

**ACTION PLAN FOR CRITICALLY POLLUTED INDUSTRIAL CLUSTERS**  
**OF**  
**KANPUR NAGAR (U.P.)**

(Progress of Action Plan as on 08-08-2013)



**U.P.POLLUTION CONTROL BOARD**  
**5243, Sadbhawna Nagar, Awas Vikas, Phase-3, Kalyanpur**  
**Kanpur Nagar**

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S. No.	Action points (Sources and Mitigation)	Responsible stake holders	Time Limit/Frequency	Progress made so far up to August, 2013
1.	<p align="center"><b><u>WATER POLLUTION</u></b></p> <p><b>a) Industrial sources</b> Action plan for effective control of water pollution:</p> <ul style="list-style-type: none"> <li>Regular monitoring (Inspection &amp; Sample collection) of pollution control systems in large, medium and small scale water polluting industries to be done to ensure strict compliance of prescribed norms.</li> </ul> <p>It is to be mentioned here that 427 industries are covered under water polluting units in Kanpur city. All operational units have installed adequate effluent treatment plant and are being monitored by UPPCB, Also it is being ensured by UPPCB that new units shall setup with adequate pollution control system.</p>	UPPCB	<p><b><u>Frequency</u></b> Large &amp; medium Industries-Every 3 months small Scale Industries - Every 6 Months.</p>	Monitoring is done on regular basis as per schedule. In Last quarter 126 no. of inspections were carried out.
	<ul style="list-style-type: none"> <li>There is no sewerage network in many areas of Jajmau, therefore domestic sewage is mixed with tannery effluent by common convence channel which ultimately increases the quantity of effluent to CETP and also reaches to River Ganga through drains.</li> </ul>	Nagar Nigam Kanpur/ Ganga Pollution Control Unit (U.P Jal Nigam)		Principal Secretary, Urban Development, Department of U.P. has requested to Mission Director, NMCG, NGRBA, New Delhi for the release of fund to preparation of DPR by CLRI, Chennai.
b)	<p><b>Domestic Wastewater (Sewage)</b></p> <p>➤ About 426MLD sewage is generated in Kanpur city. There are two Sewage Treatment Plants operational in Kanpur city. The status is as follows: 1- 130 MLD S.T.P- At Jajmau 2- 05 MLD S.T.P- At Jajmau.</p> <p>➤ It is to be mentioned here that 27 MLD sewage is mixed with 9MLD tannery effluent in 36 MLD Common Effluent Treatment Plant, Hence total sewage treatment facility is 162 MLD.</p>	Ganga Pollution Control Unit (U.P Jal Nigam)	Weekly by UPPCB	<ul style="list-style-type: none"> <li>S.T.Ps are being monitored by U.P.P.C.B as per schedule.</li> <li>Time to time directions have been issued to authorities for effective operations of STPs to ensure the prescribed norms. <b>(Last six months quality report chart of treated effluent is enclosed)</b></li> </ul>

S. No.	Action points (Sources and Mitigation)	Responsible stake holders	Time Limit/Frequency	Progress made so far up to August, 2013
	<p>➤ The operation of existing S.T.Ps is not satisfactory and needs improvements. UPPCB is regularly inspecting the above two S.T.Ps and also has issued directives to Ganga Pollution Control Unit (U.P. Jal Nigam) for improvement and proper operation of the same.</p>	Nagar Nigam/Ganga Pollution Control Unit (Jal Nigam)/UPPCB	Weekly by UPPCB	<ul style="list-style-type: none"> <li>• CCTV cameras have been installed to check the regular operation of STP's.</li> <li>• At 5MLD STP one DG set of 45KVA and at 130MLD STP two DG sets of 500KVA capacity each have been installed and used as backup power for regular operation of STP's.</li> <li>• AT 130 MLD STP installation of one more DG set with a capacity of 1250 KVA is in progress.</li> </ul>
	<p>➤ In order to ensure treatment of total sewage generated so that no untreated sewage is discharged, 04 STPs are proposed by Ganga Pollution Control Unit (U.P Jal Nigam) as follows:</p> <ul style="list-style-type: none"> <li>• 210 MLD at Bingawan</li> <li>• 43 MLD at Jajmau</li> <li>• 42 MLD at Sajari</li> <li>• 15 MLD at Baniyapur</li> </ul>	Nagar Nigam/Ganga Pollution Control Unit (Jal Nigam)/UPPCB	Year, 2014	<ul style="list-style-type: none"> <li>• 210 MLD capacity STP is under construction, over all 83% work has been completed and expected to complete by March, 2014.</li> <li>• 43 MLD capacity STP is under construction, over all 50% work has been completed.</li> <li>• 42 MLD capacity STP is under construction, over all 66% work has been completed.</li> <li>• 15 MLD capacity STP along with MPS is under construction, over all 26% work has been completed.</li> </ul>
	<p>➤ Institutions are also source of sewage generation. Such institutions must ensure setting up of STPs, recirculation of treated water for gardening purposes etc and to ensure treated effluent quality as per prescribed norms.</p>	Institutions/Nagar Nigam/UPPCB	Being Monitored	<p>Directions has been issued to different Institutions for installation of STP and progress made so far-</p> <ul style="list-style-type: none"> <li>• 0.95 MLD capacity in IIT Kanpur.</li> <li>• 0.150 MLD capacity in NSI, Kanpur.</li> <li>• 1.50 MLD capacity in Armapur estate, Kanpur.</li> <li>• 0.56 MLD capacity in Defence Colony, Chakeri.</li> </ul>

S. No.	Action points (Sources and Mitigation)	Responsible stake holders	Time Limit/Frequency	Progress made so far up to August, 2013
c)	<b>Infrastructural Facilities</b> <ul style="list-style-type: none"> <li>Problem of water logging in industrial areas of Panki site 1,2,3,4,5 as a result of inadequate and damaged conveyance system occurs frequently.</li> </ul>	Nagar Nigam/ UPSIDC	6 Month	Environmental Engineer, Kanpur Nagar Nigam has informed vide letter dated-11.07.13 that action plan for the maintenance of damaged conveyance channel has been prepared and will be completed after approval.
d)	<b>Illegal Setup of Industrial Activities in Residential Areas</b> <p>In compliance of Hon'ble High Court, Allahabad order dated: 13.08.03, Chief Secretary Govt. of U.P. vide letter No. CS 89(1)/9- Aa-2003-62-Rit/2003 dt. 01.11.03 issued direction to all concerning authorities that no industrial activities shall be permitted in the residential areas.</p>	Kanpur Development Authority/Kanpur Nagar Nigam/KESCO/DIC/ U.P.P.C.B.	On going	<ul style="list-style-type: none"> <li>UPPCB is not permitting industrial unit in residential area and requested to District Magistrate, Kanpur to issue direction to the concerning authorities.</li> <li>During action plan review meeting dt-26.06.2013 District Magistrate issued direction to concerning authorities for same.</li> <li>In compliance of action plan review meeting dt-26.06.2013, Vice Chairman, KDA has informed vide letter dated: 03.08.13 that directions issued to concerning Joint Secretary/Additional Secretary for inventorisation of industrial units in residential areas.</li> </ul>

S. No.	Action points (Sources and Mitigation)	Responsible stake holders	Time Limit/Frequency	Progress made so far up to August, 2013
2.	<b><u>AIR POLLUTION</u></b>			
a)	<b>Industrial Pollution</b> <ul style="list-style-type: none"> <li>• Total 213 industries are covered under Air polluting industries in Kanpur city. All operational industries have Air Pollution Control System (APCS).</li> </ul>	UPPCB& Individual Industries	<u>Frequency</u> Stack Monitoring of Large & Medium units in every 6 months and once in a year for SSI units.	UPPCB is inspecting industries on regular basis.
	<ul style="list-style-type: none"> <li>• Implementation of cleaner technology in order to reduce process and fugitive emissions &amp; effective operations and maintenance of installed APCS</li> <li>• Switching over to cleaner fuel has been proposed as the best option to control Air pollution in industrial area.</li> <li>• To supply and promote the use of cleaner fuel like CNG, PNG in order to reduce emissions in the industries.</li> </ul>	Individual industry  CUGL/Industrial Associations	Within 06 months  Within 06 months subject to availability of CNG, PNG	<ul style="list-style-type: none"> <li>• CUGL has laid down pipe line in industrial area Dada Nagar, Panki site no. 1,2,3,4,5, Fazalganj and Juhi.</li> <li>• Meeting organized with officer's of CUGL on dt- 01.08.13 regarding the availability of PNG and progress of pipe line laying in the other areas of Kanpur city.</li> <li>• Chief Manager, CUGL has informed vide letter dated 08.07.2013 that 36 industrial units are using PNG as fuel.</li> </ul>
	<ul style="list-style-type: none"> <li>• Panki Thermal Power plant shall ensure that action plan for maintenance and operation of sewage treatment plant, overhauling and repairing of current ESP's and establishment of Ash Water Re-circulation System (AWRS) to be submitted on priority basis.</li> </ul>	PANKI POWER PLANT	Within 06 months	<ul style="list-style-type: none"> <li>• Directions have been issued to M/s Panki Thermal Power Plant for compliance of pollution norms by UPPCB.</li> <li>• STP has been installed and commissioned in the month July, 2013. Direction has been issued by UPPCB for proper operation and maintenance of STP to achieve the prescribed norms.</li> <li>• Overhauling of ESP will be completed in October, 2013</li> <li>• Ash Water Re-circulation System is under commission.</li> </ul>

S. No.	Action points (Sources and Mitigation)	Responsible stake holders	Time Limit/Frequency	Progress made so far up to August, 2013
b)	<p><b>Vehicular Pollution</b></p> <ul style="list-style-type: none"> <li>➤ At present 01 mother station and 10 online CNG stations are operational with combined capacity of 152,000 kg/day and are supplying 75210 kg/day CNG.</li> <li>➤ All the commercial vehicles shall be enforced to switch over into CNG / PNG.</li> <li>➤ Diesel commercial old vehicles should be phased out.</li> </ul>	RTO	As per approved schedule for phasing out of the vehicle. To be implemented by RTO with immediate effect.	<ul style="list-style-type: none"> <li>• Regional Transport Officer has informed that one mother stations and 11 stations are operational in Kanpur Nagar. No. of various vehicles converted to cleaner fuel, following status of CNG based vehicles (as on dt. 26.06.13)- <ul style="list-style-type: none"> <li>Tempo- 3743</li> <li>Autos- 2995</li> <li>Private City Buses- 231</li> <li>School Buses- 452</li> <li>Private School Buses- 76</li> <li>Private Cars- 15</li> <li>Roadways Buses &amp; Buses Under JNNURM – 293</li> <li>Loaders- 3870</li> <li>Total CNG based Vehicles = 11675</li> <li>Total Diesel based vehicles = 108</li> </ul> </li> <li>• Pollution checking centre = 22</li> <li>• Transport Dept. has checked 36267 vehicles between 01.04.12 to 31.03.13 and out of them 32709 vehicles were found within PUC limit and 3558 No. of vehicles were challaned during this period.</li> <li>• 27688 vehicles were checked by PUC Centers in between 01.04.12 to 31.03.13 and 25345 vehicles were found within PUC Limit.</li> <li>• Age Limit of CNG based- <ul style="list-style-type: none"> <li>- Auto-Tempo = 10 years</li> <li>- Roadway's City Buses = 12 years</li> <li>- School Buses- 15 years</li> </ul> </li> </ul>

S. No.	Action points (Sources and Mitigation)	Responsible stake holders	Time Limit/Frequency	Progress made so far up to August, 2013
	Underground parking, multilevel parking should be constructed so that the problem of traffic jam due to uneven parking of vehicles could be minimized.	KDA/KNN		Meeting held with officer's of KDA on dt- 01.08.13 and during meeting they informed that a project of underground parking at Narora Chauraha is under consideration and hope that very shortly the proposal will be finalized.
3.	<p align="center"><b><u>AMBIENT AIR MONITORING</u></b></p> <p>a) At present board have 09 National Ambient Air Monitoring Programme (NAMP) stations are operational in Kanpur city as follows:</p> <ul style="list-style-type: none"> <li>• 06 stations at- Kidwai Nagar, Shastri Nagar, Darshanpurwa, Panki and Awas Vikas phase-I. (PM<sub>10</sub>)</li> <li>• 03 Stations at IIT Kanpur, Ratanpur and Kidwai Nagar. (PM<sub>2.5</sub>)</li> </ul> <p>Board has also installed one online NAMP station at Brahm Nagar chauraha with data display board and monitoring done by Envirotech Instrument Pvt. Ltd, New Delhi.</p>	<p align="center">UPPCB</p> <p align="center">UPPCB</p>	<p align="center">Being Monitored</p> <p align="center">Being Monitored</p>	<p>Six months ambient air quality report is enclosed.</p> <p>Four months ambient air quality report enclosed.</p> <p>Six months ambient air quality report is enclosed.</p>
	According to Ambient Air Quality Reports of above said stations, it is mentioned here that PM <sub>10</sub> values are higher than the prescribed standard limits. The main sources of particulate matter are controlled Industrial emissions, vehicular emissions, construction activities, damaged road networks, etc.	UPPCB/RTO/Traffic Police/KDA/PWD /Nagar Nigam	On going	Meeting held with officer's of PWD on dt- 01.08.13 and during meeting they informed that for internal damaged road network and during other road construction activities, directions has been issued to concerning officer's & contractors to provide the water sprinklers for control of dust emission during the road construction activities.

S. No.	Action points (Sources and Mitigation)	Responsible stake holders	Time Limit/Frequency	Progress made so far up to August, 2013
b)	<p><b>Common Bio-Medical Waste Treatment Plant</b> Two Common Bio-Medical Waste Treatment Plants are operated by-</p> <ul style="list-style-type: none"> <li>• M/s Medical Pollution Control Committee, Bhauti, Kanpur-</li> <li>• M/s Willword Environmental Inc. Bithoor, Kanpur-</li> <li>• 395 Health Care Facilities are identified in Kanpur, Out of which 393 are member of CBWTF and 02 have their own treatment facility. Regular inspection &amp; monitoring of HCF has to be done.</li> </ul>	UPPCB	Inspection of Big HCF's in every three months & Small HCF's in every 06 months by UPPCB.	Regularly being monitored. In Last quarter 70 no. of inspections were carried out.
	<ul style="list-style-type: none"> <li>• Up-gradation, effective operation &amp; maintenance of CBWTF have to be done according to guidelines of Central Pollution Control Board, New Delhi.</li> <li>• Regular inspection and monitoring of Health Care Facilities and CBWTF.</li> </ul>	CBWTF Operator & UPPCB  UPPCB	CBWTF Operator in 06 months, Inspection & Monitoring of CBWTF- Every 03 Months by UPPCB.  Inspection & Monitoring- Every 03 Months by UPPCB.	<ul style="list-style-type: none"> <li>• During action plan review meeting dt- 26.06.13, District Magistrate, Kanpur has directed to facilitator that upgradation and time bound action plan to be submitted to UPPCB through Chief Medical Officer, Kanpur.</li> <li>• In compliance of the meeting dt- 26.06.13, CBWTF submitted time bound action plan for upgradation of existing facility as per norms. upgradation will be completed within 06 months.</li> </ul>



S. No.	Action points (Sources and Mitigation)	Responsible stake holders	Time Limit/Frequency	Progress made so far up to August, 2013
4.	<p align="center"><b><u>HAZARDOUS WASTE DISPOSAL</u></b></p> <p>a) In Kanpur city 354 numbers of industrial units are identified under Hazardous Waste (Management and Handling) Rules 1989 as amended. In compliance of this rule all operational units are member of common hazardous waste treatment facility for the safe disposal of hazardous waste.</p>	U.P.P.C.B/Individual Industry	Being Monitored	<ul style="list-style-type: none"> <li>• During action plan review meeting dt-26.06.13, District Magistrate, Kanpur has directed to TSDF facilitator to provide the monthly details of hazardous waste lifting from various industries to UPPCB and UPPCB ensure the compliance of Hazardous Waste (Management and Handling) Rules 1989. Regular monitoring is to be done by UPPCB.</li> <li>• In last quarter of this year quantity of hazardous waste collected as- M/s Rameky Enviro Engineers-4563MT M/s Bharat Oil- 41.215MT</li> </ul>
b)	<p>In Jajmau area, there is 36 MLD Common Effluent Treatment Plant (CETP) and 70 KLD Common Chrome Recovery Plant (CCRP) are operational for treatment of polluted effluents from tannery units. Sludge generated from 36 MLD CETP and 70 KLD CCRP is covered in category- 30.1 of Schedule-I under Hazardous Waste (Management and Handling) Rules 1989 as amended.</p> <p>Presently CETP, CCRP sludge is dumped in open area near Air Force drain at Jajmau. Quantity of sludge as per Nagar Nigam estimation is about approximately 12000 MT.</p>	Nagar Nigam Kanpur	Within 04 months	<ul style="list-style-type: none"> <li>• During action plan review meeting dt- 26.06.13, district Magistrate, Kanpur has directed to Nagar Nigam for safe disposal of dumped hazardous waste to TSDF.</li> <li>• Officer of Nagar Nigam has informed that for safe disposal of CETP &amp; CCRP sludge contract given to M/s U.P Waste Management Project, Division of Ramkey Enviro Engineers, Kanpur Dehat and about 52000MT sludge from August, 2009 to July, 2013 has been disposed at Kumbhi TSDF site, Kanpur Dehat. Remaining hazardous waste will be disposed by September, 2013.</li> </ul>

S. No.	Action points (Sources and Mitigation)	Responsible stake holders	Time Limit/Frequency	Progress made so far up to August, 2013
5.	<p><b><u>MUNICIPAL SOLID WASTE DISPOSAL</u></b></p> <p>According to Nagar Nigam total 1100MT/day municipal solid waste (MSW) is generated in Kanpur city. In the compliance of Municipal Solid Waste (Management and Handling) Rules, 2000, the secure disposal of MSW is carried out by M/S A to Z infrastructure, panki, Kanpur with the capacity to treat 1500MT/day.</p>	<p>Kanpur Nagar Nigam</p>	<p>Monitoring in every 03 months by UPPCB.</p>	<p>During action plan review meeting dt-26.06.013, Officer, Nagar Nigam submitted the details regarding MSW disposal system that M/s A2Z Infrastructure Limited is providing the services in Kanpur city. Presently 1100 MT per day MSW lifting and disposing regularly.</p>



4213/MSIL  
4.9.13

उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड  
UTTAR PRADESH POLLUTION CONTROL BOARD

संदर्भ सं०

Ref. No. F29704 / C2/सा-193/13

दिनांक

Date 30/8/13

To,

Member Secretary  
Central Pollution Control Board,  
Parivesh Bhawan, East Arjun Nagar,  
Delhi - 32.

**Subject :- Progress Report of Implementation of Activities enlisted in Action Plan for Kanpur Nagar.**

Sir,

Please refer to Board's letter no. F 87187/C-2/सा-193 dated 07.06.2011 vide which the progress report of the Kanpur Action Plan upto 30.04.2011 has been forwarded.

The implementation of said Action Plan has been initiated and being monitored by monitoring committee constituted by District Administration Kanpur. It is to be highlighted that considerable progress has been made especially in construction of Sewage Treatment Plants, Air Pollution Control in Industrial units by way of upgraded technologies, BMW disposal facilities etc. It will bring down CEPI considerably.

The Progress Report of implementation of activities enlisted in Action Plan for Kanpur is duly approved by District Magistrate. The minutes of the review meeting held on 26.06.2013 under the Chairmanship of District Magistrate, Kanpur and the updated status of Action Plan as on 08.08.2013 are being enclosed herewith for your ready reference. You are requested to lift the moratorium on consideration of Projects for environmental clearance.

Yours sincerely

(J.S. Yadav)

Member Secretary

Copy to :-

1. Industrial Development Commissioner, Secretariat Building, Annexe Building, Govt. of U.P.
2. Special Secretary, Environment, Govt. of U.P.

Member Secretary

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Pl. review

P/W

06/9

Dr. Chary. EB

## U.P.POLLUTION CONTROL BOARD

5243 , Avas Vikas , Phase -III

Kalyanpur , Kanpur

**Analysis Report of S.T.P & C.E.T.P Jajmau , Kanpur**

**Method of Sampling – Grab**

Date of Sampling:- 24/01/2013

Sample Collected by – Dr. I. K. Gautam, S.A.

Parameters	5 M.L.D (S.T.P)		130 M.L.D (S.T.P.)		36 M.L.D.(C.E.T.P.)		Irrigation Channel
	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	
Colour	Blakish	Light Yellow	Blakish	Light Yellowish	Blakish	Light Yellowish	Light Yellowish
Odour	Unpleasent	Unpleasent	Unpleasent	Unpleasent	Unpleasent	Unpleasent	Unpleasent
p <sup>H</sup>	7.98	7.68	7.15	7.34	7.62	7.38	8.22
B.O.D(mg/l)	250	80	260	54	272	76	48
C.O.D(mg/l)	760	248	680	168	580	248	156
T.S(mg/l)	2140	618	2012	540	2242	780	620
T.D.S(mg/l)	1452	460	1322	392	1492	590	450
T.S.S(mg/l)	688	158	690	148	750	190	170
T. Chromium (mg/l)	ND	ND	ND	ND	ND	ND	ND

**BOD- Bio-Chemical Oxygen Demand, COD- Chemical Oxygen Demand, TS- Total Solid, TDS-Total Disolved Solid, TSS- Total Suspended Solid, ND- Not Detected**

(S.A.)

(A.S.O.)

(R.O.)

## U.P.POLLUTION CONTROL BOARD

5243 , Avas Vikas , Phase -III

Kalyanpur , Kanpur

**Analysis Report of S.T.P & C.E.T.P Jajmau , Kanpur**

**Method of Sampling – Grab**

**Date of Sampling:- 08/02/2013**

**Sample Collected by – Dr. I. K. Gautam, S.A.**

Parameters	5 M.L.D (S.T.P)		130 M.L.D (S.T.P.)		36 M.L.D.(C.E.T.P.)		Irrigation Channel
	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	
Colour	Light Gray	Light Yellowish	Gray	Light Yellowish	Gray	Light Yellowish	Light Yellowish
Odour	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant
p <sup>H</sup>	7.52	7.24	7.28	7.38	7.22	7.36	7.35
B.O.D(mg/l)	240	82	280	44	270	66	58
C.O.D(mg/l)	560	272	600	208	570	224	192
T.S(mg/l)	2450	645	2280	538	2388	628	612
T.D.S(mg/l)	1772	477	1592	394	1664	470	452
T.S.S(mg/l)	678	168	688	144	724	158	160
T. Chromium (mg/l)	ND	ND	ND	ND	ND	ND	ND

**BOD- Bio-Chemical Oxygen Demand, COD- Chemical Oxygen Demand, TS- Total Solid,  
TDS-Total Dissolved Solid, TSS- Total Suspended Solid, ND- Not Detected**

(S.A.)

(A.S.O.)

(R.O.)

## U.P.POLLUTION CONTROL BOARD

5243 , Avas Vikas , Phase -III

Kalyanpur , Kanpur

**Analysis Report of S.T.P & C.E.T.P Jajmau , Kanpur**

**Method of Sampling – Grab**

Date of Sampling:- 25/02/2013

Sample Collected by – Shri Ram Das, S.A.

Parameters	5 M.L.D (S.T.P)		130 M.L.D (S.T.P.)		36 M.L.D.(C.E.T.P.)		Irrigation Channel
	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	
Colour	Grey	Light Grey	Grey	Light Grey	Grey	Light Grey	Light Grey
Odour	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant
p <sup>H</sup>	7.40	7.73	7.69	7.76	7.66	8.14	8.13
B.O.D(mg/l)	360	195	470	230	600	290	220
C.O.D(mg/l)	840	352	1040	560	1840	760	480
T.S(mg/l)	1890	974	2624	1100	2786	1808	972
T.D.S(mg/l)	786	522	1822	820	1244	1596	638
T.S.S(mg/l)	1104	452	802	280	1542	212	334
T. Chromium (mg/l)	ND	ND	ND	ND	ND	ND	ND

**BOD- Bio-Chemical Oxygen Demand, COD- Chemical Oxygen Demand, TS- Total Solid,  
TDS-Total Dissolved Solid, TSS- Total Suspended Solid, ND- Not Detected**

(S.A.)

(A.S.O.)

(R.O.)

## U.P.POLLUTION CONTROL BOARD

5243 , Avas Vikas , Phase -III

Kalyanpur , Kanpur

**Analysis Report of S.T.P & C.E.T.P Jajmau , Kanpur**

**Method of Sampling – Grab**

Date of Sampling:- 04/03/2013

Sample Collected by – Dr. I.K.Gautam, S.A.

Parameters	5 M.L.D (S.T.P)		130 M.L.D (S.T.P.)		36 M.L.D.(C.E.T.P.)		Irrigation Channel
	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	
Colour	Grey	Light Grey	Grey	Light Grey	Grey	Light Grey	Light Grey
Odour	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant
p <sup>H</sup>	7.25	7.36	7.56	7.82	8.13	8.52	8.08
B.O.D(mg/l)	390	180	490	250	720	410	240
C.O.D(mg/l)	960	408	1480	790	2240	1280	668
T.S(mg/l)	1940	972	2830	1020	2856	1690	896
T.D.S(mg/l)	860	408	1962	720	1396	1386	516
T.S.S(mg/l)	1080	564	868	296	1460	304	380
T. Chromium (mg/l)	ND	ND	ND	ND	ND	ND	ND

**BOD- Bio-Chemical Oxygen Demand, COD- Chemical Oxygen Demand, TS- Total Solid,  
TDS-Total Dissolved Solid, TSS- Total Suspended Solid, ND- Not Detected**

(S.A.)

(A.S.O.)

(R.O.)

## U.P.POLLUTION CONTROL BOARD

5243 , Avas Vikas , Phase -III

Kalyanpur , Kanpur

**Analysis Report of S.T.P & C.E.T.P Jajmau , Kanpur**

**Method of Sampling – Grab**

Date of Sampling:- 30/03/2013

Sample Collected by – Sri Ram Das, S.A.

Parameters	5 M.L.D (S.T.P)		130 M.L.D (S.T.P.)		36 M.L.D.(C.E.T.P.)		Irrigation Channel
	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	
Colour	Grey	Light Grey	Grey	Light Grey	Grey	Yellowish	Light Grey
Odour	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant
p <sup>H</sup>	7.13	7.24	7.34	7.62	7.49	7.86	7.49
B.O.D(mg/l)	390	215	580	225	1750	500	240
C.O.D(mg/l)	880	368	1120	576	2880	1160	496
T.S(mg/l)	3380	1872	6350	1580	3786	2048	1276
T.D.S(mg/l)	1964	1568	4546	1172	2340	1418	994
T.S.S(mg/l)	1416	304	1804	408	1446	630	282
T. Chromium (mg/l)	1.08	0.63	1.14	0.34	12.24	3.78	1.38

**BOD- Bio-Chemical Oxygen Demand, COD- Chemical Oxygen Demand, TS- Total Solid,**

**TDS-Total Dissolved Solid, TSS- Total Suspended Solid, ND- Not Detected**

(S.A.)

(A.S.O.)

(R.O.)



# **U.P.POLLUTION CONTROL BOARD**

5243 , Avas Vikas , Phase -III

Kalyanpur , Kanpur

**Analysis Report of S.T.P & C.E.T.P Jajmau , Kanpur**

**Method of Sampling – Grab**

Date of Sampling:- 26/04/2013

Sample Collected by – Dr. I.K.Gautam, S.A.

Parameters	5 M.L.D (S.T.P)		130 M.L.D (S.T.P.)		36 M.L.D.(C.E.T.P.)		Irrigation Channel
	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	
Colour	Grey	Light Grey	Grey	Grey	Grey	Light Yellowish	Light Yellowish
Odour	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant
p <sup>H</sup>	7.42	7.38	7.52	7.26	7.82	7.58	7.82
B.O.D(mg/l)	580	280	610	290	1740	740	390
C.O.D(mg/l)	1460	680	1360	640	3822	1580	640
T.S(mg/l)	2862	1682	5266	1804	4590	3012	3452
T.D.S(mg/l)	1602	1280	3306	1322	3134	2222	2972
T.S.S(mg/l)	1260	702	1960	482	1456	790	480
T. Chromium (mg/l)	1.04	0.64	1.42	0.82	14.74	3.64	1.64

**BOD- Bio-Chemical Oxygen Demand, COD- Chemical Oxygen Demand, TS- Total Solid, TDS-Total Dissolved Solid, TSS- Total Suspended Solid, ND- Not Detected**

(S.A.)

(A.S.O.)

(R.O.)

# **U.P.POLLUTION CONTROL BOARD**

5243 , Avas Vikas , Phase -III

Kalyanpur , Kanpur

**Analysis Report of S.T.P & C.E.T.P Jajmau , Kanpur**

**Method of Sampling – Grab**

Date of Sampling:- 06/04/2013

Sample Collected by – Sri Ram Das, S.A.

Parameters	5 M.L.D (S.T.P)		130 M.L.D (S.T.P.)		36 M.L.D.(C.E.T.P.)		Irrigation Channel
	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	
Colour	Grey	Light Grey	Grey	Light Grey	Grey	Yellowish	Light Grey
Odour	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant
p <sup>H</sup>	7.68	7.79	7.58	8.03	8.16	8.55	8.61
B.O.D(mg/l)	410	195	550	220	1950	610	230
C.O.D(mg/l)	920	352	1080	544	2960	1240	480
T.S(mg/l)	6026	1424	4812	1656	3120	2506	2436
T.D.S(mg/l)	3760	932	3224	1038	1808	1948	2058
T.S.S(mg/l)	2266	492	1588	618	1312	560	378
T. Chromium (mg/l)	1.04	0.54	1.09	0.36	14.04	4.14	1.42

**BOD- Bio-Chemical Oxygen Demand, COD- Chemical Oxygen Demand, TS- Total Solid,  
TDS-Total Dissolved Solid, TSS- Total Suspended Solid, ND- Not Detected**

(S.A.)

(A.S.O.)

(R.O.)

## U.P.POLLUTION CONTROL BOARD

5243 , Avas Vikas , Phase -III

Kalyanpur , Kanpur

**Analysis Report of S.T.P & C.E.T.P Jajmau , Kanpur**

**Method of Sampling – Grab**

Date of Sampling:- 08/05/2013

Sample Collected by – Shri Ram Dass, S.A.

Parameters	5 M.L.D (S.T.P)		130 M.L.D (S.T.P)		36 M.L.D.(C.E.T.P.)		Irrigation Channel
	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	
Colour	Grey	Light Grey	Grey	Light Grey	Grey	Light Grey	Light Yellowish
Odour	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant
p <sup>H</sup>	7.61	7.43	7.38	7.28	7.70	7.68	7.75
B.O.D(mg/l)	520	290	510	240	1600	520	360
C.O.D(mg/l)	1360	608	1280	560	3360	1456	592
T.S(mg/l)	2552	1530	4764	1774	3960	2814	3374
T.D.S(mg/l)	1462	1132	2882	1360	2768	2132	3068
T.S.S(mg/l)	1090	398	1882	414	1192	682	306
T. Chromium (mg/l)	0.99	0.54	3.08	0.63	11.79	2.43	1.18

**BOD- Bio-Chemical Oxygen Demand, COD- Chemical Oxygen Demand, TS- Total Solid,  
TDS-Total Disolved Solid, TSS- Total Suspended Solid, ND- Not Detected**

(S.A.)

(A.S.O.)

(R.O.)

## U.P.POLLUTION CONTROL BOARD

5243 , Avas Vikas , Phase -III

Kalyanpur , Kanpur

**Analysis Report of S.T.P & C.E.T.P Jajmau , Kanpur**

**Method of Sampling – Grab**

Date of Sampling:- 22/05/2013

Sample Collected by – Sri Sanjeev Kr. Mishra (M.A.)

Parameters	5 M.L.D (S.T.P)		130 M.L.D (S.T.P.)		36 M.L.D.(C.E.T.P.)		9 MLD	Irrigation Channel
	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	
Colour	Grey	Light Grey	Grey	Light Grey	Grey	Light Grey	Dark Grey	Light Grey
Odour	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant
p <sup>H</sup>	7.29	7.38	7.20	7.40	7.38	7.72	8.63	7.94
B.O.D(mg/l)	390	140	400	125	850	410	2100	145
C.O.D(mg/l)	840	328	880	272	1520	720	3680	336
T.S(mg/l)	2690	1516	2738	1488	4042	1676	14320	1518
T.D.S(mg/l)	1844	1208	1950	1224	2908	1160	5436	1232
T.S.S(mg/l)	846	308	788	264	1134	516	8894	286
T. Chromium (mg/l)	1.06	0.30	0.92	ND	10.16	2.70	28.20	0.64

**BOD- Bio-Chemical Oxygen Demand, COD- Chemical Oxygen Demand, TS- Total Solid,**

**TDS-Total Dissolved Solid, TSS- Total Suspended Solid, ND- Not Detected**

(S.A.)

(A.S.O.)

(R.O.)

## U.P.POLLUTION CONTROL BOARD

5243 , Avas Vikas , Phase -III

Kalyanpur , Kanpur

**Analysis Report of S.T.P & C.E.T.P Jajmau , Kanpur**

**Method of Sampling – Grab**

Date of Sampling:- 01/06/2013

Sample Collected by – Sri G.C.Arya (A.E.E.) & Sri Yogesh Kr. Mishra (J.E.)

Parameters	5 M.L.D (S.T.P)		130 M.L.D (S.T.P.)		36 M.L.D.(C.E.T.P.)		9 MLD Inlet	Irrigation Channel
	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet		
Colour	Grey	Light Grey	Grey	Light Grey	Grey	Light Grey	Dark Grey	Light Grey
Odour	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant
p <sup>H</sup>	7.18	7.40	7.29	7.50	7.48	7.70	8.52	7.61
B.O.D(mg/l)	380	130	360	120	1100	390	2300	150
C.O.D(mg/l)	760	288	720	256	1680	680	3840	336
T.S(mg/l)	2560	1488	2640	1452	4438	1892	16638	1638
T.D.S(mg/l)	1754	1204	1884	1194	3201	1174	5446	1344
T.S.S(mg/l)	806	284	556	258	1236	718	11192	294
T. Chromium (mg/l)	0.98	0.22	0.80	ND	14.10	2.04	23.80	0.58

**BOD- Bio-Chemical Oxygen Demand, COD- Chemical Oxygen Demand, TS- Total Solid,**

**TDS-Total Dissolved Solid, TSS- Total Suspended Solid, ND- Not Detected**

(S.A.)

(A.S.O.)

(R.O.)

**U.P.POLLUTION CONTROL BOARD**

5243 , Avas Vikas , Phase -III

Kalyanpur , Kanpur

**Analysis Report of S.T.P & C.E.T.P Jajmau , Kanpur**

**Method of Sampling – Grab**

Date of Sampling:- 29/06/2013

Sample Collected by – Sri Yogesh Kr. Mishra (J.E.)

Parameters	5 M.L.D (S.T.P)		130 M.L.D (S.T.P)		36 M.L.D.(C.E.T.P.)		9 MLD Inlet	Irrigation Channel
	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet		
Colour	Grey	Light Grey	Grey	Light Grey	Grey	Grey	Dark Grey	Light Grey
Odour	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant
p <sup>H</sup>	7.20	7.40	7.28	7.54	7.46	7.72	8.72	7.34
B.O.D(mg/l)	280	98	250	70	800	290	1800	105
C.O.D(mg/l)	640	240	560	192	1120	560	2560	224
T.S(mg/l)	2280	1240	2398	1080	3086	1430	12510	1140
T.D.S(mg/l)	1760	994	1838	862	2106	802	5000	974
T.S.S(mg/l)	520	246	560	218	980	628	7510	166
T. Chromium (mg/l)	0.40	ND	0.32	ND	9.10	1.30	--	ND

**BOD- Bio-Chemical Oxygen Demand, COD- Chemical Oxygen Demand, TS- Total Solid,  
TDS-Total Dissolved Solid, TSS- Total Suspended Solid, ND- Not Detected**

(S.A.)

(A.S.O.)

(R.O.)

# U.P. POLLUTION CONTROL BOARD

5243 , Avas Vikas , Phase -III  
Kalyanpur , Kanpur

## Analysis Report of S.T.P & C.E.T.P Jajmau , Kanpur

Method of Sampling: Grab  
Date of Sampling : 29/06/2013  
Sample Collected by : Mr. Y.K. Mishra (J.E)

Parameters	5 M.L.D (S.T.P)		130 M.L.D (S.T.P)		36 M.L.D (C.E.T.P)		9 MLD Inlet	Irrigation Channel
	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet		
Colour	Grey	Light Grey	Grey	Light Grey	Grey	Grey	Dark Grey	Light Grey
Odour	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant	Unpleasant
pH	7.20	7.40	7.28	7.54	7.46	7.72	8.72	7.34
B.O.D (mg/L)	280	98	250	70	800	290	1800	105
C.O.D (mg/L)	640	240	560	192	1120	560	2560	224
T.S (mg/L)	2280	1240	2398	1080	3086	1430	12510	1140
T.D.S (mg/L)	1760	994	1838	862	2106	802	5000	974
T.S.S (mg/L)	520	246	560	218	980	628	7510	166
T. Chromium (mg/L)	0.40	ND	0.32	ND	9.10	1.30	--	ND

*BOD- Bio-Chemical Oxygen Demand, COD- Chemical Oxygen Demand, TS- Total Solid, TDS-Total Dissolved Solid, TSS- Total Suspended Solid, ND- Not Detected, S.T.P- Sewage Treatment Plant, C.E.T.P- Common Effluent Treatment Plant, M.L.D- Million Litre per Day.*

Scientific Assistant

Assistant Scientific Officer

Regional Officer

# Uttar Pradesh Pollution Control Board

## Continuous Ambient Air Quality Monitoring Station, Kanpur

### Monthly Report for Criteria Pollutants

**January 2013**

Day	CO mg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	NOX µg/m <sup>3</sup>	PM <sub>10</sub> µg/m <sup>3</sup>	O <sub>3</sub> ppb
01 (Tue)	2.4	14	29	84	117	266	27
02 (Wed)	2.0	9	16	69	86	261	23
03 (Thu)	1.9	8	10	60	70	316	26
04 (Fri)	3.0	25	42	85	143	406	8
05 (Sat)	2.9	9	43	60	109	300	11
06 (Sun)	2.0	9	6	47	51	293	20
07 (Mon)	2.3	10	19	79	100	371	19
08 (Tue)	5.1	57	103	117	263	391	15
09 (Wed)	5.0	27	94	117	249	421	17
10 (Thu)	2.5	40	33	103	141	310	22
11 (Fri)	3.5	33	99	113	245	320	25
12 (Sat)	5.2	28	96	142	257	503	21
13 (Sun)	5.8	26	110	118	246	452	26
14 (Mon)	5.7	71	122	130	281	506	15
15 (Tue)	3.7	14	49	107	165	347	19
16 (Wed)	2.3	19	7	91	95	305	28
17 (Thu)	2.1	20	10	72	80	262	28
18 (Fri)	1.9	17	9	59	68	220	22
19 (Sat)	1.1	14	9	53	64	139	28
20 (Sun)	1.2	14	9	63	73	213	37
21 (Mon)	2.8	16	50	73	143	324	13
22 (Tue)	2.6	14	41	84	140	238	10
23 (Wed)	3.0	14	58	77	154	283	16
24 (Thu)	3.1	16	51	93	163	284	18
25 (Fri)	2.4	62	23	98	127	312	24
26 (Sat)	2.0	41	20	93	118	275	30
27 (Sun)	2.7	27	63	101	185	281	35
28 (Mon)	3.7	120	77	170	274	411	23
29 (Tue)	3.8	32	62	106	193	389	25
30 (Wed)	4.6	51	73	137	237	440	22
31 (Thu)	6.3	50	129	127	310	458	18
<b>Average</b>	3.2	29	48	94	160	333	22
<b>Minimum</b>	0.6	3	1	23	19	60	1
<b>Maximum</b>	18.1	434	577	307	932	862	75
<b>Capture</b>	97.0	96.8	86.4	97.0	97.0	96.3	97.6

One day data computed from every one hour raw data.

Minimum and Maximum value reported is of 1 hour average.

PF Power failure/Bad data



# Uttar Pradesh Pollution Control Board

## Continuous Ambient Air Quality Monitoring Station, Kanpur

### Monthly Report for Criteria Pollutants

**February 2013**

Day	CO mg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	NOX µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	O <sub>3</sub> ppb
01 (Fri)	5.1	32	96	126	255	321	20
02 (Sat)	3.8	26	34	129	174	305	24
03 (Sun)	5.3	32	100	103	233	313	28
04 (Mon)	2.4	15	18	81	104	182	27
05 (Tue)	1.1	16	11	52	63	45	21
06 (Wed)	1.6	15	16	65	86	70	14
07 (Thu)	1.4	13	32	77	118	66	21
08 (Fri)	1.5	19	25	83	116	83	29
09 (Sat)	2.8	55	45	92	153	133	23
10 (Sun)	3.3	56	45	98	159	184	24
11 (Mon)	3.0	27	40	90	145	151	28
12 (Tue)	3.7	52	50	105	173	215	23
13 (Wed)	1.5	29	12	67	81	106	33
14 (Thu)	2.7	25	44	64	125	134	30
15 (Fri)	2.5	17	53	62	136	88	8
16 (Sat)	1.1	12	12	49	65	46	9
17 (Sun)	1.6	12	40	52	109	56	10
18 (Mon)	1.8	12	29	62	101	80	12
19 (Tue)	1.7	11	21	61	89	81	13
20 (Wed)	1.6	13	18	52	76	93	13
21 (Thu)	3.3	20	72	66	167	413	13
22 (Fri)	4.0	18	91	68	198	146	11
23 (Sat)	1.9	22	21	51	80	97	10
24 (Sun)	1.7	14	34	52	99	54	12
25 (Mon)	2.1	25	24	42	75	68	12
26 (Tue)	2.6	26	30	45	86	102	15
27 (Wed)	3.7	21	60	67	152	92	9
28 (Thu)	1.7	24	24	48	81	61	21
<b>Average</b>	2.5	24	39	72	125	128	18
<b>Minimum</b>	0.5	8	1	18	19	15	1
<b>Maximum</b>	15.8	224	384	239	784	603	73
<b>Capture</b>	96.7	95.7	92.9	97.0	97.0	92.8	97.3

One day data computed from every one hour raw data.

Minimum and Maximum value reported is of 1 hour average.

PF Power failure/Bad data

# Uttar Pradesh Pollution Control Board

## Continuous Ambient Air Quality Monitoring Station, Kanpur

### Monthly Report for Criteria Pollutants

**March 2013**

Day	CO mg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	NOX µg/m <sup>3</sup>	PM <sub>10</sub> µg/m <sup>3</sup>	O <sub>3</sub> ppb
01 (Fri)	0.9	21	10	41	54	97	19
02 (Sat)	1.2	22	14	57	75	130	19
03 (Sun)	1.2	14	13	58	74	127	23
04 (Mon)	2.2	17	44	87	147	180	23
05 (Tue)	1.7	80	72	106	206	316	5
06 (Wed)	2.3	30	PF	PF	PF	186	23
07 (Thu)	2.7	28	23	61	91	207	20
08 (Fri)	2.6	58	6	57	61	244	19
09 (Sat)	2.8	62	13	47	63	253	16
10 (Sun)	3.5	28	PF	PF	PF	217	17
11 (Mon)	2.0	28	PF	PF	PF	185	19
12 (Tue)	2.8	51	4	43	47	311	17
13 (Wed)	4.3	38	PF	PF	PF	318	13
14 (Thu)	1.8	25	PF	PF	PF	224	17
15 (Fri)	1.2	22	PF	PF	PF	165	11
16 (Sat)	1.6	28	PF	PF	PF	160	13
17 (Sun)	1.4	23	PF	PF	PF	125	13
18 (Mon)	1.2	23	PF	PF	PF	191	13
19 (Tue)	2.0	26	PF	PF	PF	203	11
20 (Wed)	3.1	50	PF	PF	PF	295	6
21 (Thu)	2.4	25	PF	PF	PF	172	9
22 (Fri)	2.4	29	PF	PF	PF	233	10
23 (Sat)	1.9	32	PF	PF	PF	246	13
24 (Sun)	1.9	23	PF	PF	PF	177	15
25 (Mon)	1.5	24	PF	PF	PF	155	13
26 (Tue)	1.6	23	PF	PF	PF	138	15
27 (Wed)	1.6	14	PF	PF	PF	148	16
28 (Thu)	1.5	14	PF	PF	PF	109	12
29 (Fri)	1.3	12	PF	PF	PF	109	11
30 (Sat)	1.4	12	PF	PF	PF	109	12
31 (Sun)	1.6	17	PF	PF	PF	109	14
<b>Average</b>	2.0	28	23	63	92	186	15
<b>Minimum</b>	0.1	7	2	29	30	30	1
<b>Maximum</b>	13.4	252	207	193	463	679	44
<b>Capture</b>	89.9	93.1	18.3	19.1	19.1	94.8	94.5

One day data computed from every one hour raw data.

Minimum and Maximum value reported is of 1 hour average.

PF Power failure/Bad data

# Uttar Pradesh Pollution Control Board

## Continuous Ambient Air Quality Monitoring Station, Kanpur

### Monthly Report for Criteria Pollutants

**April 2013**

Day	CO mg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>X</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	O <sub>3</sub> ppb
01 (Mon)	3.3	33	PF	PF	PF	126	10
02 (Tue)	2.0	25	PF	PF	PF	65	14
03 (Wed)	1.0	25	PF	PF	PF	51	13
04 (Thu)	1.2	27	1	23	23	40	15
05 (Fri)	1.3	32	9	51	59	38	13
06 (Sat)	2.0	25	16	48	69	50	12
07 (Sun)	1.9	23	6	39	45	47	12
08 (Mon)	2.3	33	17	42	65	81	9
09 (Tue)	3.9	41	65	53	146	114	9
10 (Wed)	3.8	31	131	120	307	89	7
11 (Thu)	2.8	26	58	64	145	62	9
12 (Fri)	2.1	24	26	50	86	79	10
13 (Sat)	2.7	28	32	61	105	102	11
14 (Sun)	1.4	24	14	39	57	68	15
15 (Mon)	2.7	27	29	55	95	56	10
16 (Tue)	2.8	38	33	63	109	90	10
17 (Wed)	2.1	26	25	58	92	70	10
18 (Thu)	1.7	24	15	55	74	69	14
19 (Fri)	2.8	28	42	58	117	98	14
20 (Sat)	2.4	28	29	55	96	PF	7
21 (Sun)	0.9	20	5	23	29	PF	22
22 (Mon)	1.1	21	8	31	41	PF	17
23 (Tue)	1.8	23	21	50	78	PF	15
24 (Wed)	3.4	28	40	54	111	84	15
25 (Thu)	4.1	30	61	63	149	86	12
26 (Fri)	2.4	26	23	55	86	55	12
27 (Sat)	1.9	26	12	47	63	61	14
28 (Sun)	1.5	15	12	36	52	45	14
29 (Mon)	2.3	36	22	58	87	71	12
30 (Tue)	2.6	29	29	69	109	64	13
<b>Average</b>	2.3	27	29	53	91	72	12
<b>Minimum</b>	0.5	9	1	13	19	21	1
<b>Maximum</b>	12.3	287	446	417	799	242	36
<b>Capture</b>	93.5	94.2	81.2	83.8	83.8	95.2	95.0

One day data computed from every one hour raw data.

Minimum and Maximum value reported is of 1 hour average.

PF Power failure/Bad data

# Uttar Pradesh Pollution Control Board

## Continuous Ambient Air Quality Monitoring Station, Kanpur

### Monthly Report for Criteria Pollutants

May 2013

Day	CO mg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	NOX µg/m <sup>3</sup>	PM <sub>10</sub> µg/m <sup>3</sup>	O <sub>3</sub> ppb
01 (Wed)	2.6	27	38	62	114	62	11
02 (Thu)	1.9	24	31	50	93	176	15
03 (Fri)	2.8	28	40	66	120	277	15
04 (Sat)	3.4	25	49	71	139	267	11
05 (Sun)	1.5	22	6	46	53	247	23
06 (Mon)	1.5	12	8	51	59	221	18
07 (Tue)	2.5	24	16	67	87	238	17
08 (Wed)	2.9	25	40	72	128	270	12
09 (Thu)	3.3	30	73	70	174	278	12
10 (Fri)	4.0	38	65	85	177	290	10
11 (Sat)	3.0	31	52	72	145	423	7
12 (Sun)	1.4	11	19	50	63	401	16
13 (Mon)	1.9	21	17	60	81	175	15
14 (Tue)	3.0	24	29	78	117	278	14
15 (Wed)	4.2	45	63	86	174	342	12
16 (Thu)	3.1	25	42	70	126	306	13
17 (Fri)	3.7	26	57	80	159	296	11
18 (Sat)	2.7	23	26	69	104	262	19
19 (Sun)	2.2	22	10	65	76	245	19
20 (Mon)	2.5	25	24	66	96	310	14
21 (Tue)	2.3	21	17	69	92	230	15
22 (Wed)	2.8	25	38	70	122	321	13
23 (Thu)	4.7	19	119	65	236	421	3
24 (Fri)	3.1	13	1	72	67	335	14
25 (Sat)	1.6	20	4	60	61	191	15
26 (Sun)	2.2	23	28	68	104	272	11
27 (Mon)	2.3	24	14	72	88	252	12
28 (Tue)	1.6	20	11	61	72	197	15
29 (Wed)	1.7	21	8	63	71	228	15
30 (Thu)	0.8	12	4	37	40	223	14
31 (Fri)	PF	PF	PF	PF	PF	PF	PF
<b>Average</b>	2.5	24	30	66	107	264	14
<b>Minimum</b>	0.5	7	1	29	23	30	1
<b>Maximum</b>	10.6	244	334	150	599	642	46
<b>Capture</b>	85.2	86.6	80.5	87.9	87.9	87.9	87.3

One day data computed from every one hour raw data.

Minimum and Maximum value reported is of 1 hour average.

PF Power failure/Bad data

# Uttar Pradesh Pollution Control Board

## Continuous Ambient Air Quality Monitoring Station, Kanpur

### Monthly Report for Criteria Pollutants

June 2013

Day	CO mg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	NO <sub>X</sub> µg/m <sup>3</sup>	PM <sub>2.5</sub> µg/m <sup>3</sup>	O <sub>3</sub> ppb
01 (Sat)	1.0	21	6	39	45	47	11
02 (Sun)	1.1	21	4	37	41	51	15
03 (Mon)	1.3	23	5	43	48	57	16
04 (Tue)	1.3	23	6	38	45	58	16
05 (Wed)	1.3	23	5	43	48	64	19
06 (Thu)	1.2	22	6	47	53	62	17
07 (Fri)	1.2	13	7	46	51	46	17
08 (Sat)	1.5	14	5	47	52	88	14
09 (Sun)	1.6	16	5	47	52	56	17
10 (Mon)	2.1	16	9	55	66	83	17
11 (Tue)	1.6	13	22	45	75	49	12
12 (Wed)	1.5	14	11	44	57	39	14
13 (Thu)	1.2	12	7	37	46	38	14
14 (Fri)	1.0	13	8	35	45	32	14
15 (Sat)	0.9	12	9	33	45	29	9
16 (Sun)	0.9	12	10	30	43	25	8
17 (Mon)	1.4	13	20	39	67	26	5
18 (Tue)	1.2	14	20	34	62	27	7
19 (Wed)	1.7	14	28	34	74	30	7
20 (Thu)	2.6	18	34	52	99	56	9
21 (Fri)	2.2	19	32	63	107	71	16
22 (Sat)	1.5	15	37	53	106	56	13
23 (Sun)	1.3	13	37	53	105	57	13
24 (Mon)	1.6	15	28	51	90	45	7
25 (Tue)	1.4	13	12	42	58	PF	7
26 (Wed)	1.4	13	12	39	54	PF	8
27 (Thu)	1.4	13	22	36	66	PF	5
28 (Fri)	2.0	15	22	40	69	36	6
29 (Sat)	1.7	16	11	44	58	32	8
30 (Sun)	1.9	15	23	41	73	34	6
<b>Average</b>	1.5	16	15	43	63	49	12
<b>Minimum</b>	0.4	8	1	15	26	10	1
<b>Maximum</b>	7.0	254	97	107	224	122	40
<b>Capture</b>	94.5	95.9	90.7	97.0	97.0	97.3	97.3

One day data computed from every one hour raw data.

Minimum and Maximum value reported is of 1 hour average.

PF Power failure/Bad data

# Uttar Pradesh Pollution Control Board

## Continuous Ambient Air Quality Monitoring Station, Kanpur

### Monthly Report for Criteria Pollutants

**July 2013**

Day	CO mg/m <sup>3</sup>	SO <sub>2</sub> µg/m <sup>3</sup>	NO µg/m <sup>3</sup>	NO <sub>2</sub> µg/m <sup>3</sup>	NOX µg/m <sup>3</sup>	PM <sub>10</sub> µg/m <sup>3</sup>	O <sub>3</sub> ppb
01 (Mon)	1.9	12	14	39	58	52	5
02 (Tue)	1.5	10	10	35	47	54	3
03 (Wed)	1.4	11	9	38	49	54	4
04 (Thu)	1.5	11	12	41	57	68	9
05 (Fri)	1.4	10	22	41	72	53	9
06 (Sat)	1.4	10	27	40	78	63	8
07 (Sun)	1.3	10	18	39	64	58	6
08 (Mon)	2.0	10	31	45	88	55	10
09 (Tue)	1.9	14	26	52	88	69	11
10 (Wed)	1.6	15	17	47	71	72	9
11 (Thu)	1.1	12	15	44	63	52	9
12 (Fri)	1.1	11	10	39	52	54	8
13 (Sat)	1.2	16	10	37	50	59	8
14 (Sun)	1.0	11	11	37	51	66	9
15 (Mon)	1.4	11	32	37	82	38	10
16 (Tue)	1.4	21	14	40	58	61	10
17 (Wed)	1.3	11	23	41	72	67	10
18 (Thu)	1.5	11	31	43	86	49	10
19 (Fri)	1.5	11	26	41	77	60	10
20 (Sat)	1.4	10	18	39	63	39	8
21 (Sun)	1.8	10	23	38	69	50	8
22 (Mon)	1.7	16	20	40	68	66	8
23 (Tue)	1.2	12	14	38	57	51	12
24 (Wed)	1.3	11	27	39	77	57	13
25 (Thu)	1.2	11	32	36	82	48	14
26 (Fri)	1.4	11	29	36	77	37	13
27 (Sat)	1.3	10	24	33	67	41	11
28 (Sun)	1.0	11	19	30	56	43	11
29 (Mon)	1.1	10	28	34	74	49	10
30 (Tue)	2.5	12	47	46	113	70	15
31 (Wed)	1.5	11	30	39	81	43	12
<b>Average</b>	1.4	12	22	40	69	55	9
<b>Minimum</b>	0.3	8	3	19	33	10	1
<b>Maximum</b>	7.7	265	144	77	277	194	29
<b>Capture</b>	94.1	95.5	95.8	96.5	96.5	97.9	97.3

One day data computed from every one hour raw data.

Minimum and Maximum value reported is of 1 hour average.

PF Power failure/Bad data

## Data Sheet of PM 2.5

S No.	Date	Monitoring Station	Value in $\mu\text{g} / \text{m}^3$ (Std. 60 $\mu\text{g} / \text{m}^3$ )
1	02-01-13	Kidwai Nagar	11.57
2	03-01-13	Ratanpur	132.72
3	09-01-13	Kidwai Nagar	111.09
4	15-01-13	Kidwai Nagar	147.6
5	23-01-13	Kidwai Nagar	122.92
6	30-01-13	Kidwai Nagar	101.79
7	30-01-13	Ratanpur	48.11
8	04-02-13	Kidwai Nagar	106.32
9	08-02-13	Ratanpur	95.83
10	12-02-13	Kidwai Nagar	90.87
11	19-02-13	Kidwai Nagar	87.1
12	23-02-13	Kidwai Nagar	71.94
13	26-02-13	Ratanpur	86.6
14	28-02-13	Kidwai Nagar	54.46
15	02-03-13	Kidwai Nagar	101.87
16	05-03-13	Ratanpur	94.06
17	09-03-13	Kidwai Nagar	90.89
18	11-03-13	Ratanpur	116.59
19	14-03-13	Ratanpur	131.29
20	15-03-13	Kidwai Nagar	108.68
21	18-03-13	Ratanpur	125.85
22	21-03-13	Kidwai Nagar	87.31
23	25-03-13	Ratanpur	132.45
24	30-03-13	Ratanpur	110.83
25	30-03-13	Ratanpur	96.16
26	03-04-13	Ratanpur	129.29
27	03-04-13	Kidwai Nagar	124.01
28	09-04-13	Kidwai Nagar	92.95
29	11-04-13	Ratanpur	105.47
30	16-04-13	Kidwai Nagar	90.92
31	18-04-13	Ratanpur	97.19
32	25-04-13	Ratanpur	108.24
33	26-04-13	Kidwai Nagar	94.63
34	29-04-13	Ratanpur	86.53

Table C: Summary of Ambient Air Quality Data monitored by U.P.Pollution Control Board :

Kanpur

City:- Kanpur  
State:- U.P

S.No	Sampling Location Address	Station Type*	Station Code	Month and Year	SO <sub>2</sub> (Std. 80 µg/m <sup>3</sup> )				NO <sub>x</sub> (Std. 80 µg/m <sup>3</sup> )				RSPM (Std. 100 µg/m <sup>3</sup> )					SPM				
					n	A.M	S.D	Max	n	A.M	S.D	Max	n	A.M	G.M	S.D	Max	n	A.M	G.M	S.D	Max
1	Kidwai Nagar	'R'	212	January 2013	30.00	6.91	2.21	9.90	30.00	38.49	16.06	50.50	18.00	213.67	211.07	31.82	265.32	18.00	459.91	455.57	57.80	527.16
2	Darshanpurwa	'C'	98	January 2013	27.00	6.64	1.80	8.58	27.00	39.97	13.56	51.18	14.00	195.73	194.35	24.10	240.33	14.00	445.25	440.98	63.71	564.57
3	Panki Site 5	'I'	86	January 2013	24.00	7.05	1.62	8.37	24.00	42.77	12.52	51.18	12.00	199.45	198.99	14.17	226.51	12.00	442.33	440.81	38.79	510.41
4	Shastri Nagar	'R'	391	January 2013	13.00	6.71	2.27	9.85	13.00	35.65	14.31	48.08	7.00	192.38	188.80	37.11	237.17	7.00	418.30	411.87	72.38	498.39
5	Awas Vikas, Kalayanpur	'R'	395	January 2013	30.00	6.77	2.06	8.71	30.00	34.24	14.13	48.80	16.00	192.82	189.69	34.71	260.45	16.00	425.05	420.31	61.76	536.78

\* - Kindly Fill in 'R' if station fall in Residential area, 'I' if station falls in Industrial Area

Note:-

- n = Number of observations (in days)
- A.M = Arithmetic mean in µg/m<sup>3</sup>
- S.D = Standard Deviation
- Max = Maximum value (24 hours average in µg/m<sup>3</sup>)
- G.M = Geometric Mean in µg/m<sup>3</sup>

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Table C: Summary of Ambient Air Quality Data monitored by U.P.Pollution Control Board :

Kanpur

City:- Kanpur  
State:- U.P

S.No	Sampling Location Address	Station Type*	Station Code	Month and Year	SO <sub>2</sub> (Std. 80 µg/m <sup>3</sup> )				NO <sub>x</sub> (Std. 80 µg/m <sup>3</sup> )				RSPM (Std. 100 µg/m <sup>3</sup> )					SPM				
					n	A.M	S.D	Max	n	A.M	S.D	Max	n	A.M	G.M	S.D	Max	n	A.M	G.M	S.D	Max
1	Kidwai Nagar	'R'	212	February 2013	26.00	6.48	1.89	10.26	26.00	41.84	14.18	51.00	16.00	194.38	191.34	33.92	235.45	16.00	450.68	444.31	73.29	534.77
2	Darshanpurwa	'C'	98	February 2013	31.00	7.54	1.63	8.92	31.00	38.50	9.74	48.80	17.00	190.56	187.21	34.99	234.09	17.00	406.87	401.45	65.00	484.76
3	Panki Site 5	'I'	86	February 2013	17.00	7.53	0.61	8.79	17.00	46.29	5.26	60.50	9.00	198.00	196.17	26.11	220.74	9.00	436.65	432.43	59.76	512.49
4	Shastri Nagar	'R'	391	February 2013	16.00	6.51	1.87	8.25	17.00	39.10	13.93	47.02	9.00	204.49	203.84	17.55	239.63	9.00	440.86	433.92	75.94	519.80
5	Awas Vikas, Kalayanpur	'R'	395	February 2013	24.00	7.41	1.33	8.98	22.00	38.45	9.39	49.00	14.00	194.09	192.01	30.53	260.45	14.00	436.46	431.99	63.68	548.29

\* - Kindly Fill in 'R' if station fall in Residential area, 'I' if station falls in Industrial Area

Note:-

- n = Number of observations (in days)
- A.M = Arithmetic mean in µg/m<sup>3</sup>
- S.D = Standard Deviation
- Max = Maximum value (24 hours average in µg/m<sup>3</sup>)
- G.M = Geometric Mean in µg/m<sup>3</sup>

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Table C: Summary of Ambient Air Quality Data monitored by U.P. Pollution Control Board :

Kanpur

City:- Kanpur  
State:- U.P

S.No	Sampling Location Address	Station Type*	Station Code	Month and Year	SO <sub>2</sub> (Std. 80 µg/m <sup>3</sup> )				NO <sub>x</sub> (Std. 80 µg/m <sup>3</sup> )				RSPM (Std. 100 µg/m <sup>3</sup> )					SPM				
					n	A.M	S.D	Max	n	A.M	S.D	Max	n	A.M	G.M	S.D	Max	n	A.M	G.M	S.D	Max
					1	Kidwai Nagar	'R'	212	March 2013	29.00	6.59	2.11	9.24	29.00	40.67	14.98	50.00	17.00	174.70	171.87	33.22	236.86
2	Darshanpurwa	'C'	96	March 2013	30.00	7.87	1.37	9.45	30.00	42.00	8.45	57.58	16.00	192.22	187.92	42.32	281.26	16.00	407.72	403.28	60.49	487.42
3	Panki Site 5	'I'	86	March 2013	23.00	7.83	1.44	9.17	23.00	39.65	8.51	49.26	12.00	202.60	197.85	42.21	246.04	12.00	455.04	450.34	63.24	507.33
4	Shastri Nagar	'R'	391	March 2013	19.00	7.45	2.00	8.90	19.00	37.23	12.02	46.13	11.00	209.60	209.06	15.39	229.00	11.00	444.38	443.62	27.71	507.00
5	Awas Vikas, Kalayanpur	'R'	395	March 2013	33.00	7.36	1.10	6.50	32.00	38.45	8.10	49.10	17.00	195.97	193.45	31.66	251.13	17.00	422.87	418.85	58.10	518.93

\* - Kindly Fill in 'R' if station fall in Residential area, 'I' if station falls in Industrial Area

Note:-

- n = Number of observations (in days)
- A.M = Arithmetic mean in µg/m<sup>3</sup>
- S.D = Standard Deviation
- Max = Maximum value (24 hours average in µg/m<sup>3</sup>)
- G.M = Geometric Mean in µg/m<sup>3</sup>

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Table C: Summary of Ambient Air Quality Data monitored by U.P. Pollution Control Board :

Kanpur

City:- Kanpur  
State:- U.P

S.No	Sampling Location Address	Station Type*	Station Code	Month and Year	SO <sub>2</sub> (Std. 80 µg/m <sup>3</sup> )				NO <sub>x</sub> (Std. 80 µg/m <sup>3</sup> )				RSPM (Std. 100 µg/m <sup>3</sup> )					SPM				
					n	A.M	S.D	Max	n	A.M	S.D	Max	n	A.M	G.M	S.D	Max	n	A.M	G.M	S.D	Max
1	Kidwai Nagar	'R'	212	April 2013	25.00	6.39	2.05	8.67	25.00	39.53	16.48	54.93	16.00	190.69	189.43	21.66	225.56	16.00	447.31	445.59	40.29	506.88
2	Darshanpurwa	'C'	98	April 2013	18.00	7.15	2.02	8.95	18.00	37.58	12.97	50.26	10.00	209.81	208.99	19.40	243.73	10.00	456.28	455.05	35.04	503.70
3	Panki Site 5	'I'	86	April 2013	16.00	8.35	0.74	10.55	16.00	42.50	3.95	51.05	8.00	225.76	225.49	11.88	245.83	8.00	477.11	476.44	27.00	517.75
4	Shastri Nagar	'R'	391	April 2013	12.00	7.43	1.78	8.67	12.00	37.12	11.64	46.94	7.00	194.04	193.02	20.16	206.79	7.00	392.87	384.35	81.18	472.71
5	Awass Vikas, Kalayanpur	'R'	395	April 2013	22.00	7.43	0.47	8.20	22.00	40.46	5.07	46.72	12.00	174.33	171.91	29.89	233.60	12.00	386.62	383.22	53.90	502.98

\* - Kindly Fill in 'R' if station fall in Residential area, 'I' if station falls in Industrial Area

Note:-

- n = Number of observations (in days)
- A.M = Arithmetic mean in µg/m<sup>3</sup>
- S.D = Standard Deviation
- Max = Maximum value (24 hours average in µg/m<sup>3</sup>)
- G.M = Geometric Mean in µg/m<sup>3</sup>

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Table C: Summary of Ambient Air Quality Data monitored by U.P. Pollution Control Board :

Kanpur

City:- Kanpur  
State:- U.P.

S.No	Sampling Location Address	Station Type*	Station Code	Month and Year	SO <sub>2</sub>				NO <sub>x</sub>				RSPM					SPM				
					n	A.M	S.D	Max	n	A.M	S.D	Max	n	A.M	G.M	S.D	Max	n	A.M	G.M	S.D	Max
1	Kidwai Nagar	'R'	212	May 2013	27.00	6.40	2.27	8.80	27.00	38.85	17.16	52.20	17.00	204.15	203.14	19.98	233.40	17.00	475.99	474.92	32.35	524.03
2	Darshanpurwa	'C'	98	May 2013	27.00	6.86	2.69	9.10	27.00	33.04	15.94	48.50	14.00	214.48	213.96	15.71	246.60	14.00	445.85	444.89	30.72	513.80
3	Panki Site 5	'I'	86	May 2013	18.00	8.15	0.70	8.91	18.00	43.09	3.42	48.66	9.00	224.88	224.17	16.70	245.45	9.00	455.11	447.25	78.73	517.80
4	Shastri Nagar	'R'	391	May 2013	13.00	6.73	2.27	9.50	13.00	37.66	15.43	50.29	7.00	210.44	209.94	15.66	231.80	7.00	457.08	455.82	36.89	519.80
5	Awass Vikas, Kalayanpur	'R'	395	May 2013	28.00	7.64	0.58	8.65	28.00	39.10	5.23	46.72	14.00	191.18	189.80	22.85	237.39	14.00	415.31	412.91	44.32	484.14

\* - Kindly Fill in 'R' if station fall in Residential area, 'I' if station falls in Industrial Area  
Note:-

- n = Number of observations (in days)
- A.M = Arithmetic mean in  $\mu\text{g}/\text{m}^3$
- S.D = Standard Deviation
- Max = Maximum value (24 hours average in  $\mu\text{g}/\text{m}^3$ )
- G.M = Geometric Mean in  $\mu\text{g}/\text{m}^3$

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Table C: Summary of Ambient Air Quality Data monitored by U.P. Pollution Control Board :

Kanpur

City:- Kanpur  
State:- U.P.

S.No	Sampling Location Address	Station Type*	Station Code	Month and Year	SO <sub>2</sub>				NO <sub>x</sub>				RSPM					SPM				
					n	A.M	S.D	Max	n	A.M	S.D	Max	n	A.M	G.M	S.D	Max	n	A.M	G.M	S.D	Max
1	Kidwai Nagar	'R'	212	June 2013	19.00	5.91	2.25	6.38	19.00	32.26	14.83	43.42	13.00	192.69	190.54	29.63	239.32	13.00	435.82	432.01	56.46	538.45
2	Darshanpurwa	'C'	98	June 2013	27.00	6.67	2.21	6.95	27.00	33.91	12.92	48.68	14.00	190.54	188.43	39.11	234.37	14.00	428.27	424.25	43.99	488.88
3	Panki Site 5	'I'	86	June 2013	24.00	7.84	1.09	10.62	24.00	41.89	4.00	48.80	12.00	216.77	213.95	34.20	250.51	12.00	472.20	468.84	53.83	514.28
4	Shastri Nagar	'R'	391	June 2013	19.00	6.62	2.24	9.00	19.00	35.12	14.75	50.72	10.00	200.92	200.33	16.81	231.80	10.00	439.37	438.80	23.57	472.90
5	Awass Vikas, Kalayanpur	'R'	395	June 2013	23.00	7.55	1.36	8.90	23.00	35.99	8.46	48.72	13.00	205.83	203.68	38.54	249.78	13.00	461.23	456.48	65.84	552.90

\* - Kindly Fill in 'R' if station fall in Residential area, 'I' if station falls in Industrial Area  
Note:-

- n = Number of observations (In days)
- A.M = Arithmetic mean in  $\mu\text{g}/\text{m}^3$
- S.D = Standard Deviation
- Max = Maximum value (24 hours average in  $\mu\text{g}/\text{m}^3$ )
- G.M = Geometric Mean in  $\mu\text{g}/\text{m}^3$

*S. A. 10/7/13*

*G. C. S. S. A. E. E.*

*[Signature]*