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J.K. Cement Works, Mangrol
C/o. Kailash Nagar-312617, Nimbahera
Distt. Chittorgarh (Raj.) INDIA

CIN : L17229UP1994PLC017199
ISO 9001:2008, ISO 14001:2004 & OHSAS 18001 : 2007 CERTIFIED COMPANY

Our Ref. No.: MGR-PC-08(B)/ 4781

Date: 01.12.2016

To,

The Member Secretary,
SEIAA, 4 Institutional Area,
Jhalana Doongri,
Jaipur 302004

Sub: Environmental Clearance Compliance report for 25 MW Captive power plant and 10 MW waste heat recovery boiler of J.K. Cement Works, Mangrol Village.

Ref. : Environmental Clearance letter No. F1(4)/SEIAA/SEAC-Raj/Sectt/Project/Cat8(b)B1/(484)/12-13 dated. 13.09.2013

Dear Sir,

We are enclosing herewith the compliance report of Environmental Clearance for 25 MW Captive power plant and 10 MW waste heat recovery boiler along with **Stack monitoring, Ambient air monitoring and waste water analysis report for the period from April' 2016 to September' 2016 in hard copy as well as in CD as soft copy** for your kind reference and record. We trust you will find the same in order.

Thanking you,

Yours Faithfully
For J.K. Cement Works, Mangrol

S. K. Acharya
Asst. Vice President (E&I)

Encl: a/a
Copy to:

The Director,Ministry of Environment and Forests,_Regional office (Central Region), Kendriya Bhawan, 5th Floor, Sector 'H' , ALIGANJ, **LUCKNOW-** 226020 **(U.P.)**

The Chairman, Central Pollution Control Board ,Parivesh Bhawan, CBD-CUM office complex, East Arjun Nagar, Maharaja Surajmal Marg, Vishwas Nagar Extension, Viswas nagar Shahdara- Behind Karkarduma high court New Delhi 11032

Member Secretary,_Rajasthan State Pollution Control Board, 4, Institutional Area, Jhalana Doongri, JAIPUR - 302004 (RAJASTHAN)

The Joint Director, Indira Paryavaran Bhavan, JOR Bagh Road,Near JOR bagh Metro station **New Delhi**

J.K. Cement WORKS, MANGROL (RAJ)

25 MW Captive Power Plant & 10 MW Waste Heat Recovery Boiler

Compliance report of Environment Clearance from SEIAA, Rajasthan, Letter No. F1 (4)/SEIAA/SEAC-Raj/Sectt/Project/Cat8(b)B1/(484)/12-12 dated 13.09.2013

(For the Period from April 2016 to September 2016)

S.No.	Condition	Status
	COMPLIANCE CONDITIONS :-	
(i)	This EC is granted for (a) 25MW Captive Power Plant and (b)10MW WHRB	Point Noted.
(ii)	All the condition stipulated by Rajasthan State Pollution Control Board in the letter of C.T.E and C.T.O shall be strictly implemented.	Point noted and complied.
(iii)	The quality of coal used should have calorific value (Kcal/Kg) 5000 minimum; Ash content 12% maximum and sulphur content 0.8% maximum. The Validity of EC granted is subjected to compliance with lease coal quality parameter.	Point Noted. As per MOEF&CC vide OM no.L-11011/17/2014-IA.I(T) dated 25.09.14, the conditions of use of coal in Ultra Mega Power Projects (UMPP)stipulated in Environmental Clearance granted by SEIAA Raj. We may not be considered as UMPP as we are operating 25 MW coal based CPP. Accordingly, a request letter has been submitted to SEIAA, Raj for amendment in the EC already granted.
(iv)	Circulating Fluidized Bed Combustion (CFBC) boiler with lime injection shall be used.	Point noted and complied. Lime Injection is being used in Circulating Fluidized Bed Combustion (CFBC) boiler.
(v)	As envisaged, a stack of 110 m height in the boiler of CPP, based on worst coal firing with highest sulphur (0.8%) content (and 90% sulphur removal in the boiler when limestone is added),according to emission guidelines of CPCB shall be provided with continuous on line monitoring system. Data collected shall be analysed and submitted regularly to the Regional office of the MoEF at Lucknow and RPCB, Jaipur.	Point noted and complied. A stack of 110 m height in the CPP boiler is already installed. Lime stone is being added with fuel firing for maintaining the SOx level within the permissible limits. We have also provided continuous online monitoring system on the stack. Monitoring data is being regularly submitted to Regional office MoEF at Lucknow and RPCB, Jaipur.
(vi)	Total Fresh water (ground water) requirement shall not exceed 525 KLD. No discharge of effluent directly shall be done outside the plant boundary.	Point noted. Our ground water requirement shall not exceed 525 KLD fresh water for operation of 25 MW CPP & 10 MW WHRB. Zero Liquid Discharge is being maintained.
(vii)	As envisaged, the P.P. shall draw the required quantity of the water from ground water. The required N.O.C. in this regard shall be renewed from the CGWA from time to time and copy of N.O.C. shall be submitted the P.P. to the RPCB at the time of applying for C.T.E and C.T.O.	We have obtained renewed CGWA permission for ground water abstraction vide letter no. 21 – 4(286) WR / CGWA /2008/1676 dated 28.10.2015. We have submitted the copy of N.O.C. at RSPCB along with CTE application.
(viii)	Closed circuit cooling with cooling tower shall be provided.	Point noted and compiled. Closed circuit along with cooling towers has been provided.
(ix)	The PP shall provide Ash dump yard as proposed and utilize the Bottom ash and fly ash in its cement plants as proposed.	Point Noted. Fly ash is being utilized in the cement plant.
(x)	The PP shall ensure that, treated water may be used for ash quenching and any balance volume for horticulture.	Point noted and complied. Treated waste water is being used for ash quenching & dust suppression.
(xi)	The PP shall obtain clearance from Ministry of Defence, particularly for providing stack of the proposed height vis-à-vis the requirements of the IAF and also from Airport Authority of India.	Not applicable.

(xii)	The PP shall comply with conditions of CGWA clearance for abstraction of ground water.	Point noted and complied. Compliance of the Conditions of CGWA clearance is being regularly submitted to CGWA.
(xiii)	The PP shall provide disinfection on domestic waste water treatment line.	Point noted and complied. We have installed common Sewage treatment Plant for Cement plant, CPP & WHR for Domestic waste water treatment.
(xiv)	The PP shall explore the feasibility for dry condensers in place of wet condensers.	Point noted and complied. We have installed Air cooled condenser.
(xv)	The PP shall provide pollution control system right from handling of raw material; fugitive emissions at all identified points.	Point noted and complied. Following measures is being implemented ❖ Adequate dust suppression system like water spray system has been installed in the material handling system. ❖ We have developed greenbelt at round the plant premises. ❖ Highly efficient ESP has been provided. ❖ Workzone area is being monitored regularly in respect to ambient air quality. ❖ Ash handling pneumatic conveying handling system has been installed.
(xvi)	The PP shall take steps to reduce water consumption.	Point noted and complied. The same is considered and unit has reduced fresh water intake by efficient use and recycling
(xvii)	The PP shall get the land use of the project site converted for industrial use from the competent authority.	Not applicable as, project is installed in our existing land of cement plant premises.
(xviii)	Ash pond shall be lined with impervious layer to avoid leachate.	Point noted. Ash generated from CPP is being used in cement plant in the same premises.
(xix)	The Proponent shall obtain prior Consent to Establish and consent to Operate from Rajasthan State Pollution Control Board under Water (Prevention and Control of Pollution) Act'74 and Air (Prevention and Control of Pollution) Act'81.	We have granted Consent to establish under Air & Water act vide letter no. F (CPM)/Chittorgarh(Nimbahera)/7(1)/2013-2014/6130-6132 for 25 MW CPP and vide letter no. F (CPM)/Chittorgarh(Nimbahera)/7(1)/2013-2014/6133-6135 for 10MW WHR on dated 28.10.2013. Moreover we have obtained Consent to operate of the 25 MW CPP vide letter no. F (CPM) / Chittorgarh(Nimbahera) / 7(1) /2013 – 2014 / 481 – 484 dated 25.04.2014 and for WHR vide letter no. F (CPM) / Chittorgarh (Nimbahera) / 8 (1) / 2013 – 2014 / 477 – 480 dated 25.04.2014 which is valid up to 31.03.2017.
(xx)	The Management shall installed air cooled condenser system to cut down fresh water demand.	Point noted and complied.We have installed Air cooled condenser system to reduce the water consumption.
(xxi)	Continuous stack monitoring facilities to monitor gaseous emission from all the stacks shall be provided to control emissions within limits by installing adequate air pollution control system like bag filter dust collector, ESP etc. Interlocking facility shall be provided in the pollution control equipment so that in the event of the pollution control equipment not working, the respective unit (s) is shutdown automatically.	The unit has installed continues stack monitoring facilities to monitor gaseous emission from the entire stack. Also, air pollution control equipments such as ESP, have been installed & interlocking facilities have been provided in the pollution control equipments .
(xxii)	As envisaged, the Industrial wastewater generated shall be treated in ETP (Effluent Treatment Plant). Part of this, will be recycled and used for cooling purpose and the remaining in green belt and dust suppression. No discharge of effluent directly of indirectly	The unit is maintaining Zero Liquid Discharge and the Industrial waste water is being treated in Neutralization pit and used in development & Dust suppression in coal yard.

	shall be done outside plant boundary.	
(xxiii)	As estimated, the Bottom Ash (20TPD) and fly Ash (200 TPD) generated from the plant shall be collected and handled as proposed and sent to utilize in J.K. cement works, Mangrol and Nimbahera for cement manufacturing. The Ash shall be disposed of in environment – friendly manner as per provisions of the notification on the Fly Ash Utilization issued by the Ministry in September, 1999 (amendment till date). The project proponent shall enter into long term contracts with cement manufactures/ brick manufactures prior to start of the work. Ash disposal would be done through high concentration slurry disposal system on the lime pond. Fly Ash utilization plan shall be submitted to the RPCB with in six months. Ash generated shall be used in a phased manner. By the end of 7^{th} year full fly ash utilization shall be ensured; however in line the provision under Fly Ash Notification 1999 (amended till date).	Point noted and complied. The both Bottom ash & Fly ash is being used in our Cement Plant.
(xxiv)	Electrostatic Precipitator (ESP) with 99.9% efficiency shall be installed to control particulate emission within the prescribed limit up to 100mg/Nm^3. The ESP will be interlocked with the boiler so that, in the event of non functioning of ESP, the power plant shuts down instantly. As proposed, the ESP shall be connected with the ash handling system.	We have installed ESP with 99.9% efficiency at the boiler (stack) to control particulate emission and ESP has already been interlocked with the boiler. PM emission from the boiler stack has been found within the prescribed limit of 100 mg/Nm3.
(xxv)	Fugitive dust emission shall be controlled as per CPCB guidelines on Fugitive Dust emissions. The PP shall elaborate fugitive dust emission control plan at all area including storage areas, closed transportation systems, mechanical material handling system and wherever possible conversion of non-point source emission to point source emission through creation of vaccume of suction.	Point noted and complied. Following measures is being implemented ❖ Adequate dust suppression system like water spray system has been installed in the material handling system. ❖ We have developed greenbelt at round the plant premises. ❖ Highly efficient ESP has been provided. ❖ Workzone area is being monitored regularly in respect to ambient air quality. ❖ Ash handling pneumatic conveying handling system has been installed.
(xxvi)	The Hazardous waste generated shall be disposed in accordance with provision under the "Hazardous Waste (Management, Handling and Trans boundary Movement) Rules 2008 (amended till date).	Point noted. Hazardous waste is being sold out to authorised recyclers.
(xxvii)	Plantation shall be carried out in an area of 33% of the premises. The peripheral plantation shall be carried out in minimum two rows (in staggered manner) to minimize the effects of air pollution. Every year due care shall be taken to replace the causalities.	Point noted. We are carried out Green Belt development in 33% of total plot area in the plant premises.
(xxviii)	The management shall provide an effective rainwater harvesting system and optimize the cost of conservation. Central Groundwater Authority/Board shall be consulted for finalization of appropriate water harvesting schemes/structures within a period of three months from the date of clearance.	Point noted. The rain water harvesting structures have been developed to capture the runoff water for recharge of ground water.
(xxix)	Infrastructure facility including sewage treatment and its sanitary disposal, first aid and shall be made for the project personnel/contract labour and drivers during construction phase.	Since the plant is in operational phase at present, therefore this point is not applicable. However, all necessary facilities were provided to workers at the time of construction.

(xxx)	Regular monitoring of the air quality shall be carried out in and around the power plant and records be maintained. All air, water and other monitoring shall be carried out through a MoEF/NABL/CPCB/Government approved laboratories. Six monthly reports shall be submitted to the RPCB and the Regional Office of Ministry at Lucknow /SEIAA, Rajasthan.	Point noted. We have separate Environment cell for regular monitoring of air quality. Regular monitoring of air, water, and noise quality parameters is being carried out in and around the power plant area MOEF & recognized laboratory and six monthly compliance report is being regularly sent to MOEF/SPCB/CPCB.
(xxxi)	Regular monitoring of the air quality shall be carried out in and around the power plant (mostly in downwind direction) and records be maintained. Six monthly reports shall be submitted to the RPCB and the MoEF, Regional Office at Lucknow and SEIAA, Rajasthan. The PP shall make concrete efforts to reduce CO2 emission to the atmosphere (calculated at the rate of 997 gms of CO2/kWh) of power generated.	Point noted. Regular monitoring of air quality is being carried out in and around the power plant .six monthly compliance report is being regularly submitted to RSPCB, MOEF Regional Office and SEIAA Raj.
(xxxii)	Regular monitoring of ground water in and around the ash disposal area shall be carried out, record maintained.	Not Applicable. As we are utilizing total flyash in our cement plant.
(xxxiii)	Carry out regular analysis of ash for mercury content, the mercury content shall be less than 25 ppm.	Point noted. Regular analysis of ash for mercury content is being done and the same has been found below 25 ppm.
(xxxiv)	Leq of noise level shall be limited to 75 dB (A) and regular maintenance of equipment is undertaken. For people working in the high noise area, earplug shall be provided.	Point noted. We have provide ear plug for people working in the high noise area.
(xxxv)	For controlling fugitive dust, regular sprinkling of water in coal storage area and other vulnerable areas of the plant shall be ensured.	Point noted and complied. Following controlling measures have been implemented ❖ Adequate dust suppression system like water spray system is being installed in the material handling system transfer points. coal storage area and other vulnerable areas.. ❖ Developed greenbelt around the plant to arrest fugitive emissions ❖ Highly efficient ESP ❖ Work zone area is being monitored regularly ❖ Ash handling pneumatic conveying handling system has been installed.
(xxxvi)	As proposed, effective fire fighting system shall be provided and mock drills be carried out as per Fire & safety Rules.	Point noted & complied.
(xxxvii)	As stated, the P.P. shall year mark and spend and amount of Rs. 628 lakhs towards cost of implementing the Environmental Management Plan.	The company has spent Rs 628.39 lakhs towards installation of Environmental Management equipments. The recurring expenses for O&M of these equipments are Rs 31.50 lacs / Annum.
(xxxviii)	As stated, the P.P. shall year mark and spend and amount of Rs. Capital cost (Main): Rs.2.25 crores. Capital cost: Rs. 0.47 crores (for 1 year) and Recurring cost: Rs. 1.78 crores (for 5 years) for implementing the Social welfare and community development schemes under C.S.R. activities.	Point noted & complied. We have spent Rs. 2,01,49,000/- in FY 2014-15 & Rs 2,62,43,000/- in FY 2015-16 in surrounding village i.e. Arniya Joshi, Mangrol, BadoliGhata, FhacherAhiran, Nimbahera, shambhupura, Chittorgarh, Udaipur, Bhawaliya and Karunda for Socioeconomic welfare measures under various heads like Rural Development, Religious, Infrastructure/Water supply, Preventive healthcare, Education, Environment promotion, Medical and health facility.
(xxxix)	The project proponent shall advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned, informing that the project has been accorded environmental clearance	We have already advertised in two local newspapers on 19.09.2013.

	and copies of clearance letters are available with the SEIAA, Rajasthan and RPCB.	
(xl**)**	A separate environment monitoring cell with suitable qualified staff shall be set up for implementation of the stipulated environmental safeguards.	Already we have a separate Environment Cell with qualified staff.
(xli)	Education and Skill mapping should be carried out by the PP on the basis of secondary data and submitted to RPCB and MoEF, Regional Office at Lucknow.	Confirmed and will be followed.
(xlii)	Post Project monitoring shall be carried out as proposed and half yearly report on the status of implementation of the stipulated conditions and environmental safeguards shall be submitted to RPCB/CPCB and the MoEF, Regional Office at Lucknow and SEIAA, Raj.	Point noted and is being complied. We are carrying out regular monitoring and half yearly report on the status of implementation of the stipulated conditions and environmental safeguards and are being submitted to RPCB/CPCB and the MoEF, Regional Office at Lucknow and SEIAA, Raj.
(xliii)	Regional Office of the MoEF located at Lucknow and RPCB shall monitor the implementation of the stipulated conditions. A complete set of document including Environmental Impact assessment Report and Management Plan shall be forwarded to these organizations for use during monitoring.	Point noted and complied.
(xliv)	Full cooperation shall be extended to the officers of RPCB/CPCB/MoEF Regional Office at Lucknow, who would be monitoring the compliance of environment status.	We will definitely cooperate to the officers of RPCB/CPCB/MoEF Regional Office at Lucknow.
(xlv)	The environmental clearance is subjected to any litigation pending before any courts of Law/tribunal/legal body in the State/Country, if any.	Point noted.
(xlvi)	The SEIAA, Rajasthan reserves the right to add new, annual/modify existing stipulated conditions, and/or revoke the clearance if these conditions are not implemented to its satisfaction, in the interested of environmental protection.	Point noted
(xlvii)	The environmental clearance accorded shall be valid for a period of 5 years from the date of start of operation by the power plant.	Point noted
(xlviii)	In case of any deviation or alteration in the proposed project from that submitted for clearance, a fresh reference shall be made to the SEIAA, Rajasthan to assess the adequacy of the condition(s) imposed and to incorporate additional environmental protection measures required, if any.	Point noted and complied.
(xlix)	Necessary permission shall be obtained from the Chief Controller of Explosives and Factory Inspectorate for the storage of lignite. l. The above stipulations shall be enforced along with others under the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act,1981, the Environment (Protection) Act,1986 and rules there under, The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989, Hazardous Wastes (Management and Handling) Rules, 2008, the Public Liability Insurance Act, 1991 and li. Document to be provided at the time of applying to RPCB for Consent to Establish/Operate: • Approval of competent authority to the proposed Fire Fighting Plan. • The PP shall obtain and submit copy of approval N.O.C. Of competent authority in CGWA for using ground water, for the project.	l. Point noted. li. Point noted and complied. We have granted Consent to establish under Air & Water act vide letter no. F (CPM)/Chittorgarh(Nimbahera)/7(1)/2013-2014/6130-6132 for 25 MW CPP and vide letter no. F (CPM)/Chittorgarh(Nimbahera)/7(1)/2013-2014/6133-6135 for 10MW WHR on dated 28.10.2013.

	• Source and Period of Socio Economic data used in the report to be provided. • Details of Flora and Fauna in the study area duly authenticated by the concerned DFO. • Source of data and date of collection to be as per the TOR. lii. A voluntary commitment of the Social responsibility activities to be undertaken by the project proponent and the budgeted amount proposed for such activity.	Moreover we have obtained Consent to operate of the 25 MW CPP vide letter no. F (CPM) / Chittorgarh(Nimbahera) / 7(1) /2013 – 2014 / 481 – 484 dated 25.04.2014 and for WHR vide letter no. F (CPM) / Chittorgarh (Nimbahera) / 8 (1) / 2013 – 2014 / 477 – 480 dated 25.04.2014 lii. Point noted and complied. The company has undertaken various activities under Social responsibility. The copy of the work undertaken by the company.

J.K. Cement WORKS, Mangrol (RAJ)

25 MW THERMAL POWER PLANT

Outlet of Power Plant

(April 2016 - September 2016)

PARAMETERS/MONTH	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16
Total Suspended Solids (TSS)	28.2	31.4	29	32	29	32
Oil & Grease	<1.2	<1.6	<1.4	<1.6	<1.3	<1.6
Total Residual Chlorine	NIL	NIL	NIL	NIL	NIL	NIL
Free available chlorine	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
pH Value	7.17	7.26	7.45	7.60	7.85	7.65
Temperature	4°c higher than the intake water temperature	4°c higher than the intake water temperature	4°c higher than the intake water temperature	4°c higher than the intake water temperature	4°c higher than the intake water temperature	4°c higher than the intake water temperature
Copper as (Cu)	<0.02	<0.02	<0.03	<0.02	<0.03	<0.02
Zinc (as Zn)	<0.02	<0.02	<0.02	<0.01	<0.02	<0.01
Iron (Total)	0.3	0.4	0.2	0.4	0.2	0.4
Chromium (total)	0.008	0.006	0.004	0.006	0.004	0.006

J.K. Cement WORKS, Mangrol (RAJ)

25 MW THERMAL POWER PLANT

Stack monitoring results (April 2016 - September 2016)

Location/Month	SPM (Mg/Nm3)					
	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16
Stack attached with Boiler	21.4	23.0	20.5	18.0	21.0	23.0
Stack attached with Coal Crusher	25.7	26.4	24.0	22.0	24.0	21.0

J.K. Cement WORKS, Mangrol (RAJ)

10 MW WASTE HEAT RECOVERY PLANT

Outlet of Waste heat recovery plant

(April 2016 - September 2016)

MONTH/ PARAMETRS	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16
Total Suspended Solids (TSS) (Mg/l)	42	49	42	38	32	35
Oil & Grease (Mg/l)	<0.4	<1.1	<1.5	<1.2	<1.0	<1.0
Total Residual Chlorine (Mg/l)	NIL	NIL	NIL	NIL	NIL	NIL
Phosphate (Mg/l)	4.8	4.45	4.3	4.1	4.3	4.1
Free available chlorine (Mg/l)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
pH Value	7.35	7.42	7.7	7.35	7.7	7.85
Temperature	4°c Higher then the intake water	4°c Higher then the intake water	4°c Higher then the intake water	4°c Higher then the intake water	4°c Higher then the intake water	4°c Higher then the intake water
Copper as (Cu) (Mg/l)	<0.03	<0.03	<0.04	<0.03	<0.01	<0.01
Zinc (as Zn) (Mg/l)	<0.04	<0.03	<0.02	<0.03	<0.02	<0.02
Iron (Total) (Mg/l)	0.2	0.4	0.3	0.2	0.4	0.2
Chromium (total) (Mg/l)	0.006	0.009	0.005	0.003	0.006	0.004

J.K. Cement WORKS, MANGROL (RAJ)
AMBIENT AIR QUALITY AVERAGE RESULTS (SPM) COMMON FOR UNIT-1 & UNIT-2
(ALL VALUES IN MICROGRAMS / CUBIC METER)
(April' 2016 - September' 16)

S.No. & Month	LOCATION / PERAMETER	NEAR TIME OFFICE	NEAR THERMAL POWER PLANT	NEAR RAW MATERIAL GATE	NEAR PACKING PLANT GATE	Remarks
April' 2016						
1	SPM	368.5	326.5	350.0	356.0	
2	SO2	14.0	10.4	11.5	15.2	
3	NOX	25.5	19.8	22.2	26.8	
4	CO	715.6	744.3	687.0	801.5	
May' 2016						
1	SPM	382.0	338.3	356.7	362.5	
2	SO2	15.8	10.9	13.2	12.4	
3	NOX	29.7	22.5	27.3	23.3	
4	CO	844.4	739.5	887.4	863.5	
June' 2016						
1	SPM	332.3	292.2	309.7	316.0	
2	SO2	14.2	9.8	11.7	10.8	
3	NOX	27.6	19.6	24.3	24.7	
4	CO	744.3	729.9	830.1	658.4	
July' 2016						
1	SPM	285.0	311.7	286.8	268.3	
2	SO2	10.7	11.7	9.1	8.1	
3	NOX	19.4	21.4	18.1	16.3	
4	CO	620.2	553.4	658.4	653.6	
August' 2016						
1	SPM	213.0	231.3	204.2	188.2	
2	SO2	6.9	8.8	6.0	6.3	
3	NOX	12.4	16.5	11.8	12.3	
4	CO	353.0	372.1	301	300.6	

September' 2016						
1	SPM	283.0	310.8	288.0	257.3	
2	SO2	12.4	12.9	11.2	9.0	
3	NOX	24.5	25.4	21.2	19.1	
4	CO	530	529.6	515.3	601.1	
Six monthly Average						
1	SPM	310.6	301.8	299.2	291.4	
2	SO2	12.3	10.7	10.5	10.3	
3	NOX	23.2	20.9	20.8	20.4	
4	CO	634.5	611.5	646.4	646.4	