

No. JKCW / ENV./ E.C./ (PLANT) /89 /14

Date- 23-11-2021

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-2021 to September-2021 for JK Cement Works, Village- Muddapur, Taluka- Mudhol, District- Bagalkot (Karnataka)**

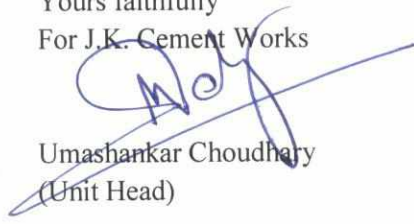
Ref: **MoEF Letter F. No. J-11011 / 489 / 2006-1A.II (I) / dtd. 14-09-2007**



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-2021 to September-2021** 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

  
Umashankar Choudhary  
(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, CAAQM report and six monthly environmental expenditure.**

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

Corporate Office

Padam Tower, 19 DDA Community Centre  
Okhla, Phase - 1, New Delhi - 110020, India  
+011-49220000  
admin.padamtower@jkcement.com  
www.jkcement.com

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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, 2021 to September, 2021**

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 <sub>2</sub> , 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 <sub>2</sub> , 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 <sup>3</sup> /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 <sup>3</sup> /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



**J.K. Cement Works, Village- Lokapur, Taluka-Mudhol, District- Bagalkot, Karnataka**  
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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 no. 327139 dated 29 <sup>th</sup> September 2021. We are co-processing various hazardous and Non-Hazardous wastes in our kiln after getting approval from KSPCB.
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.
<b>General Condition :</b>		
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 approval of Ministry or rules made there under.	Agreed. We have obtained environmental clearance for expansion of Cement 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

**J.K. Cement Works, Village- Lokapur, Taluka-Mudhol, District- Bagalkot, Karnataka**  
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**Environmental Clearance Compliance Report for the period from April, 2021 to September, 2021**

		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 and fully covered conveyors for transportation of materials shall be provided besides coal, cement, fly ash and	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 coal. Cement, fly ash and clinker are stored in silos.



**J.K. Cement Works, Village- Lokapur, Taluka-Mudhol, District- Bagalkot, Karnataka**  
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	clinker shall be 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 have been obtained from Karnataka Ground Water Authority, Bangalore via. Letter no. KGWA/GW/NOC/32/2020-21/4323 dated 30.03.2021.
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.
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	Complied, A separate Environmental Management cell to carry out various management and monitoring function has

**J.K. Cement Works, Village- Lokapur, Taluka-Mudhol, District- Bagalkot, Karnataka**  
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**Environmental Clearance Compliance Report for the period from April, 2021 to September, 2021**

	control of Sr. Executive.	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 <a href="http://www.envfor.nic.in">http: www.envfor.nic.in</a> . 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 vernacular language of the locality concerned and a copy of the same shall be forwarded to the regional office at Bangalore.	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 <a href="http://www.envfor.nic.in">http: www.envfor.nic.in</a> . 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 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	We are agreeing.



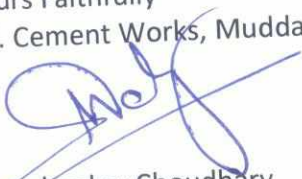
**J.K. Cement Works, Village- Lokapur, Taluka-Mudhol, District- Bagalkot, Karnataka**  
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	authority may stipulate any further condition(s) on receiving reports from the project authorities. The above conditions shall be monitored by the Regional offices of this Ministry located of Bangalore.	
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)

  
Umashankar Choudhary  
(Unit Head)

**J K CEMENT WORKS, MUDDAPUR**

**DETAILS OF CSR ACTIVITY UNDERTAKEN DURING**

**APRIL 2021 TO SEPTEMBER 2021**

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
Oxygen Concentrator for CSR					
Bhoomika Trust Chennai Covid Relief Fund	Covid Relief	Mudhol	Karnataka	3,80,000.00	Direct
Mass Marriage Community Hall Creation Muddapur	Covid Relief	Other	Tamilnadu	15,00,000.00	Direct
Gram Panchayat Kasaba Jambagi office furniture	Community Welfare Projects	Muddapur Village	Karnataka	2,00,000.00	Direct
Tower High Mast 20 Mtrs	Rural development projects	Haiki Village	Karnataka	2,66,400.00	Direct
	Rural development projects	Haiki Village	Karnataka	2,82,200.00	Direct
				<b>26,28,600</b>	-



**J.K. Cement WORKS, MUDDAPUR (KARNATAKA)**


CEMENT PLANT & 2X25 CPP MW

**HALF YEARIY AAQM REPORT (SO<sub>2</sub>, NO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>), FOR THE MONTH OF APRIL-2021 TO SEPTEMBER-2021**

( ALL VALUES IN MICROGRAMS / CUBIC METER )

Month	SLNo.	Date	Week	SO <sub>2</sub>				NO <sub>2</sub>				PM <sub>10</sub>				PM <sub>2.5</sub>			
				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
				6.2	7.7	9.3	7.3	16.7	17.7	19.2	17.3	50.9	72.3	78.9	62.1	37.5	40.3	37.5	33.3
A P R I L	1	3.4.2021	1st	6.2	7.7	9.3	7.3	16.7	17.7	19.2	17.3	50.9	72.3	78.9	62.1	37.5	40.3	37.5	33.3
	2	6.4.2021	1st	7.5	6.8	8.0	6.8	17.5	16.2	17.7	16.5	61.3	69.7	78.9	62.1	29.2	33.3	25.0	29.2
	3	10.4.2021	2nd	5.7	7.8	7.8	5.7	15.7	18.2	17.0	15.7	51.0	63.4	60.7	56.2	33.3	25.0	29.2	41.7
	4	13.4.2021	2nd	8.2	7.0	8.0	6.2	18.0	16.3	18.0	16.7	58.3	73.4	71.9	68.3	20.8	29.2	25.0	33.3
	5	17.4.2021	3rd	6.8	8.0	7.7	7.5	16.8	18.7	17.7	17.5	75.0	69.1	57.0	75.6	33.3	37.5	33.3	36.7
	6	20.4.2021	3rd	7.7	5.5	6.2	5.7	16.5	16.3	15.8	15.7	66.7	59.6	79.6	86.6	41.7	33.3	37.5	29.2
	7	24.4.2021	4th	5.7	6.7	8.2	7.5	15.7	17.7	18.2	18.0	52.2	72.6	93.0	65.5	29.2	29.2	33.3	31.7
	8	27.4.2021	4th	6.7	8.2	6.3	6.7	17.8	18.0	16.7	17.8	57.5	78.9	76.5	59.5	33.3	41.7	29.2	32.9
	9	30.4.2021	4th	9.0	7.5	8.3	7.0	21.0	19.0	19.0	15.0	50.6	69.3	56.1	72.8	29.2	37.5	50.0	28.3
M A Y	1	4.5.2021	1st	7.8	8.2	7.8	7.0	16.2	17.3	17.3	17.8	56.7	61.4	56.3	39.0	22.7	12.5	25.0	23.3
	2	8.5.2021	1st	8.8	9.0	8.3	7.5	17.3	18.0	18.0	17.5	49.5	56.3	39.0	22.7	12.5	25.0	23.3	25.0
	3	11.5.2021	2nd	6.8	7.5	7.2	6.5	18.0	17.7	17.0	17.3	61.7	49.9	21.9	38.0	16.7	29.2	37.5	25.0
	4	15.5.2021	2nd	8.2	8.0	8.0	8.3	17.0	17.2	18.0	18.0	60.4	44.9	46.3	28.0	20.8	25.0	29.2	25.0
	5	18.5.2021	3rd	7.5	8.2	6.5	6.7	17.2	18.0	17.8	17.0	63.9	48.1	35.6	45.9	12.5	33.3	25.0	20.8
	6	22.5.2021	3rd	6.8	7.2	8.2	9.8	18.0	17.0	18.0	20.0	45.1	34.7	25.6	31.3	16.7	25.0	12.5	27.5
	7	25.5.2021	4th	8.3	8.8	8.3	10.0	17.0	16.8	18.2	19.5	33.5	27.7	42.6	28.3	12.5	16.7	20.8	27.5
	8	29.5.2021	4th	7.8	7.0	7.0	8.3	17.8	18.0	18.0	18.3	48.3	38.0	29.9	25.0	8.3	20.8	12.5	12.5
	9	31.5.2021	4th	7.8	7.0	7.0	8.3	17.8	18.0	18.0	18.3	48.3	38.0	29.9	25.0	8.3	20.8	12.5	12.5
J U N E	1	2.6.2021	1st	6.2	5.8	6.3	6.8	16.7	16.2	16.0	17.2	40.3	46.5	39.5	46.5	16.7	20.8	29.2	20.8
	2	5.6.2021	1st	7.5	6.7	7.7	8.0	17.5	18.0	17.3	18.0	27.8	52.1	37.7	52.8	12.5	29.2	27.9	19.2
	3	9.6.2021	2nd	5.7	5.8	6.8	9.0	15.7	15.5	18.2	19.0	13.5	40.3	36.4	57.9	20.8	33.3	25.0	16.7
	4	12.6.2021	2nd	4.8	4.8	6.0	7.5	14.8	16.7	17.0	17.2	19.1	37.7	43.0	59.5	12.5	31.3	20.8	20.8
	5	16.6.2021	3rd	6.8	4.2	7.7	8.3	16.8	14.8	18.7	19.2	18.5	40.0	40.3	47.7	20.8	16.7	20.8	33.3
	6	19.6.2021	3rd	4.8	3.7	8.0	8.0	14.0	14.2	17.8	18.8	33.9	44.3	45.6	42.1	16.7	20.8	24.2	25.0
	7	23.6.2021	4th	5.8	4.3	6.7	9.2	15.8	14.8	17.7	19.0	65.7	46.5	38.9	49.8	20.8	33.3	33.3	20.8
	8	26.6.2021	4th	3.8	5.8	8.0	6.8	14.3	16.2	18.0	17.8	42.5	40.7	42.7	38.3	16.7	29.2	25.0	29.2
	9	30.6.2021	4th	5.7	6.2	7.7	6.8	15.7	16.7	17.8	16.8	46.8	57.1	36.6	45.2	12.5	24.2	29.2	20.8
J U L Y	1	3.7.2021	1st	8.3	8.0	7.8	8.0	15.8	18.0	17.8	18.0	29.6	48.6	37.7	38.9	16.7	32.5	17.5	16.7
	2	7.7.2021	1st	7.8	7.3	8.0	7.8	17.8	17.3	18.0	17.7	49.9	34.6	39.7	37.8	14.6	22.1	25.0	20.8
	3	10.7.2021	2nd	8.0	8.0	9.2	8.0	17.3	18.0	19.2	18.0	41.6	47.2	38.1	40.3	20.8	35.8	29.2	24.2
	4	14.7.2021	2nd	8.7	7.5	8.0	8.2	18.7	16.8	18.0	18.2	23.1	42.1	24.2	43.9	17.5	36.7	16.7	20.8
	5	17.7.2021	3rd	8.5	6.3	7.3	7.8	18.7	16.5	17.8	17.8	37.0	55.9	25.8	26.9	24.4	20.8	28.5	19.6
	6	21.7.2021	3rd	7.8	7.8	8.0	8.0	17.8	17.5	18.0	18.0	49.3	57.5	26.9	24.4	20.8	28.5	19.6	18.3
	7	24.7.2021	4th	8.0	8.0	6.7	6.7	18.0	18.0	17.5	16.7	66.4	76.2	41.6	36.0	29.2	30.7	29.2	20.8
	8	28.7.2021	4th	7.5	8.0	7.0	7.8	17.3	17.8	17.0	17.8	74.2	70.6	68.0	48.3	22.9	39.2	31.7	29.2
	9	31.7.2021	4th	7.5	7.0	9.0	7.0	19.0	17.5	19.0	17.0	54.0	78.2	56.8	59.2	22.9	34.2	29.7	22.9
A U G U S T	1	4.8.2021	1st	8.0	7.5	8.0	7.0	18.8	18.0	18.0	17.5	48.6	55.0	45.9	41.1	13.7	23.3	12.5	16.7
	2	7.8.2021	1st	6.7	8.0	7.7	8.0	17.3	18.0	17.7	18.0	70.6	62.1	47.8	53.1	8.8	19.6	14.2	12.5
	3	11.8.2021	2nd	9.7	9.0	8.0	9.0	18.0	19.3	18.0	18.2	84.6	89.4	90.2	83.9	20.8	25.0	15.0	15.4
	4	14.8.2021	2nd	8.0	6.8	9.0	8.0	18.0	17.8	19.0	19.0	72.9	79.7	78.0	78.7	18.3	27.1	20.8	12.5
	5	18.8.2021	3rd	6.7	8.0	7.7	7.5	17.8	18.0	17.7	18.2	63.8	70.4	52.7	63.8	11.3	22.9	10.8	12.5
	6	21.8.2021	3rd	8.2	9.0	8.8	8.3	18.2	19.0	18.8	19.2	72.0	77.2	70.0	51.5	16.7	20.8	17.5	15.8
	7	25.8.2021	4th	8.5	7.8	9.0	9.2	18.3	18.8	19.0	19.2	43.1	62.0	37.1	44.8	12.5	16.7	12.5	10.4
	8	28.8.2021	4th	8.0	8.3	8.3	8.5	18.0	18.3	18.3	18.5	74.4	74.5	33.2	65.7	15.8	18.8	16.7	16.7
	9	31.8.2021	4th	7.0	8.0	9.3	9.8	17.0	19.0	19.0	19.8	79.5	89.6	63.3	68.3	28.3	37.5	14.6	20.8
S E P T E M B E R	1	3.9.2021	1st	8.0	7.0	8.0	6.7	18.0	17.5	18.8	16.7	53.8	86.4	38.0	24.4	37.5	37.5	8.3	25.0
	2	7.9.2021	1st	7.8	6.3	6.7	7.5	17.5	16.5	16.7	17.5	87.9	91.4	11.7	28.4	33.3	33.3	6.7	20.8
	3	10.9.2021	2nd	6.7	8.0	7.5	6.7	16.7	18.0	16.2	16.2	71.0	89.7	44.5	31.7	29.2	29.2	9.2	21.7
	4	14.9.2021	2nd	8.0	7.3	8.0	8.0	17.8	17.3	17.8	18.0	77.4	90.9	54.4	39.7	25.0	25.0	8.3	16.7
	5	17.9.2021	3rd	7.0	7.2	8.2	6.7	17.7	17.8	18.2	16.7	81.5	87.4	81.0	68.9	22.9	22.9	11.7	14.2
	6	21.9.2021	3rd	6.2	6.8	6.8	7.3	16.8	16.8	16.7	17.5	48.7	69.1	82.5	57.1	20.8	20.8	20.8	12.5
	7	24.9.2021	4th	8.0	7.3	7.5	8.0	18.0	17.8	17.3	18.0	78.6	58.2	78.1	61.3	18.3	18.3	12.5	22.5
	8	28.9.2021	4th	9.0	8.0	8.0	7.3	19.0	17.8	18.0	19.2	74.2	88.1	23.7	46.1	33.3	33.3	17.5	15.8
	9	30.9.2021	4th	3.8	3.7	6.0	5.7	14.0	14.2	15.8	15.0	13.5	27.7	11.7	22.7	8.3	12.5	6.7	10.4
Minimum				3.8	3.7	6.0	5.7	14.0	14.2	15.8	15.0	13.5	27.7	11.7	22.7	8.3	12.5	6.7	10.4
Maximum				9.7	9.0	9.3	10.0	21.0	19.3	19.2	20.0	87.9	91.4	93.0	86.6	41.7	41.7	50.0	41.7
Average				7.3	7.2	7.8	7.7	17.3	17.4	17.8	17.8	55.0	62.1	49.5	49.8	21.0	28.0	21.8	22.4

  
Monitored by

  
Shridhar  
Checked 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-2021 to September-2021

Stack locations												
Sl. No.	Month/Year	Thermal Power Plant			Kiln / Raw Mill			SPM in mg/Nm3				
		SPM in mg/Nm3	SO2 in mg/Nm3	NOx in mg/Nm3	SPM in mg/Nm3	SO2 in mg/Nm3	NOx in mg/Nm3	Coal Mill Bag Filter	Cooler	LSC	CM-1	CM-2
1	Apr-21	13.6	115.0	99.0	12.3	0.0	782.0	12.7	7.1	7.5	9.3	12.0
2	May-21	19.9	98.0	78.0	10.7	0.0	648.0	10.5	6.3	6.8	8.7	10.9
3	Jun-21	21.0	68.0	32.0	9.8	0.0	620.0	18.9	12.4	8.0	11.21	10.99
4	Jul-21	31.7	140.0	68.0	11.5	0.0	484.0	11.32	6.42	9.0	11.3	5.9
5	Aug-21	28.2	178.0	50.0	6.4	0.0	490.0	12.3	6.0	10.6	10.6	9.7
6	Sep-21	19.9	218.0	40.0	10.8	0.0	707.0	6.1	6.5	8.6	9.7	12.8
	Avg	22.4	136.2	61.2	10.3	0.0	621.8	12.0	7.5	8.4	10.1	10.4
	Min	13.6	68.0	32.0	6.4	0.0	484.0	6.1	6.0	6.8	8.7	5.9
	Max	31.7	218.0	99.0	12.3	0.0	782.0	18.9	12.4	10.6	11.3	12.8

Sl. No.	Month/Year	Stack locations										
		SPM in mg/Nm <sup>3</sup>										
		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-21	15.2	16.7	8.92	9.25	14.04	8.74	14.1	14.2	11.6	9.3	12.0
2	May-21	13.4	10.3	8.82	11.86	12.63	9.72	8.0	13.4	8.7	8.7	10.9
3	Jun-21	11.2	15.4	11.32	13.06	10.01	7.64	12.7	8.8	10.3	11.21	11.0
4	Jul-21	16.4	12.2	11.21	13.93	12.84	11.72	14.6	13.9	11.0	11.32	5.9
5	Aug-21	9.0	10.1	11.31	10.01	12.73	8.95	13.1	12.1	11.8	10.6	9.7
6	Sep-21	13.0	12.8	15.56	11.75	8.38	10.26	10.1	15.6	10.8	9.7	12.8
	Avg	13.0	12.9	11.2	11.6	11.8	9.5	12.1	13.0	10.7	10.1	10.4
	Min	9.0	10.1	8.8	9.3	8.4	7.6	8.0	8.8	8.7	8.7	5.9
	Max	16.4	16.7	15.6	13.9	14.0	11.7	14.6	15.6	11.8	11.3	12.8

  
Vani Patil  
Monitored by

  
Shridhar  
Checked 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-2021 to September-2021

SL. NO.	MONTH/YEAR	SPM (microgram/m <sup>3</sup> )							
		Gypsum Yard	Slag Yard	Flyash Yard	Cement mill	Lime stone unloading hopper	Lime stone crushing Site	Coal Yard	Packing Plant
1	Apr-21	564.6	497.5	517.8	495.3	513.4	439.8	1078.8	524.8
2	May-20	573.8	512.0	465.8	560.5	400.0	547.2	562.8	514.4
3	Jun-20	551.6	448.4	449.3	337.2	394.7	578.4	496.8	503.5
4	Jul-20	504.7	453.0	458.8	423.4	353.6	552.9	518.2	544.8
5	Aug-20	582.3	802.6	588.9	562.3	562.5	560.8	577.5	568.6
6	Sep-20	661.5	701.4	746.1	815.3	498.8	594.1	625.0	721.2
Minimum		504.69	448.36	449.31	337.21	353.63	439.76	496.79	503.54
Maximum		661.46	802.60	746.08	815.35	562.50	594.10	1078.82	721.18
Average		573.07	569.14	537.79	532.35	453.85	545.54	643.19	562.89

  
Vani Patil  
Monitored by

  
Shridhar  
Checked by

# J.K. Cement WORKS, MUDDAPUR (KARNATAKA)

(Unit: J.K. Cement Ltd.)

## EFFLUENT WATER ANALYSIS REPORT (Monthly Average) FOR THE MONTH OF APRIL-2021 TO SEPTEMBER-2021

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-21	49.3	0.39	8.27	Nil
May-21	52.8	0.40	8.18	Nil
Jun-21	53.9	0.40	8.22	Nil
Jul-21	51.9	0.44	8.26	Nil
Aug-21	53.4	0.42	8.26	Nil
Sep-21	38.9	0.39	8.17	Nil
Half Avg	50.0	0.41	8.23	Nil
Half Minimum	38.9	0.39	8.17	Nil
Half Maximum	53.9	0.44	8.27	Nil

  
VanilPatil  
Monitored by

  
Shridhar  
Checked by



**J.K. Cement WORKS, MUDDAPUR (KARNATAKA)**

(Unit: J.K. Cement Ltd.)

**STP water Analysis Report (Monthly Average) for the Month of April-2021 to September-2021**

Sl.No.	Month	Suspended Solids	PH	BOD	COD	NH4-N	N-total	Fecal Coliform
	Tolerance limit	10	6 to 9	10	50	5	10	<230
1	Apr-21	8.0	7.6	7.2	23.8	3.5	7.2	Nil
2	May-21	7.9	7.5	7.1	22.7	4.0	7.4	Nil
3	Jun-21	7.9	7.4	6.9	23.8	3.6	7.0	Nil
4	Jul-21	7.8	7.2	6.4	22.9	3.7	7.2	Nil
5	Aug-21	8.0	7.6	7.3	26.0	4.1	7.4	Nil
6	Sep-21	8.0	7.6	7.3	25.6	3.6	7.4	Nil
	Half Yearly Min.	7.78	7.24	6.37	22.72	3.49	7.02	Nil
	Half Yearly Max.	8.00	7.61	7.33	26.00	4.05	7.43	Nil
	Half Yearly Avg.	7.92	7.50	7.04	24.13	3.74	7.28	Nil

Vaali Patil

Monitored by

Shridhar

Checked 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-2021 to September-2021**

Sl. No.	Location Name	Apr-21		May-21		Jun-21		Jul-21		Aug-21		Sep-21		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	47.5	36.8	45.5	32.6	47.8	38.6	48.5	35.6	46.8	35.5	47.5	37.8	45.5	32.6	48.5	38.6	47.3	36.2
2	Administrative Building	45.6	34.5	42.5	30.2	44.7	34.7	45.7	30.8	48.2	32.8	44.8	35.5	42.5	30.2	48.2	35.5	45.3	33.1
3	Lime Stone gate	55.2	46.5	53.7	35.6	53.8	47.4	52.8	45.6	50.7	38.7	55.3	45.6	50.7	35.6	55.3	47.4	53.6	43.2
4	Lime Stone Crusher	64.6	55.8	50.4	36.4	64.3	57.5	65.9	58.2	52.6	40.5	64.6	56.7	50.4	36.4	65.9	58.2	60.4	50.9
5	Kiln/ Cooler	68.5	57.4	56.3	42.8	66.7	58.7	62.6	55.8	58.7	45.6	63.8	55.6	56.3	42.8	68.5	58.7	62.8	52.7
6	Kiln Platform	72.5	63.5	65.7	54.6	71.5	62.8	74.5	63.7	70.5	60.8	74.5	65.4	65.7	54.6	74.5	65.4	71.5	61.8
7	Power Plant	64.3	50.2	68.5	55.7	62.4	51.7	64.6	55.9	61.4	50.8	63.8	52.5	61.4	50.2	68.5	55.9	64.2	52.8
8	Despatch gate	52.8	40.5	50.4	40.8	52.8	41.6	58.9	45.6	53.6	41.8	54.6	42.8	50.4	40.5	58.9	45.6	53.9	47.2
9	Near QC Lab.	46.3	37.4	45.6	35.5	47.5	36.4	48.5	39.7	46.8	39.4	47.5	36.2	45.6	35.5	48.5	39.7	47.0	37.4
10	Coal Yard	55.4	46.6	59.5	40.6	58.3	49.7	58.2	45.3	56.5	47.5	56.8	47.3	55.4	40.6	59.5	49.7	57.5	46.2
11	Slag yard	51.8	44.8	50.8	35.5	50.4	45.5	52.7	37.6	52.6	45.8	50.4	48.7	50.4	35.5	52.7	48.7	51.5	43.0
12	Gypsum yard	60.5	48.2	54.6	42.8	58.7	49.7	58.4	38.6	61.8	50.5	61.6	45.5	54.6	38.6	61.8	50.5	59.3	45.9
13	Near Canteen	52.8	41.5	45.2	30.5	54.5	44.6	47.6	35.7	53.6	42.8	50.8	44.8	45.2	30.5	54.5	44.8	50.8	40.0
14	Plant main gate	55.8	45.3	48.7	34.6	60.8	50.6	50.6	42.8	54.7	44.6	54.7	46.8	48.7	34.6	60.8	50.6	54.2	44.1
15	Dispensary	49.6	37.5	42.5	31.8	50.8	38.4	46.5	36.7	50.5	38.8	47.5	36.9	42.5	31.8	50.8	38.8	47.9	36.7
16	Packing Plant	60.7	50.4	55.8	44.2	58.7	49.6	55.8	42.5	60.2	50.6	61.5	51.7	55.8	42.5	61.5	51.7	58.8	48.2
17	General Store	54.6	47.3	58	46.5	53.6	46.8	50	38.6	55.8	48.8	55.2	47.6	50	38.6	58	48.8	54.5	45.9
18	DG House (1-meter distance)	76.5	—	74.5	—	75.5	—	78	—	75.8	—	76.8	—	74.5	—	78	—	76.2	—
19	DG House (2-meter distance)	74.3	—	72.2	—	74.2	—	76	—	73.6	—	74.5	—	72.2	—	76	—	74.1	—
20	Raw mill proportioning hopper	72.8	65.6	66.7	42.8	73.2	64.3	76.5	65.4	70.3	63.8	72.8	64.7	66.7	42.8	76.5	65.6	72.1	61.1
21	coal mill	70.3	63.4	58.9	46.5	70.8	61.5	60.4	51.6	68.9	58.5	70.6	62.3	58.9	46.5	70.8	63.4	66.7	57.3
22	Near silo clinker loading point	66.8	56.2	61.5	50.8	67.3	56.8	57.4	48.5	64.8	52.4	65.5	56.8	57.4	48.5	67.3	56.8	63.9	53.6
23	CM-1 weigh feeder	60.6	54.3	68.2	55.6	65.5	52.7	63.7	53.2	62.8	50.8	64.5	52.8	60.6	50.8	68.2	55.6	64.2	53.2
24	CM-2 weigh feeder	65.3	55.8	65.8	52.2	63.6	56.8	68.8	56.8	60.3	51.7	62.8	54.7	60.3	51.7	68.8	56.8	64.4	54.7
25	Cement silo Packer-1	68.5	52.5	61.3	50.4	60.4	50.6	62.5	50.3	61.6	51.8	59.8	47.9	59.8	47.9	68.5	52.5	62.4	50.6
26	Cement silo Packer-2	64.3	56.3	62.5	51.1	64.6	55.7	64.5	53.7	58.8	49.6	65.2	57.6	58.8	49.6	65.2	57.6	63.3	54.0
27	Cement silo Packer-3	61.7	54.5	65.6	53.4	66.8	52.4	65.7	47.5	66.5	55.8	64.8	56.8	61.7	47.5	66.8	56.8	65.2	53.4
28	Cement silo Packer-4	60.6	54.8	57.5	42.7	60.4	50.7	65.5	46.8	58.8	48.9	60.7	55.9	57.5	42.7	65.5	55.9	60.6	50.0
29	Truck Loading point-1	63.4	51.6	59.6	48.6	62.5	51.7	53.7	48.7	60.6	50.7	62.8	50.8	53.7	48.6	63.4	51.7	60.4	50.4
30	Truck Loading point-2	66.7	58.5	61.7	51.6	66.7	55.5	65.4	50.2	63.8	52.7	66.7	55.9	61.7	50.2	66.7	58.5	65.2	54.1
31	Truck Loading point-3	65.8	58.8	63.4	52.8	68.8	56.4	63.2	48.5	65.3	54.8	67.6	58.5	63.2	48.5	68.8	58.8	65.7	55.0
32	Truck Loading point-4	66.3	56.5	60.8	50.7	60.7	52.7	57.5	45.7	61.5	50.6	65.2	56.8	57.5	45.7	66.3	56.8	62.0	52.2
33	Slag mill weigh feeder	62.5	53.5	65.5	55.2	58.8	48.8	65.3	51.8	55.6	46.7	60.3	55.7	55.6	46.7	65.5	55.7	61.3	52.0

V. K. Patil  
Monitored by

Shridhar  
Checked by



Station: CEMS Periodically: April 2021 - September 2021 Type: AVG Monthly [1 Hr.]

Date & Time	stack19_raw_milklin-PM_U	stack19_raw_milklin-SO2_U	stack19_raw_milklin-NOx_U	stack_4_CPP_Zinto25mw-PM_U	stack_4_CPP_Zinto25mw-SO2_U	stack_4_CPP_Zinto25mw-NOx_U
Apr-21	12.69	5.04	577.7	14.05	150.81	112.51
May-21	10.88	0	514.46	15.19	119.79	77.1
Jun-21	5.68	0.01	256.95	19.17	47.98	19.08
Jul-21	7.01	0	325.26	13.56	170.59	40.79
Aug-21	5.48	0.85	437.64	19.64	136.32	43.62
Sep-21	7.45	3.45	395.54	18.85	126.97	15.37
Minimum	5.48	0	256.95	13.56	47.98	15.37
Maximum	12.69	5.04	577.7	19.64	170.59	112.51
Average	8.20	1.56	417.93	16.74	125.41	51.41

Date & Time	stack13_CEMENT_MILL_3-PM_U	stack15_clicker_cooler-PM_U	stack1_COALMILL-PM_U	Stack_11_Cement_mill_3-PM_U	Stack_12_Cementmill_2-PM_U
Apr-21	11.24	5.4	11.4	3.04	7.87
May-21	10.61	5.66	12.45	2.12	2.83
Jun-21	5.43	5.59	16.25	5.17	6.02
Jul-21	5.62	4.7	8.32	3.97	5.96
Aug-21	5.66	3.55	10.07	4.31	4.57
Sep-21	9.67	2.2	3.45	1.96	5.01
Minimum	5.43	2.2	3.45	1.96	2.83
Maximum	11.24	5.66	16.25	5.17	7.87
Average	8.04	4.52	10.32	3.43	5.38

Station: AAQMS1 Periodically: April 2021 - September 2021 Type: AVG Monthly [1 Hr.]

Date & Time	PM10	PM2.5	SO2	NO2	CO
	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>
Apr-21	82.00	52.00	12.90	3.46	3.25
May-21	73.43	21.07	1.12	3.26	12.19
Jun-21	36.14	21.3	12.04	0.34	3.26
Jul-21	45.67	18.97	10.68	1.19	3.16
Aug-21	62.46	18.7	0.63	2.79	1.37
Sep-21	69.23	19.45	1.08	2.77	1.35
Minimum	36.14	18.69	0.63	0.34	1.35
Maximum	82	52	12.9	3.46	12.19
Average	61.49	25.25	6.41	2.30	4.10



Station: AAQMS2 Periodically: April 2021 - September 2021 Type: AVG Monthly [1 Hr.]

Date & Time	PM10	PM2.5	SO2	NO2	CO
	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>
Apr-21	Nodata	36.00	Nodata	15.00	2.00
May-21	50.81	22.43	NA	10.95	1.50
Jun-21	44.52	11.7	9.25	Nodata	Nodata
Jul-21	30.4	7.59	8.70	18.43	1.48
Aug-21	60.12	12.2	6.24	10.67	0.32
Sep-21	24.06	6.73	0.38	2.56	0.02
Minimum	24.06	6.73	0.38	2.56	0.02
Maximum	60.12	36	9.25	18.43	2
Average	41.98	16.11	6.14	11.52	1.06

EXPENDITURE ON THE ENVIRONMENTAL MANAGEMENT PLAN FOR PERIOD  
FROM APRIL 2021 TO SEPTEMBER 2021

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	791.99
Fly ash Silo's and ash handling systems	96.05
Emission Monitoring equipment (including online emission monitoring equipment (CEMS) at sources and ambient air quality in the vicinity) and laboratory	6.21
Green Belt Development, Sewage Treatment plant and Water Harvesting Schemes for plant	20.6
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	4260.66
Other environmental management costs (AFR system operation, odour control, environmental training/Award, SNCR system CPP, Environmental License Fees)	31.8
<b>TOTAL (Rs in Lakhs)</b>	<b>5207.31</b>