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Nagarjuna Fertilizers
and Chemicals Limited

NFCL/ENV/APPCB/MR/03/2017

10th April 2017

To,

Member Secretary,
A.P. Pollution Control Board,
Paryavarana Bhavan,
A-3, I.E., Sanath Nagar,
Hyderabad – 500 018.

Subject : Monthly Progress Report

Dear Sir,

The Monthly Progress Report for the month of March 2017 along with the necessary documents enclosed at Annexure A, Annexure B and Annexure C is being forwarded for your kind perusal.

Thanking you,

Your's sincerely
for NAGARJUNA FERTILIZERS AND CHEMICALS LIMITED

G V S Anand

G V S Anand
Senior General Manager (Operations)

Encl.: a/a

Cc: Environmental Engineer,
A.P. Pollution Control Board,
Plot No. 2, IDA,
Ramanayyapeta,
Kakinada – 533 005

→ [C: DGM (LAB & ENVT.) / MANAGER (ENVT.)

OVERALL REVIEW

1.0 STATUS OF THE CONSENTS

- 1.1 The existing Consent for Operations has been granted by APPCB to NFCL for Air and Water Consent and Hazardous Waste, vide authorization order, dated: 28.02.2017.
- 1.2 The above consent is granted for Plant I, II, CDR and CF Plant, and is valid up to 31st March 2022.
- 1.3 Hazardous Waste Annual Returns (Form - 4) for the year 2015 - 16 were submitted to Member Secretary, APPCB, Hyderabad on 10th June 2016.
- 1.5 Environmental Statement (Form - V) for the year 2015-16 was submitted to Member Secretary, APPCB, Hyderabad on 23rd September 2016.
- 1.6 Consent for Establishment for the proposed Project-3 was granted by APPCB on 10th April 2013 and it is valid for 5 years.

2.0 STATUS OF BIO-MEDICAL WASTE AUTHORIZATION

- 2.1 The existing Bio-Medical waste (Management and Handling) Authorization has been granted by APPCB to NFCL vide order no. HCE/KKD-75/PCB/RO-KKD/BMWA/2017-2333, dated: 03.03.2017.
- 2.2 The above Bio-Medical waste (Management and Handling) Authorization is granted for a capacity of 3 beds in Occupational Health Center and is valid up to 31st March 2022.
- 2.3 Bio-Medical Waste Annual Report (Form-II) for the year 2015 was submitted to Member Secretary, APPCB, Hyderabad on 18th January 2016.

3.0 STATUS OF WATER CESS

- 3.1 Water consumption figures (including CF Plant) were submitted to APPCB for Cess for the month of March 2017 vide letter no. NFCL/ENV/APPCB/WC/03/2017, dated 4th April 2017.
- 3.2 Payment against water Cess assessment Order No. SAP/KKD/3/CESS/2016-, dated 25th February 2017 for the period, 1st November 2014 to 31st January 2017 was forwarded to M/s APPCB, Hyderabad on 23rd March 2017.

4.0 STATUS OF EC COMPLIANCE

- 4.1 Environmental Clearance for the proposed Project-3 of NFCL was accorded by MoEF & CC, New Delhi on 18.12.2012 and it is valid for 7 years, upto 17.12.2019.
- 4.2 Six monthly EC compliance report was submitted to MoEF & CC on 30th November 2016 and soft copy of the same was uploaded in NFCL website at www.nagarjunafertilizers.com/ehs_eccr_042016_092016.htm.

5.0 STATUS OF ENVIRONMENT MONITORING

5.1 LIQUID EFFLUENTS

- A. Effluent Treatment Plant is in continuous operation since its commissioning. Instruments for online monitoring of pH, flow rate and Ammonical nitrogen were installed in the outlet of treated effluent.
- B. Data recorded by online monitoring instruments of pH and flow rate is being communicated to APPCB on daily basis (by email) since 24th March 2015.
- C. The data recorded by online monitoring instrument of Ammonical Nitrogen is being communicated to APPCB on a daily basis (by email) since 29th June 2015.

D. The qualitative analysis and quantity of treated effluent for the month of March 2017 is included in Annexure - A (1 no. of pages). The entire quantity of treated effluent is used for the development and sustenance of green belt.

5.2 SOLID & LIQUID WASTES

The raw water turbidity was around 16 NTU (average) during the month of March 2017 and the fertile sludge generated from the raw water pre treatment plant has been used for filling of low lying areas in green belt.

4.815 MT of CDR Reclamation Waste was disposed ON 31ST March 2017 to a vendor who has been authorized by M/s APPCB. White copy of the Manifest (Form – 10) is attached at Annexure-D (1 no. of pages) for your reference.

5.3 AIR QUALITY

- A. All measures for air pollution control have been incorporated for Plant-I, Plant-II & CF Plant and they are functioning satisfactorily.
- B. PM_{2.5} values in ambient air were 14.7 to 24.7 µg/m³ during this month in our complex.
- C. SPM values in Flue Gas stacks were in the range of 1.4 to 15.0 mg/Nm³. Please refer Annexure – B (2 nos. of pages) and Annexure – C (5 nos. of pages) for analysis reports.
- D. Automatic Ambient Air Monitoring Station No. 1 to APPCB website was connected on 28th February 2011 for online monitoring.
- E. Connectivity of Automatic Ambient Air Monitoring Station No. 4 & 5 to APPCB website is under progress.
- F. SPM Analyzer (CFG Plant Stack) has been installed and the data is being uploaded to APPCB and CPCB server.

5.4 METEOROLOGICAL MANAGEMENT

Wind velocity, wind direction, rainfall, temperature, humidity and barometric pressure are continuously monitored.

6.0 STATUS OF ENVIRONMENT IMPACT ASSESSMENT

- 6.1 EIA Report was submitted to APPCB vide Letter No.031/0033/NHOT/8220 on 29th July 1991.
- 6.2 Rapid Environment Impact Assessment Study for the Plant-I and Plant-II was carried out from the month of April 1994 to July 1994 and report was submitted to the Board vide letter dated 8th August 1994.
- 6.3 Rapid Environment Impact Assessment Study for the Conversion of Unit-II operations from Naphtha to Natural Gas, Installation of CDR Plant, De-bottlenecking of Unit-I & II was carried out from the month of December 2006 to March 2007 and report was submitted to the Board on 13th August 2007.
- 6.4 Environment Impact and Risk Assessment Report for the proposed fertilizer Project - 3 was carried out from the month of December-2010 to February-2011 and EIRA report was submitted to the APPCB, Kakinada on 28th June 2011. Public Hearing was conducted by APPCB on 17th August 2011.

7.0 STATUS OF DISASTER MANAGEMENT PREPAREDNESS

As a part of On-site Emergency Preparedness, Level-II Emergency mock drill was conducted on 28th February 2017 at 15.15 hours in Urea-1, assuming ammonia leak from P-101. Members of Godavari EHS Association witnessed the emergency drill.

8.0 STATUS OF CONDITIONS STIPULATED BY APPCB / CPCB

- 8.1 Conditions stipulated by APPCB were adhered to, before commissioning of Plant-I in July 1992.
- 8.2 Conditions stipulated by APPCB and MoEF & CC were adhered to, before starting commercial production in Plant-II on 19th March 1998.
- 8.3 All the systems continue to perform well within the norms. For details of conditions, please refer to our earlier reports.
- 8.4 Five Automatic unmanned Ambient Air Monitoring Stations are in working condition.

9.0 STATUS OF GREEN BELT

- A. No. of sapling planted in the month of March 2017 = Nil.
(As mortality replacements and strengthening of Weaker areas)
- B. No. of saplings planted to date (including mangrove Plant and mass plantation) = 4, 00,000 Nos.

LIQUID EFFLUENT ANALYSIS FOR THE MONTH OF MARCH – 2017

Annexure – A

Page 1 of 1

Date	pH	Color	Temp °C	TSS	TDS	Amm. Nitrogen	Free Amm	Nitrates	BOD	COD	Oil & Grease	Phosphate as P	Chloride as Cl	TKN	Effluent Generation m ³	Raw water Consumption m ³
1	7.2	Colorless	22.0			26.8	< 2.0	6.4			3.4	0.5	386	54.0	2365	16472
2	6.8	-do-	20.5			28.0	< 2.0	6.6			3.6	0.7	392	56.0	1511	18401
3	7.0	-do-	20.0			26.0	< 2.0	6.3			3.2	0.6	314	52.0	2272	24288
4	7.5	-do-	21.5			26.5	< 2.0	6.8			3.4	0.8	378	53.0	2215	23406
5	6.7	-do-	25.0			26.0	< 2.0	6.4			3.4	0.5	390	52.0	2533	23921
6	6.9	-do-	24.5	46	1508	26.8	< 2.0	6.8	16	42	3.8	0.7	304	53.0	2128	23602
7	6.8	-do-	25.5			25.2	< 2.0	6.2			3.4	1.0	320	50.0	736	23066
8	7.3	-do-	26.5			24.8	< 2.0	6.4			3.2	0.8	316	50.0	1859	23885
9	6.7	-do-	26.0			26.0	< 2.0	6.6			3.5	0.6	302	52.0	2349	23970
10	7.3	-do-	23.0			28.4	< 2.0	6.3			3.7	0.9	308	56.0	2526	23715
11	7.0	-do-	25.0			28.9	< 2.0	6.0			3.6	0.7	316	58.0	1637	23750
12	6.9	-do-	26.0			27.8	< 2.0	6.4			3.4	1.1	312	58.0	2117	23765
13	7.8	-do-	25.5	42	1599	28.4	< 2.0	6.8	18	38	3.2	0.8	374	56.0	2288	23752
14	7.7	-do-	26.0			30.0	< 2.0	6.3			3.6	1.0	302	60.0	1971	23877
15	8.0	-do-	24.5			27.8	< 2.0	6.1			3.4	0.8	408	55.0	2000	23646
16	7.8	-do-	25.5			27.8	< 2.0	6.5			3.8	0.7	446	55.0	2286	23700
17	8.0	-do-	26.5			27.0	< 2.0	6.2			3.6	0.9	422	54.0	1803	23359
18	7.9	-do-	26.0			25.2	< 2.0	6.6			3.1	0.6	434	50.0	2496	23484
19	7.8	-do-	26.5			26.9	< 2.0	6.4			3.2	0.7	398	54.0	519	23557
20	8.0	-do-	26.0	40	1697	27.8	< 2.0	6.8	17	42	3.4	0.8	436	56.0	2313	23680
21	8.0	-do-	25.5			27.2	< 2.0	6.5			3.3	0.6	462	54.0	2390	24586
22	7.8	-do-	25.5			26.5	< 2.0	6.3			3.7	0.5	454	53.0	2538	23650
23	7.9	-do-	25.5			27.0	< 2.0	6.5			3.4	0.7	470	54.0	2042	23310
24	8.0	-do-	25.0			26.3	< 2.0	6.8			3.6	1.1	458	52.0	1830	24011
25	7.1	-do-	26.5			27.1	< 2.0	6.6			3.2	0.8	416	54.0	2313	23797
26	7.2	-do-	26.5			28.8	< 2.0	6.5			3.4	0.9	424	58.0	2559	21118
27	7.8	-do-	25.5	42	1697	28.0	< 2.0	6.2	20	44	3.0	0.7	430	56.0	2067	23780
28	7.8	-do-	24.5			26.7	< 2.0	6.4			3.3	0.5	472	53.0	2502	23158
29	7.1	-do-	26.5			27.1	< 2.0	6.6			3.4	0.8	416	54.0	2498	24139
30	7.7	-do-	26.0			27.8	< 2.0	6.8			3.6	0.6	440	56.0	2441	23846
31	7.0	-do-	25.5			28.0	< 2.0	6.5			3.7	0.7	452	56.0	1255	23750

Note: (1) All parameters except Temperature, Colour & pH, are expressed in mg/liter.

(2) The other parameters included in the CFO are:

Cyanide - ND, Vanadium - 0.01 mg/L, Arsenic - ND, Hexavalent Chromium - < 0.01 mg/L and

Total Chromium - < 0.01 mg/L.

Point of collection of samples is Holding Pond and outlet of Holding pond is pumped to Green Belt for irrigation.

FLUE GAS ANALYSIS FOR MARCH - 2017

Date	PLANT- I				PLANT- II	CFG PLANT
	Reformer stack F-(201 +202) (Against Chimney No. 20)	HRSG A (Chimney No. 4)	HRSG B (Chimney No. 5)	Boiler Stack (Chimney No. 3)	HRSG C (Chimney No. 14)	CFG Stack (Chimney No. 21)
	SPM (mg/Nm ³)	SPM (mg/Nm ³)	SPM (mg/Nm ³)	SPM (mg/Nm ³)	SPM (mg/Nm ³)	SPM (mg/Nm ³)
01.03.17	8.0	Under S/D	11.0	11.0	9.0	2.7
08.03.17	10.0	6.0	9.0	9.0	11.0	1.4
15.03.17	9.0	9.0	12.0	12.0	10.0	5.0
22.03.17	6.0	10.0	10.0	10.0	15.0	6.8
29.03.17	11.0	7.0	9.0	13.0	12.0	11.5

OUTSIDE AMBIENT AIR MONITORING FOR MARCH - 2017

Date	Location	SO ₂	NO _x	NH ₃	PM ₁₀	PM _{2.5}
		µg/m ³	µg/m ³	µg/m ³	µg/m ³	µg/m ³
02.03.17	KVK Training Centre (Gandhi Nagar)	11.9	9.1	7.5	65.9	22.5
02.03.17	Guest House (Shanti Nagar)	12.5	12.1	9.3	72.4	20.5
09.03.17	KVK Training Centre (Gandhi Nagar)	9.8	11.6	8.2	65.9	21.2
09.03.17	Guest House (Shanti Nagar)	12.1	13.5	6.2	62.4	20.3
16.03.17	KVK Training Centre (Gandhi Nagar)	11.6	10.8	7.5	66.5	19.6
16.03.17	Guest House (Shanti Nagar)	13.4	9.2	5.9	67.1	18.8
23.03.17	KVK Training Centre (Gandhi Nagar)	11.4	11.0	6.6	69.5	20.3
23.03.17	Guest House (Shanti Nagar)	9.3	12.4	8.1	70.1	20.9
30.03.17	KVK Training Centre (Gandhi Nagar)	11.4	14.1	9.2	68.7	21.9
30.03.17	Guest House (Shanti Nagar)	11.2	12.4	6.8	71.1	18.5
30.03.17	Near Coringa	16.5	24.2	1.5	62.1	17.9
30.03.17	Godarigunta	12.4	13.4	6.8	55.2	18.2
23.03.17	Akshara School	11.8	15.7	2.1	49.5	21.4

UREA PRILL TOWER DUST ANALYSIS FOR MARCH – 2017

Plant	Date	Dust		Plant	Date	Dust	
		mg/Nm ³	Kg/MT			mg/Nm ³	Kg/MT
I (Chimney No. 6)	07.03.17	19.9	0.139	II (Chimney No. 15)	07.03.17	23.4	0.169
	14.03.17	22.5	0.157		14.03.17	24.6	0.177
	21.03.17	21.9	0.152		21.03.17	18.5	0.133
	28.03.17	20.8	0.144		28.03.17	19.7	0.141

NOISE LEVELS FOR MARCH – 2017

Location	Description	Sound Level dB(A)	
		Day time (limit 75)	Night time (limit 70)
1	Gate house (North West side)	46.2	48.5
2	North East corner (Behind ETP)	51.0	52.2
3	South East corner (Security East gate)	52.1	48.5
4	Rail gate, boundary wall (South West side)	41.8	46.4

AMBIENT AIR MONITORING STATION NO. I

Date	SO ₂ µg/m ³			CO µg /m ³			NO _x µg/m ³			NH ₃ µg/m ³			PM ₁₀ µg/m ³		
	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1	0.8	19.2	9.6	0.2	0.5	0.3	0.6	11.3	4.7	15.2	20.4	15.2	16.3	32.1	20.5
2	1.6	20.1	10.3	0.3	0.4	0.4	1.4	14.8	4.9	15.7	25.0	18.1	22.3	37.8	30.2
3	2.3	15.9	10.3	0.3	0.6	0.4	1.9	15.4	5.5	15.5	22.6	18.0	20.6	46.8	31.4
4	1.5	18.2	10.0	0.3	0.4	0.4	5.9	12.3	8.1	16.4	25.9	18.5	15.6	37.7	25.4
5	4.4	15.4	10.4	0.2	0.5	0.3	6.8	10.9	8.7	15.4	20.1	17.1	5.4	20.4	13.1
6	4.6	15.0	10.4	0.2	0.4	0.3	9.5	11.4	10.3	15.4	17.3	16.2	3.2	11.7	8.5
7	3.6	15.2	10.3	0.2	0.3	0.3	8.5	13.6	11.3	11.6	24.6	18.6	2.7	16.5	9.1
8	3.9	14.7	9.5	0.2	0.5	0.3	7.1	12.8	10.9	16.0	26.6	17.8	3.2	9.4	6.5
9	3.2	15.9	9.6	0.2	0.3	0.3	8.6	11.7	10.6	15.6	20.1	16.9	3.7	14.9	10.1
10	1.8	13.8	9.4	0.3	0.4	0.3	6.7	23.4	11.7	15.1	50.8	20.6	4.1	13.9	9.4
11	7.3	14.1	10.2	0.2	0.4	0.3	10.8	12.2	11.6	15.8	16.9	16.3	6.4	13.8	8.0
12	7.3	15.2	10.2	0.2	0.4	0.3	10.8	14.0	11.6	15.8	21.2	16.3	6.4	16.9	10.2
13	2.4	23.1	12.2	0.2	0.5	0.3	10.9	16.9	13.6	15.9	33.5	21.4	4.6	17.5	11.8
14	2.4	16.6	9.9	0.1	0.4	0.3	10.8	20.6	13.1	15.9	48.2	20.2	4.4	19.9	11.0
15	4.0	18.4	9.9	0.1	0.9	0.3	10.6	17.2	12.4	15.2	27.0	18.5	6.6	22.3	13.1
16	2.6	19.1	9.9	0.2	0.4	0.3	10.4	12.6	11.3	15.4	17.5	16.4	9.2	17.7	12.6
17	6.0	55.4	13.5	0.2	0.4	0.3	10.5	13.0	11.5	15.2	17.8	16.0	12.8	24.2	16.8
18	5.1	14.3	10.0	0.2	0.4	0.3	10.8	12.5	11.3	15.2	19.6	16.0	12.0	22.2	17.4
19	3.6	16.1	10.7	0.3	0.5	0.3	10.2	12.8	11.5	14.7	19.9	16.5	16.6	23.1	20.0
20	4.7	14.4	9.2	0.2	0.5	0.3	10.6	12.3	11.2	14.9	18.0	15.9	16.4	28.0	21.1
21	1.7	21.7	11.0	0.2	0.9	0.4	10.7	16.0	12.5	14.6	25.8	18.5	14.9	28.1	21.2
22	1.8	23.7	9.7	0.0	0.6	0.3	11.9	17.3	13.8	16.0	27.2	19.5	11.6	26.7	18.6
23	1.8	20.3	11.2	0.1	0.4	0.3	10.7	13.5	11.6	15.1	28.3	16.7	14.4	27.4	19.5
24	3.6	17.5	10.1	0.1	0.7	0.3	10.2	12.9	11.3	14.7	17.3	15.6	16.2	25.6	20.8
25	5.1	16.6	11.3	0.2	0.4	0.3	11.4	17.3	13.1	15.6	24.8	17.6	18.3	25.4	22.2
26	4.9	15.4	9.7	0.2	0.4	0.3	10.9	12.7	11.8	15.3	18.0	16.2	14.2	26.2	20.8
27	3.6	15.9	9.3	0.1	0.6	0.3	9.8	12.4	10.6	14.4	17.0	15.2	11.8	23.1	17.5
28	6.1	15.6	10.3	0.1	0.5	0.3	10.0	12.2	10.8	14.1	16.6	15.1	10.4	17.7	12.7
29	3.5	14.4	9.3	0.0	0.5	0.3	9.9	12.1	10.7	13.9	16.1	15.0	8.7	15.6	10.9
30	3.2	13.3	9.2	0.1	0.5	0.3	10.1	11.6	10.7	14.2	15.7	15.0	6.7	12.0	9.6
31	4.9	16.3	10.7	0.1	0.5	0.3	9.3	11.7	10.6	14.2	15.6	14.8	7.1	12.6	9.4

AMBIENT AIR MONITORING STATION NO. II

Date	SO ₂ µg/m ³			CO µg /m ³			NO _x µg/m ³			NH ₃ µg/m ³			PM ₁₀ µg/m ³		
	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1	2.2	19.7	7.1	0.1	0.3	0.2	2.3	15.3	9.5	3.2	20.2	11.5	20.2	76.2	61.6
2	1.9	21.5	11.5	0.0	0.2	0.1	1.6	18.9	8.6	2.7	15.5	10.8	25.9	78.7	58.7
3	2.1	15.9	10.2	0.0	0.3	0.2	1.0	10.0	2.5	2.5	12.9	10.5	31.6	77.4	52.0
4	2.6	20.3	9.6	0.2	0.5	0.3	1.6	16.4	6.5	2.5	15.6	7.6	20.4	63.8	51.4
5	3.2	17.8	11.9	0.0	0.4	0.2	2.0	17.8	8.1	1.8	7.8	2.9	26.3	84.1	62.6
6	1.5	15.0	2.4	0.1	0.4	0.3	2.5	16.3	6.4	1.0	9.1	4.3	24.5	87.9	59.4
7	2.4	19.2	10.2	0.1	0.5	0.2	1.3	12.9	9.5	2.1	15.7	8.9	26.9	72.3	53.8
8	1.6	12.4	7.6	0.1	0.4	0.2	2.0	13.5	7.5	1.8	15.8	12.3	30.7	77.9	58.1
9	2.2	17.8	9.5	0.1	0.5	0.3	1.2	12.4	7.8	10.6	17.2	15.4	21.5	68.0	49.7
10	1.0	14.6	8.7	0.2	0.5	0.4	2.6	16.0	5.9	6.5	18.5	15.2	16.8	65.7	53.6
11	2.8	16.1	7.6	0.2	0.5	0.3	2.4	13.3	9.2	11.2	14.7	13.4	21.4	75.2	50.2
12	3.8	15.9	11.4	*	*	*	3.1	18.2	12.3	2.7	21.1	10.8	10.6	51.4	31.4
13	1.0	12.5	4.1	*	*	*	3.3	13.5	9.9	13.0	20.0	15.9	11.2	49.8	16.5
14	2.6	15.8	11.0	*	*	*	2.4	15.9	8.4	12.8	17.9	15.4	21.1	64.2	47.2
15	1.7	17.1	6.0	*	*	*	2.2	13.8	7.0	8.5	15.6	13.4	11.7	72.1	55.6
16	2.2	12.7	8.1	0.1	0.4	0.2	1.9	9.5	4.5	7.8	14.7	11.5	14.3	64.5	49.8
17	0.8	11.6	6.5	0.0	0.7	0.5	1.4	12.4	6.3	9.6	18.4	16.0	21.8	71.1	61.8
18	1.9	10.9	5.9	0.1	0.3	0.2	2.5	15.9	7.9	11.2	20.6	15.8	20.5	75.3	62.3
19	1.6	9.7	6.2	0.0	0.6	0.3	1.7	13.7	5.2	10.7	14.5	11.4	18.3	62.2	41.5
20	2.4	13.4	8.8	0.1	0.5	0.4	0.8	16.1	8.4	8.4	15.2	12.5	17.4	56.7	49.2
21	1.9	16.9	9.6	0.1	0.3	0.2	1.4	12.4	9.3	9.6	18.4	16.4	20.6	66.8	50.4
22	2.3	19.6	10.8	0.1	0.3	0.2	2.5	15.9	5.9	11.0	20.6	15.8	12.6	57.4	36.7
23	2.5	20.3	15.6	0.0	0.5	0.1	2.9	18.7	11.2	8.7	15.4	12.0	18.3	66.8	42.1
24	1.3	14.8	9.9	0.1	0.4	0.2	0.8	16.1	8.4	10.1	15.2	14.9	15.8	62.3	36.2
25	1.7	18.1	6.7	0.0	0.3	0.1	1.9	9.5	6.7	13.0	15.6	14.0	23.1	74.9	45.7
26	1.9	16.7	10.3	0.1	0.5	0.2	3.5	16.7	9.5	5.9	20.0	12.5	21.7	68.6	50.3
27	2.1	15.2	7.2	0.1	0.6	0.3	2.6	15.9	8.3	4.6	21.8	16.2	20.3	73.7	53.3
28	2.2	14.1	6.8	0.1	0.4	0.1	2.4	13.8	7.0	8.4	15.6	12.5	19.5	75.9	59.4
29	2.9	25.3	11.3	0.0	0.3	0.1	1.9	12.4	9.5	4.1	17.6	15.9	10.3	79.3	56.7
30	1.8	15.6	9.2	0.1	0.4	0.2	3.9	16.7	8.5	3.9	19.8	16.1	10.7	59.4	35.2
31	2.1	21.9	9.6	0.1	0.5	0.2	1.0	9.4	5.8	11.6	16.7	13.5	16.5	71.8	51.1

* Under Maintenance

AMBIENT AIR MONITORING STATION NO. III

Date	SO ₂ µg/m ³			CO µg /m ³			NO _x µg/m ³			NH ₃ µg/m ³			PM ₁₀ µg/m ³		
	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1	3.5	18.1	8.5	0.0	0.2	0.1	1.9	18.9	8.2	8.5	14.7	11.2	21.5	77.6	55.1
2	1.6	12.8	9.6	0.1	0.3	0.2	1.5	20.6	10.6	1.2	6.9	3.4	25.4	67.5	46.3
3	1.7	13.5	7.7	0.1	0.4	0.2	0.8	21.3	6.9	9.3	15.9	12.2	19.4	70.6	50.5
4	2.3	16.7	9.3	0.0	0.2	0.1	1.4	16.8	8.3	8.8	15.4	11.5	20.1	60.5	46.4
5	2.9	16.7	12.7	0.1	0.5	0.4	1.8	15.2	9.4	7.9	17.0	12.0	21.9	71.9	50.2
6	2.4	15.6	8.6	0.1	0.6	0.3	3.5	14.3	11.0	8.6	15.2	11.9	*	*	*
7	2.0	18.0	9.4	0.1	0.4	0.3	3.2	12.3	8.5	8.4	16.3	11.7	*	*	*
8	2.8	16.5	10.0	0.0	0.2	0.1	1.8	13.8	7.6	9.3	14.0	12.0	*	*	*
9	1.8	20.2	7.5	0.1	0.4	0.2	2.3	15.6	8.3	8.6	12.5	10.7	*	*	*
10	1.6	15.9	10.5	0.0	0.7	0.3	1.5	12.2	5.5	7.5	19.2	11.5	26.4	67.4	33.6
11	1.9	12.6	5.8	0.1	0.5	0.4	2.1	17.4	9.7	9.1	20.4	10.4	8.0	32.7	10.0
12	2.1	14.5	6.9	0.1	0.6	0.3	2.6	23.5	9.5	8.6	16.8	11.7	10.5	65.9	29.7
13	1.6	11.8	6.3	0.0	0.5	0.2	2.0	20.1	8.4	7.9	15.7	11.9	23.3	71.0	53.8
14	0.5	7.6	1.5	0.2	0.5	0.3	1.9	19.3	12.7	5.9	12.1	12.0	18.6	62.8	41.3
15	1.9	11.7	7.6	0.0	0.3	0.1	1.5	21.9	15.4	8.7	14.3	11.4	12.2	60.3	40.6
16	2.3	13.1	8.9	0.1	0.6	0.3	1.7	15.6	8.9	9.1	16.5	10.2	13.8	62.7	53.9
17	3.4	17.0	10.4	0.1	0.4	0.2	1.8	14.1	9.9	8.8	12.5	10.1	15.9	50.1	35.7
18	1.9	12.8	6.9	0.2	0.8	0.4	2.1	16.8	4.9	9.5	21.9	12.3	11.3	58.4	39.2
19	1.3	11.0	4.8	0.0	0.3	0.1	1.5	12.4	5.8	11.0	18.3	12.2	10.4	66.2	46.6
20	1.4	12.9	6.0	0.0	0.3	0.2	1.0	13.1	6.2	8.2	15.3	12.0	11.1	45.0	28.1
21	2.0	13.6	5.9	0.2	0.9	0.4	2.1	15.6	9.3	10.0	14.3	11.9	10.8	53.9	29.4
22	1.8	20.1	8.3	0.2	0.5	0.3	3.2	13.9	8.4	9.4	24.1	11.0	13.3	50.4	34.3
23	2.5	16.7	10.3	0.2	0.6	0.4	2.5	14.6	11.5	8.2	18.5	10.9	17.5	52.7	33.0
24	1.7	12.7	8.0	0.0	0.3	0.2	1.8	11.0	5.3	7.9	20.2	12.1	11.6	50.0	32.6
25	2.1	13.4	11.5	0.0	0.4	0.2	1.3	10.2	5.6	8.4	21.6	12.0	16.7	79.4	54.7
26	1.5	11.0	4.8	0.1	0.5	0.2	1.8	12.8	4.8	6.9	22.9	11.5	11.9	80.0	32.0
27	2.2	18.5	10.3	0.1	0.4	0.3	2.0	11.6	6.0	8.5	20.1	12.0	18.2	72.8	50.5
28	1.4	12.7	6.3	0.0	0.3	0.2	1.5	14.1	6.7	9.3	13.8	12.2	27.1	76.2	54.3
29	1.2	9.1	4.4	0.1	0.6	0.4	1.1	12.5	5.5	8.5	22.2	10.2	15.0	80.5	31.2
30	1.5	12.8	7.8	0.0	0.3	0.2	1.9	11.0	4.8	10.5	20.2	11.4	21.5	77.6	55.1
31	2.1	13.4	8.5	0.2	0.8	0.4	1.3	10.2	5.6	9.2	21.6	12.3	25.4	67.5	46.3

. * Under Maintenance

AMBIENT AIR MONITORING STATION NO. IV

Date	SO ₂ µg/m ³			CO µg /m ³			NO _x µg/m ³			NH ₃ µg/m ³			PM ₁₀ µg/m ³		
	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1	1.8	18.0	7.6	0.0	0.4	0.2	3.8	18.6	7.7	5.9	13.4	9.1	20.9	56.4	25.3
2	1.3	12.4	8.1	0.0	0.4	0.2	1.3	12.8	5.9	9.1	19.0	12.2	17.8	66.5	40.9
3	2.0	20.8	14.2	0.0	0.4	0.1	1.0	20.6	6.5	8.4	16.2	11.8	15.2	50.7	37.5
4	3.5	23.1	9.1	0.1	0.3	0.1	1.2	12.8	9.4	7.5	20.6	12.5	30.2	35.0	32.2
5	2.8	18.9	11.4	0.1	0.4	0.2	3.5	18.8	13.3	10.0	22.7	16.4	17.0	62.6	44.3
6	2.0	18.7	6.3	0.1	0.4	0.2	1.0	21.5	18.6	9.7	28.7	20.4	20.9	56.4	25.3
7	1.5	14.7	8.2	0.1	0.5	0.2	1.6	15.7	9.3	4.2	18.6	10.1	17.8	66.5	40.9
8	3.8	20.6	9.4	0.1	0.4	0.2	1.0	10.0	5.4	3.5	19.4	12.5	15.2	50.7	37.5
9	1.9	22.5	7.5	0.1	0.8	0.2	0.6	9.2	1.9	2.8	13.6	7.7	30.2	35.0	32.2
10	2.6	16.0	11.5	0.1	0.9	0.2	1.0	9.7	3.5	8.3	26.7	18.1	11.0	55.9	36.8
11	1.4	13.6	7.1	0.2	0.8	0.7	2.2	11.8	7.1	7.9	19.0	10.5	20.3	65.8	43.7
12	2.0	18.2	8.3	0.1	0.5	0.4	1.6	13.7	4.5	8.0	15.0	12.7	16.2	59.4	39.8
13	3.6	20.8	11.4	0.1	0.6	0.4	2.8	14.0	7.0	9.7	18.4	12.1	10.0	48.3	27.3
14	3.0	15.0	9.3	0.1	0.5	0.2	1.3	15.9	6.2	8.3	24.6	11.8	29.9	43.9	35.6
15	2.0	11.5	8.7	0.1	0.5	0.2	1.0	8.9	3.2	5.9	21.7	10.7	37.0	82.9	50.0
16	1.0	10.1	3.6	0.1	0.4	0.2	1.6	11.0	4.9	3.6	20.4	9.1	43.9	61.8	50.3
17	2.2	15.3	8.2	0.1	0.6	0.2	1.3	12.7	9.5	6.8	18.6	13.5	42.8	53.5	46.2
18	1.8	22.7	7.3	0.0	0.3	0.1	*	*	*	*	*	*	42.2	58.5	48.0
19	3.2	18.5	7.6	0.0	0.3	0.1	*	*	*	*	*	*	42.6	58.0	53.1
20	1.9	20.4	8.7	0.0	0.6	0.1	*	*	*	*	*	*	51.9	73.4	57.3
21	2.1	18.2	9.2	0.1	0.6	0.2	*	*	*	*	*	*	51.8	70.8	57.6
22	3.5	23.0	17.5	0.1	0.6	0.2	1.2	20.7	11.3	9.1	18.9	14.2	48.8	95.4	62.4
23	0.5	11.8	6.9	0.1	0.6	0.2	1.5	9.7	5.3	8.0	20.2	11.3	53.7	101.6	66.7
24	6.7	22.4	11.5	0.0	0.4	0.2	1.7	12.8	6.6	3.4	18.5	10.4	24.6	60.8	52.1
25	0.7	15.3	8.9	0.0	0.3	0.2	1.6	11.0	4.2	4.5	18.0	9.9	53.3	66.4	58.9
26	2.4	21.5	12.1	0.0	0.2	0.1	1.3	8.6	5.9	1.1	12.4	5.5	53.8	83.2	60.7
27	1.6	12.9	7.3	0.0	0.4	0.2	1.2	18.1	5.9	5.8	21.7	12.8	27.3	65.0	52.2
28	1.9	16.4	8.9	0.0	0.2	0.1	3.2	19.9	7.7	9.7	23.7	19.6	17.5	65.4	54.8
29	1.0	8.0	3.2	0.0	0.2	0.1	1.3	15.4	4.5	8.2	22.8	15.1	20.6	78.3	52.3
30	5.9	21.8	12.9	0.0	0.4	0.2	1.4	20.8	8.1	7.5	16.9	13.4	18.3	80.4	64.4
31	1.2	12.8	6.9	0.0	0.5	0.2	1.6	14.2	6.0	6.5	15.5	10.3	15.3	63.8	39.8

* Under Maintenance

AMBIENT AIR MONITORING STATION NO. V

Date	SO ₂ µg/m ³			CO µg /m ³			NO _x µg/m ³			NH ₃ µg/m ³			PM ₁₀ µg/m ³		
	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg	Min	Max	Avg
1	3.5	12.3	8.9	0.1	0.6	0.4	2.7	12.4	7.3	1.2	15.8	7.1	19.4	81.6	59.7
2	1.5	11.6	6.5	0.3	1.1	0.5	2.6	22.1	10.0	3.0	23.9	8.6	22.5	74.7	49.2
3	0.9	9.8	5.6	0.1	0.9	0.4	3.8	19.6	9.7	2.8	15.8	9.1	10.5	70.3	58.5
4	1.6	16.0	6.9	0.3	0.6	0.4	2.5	11.7	6.5	8.7	22.0	14.0	19.7	68.5	53.9
5	2.6	15.2	10.3	0.3	0.5	0.3	2.0	17.3	7.4	2.7	13.5	8.8	15.4	77.2	49.6
6	1.5	20.7	9.4	0.3	0.4	0.3	3.4	14.8	9.1	2.8	20.2	10.2	10.8	59.3	33.7
7	3.5	23.8	14.6	0.1	0.4	0.2	1.8	16.4	8.5	1.9	19.3	7.5	11.0	75.1	45.4
8	1.9	16.3	6.9	0.1	0.9	0.8	1.0	10.3	6.2	3.6	22.1	10.2	26.5	80.0	62.2
9	2.3	17.1	9.1	0.1	0.6	0.3	1.5	15.9	8.3	3.2	14.6	6.9	35.7	79.3	68.1
10	2.0	16.3	10.8	0.1	0.3	0.2	1.6	12.0	5.6	8.0	18.0	12.5	22.2	86.6	60.0
11	*	*	*	0.1	0.3	0.2	0.5	9.2	2.8	4.5	17.8	13.7	20.8	79.3	57.1
12	*	*	*	0.2	0.7	0.4	1.2	8.6	6.6	3.1	19.4	8.2	23.0	87.5	68.6
13	*	*	*	0.1	0.3	0.2	2.6	15.0	10.5	1.1	12.4	3.8	14.3	74.4	60.9
14	*	*	*	0.1	0.4	0.2	3.7	21.7	9.5	1.5	12.2	5.6	41.5	89.9	71.9
15	0.9	12.6	4.2	0.1	0.5	0.3	2.5	14.9	8.3	1.1	15.3	9.5	22.7	87.7	58.8
16	3.4	19.9	10.0	0.1	0.3	0.2	2.2	15.4	7.8	1.9	20.7	9.3	11.2	62.3	27.9
17	1.4	14.1	8.4	0.1	0.4	0.2	2.5	17.2	8.3	2.5	24.1	10.2	25.2	84.2	59.6
18	2.2	17.3	7.4	0.1	0.2	0.1	2.7	20.9	13.7	2.3	19.4	8.0	26.6	81.8	51.0
19	1.0	9.7	4.2	0.1	0.2	0.1	1.9	15.6	9.3	2.8	14.3	7.1	20.4	75.9	52.2
20	3.9	19.6	14.5	0.1	0.5	0.1	3.2	12.4	7.4	1.0	19.2	14.0	11.2	76.0	32.7
21	2.2	18.2	8.7	0.1	0.4	0.2	2.1	15.8	8.6	2.4	15.7	7.9	15.2	72.8	42.6
22	2.1	10.9	7.2	0.1	0.2	0.1	1.3	14.7	6.9	1.3	20.1	12.8	10.5	61.8	43.4
23	1.9	18.2	12.5	0.1	0.3	0.1	2.4	14.5	9.7	1.9	17.3	10.3	18.0	72.9	61.0
24	1.2	14.6	10.1	0.1	0.4	0.1	2.9	16.9	10.6	2.8	19.4	9.1	21.6	58.5	40.7
25	2.4	10.9	7.2	0.3	0.4	0.4	2.0	14.5	9.2	2.6	20.6	12.5	19.8	77.8	59.6
26	1.8	13.7	9.9	0.3	0.4	0.3	1.1	13.4	4.1	2.7	19.0	11.6	18.1	63.1	46.8
27	1.9	13.4	6.3	0.2	0.5	0.3	3.4	23.7	12.4	2.2	17.4	8.7	18.0	68.5	46.1
28	5.5	19.8	11.2	0.1	0.3	0.2	1.7	17.3	7.5	3.1	18.3	12.2	24.3	66.0	37.9
29	1.8	17.5	9.7	0.1	0.4	0.2	2.8	14.8	9.1	2.5	22.1	14.1	13.9	79.7	45.3
30	1.0	16.2	7.6	0.1	0.5	0.3	1.0	12.0	3.5	1.4	17.6	10.9	16.6	77.9	42.8
31	3.5	21.1	12.8	0.1	0.3	0.2	2.2	15.3	9.8	1.9	18.8	12.8	21.1	90.1	50.2

* Under Maintenance