16	25	26	34	85	75	50	97	65	56	55	36	26	20	14	34
14	11	10	12	11	13	14	18	25	25	26	23	27	20	30	33	32	37	33	28	22	20	13	11	10	21
15	9	10	9	9	9	10	10	11	12	13	14	13	14	15	16	16	14	15	14	12	9	10	9	10	12
16	10	10	10	16	16	17	23	28	39	51	49	51	64	53	48	38	43	54	66	60	34	28	30	13	35
17	29	17	13	10	7	11	23	49	58	61	48	51	56	57	67	67	70	70	65	63	51	47	47	39	45
18	27	M	11	10	9	9	13	16	12	17	19	20	15	14	15	18	26	33	31	32	28	25	25	26	20
19	26	18	12	12	10	12	18	28	34	37	34	36	21	24	M	M	44	41	50	57	54	19	15	13	28
20	12	10	9	6	8	6	14	15	17	16	17	16	16	24	74	41	33	29	30	20	21	21	21	18	21
21	19	20	15	14	12	13	14	21	31	21	D	21	22	20	35	57	53	58	45	33	21	17	17	11	26
22	13	11	9	8	7	7	8	8	9	8	11	13	15	15	16	17	17	14	51	29	19	16	17	14	15
23	11	12	13	11	11	9	9	9	11	17	26	25	44	50	23	18	25	93	92	49	43	30	16	15	28
24	12	11	14	15	14	11	13	17	15	17	21	14	12	12	14	13	13	12	12	21	24	19	16	13	15
25	13	17	27	16	14	12	19	33	37	47	74	63	60	75	53	56	63	117	123	48	72	39	23	16	47
26	16	15	11	9	8	8	12	16	28	27	40	34	26	25	26	25	30	25	20	21	16	12	12	11	20
27	13	12	11	11	13	11	12	17	22	28	36	38	24	22	37	51	49	44	38	36	32	30	28	25	27
28	23	28	30	18	17	19	22	30	47	37	32	30	34	73	81	94	108	67	50	57	41	22	18	15	41
29	11	8	7	6	7	6	10	16	23	15	15	20	18	18	20	23	27	23	18	18	20	24	30	22	17
30	16	15	14	15	17	22	22	39	37	61	114	101	34	42	51	73	77	110	102	89	129	169	164	204	72
31	202	148	82	74	65	81	54	49	56	54	89	110	106	66	53	72	62	80	59	44	55	202	170	52	87

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->				STN GEOM	PERCENT	NO. OF TIMES ABOVE OBJECTIVE				
MEAN	MEDIAN	50	90	95	98	99	1-HR	24-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR				
21	18	27	18	57	76	106	127	5	-	204	12	-	87	2	99	0	0

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

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

STATION : VICTORIA ROAD SUBSTATION
POLLUTANT : SULPHUR DIOXIDE

MONTH:OCTOBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	2	3	2	2	2	2	2	4	5	4	5	4	5	5	6	6	4	5	6	4	7	5	6	6	4
2	5	2	2	7	8	10	7	10	12	13	14	20	20	33	22	48	22	38	33	21	22	22	13	8	17
3	6	5	5	4	7	9	7	11	14	9	9	12	18	15	21	12	15	11	9	9	9	7	9	8	10
4	7	6	7	8	29	12	5	5	9	13	14	15	20	17	13	7	7	16	10	13	12	16	18	15	12
5	14	13	13	12	9	7	6	5	6	10	11	24	24	34	22	15	26	31	26	51	21	37	34	26	20
6	55	29	16	12	11	12	37	14	11	11	13	20	14	21	19	13	11	11	18	20	18	25	18	14	18
7	12	12	12	13	16	16	17	23	24	23	14	11	9	12	9	9	8	10	9	3	5	7	12	19	13
8	18	8	8	7	10	9	11	10	11	15	15	11	10	9	9	7	7	6	3	3	4	3	3	4	8
9	4	4	4	3	2	2	3	4	5	6	5	5	4	5	3	3	1	1	2	3	3	2	1	1	3
10	0	0	0	0	0	1	0	1	1	1	1	1	1	2	2	2	3	4	2	2	3	3	4	5	2
11	12	21	37	30	20	17	10	8	25	10	10	20	13	9	12	44	34	48	26	12	11	10	9	7	19
12	5	3	3	2	3	4	10	6	12	12	16	6	7	8	9	8	8	6	7	8	8	7	5	4	7
13	3	3	3	3	4	5	7	7	8	8	6	6	4	4	4	3	4	5	4	3	3	2	2	2	4
14	2	2	2	2	2	2	4	6	6	6	5	5	3	3	3	4	4	4	4	5	5	5	4	4	4
15	3	2	3	4	6	7	7	8	10	9	8	7	7	8	10	12	10	10	10	6	4	3	2	3	7
16	2	2	4	5	4	4	6	9	10	9	7	7	7	6	6	4	3	3	2	3	3	2	4	3	5
17	2	3	3	3	4	3	3	4	6	6	6	7	7	7	7	8	8	8	6	6	5	5	4	4	5
18	4	4	5	5	4	4	4	5	7	6	4	3	4	4	4	5	5	5	6	5	5	6	5	5	5
19	7	8	8	8	7	8	8	8	12	10	11	13	14	19	23	32	34	23	22	21	17	8	6	6	14
20	5	6	5	7	8	10	12	14	14	14	13	11	20	22	15	11	14	11	10	10	10	9	8	9	11
21	9	8	5	5	7	9	9	9	9	8	8	18	22	18	10	7	7	8	7	7	9	8	9	8	9
22	8	7	10	11	11	10	10	10	13	13	13	26	26	30	24	26	41	36	36	28	20	17	18	16	19
23	16	19	21	25	22	19	19	20	21	19	19	20	39	25	31	21	22	22	20	26	26	25	17	18	22
24	20	20	20	21	21	20	22	22	26	24	20	16	11	15	21	20	23	32	15	12	11	14	14	16	19
25	18	18	18	20	21	22	20	20	20	21	19	16	15	15	14	13	14	13	13	14	15	17	19	19	17
26	18	18	16	17	18	18	18	17	17	17	18	17	16	15	14	13	14	14	13	12	12	12	12	11	15
27	11	11	10	9	8	7	8	8	8	10	12	13	13	13	13	12	8	7	8	7	8	6	5	5	9
28	5	5	5	4	5	7	7	7	7	8	8	9	8	7	6	6	6	4	4	4	5	6	6	5	6
29	5	5	4	4	3	3	5	5	5	5	5	5	4	3	4	4	5	5	5	6	6	8	8	6	5
30	5	4	3	2	3	3	3	3	4	4	4	6	5	4	3	2	2	2	4	4	5	4	3	4	4
31	3	3	3	3	4	5	7	6	8	6	D	4	18	6	5	5	7	8	8	7	7	5	5	3	6

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->				STN GEOM	PERCENT	NO. OF TIMES			
MEAN	MEDIAN	MEAN		50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	1-HR	24-HR		
8	8	10		8	21	26	34	38	0	-	55	2	-	22	2	100	0	0

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

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

STATION : VICTORIA ROAD SUBSTATION
POLLUTANT : NITROGEN DIOXIDE

MONTH:OCTOBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	0	0	0	0	0	0	0	2	4	4	4	4	7	12	12	7	5	20	18	25	24	28	34	43	11
2	35	18	11	16	13	21	32	62	65	72	58	52	40	43	19	54	24	56	123	138	132	119	71	44	55
3	38	19	9	6	12	29	24	66	83	36	46	44	31	13	18	9	17	10	52	37	19	19	17	8	28
4	14	5	2	0	42	24	23	61	62	79	61	50	32	12	17	8	5	34	49	49	83	101	66	17	37
5	15	7	3	5	5	8	38	54	34	53	54	53	44	44	29	11	29	42	93	93	29	58	65	55	38
6	120	73	30	26	26	20	68	44	31	47	47	46	33	37	36	30	28	40	73	68	55	55	44	32	46
7	22	16	14	16	17	20	36	59	61	61	40	40	28	29	36	38	45	59	63	38	43	42	48	51	38
8	49	28	20	19	26	24	46	70	77	89	73	52	46	43	42	56	73	67	55	65	61	58	56	58	52
9	47	M	32	28	13	16	40	45	42	29	8	11	8	11	12	12	7	13	19	14	7	6	8	6	19
10	0	0	0	0	0	1	5	14	18	15	5	4	3	9	16	5	4	12	37	43	39	58	76	86	19
11	79	65	77	77	80	76	65	65	64	52	54	29	20	16	23	54	33	64	69	46	27	19	21	13	50
12	9	6	4	1	5	15	36	55	61	62	42	14	22	19	22	19	18	20	18	10	12	10	9	4	21
13	1	0	0	0	0	2	7	13	16	19	17	15	7	15	19	22	22	17	10	7	4	3	4	6	9
14	4	1	0	0	0	1	3	7	8	10	16	18	17	18	29	38	45	47	20	13	15	12	16	11	15
15	5	2	1	2	2	5	22	48	38	39	31	32	32	21	17	27	34	22	22	17	14	10	9	9	19
16	5	2	2	2	1	4	17	37	39	34	24	14	15	17	17	16	17	23	22	14	14	12	12	6	15
17	3	1	0	0	0	1	6	15	14	15	14	13	13	11	13	19	24	25	24	19	17	10	9	7	11
18	3	0	0	0	0	2	11	36	33	36	21	17	21	21	7	9	11	31	102	110	67	23	24	43	26
19	63	56	46	33	9	10	21	31	47	47	45	63	52	49	33	34	37	44	53	37	51	43	57	42	42
20	29	16	17	14	16	20	36	44	44	38	16	14	30	36	16	9	19	23	41	62	90	51	55	39	32
21	28	14	11	7	13	10	32	50	69	58	46	66	65	32	26	6	10	33	69	63	35	17	37	48	35
22	26	23	24	16	11	16	33	55	65	58	55	62	48	44	31	25	62	57	104	67	82	89	60	39	48
23	30	M	13	15	12	18	37	64	87	77	71	65	84	60	49	26	21	49	94	71	41	58	53	58	50
24	45	30	19	27	19	14	47	64	84	81	63	58	37	47	66	55	90	100	80	57	76	54	43	40	54
25	26	18	15	15	16	18	31	55	71	65	52	41	40	38	43	51	58	53	58	51	58	59	49	34	42
26	31	25	27	22	15	22	31	40	76	56	57	39	32	27	29	33	34	33	49	54	41	28	29	24	36
27	24	22	25	18	15	16	24	30	33	21	15	18	18	17	14	17	19	23	25	18	22	25	24	14	21
28	9	6	6	5	7	8	21	32	27	24	21	35	26	17	20	22	24	22	34	66	77	59	21	15	25
29	11	5	3	3	2	2	20	26	24	22	15	15	11	17	23	31	41	39	34	58	42	27	24	17	21
30	12	11	5	1	2	3	11	18	19	22	16	13	12	15	10	17	16	28	28	16	22	17	15	12	14
31	9	5	1	1	1	8	22	41	56	51	D	32	29	12	11	9	16	37	43	35	20	14	20	8	21

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->					STN	GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN		50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA		ABOVE OBJECTIVE	1-HR	24-HR
23	24	31		24	64	76	89	102	0	-	138	9	-	55	3	100	0	0

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

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

STATION : VICTORIA ROAD SUBSTATION
POLLUTANT : SULPHUR DIOXIDE

MONTH: NOVEMBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	
1	3	3	4	8	4	6	31	48	18	13	9	5	5	7	22	8	24	22	9	4	9	10	13	6	12	
2	9	10	19	16	8	6	6	7	7	6	5	5	5	5	5	5	4	5	5	4	2	3	3	3	6	
3	3	4	3	4	5	5	6	5	5	3	3	3	4	3	4	3	2	3	3	2	2	2	1	3	3	
4	3	2	2	3	3	2	2	3	5	4	2	2	2	1	2	2	1	1	1	0	0	0	0	0	2	
5	0	0	1	0	0	0	1	2	3	4	4	5	3	3	6	5	5	5	6	5	8	5	4	5	3	
6	4	4	4	4	5	4	5	6	8	26	32	14	6	27	30	44	19	19	26	28	25	22	8	7	16	
7	6	6	5	5	6	5	5	6	6	8	10	9	5	5	8	8	10	7	5	3	4	5	5	5	6	
8	4	5	7	7	6	6	6	7	6	7	6	5	4	5	4	5	7	7	7	7	9	8	7	8	6	
9	9	9	9	9	9	10	10	9	8	8	7	4	3	2	3	3	2	2	1	1	1	2	2	2	5	
10	1	1	1	1	1	1	1	2	1	1	1	1	1	1	2	2	3	2	1	2	4	3	2	3	2	
11	2	1	1	2	2	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
12	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	
13	0	0	0	0	1	1	1	1	1	1	4	7	12	6	7	4	2	2	2	2	3	2	3	3	3	
14	3	3	2	3	3	5	4	5	6	7	6	7	3	2	17	14	11	15	18	20	22	16	10	4	9	
15	3	6	3	2	3	5	5	7	19	17	17	11	3	2	9	16	15	16	14	4	5	6	5	4	8	
16	5	5	6	5	6	6	6	7	12	19	26	13	8	15	20	26	37	25	17	11	10	10	12	14	13	
17	8	9	9	9	8	7	8	10	9	8	6	7	7	7	6	6	6	6	6	7	9	9	8	14	8	
18	8	7	6	6	6	6	7	8	9	9	9	7	6	6	6	7	8	9	10	9	8	9	8	9	8	
19	8	7	7	8	10	10	11	12	12	12	12	11	11	12	14	16	16	13	10	10	10	9	10	10	11	11
20	10	10	9	10	11	11	11	12	12	13	13	13	13	13	14	13	13	13	14	15	14	15	16	15	13	
21	14	16	13	13	12	12	13	10	9	11	10	9	8	9	7	8	8	10	8	9	8	5	4	3	10	
22	2	4	4	4	4	4	5	6	6	6	6	6	5	5	5	7	7	6	5	6	6	4	5	3	5	
23	4	3	3	3	3	4	5	5	5	7	7	8	7	6	5	5	4	5	5	3	2	3	3	3	5	
24	3	3	2	2	1	2	4	6	19	30	56	77	35	35	29	59	40	27	11	9	6	2	7	10	20	
25	8	8	6	5	5	6	7	7	8	8	12	13	15	10	9	30	29	5	4	5	6	7	6	6	9	
26	6	8	8	7	7	7	8	9	10	11	11	10	10	9	8	7	7	8	7	6	4	4	4	3	7	
27	3	2	3	2	2	3	3	5	7	8	14	29	26	15	23	26	23	14	8	8	5	1	0	2	10	
28	1	1	2	1	1	1	2	2	4	5	6	5	6	7	8	8	10	13	13	14	15	14	14	11	7	
29	10	9	8	7	6	6	6	7	9	7	6	7	7	7	8	8	10	11	10	13	15	11	10	10	9	
30	10	10	9	9	9	10	11	11	11	11	10	11	20	21	20	11	25	19	13	10	10	10	10	10	13	

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->				STN GEOM	PERCENT	NO. OF TIMES			
MEAN	MEDIAN	MEAN		50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	1-HR	24-HR		
6	6	8		6	14	21	29	35	0	-	77	0	-	20	2	100	0	0

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

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

STATION : VICTORIA ROAD SUBSTATION
POLLUTANT : NITROGEN DIOXIDE

MONTH: NOVEMBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	5	4	11	21	16	31	82	89	74	59	48	21	22	37	36	19	61	64	114	113	95	125	117	58	55
2	92	58	61	51	13	9	22	28	39	43	40	34	30	39	35	36	40	39	41	34	30	30	29	30	38
3	22	12	5	8	5	5	11	17	16	16	19	17	22	17	22	22	21	32	30	26	19	29	23	28	19
4	28	13	11	5	4	3	14	39	44	30	19	18	24	18	23	29	47	53	44	43	37	20	18	18	25
5	12	5	1	1	7	6	10	14	18	21	16	16	14	16	28	29	51	57	54	53	46	50	44	44	26
6	20	M	9	19	26	19	31	48	63	63	67	58	53	62	51	59	37	51	81	94	113	110	69	63	55
7	28	16	9	4	4	6	27	36	27	18	16	14	10	8	12	15	24	23	17	9	8	6	5	6	15
8	0	0	0	0	0	0	3	8	13	13	11	28	18	30	47	53	66	72	92	57	41	35	20	15	26
9	11	7	4	2	2	1	6	5	7	11	12	3	3	2	3	3	4	2	1	0	0	0	0	0	4
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0
11	0	0	0	0	0	0	1	3	4	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	1
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	5	6	2	2	1	0	3	1
13	0	0	0	0	0	2	12	26	31	39	41	40	42	49	50	53	53	58	60	49	37	26	19	16	29
14	13	13	7	17	19	23	28	37	32	37	36	37	27	30	45	62	80	91	78	66	63	60	57	38	42
15	39	41	26	13	32	34	39	48	44	48	45	43	18	17	43	74	71	83	128	59	31	25	56	37	46
16	37	24	18	16	18	30	43	64	63	69	63	49	48	63	70	85	112	113	128	84	93	112	98	101	67
17	85	39	21	16	17	27	38	41	49	37	22	18	13	12	20	10	26	49	67	68	72	83	81	78	41
18	39	20	20	16	9	17	22	42	62	47	30	17	11	14	20	43	46	37	37	27	28	26	33	23	29
19	36	32	17	16	28	27	46	78	71	63	36	28	22	25	28	30	32	35	30	26	20	18	18	18	33
20	7	6	4	4	4	7	18	24	35	32	21	18	22	27	42	32	33	52	58	55	28	37	29	22	26
21	17	13	7	7	10	15	21	49	57	44	36	34	31	34	36	61	66	59	90	71	26	14	10	9	34
22	4	3	1	2	3	4	15	31	34	31	32	28	14	15	12	20	26	30	33	26	20	10	12	8	17
23	4	0	0	1	0	1	4	10	10	17	16	14	11	15	11	14	13	20	13	10	9	9	12	12	9
24	8	1	0	0	0	1	14	31	48	53	53	61	44	50	46	66	42	65	64	61	56	38	43	49	37
25	40	25	12	5	3	7	25	37	45	51	50	49	49	52	57	66	70	89	56	58	83	67	44	36	45
26	33	21	11	10	10	M	23	36	44	37	36	23	16	28	35	33	38	30	25	19	20	18	11	8	25
27	7	1	0	0	2	7	28	53	53	51	36	61	55	28	93	109	134	100	89	84	67	38	35	25	48
28	21	5	3	1	1	1	12	30	34	42	43	39	38	35	46	43	50	48	42	36	27	20	16	20	27
29	13	7	4	3	1	4	13	34	49	38	30	35	31	29	39	65	73	99	81	79	88	73	52	57	42
30	46	26	19	22	24	18	29	46	46	50	32	30	37	35	45	23	49	66	95	96	115	102	73	55	49

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->				STN	GEOM	PERCENT	NO. OF TIMES		
MEAN	MEDIAN	MEAN		50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA		ABOVE OBJECTIVE		
																1-HR	24-HR	
23	26	30		26	66	84	102	113	0	-	134	0	-	67	3	100	0	0

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

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

STATION : VICTORIA ROAD SUBSTATION
POLLUTANT : SULPHUR DIOXIDE

MONTH:DECEMBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	10	9	11	10	9	11	13	13	14	21	14	13	18	15	19	22	37	15	9	16	19	14	13	15	15
2	14	12	11	9	9	9	10	10	16	14	14	21	23	20	7	6	5	6	7	9	8	7	6	6	11
3	6	5	5	6	6	6	6	7	8	10	12	9	8	10	8	8	7	4	3	5	6	18	11	10	8
4	10	7	12	16	16	20	29	25	33	41	28	21	19	17	16	15	18	20	23	22	19	17	16	18	20
5	17	16	16	16	15	14	14	15	13	12	12	11	11	12	10	8	8	8	8	11	26	40	17	13	14
6	15	16	15	13	18	15	13	14	17	18	16	12	10	12	12	13	13	14	14	17	20	16	16	10	15
7	9	6	7	7	8	9	10	19	20	19	8	7	6	25	29	24	23	16	15	23	24	17	9	6	14
8	5	5	7	7	8	9	9	9	9	10	11	12	10	8	8	9	8	7	9	8	8	8	9	10	8
9	8	8	7	11	17	16	27	39	43	60	42	20	41	42	43	40	53	43	27	17	20	21	23	23	29
10	22	22	24	24	24	26	26	27	35	38	27	17	16	15	14	14	12	12	9	11	11	10	10	11	19
11	10	11	11	11	10	10	13	19	24	27	27	26	26	25	26	33	25	25	26	26	25	23	23	22	21
12	21	18	17	15	15	16	18	18	18	20	20	17	15	13	13	13	14	13	13	14	14	15	12	13	16
13	12	11	10	20	28	14	15	16	10	11	17	19	30	33	29	27	33	36	30	27	20	14	13	12	20
14	11	12	12	9	9	11	14	17	18	17	14	13	13	9	8	7	6	4	3	2	1	1	1	1	9
15	0	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	0	1	1	1	0	1	1
16	3	11	12	8	7	10	9	4	6	7	6	5	5	6	6	3	3	2	2	2	9	3	2	1	6
17	1	1	1	3	3	3	3	5	9	9	8	13	6	6	8	6	8	7	16	15	9	9	10	6	7
18	4	5	7	6	4	4	4	4	5	6	7	7	6	5	5	5	5	4	4	3	3	3	3	3	5
19	3	3	3	3	3	3	3	4	5	6	6	6	9	8	9	10	5	5	5	5	10	7	6	5	6
20	4	4	5	4	5	5	7	11	14	12	11	10	18	18	20	M	M	17	13	10	11	10	8	8	10
21	9	10	9	11	11	9	10	11	14	18	17	24	16	15	15	13	14	14	16	18	20	22	24	20	15
22	18	17	19	20	25	21	26	24	25	27	24	16	30	26	28	25	26	32	26	20	17	15	14	16	22
23	16	16	17	13	13	13	13	19	21	25	37	35	28	25	23	24	33	43	47	24	18	18	18	16	23
24	15	14	14	15	16	17	18	17	22	23	27	26	10	10	7	9	18	35	33	34	13	16	17	24	19
25	21	23	20	19	20	20	18	20	44	37	33	27	28	31	31	35	42	55	37	31	20	19	18	19	28
26	18	20	20	18	18	18	19	19	24	25	22	22	21	16	15	16	15	14	15	19	20	20	22	24	19
27	24	25	25	27	30	29	33	37	39	39	40	39	37	37	45	43	40	39	41	46	46	48	48	48	38
28	47	48	45	44	48	44	38	35	38	38	35	34	37	29	31	31	28	27	19	16	14	14	15	14	32
29	13	14	13	11	12	13	14	15	17	19	16	14	13	13	15	15	15	14	13	11	12	13	14	15	14
30	15	15	14	13	13	13	13	15	24	45	38	52	44	22	29	47	39	55	56	68	59	62	59	44	36
31	56	77	65	64	25	20	19	21	25	42	45	37	26	28	34	48	63	59	42	38	41	48	37	34	41

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->				STN GEOM	PERCENT	NO. OF TIMES ABOVE OBJECTIVE			
MEAN	MEDIAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR				
13	15	15	37	43	52	59	0	-	77	1	-	41	2	100	0	0

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

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

STATION : VICTORIA ROAD SUBSTATION
POLLUTANT : NITROGEN DIOXIDE

MONTH:DECEMBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	67	40	60	50	43	32	23	53	52	43	38	46	44	18	35	49	81	54	50	91	101	119	107	40	56
2	89	78	42	20	15	18	34	66	96	60	67	67	62	47	37	28	36	69	47	25	22	21	14	11	45
3	10	7	5	6	6	6	12	25	41	48	39	31	17	28	17	35	70	52	35	60	45	77	76	55	33
4	27	M	27	42	62	85	86	84	143	134	119	71	62	38	43	45	54	87	83	66	64	49	50	47	68
5	35	23	23	11	6	5	18	37	38	46	51	38	30	33	31	29	37	47	73	81	156	146	76	55	47
6	46	38	32	22	20	21	55	77	105	100	60	47	34	39	48	62	68	91	75	91	92	56	70	35	58
7	44	32	26	19	26	24	26	70	74	66	30	31	24	69	91	90	74	76	83	87	83	97	31	12	54
8	17	12	4	6	6	8	18	27	13	15	14	14	20	20	22	18	15	17	18	18	23	22	31	38	17
9	27	40	15	19	44	25	58	94	96	101	89	55	79	100	126	133	143	132	121	86	68	33	27	22	72
10	27	25	29	28	22	21	47	96	112	111	70	26	23	18	21	23	19	28	21	21	17	13	14	13	35
11	10	5	5	5	4	8	22	37	60	79	62	48	47	53	72	65	74	79	54	72	51	27	35	23	42
12	15	11	9	8	9	10	18	29	38	42	33	25	20	21	26	38	55	40	28	29	19	19	25	34	25
13	22	17	13	33	67	39	47	74	65	71	72	84	90	97	98	104	117	124	130	122	113	72	47	15	72
14	11	6	6	4	3	5	14	25	28	29	28	35	42	39	58	74	69	57	46	37	26	14	5	1	28
15	0	0	0	0	0	0	3	5	5	6	10	8	6	10	16	12	9	4	4	3	2	1	3	6	5
16	11	27	29	25	19	21	25	24	38	37	36	37	37	39	39	34	43	47	50	38	46	30	16	11	32
17	15	4	1	10	18	24	24	36	42	44	44	48	45	43	48	53	52	50	51	44	44	42	40	36	36
18	23	M	19	10	4	5	9	15	21	25	21	20	19	16	22	27	33	37	38	32	32	32	34	38	23
19	26	20	14	12	11	13	22	38	46	44	40	36	38	39	43	52	71	84	86	80	90	67	58	62	46
20	44	33	19	12	10	17	32	60	66	63	35	43	57	59	63	M	M	73	103	95	87	85	66	51	53
21	60	76	46	33	31	33	39	63	70	77	79	69	65	65	68	63	67	81	84	87	56	44	50	57	61
22	52	37	32	31	34	35	46	64	71	67	55	29	44	37	68	72	80	110	136	136	100	100	76	67	66
23	47	63	60	41	29	30	43	86	104	107	105	88	84	86	90	99	122	177	195	114	98	92	81	60	88
24	74	47	48	33	39	38	48	75	91	102	88	73	31	30	25	32	68	124	150	158	118	90	66	76	72
25	71	94	44	45	48	47	48	88	94	76	74	62	65	84	99	107	121	155	145	136	97	84	78	73	85
26	63	34	22	21	20	25	38	34	51	58	48	46	45	37	38	46	51	53	61	54	35	30	27	29	40
27	31	21	18	18	19	20	32	42	53	63	53	54	50	51	66	74	72	74	77	73	75	79	87	104	54
28	83	73	64	57	67	65	63	85	100	100	102	91	84	73	78	93	93	110	102	91	94	69	61	50	81
29	38	33	23	16	17	16	25	53	73	67	39	34	27	26	25	31	38	48	66	74	65	82	94	64	45
30	53	49	55	35	37	33	39	88	122	128	118	109	96	73	106	137	119	145	171	199	184	190	194	153	110
31	137	156	144	124	46	39	68	123	130	124	121	102	96	117	121	82	91	119	145	153	120	121	79	53	109

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->					STN GEOM	PERCENT	NO. OF TIMES ABOVE OBJECTIVE			
MEAN	MEDIAN	50	90	95	98	99	1-HR	24-HR	24-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR			
41	46	53	46	102	123	145	157	0	-	199	5	-	110	2	99	0	0

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

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

STATION : QUEEN MARY HOSPITAL
POLLUTANT : SULPHUR DIOXIDE

MONTH:OCTOBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	2	2	2	2	2	1	2	3	5	5	5	4	5	5	5	8	4	4	5	4	7	6	7	7	4
2	5	3	3	5	6	6	8	10	13	13	13	12	14	22	22	37	26	20	24	27	40	37	14	8	16
3	7	6	5	5	10	9	11	13	13	11	11	11	23	22	25	18	14	10	9	10	10	7	9	8	12
4	8	7	7	11	45	7	5	7	10	14	16	16	18	19	17	9	7	8	12	14	13	23	26	15	14
5	14	15	15	14	10	8	7	7	7	9	11	21	28	22	18	17	27	28	32	49	20	33	40	51	21
6	71	31	18	13	12	13	44	13	12	12	18	13	19	19	14	12	13	19	19	19	25	19	15	20	
7	12	12	13	14	16	16	17	24	24	23	15	11	9	10	10	9	9	10	10	3	5	7	14	19	13
8	19	7	8	7	14	9	14	10	10	14	14	11	10	9	9	7	7	6	3	3	5	3	3	4	9
9	4	4	3	3	3	3	4	4	5	7	6	6	5	5	3	3	2	2	1	2	2	2	1	1	3
10	0	0	0	0	0	1	0	1	1	1	2	2	1	2	2	2	2	4	2	2	2	3	3	4	2
11	12	23	34	30	21	19	10	7	12	6	6	16	14	11	11	36	27	41	23	11	10	9	9	7	17
12	5	3	3	2	3	4	4	8	8	9	8	6	6	6	8	8	8	6	7	8	9	7	5	4	6
13	3	3	3	4	4	5	7	8	9	8	7	7	5	5	4	4	4	5	4	3	2	2	2	2	5
14	2	2	2	2	2	2	4	6	6	6	5	5	4	3	4	6	4	5	4	5	5	5	4	3	4
15	3	2	3	4	6	6	7	9	10	9	9	8	8	6	9	11	9	8	10	5	3	3	2	3	6
16	3	2	4	5	4	5	6	8	9	9	7	7	7	6	7	4	3	3	2	2	2	2	5	3	5
17	2	3	3	3	3	4	4	4	5	6	6	7	8	7	7	8	8	8	6	6	5	4	4	4	5
18	4	4	5	5	4	4	5	6	7	6	5	3	4	4	6	4	5	4	12	6	7	7	6	7	5
19	9	9	9	9	8	9	9	10	10	11	13	13	14	18	28	27	26	32	23	21	17	9	9	9	15
20	6	7	7	8	10	11	13	16	15	13	13	12	16	26	18	13	18	13	11	11	13	11	10	9	13
21	10	7	7	6	9	10	9	10	10	9	8	17	22	22	14	11	7	6	7	9	9	9	10	10	10
22	9	8	10	12	11	12	11	11	13	13	13	20	19	22	26	21	41	38	39	32	24	23	18	17	19
23	17	20	23	23	22	20	20	20	22	20	18	17	30	29	27	23	22	24	24	25	31	27	16	18	22
24	20	21	21	22	21	20	22	23	25	22	19	16	11	13	19	16	18	20	16	13	12	14	15	16	18
25	19	19	19	22	23	22	21	21	22	22	20	17	M	16	15	14	15	14	14	14	16	18	20	20	18
26	20	19	18	18	18	16	16	15	18	19	21	17	17	15	15	13	14	14	14	13	14	12	12	11	16
27	11	11	11	10	9	9	10	9	9	10	12	14	14	13	13	12	9	7	10	8	8	6	5	6	10
28	6	6	5	5	6	7	7	7	8	9	9	9	8	8	6	7	7	5	5	7	11	11	6	5	7
29	6	5	4	4	3	3	5	5	6	5	5	5	4	3	4	4	5	5	6	6	6	7	7	6	5
30	5	4	3	3	3	3	3	3	5	5	5	5	5	4	4	3	2	2	4	5	6	5	3	4	4
31	2	3	2	3	5	6	6	6	7	6	5	6	12	7	5	6	5	7	7	7	7	4	4	3	5

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->				STN	GEOM	PERCENT	NO. OF TIMES		
MEAN	MEDIAN	MEAN		50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA		ABOVE OBJECTIVE		
																1-HR	24-HR	
8	8	11		8	22	26	33	40	0	-	71	2	-	22	2	100	0	0

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

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

STATION : QUEEN MARY HOSPITAL
POLLUTANT : NITROGEN DIOXIDE

MONTH:OCTOBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	9	10	14	9	10	9	8	14	14	24	5
2	12	1	0	1	3	7	10	26	55	67	42	37	38	29	28	53	43	45	81	86	98	88	43	23	38
3	5	3	0	1	17	18	25	37	54	54	54	41	45	24	24	19	23	19	13	6	0	0	0	1	20
4	0	0	0	6	71	10	4	41	65	82	62	43	36	28	28	18	11	7	17	22	52	82	65	3	31
5	0	0	0	1	0	0	0	7	41	47	39	49	51	34	29	15	42	55	39	44	14	44	69	99	30
6	137	48	20	16	12	8	55	18	15	33	33	42	31	35	28	24	30	40	43	39	34	47	29	22	35
7	12	8	8	11	10	12	23	39	48	49	42	36	29	33	32	37	44	38	38	22	26	29	37	53	30
8	46	22	17	17	24	14	33	48	65	79	70	52	43	50	31	29	34	42	44	37	46	37	45	39	40
9	24	M	8	10	10	11	20	23	11	12	7	6	2	3	0	0	1	4	2	7	0	0	3	0	7
10	0	0	0	0	0	0	0	2	6	12	6	0	0	3	9	13	17	31	21	38	71	70	76	79	19
11	68	71	71	67	69	64	48	38	36	24	25	22	19	14	16	41	24	65	28	9	1	0	2	10	35
12	4	1	0	0	0	0	10	28	43	52	21	3	0	1	2	1	1	1	3	0	5	1	0	2	7
13	0	0	0	0	0	0	0	0	1	0	1	4	2	0	2	3	6	3	2	2	0	0	0	2	1
14	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	3	5	14	16	3	14	8	5	3	3
15	0	0	0	0	0	0	0	5	16	12	10	3	6	0	3	8	7	1	0	0	0	0	0	1	3
16	0	0	0	0	0	0	0	6	7	8	M	M	0	1	4	2	7	13	12	3	4	2	7	2	4
17	0	0	0	0	0	0	0	6	11	17	6	2	0	3	14	16	15	29	25	21	24	11	11	12	9
18	3	0	1	0	0	0	3	12	15	19	21	10	16	33	23	26	33	55	72	48	32	17	16	41	21
19	52	36	30	18	1	0	1	4	20	42	56	46	38	36	46	41	38	47	26	19	29	13	21	17	28
20	11	5	0	7	6	12	22	20	27	17	13	3	15	33	14	10	21	21	24	20	32	28	20	15	17
21	6	0	2	2	3	0	17	43	55	48	29	60	45	40	31	25	21	20	32	35	17	9	17	24	24
22	12	16	17	15	6	12	17	36	50	52	47	49	41	38	39	25	60	63	58	42	59	71	42	25	37
23	17	11	1	1	5	2	5	49	73	77	64	36	57	41	40	33	31	26	30	30	46	66	45	60	35
24	37	18	15	18	14	7	11	27	41	50	47	45	34	35	53	48	72	81	85	53	55	54	47	43	41
25	24	12	8	10	14	11	21	37	50	43	43	45	M	32	37	30	49	53	58	55	41	38	32	20	33
26	20	13	15	7	5	3	2	1	45	81	68	28	28	20	26	22	13	13	12	17	23	13	17	24	22
27	24	18	13	7	5	5	5	9	12	11	6	9	9	8	8	7	6	17	18	10	15	19	6	1	10
28	1	0	0	0	0	0	4	21	18	23	17	8	12	14	14	5	15	14	9	44	54	37	12	5	14
29	1	0	0	0	0	0	4	15	25	16	8	5	3	2	8	14	8	1	3	34	26	24	7	5	9
30	3	0	0	0	0	0	0	16	22	11	5	2	1	0	2	0	9	6	19	4	3	9	11	8	5
31	3	0	0	0	0	0	1	11	32	28	9	23	24	11	9	11	25	21	4	1	0	2	11	2	10

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->				STN	GEOM	PERCENT	NO. OF TIMES		
MEAN	MEDIAN	MEAN		50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA		ABOVE OBJECTIVE		
																1-HR	24-HR	
15	13	20		13	50	64	74	82	0	-	137	1	-	41	3	99	0	0

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

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

STATION : QUEEN MARY HOSPITAL
 POLLUTANT : SULPHUR DIOXIDE

YEAR : 2013
 UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1																									
2																									
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AMBIENT AIR MONITORING AT QUEEN MARY HOSPITAL TEMPORARILY SUSPENDED

MONTHLY STATISTICS:

GEOM	ARITH		<-----PERCENTILE----->					<-----RANGE----->				STN	GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID	DATA	1-HR	24-HR
##	##	##	##	##	##	##	##	##	-	##	##	-	##	##	##	##

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

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

STATION : QUEEN MARY HOSPITAL
 POLLUTANT : NITROGEN DIOXIDE

YEAR : 2013
 UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1																									
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AMBIENT AIR MONITORING AT QUEEN MARY HOSPITAL TEMPORARILY SUSPENDED

MONTHLY STATISTICS:

GEOM	ARITH		<-----PERCENTILE----->					<-----RANGE----->				STN	GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID	DATA	1-HR	24-HR
##	##	##	##	##	##	##	##	##	-	##	##	-	##	##	##	##

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

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

STATION : QUEEN MARY HOSPITAL
 POLLUTANT : SULPHUR DIOXIDE

YEAR : 2013
 UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1																									
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AMBIENT AIR MONITORING AT QUEEN MARY HOSPITAL TEMPORARILY SUSPENDED

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->				STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR	
##	##	##	##	##	##	##	##	##	##	##	##	##	##	

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

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

STATION : QUEEN MARY HOSPITAL
 POLLUTANT : NITROGEN DIOXIDE

YEAR : 2013
 UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1																									
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AMBIENT AIR MONITORING AT QUEEN MARY HOSPITAL TEMPORARILY SUSPENDED

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->				STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR	
##	##	##	##	##	##	##	##	##	##	##	##	##	##	

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

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

STATION : AP LEI CHAU
POLLUTANT : SULPHUR DIOXIDE

MONTH:OCTOBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	1	0	1	0	0	0	1	3	4	1	4	2	2	3	4	2	1	2	2	3	7	5	5	10	3
2	5	3	2	2	2	39	30	14	18	15	20	M	22	26	23	12	14	14	18	17	28	14	10	10	16
3	8	8	7	5	5	6	6	8	10	10	9	9	9	7	8	10	10	10	10	9	9	9	10	7	8
4	6	5	6	4	2	2	2	2	7	10	11	11	27	8	6	6	7	11	12	13	14	29	15	20	10
5	14	14	12	12	9	7	6	5	6	8	15	24	32	52	16	7	5	19	24	30	71	85	55	28	23
6	22	27	20	13	16	11	27	19	25	14	10	16	11	14	18	12	10	10	15	17	15	18	13	15	16
7	10	8	9	9	13	15	15	18	20	19	15	12	10	11	8	16	8	5	6	6	5	4	8	11	11
8	14	11	11	12	10	10	8	13	12	11	15	12	11	11	9	8	8	4	3	1	2	2	4	1	8
9	1	1	1	0	0	0	1	1	3	4	2	2	2	0	1	0	0	0	3	3	2	0	1	3	1
10	1	1	1	1	1	1	1	1	1	3	2	1	1	3	1	1	3	4	2	4	6	5	6	4	2
11	5	20	52	33	23	17	12	8	6	3	1	2	1	0	9	25	31	44	17	9	7	8	9	9	15
12	4	2	1	2	3	4	2	2	14	35	10	5	6	7	7	6	6	6	7	7	7	5	4	6	7
13	2	3	3	3	4	4	7	9	8	8	7	4	5	5	3	4	5	5	5	2	3	2	2	2	4
14	1	1	1	1	0	1	2	4	5	4	6	2	3	2	1	2	2	3	4	4	3	3	2	2	2
15	2	2	1	2	5	5	5	9	9	7	7	6	5	6	9	10	8	11	8	4	2	1	1	1	5
16	1	1	2	2	2	1	3	5	5	7	5	6	6	5	5	1	2	0	0	1	1	0	1	2	3
17	2	2	1	2	2	2	2	4	5	5	5	7	6	6	8	6	8	6	4	5	5	3	3	5	4
18	5	4	5	4	2	4	4	4	7	6	4	3	2	4	4	4	5	4	5	5	6	6	5	4	4
19	5	6	7	6	6	7	7	9	8	9	10	9	11	30	22	23	35	31	27	18	16	8	7	6	13
20	6	5	5	5	5	9	10	14	14	11	11	10	10	7	6	5	5	9	6	8	9	8	7	6	8
21	7	6	4	5	4	6	8	5	7	6	7	16	22	9	5	5	6	7	4	6	8	7	9	6	7
22	6	4	7	8	8	8	7	8	12	13	15	25	21	21	20	35	42	34	28	19	13	13	12	16	16
23	15	16	20	19	22	20	20	20	25	22	19	45	44	29	24	18	20	20	29	29	34	24	16	20	24
24	22	20	22	23	24	23	21	20	22	19	22	18	14	11	30	21	31	29	24	14	13	13	14	17	20
25	17	17	15	18	21	21	22	20	22	21	22	16	16	15	16	15	16	15	12	17	16	17	17	17	18
26	16	16	14	16	14	16	15	16	15	16	16	15	14	15	14	12	11	13	12	11	11	10	10	9	14
27	10	9	8	7	7	7	8	6	8	10	11	12	13	13	10	11	6	5	5	5	6	3	3	3	8
28	4	3	3	3	4	5	5	5	6	7	7	8	7	5	6	5	3	2	1	2	3	3	5	5	4
29	4	2	2	2	2	2	3	4	5	5	3	4	5	1	3	3	4	3	2	4	4	8	7	8	4
30	5	3	4	3	4	2	3	4	6	5	5	8	3	6	4	4	3	2	3	4	6	5	3	1	4
31	1	1	1	1	1	2	2	3	5	4	1	3	2	2	2	1	5	6	3	3	5	2	2	7	3

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->				STN GEOM	PERCENT	NO. OF TIMES			
MEAN	MEDIAN	MEAN		50	90	95	98	99	1-HR		24-HR		VALID DATA	ABOVE OBJECTIVE				
														1-HR	24-HR			
6	6	9		6	20	25	33	43	0	-	85	1	-	24	3	100	0	0

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

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

STATION : AP LEI CHAU
POLLUTANT : NITROGEN DIOXIDE

MONTH:OCTOBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	11	11	10	10	11	11	13	14	15	15	14	12	13	13	16	14	18	17	17	20	20	27	26	58	17
2	34	33	23	23	22	84	65	55	54	69	71	M	62	46	36	26	29	22	36	29	41	36	70	32	43
3	26	14	18	10	11	27	54	65	62	44	23	23	26	12	8	9	10	7	8	9	11	16	14	23	22
4	27	25	15	10	12	17	28	44	55	64	51	29	44	7	5	4	3	8	13	12	32	31	9	30	24
5	29	29	22	13	14	18	25	34	31	45	50	58	52	54	25	14	12	41	47	52	130	128	124	125	49
6	112	98	48	31	35	30	54	45	52	47	48	51	35	37	34	24	26	30	36	39	34	40	37	13	43
7	11	4	0	0	1	4	16	25	32	37	44	32	28	30	28	34	31	24	36	29	29	20	17	17	22
8	32	22	16	17	13	15	23	45	55	68	67	47	43	46	47	58	59	60	51	56	51	43	37	40	42
9	37	M	31	23	16	18	31	43	41	14	8	0	0	0	1	1	0	0	4	3	0	0	0	0	12
10	0	0	0	0	0	0	5	13	17	13	11	1	0	0	0	0	1	0	0	0	4	26	8	33	6
11	32	44	76	69	74	72	70	59	33	16	9	18	6	8	13	30	24	53	13	2	1	0	4	13	31
12	4	1	0	0	0	5	16	26	57	63	18	7	6	6	6	7	6	7	14	12	15	9	6	3	12
13	1	1	0	2	2	4	9	13	16	12	8	9	7	5	5	6	8	5	3	4	1	2	4	2	5
14	3	1	0	0	0	1	3	8	9	11	6	9	9	9	16	17	10	12	5	4	4	4	4	4	6
15	4	2	3	5	6	7	15	18	28	23	21	13	3	3	5	5	5	8	6	5	4	3	3	4	8
16	3	2	3	4	4	6	22	36	30	20	18	17	9	8	9	7	6	6	5	6	6	5	5	5	10
17	4	4	4	3	3	4	4	7	7	8	7	8	7	10	9	9	11	8	14	14	10	6	6	6	7
18	6	4	5	7	6	7	15	32	42	27	16	13	11	7	6	7	9	16	21	25	20	22	30	64	17
19	78	66	60	33	23	20	27	40	41	35	38	41	42	65	44	43	52	52	62	67	63	29	20	8	44
20	26	29	21	20	25	28	40	46	34	12	9	9	9	7	5	7	12	17	17	20	33	20	12	22	20
21	23	15	15	17	21	22	38	65	47	27	24	59	65	11	8	8	9	16	11	10	9	9	14	19	23
22	29	36	35	34	26	25	41	61	66	63	61	64	54	36	43	53	68	44	34	20	12	21	63	37	43
23	47	M	21	19	20	21	26	60	81	89	61	108	94	51	46	30	43	37	52	65	72	131	79	54	57
24	49	36	29	26	29	28	38	50	63	67	67	56	46	42	52	43	48	35	65	94	100	63	53	39	51
25	39	30	22	21	21	23	35	50	55	63	59	56	37	36	45	49	58	64	72	76	85	46	41	41	47
26	50	39	26	28	23	26	36	53	72	70	42	29	25	18	12	12	13	16	24	46	43	36	38	53	35
27	44	42	39	30	25	21	24	29	31	22	13	13	13	13	12	14	13	14	13	17	23	22	13	11	21
28	10	9	10	10	11	12	18	23	14	16	16	22	11	11	12	9	10	10	22	46	56	38	15	8	17
29	9	6	6	5	6	8	15	12	14	23	21	12	8	6	6	6	6	12	17	41	24	22	22	9	13
30	7	7	5	4	4	5	6	9	10	15	15	12	5	5	7	5	5	11	19	23	32	21	11	11	11
31	9	7	4	6	7	15	20	37	28	24	14	17	7	6	6	6	9	11	12	14	11	7	6	18	13

MONTHLY STATISTICS:

GEOM		ARITH	<-----PERCENTILE----->					<-----RANGE----->					STN GEOM	PERCENT	NO. OF TIMES		
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR				
17	17	25	17	56	66	79	99	0	-	131	5	-	57	3	100	0	0

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

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

STATION : AP LEI CHAU
POLLUTANT : SULPHUR DIOXIDE

MONTH: NOVEMBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	5	4	4	7	5	8	20	32	20	20	21	7	6	11	7	4	7	14	5	4	8	21	52	12	13
2	6	6	5	5	8	8	14	10	9	9	12	9	7	8	8	8	5	5	5	5	5	5	4	7	7
3	6	5	5	5	6	6	7	6	6	5	4	6	5	4	5	2	3	3	3	3	4	3	3	3	5
4	3	2	3	3	3	1	2	3	6	2	1	1	1	2	2	1	1	0	0	0	0	0	0	2	2
5	1	1	1	0	1	0	2	3	3	4	5	4	3	3	3	6	5	2	3	3	4	5	4	7	3
6	5	4	5	4	5	7	6	7	7	6	7	23	19	37	19	8	9	14	40	23	27	11	9	10	13
7	8	7	6	7	7	7	7	7	6	10	D	D	13	14	16	18	16	12	10	9	10	11	11	7	10
8	5	4	8	7	6	7	7	7	7	8	8	4	6	6	8	7	9	8	7	8	8	7	6	9	7
9	9	10	9	11	10	11	9	8	8	8	8	4	4	3	3	3	2	1	2	1	3	2	1	1	5
10	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	3	0	0	1	2	1	1	1	1
11	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
13	0	1	1	1	1	1	1	2	1	1	1	1	1	2	1	1	2	2	2	2	3	2	3	3	2
14	1	2	2	2	1	3	3	2	4	5	3	4	2	3	13	16	11	11	7	10	17	9	7	5	6
15	3	4	3	3	3	2	3	8	15	10	12	3	2	3	4	15	9	2	2	3	5	5	5	6	5
16	5	7	7	6	6	7	7	6	8	30	30	17	10	14	16	25	40	22	14	15	38	46	58	33	19
17	11	10	9	9	9	8	8	9	10	9	7	7	10	8	10	7	7	7	9	9	8	9	9	11	9
18	9	7	6	5	7	5	8	8	9	11	10	8	7	7	8	11	10	11	10	9	9	10	9	10	9
19	8	8	9	10	11	12	12	13	12	13	13	12	13	16	18	15	13	11	11	11	11	11	11	8	12
20	9	8	8	10	10	10	9	10	11	12	12	11	12	12	13	12	13	12	12	13	14	15	15	13	12
21	14	14	11	10	9	9	9	7	8	9	9	8	7	7	6	4	7	7	6	6	5	3	1	6	8
22	3	4	4	4	5	4	5	8	6	7	7	6	7	6	6	9	6	6	5	7	6	4	6	1	6
23	2	2	1	1	1	3	3	4	4	5	6	6	6	5	5	6	3	5	4	1	1	2	2	6	4
24	5	5	4	4	3	3	4	3	3	36	69	52	8	36	53	42	28	26	11	14	10	4	5	7	18
25	5	6	6	5	6	7	6	6	14	13	15	15	24	29	16	36	18	5	3	4	7	8	7	4	11
26	5	6	6	5	4	6	7	7	7	8	11	10	9	8	7	6	6	6	6	6	4	3	2	8	6
27	5	5	5	6	5	6	7	8	10	8	7	17	21	7	22	33	24	17	14	10	6	4	2	1	10
28	1	0	0	2	0	0	1	1	3	2	2	3	4	5	6	7	9	12	12	13	13	12	12	12	6
29	9	8	6	7	7	6	6	6	5	6	7	6	9	8	8	10	11	9	9	11	11	11	9	9	8
30	10	9	8	10	8	9	9	10	9	9	10	10	10	10	17	11	15	8	7	7	6	8	8	8	9

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->					STN	GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN		50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA		ABOVE OBJECTIVE	1-HR	24-HR
6	6	7		6	14	19	33	40	0	-	69	0	-	19	2	100	0	0

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

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

STATION : AP LEI CHAU
POLLUTANT : NITROGEN DIOXIDE

MONTH: NOVEMBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	17	18	19	21	23	34	54	83	81	83	55	22	15	36	24	17	25	45	41	71	112	129	140	86	52
2	53	34	36	34	35	17	38	49	54	53	36	38	32	30	30	33	30	39	33	24	20	17	15	20	33
3	19	16	14	12	13	13	14	16	25	24	20	18	18	19	22	24	28	28	28	27	27	26	29	35	21
4	24	19	15	12	12	14	23	34	50	39	36	33	23	24	40	48	53	58	50	33	28	40	33	34	32
5	28	20	17	17	11	12	17	21	20	26	23	21	18	20	28	51	58	45	53	44	40	39	37	34	29
6	40	M	22	21	16	20	34	61	63	67	55	70	74	70	54	28	39	62	95	55	118	100	25	19	53
7	15	12	11	12	11	13	16	26	26	23	D	D	15	9	10	11	16	13	11	8	8	9	10	7	13
8	8	6	6	5	6	8	12	19	25	18	16	15	10	4	24	18	11	34	41	23	33	27	18	14	17
9	16	13	10	7	4	6	10	10	13	13	12	14	7	5	9	6	5	4	1	0	1	1	2	7	7
10	4	4	4	4	4	4	6	7	6	5	5	5	5	4	5	6	7	7	7	9	12	8	7	14	6
11	9	9	9	10	11	9	11	14	13	14	16	M	9	6	8	7	8	7	7	7	7	7	7	6	9
12	5	3	3	3	3	3	4	5	5	5	6	5	6	9	10	9	9	10	9	8	8	12	10	7	7
13	5	4	2	2	2	6	12	22	33	35	40	32	24	33	39	40	45	48	41	39	34	25	19	17	25
14	16	30	20	26	25	27	29	43	44	44	39	42	31	18	43	69	83	113	83	73	77	74	73	68	50
15	53	58	55	44	36	41	50	49	54	57	48	28	15	12	19	50	47	21	28	49	53	49	54	57	43
16	34	29	22	24	28	34	48	46	36	76	73	58	52	63	69	81	118	99	101	110	113	150	158	150	74
17	82	36	23	22	28	32	42	57	57	44	21	12	11	13	14	12	13	18	21	33	56	45	34	65	33
18	60	46	24	19	16	20	30	56	57	30	23	21	8	7	9	14	15	18	28	35	34	42	60	49	30
19	56	37	23	21	20	21	32	58	67	45	24	14	14	14	16	15	17	31	31	25	14	12	11	11	26
20	9	M	10	9	9	11	17	26	29	29	20	20	17	27	21	28	21	37	34	25	25	24	25	20	21
21	16	15	12	11	14	15	21	42	45	28	22	26	15	26	26	31	23	21	34	34	28	15	11	10	23
22	8	8	7	7	7	10	16	23	24	23	27	15	15	16	12	11	11	18	19	22	13	9	14	8	14
23	9	6	5	5	4	7	9	14	10	9	17	18	7	10	8	12	8	18	13	7	7	6	8	7	9
24	8	8	8	9	5	7	22	22	30	52	69	37	11	38	60	43	32	51	57	74	68	52	43	50	36
25	44	29	20	17	13	15	25	36	47	58	68	70	70	80	66	66	58	34	39	48	64	59	65	48	47
26	49	25	17	15	14	14	24	33	29	29	19	18	13	17	14	15	16	21	22	31	17	16	10	11	20
27	8	5	6	6	5	7	17	30	41	27	14	32	39	7	77	104	109	124	110	87	70	46	39	29	43
28	24	15	11	9	7	12	17	31	41	52	53	56	50	40	41	46	67	61	58	50	39	27	25	26	36
29	23	17	9	7	7	6	15	31	37	33	34	37	33	41	47	48	64	51	80	85	85	71	69	76	42
30	65	36	24	23	23	22	32	51	53	27	20	23	20	19	46	32	52	28	59	67	115	97	85	80	46

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->					STN	GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN		50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID	DATA	1-HR	24-HR	
21	23	30		23	63	78	108	118	0	-	158	6	-	74	2	99	0	0

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

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

STATION : AP LEI CHAU
POLLUTANT : SULPHUR DIOXIDE

MONTH:DECEMBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	8	7	8	8	8	9	10	11	14	11	10	7	13	8	11	8	9	6	5	5	11	12	10	11	9
2	13	12	11	9	9	9	9	11	15	15	21	21	32	8	7	6	6	5	6	7	8	7	6	5	11
3	5	5	4	4	6	5	5	6	7	9	9	9	9	4	6	6	4	4	1	3	4	10	7	7	6
4	9	11	10	18	31	38	27	25	43	58	32	24	25	14	15	15	14	19	18	20	18	17	14	16	22
5	16	15	16	15	14	14	14	15	14	13	12	12	11	12	8	9	8	9	7	10	22	26	21	12	14
6	16	16	15	12	13	14	13	13	19	17	17	13	13	10	14	9	12	10	12	13	15	15	15	15	14
7	10	9	8	8	8	9	9	11	11	10	9	10	8	15	31	13	6	7	7	13	27	13	9	7	11
8	6	5	7	8	8	9	10	9	10	11	13	13	11	9	10	11	10	10	11	9	9	10	11	5	9
9	7	8	5	11	11	13	19	32	33	47	M	M	8	43	42	33	40	28	30	10	10	13	14	25	22
10	23	24	24	23	24	27	25	23	29	23	17	19	17	15	15	15	14	13	11	13	13	12	13	13	19
11	12	13	13	13	10	12	15	21	25	26	28	26	25	26	26	36	26	26	27	26	26	25	24	21	22
12	21	19	16	15	14	15	17	17	16	18	19	15	15	14	14	15	13	13	14	14	16	20	16	16	16
13	15	11	10	9	10	8	6	7	8	6	9	11	21	29	24	27	36	41	31	16	15	14	12	12	16
14	11	13	11	6	8	9	14	16	17	17	14	12	9	9	8	6	6	2	1	0	0	1	1	0	8
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	T	T	T	T	T	0
16	T	T	T	T	T	T	T	T	T	T	T	9	1	1	0	0	1	2	0	0	0	0	4	2	
17	1	2	0	1	1	1	3	2	8	10	6	11	4	5	8	5	6	5	9	11	7	5	12	5	5
18	1	1	2	2	2	2	3	3	4	3	3	6	4	5	4	4	5	4	3	5	2	2	3	3	3
19	3	3	4	4	3	3	3	4	6	4	6	6	7	6	10	9	6	4	4	7	8	7	6	4	5
20	3	3	4	4	4	4	5	7	8	7	7	7	13	20	26	26	21	15	11	9	9	13	12	19	11
21	17	17	16	15	18	15	11	15	13	18	19	20	22	15	22	18	16	15	15	16	17	21	22	22	17
22	24	21	25	23	27	30	29	26	24	22	20	16	30	21	28	30	30	40	34	26	23	21	18	17	25
23	17	15	14	14	15	16	15	15	16	22	35	35	33	32	26	30	32	43	50	31	20	22	19	16	24
24	16	16	16	16	18	18	18	19	21	22	23	17	11	12	10	11	11	18	40	15	16	20	22	19	18
25	18	19	19	19	19	19	19	36	31	36	33	28	33	41	36	35	41	58	48	39	30	19	21	16	30
26	17	19	17	17	17	18	18	19	19	22	31	25	19	14	12	13	13	12	14	17	18	19	23	24	18
27	27	26	27	28	31	31	38	41	41	40	42	42	39	36	48	40	43	40	40	46	50	52	51	48	39
28	47	46	45	45	44	42	39	36	37	35	34	41	37	30	29	37	30	28	20	17	16	14	16	12	32
29	11	11	11	10	11	11	12	12	12	11	14	12	12	12	13	14	13	13	11	10	12	13	14	16	12
30	16	15	13	13	14	14	14	15	25	49	45	66	61	34	31	48	38	59	46	51	78	77	74	60	40
31	38	44	48	37	26	20	17	16	44	53	48	40	28	26	34	50	59	51	38	40	40	45	58	32	39

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->				STN GEOM	PERCENT	NO. OF TIMES ABOVE OBJECTIVE				
MEAN	MEDIAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR					
14	14	17	14	37	44	51	59	0	-	78	0	-	40	2	98	0	0

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

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

STATION : AP LEI CHAU
POLLUTANT : NITROGEN DIOXIDE

MONTH:DECEMBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	60	59	58	51	47	48	38	52	45	47	31	19	31	9	18	20	20	39	68	96	102	107	73	95	51
2	90	105	77	33	22	25	39	69	91	67	65	58	63	17	8	7	7	9	20	39	30	14	10	7	41
3	8	7	7	7	8	9	14	26	29	24	27	33	11	7	8	9	19	47	47	52	47	76	113	41	28
4	34	M	50	60	93	121	97	80	113	123	107	71	64	40	34	44	54	71	63	63	93	41	47	40	70
5	42	27	22	22	16	12	17	33	40	34	28	23	11	16	11	12	11	45	80	68	134	129	132	69	43
6	53	54	45	26	22	29	47	70	89	96	71	46	41	39	47	52	55	75	95	116	106	98	49	54	61
7	51	39	39	25	23	23	30	37	38	27	18	23	12	36	67	20	10	28	94	121	136	56	44	38	43
8	31	25	9	10	10	12	15	17	21	12	14	16	18	14	22	14	11	11	10	16	20	17	27	30	17
9	34	42	31	37	30	31	47	85	96	98	M	M	55	105	140	101	73	103	174	123	90	43	38	41	74
10	36	32	32	31	33	29	39	74	100	87	37	26	20	20	26	20	18	25	19	20	19	18	15	16	33
11	19	16	13	13	13	16	24	44	56	50	46	47	44	46	59	79	44	35	49	72	56	49	42	29	40
12	23	22	18	15	16	18	23	30	34	36	29	25	20	23	26	40	41	41	32	23	20	23	31	29	27
13	27	22	21	22	28	32	24	47	45	46	55	65	101	108	110	113	126	135	118	86	54	40	30	17	61
14	20	16	15	13	14	18	28	37	33	41	43	53	41	46	74	69	68	50	60	51	39	27	15	15	37
15	15	12	11	11	10	14	16	21	19	23	26	27	20	30	35	31	28	21	15	T	T	T	T	T	20
16	T	T	T	T	T	T	T	T	T	T	T	49	47	48	47	55	57	68	68	59	53	44	44	37	
17	27	26	21	17	23	33	39	42	50	49	50	56	50	53	58	59	58	59	61	57	53	51	51	43	45
18	34	19	16	12	13	14	18	25	33	35	36	38	34	35	39	42	48	53	60	50	48	41	40	38	34
19	31	22	17	16	13	17	28	44	49	46	46	41	46	48	43	63	81	97	92	102	99	64	53	58	51
20	52	32	21	16	17	19	27	37	40	34	36	29	45	57	68	81	64	52	67	69	59	59	55	61	46
21	71	64	37	29	30	35	46	67	67	73	70	77	67	67	84	84	84	91	104	120	71	58	57	50	67
22	57	35	34	33	30	35	41	45	52	44	30	14	34	23	50	61	66	95	94	91	77	63	55	34	50
23	46	47	56	42	30	35	42	48	60	94	103	91	80	82	83	87	103	155	187	191	116	91	76	69	84
24	55	57	52	34	27	34	43	54	64	81	95	47	15	20	18	14	12	38	138	87	79	65	65	62	52
25	65	68	63	36	32	36	49	74	98	88	80	70	66	85	90	92	110	156	158	180	163	87	70	44	86
26	42	37	27	24	22	21	28	29	35	44	61	50	43	35	32	31	38	46	56	55	43	29	30	28	37
27	29	26	22	21	19	23	29	45	58	65	65	63	54	51	59	84	75	95	82	77	71	70	71	86	56
28	73	69	67	53	41	38	52	89	97	106	104	94	75	67	72	95	99	91	131	111	M	73	53	46	78
29	39	29	23	19	16	18	26	39	49	58	34	19	19	17	21	21	24	25	29	55	65	59	54	63	34
30	72	55	59	47	35	30	35	54	104	115	119	114	101	82	88	123	85	117	96	124	167	188	197	184	100
31	116	128	123	90	57	43	41	62	110	119	120	102	95	108	68	60	59	53	53	135	121	155	173	114	96

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->				STN	GEOM	PERCENT	NO. OF TIMES ABOVE OBJECTIVE			
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR			
41	45	52	45	100	119	139	172	7	-	197	17	-	100	2	97	0	0

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

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

STATION : CHEUNG CHAU
POLLUTANT : SULPHUR DIOXIDE

MONTH:OCTOBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

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

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->				STN	GEOM	PERCENT	NO. OF TIMES		
MEAN	MEDIAN	MEAN		50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID	DATA	1-HR	24-HR	
8	9	10		9	19	21	25	27	0	-	34	3	-	20	2	95	0	0

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

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

STATION : CHEUNG CHAU
POLLUTANT : NITROGEN DIOXIDE

MONTH:OCTOBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	19	32	21	10	10	19	9	13	17	12	8	6	3	3	5	7	8	18	9	9	8	8	9	9	11
2	10	25	45	69	60	28	23	22	23	31	30	35	34	22	10	11	16	24	24	21	50	30	70	35	31
3	13	36	104	69	28	52	59	41	39	69	48	47	39	14	10	11	18	25	14	15	13	7	6	8	33
4	9	7	14	18	21	23	27	43	36	34	60	49	36	17	13	10	13	10	10	11	13	29	18	23	23
5	19	14	15	14	16	13	37	41	44	32	26	32	25	18	14	12	14	12	13	11	76	118	141	86	35
6	65	66	92	61	48	44	71	71	48	47	50	54	52	37	36	57	68	68	56	56	61	56	40	23	55
7	19	15	11	12	21	36	49	56	58	49	41	M	M	41	50	53	44	36	33	33	39	52	42	29	37
8	27	24	18	31	26	26	35	48	50	45	46	58	52	52	42	31	39	58	47	63	53	50	46	33	42
9	29	M	18	23	32	36	42	40	31	41	18	3	1	0	0	0	0	2	7	16	2	0	4	2	15
10	0	0	0	2	4	1	4	7	24	22	9	2	0	0	0	1	5	10	4	3	3	3	4	27	6
11	56	24	18	27	58	77	64	59	55	53	34	4	4	17	25	30	18	11	9	5	3	6	0	11	28
12	6	5	4	6	0	17	31	41	44	33	40	28	2	4	1	1	4	5	24	21	7	14	9	7	15
13	5	24	21	3	2	4	6	17	14	28	17	22	29	6	6	2	4	4	2	20	10	12	8	31	12
14	16	27	29	31	24	4	4	5	8	10	10	6	9	5	12	18	15	15	8	15	11	6	15	9	13
15	7	6	5	1	5	3	5	37	34	53	50	16	8	5	7	15	10	12	5	5	19	2	1	1	13
16	1	0	9	20	16	1	30	41	42	21	10	8	8	8	11	13	12	15	11	13	12	20	13	25	15
17	22	29	16	17	22	22	33	26	34	33	9	5	3	4	6	7	6	9	17	23	24	13	13	13	17
18	12	2	5	3	2	3	21	19	45	28	25	14	35	14	4	6	8	10	12	16	12	10	9	56	15
19	43	37	28	24	29	36	38	36	33	41	36	38	38	36	27	23	15	16	17	19	21	21	13	10	28
20	7	17	14	38	33	16	25	21	32	50	48	38	17	10	5	5	9	12	12	15	12	7	6	6	19
21	9	14	38	33	22	16	26	24	32	53	55	51	45	18	17	17	21	32	28	18	15	9	8	10	25
22	18	24	29	22	14	17	21	28	25	33	25	26	24	33	22	15	11	12	10	9	10	27	35	47	22
23	31	M	18	15	10	11	24	25	28	34	28	36	30	28	32	28	20	20	19	32	76	95	77	35	33
24	26	29	30	29	24	20	24	24	34	39	36	27	29	24	33	45	39	36	57	62	88	60	40	28	37
25	25	23	23	22	16	13	22	24	24	38	25	25	23	21	23	22	26	35	53	61	38	42	40	50	30
26	35	28	27	24	16	39	40	27	32	60	52	61	29	17	6	6	9	9	7	9	10	9	17	14	24
27	7	14	10	27	30	28	10	17	40	39	19	6	5	5	5	4	4	10	7	11	14	10	19	8	15
28	6	5	2	3	2	12	15	15	16	23	25	20	7	0	1	2	2	0	5	5	37	34	20	10	11
29	9	10	4	6	9	4	3	8	8	11	5	4	0	0	1	0	5	13	8	12	9	12	16	7	7
30	7	2	5	9	4	6	8	6	16	6	15	4	0	0	0	0	0	0	2	6	11	11	9	11	6
31	9	9	6	3	0	30	18	13	37	60	52	32	12	4	7	14	11	9	10	9	4	2	7	8	15

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->					STN	GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN		50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID	DATA	1-HR	24-HR	
16	17	22		17	49	58	69	77	0	-	141	6	-	55	3	99	0	0

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

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

STATION : CHEUNG CHAU
POLLUTANT : SULPHUR DIOXIDE

MONTH: NOVEMBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

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

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->					STN	GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN		50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID	DATA	1-HR	24-HR	
7	7	8		7	15	19	24	25	0	-	38	0	-	18	2	99	0	0

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

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

STATION : CHEUNG CHAU
POLLUTANT : NITROGEN DIOXIDE

MONTH: NOVEMBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	10	9	5	28	36	45	43	55	48	60	51	39	41	25	16	7	5	9	6	45	93	114	132	46	40
2	68	57	44	27	20	17	14	17	28	30	28	28	29	22	22	26	35	39	46	56	40	39	42	32	34
3	28	14	10	8	7	9	12	10	9	24	20	11	13	13	15	26	27	34	42	42	41	36	34	36	22
4	24	21	12	10	15	20	18	20	19	35	32	31	34	29	34	40	42	73	65	68	60	48	44	48	35
5	40	37	30	26	18	34	36	24	9	13	9	19	25	39	40	34	42	62	81	82	80	30	68	62	39
6	63	D	44	32	33	38	39	39	34	48	58	47	46	51	41	16	28	27	23	20	13	17	20	13	34
7	9	5	5	4	4	16	3	10	28	30	8	6	8	2	0	1	3	6	6	6	3	2	4	10	7
8	28	16	11	0	1	1	4	7	16	13	14	33	29	1	4	5	4	2	8	8	7	8	15	11	10
9	30	35	41	40	10	7	15	12	9	16	24	23	13	4	4	3	3	13	25	21	20	13	10	5	17
10	13	20	17	9	17	18	4	1	11	16	11	12	12	10	12	17	6	15	6	3	5	4	1	3	10
11	2	0	0	8	19	15	20	25	14	18	16	11	5	2	1	1	1	1	0	5	3	2	3	0	7
12	1	0	0	2	1	0	0	0	0	0	1	0	0	0	2	1	3	6	5	4	6	28	28	8	4
13	17	3	10	2	10	20	22	18	25	31	26	29	35	D	D	D	48	51	54	52	48	46	44	46	30
14	49	44	40	33	20	17	19	16	20	19	24	25	29	45	42	64	77	86	81	62	56	52	52	48	43
15	47	40	15	13	16	18	17	15	24	31	27	31	35	33	36	37	15	12	40	24	9	11	57	43	27
16	38	33	40	28	20	19	25	24	26	33	40	47	45	39	66	83	92	84	101	71	63	64	64	61	50
17	44	19	11	8	9	5	16	11	18	48	40	30	37	27	24	6	0	3	7	18	66	64	68	57	27
18	34	27	34	29	31	30	43	68	57	64	47	18	4	2	0	2	4	6	8	10	15	20	26	48	26
19	92	71	24	46	26	34	55	56	65	75	60	35	18	18	15	20	17	16	13	10	10	8	7	3	33
20	13	D	3	5	3	4	6	7	13	18	16	11	16	26	25	15	11	14	18	17	11	8	10	19	13
21	16	13	9	6	20	31	38	51	31	32	20	30	13	17	27	21	8	10	17	28	26	15	20	15	21
22	9	3	1	2	14	12	6	7	11	17	33	25	13	4	0	14	4	19	15	18	11	14	8	13	11
23	19	17	13	15	7	1	4	4	9	11	15	6	7	13	13	14	3	12	4	3	0	2	2	6	8
24	8	9	9	9	10	5	20	45	31	50	39	11	6	16	7	12	29	28	50	57	43	37	45	45	26
25	37	37	34	30	17	11	12	14	20	24	20	22	23	39	43	43	46	39	37	22	15	109	97	51	35
26	49	58	35	24	30	30	36	38	45	24	35	28	15	11	6	6	9	20	23	18	12	12	17	6	24
27	5	11	2	3	4	5	19	38	27	36	21	32	16	12	49	106	87	84	71	46	34	25	13	15	32
28	13	6	2	3	2	2	7	9	18	24	23	23	20	21	17	21	22	24	34	30	30	25	25	33	18
29	15	11	8	11	9	7	13	16	24	27	28	29	26	19	21	23	28	36	62	57	55	63	73	46	29
30	60	58	44	45	42	39	52	51	59	69	60	28	35	26	13	15	21	29	28	37	68	121	135	102	52

MONTHLY STATISTICS:

GEOM		ARITH		<-----PERCENTILE----->					<-----RANGE----->					STN	GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN		50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID	DATA	1-HR	24-HR	
18	20	25		20	55	66	84	100	0	-	135	4	-	52	3	99	0	0

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

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

STATION : CHEUNG CHAU
POLLUTANT : SULPHUR DIOXIDE

MONTH:DECEMBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	26	17	14	12	11	12	12	13	12	14	17	20	15	15	10	9	10	9	10	13	17	17	13	13	14
2	14	11	10	10	11	13	14	14	17	19	22	22	M	19	14	8	7	7	8	9	8	9	9	6	12
3	7	5	5	6	5	6	6	7	9	11	14	M	M	10	9	8	9	7	7	9	14	19	17	22	10
4	29	45	22	22	22	24	32	53	67	45	32	22	25	23	22	17	18	21	28	36	24	23	22	19	29
5	17	19	18	18	21	20	21	25	32	23	16	18	16	14	11	9	9	11	12	15	18	19	19	26	18
6	20	17	19	19	23	25	19	18	20	16	17	16	14	13	15	18	14	15	18	18	19	24	19	18	18
7	27	27	23	16	20	19	19	23	28	23	21	13	12	14	13	11	11	8	9	11	22	31	27	38	19
8	31	28	17	10	10	15	16	20	23	24	16	15	13	15	12	13	13	10	13	13	14	11	14	16	16
9	15	11	13	12	12	14	17	24	33	39	32	26	25	37	42	40	30	30	31	31	24	17	20	22	25
10	23	24	25	25	26	27	27	26	27	26	26	26	17	17	15	14	14	14	10	12	11	11	11	11	19
11	10	11	11	11	11	12	18	24	31	31	29	32	32	35	31	29	27	27	30	31	31	42	42	24	26
12	23	21	18	16	14	20	19	20	19	23	20	24	17	16	15	15	17	16	14	15	17	18	18	16	18
13	15	15	17	15	12	9	8	8	11	13	15	16	16	15	20	21	19	15	19	21	31	38	29	16	17
14	16	19	14	10	10	13	21	20	24	22	24	24	31	19	18	18	13	11	9	9	7	7	5	4	15
15	3	2	3	3	2	4	4	4	6	7	6	6	7	8	5	6	8	4	3	3	3	2	3	4	4
16	4	2	2	2	2	2	2	3	3	3	3	5	4	3	2	2	3	2	2	2	1	2	1	1	2
17	1	1	1	1	1	2	3	2	3	6	6	4	7	7	6	8	7	4	6	6	6	7	7	7	5
18	7	7	6	6	6	6	5	6	6	6	7	8	7	6	7	7	6	4	4	4	4	3	3	3	6
19	3	3	3	3	3	3	3	5	5	6	5	6	7	7	7	8	7	6	6	7	8	7	8	8	6
20	8	7	7	9	10	8	8	11	13	15	15	13	12	11	11	11	12	12	12	16	11	11	16	18	12
21	11	11	10	12	11	10	12	12	13	15	15	14	14	12	13	14	13	13	15	19	22	21	17	17	14
22	18	20	18	19	20	18	19	20	22	24	26	24	23	22	22	21	20	21	24	21	19	22	27	22	21
23	23	17	15	14	14	13	15	18	21	18	18	18	19	20	18	19	21	19	50	39	25	20	18	20	21
24	17	18	16	21	17	18	18	20	20	20	18	20	17	16	11	15	23	19	22	21	18	19	22	19	19
25	23	22	21	23	21	21	22	22	25	31	27	25	27	27	26	24	29	87	74	38	29	23	22	20	30
26	20	19	18	20	19	19	24	25	25	25	25	26	27	25	21	21	21	20	18	19	19	19	20	23	22
27	26	25	28	30	30	36	40	44	45	44	42	42	41	42	40	39	41	45	50	50	51	51	50	45	41
28	44	42	43	40	37	34	33	34	31	28	29	30	31	28	30	30	30	25	20	17	19	15	13	14	29
29	14	14	12	14	12	13	14	15	15	14	18	20	24	17	14	14	15	16	18	14	14	15	25	25	16
30	29	29	21	18	14	17	22	30	29	19	17	19	18	16	17	23	27	32	51	65	69	46	41	36	29
31	39	50	46	55	39	24	23	20	25	24	22	20	20	22	24	29	30	27	25	24	22	28	30	41	30

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->				STN GEOM	PERCENT	NO. OF TIMES ABOVE OBJECTIVE				
MEAN	MEDIAN	50	90	95	98	99	1-HR	24-HR	2	41	DEVIATION	VALID DATA	1-HR	24-HR			
14	17	18	17	31	40	47	51	1	-	87	2	-	41	2	100	0	0

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

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

STATION : CHEUNG CHAU
POLLUTANT : NITROGEN DIOXIDE

MONTH:DECEMBER

YEAR : 2013
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	101	74	51	48	51	56	49	32	21	39	40	47	40	31	12	10	18	28	41	82	90	85	66	54	49
2	51	45	31	22	27	28	61	36	39	55	57	64	M	59	25	6	4	6	8	20	21	22	24	11	31
3	12	9	8	10	7	8	12	22	41	45	54	M	M	10	7	7	12	16	21	22	73	135	135	135	36
4	134	M	106	98	95	92	142	142	120	101	95	78	81	70	65	50	77	82	95	110	87	73	68	55	92
5	33	26	26	22	26	30	37	53	75	69	51	49	30	28	14	13	11	19	30	117	104	94	84	105	48
6	96	71	61	64	83	73	61	59	60	58	52	45	30	36	51	65	45	86	89	102	116	126	86	86	71
7	88	78	81	56	56	46	61	71	74	78	72	43	42	50	37	30	37	16	61	93	123	137	180	191	75
8	172	137	97	33	34	64	74	69	71	82	28	21	16	27	20	22	24	14	24	22	71	33	75	75	54
9	74	55	83	84	65	61	65	79	78	74	61	72	70	106	119	143	88	90	197	194	124	57	48	35	88
10	31	28	23	22	19	20	27	38	47	54	55	65	28	33	23	18	20	30	25	28	19	20	17	17	29
11	17	19	15	15	21	34	51	57	68	70	65	74	67	73	62	65	62	61	89	95	98	119	108	40	60
12	31	39	21	21	24	38	32	34	32	56	33	46	27	30	24	28	35	48	31	30	36	35	26	43	33
13	36	40	44	46	50	52	46	53	61	81	75	83	98	94	108	112	131	137	151	150	143	132	102	43	86
14	51	84	17	16	18	39	70	63	55	44	66	74	77	81	95	93	89	94	79	85	70	69	52	27	63
15	14	16	14	14	13	31	34	33	43	47	42	43	48	53	47	49	60	29	28	29	23	21	27	43	33
16	42	38	33	31	29	24	25	29	34	37	41	36	35	30	30	37	39	49	50	48	32	40	37	24	35
17	20	17	21	21	28	40	46	39	42	45	41	37	49	47	52	58	58	52	53	51	49	49	46	32	41
18	24	M	14	13	14	13	13	19	23	23	22	24	24	25	29	29	32	29	32	30	32	27	25	20	23
19	17	16	14	15	15	13	17	22	28	27	25	29	36	40	42	51	53	52	55	55	61	48	48	41	34
20	39	38	34	33	29	24	31	38	41	55	47	48	45	50	54	64	74	84	86	76	62	59	61	47	51
21	48	43	49	48	39	33	41	32	33	49	50	55	54	47	53	79	67	58	57	61	79	66	42	33	51
22	35	38	31	21	26	21	26	26	28	42	46	48	46	46	58	54	50	69	83	79	80	87	75	64	49
23	58	44	56	44	29	22	36	45	42	43	46	53	59	68	67	71	76	89	151	151	121	96	68	60	66
24	47	52	49	58	35	23	30	36	37	60	57	55	65	58	57	24	50	119	119	110	107	82	79	48	61
25	44	44	39	44	29	28	31	46	58	68	62	63	77	72	74	74	83	155	163	131	118	110	98	50	73
26	40	26	25	24	19	19	24	25	35	40	56	69	66	58	52	53	53	58	65	43	47	27	19	25	40
27	20	19	17	19	19	19	21	27	34	45	36	37	42	52	49	47	56	68	68	82	72	57	49	50	42
28	44	40	35	33	33	35	42	47	43	49	47	59	68	75	85	89	95	90	84	72	76	49	30	29	56
29	27	25	19	21	15	17	20	28	30	37	36	45	53	28	21	21	23	34	39	30	27	43	95	115	35
30	125	99	62	35	24	31	45	72	71	55	31	44	54	40	42	57	79	103	142	165	166	143	138	117	81
31	118	133	129	156	122	71	77	61	62	69	58	66	71	93	79	90	97	89	78	109	105	147	139	141	98

MONTHLY STATISTICS:

GEOM	ARITH	<-----PERCENTILE----->					<-----RANGE----->				STN GEOM	PERCENT	NO. OF TIMES ABOVE OBJECTIVE				
MEAN	MEDIAN	50	90	95	98	99	1-HR	24-HR	24-HR	DEVIATION	VALID DATA	1-HR	24-HR				
45	47	55	47	98	125	144	160	4	-	197	23	-	98	2	99	0	0

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

Appendix C Summary Results on Water Quality Monitoring

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

Period : October – December 2013

Week Ending	No. of Samples	Suspended Solids, mg/L			pH		
		Maximum	Minimum	Average	Maximum	Minimum	Average
05/10/13	6*	16	11	13	8.3	8.1	8.2
12/10/13	4*	15	11	13	8.2	8.1	8.1
19/10/13	5*	14	13	13	8.2	8.1	8.2
26/10/13	4*	17	14	16	8.3	8.2	8.3
02/11/13	5*	15	12	14	8.3	8.1	8.2
09/11/13	3*	16	12	14	8.4	8.1	8.3
16/11/13	5*	15	11	12	8.3	8.1	8.2
23/11/13	0*	N/A	N/A	N/A	N/A	N/A	N/A
30/11/13	3*	13	11	12	8.3	8.1	8.2
07/12/13	4*	14	11	12	8.3	8.1	8.2
14/12/13	4*	19	12	15	8.3	8.0	8.2
21/12/13	5*	16	11	14	8.3	8.2	8.2
28/12/13	4*	13	11	12	8.3	8.2	8.3

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 2013

Sampling date		8/10/2013	12/11/2013	2/12/2013
Barium,	ug/L	<150	<150	<150
Mercury,	ug/L	<0.5	<0.5	<0.5
Cadmium,	ug/L	2	<1	<1
Iron,	ug/L	<400	<400	<400
Total Phosphorous,	mg/L	<0.8	<0.8	<0.8
Total Nitrogen,	mg/L	181	13	130
Cyanide,	mg/L	<0.01	<0.01	<0.01

Remark:

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

Appendix D Summary of EMIS

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