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**Nagarjuna Fertilizers
and Chemicals Limited**

NFCL/ENV/APPCB/MR/09/2016

12th October 2016

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 September 2016 along with the necessary documents enclosed at Annexure A, Annexure B, Annexure C and Annexure D is being forwarded.

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,
2-532, Santhi Nagar,
Ramanaiah Peta,
Kakinada.

→ CC: DQM (LAB & ENV.) / MANAGER (ENV.)

1.0 OVERALL REVIEW

We have received combined Air and Water Consent as well as Hazardous Waste Authorization from APPCB, Hyderabad on 9th December 2014 (Consent No. APPCB / VSP / KKD / 10300 / HO / CFO / 2014 – 602) for Plant I, II, CDR and CF Plant. The combined Consent for Operation and Hazardous Waste Authorization is valid up to 31st March 2017.

Bio Medical Waste (Management and Handling) Authorization received from APPCB, Regional Office, Kakinada and it is valid up to March 2017. BMW Annual Report (Form-II) for the year 2015 was submitted to Member Secretary, APPCB, Hyderabad on 18th January 2016.

We paid the Water Cess bill for the period November 2013 to October 2014 as per the assessment Order No. SAP/KKD/03/CESS/2014-68, dated 08/12/2014 on 2nd January 2015.

We submitted Environmental Statement (Form - V) for the year 2015-16 for Plant 1, 2, CDR Plant & CFG Plant on 23rd September 2016 to Member Secretary, APPCB, Hyderabad. Hazardous Waste Annual Returns in the prescribed format (Form - 4) for the year 2015 - 16 were submitted to Member Secretary, APPCB, Hyderabad on 10th June 2016. Six monthly EC compliance report was submitted to MoEF & CC on 30th May 2016 and uploaded in EH&S webpage of NFCL website at http://www.nagarjunafertilizers.com/ehs_eccr_102015_032016.htm.

Our Automatic Ambient Air Monitoring Station – 1 hook up with APPCB server was established on 28th February 2011. As directed by CPCB, the commissioning of Ammonical Nitrogen analyzer (Treated Effluent) and SPM Analyzer (CFG Plant Stack) has been completed. Monitoring data of pH, Flow rate and Ammonical Nitrogen in our treated effluent is being communicated to APPCB on daily basis (by email). SPM monitoring data pertaining to CFG Plant Stack is being uploaded to APPCB and CPCB server.

2.0 ENVIRONMENT IMPACT ASSESSMENT REPORT

Final Environment Report has been submitted on 29th July 1991 vide Letter No.031/0033/NHOT/8220.

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. 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.

Environment Impact and Risk Assessment Report for our Proposed Fertilizer Project - 3 was carried out from the month of December-2010 to February-2011 and EIRA report was submitted to the Environmental Engineer, APPCB, R.O, Kakinada on 28th June 2011. Public Hearing was conducted by APPCB for the Environmental Clearance to our proposed Project-3 on 17th August 2011. Environmental Clearance was accorded by MoEF & CC, New Delhi for Project -3 on 18th December 2012 and it is valid for 7 years.

3.0 METEOROLOGICAL MANAGEMENT

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

4.0 DISASTER MANAGEMENT

As a part of On-site Emergency Preparedness, Level-II Emergency mock drill was conducted on 4th June 2016 at 03.15 pm in Ammonia Storage Tank area, assuming major ammonia leak from the seal of Ammonia transfer pump (P-1401C). Deputy Chief Inspector of Factories, Kakinada witnessed the emergency drill.

5.0 RECEIPT OF CONSENT ORDER & AUTHORIZATION

We have received combined Air, Water Consents and Hazardous Waste Authorization from APPCB, Hyderabad on 9th December 2014 (Consent No. APPCB / VSP / KKD / 10300 / HO / CFO / 2014 – 602) for Plant I, II, CDR and CF Plant. The above three Consents for Operation are valid up to 31st March 2017. Consent for Establishment was granted by APPCB for our proposed Plant-3 on 10th April 2013 and it is valid for 5 years.

6.0 CONDITIONS OF APPCB/CPCB

All conditions were adhered fully at the time of plant commissioning in July 1992. All conditions of both APPCB and MoEF & CC were adhered to by Plant-II fully before starting commercial production on 19th March 1998. All systems continue to perform well within the norms. For details of conditions, please refer to our earlier reports. Five Automatic unmanned Ambient Air Monitoring Stations and the Mobile Ambient Air Monitoring Station are in working condition.

S. No.	Mile Stone/Activity	Current Status
1.0	Latest developments	Nil

Water consumption figures (including CF Plant) were submitted to APPCB for Cess for the month of September 2016 vide letter no. NFCL/ENV/APPCB/WC/09/2016, dated 4th October 2016.

Please refer enclosed Annexure – B (2 nos. of pages) for details of Gaseous Emissions and Noise Levels. Please refer enclosed Annexure – C (5 nos. of pages) for details of Ambient Air Quality during September 2016.

7.0 LIQUID EFFLUENTS

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

The qualitative analysis and quantity of treated effluent during the month of September 2016 is included in Annexure - A (1 no. of pages). Treated effluent is used for the development and sustenance of our green belt.

8.0 SOLID & LIQUID WASTES

Raw Water turbidity was around 33 NTU (average) and the fertile sludge generated from the raw water pre treatment was used as landfill in Green Belt.

3.4 MT of CDR Reclamation Waste was disposed to APPCB Authorized vendor. White Copy of the manifest (Form – 10) is enclosed at Annexure – D (1 no. of pages).

9.0 AIR POLLUTION

All measures for air pollution control have been incorporated both for Plant-I, Plant-II & CF Plant and they are functioning satisfactorily. $PM_{2.5}$ values in ambient air were 14.6 to 21.9 $\mu\text{g}/\text{m}^3$ during this month in our complex. SPM values in Flue Gas stacks were in the range of 4.7 to 18.6 mg/Nm^3 . Please refer Annexure – B (2 nos. of pages) and Annexure – C (5 nos. of pages) for analysis reports.

10.0 GREEN BELT

No. of sapling planted = 1350 Nos.
(As mortality replacements and strengthening of Weaker areas)
No. of saplings planted to date (including mangrove Plant and mass plantation) = 4, 00,000 Nos.

LIQUID EFFLUENT ANALYSIS FOR THE MONTH OF SEPTEMBER – 2016

Date	pH	Color	Temp °C	Total Suspended Solids	Total Dissolved Solids	Ammoniacal Nitrogen as N	Free Amm. as N	Nitrates as N	BOD	COD	Oil & Grease	Phosphate as P	Chloride as Cl	TKN as N	Effluent Generation m ³	Raw water Consumption m ³
1	7.5	Colorless	26.5			14.8	< 2.0	6.0			3.1	0.8	416	29.0	2729	24484
2	7.3	-do-	26.5			13.6	< 2.0	6.0			3.0	0.6	452	27.0	2676	23260
3	7.1	-do-	25.5			12.3	< 2.0	6.2			2.6	0.6	384	25.0	3111	22824
4	7.8	-do-	27.0			13.1	< 2.0	6.0			3.0	0.7	378	26.0	2747	24598
5	7.9	-do-	26.5	36	1495	13.8	< 2.0	6.0	12	38	2.8	0.8	362	28.0	3581	24611
6	7.9	-do-	26.0			15.4	< 2.0	5.9			3.1	0.8	408	30.0	1691	24411
7	7.9	-do-	27.5			17.2	< 2.0	6.1			3.3	0.6	442	34.0	2009	24115
8	7.9	-do-	26.5			16.8	< 2.0	6.2			3.0	0.6	360	33.0	3523	24472
9	7.6	-do-	26.5			15.0	< 2.0	6.0			3.2	0.7	364	30.0	2690	25669
10	7.7	-do-	26.5			16.4	< 2.0	6.2			3.4	0.6	392	33.0	2892	24557
11	7.0	-do-	26.5			15.5	< 2.0	6.1			3.2	0.8	354	31.0	2377	24352
12	7.9	-do-	26.5	44	1573	17.1	< 2.0	6.3	11	40	3.3	0.9	392	34.0	1953	24899
13	7.8	-do-	26.0			19.0	< 2.0	6.0			3.4	1.0	346	38.0	2842	24687
14	7.2	-do-	26.5			19.8	< 2.0	6.3			3.1	0.8	338	40.0	2352	24645
15	7.2	-do-	26.5			16.8	< 2.0	6.1			3.3	0.9	392	28.0	2513	24276
16	7.4	-do-	27.0			16.5	< 2.0	6.0			3.0	0.7	410	33.0	3708	24462
17	7.0	-do-	26.5			15.8	< 2.0	5.9			3.2	0.9	356	32.0	2680	24615
18	7.6	-do-	26.0			15.4	< 2.0	5.9			3.4	0.6	342	32.0	2372	25556
19	7.5	-do-	26.5	40	1515	17.9	< 2.0	6.2	14	38	3.4	0.5	384	35.0	2250	24567
20	7.8	-do-	27.5			16.5	< 2.0	6.3			3.1	0.6	398	33.0	2341	24588
21	6.9	-do-	27.5			16.2	< 2.0	6.1			3.3	0.5	346	32.0	2045	24640
22	8.0	-do-	26.5			21.8	< 2.0	6.4			3.0	0.7	352	43.0	2397	20380
23	6.9	-do-	26.0			20.6	< 2.0	6.2			3.2	0.6	328	41.0	2706	23509
24	7.2	-do-	26.0			21.3	< 2.0	6.0			3.4	0.5	296	43.0	2621	24520
25	7.1	-do-	27.0			20.5	< 2.0	6.1			3.1	0.5	314	41.0	2432	24288
26	7.2	-do-	26.5	42	1450	21.8	< 2.0	6.4	16	42	3.3	0.7	362	43.0	2583	24400
27	7.2	-do-	27.5			23.6	< 2.0	6.2			3.2	0.6	390	47.0	3599	24648
28	7.8	-do-	27.0			23.0	< 2.0	6.1			3.0	0.8	424	46.0	2233	24500
29	7.5	-do-	27.0			22.7	< 2.0	6.2			3.3	0.7	398	45.0	3338	24473
30	7.4	-do-	27.5			21.9	< 2.0	6.0			3.1	0.6	386	43.0	2345	24402

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 SEPTEMBER - 2016

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)
07.09.16	13.3	10.1	9.8	11.9	10.6	4.7
14.09.16	12.7	9.3	11.1	13.5	11.4	14.3
21.09.16	11.5	10.5	10.2	12.4	10.9	18.6
28.09.16	12.9	10.0	10.6	10.7	11.2	15.1

OUTSIDE AMBIENT AIR MONITORING FOR SEPTEMBER - 2016

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
01.09.16	KVK Training Centre (Gandhi Nagar)	10.9	12.5	6.8	70.2	22.5
01.09.16	Guest House (Shanti Nagar)	10.6	11.8	6.9	62.4	19.6
08.09.16	KVK Training Centre (Gandhi Nagar)	11.2	10.6	7.0	66.6	22.4
08.09.16	Guest House (Shanti Nagar)	9.8	11.4	7.2	56.8	21.8
15.09.16	KVK Training Centre (Gandhi Nagar)	12.4	10.4	6.2	68.4	24.0
15.09.16	Guest House (Shanti Nagar)	10.3	12.0	6.6	68.0	22.2
22.09.16	KVK Training Centre (Gandhi Nagar)	11.8	11.6	7.0	64.2	23.0
22.09.16	Guest House (Shanti Nagar)	9.6	9.8	5.8	70.4	20.9
29.09.16	KVK Training Centre (Gandhi Nagar)	13.4	11.4	5.4	67.2	18.6
29.09.16	Guest House (Shanti Nagar)	12.6	10.8	7.1	69.5	22.5
29.09.16	Near Coringa	12.0	22.0	1.9	48.0	20.0
15.09.16	Godarigunta	8.4	8.6	5.4	52.4	19.4
22.09.16	Akshara School	7.8	8.8	6.8	62.4	18.6

UREA PRILL TOWER DUST ANALYSIS FOR SEPTEMBER – 2016

Plant	Date	Dust		Plant	Date	Dust	
		mg/Nm ³	Kg/MT			mg/Nm ³	Kg/MT
I (Chimney No. 6)	06.09.16	17.0	0.120	II (Chimney No. 15)	06.09.16	20.5	0.147
	13.09.16	20.9	0.148		13.09.16	21.6	0.154
	20.09.16	16.5	0.117		20.09.16	17.7	0.126
	27.09.16	18.7	0.133		27.09.16	23.4	0.166

NOISE LEVELS FOR SEPTEMBER – 2016

Location	Description	Sound Level dB(A)	
		Day time (limit 75)	Night time (limit 70)
1	Gate house (North West side)	45.6	48.7
2	North East corner (Behind ETP)	53.3	52.7
3	South East corner (Security East gate)	56.8	55.3
4	Rail gate, boundary wall (South West side)	42.4	52.6

AMBIENT AIR MONITORING STATION NO. I

Date	SO ₂ µg/m ³			CO mg/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	0.7	24.0	10.1	0.2	0.4	0.3	5.8	9.1	6.9	7.1	10.1	8.2	11.1	28.5	18.6
2	2.0	21.2	10.9	0.2	0.3	0.3	5.5	8.2	6.7	6.9	9.3	7.9	7.3	27.8	14.3
3	0.7	16.9	8.4	0.2	0.3	0.3	5.4	8.1	6.2	6.8	9.5	7.5	3.0	27.3	14.3
4	1.6	18.1	10.7	0.2	0.4	0.3	5.3	8.0	6.3	6.3	9.4	7.6	6.5	25.3	17.9
5	2.2	21.4	12.4	0.2	0.3	0.2	4.9	7.7	5.9	6.1	9.1	7.1	11.3	59.3	38.4
6	1.4	17.2	8.5	0.2	0.4	0.2	4.9	7.6	6.2	6.1	9.0	7.5	36.3	58.9	47.1
7	3.7	21.9	9.9	0.2	0.4	0.3	4.9	8.0	6.1	6.0	9.5	7.4	37.1	61.8	49.8
8	1.8	23.9	9.8	0.2	0.4	0.3	5.2	7.8	6.1	6.3	9.3	7.4	35.8	60.7	47.3
9	1.7	24.6	11.1	0.2	0.4	0.3	5.5	9.3	6.3	6.6	10.6	7.6	35.4	60.2	49.5
10	1.6	19.7	9.7	0.2	0.4	0.3	5.1	7.8	6.1	6.1	8.9	7.3	16.6	60.2	39.3
11	0.8	23.4	9.7	0.2	0.4	0.3	4.3	7.2	5.6	5.7	8.6	6.8	9.1	32.9	17.4
12	1.7	19.4	9.9	0.2	0.5	0.3	5.5	63.2	10.9	7.0	96.5	14.3	7.5	52.3	30.1
13	0.4	18.9	10.5	0.1	0.5	0.3	4.2	10.3	6.4	5.7	11.7	8.0	12.4	40.6	24.7
14	2.8	16.2	8.4	0.2	0.4	0.3	4.0	8.4	5.7	5.6	10.1	7.1	11.6	27.8	18.1
15	3.0	16.8	10.0	0.2	0.4	0.2	4.4	8.8	5.9	5.9	10.1	7.4	4.5	32.8	17.8
16	2.5	14.6	8.4	0.2	0.3	0.2	3.8	7.3	5.1	5.3	8.9	6.6	13.8	27.0	19.3
17	1.4	19.0	9.9	0.2	0.3	0.2	3.5	5.4	4.3	5.0	6.9	5.8	16.7	31.0	22.9
18	3.6	14.1	8.6	0.1	0.3	0.2	3.5	5.2	4.4	5.0	6.7	5.9	12.5	36.3	23.8
19	4.0	15.9	10.6	0.2	0.3	0.2	3.7	5.7	4.7	5.1	7.1	6.1	26.1	55.6	35.9
20	1.5	16.9	8.7	0.1	0.3	0.2	3.9	6.3	5.1	5.4	8.0	6.5	19.6	54.7	32.8
21	1.7	17.2	7.3	0.1	0.2	0.2	3.5	8.2	4.6	5.2	9.4	6.1	2.0	21.2	10.3
22	2.5	17.7	10.3	0.2	0.7	0.3	6.0	12.4	8.4	7.4	14.0	9.8	4.2	21.3	11.5
23	1.2	19.0	8.5	0.1	0.3	0.2	6.6	18.9	9.7	8.0	20.5	11.1	4.2	24.3	14.4
24	1.3	22.8	10.4	0.1	0.3	0.2	5.3	7.8	6.6	6.6	9.4	8.0	2.8	272.7	36.4
25	2.0	22.4	10.3	0.1	0.3	0.2	6.0	8.5	6.9	7.2	9.7	8.3	7.4	23.9	16.1
26	1.5	17.5	7.6	0.2	0.3	0.2	7.5	12.7	9.2	8.9	13.9	10.5	15.8	41.1	24.8
27	2.0	23.3	8.5	0.1	0.6	0.2	10.3	73.7	33.7	11.4	72.3	34.0	16.2	60.0	32.9
28	1.7	14.4	7.9	0.1	0.8	0.2	5.9	62.2	29.5	22.5	61.2	43.8	26.1	46.6	37.3
29	1.0	18.4	9.2	0.1	0.3	0.2	1.9	17.7	6.7	16.7	46.6	29.9	26.3	56.5	41.6
30	1.3	17.4	9.8	0.1	4.2	0.9	3.2	13.0	5.0	11.7	36.7	16.8	26.7	54.9	39.0

AMBIENT AIR MONITORING STATION NO. II

Date	SO ₂ µg/m ³			CO mg/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	1.9	14.6	9.4	0.1	0.4	0.2	1.3	14.4	7.7	2.4	16.5	6.9	14.5	68.3	41.7
2	2.2	15.3	7.3	0.2	0.6	0.4	1.2	12.8	4.9	1.8	17.4	8.1	19.3	67.7	53.1
3	2.3	18.2	8.1	0.1	0.5	0.2	2.1	15.6	5.2	2.5	21.7	10.9	24.7	79.1	53.5
4	1.9	16.6	6.5	0.2	0.5	0.3	1.0	17.2	6.5	1.3	19.9	9.1	16.1	70.8	38.8
5	1.8	21.3	9.6	0.2	0.7	0.5	1.7	14.7	5.8	2.6	16.8	12.8	22.5	69.9	45.7
6	2.4	18.7	10.9	0.2	0.6	0.2	2.5	23.4	4.4	1.9	17.2	8.6	12.4	37.7	18.1
7	1.9	19.2	12.2	0.2	0.4	0.3	2.0	18.9	7.5	1.3	13.5	5.4	15.7	55.5	35.2
8	1.7	17.6	7.5	0.1	0.6	0.4	1.0	12.0	3.1	0.8	8.9	2.7	14.6	78.5	57.6
9	2.2	13.2	9.7	0.1	0.6	0.5	1.2	16.8	8.3	1.6	12.3	9.5	15.0	63.5	48.2
10	2.7	19.1	8.9	0.1	0.7	0.2	1.7	19.5	7.6	1.4	17.4	10.3	18.4	54.2	46.4
11	1.3	10.2	7.4	0.1	0.7	0.3	2.3	22.1	12.7	2.5	16.8	14.1	16.9	60.5	42.7
12	1.8	18.4	9.8	0.2	0.7	0.2	3.1	17.9	9.2	1.9	15.6	12.6	21.5	75.3	66.9
13	1.0	14.5	11.2	0.2	0.4	0.3	1.9	13.5	7.5	2.3	18.9	9.8	22.9	69.8	54.8
14	1.2	21.7	17.6	0.2	0.8	0.2	0.8	9.4	5.6	3.7	22.7	11.9	21.4	78.6	61.3
15	1.5	15.8	10.1	0.1	0.6	0.2	1.6	14.2	6.8	4.8	29.1	21.5	17.3	62.3	42.9
16	1.9	19.4	9.5	0.1	0.4	0.3	2.2	15.3	9.5	3.6	16.3	14.8	19.2	68.4	38.4
17	1.7	13.1	8.4	0.1	0.6	0.4	2.6	18.8	14.1	2.3	22.6	9.7	*	*	*
18	2.1	15.9	7.9	0.0	0.4	0.2	2.1	26.5	20.9	1.6	21.8	11.4	*	*	*
19	1.9	19.4	6.2	0.1	0.4	0.3	1.8	18.7	10.3	2.1	19.1	8.8	*	*	*
20	2.2	10.3	4.5	0.1	0.3	0.2	1.6	20.1	8.7	1.9	20.0	10.6	*	*	*
21	0.6	17.8	3.7	0.0	0.2	0.1	2.3	16.5	6.6	2.4	21.8	14.1	17.5	73.1	49.5
22	2.3	16.1	7.1	0.1	0.3	0.2	2.6	15.4	5.1	1.6	18.2	12.5	15.8	62.8	51.6
23	1.9	14.2	8.0	0.0	0.2	0.1	3.2	14.8	7.5	1.9	22.0	10.7	18.3	79.2	50.2
24	2.1	18.9	5.4	0.1	0.3	0.2	2.4	18.3	6.8	2.3	15.7	9.1	12.4	76.9	59.8
25	1.8	21.5	6.3	0.0	0.2	0.1	3.3	15.2	4.6	2.1	19.5	11.3	17.2	71.0	48.9
26	2.2	16.3	4.8	0.1	0.3	0.2	2.1	11.5	7.2	1.9	21.2	8.7	18.5	71.4	45.5
27	0.6	12.6	6.7	0.1	0.2	0.1	1.5	9.4	6.4	1.8	14.1	10.8	15.8	72.0	51.6
28	1.9	15.7	9.3	0.2	0.3	0.2	2.4	15.1	5.1	1.5	16.4	4.6	18.3	79.5	53.2
29	1.7	12.3	8.4	0.1	0.4	0.3	1.2	13.8	7.7	2.0	19.5	7.9	16.5	76.9	44.9
30	1.4	17.1	7.9	0.0	0.2	0.1	1.7	12.7	6.3	1.8	15.7	8.4	17.2	74.1	48.6

* Under Maintenance

AMBIENT AIR MONITORING STATION NO. III

Date	SO ₂ µg/m ³			CO mg/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	1.6	12.2	5.6	0.1	0.3	0.2	1.2	14.5	5.7	1.7	12.9	8.3	16.8	78.4	43.6
2	1.0	11.5	6.3	0.1	0.4	0.2	3.0	15.0	7.5	1.8	15.2	6.8	18.3	62.5	41.5
3	2.1	10.2	5.9	0.2	0.5	0.3	1.2	14.2	6.8	2.3	16.3	7.1	20.2	68.3	46.9
4	1.6	13.2	4.9	0.0	0.6	0.3	2.1	13.3	5.9	1.7	14.1	6.7	11.4	64.1	42.8
5	1.0	13.6	5.1	0.1	0.8	0.2	2.3	15.5	7.6	1.4	13.9	8.1	10.6	72.9	38.3
6	1.5	12.6	7.5	0.1	1.0	0.2	2.4	14.9	10.1	3.1	17.5	12.3	16.7	69.8	32.8
7	1.0	8.2	3.6	0.2	0.6	0.3	1.3	11.9	6.3	1.4	18.7	6.5	12.8	59.4	42.5
8	0.5	9.9	1.9	0.1	0.3	0.2	3.1	12.8	7.4	1.6	22.0	9.6	16.9	68.2	51.0
9	0.8	7.5	3.7	0.1	0.5	0.3	1.7	14.4	6.3	2.1	16.2	10.1	20.0	66.7	41.3
10	2.8	20.2	7.8	0.1	0.4	0.2	2.8	14.6	8.5	1.9	13.3	8.3	20.4	76.3	52.1
11	1.7	15.4	7.2	0.0	0.4	0.2	2.2	16.3	10.3	3.1	15.1	10.1	17.3	69.5	48.5
12	1.2	17.3	8.3	0.1	0.6	0.3	1.1	17.6	9.5	2.5	22.9	15.8	23.5	70.1	40.5
13	1.9	18.2	9.6	0.1	0.4	0.2	2.1	15.7	7.8	1.3	18.6	9.5	12.0	72.4	51.0
14	2.2	16.1	12.4	0.0	0.5	0.2	3.5	21.7	9.4	2.2	20.5	11.2	13.9	71.7	50.7
15	3.8	23.5	15.8	0.0	0.3	0.2	3.8	19.5	16.7	1.6	22.2	18.3	14.5	62.8	41.2
16	1.7	16.8	9.6	0.1	0.8	0.4	4.2	20.2	10.3	1.3	12.4	12.6	18.8	76.2	45.9
17	1.0	12.7	5.6	0.0	0.3	0.2	2.3	17.3	8.8	2.0	18.6	9.3	15.0	60.5	47.3
18	1.5	10.4	6.7	0.1	0.6	0.3	1.3	12.8	6.2	1.8	16.0	10.2	14.3	72.3	42.6
19	1.2	14.1	7.9	0.1	0.4	0.2	1.7	14.2	5.5	2.3	15.5	7.1	10.5	57.1	25.7
20	1.4	16.3	8.3	0.0	0.5	0.2	1.6	16.6	7.4	1.7	21.8	10.8	10.0	45.4	14.2
21	1.5	12.5	7.8	*	*	*	1.2	15.9	6.9	3.2	18.9	12.6	16.7	79.8	39.5
22	2.4	13.9	9.1	*	*	*	1.5	11.6	4.5	2.9	12.9	7.5	11.5	63.4	45.3
23	1.8	12.3	10.3	*	*	*	1.0	8.2	2.2	1.3	11.0	9.3	20.6	79.5	51.8
24	2.2	8.7	8.5	*	*	*	1.4	10.5	6.1	1.0	6.3	1.8	14.9	51.3	38.6
25	1.2	10.6	6.2	0.1	0.7	0.3	3.5	15.6	5.8	1.1	11.9	5.9	16.4	62.1	40.9
26	2.6	12.1	7.5	0.1	0.6	0.4	1.6	16.1	8.7	2.0	14.3	9.7	12.8	73.1	45.8
27	1.5	9.2	5.8	0.1	0.4	0.3	1.9	17.0	7.5	1.6	20.2	11.3	20.8	77.8	49.4
28	1.7	18.3	8.2	0.0	0.5	0.2	1.3	15.5	10.4	1.9	16.8	9.5	21.4	76.4	46.1
29	2.9	16.4	9.2	0.0	0.4	0.2	2.7	14.9	8.2	1.3	22.3	8.6	16.5	72.8	53.2
30	2.6	15.8	12.3	0.1	0.5	0.3	1.1	9.2	4.6	2.0	20.1	7.0	13.9	64.7	48.0

. * Under Maintenance

AMBIENT AIR MONITORING STATION NO. IV

Date	SO ₂ µg/m ³			CO mg/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	13.6	7.5	0.0	0.6	0.2	1.8	13.9	7.6	1.8	12.1	8.7	16.4	69.5	46.2
2	2.6	16.2	10.1	0.1	0.5	0.3	1.2	20.3	6.3	2.5	16.2	11.1	15.8	73.3	53.8
3	1.9	18.5	9.6	0.0	0.3	0.2	2.3	19.2	8.5	3.1	17.7	9.4	22.6	70.6	62.4
4	1.1	16.9	5.3	0.0	0.3	0.2	2.6	18.7	6.9	2.6	21.3	7.6	20.0	82.1	39.5
5	1.4	17.7	8.7	0.1	0.4	0.2	1.7	16.8	10.2	1.0	13.5	2.1	12.4	69.2	21.0
6	2.2	13.1	7.9	0.1	0.3	0.2	2.3	23.0	19.8	2.1	16.8	7.6	21.1	59.1	44.1
7	1.9	19.6	6.1	0.0	0.4	0.2	2.1	21.1	13.6	2.1	15.4	8.5	25.3	76.2	62.7
8	1.8	16.0	4.6	0.1	0.8	0.2	1.6	18.6	8.5	1.8	19.3	9.3	16.9	71.8	53.6
9	2.3	13.2	9.8	0.1	0.6	0.4	2.9	16.8	7.2	2.6	21.9	11.1	11.8	63.5	45.1
10	1.6	17.4	12.2	0.2	0.5	0.3	1.1	12.3	5.8	3.2	16.4	10.0	16.7	75.9	53.4
11	2.3	20.3	10.7	0.1	0.4	0.2	0.5	9.7	1.5	3.3	20.2	17.4	20.3	52.3	38.8
12	1.7	18.1	9.1	0.1	0.6	0.2	1.1	13.1	6.9	2.8	16.8	8.3	12.5	74.1	40.2
13	1.9	19.5	16.4	0.1	0.4	0.2	2.4	17.5	10.4	1.6	26.2	12.9	13.0	68.4	36.0
14	2.0	28.0	20.5	0.1	0.4	0.2	2.1	18.2	8.1	2.4	21.7	9.7	10.9	42.6	25.5
15	1.8	21.6	13.8	0.0	0.5	0.2	3.3	25.0	9.6	2.5	19.5	8.9	13.4	63.0	39.3
16	0.8	15.3	10.3	0.1	0.8	0.6	2.5	16.4	7.5	4.0	24.2	10.4	17.6	72.7	56.9
17	2.3	11.5	7.6	0.1	0.3	0.2	1.1	21.8	6.9	3.6	21.1	8.2	16.0	81.3	75.1
18	3.6	18.8	9.1	0.2	0.4	0.2	2.3	17.7	8.7	2.3	15.6	9.1	17.1	67.6	41.7
19	2.2	19.1	8.2	0.1	0.3	0.2	*	*	*	*	*	*	15.8	51.8	38.6
20	2.8	21.7	10.4	0.1	0.4	0.3	*	*	*	*	*	*	21.9	64.4	45.9
21	1.2	16.5	7.6	0.1	0.3	0.2	*	*	*	*	*	*	15.6	62.1	31.3
22	1.9	20.4	10.3	0.0	0.5	0.2	*	*	*	*	*	*	11.3	51.7	42.8
23	1.8	18.2	9.7	0.0	0.5	0.2	2.2	11.8	7.1	2.9	29.3	10.5	12.0	77.5	48.4
24	1.5	12.9	5.5	0.0	0.6	0.2	1.5	19.6	6.4	1.5	17.9	8.8	19.4	74.0	32.6
25	1.0	16.8	8.9	0.2	0.5	0.3	2.8	25.2	7.3	3.9	18.8	10.7	13.0	63.6	41.7
26	1.2	23.1	7.4	0.1	0.8	0.7	2.3	15.9	10.2	4.3	14.6	7.9	19.9	80.8	50.6
27	1.2	20.5	5.1	0.1	0.5	0.2	2.1	19.1	6.8	3.8	21.7	11.6	14.3	69.1	43.4
28	1.6	19.4	8.6	0.1	0.3	0.2	1.6	18.5	6.1	3.6	20.4	14.3	16.7	77.9	56.2
29	1.5	21.2	6.7	0.1	0.4	0.2	2.2	12.7	5.9	4.9	18.6	9.9	25.4	64.2	62.0
30	2.0	15.9	8.5	0.1	0.3	0.2	1.5	13.8	6.7	3.8	26.3	8.4	21.9	70.6	51.3

* Under Maintenance

AMBIENT AIR MONITORING STATION NO. V

Date	SO ₂ µg/m ³			CO mg/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	1.4	18.6	8.4	0.1	0.3	0.2	2.2	15.6	9.2	1.3	16.4	9.1	21.1	75.0	54.4
2	1.7	22.0	7.8	0.0	0.5	0.3	1.9	17.2	7.1	1.5	20.6	12.8	17.0	71.7	47.1
3	2.3	15.6	6.3	0.1	0.4	0.2	2.0	19.1	6.4	1.6	18.5	11.3	19.5	88.1	63.7
4	2.1	12.4	9.7	0.1	0.4	0.2	1.3	16.3	7.5	1.8	20.9	15.7	21.9	63.7	46.8
5	2.0	19.2	7.5	0.1	0.3	0.2	2.1	13.6	6.7	2.7	22.6	12.4	11.6	65.1	54.3
6	1.9	17.5	8.1	0.2	0.5	0.3	1.3	12.7	9.3	2.2	16.8	10.6	22.2	63.9	47.6
7	1.8	13.8	6.9	0.1	0.4	0.2	1.6	16.4	7.1	1.9	18.1	9.8	17.7	76.6	58.7
8	1.6	9.1	5.2	0.1	0.6	0.4	1.2	16.5	8.2	1.1	20.3	8.3	15.4	67.2	41.2
9	0.7	8.4	1.8	0.1	0.5	0.3	2.7	14.1	9.6	4.0	18.0	10.9	9.6	54.9	18.5
10	1.6	12.5	7.6	0.0	0.4	0.3	1.0	16.3	7.9	3.6	17.8	6.3	19.8	70.1	45.0
11	2.1	17.3	9.4	0.1	0.5	0.2	0.2	10.2	2.3	2.1	19.4	8.2	22.4	69.1	37.7
12	2.0	15.7	12.8	0.0	0.3	0.2	1.6	15.0	8.5	3.3	18.6	11.8	11.5	74.3	49.6
13	1.8	23.8	19.3	0.1	0.4	0.2	2.4	21.7	10.2	2.6	12.2	7.3	22.9	80.1	58.1
14	1.7	20.1	10.1	0.1	0.5	0.3	2.1	21.8	15.4	1.1	8.5	3.6	13.2	80.3	62.1
15	0.9	15.0	7.5	0.2	0.5	0.3	3.0	21.0	17.5	2.3	15.1	6.9	15.8	61.4	46.4
16	*	*	*	0.1	0.4	0.3	2.3	16.4	10.2	1.5	21.3	10.2	23.0	72.5	53.6
17	*	*	*	0.1	0.5	0.2	2.6	15.6	9.8	1.9	17.0	9.5	14.3	80.4	71.4
18	*	*	*	0.0	0.3	0.2	1.8	16.9	6.0	2.5	19.2	10.9	17.1	71.9	52.9
19	*	*	*	0.1	0.3	0.2	2.1	14.1	5.4	2.2	20.6	11.3	12.7	69.7	42.3
20	2.2	16.5	6.8	0.0	0.2	0.1	2.3	18.3	6.2	3.4	27.4	20.1	17.0	72.3	55.5
21	1.5	18.8	7.9	0.1	0.4	0.2	1.6	17.7	7.1	3.0	12.8	11.4	25.2	78.5	39.8
22	1.9	21.4	6.5	0.1	0.3	0.1	2.4	15.5	4.7	2.2	18.1	8.2	16.5	81.2	60.6
23	2.2	17.9	7.7	0.0	0.2	0.1	1.5	14.3	5.9	2.1	14.3	12.9	20.4	75.9	53.2
24	2.4	21.5	8.3	0.1	0.4	0.2	1.9	17.8	8.1	3.0	12.8	9.5	25.7	72.1	41.3
25	2.1	19.2	10.6	0.1	0.3	0.1	2.1	15.4	6.5	2.2	18.1	7.3	15.9	76.9	57.6
26	2.0	14.6	9.2	0.1	0.5	0.2	2.4	14.3	7.9	2.1	14.3	8.4	23.0	75.4	50.2
27	1.4	15.9	8.9	0.2	0.7	0.6	1.9	16.6	5.6	2.5	20.5	10.5	21.7	70.3	59.9
28	2.2	16.7	7.4	0.0	0.2	0.1	1.7	14.9	4.3	3.0	12.8	7.7	18.4	65.6	48.3
29	1.3	17.1	8.8	0.0	0.4	0.2	2.3	18.2	6.4	4.1	16.1	8.6	15.7	71.1	50.4
30	2.1	11.0	9.1	0.1	0.3	0.2	2.0	16.7	7.5	3.5	21.2	9.3	10.5	62.7	46.6

* Under Maintenance