

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 2019

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

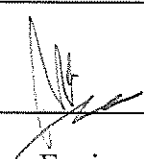
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EXECUTIVE SUMMARY

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 2019.

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	26/10/2019 00:01 to 10/11/2019 17:22	Unit overhaul
L5	18/10/2019 20:50 to 21/10/2019 05:19	Defect rectification
L5	12/11/2019 00:01 to 31/12/2019 23:59	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
L2 FGD	00:01 on 26/10/2019 to 17:22 on 10/11/2019	Defect rectification	EPD was informed on 15/07/2019
L4 FGD	07:00 on 18/11/2019 to 21:11 on 18/11/2019	Defect rectification	EPD was informed on 09/09/2019
L4 FGD	01:45 on 31/12/2019 to 23:59 on 31/12/2019	Defect rectification	EPD was informed on 09/09/2019
L5 FGD	20:13 on 18/10/2019 to 07:06 on 21/10/2019	Defect rectification	EPD was informed on 09/09/2019
L5 FGD	00:01 on 12/11/2019 to 23:59 on 31/12/2019	Defect rectification	EPD was informed on 09/09/2019

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

Environmental Monitoring Works

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

Air Quality

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

Water Quality

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

Environmental Licensing and Permitting

Description	Permit / Licence No.	Valid Period		Issued To	Date of Issuance
		From	To		
Environmental Permit for L4/5 FGD plants retrofit project	EP-248/2006	25/04/2006	-	HK Electric	25/04/2006
Environmental Permit for Unit L2 FGD plant retrofit project	EP-287/2007	02/10/2007	-	HK Electric	02/10/2007
Specified Process Licence issued under APCO	L-7-002(12)	01/01/2019	31/12/2020	HK Electric	17/12/2018
WPCO discharge licence for Ash Lagoon	WT00027218-2017	24/02/2017	31/12/2021	HK Electric	24/02/2017

Implementation Status of Environmental Mitigation Measures

Environmental mitigation measures were implemented in the reporting period.

Environmental Complaints

There was no environmental complaint against the operation of Lamma Power Station during the reporting period.

Future key issues

Key issues to be considered in the coming months include:

Air Impact

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

Water Impact

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

Concluding Remarks

The environmental performance of the projects was generally satisfactory.

1. INTRODUCTION

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

This report summarizes the environmental monitoring and audit work for the said Projects for the period from October to December 2019.

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	26/10/2019 00:01 to 10/11/2019 17:22	Unit overhaul
L5	18/10/2019 20:50 to 21/10/2019 05:19	Defect rectification
L5	12/11/2019 00:01 to 31/12/2019 23:59	Unit overhaul

1.4 Malfunction/Outage Records of Pollution Control Equipment

Equipment	Period	Cause	Actions Taken
L4 FGD	02:45 on 05/10/2019 to 02:47 on 05/10/2019	Routine Dampers Exercise	EPD was informed on 14/10/2019
L4 FGD	02:49 on 12/10/2019 to 02:53 on 12/10/2019	Routine Dampers Exercise	EPD was informed on 14/10/2019
L4 FGD	03:21 on 19/10/2019 to 03:25 on 19/10/2019	Routine Dampers Exercise	EPD was informed on 06/11/2019
L4 FGD	07:00 on 18/11/2019 to 21:07 on 18/11/2019	Defect rectification	EPD was informed on 19/11/2019
L5 FGD	02:49 on 05/10/2019 to 02:57 on 05/10/2019	Routine Dampers Exercise	EPD was informed on 14/10/2019
L5 FGD	02:43 on 12/10/2019 to 02:46 on 12/10/2019	Routine Dampers Exercise	EPD was informed on 14/10/2019
L5 FGD	02:06 on 02/11/2019 to 02:09 on 02/11/2019	Routine Dampers Exercise	EPD was informed on 06/11/2019

1.5 Summary of EM&A Requirements

Environmental Monitoring and Audit (EM&A) requirements have been discussed in the Environmental Impact Assessment (EIA) Report/ Project Profile for the Projects. The assessment results indicate that environmental monitoring works required for the EM&A

programmes of these Projects are already in place or would be implemented under Lamma Power Station Extension Environmental Permit or environmental licenses for the operation of the existing Lamma Power Station. Such monitoring works are considered adequate for the Projects and no additional EM&A activities are required. Hence, environmental monitoring for air quality and water quality are carried out for the purpose of this EM&A program as well as for fulfilling the requirements stipulated in the relevant licences.

The EM&A monitoring work for air and water quality are described in [Section 2](#) and [Section 3](#) respectively.

The following environmental audits are summarized in [Section 4](#) of the report:

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

The future key issues for the Projects will be reported in [Section 5](#) of this report.

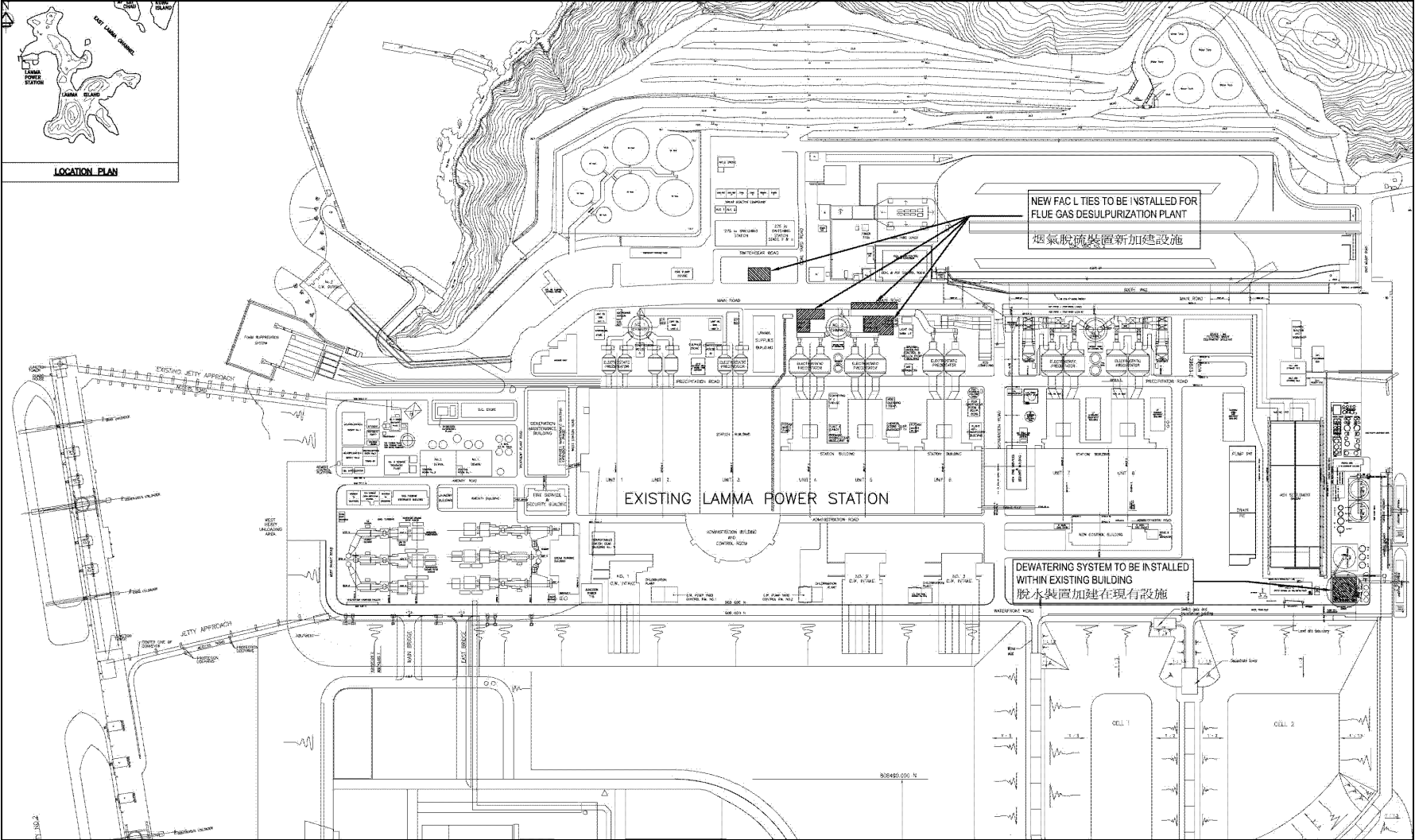


Figure 1.1a Location of New Facilities for L4 & L5 FGD Plants

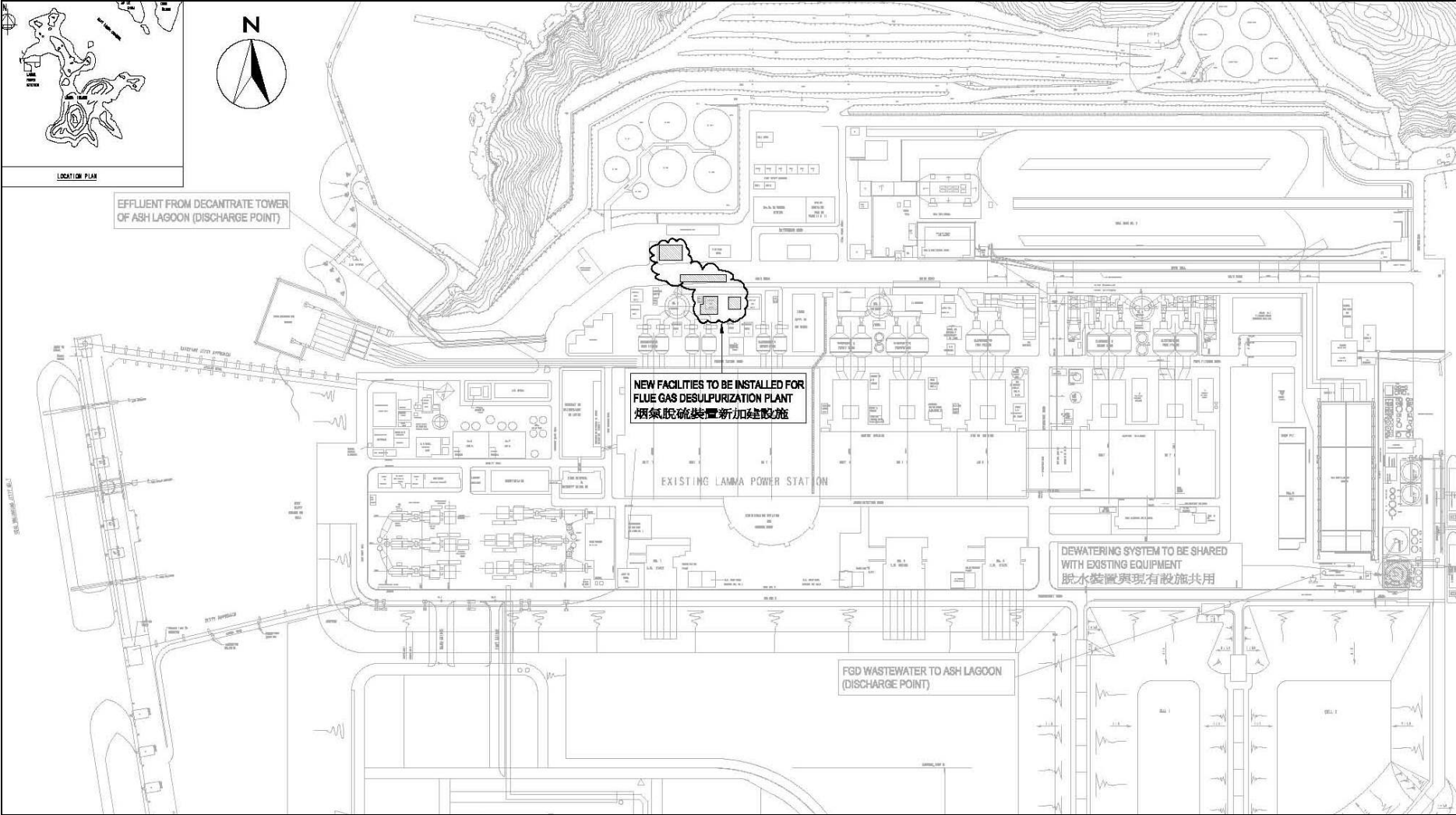


Figure 1.1b Location of New Facilities for L2 FGD Plant

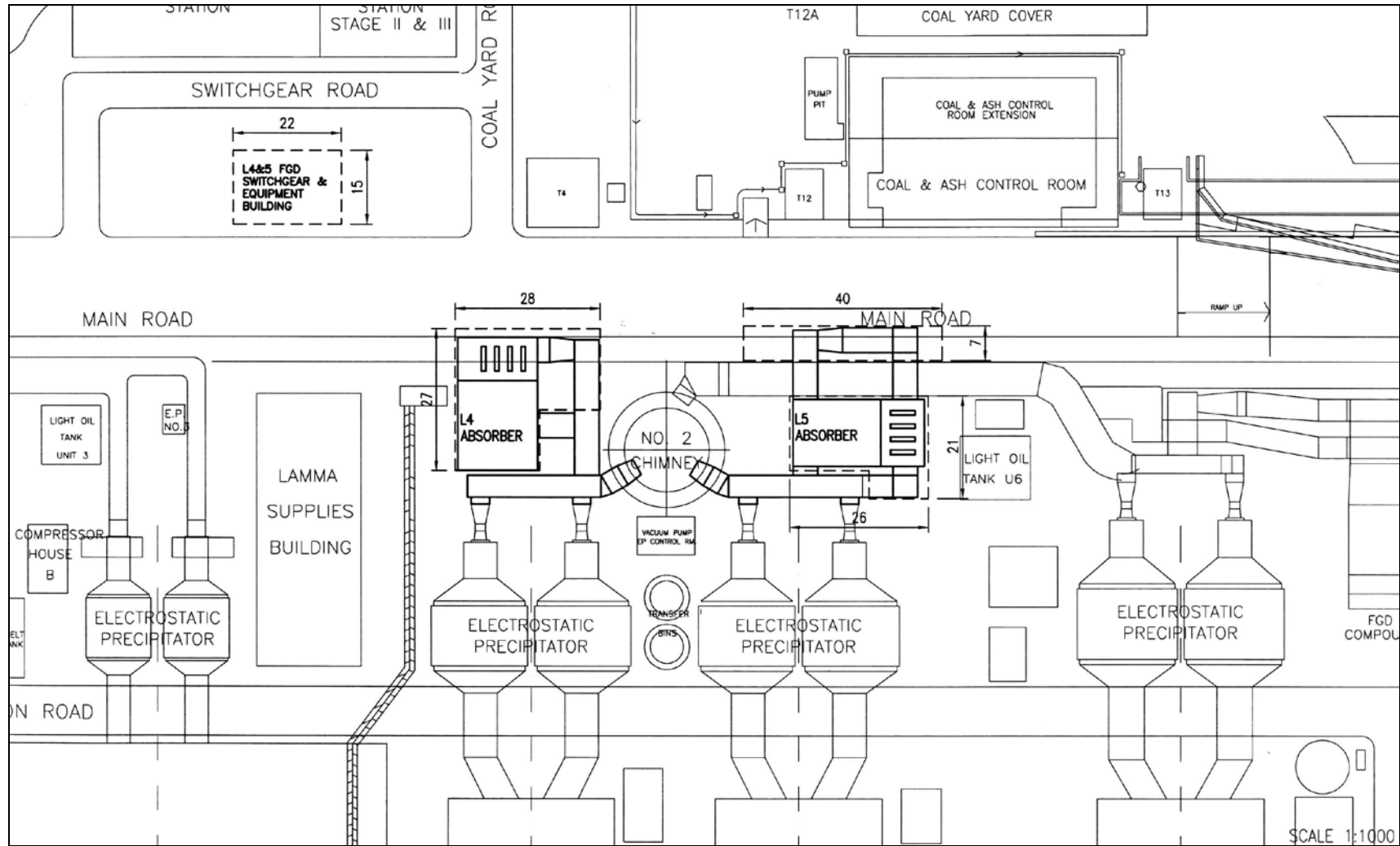


Figure 1.2a General Arrangement of L4 & L5 FGD Plants

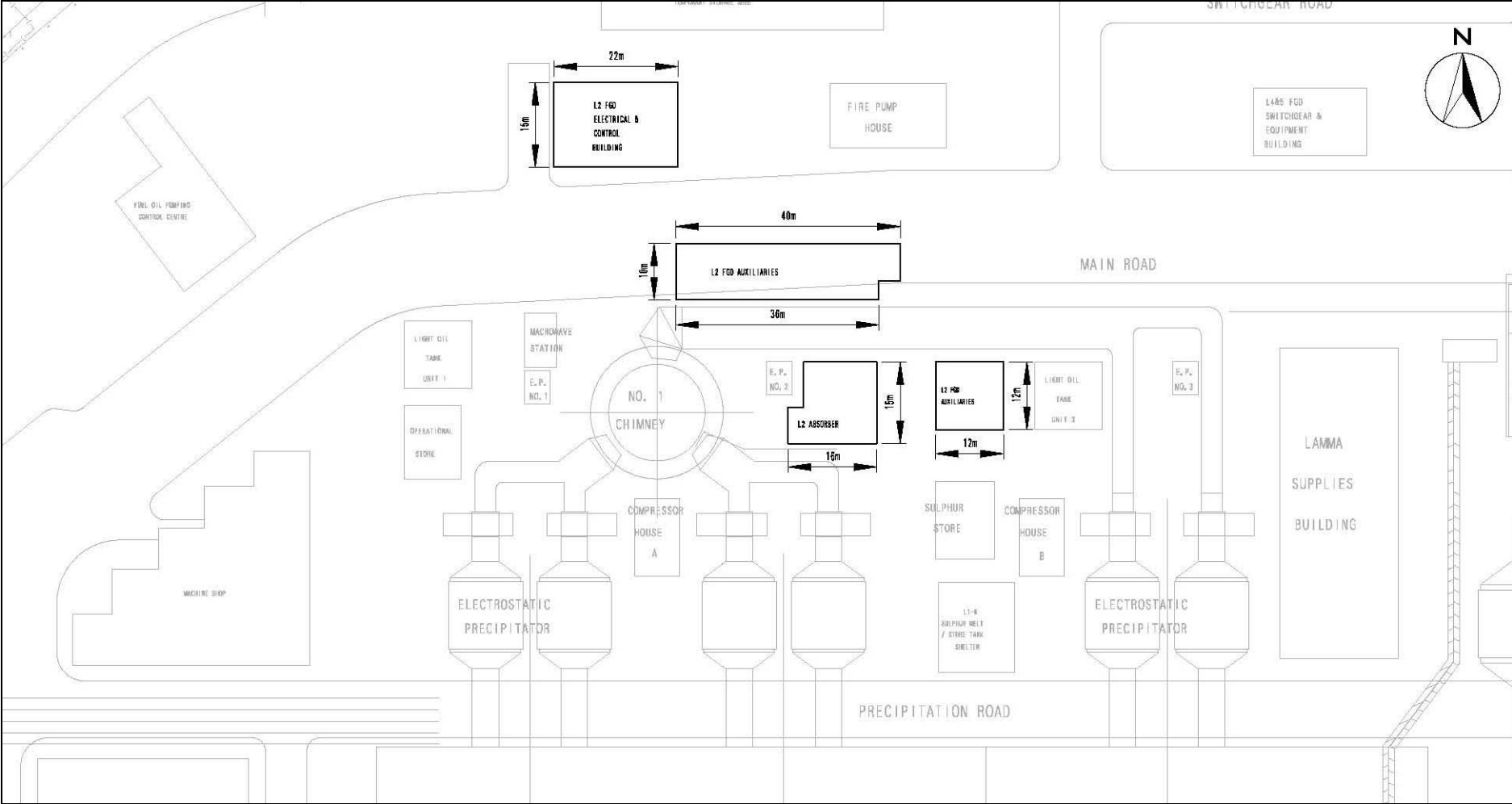


Figure 1.2b General Arrangement of L2 FGD Plant

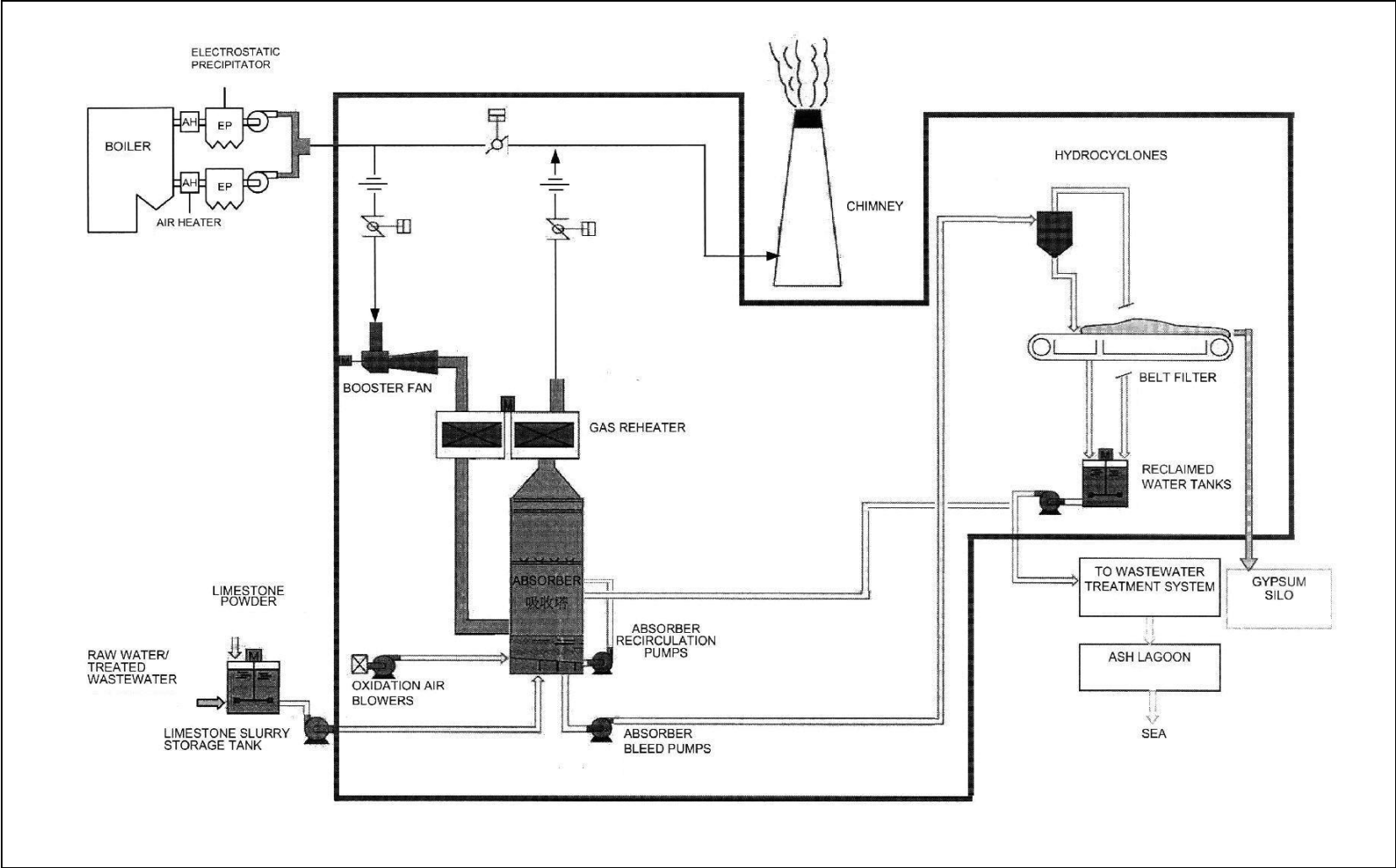


Figure 1.3 Schematic Diagram of the L2, L4 & L5 FGD Plant

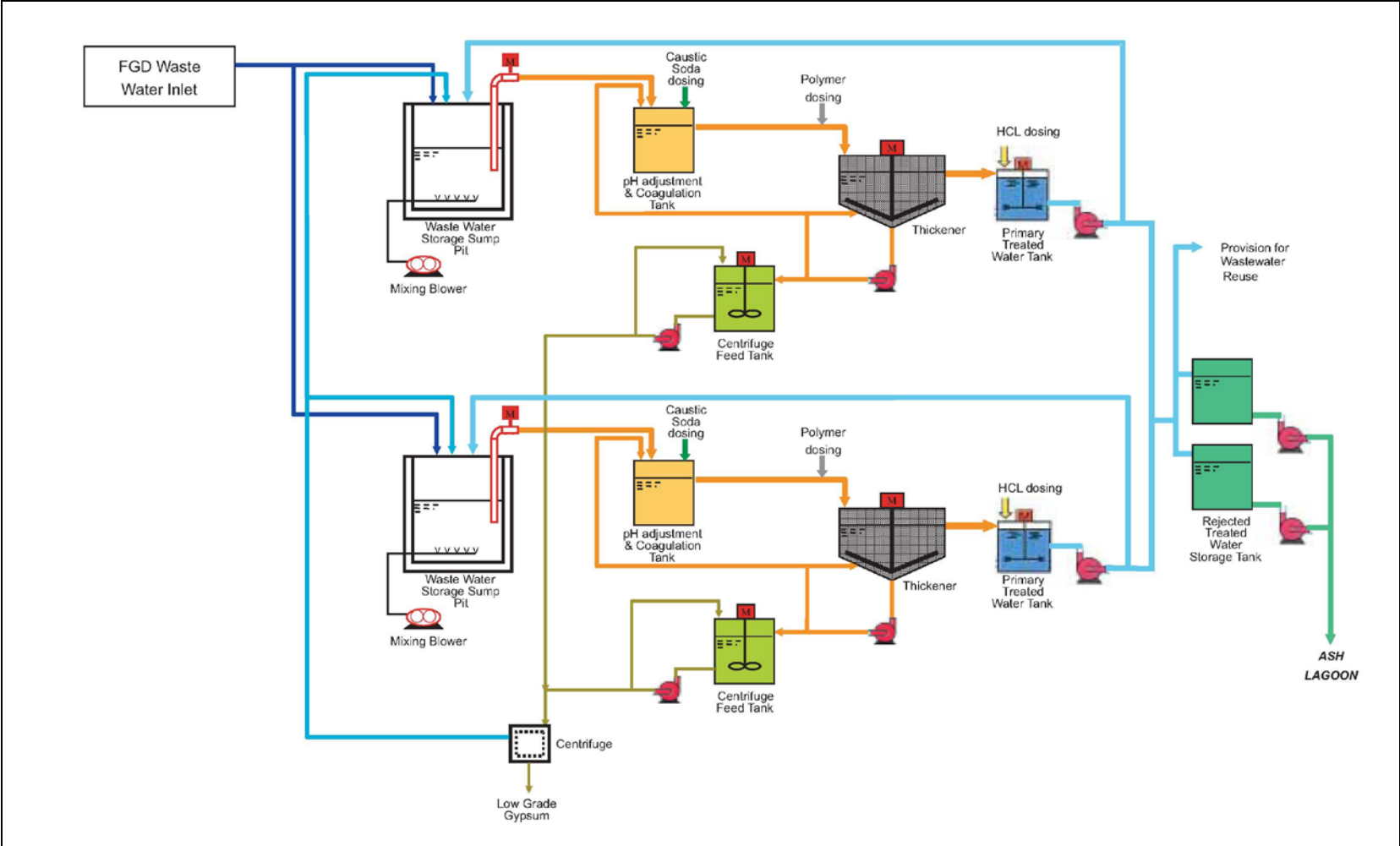


Figure 1.4 Simplified Schematic Diagram of FGD Wastewater Treatment Plant

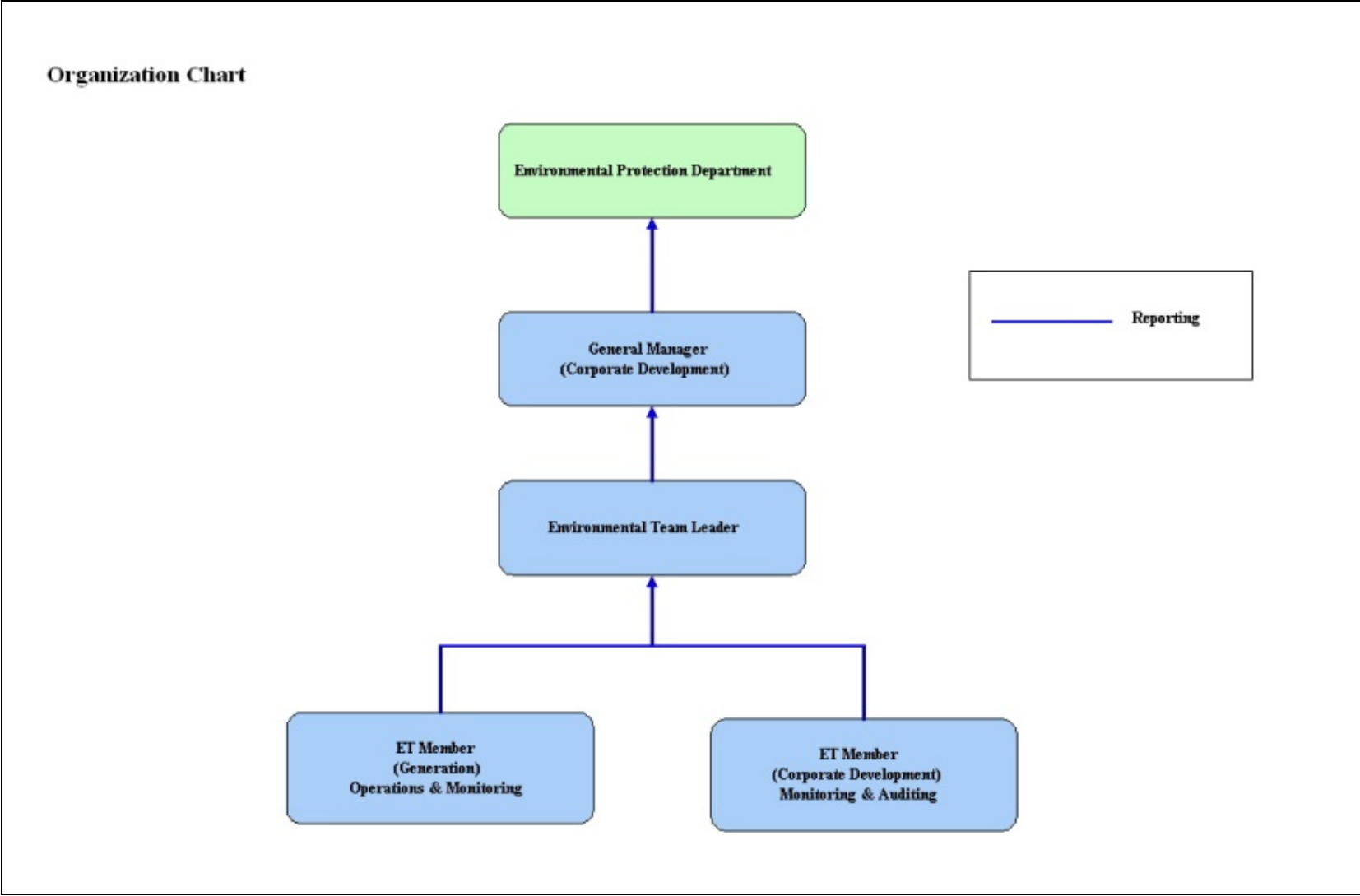


Figure 1.5 Organization Structure at Operational Phase of the Projects

2. AIR QUALITY

2.1 Monitoring Requirements

Since the Projects will bring a general air quality improvement, no additional EM&A activities are considered required, besides those already in place, such as those required by specified process licenses for the operation of the existing Lamma Power Station. Total Suspended Particulate (TSP) monitoring at East Gate and Reservoir area of Lamma Power Station is no longer required under the current SP Licence L-7-002(12) commencing from January 2019. It is agreed with EPD that the results of continuous Respirable Suspended Particulate (RSP) monitoring at Lamma Power Station would be reported. 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. Those parameters have to be checked against the Action/Limit Levels are 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)	Respirable Suspended Particulate	Continuous
Chimney emissions	Ambient air	Continuous at existing ambient air monitoring stations
	SO ₂	
	NO ₂	

2.2 Summary of Results and Observations

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

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

3. WATER QUALITY

3.1 Monitoring Requirements

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

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

Table 3.1 Water Quality Monitoring Parameters and Frequencies

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

3.2 Summary of Results and Observations

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

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

4. ENVIRONMENTAL AUDIT

4.1 Review of Environmental Monitoring Procedures

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

4.2 Assessment of Environmental Monitoring Results

Monitoring results for Air Quality and Water Quality

The environmental monitoring results for air quality and water quality are presented in [Sections 2 and 3](#) 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.	01/10/19-31/12/19	N.A.	0	No L4, L5 PM stack sampling tests were conducted in the reporting period.
2	Continuous monitoring of opacity, NOx, SO2 and CO2 in the flue gas at the chimney stacks	01/10/19-31/12/19	0	0	
3	Ambient SO2 & NOx monitoring at the Peak, Queen Mary Hospital, Victoria Road, Chung Hom Kok, Ap Lei Chau and Cheung Chau.	01/10/19-31/12/19	0	0	
Water					
1	pH in WWTP Effluent	01/10/19-31/12/19	0	0	
2	Suspended Solids in WWTP Effluent	01/10/19-31/12/19	0	0	

Item	Parameter Monitored	Monitoring Period	No. of Exceedances In		Event/Action Plan Implementation Status and Results
			Action Level	Limit Level	
3	Iron in WWTP Effluent	01/10/19-31/12/19	0	0	
4	Barium in WWTP Effluent	01/10/19-31/12/19	0	0	
5	Mercury in WWTP Effluent	01/10/19-31/12/19	0	0	
6	Cadmium in WWTP Effluent	01/10/19-31/12/19	0	0	
7	Cyanide in WWTP Effluent	01/10/19-31/12/19	0	0	
8	Total Phosphorus in WWTP Effluent	01/10/19-31/12/19	0	0	
9	Total Nitrogen in WWTP Effluent	01/10/19-31/12/19	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 2019	8,636.64 MT	59.52 MT
November 2019	4,532.44 MT	53.56 MT
December 2019	3,015.49 MT	68.74 MT

4.3 Status of Environmental Licensing and Permitting

All permits/licenses obtained as of December 2019 are summarised in [Table 4.3](#).

Table 4.3 Summary of Environmental Licensing and Permit Status

Description	Permit / Licence No.	Valid Period		Status
		From	To	
Environmental Permit for Units L4/5 FGD Plants Retrofit	EP-248/2006	25/04/2006	-	Valid
Environmental Permit for Unit L2 FGD Plant Retrofit	EP-287/2007	02/10/2007	-	Valid
Specified Process Licence issued under APCO	L-7-002(12)	01/01/2019	31/12/2020	Valid
WPCO discharge licence for Ash Lagoon	WT00027218-2017	24/02/2017	31/12/2021	Valid

4.4 Implementation Status of Environmental Mitigation Measures

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

4.5 Implementation Status of Event/Action Plan

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

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

4.6 Implementation Status of Environmental Complaint Handling Procedures

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

Table 4.4 Environmental Complaint(s) Received

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

Table 4.5 Outstanding Environmental Complaint(s) Carried Over

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

5. FUTURE KEY ISSUES

5.1 Outage Plan for the coming 3 months

No major outage planned in the coming 3 months

5.2 Key issues for the coming 3 months

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

Air Impact

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

Water Impact

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

6. CONCLUSION

Environmental monitoring was performed as required in the reporting period from October to December 2019. 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.

There was no environmental complaint against the operation of Lamma Power Station 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	
Chimney emissions	Ambient air	Continuous at existing ambient air monitoring stations				ET to review data on post-hoc basis and check for possible power station contribution.
	SO ₂		800 (µg/m ³) (1h)	-	800	
	NO ₂		300 (µg/m ³) (1h)	-	300	

A.2 Water

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

Appendix B

Air Quality Monitoring Results

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

Date: Fourth Quarter of 2019 (October – December)

Date	RSP concentration ($\mu\text{g}/\text{m}^3$)	
	Reservoir	East Gate
01/10/2019	50	##
02/10/2019	34	60
03/10/2019	35	46
04/10/2019	25	30
05/10/2019	22	26
06/10/2019	20	25
07/10/2019	23	30
08/10/2019	25	31
09/10/2019	30	37
10/10/2019	25	30
11/10/2019	37	53
12/10/2019	35	43
13/10/2019	26	35
14/10/2019	21	31
15/10/2019	20	30
16/10/2019	19	27
17/10/2019	28	38
18/10/2019	32	40
19/10/2019	37	50
20/10/2019	30	40
21/10/2019	32	43
22/10/2019	27	36
23/10/2019	24	34
24/10/2019	28	39
25/10/2019	28	38
26/10/2019	30	40
27/10/2019	41	56
28/10/2019	32	52
29/10/2019	19	30
30/10/2019	32	49
31/10/2019	50	77

Remark: ## - No valid daily average of RSP due to equipment failure

Date	RSP concentration ($\mu\text{g}/\text{m}^3$)	
	Reservoir	East Gate
01/11/2019	28	43
02/11/2019	25	35
03/11/2019	31	45
04/11/2019	45	69
05/11/2019	36	60
06/11/2019	42	56
07/11/2019	39	51
08/11/2019	37	52
09/11/2019	35	55
10/11/2019	34	45
11/11/2019	30	42
12/11/2019	27	37
13/11/2019	38	55
14/11/2019	45	67
15/11/2019	39	62
16/11/2019	30	47
17/11/2019	25	35
18/11/2019	51	68
19/11/2019	45	78
20/11/2019	34	52
21/11/2019	32	49
22/11/2019	31	45
23/11/2019	17	24
24/11/2019	23	32
25/11/2019	20	29
26/11/2019	32	48
27/11/2019	24	35
28/11/2019	26	41
29/11/2019	20	33
30/11/2019	22	36

Date	RSP concentration ($\mu\text{g}/\text{m}^3$)	
	Reservoir	East Gate
01/12/2019	33	47
02/12/2019	40	75
03/12/2019	28	45
04/12/2019	28	51
05/12/2019	21	36
06/12/2019	29	57
07/12/2019	28	52
08/12/2019	23	36
09/12/2019	29	43
10/12/2019	27	37
11/12/2019	43	64
12/12/2019	31	47
13/12/2019	31	48
14/12/2019	26	39
15/12/2019	22	32
16/12/2019	21	29
17/12/2019	21	31
18/12/2019	22	33
19/12/2019	31	41
20/12/2019	27	38
21/12/2019	15	21
22/12/2019	29	31
23/12/2019	30	38
24/12/2019	19	24
25/12/2019	20	26
26/12/2019	47	64
27/12/2019	22	33
28/12/2019	27	42
29/12/2019	30	45
30/12/2019	8	12
31/12/2019	22	31

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

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

Date	Daily Maximum		
	SO2 concentration (mg/Nm3) [#]	NOx concentration (mg/Nm3) [#]	Opacity (%)
1/10/2019	28	327	15
2/10/2019	44	429	14
3/10/2019	38	299	16
4/10/2019	45	318	15
5/10/2019	38	311	15
6/10/2019	33	324	15
7/10/2019	39	391	15
8/10/2019	105	340	18
9/10/2019	29	341	13
10/10/2019	33	334	12
11/10/2019	36	341	11
12/10/2019	72	324	13
13/10/2019	88	315	13
14/10/2019	63	407	7
15/10/2019	47	403	8
16/10/2019	26	348	7
17/10/2019	35	330	7
18/10/2019	26	351	8
19/10/2019	*	*	*
20/10/2019	*	*	*
21/10/2019	42	305	6
22/10/2019	31	403	6
23/10/2019	26	375	7
24/10/2019	23	349	6
25/10/2019	29	303	7
26/10/2019	36	324	7
27/10/2019	27	320	7
28/10/2019	37	360	7
29/10/2019	18	385	6
30/10/2019	29	329	6
31/10/2019	24	319	7

Date	Daily Maximum		
	SO2 concentration (mg/Nm3) [#]	NOx concentration (mg/Nm3) [#]	Opacity (%)
1/11/2019	30	340	7
2/11/2019	29	433	7
3/11/2019	26	370	5
4/11/2019	34	377	6
5/11/2019	38	311	7
6/11/2019	41	387	6
7/11/2019	22	428	5
8/11/2019	35	407	8
9/11/2019	47	435	7
10/11/2019	*	*	*
11/11/2019	*	*	*
12/11/2019	*	*	*
13/11/2019	*	*	*
14/11/2019	*	*	*
15/11/2019	*	*	*
16/11/2019	*	*	*
17/11/2019	*	*	*
18/11/2019	*	*	*
19/11/2019	*	*	*
20/11/2019	*	*	*
21/11/2019	*	*	*
22/11/2019	*	*	*
23/11/2019	*	*	*
24/11/2019	*	*	*
25/11/2019	*	*	*
26/11/2019	*	*	*
27/11/2019	*	*	*
28/11/2019	*	*	*
29/11/2019	*	*	*
30/11/2019	*	*	*

Date	Daily Maximum		
	SO2 concentration (mg/Nm3) [#]	NOx concentration (mg/Nm3) [#]	Opacity (%)
1/12/2019	*	*	*
2/12/2019	*	*	*
3/12/2019	*	*	*
4/12/2019	*	*	*
5/12/2019	*	*	*
6/12/2019	*	*	*
7/12/2019	*	*	*
8/12/2019	*	*	*
9/12/2019	*	*	*
10/12/2019	*	*	*
11/12/2019	*	*	*
12/12/2019	*	*	*
13/12/2019	*	*	*
14/12/2019	*	*	*
15/12/2019	*	*	*
16/12/2019	*	*	*
17/12/2019	*	*	*
18/12/2019	*	*	*
19/12/2019	*	*	*
20/12/2019	*	*	*
21/12/2019	*	*	*
22/12/2019	*	*	*
23/12/2019	*	*	*
24/12/2019	*	*	*
25/12/2019	*	*	*
26/12/2019	*	*	*
27/12/2019	*	*	*
28/12/2019	*	*	*
29/12/2019	*	*	*
30/12/2019	*	*	*
31/12/2019	*	*	*

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 NOx and SO2 for Unit L4

Date	Daily Maximum		
	SO2 concentration (mg/Nm3) [#]	NOx concentration (mg/Nm3) [#]	Opacity (%)
1/10/2019	57	313	19
2/10/2019	71	359	21
3/10/2019	77	369	22
4/10/2019	85	343	20
5/10/2019	60	347	20
6/10/2019	54	389	11
7/10/2019	54	416	23
8/10/2019	81	356	24
9/10/2019	55	328	20
10/10/2019	60	336	21
11/10/2019	56	325	23
12/10/2019	49	351	24
13/10/2019	69	325	27
14/10/2019	65	370	21
15/10/2019	122	360	21
16/10/2019	84	368	19
17/10/2019	101	315	23
18/10/2019	40	362	19
19/10/2019	46	330	20
20/10/2019	33	301	15
21/10/2019	33	330	17
22/10/2019	29	326	17
23/10/2019	35	359	22
24/10/2019	35	321	19
25/10/2019	15	369	11
26/10/2019	18	331	16
27/10/2019	17	322	14
28/10/2019	18	337	18
29/10/2019	36	369	17
30/10/2019	48	285	15
31/10/2019	18	270	15

Date	Daily Maximum		
	SO2 concentration (mg/Nm3) #	NOx concentration (mg/Nm3) #	Opacity (%)
1/11/2019	17	293	15
2/11/2019	*	*	*
3/11/2019	*	*	*
4/11/2019	18	322	15
5/11/2019	22	292	15
6/11/2019	24	331	14
7/11/2019	28	363	9
8/11/2019	22	280	14
9/11/2019	23	396	15
10/11/2019	28	314	19
11/11/2019	25	333	19
12/11/2019	23	406	19
13/11/2019	22	327	13
14/11/2019	21	267	19
15/11/2019	23	307	16
16/11/2019	25	291	13
17/11/2019	*	*	*
18/11/2019	*	312	12
19/11/2019	33	342	16
20/11/2019	22	315	15
21/11/2019	18	250	14
22/11/2019	20	243	15
23/11/2019	*	*	*
24/11/2019	*	*	*
25/11/2019	28	302	17
26/11/2019	30	326	17
27/11/2019	25	328	17
28/11/2019	38	306	15
29/11/2019	74	260	20
30/11/2019	41	303	8

Date	Daily Maximum		
	SO2 concentration (mg/Nm3) [#]	NOx concentration (mg/Nm3) [#]	Opacity (%)
1/12/2019	43	369	10
2/12/2019	40	288	7
3/12/2019	63	353	7
4/12/2019	75	356	7
5/12/2019	59	380	7
6/12/2019	57	357	7
7/12/2019	48	361	7
8/12/2019	50	363	8
9/12/2019	77	359	10
10/12/2019	69	324	17
11/12/2019	54	453	17
12/12/2019	78	431	19
13/12/2019	77	356	7
14/12/2019	66	392	8
15/12/2019	65	352	8
16/12/2019	62	453	7
17/12/2019	53	377	8
18/12/2019	46	436	14
19/12/2019	43	404	8
20/12/2019	36	486	15
21/12/2019	23	390	11
22/12/2019	37	360	9
23/12/2019	41	438	12
24/12/2019	43	334	12
25/12/2019	*	*	*
26/12/2019	*	*	*
27/12/2019	48	429	17
28/12/2019	63	503	13
29/12/2019	74	456	12
30/12/2019	92	388	15
31/12/2019	*	*	*

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

* - Unit L4 was not on load.

B.2.3 Monthly Summary of Stack SO₂ for Unit L2

Date	Daily Maximum	
	SO ₂ concentration (mg/Nm ³) [#]	Opacity (%)
1/10/2019	58	12
2/10/2019	67	14
3/10/2019	66	15
4/10/2019	88	17
5/10/2019	101	12
6/10/2019	*	*
7/10/2019	*	*
8/10/2019	80	14
9/10/2019	64	18
10/10/2019	75	20
11/10/2019	61	20
12/10/2019	64	17
13/10/2019	88	17
14/10/2019	71	19
15/10/2019	63	13
16/10/2019	56	13
17/10/2019	40	12
18/10/2019	43	12
19/10/2019	31	11
20/10/2019	44	11
21/10/2019	50	11
22/10/2019	40	11
23/10/2019	53	10
24/10/2019	*	*
25/10/2019	50	10
26/10/2019	*	*
27/10/2019	*	*
28/10/2019	*	*
29/10/2019	*	*
30/10/2019	*	*
31/10/2019	*	*

Date	Daily Maximum	
	SO2 concentration (mg/Nm3) [#]	Opacity (%)
1/11/2019	*	*
2/11/2019	*	*
3/11/2019	*	*
4/11/2019	*	*
5/11/2019	*	*
6/11/2019	*	*
7/11/2019	*	*
8/11/2019	*	*
9/11/2019	*	*
10/11/2019	*	*
11/11/2019	68	13
12/11/2019	*	*
13/11/2019	74	11
14/11/2019	*	*
15/11/2019	*	*
16/11/2019	*	*
17/11/2019	*	*
18/11/2019	*	*
19/11/2019	*	*
20/11/2019	43	10
21/11/2019	*	*
22/11/2019	*	*
23/11/2019	*	*
24/11/2019	*	*
25/11/2019	*	*
26/11/2019	*	*
27/11/2019	48	12
28/11/2019	*	*
29/11/2019	*	*
30/11/2019	*	*

Date	Daily Maximum	
	SO2 concentration (mg/Nm3) [#]	Opacity (%)
1/12/2019	*	*
2/12/2019	*	*
3/12/2019	*	*
4/12/2019	*	*
5/12/2019	*	*
6/12/2019	*	*
7/12/2019	*	*
8/12/2019	*	*
9/12/2019	96	13
10/12/2019	94	11
11/12/2019	62	11
12/12/2019	*	*
13/12/2019	*	*
14/12/2019	57	12
15/12/2019	*	*
16/12/2019	58	13
17/12/2019	53	14
18/12/2019	66	14
19/12/2019	70	13
20/12/2019	*	*
21/12/2019	*	*
22/12/2019	*	*
23/12/2019	*	*
24/12/2019	*	*
25/12/2019	59	22
26/12/2019	58	17
27/12/2019	*	*
28/12/2019	*	*
29/12/2019	66	18
30/12/2019	*	*
31/12/2019	66	15

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.2.4 Summary of Annual Stack Particulate Sampling

No annual stack particulate samplings were conducted in the period October 2019 to December 2019.

Monitoring Equipment: APEX model XC-522-V (Manual stack sampling system)

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

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 2019

Week Ending	No. of Samples	Suspended Solids, mg/L			pH		
		Maximum	Minimum	Average	Maximum	Minimum	Average
05/10/19	7	21	14	18	8.3	7.8	8.1
12/10/19	5*	16	11	14	8.2	7.7	7.9
19/10/19	7	18	12	15	8.3	7.9	8.1
26/10/19	6*	21	14	18	8.2	7.8	8.0
02/11/19	7	19	13	16	8.3	8.1	8.2
09/11/19	6*	18	12	16	8.3	7.8	8.0
16/11/19	7	21	12	17	8.3	7.9	8.1
23/11/19	7	22	13	18	8.3	7.7	8.0
30/11/19	7	20	12	16	8.3	8.1	8.2
07/12/19	6*	21	13	18	8.1	7.9	8.0
14/12/19	6*	20	15	18	8.2	7.8	8.0
21/12/19	7	20	14	17	8.2	8.0	8.1
28/12/19	6*	21	12	17	8.3	7.8	8.0

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 2019

Sampling date		3/10/2019	5/11/2019	11/12/2019
Barium,	ug/L	<150	<150	<150
Mercury,	ug/L	<0.5	<0.5	<0.5
Cadmium,	ug/L	<1	<1	4.1
Iron,	ug/L	<400	<400	<400
Total Phosphorous,	mg/L	<0.8	<0.8	<0.8
Total Nitrogen,	mg/L	31	34	56
Cyanide,	mg/L	0.04	0.01	0.02

Remark:

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

Appendix D Summary of EMIS

EM&A Log Ref.	Mitigation Measures	Implementation Status
	GENERAL	
A1	No other process, except the Wet Limestone-Gypsum process used in the FGD plants of the coal-fired Units L6, L7 and L8 within the Lamma Power Station, shall be used in the FGD plants for the projects unless otherwise agreed by EPD.	Complied
	WATER QUALITY	
B1	All wastewater arising from the operation of the projects shall be collected and directed to the existing wastewater treatment plant within the Lamma Power Station for treatment.	Complied
B2	The operational plant effluent from the FGD plants should be reused as much as possible in order to minimise discharge to the WWTP.	Complied
B3	Maintenance of the WWTP should be performed regularly to ensure the effluent from the WWTP would not exceed the current requirements stipulated in the WPCO licence for Ash Lagoon.	Complied
	WASTE	
C1	No gypsum or sludge arising from the operation of the projects shall be disposed of anywhere. All gypsum and sludge shall be collected and reused.	Complied
	NOISE	
D1	Equipment 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

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

STATION : VICTORIA PEAK
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2019
UNIT : MICROGRAMS/CUBIC METER

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

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										RANGE-----		STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE	LIMIT LEVEL	
2	1	2	1	4	5	9	12	0	-	17	0	-	11	2	100	0

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

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

STATION : VICTORIA PEAK
POLLUTANT : NITROGEN DIOXIDE

YEAR : 2019
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	31	21	17	18	37	40	31	19	13	19	26	22	13	8	7	15	12	8	17	11	17	39	31	72	23
2	50	M	0	M	0	0	0	1	5	1	1	3	0	1	1	20	18	19	12	11	8	10	7	7	8
3	4	1	0	1	0	3	2	0	3	5	2	1	0	5	21	43	24	6	9	11	5	6	7	9	7
4	3	0	0	0	1	0	0	6	2	6	15	24	19	15	10	11	10	11	9	5	7	9	9	1	7
5	4	6	0	0	9	19	34	25	20	28	32	28	31	25	20	18	20	29	34	43	37	11	7	2	20
6	1	0	0	0	0	0	0	0	1	0	2	1	0	0	0	0	0	2	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8	0	0	0	0	0	0	1	8	5	6	4	4	1	1	1	3	1	2	0	1	0	0	0	1	2
9	0	0	0	0	0	0	0	2	4	7	5	3	2	1	0	2	1	0	0	0	0	0	0	1	1
10	0	0	0	0	0	0	0	2	5	9	6	1	1	3	1	1	7	4	3	2	2	1	1	12	3
11	4	0	1	8	5	9	9	4	29	23	22	31	20	21	20	20	22	35	40	19	16	8	9	8	16
12	3	3	3	0	4	1	3	23	24	42	35	48	42	23	23	15	14	17	12	7	8	11	8	13	16
13	3	2	5	2	0	0	1	1	0	9	11	16	6	3	1	1	0	0	0	0	1	1	4	2	3
14	0	0	0	0	0	0	2	11	28	31	30	20	8	2	6	10	22	27	27	22	31	26	15	20	14
15	16	11	2	1	0	0	1	1	10	12	5	6	0	6	5	7	9	2	0	1	3	0	0	3	4
16	0	M	0	0	0	0	0	1	1	5	5	7	3	11	12	22	25	28	14	3	2	1	0	2	6
17	0	0	0	0	0	0	3	16	27	17	22	20	11	10	15	15	13	7	2	1	1	0	0	5	8
18	3	0	0	0	5	0	7	16	22	23	23	18	24	29	25	21	30	49	44	11	16	40	47	31	20
19	6	0	1	0	0	7	18	21	28	32	18	24	18	14	19	21	15	16	7	2	1	0	1	1	11
20	0	0	0	0	0	0	1	4	8	1	4	0	0	2	3	0	0	1	0	0	0	0	0	2	1
21	0	0	0	0	0	0	1	6	16	24	14	9	9	6	2	6	6	9	7	2	1	0	0	2	5
22	0	0	1	2	2	3	5	10	10	9	8	8	6	8	8	11	12	7	6	6	3	0	1	3	5
23	2	2	1	0	0	1	4	9	10	11	7	7	8	8	11	10	10	6	6	4	5	6	4	5	6
24	3	1	0	0	0	1	5	13	16	28	17	17	3	7	9	11	15	13	10	9	7	8	6	7	9
25	3	1	2	1	1	3	5	12	18	15	8	15	7	4	6	15	11	10	8	6	5	7	7	5	7
26	3	4	3	2	2	1	2	8	9	10	6	9	3	5	14	9	13	8	7	5	5	6	3	6	6
27	2	1	1	6	6	4	7	13	20	22	24	21	26	15	12	20	23	30	27	18	17	12	5	9	14
28	2	2	2	2	5	2	4	6	13	18	30	16	13	38	58	61	55	52	45	35	48	44	27	28	25
29	27	20	13	11	7	10	14	22	32	30	M	42	35	32	46	39	36	31	43	41	29	35	24	36	28
30	24	M	25	20	15	16	10	20	37	35	30	20	19	27	33	36	33	55	57	37	28	26	34	30	29
31	18	12	9	8	8	8	15	25	39	42	33	40	35	25	31	40	48	44	29	17	9	6	4	8	23

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										RANGE-----		STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE	LIMIT LEVEL	
8	6	11	6	30	37	44	50	0	-	72	0	-	29	3	99	0

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

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

STATION : CHUNG HOM KOK ZONE SUBSTATION
POLLUTANT : SULPHUR DIOXIDE

MONTH:OCTOBER

YEAR :2019

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

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----							-----RANGE-----				STN GEOM	PERCENT	NO. OF TIMES		
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE LIMIT LEVEL		
2	2	2	2	4	5	6	8	0	-	12	0	-	6	2	100	0

NOTES:

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

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

STATION : CHUNG HOM KOK ZONE SUBSTATION
POLLUTANT : NITROGEN DIOXIDE

MONTH:OCTOBER

YEAR :2019

UNIT :MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	31	26	41	40	43	45	46	42	38	54	80	61	25	19	20	35	27	27	23	23	23	11	15	11	34
2	8	M	2	9	6	6	4	5	4	1	2	2	7	12	6	8	8	11	9	6	6	5	5	3	6
3	4	4	4	1	0	2	12	1	2	1	5	4	5	7	3	4	5	10	8	10	6	4	1	3	4
4	2	1	1	5	4	2	1	8	4	6	17	5	0	1	6	5	5	13	7	6	8	8	3	14	6
5	10	5	7	8	13	12	20	21	22	24	30	29	30	28	25	11	14	17	34	33	13	12	11	3	18
6	2	0	0	0	0	0	0	1	0	1	1	1	1	0	2	1	0	0	0	0	0	1	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1	0	2	0
8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	2	4	4	8	2	0	0	1	1
9	0	0	0	0	0	0	0	1	0	0	1	1	1	1	1	2	3	4	3	3	4	3	2	1	1
10	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	1	5	10	8	4	3	1	3	5	2
11	2	9	9	16	14	11	14	23	19	41	25	35	25	33	24	26	23	38	27	17	10	10	7	8	19
12	4	8	7	1	6	10	13	36	22	26	17	19	18	16	20	18	20	7	12	8	6	4	5	5	13
13	4	2	3	2	2	0	0	1	1	3	2	0	1	1	1	0	1	2	0	1	1	0	0	1	1
14	0	0	0	0	0	0	1	3	12	10	10	8	2	1	1	4	7	12	4	8	8	6	4	7	5
15	5	4	3	3	4	2	0	1	1	1	0	0	0	0	1	1	1	1	1	0	1	0	0	1	1
16	1	M	2	1	1	0	0	2	2	1	2	2	2	2	4	5	4	5	2	3	1	0	1	2	2
17	1	1	2	3	3	4	5	8	11	8	5	6	9	7	5	9	7	11	5	3	4	3	2	1	5
18	3	3	1	1	2	2	3	9	15	14	11	11	10	12	9	10	9	11	14	9	8	14	10	8	8
19	8	5	6	7	5	3	6	8	10	9	11	9	6	5	6	9	10	9	5	6	4	4	4	5	7
20	4	3	3	4	3	3	2	3	4	3	4	4	6	5	7	7	7	12	5	3	3	4	3	2	4
21	2	1	2	2	1	1	3	4	7	5	5	4	6	6	6	10	8	12	13	7	6	5	6	3	5
22	2	2	1	1	2	1	4	5	6	5	5	4	5	4	6	7	6	8	4	3	3	3	5	3	4
23	3	2	2	1	1	2	2	3	4	2	2	2	2	3	3	5	6	5	4	3	4	3	3	3	3
24	2	0	0	0	2	3	3	5	6	6	5	4	M	5	5	7	6	6	4	4	4	2	2	2	4
25	4	2	2	2	2	3	4	6	5	5	3	4	3	3	4	3	4	5	2	2	2	2	3	2	3
26	2	3	3	2	2	3	3	6	6	5	5	4	4	4	2	4	7	6	4	4	4	3	6	3	4
27	2	2	2	7	7	6	5	6	9	9	10	9	8	8	11	8	8	9	5	3	4	5	4	5	6
28	4	4	3	4	4	2	5	12	6	7	5	5	5	9	9	17	35	61	48	37	39	36	30	17	17
29	16	17	9	6	4	5	11	17	16	20	22	7	7	9	10	12	16	17	18	16	18	15	12	14	13
30	19	M	17	10	6	5	6	10	14	12	9	9	7	8	12	13	11	14	15	20	19	20	15	15	12
31	12	8	7	7	8	9	10	12	12	13	13	15	12	9	8	12	11	9	5	5	4	4	3	3	9

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										RANGE-----		STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE	LIMIT	LEVEL
5	4	7	4	17	25	37	43	0	-	80	0	-	34	3	99	0

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

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

STATION : VICTORIA ROAD SUBSTATION
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2019
UNIT : MICROGRAMS/CUBIC METER

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

MONTHLY STATISTICS:

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

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

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

STATION : VICTORIA ROAD SUBSTATION
POLLUTANT : NITROGEN DIOXIDE

YEAR : 2019
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	18	21	17	16	25	19	22	36	44	47	38	26	20	21	40	25	21	19	21	22	20	19	22	25
2	20	M	13	12	11	8	17	22	23	19	15	20	16	18	23	17	19	15	19	19	17	15	19	14	17
3	17	11	10	7	6	16	17	25	17	15	15	12	11	13	21	28	19	18	16	23	19	16	17	17	16
4	15	16	11	9	9	8	7	14	21	20	20	24	25	34	25	22	22	18	17	22	20	18	21	17	18
5	13	13	9	8	8	12	11	12	22	22	32	35	41	40	32	28	23	24	32	31	34	26	15	11	22
6	10	9	7	7	6	6	7	9	10	9	9	9	10	9	7	6	6	7	7	7	6	6	6	5	8
7	4	4	4	4	5	4	6	5	6	6	6	7	6	6	7	7	7	6	7	7	6	6	7	8	6
8	8	7	6	6	7	6	8	11	10	10	10	10	10	10	10	11	14	15	12	11	10	8	8	7	9
9	6	6	6	6	6	5	7	9	10	10	11	11	9	10	11	12	11	11	9	8	8	8	7	6	8
10	6	5	5	5	5	6	8	10	11	12	11	9	11	12	11	12	16	20	17	12	10	10	15	17	11
11	10	7	9	19	10	8	10	11	19	24	22	20	19	20	20	23	27	34	29	23	21	18	20	17	18
12	16	14	11	8	11	10	12	19	24	24	33	38	33	28	25	25	24	24	26	18	14	12	12	12	20
13	12	13	11	10	9	7	10	13	13	18	13	15	13	11	10	11	10	10	11	10	10	9	12	10	11
14	8	8	6	5	6	6	8	20	19	17	15	15	12	12	11	11	15	18	22	17	19	14	13	10	13
15	10	8	7	6	6	6	6	7	8	9	8	8	8	8	9	10	11	12	10	9	8	6	6	7	8
16	7	M	7	6	5	5	6	9	9	9	9	8	10	12	12	14	17	18	17	14	10	9	8	7	10
17	7	6	6	5	5	6	9	13	16	13	12	13	11	11	11	12	12	13	12	11	10	10	8	13	10
18	15	8	7	7	7	6	11	18	14	15	14	16	32	24	24	20	35	26	27	23	21	25	25	17	18
19	17	9	8	7	6	7	13	15	12	14	12	13	13	16	14	14	15	18	14	13	12	10	9	9	12
20	8	8	7	6	6	6	7	7	9	8	9	9	9	10	11	11	10	8	8	8	9	9	9	7	8
21	7	6	5	5	5	4	7	10	11	12	12	11	11	12	12	14	15	14	10	9	8	8	7	7	9
22	7	7	6	6	6	6	7	10	10	10	11	10	10	10	11	11	11	12	12	10	10	8	7	7	9
23	7	7	6	6	6	6	9	11	11	10	9	9	9	10	11	M	16	12	9	7	6	6	5	4	8
24	4	3	2	2	2	2	6	9	8	11	8	8	7	6	7	8	13	14	10	9	8	8	7	5	7
25	5	4	3	3	3	4	5	7	8	8	7	6	7	7	6	7	8	9	9	7	6	7	7	6	6
26	6	5	5	4	3	3	5	7	7	7	7	7	6	6	6	8	9	10	9	8	6	6	6	5	6
27	4	3	3	4	4	4	7	7	7	7	8	12	13	8	10	11	12	15	15	12	12	10	9	8	9
28	6	4	4	3	3	5	6	8	9	14	10	10	10	17	29	29	27	26	22	15	19	18	13	8	13
29	11	7	5	4	4	4	6	9	10	12	11	12	M	14	17	15	16	14	16	17	15	14	13	15	11
30	10	M	9	6	5	5	7	11	14	14	13	9	9	10	12	14	12	20	21	15	14	10	11	11	11
31	8	6	5	5	5	4	7	10	12	13	11	13	12	10	11	13	17	21	18	12	8	7	6	6	10

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										-----RANGE-----				STN GEOM	PERCENT	NO. OF TIMES
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE	LIMIT	LEVEL	
10	10	12	10	21	25	32	36	2	-	47	6	-	25	2	99	0	

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

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

STATION : POK FU LAM
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2019
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	12	13	12	13	13	12	17	16	16	15	13	8	7	9	7	9	10	6	6	5	5	4	5	10
2	4	4	4	3	2	3	3	3	3	3	4	2	2	3	4	4	3	2	3	3	3	3	2	3	3
3	2	2	2	2	2	3	3	2	2	3	4	3	2	2	2	2	4	5	3	3	2	2	2	3	3
4	2	3	3	2	2	3	2	3	3	3	3	2	3	4	5	4	3	2	2	3	3	3	4	2	3
5	2	4	3	3	2	2	3	4	5	6	6	4	4	8	11	9	6	6	5	7	6	3	4	4	5
6	3	3	2	2	2	2	2	1	2	2	2	2	2	2	1	0	0	0	0	1	1	1	1	0	1
7	1	1	1	0	1	1	0	0	1	1	2	2	1	2	1	1	2	2	1	1	1	1	1	1	1
8	1	2	3	3	3	3	2	1	1	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	
9	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	
10	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	
11	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	
12	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	
13	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	
14	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	1	2	1	2	1	1	1	
15	1	3	4	4	2	0	1	1	1	2	1	2	1	3	2	6	1	2	2	2	2	2	0	2	2
16	2	2	1	2	3	3	3	3	2	2	3	3	3	3	3	3	4	4	4	4	4	3	3	3	3
17	3	2	2	2	2	3	4	5	5	5	6	5	5	4	4	4	4	5	4	3	4	3	4	4	4
18	4	3	3	3	3	3	3	3	4	6	5	5	7	7	7	6	6	6	7	7	7	6	8	8	5
19	7	5	5	5	4	4	6	7	7	8	7	7	6	6	8	6	5	5	4	4	4	4	4	4	6
20	4	4	3	3	2	2	3	3	2	3	3	4	5	5	5	5	5	4	3	3	4	4	4	4	4
21	4	4	4	5	4	5	4	5	5	4	5	5	5	5	5	5	5	4	4	4	4	3	4	5	5
22	4	4	4	4	4	4	3	3	4	4	3	3	4	4	4	4	4	4	4	4	4	3	3	4	4
23	4	4	4	4	4	3	3	3	3	3	4	4	3	4	3	3	3	4	4	4	4	4	4	4	4
24	3	4	3	3	3	3	3	4	5	5	6	5	5	4	5	5	6	6	5	4	3	3	3	3	4
25	3	3	3	4	4	4	5	5	4	4	3	3	4	3	4	4	3	3	3	2	2	3	3	3	3
26	3	4	4	4	3	4	4	4	4	3	2	4	3	3	4	3	3	3	3	3	4	3	3	3	3
27	3	3	3	3	3	3	3	3	4	4	5	4	5	4	4	4	4	4	4	4	4	3	3	3	4
28	3	3	2	3	4	4	3	3	3	4	5	3	4	5	11	11	10	7	6	6	6	5	4	3	5
29	3	3	3	3	3	3	3	3	4	4	3	3	3	3	4	4	3	3	3	3	3	4	4	5	3
30	5	5	6	6	6	5	5	5	5	5	5	5	5	3	5	5	5	5	5	6	5	5	6	5	5
31	4	4	4	5	5	6	6	6	7	6	7	7	7	6	6	6	6	6	5	4	4	3	3	3	5

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										RANGE-----		STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE LIMIT LEVEL		
3	4	4	4	6	7	11	13	0	-	17	1	-	10	2	80	0

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

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

STATION : POK FU LAM
POLLUTANT : NITROGEN DIOXIDE

YEAR : 2019
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	47	58	68	75	70	66	65	75	77	67	69	51	45	25	24	36	25	20	22	23	23	18	17	23	45
2	14	11	10	12	9	5	17	19	25	21	18	22	15	15	17	12	15	17	22	21	20	14	16	17	16
3	24	9	8	6	4	18	20	13	15	19	20	13	17	17	14	13	16	19	21	19	15	11	12	16	15
4	13	16	9	8	11	26	31	46	40	34	31	20	17	28	24	21	25	26	18	20	21	24	26	20	23
5	14	14	10	17	28	42	52	43	36	43	45	38	42	40	33	31	27	34	49	56	75	36	25	20	35
6	14	M	6	5	5	4	6	6	9	11	9	9	9	9	5	10	7	7	7	7	6	8	6	5	7
7	3	5	4	4	3	4	5	6	8	8	6	6	5	5	5	5	5	6	7	7	5	5	6	10	6
8	11	6	6	5	6	6	7	14	24	18	15	11	11	13	11	13	12	12	8	12	10	6	6	6	10
9	4	4	4	4	5	4	7	13	19	20	15	13	12	9	9	11	10	8	7	6	5	8	7	9	9
10	5	3	3	4	4	4	8	18	19	20	15	10	12	13	11	14	19	18	15	15	13	12	25	22	13
11	14	12	12	23	15	26	29	23	55	46	39	47	30	40	42	34	33	48	45	24	21	14	14	17	29
12	14	15	14	10	15	13	31	53	51	49	51	60	46	24	32	20	25	29	26	18	10	11	10	12	27
13	11	13	10	10	10	8	10	28	45	49	16	19	14	10	11	12	12	10	11	13	12	7	9	9	15
14	8	6	5	4	5	6	20	44	61	40	45	27	20	17	16	M	M	45	47	42	31	21	20	21	25
15	14	14	10	7	7	6	8	10	22	22	18	17	14	20	18	18	18	17	15	16	16	17	14	15	15
16	12	9	9	9	8	9	11	15	19	18	18	18	20	26	28	26	33	48	62	25	16	18	16	17	20
17	15	12	11	10	8	11	17	33	49	47	38	35	30	24	28	26	27	21	23	27	22	21	18	20	24
18	18	10	9	9	9	10	20	37	47	42	25	40	47	51	40	28	51	37	43	38	41	54	50	87	35
19	60	16	16	12	12	24	28	34	51	58	37	35	35	27	36	22	23	31	31	26	21	15	19	15	29
20	14	M	13	12	10	10	13	15	20	17	13	13	14	14	16	15	12	13	14	14	14	13	13	16	14
21	14	13	11	12	10	11	15	24	39	29	25	29	27	19	19	20	22	20	18	14	10	12	11	11	18
22	9	10	10	11	12	14	17	26	23	19	15	15	14	15	16	19	19	16	22	23	22	18	15	13	16
23	13	13	11	11	11	12	15	23	30	19	15	16	17	15	19	20	16	19	20	16	16	17	17	13	16
24	14	11	8	8	8	8	11	26	31	31	26	20	13	17	18	24	33	32	26	24	19	16	13	17	19
25	13	11	10	9	10	11	14	22	26	24	17	19	16	12	13	22	22	23	27	26	20	15	16	17	17
26	14	13	14	12	11	10	12	18	20	19	13	15	11	12	21	20	25	22	21	22	18	17	13	16	16
27	14	11	10	15	15	13	17	21	25	22	21	33	31	18	15	17	21	32	34	36	35	29	23	21	22
28	12	12	11	12	13	14	15	17	29	46	38	19	20	46	86	77	70	65	62	45	58	60	47	38	38
29	35	27	22	20	20	20	28	43	51	49	47	40	38	48	59	53	52	47	39	40	53	40	47	32	40
30	34	32	30	22	18	19	23	42	72	69	62	27	25	31	62	41	39	56	56	49	48	40	50	42	41
31	26	19	18	16	16	15	21	34	43	38	30	35	31	30	32	42	45	41	34	27	19	19	16	14	28

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										RANGE-----		STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE	LIMIT LEVEL	
18	18	22	18	45	52	65	71	3	-	87	6	-	45	2	99	0

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

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

STATION : AP LEI CHAU
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2019
UNIT : MICROGRAMS/CUBIC METER

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

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										RANGE-----		STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE	LIMIT	LEVEL
2	2	2	2	4	6	9	13	0	-	17	0	-	10	2	97	0

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

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

STATION : AP LEI CHAU
POLLUTANT : NITROGEN DIOXIDE

YEAR : 2019
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	63	54	63	55	48	46	37	50	66	65	58	42	22	27	43	48	18	28	17	27	10	18	16	41
2	9	M	3	4	4	9	8	6	16	22	27	35	26	35	37	25	30	26	16	11	8	4	9	11	17
3	8	4	2	0	0	10	12	15	16	21	24	23	28	21	25	21	14	8	8	16	7	1	2	6	12
4	8	8	5	6	6	4	10	15	15	26	23	15	20	20	14	10	4	8	2	3	3	5	14	9	11
5	3	19	17	41	36	36	30	29	26	35	43	38	27	29	21	19	16	21	26	17	20	15	7	5	24
6	1	0	0	0	0	0	0	0	1	1	3	3	1	0	0	0	1	7	4	1	0	0	0	1	1
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8	2	0	0	0	0	0	7	9	1	1	1	3	1	0	0	0	0	0	0	2	0	0	0	1	1
9	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	0
11	10	9	11	16	4	9	29	27	42	47	37	40	30	40	54	31	44	31	26	12	11	10	12	13	25
12	0	10	1	1	27	12	22	25	39	51	50	42	20	20	23	20	12	9	10	1	1	0	0	2	17
13	1	3	5	5	5	0	2	2	7	23	6	8	1	0	0	0	1	0	0	0	0	0	1	2	3
14	0	0	0	0	0	0	2	13	17	13	33	14	6	3	1	4	16	29	21	15	18	10	7	17	10
15	10	7	2	0	1	1	2	0	3	3	1	1	0	0	0	M	M	M	M	M	M	M	M	M	
16	M	M	M	M	M	M	M	M	M	M	M	M	M	M	0	0	3	4	0	0	0	0	0	0	2
17	2	6	4	0	0	3	7	20	21	18	10	12	8	6	14	9	4	1	0	1	1	8	8	19	8
18	5	0	0	0	1	2	6	24	28	17	8	9	35	33	20	12	16	43	31	8	24	18	10	21	15
19	17	14	10	4	4	6	11	19	24	23	14	14	11	5	2	2	4	5	3	5	4	3	3	6	9
20	6	8	3	2	1	1	4	3	5	3	5	1	2	1	2	0	1	2	2	3	4	7	9	13	4
21	8	7	4	1	1	2	7	16	11	10	8	2	0	0	0	0	0	0	1	1	3	5	7	14	5
22	6	4	1	1	2	1	10	7	1	0	0	0	0	0	0	0	1	0	1	1	3	6	9	7	3
23	1	2	0	0	0	1	5	5	1	1	2	0	0	2	1	0	0	0	0	0	0	0	0	2	1
24	0	1	0	0	0	0	2	11	5	7	7	7	6	5	2	2	5	5	1	1	3	2	1	2	3
25	0	0	1	0	0	0	5	7	7	5	2	1	0	1	2	1	M	1	0	0	0	0	0	0	1
26	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	2	4	3	5	4	0	0	1	0	7	6	0	3	7	2	7	3	2
28	0	0	0	0	0	0	1	3	8	1	0	0	0	6	59	61	57	50	51	37	41	46	30	28	20
29	25	14	11	4	2	7	9	19	26	26	21	24	21	18	21	22	22	24	19	23	26	16	19	24	18
30	13	M	13	14	9	7	8	18	25	21	23	6	3	13	19	13	19	19	28	22	36	30	22	19	17
31	8	3	0	0	1	1	7	14	20	15	21	19	13	5	6	15	16	9	2	0	0	0	0	0	7

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										RANGE-----		STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE	LIMIT	LEVEL
7	3	9	3	26	37	50	58	0	-	66	0	-	41	3	97	0

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

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

STATION : CHEUNG CHAU
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2019
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	1	3	4	3	3	3	2	2	1	1	3	0	0	0	0	0	0	0	1
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	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
5	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
6	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
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	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
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	1	1	0	1	0	0	0	0	1	1	1	4	7	6	6	9	5	3	1	1	1	1	1	1	7
13	2	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	3	0
14	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	4	0
15	1	0	0	1	1	1	0	1	0	0	1	1	2	1	2	1	3	1	0	0	0	1	0	4	1
16	0	1	1	2	1	1	0	0	4	2	2	1	1	1	1	1	1	1	1	1	1	1	2	5	1
17	1	1	0	0	0	0	0	1	1	2	2	3	2	2	2	2	1	1	0	1	0	0	0	5	1
18	1	0	0	1	0	0	0	1	2	3	5	5	4	5	4	3	3	2	2	2	3	3	3	5	2
19	2	2	2	2	1	1	1	3	5	6	5	5	5	3	3	2	2	1	1	1	1	0	1	5	3
20	2	1	1	1	0	0	0	0	0	1	2	3	2	3	2	2	2	1	1	1	1	1	1	5	1
21	1	1	1	1	1	1	2	2	2	1	2	2	2	2	2	3	2	1	3	3	2	2	2	5	2
22	1	1	1	0	1	0	1	1	1	1	1	0	1	1	1	1	1	1	0	0	0	0	0	5	1
23	2	1	1	2	2	2	1	1	3	2	1	1	1	1	1	1	1	0	0	0	0	0	2	4	1
24	1	1	0	0	0	0	0	0	1	2	3	2	2	2	1	2	2	2	1	1	0	0	0	5	1
25	1	1	1	1	1	1	2	2	2	3	2	4	1	1	2	1	1	2	1	0	0	0	6	2	
26	1	1	2	1	1	1	0	1	1	1	0	0	0	1	0	0	1	1	1	1	1	1	1	4	1
27	1	0	0	0	1	1	1	1	1	2	2	2	2	2	2	1	1	0	1	1	1	0	0	4	1
28	1	1	0	0	1	0	1	1	1	1	1	1	1	2	8	17	10	7	2	2	3	4	3	4	3
29	1	1	1	1	1	1	0	0	0	1	1	M	M	M	0	0	0	0	0	0	0	0	0	5	1
30	2	2	4	2	3	3	2	2	2	3	2	3	2	2	1	1	2	1	2	2	2	4	2	6	2
31	3	2	2	2	2	3	3	3	4	5	5	4	5	5	4	4	3	3	2	2	1	1	0	3	3

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----							-----RANGE-----					STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR			DEVIATION	VALID DATA	ABOVE LIMIT LEVEL	
2	0	1	0	3	4	5	6	0	-	17	0	-	3	2	100	0

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

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

STATION : CHEUNG CHAU
POLLUTANT : NITROGEN DIOXIDE

YEAR : 2019
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	36	63	37	36	33	107	52	29	24	37	42	30	28	38	20	12	11	13	22	19	18	15	13	16	31
2	10	M	6	4	3	3	6	10	8	8	4	4	4	4	3	6	4	3	8	7	5	6	4	2	5
3	2	3	2	2	3	3	2	4	5	5	4	3	4	5	2	2	1	3	4	3	4	5	4	2	3
4	1	1	2	2	3	10	37	38	14	9	3	2	3	3	3	2	4	3	5	5	9	6	7	3	7
5	6	6	8	14	17	33	46	45	30	22	23	16	19	28	20	26	21	10	14	12	17	28	22	13	21
6	10	15	10	7	7	3	5	6	10	10	10	8	7	13	4	9	18	44	35	22	24	11	7	5	13
7	9	18	25	13	18	6	17	15	24	13	20	22	20	12	5	3	2	2	7	8	4	1	4	6	11
8	10	9	3	7	5	6	17	51	17	17	11	11	4	3	3	2	3	5	7	6	7	4	1	3	9
9	3	3	2	2	4	20	14	8	10	20	20	19	12	4	3	4	2	3	4	4	4	5	6	5	8
10	8	5	4	3	3	2	7	8	7	5	4	3	4	4	5	3	10	9	6	4	2	3	3	4	5
11	4	14	8	6	7	7	14	32	22	45	32	19	11	17	18	14	29	23	16	18	17	18	20	16	18
12	15	8	6	9	7	9	30	39	43	21	20	20	14	14	20	13	11	12	7	5	6	5	4	9	14
13	5	5	2	4	4	14	21	8	31	47	61	53	38	31	7	5	4	3	12	10	6	14	13	27	18
14	23	34	16	10	21	32	37	39	78	39	49	69	40	17	14	13	41	61	70	20	70	60	49	36	39
15	34	35	36	32	17	39	21	16	16	14	14	14	17	17	19	9	23	13	8	12	19	25	24	40	21
16	49	M	30	23	14	14	11	10	21	20	20	15	10	7	6	9	13	17	16	15	14	17	27	24	17
17	14	28	8	34	36	37	38	38	38	43	37	41	37	40	22	20	11	8	8	8	8	15	16	16	25
18	15	14	13	18	8	11	24	38	49	46	46	43	35	29	14	10	18	16	16	14	13	13	17	44	24
19	30	27	15	7	29	30	26	36	53	60	45	45	40	15	10	12	13	14	13	14	10	7	8	14	24
20	15	17	14	16	25	19	13	15	17	20	20	15	10	10	10	10	11	10	11	11	12	10	11	20	14
21	18	17	14	16	14	15	23	20	17	23	25	12	10	10	10	10	17	18	12	15	13	11	10	11	15
22	9	10	12	13	15	14	21	23	16	12	9	9	9	9	9	9	9	9	11	11	10	10	11	11	12
23	9	11	12	16	16	18	21	23	23	18	10	7	7	7	7	8	9	10	9	9	10	15	23	17	13
24	10	11	9	7	10	19	14	35	24	17	26	17	10	11	6	5	8	11	11	18	14	10	8	17	14
25	9	16	10	9	8	10	13	16	19	21	10	20	11	6	17	9	10	20	27	17	11	9	10	16	14
26	10	13	21	13	12	15	11	18	11	9	7	5	4	3	5	5	6	7	12	14	17	11	14	8	10
27	8	5	12	13	37	16	19	21	20	46	37	35	26	10	11	11	10	14	13	16	18	17	11	10	18
28	9	15	11	8	19	11	17	9	19	37	26	10	12	19	66	104	82	78	45	44	44	48	46	49	35
29	44	35	29	27	25	29	26	25	24	21	32	M	M	M	56	56	54	65	68	108	76	70	56	68	47
30	52	M	36	30	23	27	24	35	46	60	43	47	39	60	50	51	71	65	65	65	102	115	58	72	54
31	69	51	27	36	32	46	49	19	29	66	60	48	62	55	53	60	85	33	25	23	10	6	7	5	40

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----							-----RANGE-----					STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR			DEVIATION	VALID DATA	ABOVE LIMIT LEVEL	
13	14	19	14	44	56	69	78	1	-	115	3	-	54	2	99	0

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

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

STATION : VICTORIA PEAK
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2019
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	2	2	2	3	3	3	2	2	2	2	3	3	2	2	2	1	1	1	2	2
2	1	1	1	1	2	2	2	2	3	3	2	2	2	2	3	2	2	2	2	2	2	2	1	2	2
3	1	1	1	1	1	1	1	2	2	3	4	5	5	4	4	4	4	3	4	4	5	7	8	9	4
4	8	8	8	8	8	7	6	6	7	7	6	5	5	5	5	6	5	5	4	3	3	3	2	4	6
5	6	7	6	6	6	6	6	6	6	6	5	4	4	4	4	3	3	3	3	3	2	2	1	2	4
6	2	2	2	2	1	2	2	2	3	3	4	4	4	3	3	3	3	2	2	2	2	2	2	2	2
7	1	1	1	1	1	3	6	7	8	8	7	6	5	4	5	5	4	4	4	4	5	5	5	7	4
8	6	6	7	7	7	6	6	6	6	6	4	4	4	4	4	4	3	3	3	3	4	4	4	5	5
9	6	6	6	4	4	3	4	5	5	5	4	4	4	4	4	3	3	3	2	2	1	1	1	2	4
10	1	1	1	1	1	1	1	1	2	3	3	3	4	4	3	4	4	3	2	2	2	2	3	3	2
11	2	2	2	2	1	1	2	3	4	4	4	4	4	4	4	3	3	3	2	3	3	2	2	3	3
12	2	2	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	1	1	1	1	1	1	2	1
13	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	3	2	2	3	4	3	3	9	2
14	9	7	5	4	4	4	4	4	5	5	4	4	5	5	4	4	3	3	3	2	2	2	1	2	4
15	2	1	1	1	1	1	1	2	2	2	3	3	2	2	3	3	2	2	2	1	1	1	1	2	2
16	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1
17	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	2	1	1	1	1	1	2	1	2	1
18	1	1	2	2	2	2	2	3	4	6	7	6	8	9	10	9	8	8	5	4	3	2	2	2	5
19	2	2	2	2	2	2	2	2	3	3	4	3	3	2	1	2	2	2	2	2	2	2	3	3	2
20	3	3	2	2	2	2	2	2	3	3	3	4	4	3	2	3	2	2	2	2	2	1	1	2	2
21	1	2	2	1	1	1	1	1	3	4	4	M	4	5	5	4	4	3	4	6	5	4	3	2	3
22	1	1	0	0	0	1	4	7	8	7	7	6	7	6	6	6	4	3	2	2	1	1	1	2	3
23	1	1	1	1	1	1	0	0	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1
24	1	1	1	1	1	0	0	1	2	2	3	4	3	2	2	2	1	1	1	1	1	1	1	1	1
25	1	1	1	1	1	1	1	1	2	2	3	3	3	2	2	2	2	1	1	0	0	0	0	1	1
26	0	0	0	0	0	0	1	1	2	2	2	2	2	2	2	2	2	1	1	1	1	0	0	1	1
27	1	1	0	0	0	1	0	1	1	2	2	2	2	2	2	2	2	1	1	1	0	0	0	1	1
28	0	0	2	3	2	2	1	2	3	3	3	3	3	2	3	2	2	2	2	2	2	2	2	2	2
29	2	2	2	2	2	2	1	2	3	3	2	2	1	1	1	2	2	1	1	1	1	1	1	2	2
30	2	2	1	1	1	1	1	2	3	2	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----							-----RANGE-----				STN GEOM	PERCENT	NO. OF TIMES		
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR	DEVIATION	VALID DATA	ABOVE	LIMIT LEVEL		
2	2	3	2	5	6	8	8	0	-	10	1	-	6	2	100	0

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

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

STATION : VICTORIA PEAK
POLLUTANT : NITROGEN DIOXIDE

YEAR : 2019
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	3	3	2	1	3	4	11	16	17	12	12	13	9	10	15	15	15	11	7	3	2	2	2	8
2	0	0	0	0	0	0	1	5	6	10	12	11	10	18	20	27	19	23	35	19	9	8	4	11	10
3	7	4	2	1	4	4	5	13	16	19	18	14	15	16	16	23	27	51	108	68	50	27	28	18	23
4	16	11	7	6	7	7	16	20	28	34	39	32	25	25	25	29	31	36	52	37	28	21	32	19	24
5	18	13	10	9	7	6	14	35	37	48	32	20	21	20	23	27	42	48	17	10	12	20	23	11	22
6	6	2	1	0	0	1	4	10	17	29	23	22	20	14	23	31	33	38	44	32	20	11	12	19	17
7	14	7	4	7	3	6	15	36	33	38	32	20	19	18	27	27	33	37	36	42	40	29	27	22	24
8	20	8	8	5	6	7	12	28	41	38	35	28	17	22	23	23	30	27	33	32	33	34	22	31	23
9	28	19	16	6	5	6	10	18	34	34	24	18	15	18	15	22	18	15	5	4	5	8	8	11	15
10	9	6	4	4	3	4	6	10	15	20	20	12	17	14	14	15	19	25	27	27	28	13	9	5	14
11	6	2	4	5	3	3	9	20	41	28	35	19	12	9	10	10	9	12	9	5	4	1	2	5	11
12	1	0	0	0	0	0	1	5	11	9	11	12	8	6	11	25	19	11	9	5	4	3	2	5	7
13	2	M	2	0	0	1	2	10	10	9	12	11	11	15	15	18	34	40	47	77	78	82	26	23	23
14	11	8	5	4	4	5	11	23	44	38	28	23	17	16	19	20	20	15	12	7	5	7	5	8	15
15	6	4	3	2	2	2	4	9	20	28	26	23	20	20	29	27	22	14	11	6	4	7	6	5	13
16	3	2	1	1	2	1	2	6	17	20	17	18	22	20	18	27	25	31	18	8	7	4	2	3	11
17	1	3	4	3	1	1	2	4	6	4	8	10	14	8	10	20	20	17	10	3	28	24	18	16	10
18	15	18	33	23	23	25	35	30	41	59	78	65	79	89	65	56	50	34	30	41	21	14	17	23	40
19	20	17	18	18	13	12	17	34	41	44	45	40	43	33	28	37	32	49	61	40	38	39	28	23	32
20	20	19	15	10	8	10	16	23	27	29	27	30	36	25	25	30	23	14	8	9	10	7	4	9	18
21	10	4	5	4	4	4	14	29	39	31	32	M	37	40	24	22	24	28	36	49	81	107	24	18	29
22	17	18	10	7	6	11	14	26	36	51	59	50	51	37	29	29	20	7	6	1	3	3	3	6	21
23	4	3	6	3	4	3	7	13	16	20	19	20	16	16	15	25	18	17	14	9	8	7	10	8	12
24	1	8	22	7	1	4	9	19	30	27	18	17	13	9	7	8	11	15	18	12	5	2	4	7	11
25	3	1	1	0	5	7	8	10	12	14	13	11	8	13	15	9	9	8	8	2	2	4	2	4	7
26	5	2	2	1	2	3	16	20	27	28	23	23	14	9	13	20	18	24	15	10	5	5	4	5	12
27	2	M	2	2	2	3	6	14	23	25	24	15	11	14	17	24	39	42	40	26	24	30	24	20	19
28	14	13	11	8	8	10	18	29	29	30	30	31	30	28	31	31	34	45	46	46	33	25	23	17	26
29	14	12	10	8	8	11	13	26	24	23	21	21	17	19	22	27	20	16	15	11	7	5	4	7	15
30	4	3	1	2	3	6	10	14	28	21	18	15	14	19	28	30	29	19	24	15	12	7	8	10	14

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----							-----RANGE-----				STN GEOM	PERCENT	NO. OF TIMES		
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR		DEVIATION	VALID DATA	ABOVE	LIMIT LEVEL		
12	15	18	15	35	42	58	78	0	-	108	7	-	40	3	100	0

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

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

STATION : CHUNG HOM KOK ZONE SUBSTATION
POLLUTANT : SULPHUR DIOXIDE

MONTH: NOVEMBER

YEAR : 2019

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

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										RANGE-----		STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE	LIMIT	LEVEL
5	4	5	4	7	8	10	11	2	-	17	3	-	7	1	100	0

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

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

STATION : CHUNG HOM KOK ZONE SUBSTATION
POLLUTANT : NITROGEN DIOXIDE

MONTH: NOVEMBER

YEAR : 2019

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	3	2	1	2	3	4	4	4	3	4	3	3	6	10	8	6	3	4	1	2	4	1	4	
2	1	2	1	1	1	1	2	5	4	4	2	2	2	4	3	6	4	3	3	2	5	4	5	6	3	
3	2	1	1	3	2	3	3	4	7	7	8	8	6	6	6	5	5	9	15	14	17	14	14	14	5	7
4	7	8	7	5	5	4	5	7	10	10	9	9	8	9	12	11	11	15	16	5	8	7	10	9	9	
5	9	7	7	7	5	5	6	8	11	12	7	8	6	5	7	9	8	7	6	4	4	8	10	7	7	
6	3	2	2	2	2	2	3	7	6	7	8	7	5	6	7	8	7	6	4	4	8	5	3	4	5	
7	5	6	5	3	4	5	7	8	18	14	14	11	11	8	8	15	16	17	15	14	14	12	12	11	11	
8	9	7	5	5	5	5	5	10	11	10	11	8	6	6	11	13	10	14	19	16	14	11	11	11	10	
9	10	9	8	8	7	8	11	9	10	10	9	5	6	6	7	9	8	8	8	6	5	6	4	4	8	
10	4	4	4	4	4	3	5	7	10	7	8	10	10	11	11	8	8	5	5	7	10	12	10	6	7	
11	4	4	3	4	7	4	8	15	16	10	7	6	6	6	5	6	8	11	11	5	6	4	6	6	7	
12	3	1	1	1	2	1	3	4	5	3	4	4	3	4	4	5	4	5	6	3	3	5	5	3	3	
13	4	M	5	3	3	4	4	5	4	5	4	4	5	6	5	7	10	8	8	16	29	25	15	10	8	
14	10	8	7	5	5	4	4	6	8	9	7	7	8	6	6	6	8	7	6	5	6	5	5	4	6	
15	4	4	5	4	3	3	4	5	6	8	5	6	6	7	5	7	6	7	5	5	7	4	5	3	5	
16	3	3	2	3	3	3	3	5	7	7	6	4	5	5	4	5	5	6	5	5	5	5	4	7	5	
17	6	3	5	3	3	1	2	3	3	2	3	3	3	4	8	6	6	12	7	6	6	7	8	9	5	
18	7	16	28	42	69	89	87	74	64	85	85	97	77	60	54	59	64	44	26	19	10	9	8	12	49	
19	10	12	13	13	12	10	12	22	27	29	28	27	15	12	11	13	14	13	18	25	26	18	12	11	17	
20	9	10	10	11	9	9	10	14	13	13	13	13	11	12	10	12	11	10	7	4	4	4	4	5	10	
21	3	4	4	4	4	5	7	13	15	12	10	8	6	6	6	8	7	9	10	10	13	9	7	8	8	
22	8	8	4	3	6	5	8	16	27	26	49	18	9	10	19	6	11	17	10	8	6	4	6	7	12	
23	7	7	6	4	4	4	5	8	10	5	5	5	8	7	6	7	11	20	9	16	9	9	8	6	8	
24	7	4	2	4	3	2	5	4	9	12	12	16	12	9	7	6	9	9	11	6	6	3	4	4	7	
25	7	5	2	3	1	3	5	9	9	8	6	6	4	5	5	8	6	5	2	3	4	2	2	3	5	
26	2	3	3	3	3	4	10	15	15	15	13	10	9	6	6	9	8	6	6	6	6	6	5	4	7	
27	3	M	5	4	4	4	5	7	9	8	7	6	5	4	5	6	6	6	6	9	11	10	9	14	7	
28	8	9	10	11	7	7	9	15	22	21	24	22	21	21	14	15	22	19	19	18	13	10	11	12	15	
29	10	10	10	10	10	10	10	13	12	11	10	M	12	8	7	9	8	8	6	7	7	6	6	6	9	
30	5	4	3	3	4	6	11	15	13	12	9	6	7	10	8	7	11	8	4	6	5	7	6	5	7	

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----							-----RANGE-----					STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR			DEVIATION	VALID DATA	ABOVE LIMIT LEVEL	
7	7	9	7	15	20	43	68	1	-	97	3	-	49	2	100	0

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

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

STATION : VICTORIA ROAD SUBSTATION
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2019
UNIT : MICROGRAMS/CUBIC METER

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

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----							-----RANGE-----				STN GEOM	PERCENT	NO. OF TIMES		
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR	DEVIATION	VALID DATA	ABOVE	LIMIT LEVEL		
1	1	2	1	2	3	3	3	0	-	4	1	-	2	1	100	0

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

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

STATION : VICTORIA ROAD SUBSTATION
POLLUTANT : NITROGEN DIOXIDE

YEAR : 2019
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	6	5	5	5	5	5	6	7	9	9	8	7	8	7	8	12	14	15	11	8	6	6	6	4	8
2	4	4	3	3	3	3	5	5	5	6	7	7	8	8	10	10	10	12	16	19	17	12	12	9	8
3	5	6	4	3	4	4	6	8	8	7	9	9	11	11	11	13	27	22	20	20	21	19	12	9	11
4	8	7	5	5	5	4	7	12	13	11	10	11	11	11	11	13	16	21	23	17	13	10	10	13	11
5	9	7	6	4	4	4	7	14	17	16	13	10	9	10	12	15	19	27	15	9	10	10	10	8	11
6	6	4	4	3	3	3	7	9	9	10	10	10	10	9	11	12	17	15	17	16	15	9	8	9	9
7	8	6	4	4	4	4	8	15	13	13	10	9	8	8	11	11	17	20	17	13	12	11	9	8	10
8	7	5	4	4	4	5	8	10	13	13	22	15	10	11	10	11	12	14	14	11	12	12	13	10	10
9	9	7	5	5	3	4	5	8	12	13	10	9	9	9	9	12	12	10	8	7	6	6	7	6	8
10	5	4	4	3	3	4	5	6	8	15	12	8	11	13	14	19	14	16	14	12	16	10	9	8	10
11	5	4	3	4	3	4	6	11	20	10	10	9	10	9	10	10	11	11	10	8	6	5	6	6	8
12	6	4	3	2	2	2	4	5	6	6	6	6	6	6	7	9	13	9	9	8	8	8	8	7	6
13	4	M	4	3	3	3	4	8	9	7	8	9	9	11	10	15	13	12	14	20	21	19	19	9	10
14	7	7	4	4	4	4	6	13	15	12	10	8	8	8	9	10	10	10	12	9	6	5	5	5	8
15	5	4	3	3	3	3	4	6	8	10	9	9	9	9	10	13	11	10	12	9	7	7	7	5	7
16	5	4	3	3	3	3	4	4	4	6	7	6	6	8	9	9	12	15	13	11	9	8	5	4	7
17	3	2	2	2	2	1	4	6	6	5	10	11	8	6	5	16	15	14	12	12	12	17	19	16	9
18	16	23	25	21	20	18	22	20	28	37	36	38	43	49	41	34	52	34	19	19	14	11	10	9	27
19	8	10	10	11	8	6	8	8	12	15	18	17	15	14	11	13	15	22	24	18	16	13	10	9	13
20	8	8	7	6	4	5	7	9	10	10	10	12	14	14	15	12	14	11	10	8	7	5	5	4	9
21	5	4	4	4	4	3	8	17	14	11	10	11	19	27	14	15	18	19	22	21	25	29	30	9	14
22	8	7	5	4	4	7	6	12	21	25	34	31	32	22	19	26	19	16	17	8	7	6	6	6	15
23	6	4	4	4	3	3	5	6	7	7	11	12	10	13	9	9	10	14	12	9	9	9	11	6	8
24	8	5	6	8	3	3	6	8	8	9	17	13	10	8	15	12	11	10	10	12	7	5	5	5	9
25	4	2	2	2	4	4	7	6	7	8	9	8	8	8	9	9	8	7	7	6	5	5	4	3	6
26	5	3	3	3	3	3	6	8	11	10	9	9	8	7	7	10	15	13	11	8	6	6	6	4	7
27	4	M	4	4	4	3	5	8	9	11	11	9	10	10	11	16	18	19	19	20	17	16	12	9	11
28	8	7	5	4	4	5	6	10	11	13	14	17	17	15	14	14	15	17	18	17	14	12	11	9	12
29	8	7	6	5	5	6	7	10	10	10	9	10	11	10	11	11	11	11	8	8	7	6	6	5	8
30	5	5	3	3	3	3	5	7	7	8	8	8	9	10	9	11	13	15	17	15	11	12	14	11	9

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----							RANGE-----					STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	ABOVE	LIMIT	LEVEL		
8	9	10	9	17	21	28	34	1	-	52	6	-	27	2	100	0

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

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

STATION : POK FU LAM
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2019
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	4	3	4	4	3	4	3	4	4	4	4	5	4	4	5	5	5	5	4	3	3	3	3	4
2	3	4	4	4	3	4	4	5	6	5	4	4	4	4	5	5	5	4	4	5	5	4	3	3	4
3	3	3	3	3	3	4	4	4	6	6	6	7	6	7	6	6	6	6	5	5	5	9	11	13	6
4	12	11	10	11	10	9	8	8	9	9	9	8	8	7	9	8	7	7	7	6	6	5	5	7	8
5	9	9	9	9	9	9	8	8	9	7	6	6	7	6	8	6	5	5	6	5	4	4	4	5	7
6	4	4	4	4	4	3	3	4	6	6	5	7	6	5	4	5	5	5	5	5	4	4	5	1	5
7	5	4	4	4	5	6	8	10	10	10	19	8	5	7	7	7	7	7	6	9	3	7	11	8	7
8	9	8	9	9	11	6	56	64	7	22	10	3	M	M	M	M	M	16	5	5	4	6	6	7	14
9	8	8	8	8	7	6	5	4	7	6	M	M	M	M	M	5	4	11	4	7	5	0	0	0	5
10	0	2	1	2	6	1	1	2	2	4	M	M	M	M	3	2	3	2	3	5	7	3	2	2	3
11	1	1	1	1	2	4	11	8	9	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	
12	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	4	0	0	0	0	0	0	0	
13	0	0	0	0	0	0	0	0	0	0	1	M	0	0	0	0	0	0	0	0	0	0	0	2	0
14	2	0	0	0	0	0	0	0	0	0	0	11	14	13	14	14	12	13	12	11	9	8	9	11	6
15	7	8	7	11	11	10	9	10	9	8	12	12	14	14	15	16	15	14	12	10	10	10	11	11	11
16	10	10	11	13	11	11	8	8	7	6	8	10	11	12	16	16	15	15	13	12	13	12	13	13	11
17	13	13	14	14	13	13	12	11	7	12	13	13	16	16	17	16	17	15	16	14	12	11	12	15	14
18	11	13	15	14	15	16	17	16	16	26	25	25	27	27	25	25	28	22	20	18	15	14	10	12	19
19	11	10	11	7	5	8	4	5	6	4	8	10	9	8	9	11	10	12	12	10	7	8	9	10	9
20	8	7	3	3	7	8	5	2	2	0	3	6	7	9	10	11	9	8	6	8	7	4	5	9	6
21	7	9	5	6	7	5	4	2	5	7	10	10	13	15	14	13	12	10	8	7	8	8	8	6	8
22	6	5	6	8	7	6	8	12	11	12	19	19	17	16	16	16	13	12	9	7	7	7	4	7	10
23	8	8	9	7	6	5	5	5	5	6	8	7	10	12	12	13	14	9	10	7	5	5	5	8	8
24	7	7	8	8	7	8	6	4	5	5	10	13	10	13	13	13	12	11	10	9	8	5	5	7	9
25	7	7	7	6	6	5	6	6	5	6	9	12	11	8	9	10	6	5	3	2	3	4	1	2	6
26	2	1	2	2	3	2	2	2	2	0	1	2	2	2	4	5	4	2	2	1	1	1	1	2	2
27	1	0	2	2	2	2	1	1	1	1	4	4	4	6	6	6	4	5	5	2	1	1	1	2	3
28	3	3	3	2	1	1	0	0	1	0	1	2	2	1	4	3	4	2	1	0	0	0	0	0	1
29	1	1	0	0	0	1	0	0	0	0	1	0	0	0	0	M	M	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----							-----RANGE-----				STN GEOM	PERCENT	NO. OF TIMES		
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR	DEVIATION	VALID DATA	ABOVE	LIMIT LEVEL		
6	6	7	6	13	16	19	25	0	-	64	0	-	19	2	93	0

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

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

STATION : POK FU LAM
POLLUTANT : NITROGEN DIOXIDE

YEAR : 2019
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	12	11	11	10	10	10	16	18	22	22	23	17	17	16	19	24	26	28	28	19	16	13	13	10	17
2	9	10	10	9	9	9	12	16	17	20	21	20	21	27	27	17	22	37	55	69	54	50	39	20	25
3	20	M	30	18	16	14	15	17	19	26	28	31	29	24	19	24	45	51	56	51	61	44	31	22	30
4	24	23	20	19	20	20	26	40	41	47	44	45	38	32	48	52	65	61	59	41	33	29	30	30	37
5	26	27	24	20	17	17	25	41	67	64	50	34	25	30	41	35	51	54	43	26	33	35	33	23	35
6	22	14	12	12	11	11	17	29	31	35	32	37	35	21	31	29	32	56	67	61	43	28	26	19	30
7	14	13	15	18	17	20	26	46	47	51	40	40	32	36	42	49	63	57	56	58	41	41	34	26	37
8	25	22	20	18	19	18	24	43	45	55	49	39	23	37	38	40	41	59	58	48	46	40	34	38	37
9	33	29	25	22	20	16	27	34	33	38	25	23	22	24	25	28	30	29	18	16	16	22	22	20	25
10	18	15	16	13	13	13	15	17	20	34	30	30	30	30	30	32	35	51	37	59	54	33	37	35	29
11	26	34	21	17	14	17	34	47	63	48	34	24	27	25	18	18	24	26	24	19	17	12	13	14	26
12	12	10	10	9	10	10	13	22	27	20	18	18	20	16	22	29	36	35	51	49	26	21	19	15	22
13	15	13	11	14	15	13	15	24	29	20	21	23	23	22	22	42	32	39	50	55	60	62	52	31	29
14	30	34	19	17	17	16	20	35	47	44	47	30	23	24	28	34	42	73	33	21	21	22	20	18	30
15	18	17	15	13	12	14	17	23	29	35	34	20	18	18	22	29	34	32	27	20	16	25	28	21	22
16	16	14	12	11	12	11	15	21	19	22	20	20	18	17	27	20	27	46	44	40	30	22	16	13	21
17	12	M	15	12	12	10	13	19	28	20	24	21	16	18	11	30	36	35	29	29	66	61	57	62	28
18	76	98	100	79	90	89	90	83	89	104	104	102	104	121	84	71	106	93	62	61	36	27	33	42	81
19	39	52	42	47	35	28	38	43	58	63	58	51	46	44	47	60	90	86	108	68	53	43	38	29	53
20	32	30	34	20	22	39	40	45	37	32	35	44	44	47	43	31	35	28	22	23	23	21	17	19	32
21	21	14	13	13	13	14	20	35	39	33	31	37	56	53	34	28	33	38	57	77	73	109	75	33	40
22	25	21	28	28	30	37	40	61	70	89	91	80	72	53	39	39	40	27	28	15	17	17	14	19	41
23	18	15	18	18	16	18	16	19	30	31	24	27	25	26	24	20	24	29	30	26	21	26	28	26	23
24	15	21	21	17	8	12	18	28	29	29	28	22	16	14	20	32	31	26	20	25	21	17	17	20	21
25	12	10	10	9	10	12	16	26	33	27	21	19	20	21	26	21	20	23	23	16	14	14	13	11	18
26	15	12	10	11	12	12	23	28	35	32	32	29	26	22	26	33	32	26	28	26	19	17	16	14	22
27	13	11	12	11	11	12	15	23	30	34	29	27	24	24	28	37	45	59	98	77	72	48	42	39	34
28	24	25	24	17	20	24	35	44	45	46	46	46	38	40	46	49	56	61	58	53	42	39	43	25	39
29	19	19	18	21	28	28	32	46	48	45	44	34	27	28	36	M	M	32	29	24	19	15	15	12	28
30	12	11	9	9	9	12	17	33	42	28	21	21	19	25	22	21	34	40	42	44	38	49	36	21	26

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----							-----RANGE-----					STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	ABOVE	LIMIT	LEVEL		
27	26	31	26	56	67	90	102	8	-	121	17	-	81	2	99	0

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

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

STATION : AP LEI CHAU
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2019
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	1	1	2	1	2	1	1	1	1	1	2	3	M	1	1	1	2	1	1	1	1	1
2	1	1	2	2	2	1	2	3	3	3	2	2	2	2	1	2	1	1	1	2	2	2	2	2	2
3	2	2	2	2	2	3	3	3	3	3	4	4	4	3	3	3	3	3	2	4	4	5	8	10	4
4	9	9	9	9	8	8	7	7	8	8	7	5	4	4	5	4	5	4	2	3	3	4	3	5	6
5	6	8	8	8	7	7	7	7	7	6	5	4	3	3	3	3	3	3	3	4	3	3	3	3	5
6	3	3	3	3	3	3	3	4	4	4	4	4	4	3	3	3	2	3	4	4	4	4	3	3	3
7	3	3	3	3	3	4	8	8	9	8	7	6	4	5	4	4	3	3	5	5	5	6	8	8	5
8	7	7	7	7	7	8	7	7	7	6	5	4	3	3	3	2	2	2	3	3	4	4	4	5	5
9	5	6	6	5	4	4	3	4	5	4	3	3	3	3	2	2	2	2	1	1	1	1	1	1	3
10	1	1	1	1	1	1	1	2	2	3	2	2	2	2	2	2	2	1	1	2	2	2	2	2	2
11	2	2	2	2	3	2	3	3	4	3	3	3	3	3	2	2	2	2	2	2	2	2	3	3	3
12	2	1	2	1	2	2	2	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	1	2	1
13	1	2	2	2	2	1	1	1	2	2	1	1	1	1	1	1	1	2	2	2	2	2	3	8	2
14	9	7	5	4	3	3	3	3	2	3	3	3	3	3	3	2	2	2	2	2	1	1	1	3	3
15	2	2	3	2	2	2	2	3	3	3	2	2	2	2	3	2	2	2	2	2	2	2	2	1	2
16	1	1	1	1	1	1	1	0	0	0	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
17	1	1	1	1	1	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	1	3	1
18	3	3	3	3	2	2	2	2	4	7	8	7	7	9	14	13	12	8	5	2	1	1	1	2	5
19	1	1	1	1	1	2	1	2	3	2	2	2	1	1	0	1	1	1	1	1	2	1	2	3	1
20	3	3	3	2	2	2	2	2	2	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2
21	2	2	2	2	2	2	1	1	3	4	3	3	3	3	2	2	2	3	3	2	2	2	2	2	2
22	2	2	2	2	2	2	3	7	8	8	12	8	8	5	6	6	3	3	3	3	3	3	2	2	4
23	2	2	2	2	2	1	1	1	1	0	1	1	1	1	1	0	1	1	1	1	1	2	1	3	1
24	2	2	3	2	2	2	2	2	3	3	4	4	2	2	2	2	2	2	1	1	2	2	1	2	2
25	1	2	2	2	1	1	2	1	2	3	3	3	2	2	2	1	1	0	0	1	0	0	2	1	1
26	1	1	2	1	1	2	2	2	3	3	3	2	3	2	3	3	3	2	2	2	2	2	2	2	2
27	1	1	1	1	1	1	1	2	2	2	2	2	2	2	1	1	1	0	1	1	1	1	1	1	1
28	1	2	3	4	3	2	2	2	2	2	2	3	2	1	1	1	1	0	1	2	2	1	2	2	2
29	2	3	3	3	2	2	2	2	3	2	2	1	1	1	1	0	0	0	0	1	1	1	1	1	1
30	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	1	1	1	1	3	0

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----							-----RANGE-----				STN GEOM	PERCENT	NO. OF TIMES		
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	ABOVE	LIMIT	LEVEL		
2	2	3	2	5	7	8	9	0	-	14	0	-	6	2	100	0

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

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

STATION : AP LEI CHAU
POLLUTANT : NITROGEN DIOXIDE

YEAR : 2019
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	1	1	1	2	1	0	0	0	M	0	0	0	0	0	0	0	0	0	
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	8	6	5	6	2	4	1	
3	1	0	0	0	0	0	0	3	1	1	3	0	4	1	0	1	24	34	10	33	46	24	13	8	9	
4	8	7	3	0	1	3	8	22	26	32	28	25	20	22	20	19	24	27	5	1	0	2	2	13	13	
5	9	9	4	0	3	4	10	28	23	31	28	5	1	2	2	0	0	6	4	0	7	18	18	9	9	
6	0	0	0	0	0	0	1	5	3	4	6	4	4	0	0	0	0	0	4	6	11	12	11	6	3	
7	1	1	0	0	0	0	9	21	30	28	26	23	14	11	15	17	23	33	39	39	33	22	15	11	17	
8	18	8	2	0	0	1	8	19	24	28	32	21	4	7	20	18	22	26	35	34	31	20	13	14	17	
9	19	13	8	2	1	1	7	15	17	22	4	2	2	0	0	0	1	0	0	0	0	1	0	1	5	
10	0	0	0	0	0	0	0	0	3	11	3	5	3	0	1	1	0	3	5	12	16	12	7	9	4	
11	4	0	0	0	0	0	1	15	14	1	0	0	0	0	0	0	1	2	0	0	0	0	0	0	2	
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	4	0
13	0	M	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	6	5	26	33	8	4	
14	2	0	0	0	0	0	2	13	17	18	8	2	0	0	3	0	0	0	1	0	3	8	1	7	4	
15	0	0	0	0	0	0	0	1	4	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	5	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	1	1	1	0	19	43	31	59	7	
18	45	61	75	80	72	60	71	70	69	82	93	90	68	75	82	69	96	68	29	24	13	8	7	12	59	
19	9	8	8	11	9	2	8	21	30	32	46	43	39	14	11	6	5	6	23	44	37	26	16	17	20	
20	14	16	6	2	2	2	10	16	12	8	7	15	35	38	33	1	1	0	2	7	14	9	1	5	11	
21	10	0	0	0	0	0	5	18	24	10	1	6	18	16	11	13	11	31	31	10	12	33	16	14	12	
22	16	7	4	6	4	5	15	26	47	73	81	39	38	8	21	34	5	0	2	10	2	3	1	0	19	
23	0	0	0	0	0	0	1	2	1	2	3	0	0	0	0	0	1	2	1	4	14	3	10	16	3	
24	14	2	4	12	2	1	9	10	13	17	10	1	0	1	0	0	0	0	3	1	0	0	0	5	4	
25	2	1	0	0	0	0	1	2	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	1	10	13	10	6	6	3	1	0	0	2	1	1	0	0	0	0	0	2	
27	0	M	0	0	0	0	0	1	1	2	2	2	2	2	0	0	1	10	15	9	8	4	0	7	3	
28	1	1	3	2	0	3	8	24	22	21	23	32	30	26	24	27	36	34	30	27	23	19	18	12	19	
29	7	4	4	2	3	4	8	17	16	13	13	12	5	2	5	3	2	2	2	0	0	0	0	0	5	
30	0	0	0	0	0	1	6	16	13	6	2	5	2	0	0	0	1	1	7	5	7	8	2	5	4	

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----							-----RANGE-----				STN GEOM	PERCENT	NO. OF TIMES		
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	ABOVE	LIMIT	LEVEL		
7	2	9	2	26	35	69	75	0	-	96	0	-	59	3	100	0

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

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

STATION : CHEUNG CHAU
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2019
UNIT : MICROGRAMS/CUBIC METER

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

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----							-----RANGE-----				STN GEOM	PERCENT	NO. OF TIMES		
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR	DEVIATION	VALID DATA	ABOVE	LIMIT LEVEL		
4	4	4	4	8	9	12	14	0	-	19	0	-	9	2	94	0

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

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

STATION : CHEUNG CHAU
POLLUTANT : NITROGEN DIOXIDE

YEAR : 2019
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	5	3	4	6	13	6	11	13	19	23	18	8	1	5	3	1	4	12	13	5	2	3	8
2	1	7	11	14	16	12	11	10	13	21	12	7	6	3	1	2	3	10	16	6	14	14	14	30	10
3	11	8	15	5	8	25	12	24	46	36	21	9	5	7	4	8	10	12	13	13	17	61	51	35	19
4	38	34	17	12	13	15	18	19	30	42	43	40	39	30	30	33	29	29	43	20	11	13	15	59	28
5	37	43	35	21	20	34	25	33	55	53	55	39	33	19	7	9	7	12	13	7	10	13	42	19	27
6	12	9	6	5	4	16	17	8	15	22	35	44	32	5	4	9	7	10	12	15	14	18	14	13	14
7	11	12	27	29	23	28	35	50	45	54	37	41	33	36	30	31	33	39	57	71	61	55	40	39	38
8	26	19	15	14	14	16	20	29	36	57	43	44	36	39	33	40	44	40	53	55	56	54	64	66	38
9	61	42	25	41	33	39	41	46	44	47	51	26	20	13	7	9	8	6	8	8	7	21	8	9	26
10	7	9	11	8	9	7	20	28	44	48	37	32	18	14	12	15	15	13	14	14	20	17	18	16	19
11	16	12	17	21	49	75	60	62	71	15	7	8	7	7	6	4	5	12	12	9	11	9	6	11	21
12	12	11	10	10	10	15	16	15	24	26	26	30	13	16	11	25	16	4	15	13	14	10	12	22	16
13	26	M	7	6	6	5	9	8	16	6	12	15	5	7	8	13	15	26	24	19	28	71	56	40	19
14	23	16	14	14	16	20	27	36	37	56	50	45	41	34	17	11	12	10	16	21	12	20	18	25	25
15	19	18	13	14	15	9	10	24	12	20	19	9	9	9	8	8	7	7	8	6	8	11	16	18	12
16	13	13	13	11	11	15	12	12	15	18	7	4	6	8	9	11	12	12	8	7	6	8	6	11	10
17	11	17	9	9	8	11	6	14	18	21	34	22	5	8	3	22	19	15	32	31	47	75	51	90	24
18	70	60	90	80	95	103	103	94	79	96	97	89	63	50	58	66	79	71	52	43	31	37	41	33	70
19	22	24	22	24	23	21	27	26	30	38	42	M	M	55	62	83	72	83	66	83	81	89	71	71	51
20	38	40	60	40	36	49	45	49	65	45	53	58	57	52	40	16	16	10	8	12	19	17	19	18	36
21	30	26	8	22	38	43	45	51	73	50	55	42	28	15	8	11	15	15	17	16	17	28	25	19	29
22	16	11	39	59	30	25	45	45	43	34	53	75	54	36	28	13	14	31	30	19	13	13	11	18	31
23	23	20	20	12	13	37	42	42	31	35	33	14	8	8	11	6	12	8	10	10	17	17	12	39	20
24	62	67	33	21	29	41	45	71	59	64	55	38	33	37	25	23	12	12	10	12	7	21	26	82	37
25	56	58	53	28	43	46	65	60	15	17	13	19	13	10	4	3	4	17	30	28	27	16	23	21	28
26	18	9	4	6	12	8	31	62	61	33	26	54	30	20	11	10	27	18	22	15	10	10	8	8	21
27	8	M	9	6	5	5	6	25	27	28	33	23	14	8	6	6	6	11	20	19	29	29	22	36	17
28	62	67	43	28	22	30	30	33	28	34	29	33	40	51	M	M	M	34	43	43	41	37	41	43	39
29	52	41	36	31	26	29	32	33	31	38	39	48	50	44	38	19	13	10	16	13	13	18	12	22	29
30	23	18	12	6	4	22	28	46	58	48	42	15	10	6	9	6	6	8	15	9	10	8	7	21	18

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----							RANGE-----					STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR			DEVIATION	VALID DATA	ABOVE LIMIT LEVEL	
19	19	26	19	55	65	81	90	1	-	103	8	-	70	2	99	0

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

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

STATION : VICTORIA PEAK
 POLLUTANT : SULPHUR DIOXIDE

YEAR : 2019
 UNIT : MICROGRAMS/CUBIC METER

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

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										RANGE-----		STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE	LIMIT	LEVEL
2	2	3	2	6	7	11	12	0	-	15	1	-	8	2	100	0

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

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

STATION : VICTORIA PEAK
POLLUTANT : NITROGEN DIOXIDE

YEAR : 2019
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	9	8	12	34	29	27	13	5	30	39	37	36	32	48	58	59	60	36	34	56	31	21	19	31
2	12	10	10	11	9	10	13	18	19	16	17	18	17	17	23	28	30	33	25	24	24	22	21	20	19
3	16	11	9	10	8	8	15	27	31	40	35	24	17	19	23	28	29	43	44	51	36	32	28	27	25
4	24	15	9	8	8	8	15	31	37	49	30	24	23	19	22	32	41	47	43	39	27	26	21	20	26
5	19	11	6	7	4	5	7	13	20	21	15	20	21	23	22	23	28	31	24	16	14	16	15	12	16
6	9	7	5	4	4	5	10	18	31	28	29	28	26	24	23	24	26	34	33	30	24	24	19	18	20
7	18	11	8	6	6	7	11	18	20	23	30	27	24	28	31	29	28	29	28	39	32	32	36	27	23
8	19	13	8	5	8	6	12	24	20	20	22	16	20	15	17	26	19	16	14	7	6	4	3	7	14
9	7	13	19	28	32	13	19	38	44	53	52	33	22	26	33	M	46	60	49	23	10	13	3	8	28
10	3	0	0	0	0	1	5	17	31	19	16	11	11	10	19	13	22	17	71	98	105	87	45	63	28
11	95	M	60	57	46	13	13	28	24	65	88	74	67	25	8	2	4	3	2	3	16	2	2	4	30
12	0	0	0	0	0	0	0	6	11	14	9	6	6	9	9	24	25	21	13	10	5	0	0	3	7
13	0	0	0	0	0	0	0	6	17	14	19	16	7	6	4	5	13	12	18	2	1	5	2	4	6
14	0	0	1	0	0	0	0	2	8	12	13	7	2	3	9	15	24	55	14	2	5	3	0	2	7
15	0	0	0	0	0	0	0	0	0	2	0	1	3	5	7	7	1	1	1	2	1	0	0	2	1
16	0	0	0	0	0	0	0	3	7	22	17	10	14	23	22	18	25	19	16	25	3	0	5	6	10
17	0	0	0	0	0	0	0	0	11	29	28	31	35	34	36	38	43	51	58	13	0	0	0	1	17
18	1	4	0	0	0	0	0	0	4	20	9	5	7	2	0	0	6	4	6	1	4	0	0	2	3
19	0	0	0	0	0	0	0	0	2	21	18	7	10	21	29	37	39	34	52	57	54	50	32	21	20
20	11	9	13	12	9	4	8	16	21	18	16	9	8	15	23	31	33	45	32	16	16	13	16	17	17
21	7	6	7	19	3	1	3	12	13	9	16	11	7	15	12	22	40	69	82	66	54	36	2	23	22
22	21	7	7	6	7	10	0	0	8	24	26	36	97	93	85	68	104	110	120	105	159	146	125	69	60
23	62	74	36	33	49	31	23	3	11	11	6	3	1	7	9	9	9	16	13	0	1	0	0	2	17
24	0	0	0	0	0	0	0	7	10	10	20	18	17	25	29	38	36	36	47	77	109	110	90	14	29
25	4	M	1	0	1	1	0	0	0	0	1	0	1	5	0	3	5	5	5	1	3	3	0	13	2
26	3	1	0	3	7	6	1	0	2	41	60	63	66	53	55	55	33	29	38	25	22	24	25	17	26
27	15	12	6	3	1	2	14	26	28	30	31	23	13	15	15	10	8	14	11	13	11	12	3	2	13
28	0	0	0	0	0	0	0	6	6	16	11	14	11	12	20	7	15	30	39	33	47	44	31	11	15
29	7	4	2	0	0	1	3	11	21	17	22	17	13	18	29	24	22	10	1	3	1	0	0	2	10
30	0	0	0	0	0	0	2	31	26	30	30	19	8	8	12	16	12	2	0	1	0	1	2	3	8
31	0	0	0	0	0	0	0	2	10	13	10	10	4	10	10	13	6	5	0	0	0	0	1	2	4

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----							RANGE-----				STN GEOM	PERCENT	NO. OF TIMES		
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	ABOVE	LIMIT	LEVEL		
13	12	18	12	40	59	88	105	0	-	159	1	-	60	3	100	0

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

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

STATION : CHUNG HOM KOK ZONE SUBSTATION
POLLUTANT : SULPHUR DIOXIDE

MONTH: DECEMBER

YEAR : 2019

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

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										RANGE-----		STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE	LIMIT LEVEL	
5	4	5	4	8	9	11	13	2	-	21	3	-	9	1	100	0

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

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

STATION : CHUNG HOM KOK ZONE SUBSTATION
POLLUTANT : NITROGEN DIOXIDE

MONTH: DECEMBER

YEAR : 2019

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	9	8	6	5	6	6	22	22	30	70	55	58	15	18	30	31	46	46	44	21	16	18	20	25
2	18	14	14	14	13	14	13	16	18	21	24	21	23	24	22	26	27	28	26	20	18	14	11	9	19
3	9	8	8	8	6	4	5	8	8	8	6	8	7	7	11	15	11	18	15	15	14	15	14	13	10
4	10	10	7	6	5	6	7	11	15	11	11	7	8	13	15	24	26	26	24	15	14	13	12	8	13
5	7	6	6	5	5	6	7	5	5	5	4	6	9	11	14	13	13	13	12	9	8	6	4	3	8
6	4	5	5	6	4	5	7	12	16	14	16	18	20	14	15	19	18	24	21	17	12	10	9	9	13
7	8	7	11	10	11	9	9	8	11	10	10	10	13	10	10	9	13	18	29	31	17	12	10	9	12
8	8	6	7	7	7	5	5	6	8	6	5	6	6	9	15	14	12	10	5	5	6	10	7	8	8
9	7	6	7	10	13	16	15	22	27	34	29	16	8	7	10	11	14	12	8	8	12	12	11	11	14
10	10	7	12	11	9	10	10	12	15	16	8	6	7	7	5	9	14	15	5	2	12	42	64	106	17
11	133	M	112	84	25	49	75	117	114	144	136	68	20	16	15	15	12	13	11	15	14	17	14	10	53
12	7	7	7	6	6	5	6	10	9	8	9	8	8	8	8	12	13	14	9	10	9	7	7	10	8
13	7	6	6	5	5	7	7	9	9	9	8	8	6	6	8	9	9	13	10	8	10	10	10	11	8
14	10	8	9	11	10	7	9	11	13	11	9	9	7	6	5	8	13	15	10	8	8	10	10	7	9
15	7	5	5	4	3	3	3	4	5	8	8	8	9	7	11	8	8	10	9	8	9	7	6	4	7
16	4	5	9	9	8	8	8	10	9	5	12	13	8	4	6	5	4	5	4	6	9	6	10	10	7
17	8	7	13	8	2	2	4	5	5	10	5	6	5	7	11	8	10	6	5	1	2	2	4	4	6
18	5	2	1	2	3	4	3	3	5	13	M	M	5	5	4	6	10	17	19	14	10	9	9	8	7
19	8	9	8	7	7	7	9	8	8	8	9	10	8	14	15	19	16	22	30	57	67	36	17	18	17
20	21	15	19	17	15	16	19	17	16	17	16	10	11	11	11	11	13	16	16	15	14	15	14	15	15
21	12	14	12	11	13	13	13	11	12	14	12	13	8	9	13	11	18	21	19	19	17	12	14	13	14
22	11	14	17	14	13	10	10	16	18	17	13	18	31	27	29	46	55	74	90	70	67	88	100	109	40
23	101	102	101	94	80	81	64	17	16	18	12	10	11	12	11	11	15	14	14	11	11	10	9	10	35
24	9	8	8	9	9	10	9	10	11	9	9	9	9	9	11	15	16	14	17	18	24	24	14	10	12
25	10	M	12	10	11	12	8	7	7	8	8	7	6	7	8	8	8	22	31	23	11	7	12	22	12
26	24	24	21	20	23	27	57	89	86	90	87	80	112	99	108	135	149	132	59	21	22	18	20	20	63
27	20	20	15	13	12	12	19	24	28	25	16	10	11	11	12	11	17	16	11	11	12	12	12	12	15
28	12	11	10	10	10	10	10	13	12	13	13	13	14	12	12	14	14	15	20	37	26	19	20	14	15
29	14	12	12	16	14	12	13	12	18	16	20	11	9	50	79	64	86	57	50	24	13	11	10	11	26
30	10	11	13	11	8	6	7	9	12	16	18	14	8	7	6	8	9	10	10	12	11	10	12	10	10
31	7	9	7	6	8	8	8	9	14	16	14	12	10	10	11	11	13	12	13	10	12	11	11	10	11

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----									RANGE-----				STN GEOM	PERCENT	NO. OF TIMES
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE	LIMIT LEVEL	
12	11	17	11	27	67	101	113	1	-	149	6	-	63	2	99	0

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

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

STATION : VICTORIA ROAD SUBSTATION
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2019
UNIT : MICROGRAMS/CUBIC METER

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

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----							-----RANGE-----				STN GEOM	PERCENT	NO. OF TIMES		
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE LIMIT LEVEL		
2	2	2	2	3	5	6	9	0	-	14	1	-	6	2	100	0

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

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

STATION : VICTORIA ROAD SUBSTATION
POLLUTANT : NITROGEN DIOXIDE

YEAR : 2019
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	8	7	6	6	15	15	10	13	13	18	27	31	27	29	33	30	28	41	30	22	19	14	12	7	19
2	7	6	6	5	5	5	5	7	8	9	9	10	11	11	13	15	15	15	12	10	10	9	7	9	
3	7	6	6	6	5	5	7	11	10	12	11	9	9	9	11	12	15	19	18	18	16	14	14	10	11
4	9	8	5	5	5	5	6	10	14	14	13	11	10	11	14	14	16	17	16	14	12	9	8	7	11
5	7	5	4	3	4	3	6	7	8	8	6	7	8	10	10	11	15	20	17	14	11	9	7	5	9
6	5	5	4	4	4	3	5	8	13	13	12	12	13	12	12	10	11	15	16	12	11	9	8	8	9
7	7	6	5	5	4	4	5	7	7	9	10	9	9	9	10	9	10	10	10	11	10	10	11	9	8
8	7	5	5	4	4	3	3	6	7	6	7	7	7	13	18	19	11	10	16	13	11	9	9	7	9
9	6	7	6	7	14	9	10	18	17	19	24	24	18	18	17	19	19	22	28	27	15	15	9	9	16
10	7	7	7	7	5	5	7	14	15	15	11	10	11	12	18	16	16	14	21	22	20	22	27	23	14
11	32	M	40	39	20	31	35	37	38	35	41	67	59	36	25	19	19	19	15	11	10	10	8	10	29
12	8	6	6	5	5	5	6	7	9	10	10	10	10	9	11	13	14	16	14	11	12	9	8	7	9
13	8	6	5	5	5	6	7	9	13	11	12	13	11	9	8	9	10	15	17	23	18	15	15	13	11
14	14	10	6	4	4	5	9	10	11	11	10	9	8	7	10	12	14	16	15	11	9	6	6	6	9
15	5	5	4	4	4	4	6	6	6	7	6	11	8	8	8	9	8	21	13	11	13	15	14	8	9
16	5	5	4	4	4	4	8	10	8	7	9	14	18	18	18	23	26	28	28	27	25	26	27	27	16
17	25	23	23	21	20	21	21	22	21	21	22	21	26	27	27	31	34	29	28	27	25	21	19	14	24
18	11	10	8	6	8	9	11	14	20	18	24	27	25	21	14	9	7	9	9	8	8	6	4	5	12
19	6	5	5	5	4	4	5	6	6	9	10	8	13	18	19	30	30	26	27	28	25	28	25	18	15
20	16	14	17	16	12	12	14	12	16	17	17	13	14	18	19	24	25	30	29	18	15	13	13	27	18
21	31	36	23	23	21	19	22	22	37	16	25	22	22	33	38	46	72	74	43	30	34	29	21	22	32
22	38	42	36	33	32	37	31	36	36	33	24	35	69	74	73	57	80	96	83	86	82	83	67	61	55
23	58	74	69	69	70	73	74	68	21	17	15	13	12	11	10	13	15	17	19	12	11	8	7	7	32
24	6	5	6	5	6	7	12	18	20	17	15	25	14	11	15	25	36	81	64	48	54	56	63	40	27
25	22	M	9	7	9	9	8	7	7	8	8	8	8	6	7	9	13	31	48	49	48	54	34	61	20
26	57	52	45	55	57	64	68	66	72	57	62	65	77	70	81	81	97	111	94	28	25	24	23	23	61
27	22	15	12	11	11	12	19	24	27	31	31	27	20	16	26	35	19	23	21	17	17	18	11	8	20
28	9	8	6	7	7	6	10	11	11	14	12	14	15	12	29	14	13	27	31	42	85	47	27	18	20
29	16	13	9	8	8	11	12	13	19	26	37	41	54	49	49	54	67	76	87	55	54	56	51	52	38
30	38	10	12	16	24	28	20	34	42	41	35	29	14	11	13	14	13	12	10	9	8	7	10	11	19
31	8	5	4	3	3	6	8	11	13	16	14	13	11	11	13	14	13	14	11	10	9	9	9	8	10

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										RANGE-----		STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE	LIMIT LEVEL	
14	13	19	13	41	64	76	83	3	-	111	8	-	61	2	100	0

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

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

STATION : POK FU LAM
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2019
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	2	4	4	4	7	9	6	5	2	1	2	2	0	1	2
2	0	0	0	0	0	0	0	0	0	0	0	6	9	9	8	7	10	8	4	4	2	2	1	5	3
3	1	0	0	0	0	1	1	1	1	0	0	1	2	3	3	6	4	5	4	0	1	2	1	2	1
4	1	2	1	1	0	1	0	0	0	1	1	3	2	4	4	6	7	6	7	4	8	6	5	3	3
5	7	3	6	3	3	2	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6	0	0	0	0	0	0	0	0	1	0	M	16	1	3	3	3	3	3	4	6	5	6	5	6	3
7	5	5	5	4	5	6	6	5	5	5	5	4	4	4	4	4	4	4	3	3	3	3	3	3	4
8	4	3	3	2	2	2	3	3	3	4	3	3	2	3	3	4	3	3	1	3	2	2	2	2	3
9	2	3	2	3	4	2	2	3	4	5	4	4	4	4	4	4	3	3	2	2	2	2	1	1	3
10	1	1	1	2	2	2	2	2	4	3	3	2	2	3	3	3	3	2	3	1	2	2	5	7	3
11	7	7	7	8	9	7	7	9	13	M	11	13	14	11	7	5	5	4	4	2	2	2	2	2	7
12	2	2	1	2	2	3	3	3	3	4	4	4	3	3	3	3	3	3	2	2	2	1	1	2	3
13	1	1	1	1	1	1	1	2	3	3	4	4	3	2	2	2	2	1	1	2	1	2	2	2	2
14	2	2	1	1	2	2	1	2	3	3	3	3	3	3	3	3	3	3	3	1	1	1	1	2	2
15	1	1	1	1	1	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2
16	2	2	1	1	2	2	2	2	1	1	2	2	3	7	5	4	4	6	3	4	3	4	4	4	3
17	4	4	4	4	5	4	4	5	7	6	4	5	4	8	6	9	6	6	6	8	5	3	2	3	5
18	1	1	1	1	1	1	1	3	5	6	7	6	5	7	3	2	2	4	2	1	1	1	1	1	3
19	1	1	1	1	0	0	1	0	0	0	1	1	1	1	2	3	2	1	1	2	2	2	2	3	1
20	2	2	2	2	2	2	2	2	2	4	2	2	3	4	3	3	5	9	5	2	1	1	1	2	3
21	1	1	1	0	1	1	1	1	2	4	3	2	4	3	4	5	8	6	2	2	1	1	1	2	2
22	2	2	2	2	2	1	2	6	10	8	6	6	12	11	11	11	8	9	8	7	6	6	5	8	6
23	6	8	9	7	6	8	8	9	5	5	5	3	2	2	2	2	1	1	1	1	1	1	1	1	4
24	1	1	1	1	1	1	1	1	2	2	1	2	1	1	2	3	2	4	3	2	3	2	2	3	2
25	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	2	3	3	2	2	2	2	5	2
26	4	3	3	2	2	5	5	6	9	8	9	10	14	17	16	11	8	10	8	4	3	2	2	2	7
27	2	2	1	1	1	1	2	2	4	4	5	3	3	3	3	3	3	3	2	2	2	2	1	1	2
28	1	1	1	1	1	1	1	1	2	2	2	3	3	3	5	3	2	2	3	4	3	3	2	3	2
29	3	3	3	3	2	2	2	2	3	3	1	2	2	2	2	1	2	3	5	2	2	2	2	3	2
30	2	1	1	1	1	2	1	2	3	3	2	2	2	1	1	1	1	1	1	1	0	1	1	1	1
31	1	1	1	1	1	1	1	0	1	1	M	0	0	0	0	0	0	2	0	0	0	0	0	1	1

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----							-----RANGE-----					STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR			DEVIATION	VALID DATA	ABOVE LIMIT LEVEL	
2	2	3	2	6	8	10	12	0	-	17	1	-	7	2	100	0

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

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

STATION : POK FU LAM
POLLUTANT : NITROGEN DIOXIDE

YEAR : 2019
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	23	M	23	51	98	78	54	54	44	65	76	69	71	55	90	86	80	106	103	84	87	48	38	27	66
2	24	21	21	23	21	19	23	33	35	33	33	34	35	40	45	53	59	60	55	40	37	35	30	24	35
3	20	22	22	19	17	19	27	41	47	52	42	37	37	37	35	43	65	67	55	54	51	39	35	43	39
4	35	32	20	20	21	22	34	51	53	55	41	34	32	36	49	57	70	65	62	50	34	28	26	26	40
5	23	20	15	13	13	14	14	21	27	25	22	28	32	31	33	39	44	39	37	32	32	25	20	18	26
6	17	16	15	14	14	14	21	41	52	45	45	41	35	37	37	37	43	52	67	45	37	33	33	29	34
7	33	26	22	20	19	21	21	33	40	40	39	31	29	34	33	35	40	52	55	47	52	47	47	36	36
8	27	19	19	19	16	13	17	26	24	22	26	22	18	24	29	37	24	27	46	34	21	14	16	20	23
9	26	89	48	96	86	25	38	39	58	81	65	50	36	37	44	45	57	81	75	74	54	48	38	25	55
10	24	20	22	14	24	18	27	69	60	46	30	24	19	27	39	35	32	28	54	69	74	100	101	157	46
11	138	122	115	154	51	54	105	132	147	M	126	125	90	54	38	35	38	38	33	24	48	31	21	22	76
12	18	15	13	11	11	10	13	20	25	27	21	25	29	27	32	39	45	46	34	29	26	18	18	15	24
13	14	11	10	8	10	11	16	27	38	38	36	33	30	29	25	29	34	46	53	50	74	119	82	67	37
14	72	43	15	13	14	13	15	31	34	36	32	24	20	23	30	33	35	51	54	29	34	26	17	18	30
15	15	M	11	10	11	9	11	14	22	24	22	20	22	19	21	21	21	26	21	27	25	21	32	35	20
16	34	13	9	9	8	8	13	18	19	26	28	26	44	60	60	70	89	95	70	82	98	100	95	92	49
17	92	84	75	76	77	67	73	77	79	65	52	49	53	69	67	77	86	97	97	93	81	71	67	69	75
18	49	29	15	14	25	42	39	62	62	64	57	54	52	53	33	13	15	28	24	23	25	16	14	17	34
19	16	13	13	12	11	11	12	14	22	38	29	27	34	37	65	90	83	62	78	85	75	81	67	61	43
20	48	60	49	42	38	46	46	39	42	48	35	35	37	43	54	52	63	100	82	43	29	27	29	57	48
21	66	62	48	38	26	26	35	29	48	47	49	36	54	47	64	82	112	105	61	53	49	62	48	41	54
22	52	69	57	56	56	38	57	64	59	51	41	69	128	107	110	105	110	135	141	143	138	134	103	93	88
23	97	121	122	108	110	117	115	110	56	35	29	25	23	24	27	33	38	52	48	24	22	22	21	18	58
24	19	15	16	14	15	15	19	25	38	39	36	45	26	21	27	34	42	108	110	98	96	109	101	94	48
25	41	28	17	15	18	17	16	14	15	17	16	17	16	13	13	14	22	63	88	68	65	75	83	95	35
26	96	90	85	88	68	99	97	98	95	82	84	87	111	93	114	85	87	123	95	45	43	43	50	42	83
27	40	27	23	24	24	27	41	47	48	49	50	42	42	26	42	49	42	38	37	34	28	24	23	17	35
28	16	14	13	14	14	14	16	22	21	27	26	24	22	26	53	27	22	23	28	94	85	60	35	25	30
29	22	M	22	17	15	16	17	23	34	48	37	70	79	79	82	87	110	120	124	93	90	97	83	75	63
30	30	18	16	17	30	52	42	47	62	62	51	35	23	17	25	26	28	21	24	27	21	18	21	15	30
31	13	12	10	9	11	11	11	15	22	30	M	24	23	21	25	30	29	31	19	16	15	18	19	14	19

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										RANGE-----		STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE	LIMIT	LEVEL
36	35	44	35	90	105	122	135	8	-	157	19	-	88	2	99	0

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

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

STATION : AP LEI CHAU
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2019
UNIT : MICROGRAMS/CUBIC METER

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

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----							-----RANGE-----					STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR	24-HR	DEVIATION	VALID DATA	ABOVE	LIMIT	LEVEL		
2	2	3	2	6	7	10	13	0	-	26	1	-	9	2	99	0

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

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

STATION : AP LEI CHAU
POLLUTANT : NITROGEN DIOXIDE

YEAR : 2019
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	4	2	0	17	25	20	29	35	58	65	69	52	44	39	44	44	50	41	41	59	22	19	15	33
2	8	1	1	1	1	1	7	12	16	16	18	23	17	17	26	29	40	38	21	20	14	13	14	16	15
3	11	9	7	7	5	6	12	27	37	30	18	8	11	3	11	29	34	47	40	33	31	23	18	30	20
4	25	18	11	7	8	11	18	34	39	37	32	26	24	23	22	25	39	40	42	31	19	18	20	18	24
5	9	3	5	3	4	3	2	4	6	4	3	6	12	19	18	16	22	19	15	15	12	11	5	8	9
6	4	3	3	2	1	4	10	18	26	25	27	22	23	19	21	24	30	27	39	25	22	19	17	17	18
7	14	11	10	8	6	7	11	18	17	20	27	26	26	28	26	22	31	30	28	37	39	34	27	20	22
8	15	12	9	10	7	11	16	22	19	16	11	12	19	21	9	14	6	3	5	15	17	18	23	17	14
9	13	14	23	27	31	16	17	32	38	49	49	M	0	4	9	3	10	1	7	4	14	5	0	3	16
10	1	1	1	1	1	1	5	15	13	2	0	0	0	0	0	1	8	11	8	11	57	57	73	72	14
11	90	M	123	136	114	68	115	125	120	119	102	104	54	16	2	1	1	1	1	1	3	1	1	1	56
12	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
13	1	1	1	1	1	1	1	1	0	0	0	M	M	0	0	0	0	18	21	19	27	11	5	6	5
14	4	1	1	1	1	1	1	3	2	3	1	2	0	0	0	0	1	1	1	2	5	1	1	0	1
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	1	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	5	0	4	59	64	7	6	22	4	2	0	0	53	9
17	28	12	48	18	0	3	8	20	17	38	42	46	56	42	36	48	19	0	0	0	13	13	13	3	21
18	12	18	6	3	0	0	3	4	41	52	48	32	10	0	0	0	0	1	5	0	0	0	0	0	10
19	0	0	0	0	0	0	0	0	0	9	4	0	3	12	7	55	63	17	37	60	59	48	33	12	17
20	1	4	7	3	4	1	4	12	17	2	1	1	0	1	1	0	1	4	1	0	0	1	0	2	3
21	2	7	5	5	0	0	4	8	4	1	2	3	0	15	31	42	87	73	30	6	10	1	12	8	15
22	25	16	14	29	13	9	13	26	23	14	3	19	67	47	33	27	66	82	106	97	74	81	85	85	44
23	64	79	89	88	85	85	89	24	0	0	0	0	0	0	0	0	1	3	2	0	0	0	0	0	25
24	0	0	0	0	0	0	0	4	2	0	0	0	M	0	0	2	12	41	9	0	0	22	14	1	5
25	1	M	1	1	1	1	1	1	1	0	0	0	0	0	0	1	2	6	21	24	15	49	63	52	10
26	65	66	67	70	62	78	76	84	71	74	70	78	95	73	86	87	111	113	128	32	20	21	20	19	69
27	13	7	2	0	0	2	7	22	22	23	23	21	6	0	1	1	0	0	0	0	3	4	0	1	7
28	1	1	1	1	1	1	1	1	1	0	2	2	1	0	0	1	3	12	21	26	37	36	10	5	7
29	2	2	1	1	1	1	1	3	8	7	9	11	57	69	67	60	84	93	88	44	49	34	1	0	29
30	0	0	0	2	5	3	3	17	7	10	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
31	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----									RANGE-----				STN GEOM	PERCENT	NO. OF TIMES
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE	LIMIT LEVEL	
10	5	17	5	52	74	94	114	0	-	136	0	-	69	4	99	0

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

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

STATION : CHEUNG CHAU
POLLUTANT : SULPHUR DIOXIDE

YEAR : 2019
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	6	6	7	7	7	7	8	9	9	9	9	11	11	11	12	11	10	13	16	14	12	11	10
2	11	10	11	12	11	10	9	8	8	8	8	8	8	9	9	9	10	10	9	8	8	9	10	10	9
3	11	10	11	11	11	10	10	10	10	10	10	10	10	11	10	10	10	9	10	11	11	10	11	11	10
4	10	9	11	12	13	13	12	13	12	12	11	12	12	12	12	12	11	12	11	13	12	12	12	13	12
5	13	13	12	14	13	13	11	13	9	8	6	6	7	7	8	9	9	9	8	8	8	8	8	9	10
6	10	12	13	11	11	12	12	13	12	12	11	11	11	11	10	10	12	11	11	12	13	13	13	13	12
7	13	13	12	12	12	12	12	12	12	12	11	11	11	10	10	9	10	9	9	9	9	9	8	9	11
8	10	10	10	9	8	8	9	10	10	10	10	10	10	10	10	10	10	10	9	9	9	8	8	7	9
9	6	6	7	7	7	7	8	7	8	9	10	11	11	11	11	10	9	9	8	8	9	8	7	7	8
10	6	7	7	7	7	7	7	7	9	11	10	9	9	11	11	9	8	8	10	10	8	8	8	9	8
11	12	15	14	16	17	17	14	14	16	17	17	17	18	20	17	19	19	14	12	12	10	9	7	8	15
12	7	8	6	8	6	9	8	9	8	8	9	10	10	9	9	11	9	9	8	8	7	7	7	7	8
13	8	8	7	7	8	8	8	7	11	12	12	12	9	8	8	8	8	8	7	7	6	6	6	6	8
14	6	6	6	6	6	6	6	6	7	8	8	9	9	8	8	9	8	8	7	6	7	7	6	9	7
15	8	7	6	6	6	6	6	6	6	6	10	8	8	8	8	7	7	7	7	7	7	7	8	9	7
16	8	7	7	7	7	7	7	7	8	8	7	7	8	8	9	9	9	8	10	8	7	7	8	7	8
17	7	8	7	7	7	8	7	7	8	9	10	14	21	16	16	12	9	9	8	7	8	9	7	10	9
18	7	7	7	8	7	8	8	8	8	11	12	11	11	11	10	9	8	10	9	7	7	6	6	9	9
19	6	6	6	5	5	5	5	5	5	5	6	6	7	7	14	13	9	8	9	10	10	9	8	8	7
20	8	8	7	7	7	7	7	7	8	9	10	10	M	M	M	4	4	4	3	3	2	3	2	2	6
21	2	2	2	2	3	3	3	2	3	4	4	5	4	5	5	4	5	5	4	3	3	3	2	2	3
22	2	3	3	4	4	5	5	5	5	5	6	4	8	11	13	11	10	6	5	4	4	3	4	4	6
23	5	6	8	8	9	8	9	10	5	5	7	7	4	4	4	4	4	3	3	2	2	2	2	2	5
24	2	2	2	2	2	2	2	2	2	2	3	3	M	3	4	4	6	5	8	8	6	5	5	4	4
25	4	3	4	4	4	5	4	4	3	3	3	3	3	4	5	3	4	3	4	4	4	4	3	3	4
26	3	4	4	5	5	5	5	5	7	9	9	11	10	11	16	17	14	10	10	7	5	5	5	4	8
27	4	4	4	3	3	3	3	3	4	4	4	4	5	5	6	5	4	4	4	5	5	4	3	3	4
28	2	3	3	3	3	3	3	3	6	6	6	5	5	6	6	7	6	6	9	9	10	9	5	5	5
29	6	6	7	6	6	6	5	5	5	4	4	4	4	4	4	3	4	4	3	3	4	3	3	3	4
30	2	2	2	3	3	3	4	4	4	4	5	6	5	4	3	3	3	2	2	2	2	2	2	2	3
31	2	2	2	2	1	2	2	2	2	3	3	2	2	2	3	2	2	2	4	4	3	4	3	3	2

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										RANGE-----				STN GEOM	PERCENT	NO. OF TIMES
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE	LIMIT	LEVEL	
7	8	7	8	12	13	16	17	1	-	21	2	-	15	2	99	0	

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

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

STATION : CHEUNG CHAU
POLLUTANT : NITROGEN DIOXIDE

YEAR : 2019
UNIT : MICROGRAMS/CUBIC METER

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN
1	22	27	35	50	56	71	45	58	58	58	29	29	21	33	37	32	39	41	30	53	84	47	47	35	43
2	38	38	31	30	29	33	32	29	24	27	27	30	31	33	33	34	39	47	44	40	33	28	30	23	33
3	19	17	18	18	16	18	25	35	32	48	46	36	35	37	35	41	40	48	67	68	67	47	53	38	38
4	42	35	22	20	21	24	25	35	34	47	37	39	42	40	38	47	42	61	60	66	49	49	46	47	40
5	32	34	28	28	20	29	31	17	24	34	19	26	35	31	35	38	42	41	41	41	39	32	25	25	31
6	25	23	25	22	20	20	26	45	48	43	42	44	52	44	41	45	69	61	70	60	44	34	35	32	40
7	28	37	42	37	26	39	52	52	48	53	46	45	51	42	30	35	50	45	65	59	51	43	34	30	43
8	34	29	35	27	20	22	37	40	30	50	38	35	29	27	29	21	26	28	26	27	19	12	11	46	29
9	49	50	57	45	32	47	51	44	71	73	66	70	64	64	53	29	19	24	16	16	33	54	52	50	47
10	19	17	19	34	36	48	69	87	80	92	58	11	8	10	14	17	12	11	20	22	57	124	62	147	45
11	138	M	173	143	105	113	113	129	117	108	81	90	85	67	35	48	57	20	14	22	38	43	41	38	79
12	19	27	14	19	12	18	11	15	13	21	14	18	14	13	16	23	20	25	26	28	20	22	17	14	18
13	22	25	23	26	28	23	25	19	38	39	33	29	11	9	7	7	10	18	20	21	14	18	14	37	22
14	83	23	40	35	23	16	22	34	25	51	48	38	28	7	8	12	13	17	15	10	22	19	16	30	26
15	19	19	15	11	19	19	22	22	16	16	34	24	23	42	21	28	39	42	39	93	45	47	19	34	30
16	13	15	24	20	21	52	18	22	50	54	62	69	52	31	42	44	42	27	44	45	12	21	41	89	38
17	100	88	70	48	64	90	62	68	83	97	69	77	79	80	80	77	45	76	82	69	67	90	89	52	75
18	64	72	79	82	81	77	77	72	66	78	75	71	47	30	25	13	5	12	23	24	15	18	17	28	48
19	16	15	14	14	14	12	14	14	22	53	53	28	23	33	88	90	89	86	93	92	90	69	56	70	48
20	63	59	52	50	42	42	46	47	42	55	60	41	M	M	M	19	19	22	22	17	19	21	26	38	38
21	66	65	53	52	52	61	66	60	59	49	62	46	25	19	20	35	35	43	26	25	23	26	23	37	43
22	67	76	87	93	97	99	106	96	71	43	27	36	85	92	125	126	120	64	49	38	42	42	79	78	77
23	96	114	120	115	114	107	116	120	47	27	27	21	10	13	16	20	21	26	22	13	13	11	10	16	51
24	17	18	15	17	21	13	13	16	25	18	35	40	M	19	16	17	29	69	82	82	47	40	58	15	31
25	12	M	29	16	20	20	16	23	13	29	21	12	7	11	9	5	8	12	53	73	40	34	73	87	27
26	84	94	102	108	91	112	95	78	84	81	81	96	90	69	92	84	77	84	86	58	40	42	44	44	80
27	43	37	33	30	24	21	24	27	26	31	29	37	38	41	45	29	16	19	14	36	29	17	21	20	29
28	18	18	21	13	14	21	22	18	23	21	25	26	43	34	16	15	18	79	153	139	136	153	51	26	46
29	27	33	36	48	30	47	33	41	42	37	74	65	62	59	67	64	81	104	94	88	80	50	65	15	56
30	20	15	19	50	43	61	69	61	53	64	59	64	49	13	11	16	11	9	11	19	20	23	19	33	34
31	27	13	18	14	15	16	14	16	20	25	25	18	18	19	26	16	18	27	55	41	23	24	21	25	22

MONTHLY STATISTICS:

GEOM	ARITH-----PERCENTILES-----										RANGE-----		STN GEOM	PERCENT	NO. OF TIMES	
MEAN	MEDIAN	MEAN	50	90	95	98	99	1-HR		24-HR		DEVIATION	VALID DATA	ABOVE	LIMIT LEVEL	
34	35	42	35	82	95	118	133	5	-	173	18	-	80	2	99	0

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