

JK Cement WORKS

MUDDAPUR

(Unit : J.K. Cement Ltd)
CIN : L17229UP1994PLC017199

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Works : P.O. Muddapur - 587 122
Dist. Bagalkot (Karnataka) India

No. JKCW / ENV. / E.C. / (PLANT)/89/08

Date- 11-11-2020

To
The Scientist-F
Ministry of Environment & Forest
Govt. of India, Indira Paryavaran Bhavan
Aliganj, New Delhi- 110 003

Sub: **Half Yearly Environmental Clearance Compliance report for the period from April-2020 to September-2020 for JK Cement Works, Village- Muddapur, Taluka- Mudhol, District- Bagalkot (Karnataka)**

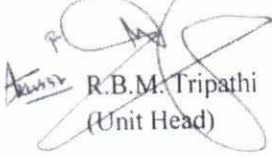
Ref: MoEF Letter F. No. J-11011 / 489 / 2006-1A.II (I) / dtd. 14-09-2007

Dear Sir,

With reference to your above cited environmental clearance letter of our Cement Plant, we are sending here with enclosed point wise environmental clearance compliance report for the period from **April-2020 to September-2020** for our JK Cement Works (Cement Plant -2.20 MTPA Clinker & 2.50 MTPA OPC and Captive Power Plant 2 x 25 MW, for JK Cement Works, Village Muddapur, Taluka Mudhol, District Bagalkot, Karnataka for your kind information and record please.

Thanking you

Yours faithfully
For J.K. Cement Works


R.B.M. Tripathi
(Unit Head)

Encl. – EC Compliance report, Socio-economic development report & six monthly manual AAQ monitoring, stack, fugitive emission, treated effluent monitoring, noise monitoring, continuous emission monitoring and CAAQM report, *Environmental expenditure for AIL 2020 to Sep 20*

CC:

- 1- The Addl. Principal Chief Conservator of Forest (C), Ministry of Environment & Forest, Regional Office (South Zone), Koramangala, Bangalore
- 2- Chairman, Central Pollution Control Board, Parivesh Bhavan, East Arjun Nagar, New Delhi
- 3- Scientist 'D' & Incharge, Central Pollution Control Board, 1st & 2nd Floors, Nisarga Bhavan, A-Block, Thimmaiah, Main Road, 7th D Cross, Shivanagar, Opp. Pushpanjali Theatre, Bengaluru
- 4- Member Secretary, Karnataka Pollution Control Board, Church Street, Bangalore
- 5- The Environmental officer, Karnataka State Pollution Control Board, Bagalkot – 587102



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J.K. Cement Works, Village- Lokapur, Taluka-Mudhol, District- Bagalkot, Karnataka
Ref: - MoEF Letter F. No. J-11011 / 489 / 2006-1A.II (I) / dtd. 14th September 2007
Environmental Clearance Compliance Report for the period from April, 2020 to September, 2020

Name of Project: **M/s J.K. Cement Works, Muddapur (Karnataka)**

EC to Cement Plant (2.20 MTPA) Clinker & 2.50 MTPA OPC and Captive Power Plant (2 x 25 MW) at Village- Lokapur, Mudhol, District Bagalkot, Karnataka

i.	Electrostatic precipitator (ESP) to cooler, Bag House to Raw mill, Bag filter to coal kiln burner and pre calciner shall be provided. On line gas analyzer for O ₂ , CO, emission at kiln inlet and power House out let and on line dust monitor to kiln and cooler shall be provided. A closed clinker system shall be adopted to control fugitive emission. Water sprinkler shall be done in raw material stock yard and cement bag loading areas.	Complied. Electrostatic precipitator (ESP) to cooler, Bag House to Raw mill, Bag filter to coal kiln burner and pre calciner have been provided. On line gas analyzer for O ₂ , CO, emission at kiln inlet and on line dust monitor to kiln and cooler have been provided. A closed clinker system has been adopted to control fugitive emission. Water sprinkler is done in raw material stock yard and cement bag loading areas.
ii.	The total water requirement from Ghatprabha River source shall not exceed 1046.4 m ³ /day. The treated waste water shall be recycled and reused in the process and or for dust suppression, green belt development and other plant related activities etc. The Effluent generated by CPP will also be used in the cement manufacturing process. No process waste water shall be discharged outside the factory premises and zero discharge shall be adopted. Domestic effluent treated in sewage treatment plant (STP) shall be used for green belt development within the plant and colony areas.	Complied. We are not abstracting water more than 1046.4 m ³ /day from Ghatprabha River. Dry manufacturing process has been adopted for cement manufacturing so no waste water is generated in cement plant. The treated waste water, generated in CPP, is being used for dust suppression, green belt development, other plant related activities /process. So, no process waste water is being discharged outside the factory premises and zero discharge is being adopted. Domestic effluent treated in sewage treatment plant (STP) is used for green belt development within the plant and colony areas.
iii.	The fly ash and bottom ash generated from the power plant shall be used in the process itself for manufacturing PPC. All the cement dust collected from the pollution control devices shall be recycled and reuse in the process and used for cement manufacturing. The fly ash utilization shall be as per the provision stipulated in the fly	Complied, The fly ash and bottom ash generated from the power plant are being used in the process itself for manufacturing PPC. All the cement dust collected from the pollution control devices is recycled and reused in the process and used for cement manufacturing. The fly ash utilization is as

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	ash notification of September, 1999 and amended in august, 2003. STP sludge shall be used as manure for green belt development. Used oil shall be sold to authorized recycler / re processor only.	per the provision stipulated in the fly ash notification of September, 1999 and amended in august, 2003. Quarterly report on fly ash utilization is being submitted to PCB. STP sludge after generation to be utilized as manure for green belt development. We have obtained permission to dispose in-house generated used oil/waste oil in our kiln.
iv.	High calorific hazardous waste shall be utilized in the cement plant.	Complying. We have obtained the permission from KSPCB for co-processing various hazardous wastes and Non-Hazardous wastes vide KSPCB authorization letter no. PCB/WMC/293/HWM /2016 / 2883 dated 31 August 2018 and PCB/WMC/293/HWM/2017-18/4734 dated 30 November 2017 respectively. We are co-processing various hazardous and Non- Hazardous wastes in our kiln.
v.	As proposed in EIA / EMP, green belt shall be developed in 80 ha. (66%) out of total 120 ha. As per the CPCB Guidelines to mitigate the effect of air emission in consultation with local DFO.	As a part of green belt development, We have received a certificate from forest department via. Letter no. B2.GFL/Mines/2007-08/597 dated 30-08-2007 regarding availability of local Flora and Fauna in Mudhol Taluka. We have planted a number of plants in and around cement plant and colony. We have covered more than 33% area of total land area from plantation.
General Condition :		
i.	The project authorities shall adhere to the stipulation made by Karnataka State Pollution Control Board and State Government.	Agreed
ii.	No further Expansion or modification of the plant shall be carried out without prior	Agreed. We have obtained environmental clearance for expansion of Cement

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	approval of Ministry or rules made there under.	Grinding Unit (2.50 MTPA to 3.5 MTPA) via. MoEF Letter No. F.No. J-11011/263/2009-IA II (I) dated 21-06-2010 and also obtained permission for manufacturing the cement based adhesive without increasing the production capacity from MoEF via F. No. J 11011/263/2009- IA II (I) dated 26 September 2012.
iii.	The gaseous and particulate matter emission from various units shall conform to the standards prescribed by the KSPCB. Interlocking facilities shall be provided in the pollution control so that in the event of the pollution control equipment not working, the respective unit(s) is shutdown automatically.	Complying, we have provided online monitoring instruments at major stacks and the gaseous and particulate matter emissions from various units are within the standard prescribed by the KSPCB/CPCB/MoEF. Interlocking facilities have been provided in pollution control equipment.
iv.	One Ambient Air Quality Monitoring station shall be installed in down wind direction. Ambient air quality including Ambient Noise Level shall not exceed the standard stipulated under EPA or by the state authorities. Monitoring of Ambient air quality and stack emission shall be carried out regularly in consultation with KSPCB and report submitted to the KSPCB quarterly and to the Ministry Regional Office at Bangalore Half Yearly.	Complied, we have installed total 4 Nos. of monitoring station in cement plant. Ambient air quality including ambient Noise level is not exceeding the standard stipulated under EPA or by the state authorities. Monitoring of Ambient air quality and stack emission are being carried out regularly in consultation with KSPCB and reports are being submitted to the KSPCB monthly/quarterly and to the Ministry Regional Office at Bangalore Half Yearly.
v.	The Company shall install adequate dust collection and extraction system to control fugitive dust handling (Unloading, conveying, transporting, and stacking) vehicular movement, bagging and packing areas etc. Asphaltting / concreting of roads and water spray all around the stock yard and loading / unloading areas shall be carried out to control fugitive emission. Covered sheds for storage of raw materials	Complied, we have installed adequate dust collection and extraction system to control fugitive dust handling. Asphaltting / concreting of roads and water spray all around the stock yard and loading / unloading areas are being carried out to control fugitive emission. Covered sheds for storage of raw materials and fully covered conveyors for transportation of materials have been provided besides

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	and fully covered conveyors for transportation of materials shall be provided besides coal, cement, fly ash and clinker shall be stored in silos.	coal. Cement, fly ash and clinker are stored in silos.
vi.	Prior permission from the State Ground water Board, Central Ground Water Authority (SGWB / CGWA) regarding drawl of ground water shall be obtained.	Ground water abstract permission has been obtained from Central / State ground water Authority via. letter No. 21-4 SWR/ CGWA/ 2008/ 1568 dtd. 11.12.2008 and It was valid up to 28-11-2010 so it had been renewed via letter no. 21- 4 (70) / SWR /CGWA / 2008 - 1489 dated 10/10/2011 by CGWA.
vii.	The company must harvest the rain water from the roof tops and storm water drains recharge the ground water and use the same water for the various activities of the project to conserve fresh water.	Complying, we are harvesting the rain water from roof tops. Storm water drains are recharging the ground water in colony and cement plant.
viii.	The company shall undertake eco-development measures including community welfare measures in the project areas.	Complying, we are undertaking eco-development measures like energy saving, hazardous wastes, Manufacturing of PPC/Slag cement and other wastes disposing etc. including community welfare measures.
ix.	The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall confirm to the standards prescribed under Environments (Protection) Act, 1986 Rules 1989 viz 75 dBA (Day Time) and 70 dBA at (Night Time).	Complying, the overall noise levels in and around the plant area is well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels are well within the standard prescribed under Environments (Protection) Act, 1986 Rules 1989 viz 75 dBA (Day Time) and 70 dBA (Night Time).
x.	All recommendations made in the Corporate Responsibilities for Protection (CREP) for cement plants shall be implemented.	Complying, Recommendations made in the charter on Corporate Responsibility for Environment Protection (CREP) for the cement plants are being implemented.

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xi.	Proper housekeeping and adequate occupational health program shall be taken up.	Complying, Proper housekeeping and adequate occupational health programmes are being taken up.
xii.	A separate Environmental Management cell to carry out various management and monitoring function shall be set up under control of Sr. Executive.	Complied, A separate Environmental Management cell to carry out various management and monitoring function has been set up under control of Sr. Executive.
xiii.	Rs. 8.70 crores earmarked for environmental pollution measures shall be suitable used to implement the condition stipulated by the Ministry of Environment and Forest as well as the State Government. The fund so provided shall not be diverted for any other purpose.	Complied, as a part of environmental pollution control measures, we have invested above earmarked amount. The fund so provided has not been diverted for any other purpose.
xiv.	The Regional of this Ministry at Bangalore / CPCB / KSPCB shall monitor the stipulated condition. A six monthly compliance report and monitor data along with statistical interpretation shall be submitted to them regularly.	Agreed, A six monthly compliance report and monitor data along with statistical interpretation is being submitted to The Regional of this Ministry at Bangalore / CPCB / KSPCB regularly.
xv.	The project authorities shall inform the Regional office as well as the Ministry, the date of financial closure and final approval of the project by concerned authorities and the date of commencing the land development work.	Complied, Project has been completed. We had informed the Regional office as well as the Ministry, the date of financial closure and final approval of the project by concerned authorities and the date of commencing the land development work.
xvi.	The project proponent shall inform the public that the project has been accorded environmental clearance by Ministry and copies of the clearance letter are available with the Karnataka Pollution Control Board / committee and may be seen at website of the Ministry of Environment and Forests at http: www.envfor.nic.in . This should be advertised within seven days from the date of issues of clearance letter at least in two local newspapers that are widely circulated in the region of which one shall be in the	Complied, we had informed the public that the project has been accorded environmental clearance by Ministry and copies of the clearance letter are available with the Karnataka Pollution Control Board / committee and may be seen at website of the Ministry of Environment and Forests at http: www.envfor.nic.in . This had been advertised within seven days from the date of issues of clearance letter in two local newspapers that are widely circulated in the region of which

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	vernacular language of the locality concerned and a copy of the same shall be forwarded to the regional office at Bangalore.	one was in the vernacular language of the locality concerned and a copy of the same has been forwarded to the regional office at Bangalore.
6.0	The Ministry or any other competent authority may stipulate any further condition(s) on receiving reports from the project authorities. The above conditions shall be monitored by the Regional offices of this Ministry located of Bangalore.	We are agreeing.
7.0	The Ministry may revoke or suspend the clearance if implementation of any of the above condition is not satisfactory.	We are agreeing.
8.0	Any other condition or alteration in the above conditions shall to be implemented by the project authorities in a time bound manner.	Complying
9.0	The above conditions shall be enforced, inter-alia under the provisions of The Water (Prevention and control of pollution) Act, 1974, the Air Act. 1981, The Environment Protection Act 1986 and The Public Liability Insurance Act, 1991 along with their amendments and rules.	We are agreeing.

Thanking you,

Yours Faithfully
J.K. Cement Works, Muddapur (Karnataka)


R.B.M. Tripathi
(Unit Head)

J K CEMENT WORKS, MUDDAPURAPRIL'20 TO SEPTEMBER'20DETAILS OF CSR ACTIVITY UNDERTAKEN DURING

CSR Project or activity identified (60-75 words)	Section in which the project is covered	Local Area or other	Specify State and other	Amount Spent	Amount spent:Direct or through implementing Agency
Distribution of Vegetable & food Packet to near by area (COVID 19)	Rural development projects	Muddapur Village	Karnataka	3,04,950	Direct
				3,04,950	

J.K. Cement WORKS, MUDDAPUR (KARNATAKA)

CEMENT PLANT & 2X25 CPP MW

HALF YEARLY AAQM REPORT (SO₂, NO₂, PM₁₀, PM_{2.5}) FOR THE MONTH OF APRIL-2020 TO SEPTEMBER-2020

(ALL VALUES IN MICROGRAMS / CUBIC METER)

Month	SL.No.	Date	Week	SO ₂				NO ₂				PM ₁₀				PM _{2.5}			
				Locations				Locations				Locations				Locations			
				Adm	D-Block	Weigh Bridge	Guest House	Adm	D-Block	Weigh Bridge	Guest House	Adm	D-Block	Weigh Bridge	Guest House	Adm	D-Block	Weigh Bridge	Guest House
A P R I L	1	24.2020	1st	Lockdown															
	2	6.4.2020																	
	3	9.4.2020	2nd	43	45	60	48	150	168	155	158	333	400	433	227	208	292	208	125
	4	13.4.2020		57	58	55	48	152	165	152	162	534	457	394	321	125	250	167	250
	5	16.4.2020	3rd	48	58	47	53	148	160	148	158	486	339	470	458	250	125	125	208
	6	20.4.2020		57	48	48	48	158	148	153	158	408	499	301	607	167	208	292	167
	7	23.4.2020		55	43	60	50	160	143	160	172	471	400	374	481	167	250	208	125
	8	27.4.2020	4th	73	55	60	47	173	162	153	143	362	487	450	348	208	292	333	250
	9	30.4.2020		45	68	70	55	155	188	170	135	467	437	588	475	167	208	167	167
M A Y	1	4.5.2020	1st	58	80	63	60	168	180	163	158	573	660	684	427	208	250	333	208
	2	7.5.2020		77	78	73	68	178	183	175	165	721	491	818	577	167	334	208	250
	3	11.5.2020	2nd	63	77	60	57	180	185	177	157	559	414	565	380	125	285	250	333
	4	14.5.2020		80	75	70	48	180	180	170	158	694	590	725	499	167	307	292	458
	5	18.5.2020	3rd	67	67	78	58	165	178	177	155	487	615	475	682	250	292	333	375
	6	21.5.2020		75	57	77	38	180	157	185	142	748	479	561	545	375	250	208	500
	7	25.5.2020	4th	77	38	80	48	187	140	175	153	688	446	604	400	167	333	292	375
	8	28.5.2020		65	52	60	55	173	157	177	160	728	608	422	675	208	292	375	292
	1	1.6.2020	1st	70	92	80	68	178	190	180	170	281	336	297	373	83	120	167	208
J U N E	2	4.6.2020		75	68	78	60	175	167	183	180	142	384	360	329	125	208	208	167
	3	8.6.2020	2nd	65	72	77	82	173	170	185	190	310	458	341	418	167	167	208	125
	4	11.6.2020		83	83	75	92	180	183	180	192	168	366	263	320	125	208	167	83
	5	15.6.2020	3rd	67	78	67	87	170	175	178	192	146	407	303	457	208	167	208	167
	6	18.6.2020		98	80	57	68	200	182	157	167	157	451	448	402	167	208	83	208
	7	22.6.2020	4th	100	90	38	73	195	202	140	173	289	331	314	477	208	167	125	125
	8	25.6.2020		83	98	52	70	183	192	157	168	143	424	233	366	83	208	125	167
	9	29.6.2020		95	82	68	80	195	180	143	180	162	461	297	236	72	167	167	125
	1	2.7.2020	1st	80	62	63	57	187	160	157	157	192	443	186	179	83	208	42	83
J U L Y	2	6.7.2020		77	77	52	73	177	172	153	173	337	559	371	303	167	250	167	208
	3	9.7.2020	2nd	83	57	77	65	153	140	177	168	449	627	143	129	125	292	208	83
	4	13.7.2020		67	73	67	73	167	178	133	170	470	436	315	363	208	208	167	167
	5	16.7.2020	3rd	57	80	62	65	157	180	168	165	302	399	291	242	125	292	125	167
	6	20.7.2020		73	71	78	67	173	173	178	175	365	301	236	354	167	250	292	125
	7	23.7.2020	4th	62	80	81	80	158	190	185	165	422	442	366	315	208	292	208	208
	8	27.7.2020		67	63	67	67	145	163	167	160	414	618	298	332	292	250	167	167
	9	30.7.2020		67	70	57	77	167	172	147	177	306	334	209	286	208	206	250	125
	1	3.8.2020	1st	73	80	60	73	175	182	167	173	106	304	210	251	42	208	83	167
A U G U S T	2	6.8.2020		65	68	70	65	165	173	175	168	264	422	152	208	42	167	83	83
	3	10.8.2020	2nd	70	82	80	80	180	192	188	180	156	342	113	158	83	125	167	125
	4	13.8.2020		97	100	77	77	190	198	177	177	283	372	339	271	83	167	125	167
	5	17.8.2020	3rd	73	75	83	62	173	180	182	178	200	282	305	121	42	125	83	83
	6	20.8.2020		68	85	73	70	175	188	178	187	278	351	224	369	42	167	42	42
	7	24.8.2020	4th	80	97	92	80	198	202	170	188	264	408	208	166	42	208	42	83
	8	27.8.2020		77	83	80	88	185	192	180	195	332	458	432	386	83	167	83	125
	9	31.8.2020		85	77	88	83	182	182	180	183	534	629	537	456	125	208	125	167
	1	3.9.2020	1st	73	72	62	83	173	177	163	173	297	355	237	211	125	167	125	83
S E P T E M B E R	2	7.9.2020		80	88	73	42	180	188	173	187	154	296	172	284	42	125	83	42
	3	10.9.2020	2nd	93	67	80	42	191	167	188	168	226	337	157	191	42	167	42	42
	4	14.9.2020		73	77	77	83	178	178	177	172	172	290	239	180	83	125	83	83
	5	17.9.2020	3rd	67	80	68	167	167	185	167	163	138	226	348	281	42	125	83	167
	6	21.9.2020		70	60	72	125	173	163	177	180	96	359	45	42	28	83	125	125
	7	24.9.2020	4th	62	73	80	42	168	175	180	167	322	471	289	135	29	125	21	42
	8	28.9.2020		70	82	73	167	177	182	173	173	598	648	648	379	104	167	129	167
	Minimum			43	38	38	38	145	140	140	135	96	226	45	42	28	83	21	42
	Maximum			100	100	92	167	200	202	188	195	748	660	818	682	375	334	375	500
	Average			72	72	69	71	174	175	169	169	353	433	356	345	137	209	168	172


 V. K. Ravi
 Monitored by

J.K. Cement WORKS, MUDDAPUR (KARNATAKA)

(Unit : J.K. Cement Ltd.)

Half Yearly Stack monitoring report of Cement plant & 2x25 MW Thermal power plant for April-2020 to September-2020

Sl. No.	Month/Year	Stack locations										
		Thermal Power Plant			Kiln / Raw Mill			SPM in mg/Nm ³				
		SPM in mg/Nm ³	SO ₂ in mg/Nm ³	NO _x in mg/Nm ³	SPM in mg/Nm ³	SO ₂ in mg/Nm ³	NO _x in mg/Nm ³	Coal Mill Bag Filter	Cooler	LSC	CM-1	CM-2
1	Apr-20	22.2	95.0	56.0	15.6	0.0	460.0	14.4	7.3	8.6	8.1	5.0
2	May-20	27.0	95.0	60.0	16.8	0.0	682.0	15.0	11.5	16.0	6.1	7.2
3	Jun-20	20.4	114.0	70.0	11.9	0.0	436.0	11.6	10.0	10.7	10.5	7.0
4	Jul-20	31.7	140.0	68.0	11.5	0.0	484.0	11.3	6.4	9.0	11.3	5.9
5	Aug-20	21.8	168.0	95.0	13.8	0.0	695.0	12.7	10.6	16.4	14.1	12.0
6	Sep-20	20.7	143.7	102.1	10.9	6.0	640.0	12.7	7.5	7.7	8.4	7.0
Avg		24.0	125.9	75.2	13.4	1.0	566.2	13.0	8.9	11.4	9.7	7.3
Min		20.4	95.0	56.0	10.9	0.0	436.0	11.3	6.4	7.7	6.1	5.0
Max		31.7	168.0	102.1	16.8	6.0	695.0	15.0	11.5	16.4	14.1	12.0

Sl. No.	Month/Year	Stack locations										
		SPM in mg/Nm3										
		Slag mill	Coal crusher	Packing plant No-1	Packing plant No-2	Packing plant No-3	Packing plant No-4	RMT System	Clinker Transport	Clinker Storage	CM Sep-1	CM Sep-2
1	Apr-20	12.8	13.5	10.4	7.4	10.2	13.4	10.1	18.2	7.2	8.1	5.0
2	May-20	13.0	17.0	11.0	13.0	16.0	20.0	13.0	15.0	17.0	6.1	7.2
3	Jun-20	17.1	15.7	14.6	13.4	10.8	12.9	14.6	12.4	10.2	10.5	7.0
4	Jul-20	16.4	12.2	11.2	13.9	12.8	11.7	14.6	13.9	11.0	11.3	5.9
5	Aug-20	13.2	10.5	8.4	11.5	11.9	13.6	12.7	11.0	13.4	14.1	12.0
6	Sep-20	11.5	12.1	13.8	10.5	12.4	15.1	9.5	9.9	11.6	8.4	7.0
Avg		14.0	13.5	11.6	11.6	12.4	14.4	12.4	13.4	11.7	9.7	7.3
Min		11.5	10.5	8.4	7.4	10.2	11.7	9.5	9.9	7.2	6.1	5.0
Max		17.1	17.0	14.6	13.9	16.0	20.0	14.6	18.2	17.0	14.1	12.0


 Vani Raju
 Monitored by

J.K. Cement WORKS, MUDDAPUR (KARNATAKA)

(Unit : J.K. Cement Limited)

Half Yearly Fugitive Emission Monitoring Report of Cement plant for the month of April-2020 to September-2020

SL. NO.	MONTH/YEAR	SPM (microgram/m ³)						
		Gypsum Yard	Slag Yard	Flyash Yard	Cement mill	Lime stone unloading hopper	Lime stone crushing Site	Coal Yard
1	Apr-20	750.2	985.2	729.3	900.7	1114.4	926.9	946.2
2	May-20	771.4	680.4	844.6	792.4	914.7	773.5	837.1
3	Jun-20	878.3	771.8	848.3	724.5	1014.5	940.5	854.5
4	Jul-20	826.6	663.5	560.7	480.2	587.4	516.9	628.7
5	Aug-20	677.0	562.5	470.8	699.2	506.2	456.6	585.3
6	Sep-20	638.0	711.9	575.5	725.2	619.5	716.9	639.1
Minimum		637.99	562.50	470.76	480.21	506.22	456.60	585.35
Maximum		878.30	985.22	848.29	900.71	1114.41	940.45	946.24
Average		756.90	729.22	671.52	720.37	792.79	721.88	748.49
								749.68


Vanil Dapil
Monitored by

J.K. Cement WORKS, MUDDAPUR (KARNATAKA)

(Unit: J.K. Cement Ltd.)

EFFLUENT WATER ANALYSIS REPORT (Monthly Average) FOR THE MONTH OF APRIL-2020 TO SEPTEMBER-2020

Constituents	Suspended Solids (mg/L)	Temperature (°C) max	pH value	Oils and Grease (mg/L)
Permissible limit	100	Unobjectionable	5.5 to 9	10
Apr-20	66.5	0.33	8.34	Nil
May-20	42.1	0.63	8.14	Nil
Jun-20	40.7	0.58	8.16	Nil
Jul-20	46.3	0.56	8.15	Nil
Aug-20	49.8	0.50	8.23	Nil
Sep-20	50.6	0.46	8.3	Nil
Half Avg	49.3	0.5	8.2	Nil
Half Minimum	46.5	0.3	8.1	Nil
Half Maximum	47.2	0.6	8.3	Nil


Vani Pati
Monitored by

J.K. Cement WORKS, MUDDAPUR (KARNATAKA)
(Unit: J.K. Cement Ltd.)

STP water Analysis Report (Monthly Average) for the Month of April-2020 to September-2020

Sl.No.	Month	Suspended Solids	PH	BOD	COD	NH4-N	N-total	Fecal Coliform	PO4-P.
	Tolerance limit	10	6 to 9	10	50	5	10	≤230	2
1	Apr-20	8.25	7.22	7.77	29.17	3.14	6.74	Nil	0.76
2	May-20	8.09	7.25	6.65	34.10	3.44	7.37	Nil	0.77
3	Jun-20	8.08	7.46	6.84	26.02	4.50	7.16	Nil	0.77
4	Jul-20	8.00	7.22	7.83	27.15	3.73	7.13	Nil	0.74
5	Aug-20	8.22	7.44	6.93	24.38	3.32	7.44	Nil	0.80
6	Sep-20	8.22	7.34	8.12	24.91	3.56	7.48	Nil	0.77
	Half Yearly Min.	8.00	7.22	6.65	24.38	3.14	6.74	Nil	0.7
	Half Yearly Max.	8.25	7.46	8.12	34.10	4.50	7.48	Nil	0.8
	Half Yearly Avg.	8.14	7.32	7.35	27.62	3.61	7.22	Nil	0.8


 Vani P. Chil
 Monitored by

J.K. Cement WORKS, MUDAPUR (KARNATAKA)

(Unit: J.K. Cement Ltd.)

Half Yearly Noise monitoring report of Cement & Power Plant for the month of April-2020 to September-2020

Sl. No.	Location Name	Apr-20		May-20		Jun-20		Jul-20		Aug-20		Sep-20		Minimum		Maximum		Average	
		Day (db) Leq	Night (db) Leq	Day (db) Leq	Night (db) Leq	Day (db) Leq	Night (db) Leq	Day (db) Leq	Night (db) Leq	Day (db) Leq	Night (db) Leq	Day (db) Leq	Night (db) Leq	Day (db) Leq	Night (db) Leq	Day (db) Leq	Night (db) Leq	Day (db) Leq	Night (db) Leq
1	Boundary side	45.6	31.5	43.2	30.4	48.2	32.8	47.5	34.8	48.6	35.8	48.6	35.5	43.2	30.4	48.6	35.8	47.0	33.5
2	Administrative Building	42.2	30.6	40.6	31.5	40.5	30.2	44.6	31.8	45.8	32.6	45.8	32.1	40.5	30.2	45.8	32.6	43.3	31.5
3	Lime Stone gate	52.5	33.5	54.6	33.5	50.7	40.7	51.5	46.5	52.7	47.6	52.8	45.8	50.7	33.5	54.6	47.6	52.5	41.3
4	Lime Stone Crusher	46.6	35.2	48.5	35.2	47.2	37.5	49.8	37.5	65.8	58.2	65.9	52.5	46.6	35.2	65.9	58.2	54.0	42.7
5	Kiln/ Cooler	50.4	36.6	51.8	36.6	55.8	41.2	64.8	48.9	68.5	60.6	70.5	60.8	50.4	36.6	70.5	60.8	60.3	47.5
6	Kiln Platform	60.5	45.2	62.5	45.2	50.5	43.6	72.6	65.8	74.8	66.7	74.5	66.5	50.5	43.6	74.8	66.7	65.9	55.5
7	Power Plant	66.1	50.5	64.2	50.5	60.6	50.7	65.5	47.8	68.7	55.8	65.4	48.5	60.6	47.8	68.7	55.8	64.8	50.6
8	Despatch gate	52.4	40.6	50.5	40.6	53.5	41.6	53.4	40.8	55.4	41.2	54.6	41.6	50.5	40.6	55.4	41.6	53.3	41.1
9	Near QC Lab.	50.6	32.8	49.2	32.8	45.9	36.2	48.5	38.5	46.8	39.2	47.6	37.5	45.9	32.8	50.6	39.2	48.1	36.2
10	Coal Yard	56.5	35.4	55.4	35.4	54.7	38.5	56.8	42.8	55.7	48.7	55.4	41.5	54.7	35.4	56.8	48.7	55.8	40.4
11	Slag yard	55.4	34.2	52.8	34.2	66.8	41.2	48.5	35.6	52.8	45.6	47.6	36.8	47.6	34.2	66.8	45.6	54.0	31.9
12	Gypsum yard	56.6	35.8	54.5	35.8	65.7	40.1	57.8	41.6	58.4	47.5	58.2	42.5	54.5	35.8	65.7	47.5	58.5	40.6
13	Near Canteen	40.6	30.2	41.5	30.2	62.2	40.2	46.7	32.8	47.5	40.7	48.5	35.5	40.6	30.2	62.2	40.7	47.8	34.9
14	Plant main gate	50.5	32.6	50.4	32.6	58.8	45.5	52.5	35.5	53.7	46.4	53.6	40.6	50.4	32.6	58.8	46.4	53.3	38.9
15	Dispensary	44.6	30.2	43.6	30.2	46.5	40	43.6	32.6	45.8	34.8	44.7	33.7	43.6	30.2	46.5	40	44.8	33.6
16	Packing Plant	50.2	36.6	51.5	36.6	71.5	55.4	55.8	42.5	56.7	48.7	56.7	43.5	50.2	36.6	71.5	55.4	57.1	43.9
17	General Store	55.4	33.4	52.8	33.4	60.1	45.5	50	38.6	51.6	45.5	51.6	38.6	50	33.4	60.1	45.5	53.6	39.2
18	DG House (1-meter distance)	64.5	-	65.5	-	75.5	-	78.2	-	76.4	-	78.8	-	64.5	0	78.8	0	73.2	#DIV/0!
19	DG House (2-meter distance)	62.2	-	62.8	-	71.5	-	78.6	-	74.1	-	75.6	-	62.2	0	75.6	0	70.3	#DIV/0!
20	Raw mill proportioning hopper	60.6	40.5	64.6	41.5	79.9	63	68.7	42.8	74.5	68.5	69.5	45.8	60.6	40.5	79.9	68.5	69.6	50.4
21	coal mill	64.5	45.6	65.2	43.6	77	61	59.8	44.6	70.5	65.6	62.5	42.6	55.8	42.6	77	65.6	65.9	50.5
22	Near silo clinker loading point	60.6	46.8	62.2	41.5	64.2	51.8	58.4	47.6	65.2	59.8	58.4	47.6	58.4	41.5	65.2	59.8	61.5	49.2
23	CM-1 weigh feeder	61.5	50.2	62.5	51.2	71.5	55.5	62.5	52.4	60.5	55.6	63.5	52.5	60.5	50.2	71.5	55.6	63.7	52.9
24	CM-2 weigh feeder	60.2	55.2	65.5	52.8	67.7	52.6	65.8	55.7	65.2	58.2	65.2	53.8	60.2	52.6	67.7	58.2	64.9	54.7
25	Cement silo Packer-1	62.8	45.5	60.7	43.3	64.8	50.7	63.5	50.8	64.5	59.5	62.8	51.6	60.7	43.3	64.8	59.5	63.2	50.2
26	Cement silo Packer-2	60.6	50.2	61.8	51.5	69.5	45.2	65.8	52.8	66.4	55.7	65.8	52.8	60.6	45.2	69.5	55.7	65.0	51.4
27	Cement silo Packer-3	62.5	49.7	64.4	50.5	64.8	52.5	66.5	48.7	65.3	57.4	67.2	54.5	62.5	48.7	67.2	57.4	65.1	52.2
28	Cement silo Packer-4	63.6	50.5	60.1	48.9	57.5	47.2	62.8	45.8	63.4	56.8	63.4	46.5	57.5	45.8	63.6	56.8	61.8	49.3
29	Truck Loading point- 1	61.5	45.5	62.2	44.7	71.6	51.7	52.8	46.7	60.9	50.4	53.5	47.5	52.8	44.7	71.6	51.7	60.4	47.8
30	Truck Loading point- 2	60.6	50.6	58.7	48.5	61.8	52.8	64.5	48.5	65.6	59.5	65.4	48.6	58.7	48.5	65.6	59.5	62.8	51.4
31	Truck Loading point- 3	60.5	51.5	62.4	50.6	65.2	50.5	65.2	47.5	67.4	63.8	68.5	50.5	60.5	47.5	68.5	63.8	64.9	52.4
32	Truck Loading point- 4	62.4	45.4	65.5	46.5	60.7	48.5	58.4	46.5	64.2	59.7	60.7	48.5	58.4	45.4	65.5	59.7	62.0	49.2
33	Slag mill weigh feeder	62.1	49.6	68.7	45.6	73.8	55.4	64.5	50.7	60.8	56.4	73.8	55.4	60.8	45.6	73.8	56.4	67.3	52.2


 V.K. Ravi
 Monitored by

Station: CEMS Periodically: April 2020 - September 2020 Type: AVG Monthly [1 Hr.]

Date & Time	RABH-STACK- PM-(mg/Nm3)	RABH-STACK- SO ₂ -(mg/Nm3)	RABH-STACK- NO _x -(mg/Nm3)	CPPSTACK- PM-(mg/Nm3)	CPPSTACK- SO ₂ - (mg/Nm3)	CPPSTACK- NO _x - (mg/Nm3)	Coal-Mill- PM- (mg/Nm3)	Cooler - ESP-PM- (mg/Nm3)	Cement Mill 1 PM(mg/Nm3)	Cement Mill 2PM(mg/Nm3)	cement Mill 3 PM(mg/Nm3)
Apr-20											
May-20	16.0	8.0	623.0	28.1	100.0	89.7	18.7	2.8	3.0	4.0	14.6
Jun-20	14.0	0.0	316.6	23.7	98.4	63.2	7.1	6.1	2.8	1.8	12.0
Jul-20	11.7	0.0	348.0	28.8	120.0	74.2	10.4	5.0	2.0	0.8	11.7
Aug-20	15.0	3.4	567.2	15.0	136.4	87.5	9.6	9.2	2.5	1.8	9.0
Sep-20	9.2	10.9	442.9	16.2	146.3	95.3	4.7	8.1	2.6	1.8	11.0
Minimum	9.2	0.0	316.6	15.0	98.4	63.2	4.7	2.8	2.0	0.8	9.0
Maximum	16.0	10.9	623.0	28.8	146.3	95.3	18.7	9.2	3.0	4.0	14.6
Average	13.2	4.5	459.5	22.4	120.2	82.0	10.1	6.3	2.6	2.1	11.7

Station: AAQMS1 Periodically: April 2020 - September 2020 Type: AVG Monthly [1 Hr.]

Date & Time	PM10 µg/m ³	PM2.5 µg/m ³	SO2 µg/m ²	NO2 µg/m ³	CO µg/m ³
Apr-20	Nodata				
May-20	54.00	20.77	Analyzer Problem	Analyzer Problem	1.2
Jun-20	20.08	8.91	Analyzer Problem	28.2	0.7
Jul-20	27.39	4.25	Analyzer Problem	13.6	1.2
Aug-20	21.28	3.52	Analyzer Problem	16.6	1.57
Sep-20	32.00	8.25	Analyzer Problem	12.0	1.55
Minimum	20.08	3.52	0	12	0.65
Maximum	54	20.77	0.00	28.17	1.57
Average	30.95	9.14	#DIV/0!	17.61	1.23

Station: AAQMS2 Periodically: April 2020 - September 2020 Type: AVG Monthly [1 Hr.]

Date & Time	PM10	PM2.5	SO2	NO2	CO
	µg/m ³	µg/m ³	µg/m ³	µg/m ³	µg/m ³
Apr-20	Nodata				
May-20	88.52	25.6	Analzer Problem	Analzer Problem	Analzer Problem
Jun-20	36.76	7.3	Analzer Problem	5.28	Analzer Problem
Jul-20	28.88	15.2	6.20	Analzer Problem	0.49
Aug-20	19.19	2.6	Analzer Problem	Analzer Problem	3.26
Sep-20	33.13	7.1	Analzer Problem	Analzer Problem	1.14
Minimum	19.19	2.56	6.2	5.28	0.49
Maximum	88.52	25.6	6.2	5.28	3.26
Average	41.30	11.55	6.20	5.28	1.63

EXPENDITURE ON THE ENVIRONMENTAL MANAGEMENT PLAN FOR PERIOD
FROM APRIL 2020 TO SEPTEMBER 2020

DESCRIPTION	Expenditure (in Lakh)
Air Pollution Control in Kiln, Cooler, cement mill, coal mill, and LS crusher (main equipment) including stacks, Bag filters along with ventilation system for the control of fugitive dust emissions from the plant including stacks/ Cost of equipment for controlling emission like bag house, ESP, Bag filter etc., Operational cost/electricity cost, Operation & Maintenance cost	759.31
Fly ash Silo's and ash handling systems	58.76
Emission Monitoring equipment (including online emission monitoring equipment (CEMS) at sources and ambient air quality in the vicinity) and laboratory	13.49
Green Belt Development, Sewage Treatment plant and Water Harvesting Schemes for plant	20.08
Extra expenditure on green purchase (Purchase of green fuel, recycled materials or any other such purchase (<u>AFR purchase, Fly ash and Slag purchase</u>) to reduce environmental footprint	1943.17
Other environmental management costs (AFR system operation, odour control, environmental training/Award, SNCR system CPP, Environmental License Fees)	126.38
TOTAL (Rs in Lakhs)	2921.19