

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)/89/11

Date- 18-05-2021

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 October-2020 to March-2021 for JK Cement Works, Village- Muddapur, Taluka- Mudhol, District- Bagalkot (Karnataka)

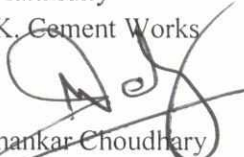
Ref: MoEF Letter F. No. J-11011 / 489 / 2006-1A.II (I) / dtd. 14-09-2007

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 **October-2020 to March-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 and CAAQM report

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 October, 2020 to March, 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 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. 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.
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 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-

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		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 and fully covered conveyors for transportation of materials shall be	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.

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	provided besides coal, cement, fly ash and 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	Complied, A separate Environmental Management cell to carry out various

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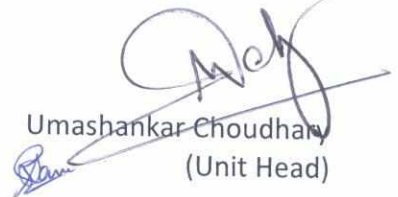
	monitoring function shall be set up under control of Sr. Executive.	management and monitoring function has been set up under control of Sr. Executive.
xiii.	Rs. 8.70 crores earmarked for environmental pollution measures shall be suitable used to implement the condition stipulated by the Ministry of Environment 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 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 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 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.

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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)


Umashankar Choudhary
(Unit Head)

J K CEMENT WORKS, MUDDAPUR

DETAILS OF CSR ACTIVITY UNDERTAKEN DURING

APRIL'20 TO MARCH'21

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	304,950	Direct
MEDICAL HELP TO KALAMMA BADIGER LOKAPUR MISC	Health & Medical	Lokapur	Karnataka	18,000	Direct
MASS MARRIAGE COMMUNITY HALL CREATION MUDDAPUR	Community Welfare Projects	Muddapur	Karnataka	200,000	Direct
				522,950	

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 OCTOBER-2020 TO MARCH-2021

(ALL VALUES IN MICROGRAMS / CUBIC METER)

Month	SLNo.	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
OCTOBER	1	01.10.2020	1st	7.3	6.7	7.3	6.7	17.3	17.3	17.5	16.8	40.7	29.7	67.6	30.1	12.5	12.5	12.5	8.3
	2	05.10.2020		6.7	7.5	8.0	8.0	16.3	17.5	18.0	18.0	53.1	23.2	46.7	42.1	8.3	20.8	16.7	12.5
	3	08.10.2020	2nd	8.0	8.0	6.5	6.7	18.0	18.0	16.7	16.7	37.8	48.2	61.6	48.4	12.5	16.7	4.2	16.7
	4	12.10.2020		7.5	7.7	6.8	8.0	17.7	17.7	17.0	17.7	31.2	50.0	30.8	32.2	16.7	20.8	16.7	8.3
	5	16.10.2020	3rd	8.0	7.8	7.8	7.7	18.5	18.3	18.0	17.7	48.3	60.4	41.7	48.5	12.5	25.0	12.5	12.5
	6	19.10.2020		7.8	8.0	8.0	8.2	17.8	18.0	18.0	16.7	47.8	56.2	48.1	41.1	20.8	25.0	29.2	20.8
	7	23.10.2020	4th	7.3	8.0	8.0	8.0	17.3	18.7	18.0	18.8	65.8	73.7	77.1	63.8	33.3	37.5	37.5	33.3
	8	27.10.2020		6.7	7.5	6.5	7.7	16.5	17.5	17.3	17.7	76.2	88.5	84.2	64.4	29.2	41.7	33.3	29.2
	9	30.10.2020		8.8	8.5	7.7	6.5	20.0	18.5	17.7	16.5	68.9	75.9	66.3	78.9	33.3	45.8	29.2	33.3
NOVEMBER	1	03.11.2020	1st	7.2	7.7	6.7	7.0	16.7	17.7	16.7	17.8	69.2	73.8	67.8	61.6	25.0	37.5	25.0	29.2
	2	06.11.2020		6.7	7.5	7.7	8.0	17.3	16.5	17.7	17.8	83.3	88.1	76.0	66.0	29.2	29.2	29.2	33.3
	3	10.11.2020	2nd	7.7	8.3	8.0	7.5	16.5	18.3	18.0	16.7	88.7	94.4	90.8	81.9	33.3	25.0	33.3	25.0
	4	13.11.2020		8.0	7.8	7.2	8.0	18.0	17.7	17.7	18.0	64.1	73.5	55.1	40.6	25.0	31.7	25.0	37.5
	5	17.11.2020	3rd	6.7	6.7	6.7	7.2	16.7	16.7	17.3	17.7	71.9	88.9	60.4	66.6	20.8	28.3	37.5	25.0
	6	20.11.2020		6.7	8.0	8.0	6.8	15.7	18.0	18.0	16.8	73.3	81.5	80.0	72.2	16.7	22.9	25.0	20.8
	7	24.11.2020	4th	8.0	7.7	6.7	8.0	18.0	17.7	16.7	18.0	75.1	86.3	71.1	64.1	22.9	29.2	31.3	29.2
	8	27.11.2020		6.7	6.7	8.0	7.7	16.5	17.0	18.0	17.7	68.2	74.4	81.7	70.4	26.7	37.5	35.8	33.3
	9	30.11.2020		7.7	8.0	8.0	7.7	17.7	18.0	18.0	17.7	81.6	81.6	75.4	68.0	33.3	37.5	38.4	33.3
DECEMBER	1	02.12.2020	1st	8.0	7.7	6.7	8.0	18.0	18.5	16.7	18.0	89.8	89.8	81.6	83.7	41.7	50.0	35.1	37.5
	2	04.12.2020		7.7	8.0	8.3	7.7	17.8	19.8	18.3	17.8	55.3	55.3	90.0	74.4	37.5	41.7	31.8	34.4
	3	08.12.2020	2nd	9.0	8.3	7.3	9.0	19.2	20.2	17.7	19.2	67.6	67.6	77.8	67.9	45.8	37.9	41.0	38.1
	4	12.12.2020		8.0	7.3	6.7	8.0	18.0	17.3	17.3	18.0	65.0	65.0	63.5	86.3	33.3	43.0	29.4	34.7
	5	16.12.2020	3rd	6.7	8.0	7.3	6.7	16.7	18.0	17.3	16.7	72.1	72.1	71.3	80.8	54.2	41.6	34.0	37.4
	6	19.12.2020		7.3	8.3	8.0	7.3	17.3	19.3	18.0	17.3	61.0	61.0	69.7	72.0	37.5	54.0	35.3	42.3
	7	23.12.2020	4th	6.5	8.7	6.7	6.5	16.5	18.7	16.7	16.5	69.3	69.3	77.2	88.3	33.3	46.7	36.2	32.5
	8	26.12.2020		6.0	7.3	7.7	6.0	12.5	17.3	17.7	12.5	59.5	59.5	58.4	87.4	41.7	42.5	40.4	40.2
	9	29.12.2020		6.7	7.3	7.3	6.0	17.8	17.3	7.3	6.0	58.3	70.4	72.2	57.1	37.5	33.3	33.3	29.2
JANUARY	1	01.1.2021	1st	8.0	6.3	8.2	7.2	18.0	16.3	8.2	7.2	73.6	72.5	58.8	48.6	29.2	37.5	37.5	37.5
	2	05.1.2021		6.7	8.0	8.0	6.7	16.2	18.0	8.0	6.7	89.0	80.6	62.8	62.5	25.0	41.7	25.0	20.8
	3	08.1.2021	2nd	7.7	7.0	6.7	8.0	17.7	17.3	6.7	8.0	78.4	67.0	62.7	56.2	33.3	50.0	29.2	25.0
	4	12.1.2021		5.8	8.8	7.5	7.7	15.8	19.7	7.5	7.7	62.3	74.5	71.2	65.1	37.5	37.5	37.5	29.2
	5	15.1.2021	3rd	8.3	6.7	8.0	8.2	19.0	17.3	8.0	8.2	69.9	79.4	89.2	78.4	27.1	45.4	33.3	44.2
	6	19.1.2021		8.0	7.0	6.0	9.2	18.0	17.7	6.0	9.2	74.4	88.2	60.5	70.0	36.7	54.2	41.7	43.7
	7	22.1.2021	4th	8.7	6.7	7.0	6.7	19.5	17.5	7.0	6.7	70.1	84.3	72.1	72.7	29.6	36.7	45.8	33.3
	8	26.1.2021		6.8	8.0	8.0	7.5	16.7	18.0	8.0	7.5	76.5	78.7	77.6	49.3	36.8	41.7	31.3	33.3
	9	29.1.2021		6.7	8.0	8.0	6.7	16.8	18.0	18.8	17.3	67.5	73.8	60.0	69.0	29.2	37.5	29.2	29.2
FEBRUARY	1	01.2.2021	1st	7.8	6.7	6.7	8.3	17.8	16.8	16.7	16.5	60.4	66.0	44.6	71.2	25.0	29.2	25.0	33.3
	2	04.2.2021		8.0	7.0	7.2	7.7	18.0	17.8	17.2	17.0	46.4	60.0	57.7	77.6	20.8	33.3	33.3	45.8
	3	08.2.2021	2nd	6.8	8.0	8.0	8.0	16.8	18.0	18.0	18.0	41.7	69.5	66.5	66.7	33.3	32.5	37.5	29.2
	4	11.2.2021		8.0	7.8	6.0	8.0	18.0	17.8	16.0	17.3	69.9	77.8	76.7	67.3	25.0	43.8	33.3	25.0
	5	15.2.2021	3rd	7.0	6.5	6.5	6.7	17.7	16.5	17.2	16.8	59.5	67.7	72.9	63.3	29.2	41.7	45.8	37.5
	6	18.2.2021		7.7	5.5	8.0	7.0	18.0	15.8	18.0	17.7	65.5	73.7	59.9	45.4	16.7	27.5	33.3	29.2
	7	22.2.2021	4th	8.8	6.7	6.7	7.2	19.2	16.5	17.3	18.0	61.7	68.6	40.1	59.5	22.9	31.7	44.2	20.8
	8	25.2.2021		6.7	6.7	6.7	6.7	16.7	16.7	16.7	17.3	64.8	75.7	59.1	86.4	29.2	41.7	29.2	25.0
	9	29.2.2021		5.7	7.3	7.3	7.2	15.7	17.3	17.2	16.7	50.9	71.2	71.4	81.2	20.8	29.2	25.0	29.2
MARCH	1	01.3.2021	1st	6.8	8.0	8.0	6.7	16.8	18.0	18.0	18.0	52.9	68.9	72.4	71.5	31.7	33.3	16.7	28.7
	2	04.3.2021		7.2	7.7	6.7	8.0	17.2	17.7	16.7	18.0	59.1	79.7	61.8	76.8	35.8	25.0	25.0	34.2
	3	08.3.2021	2nd	6.2	6.7	7.5	7.3	16.0	16.8	17.5	17.3	64.1	71.0	64.5	63.5	29.2	35.8	26.3	37.5
	4	11.3.2021		7.5	7.7	6.5	6.3	17.5	17.5	16.8	17.3	67.8	87.2	56.8	73.5	25.0	37.5	30.8	25.0
	5	15.3.2021	3rd	6.3	8.2	8.0	8.0	16.7	18.2	18.0	18.0	72.5	73.3	64.3	58.9	37.5	22.9	33.3	33.3
	6	18.3.2021		7.0	6.7	6.7	6.2	17.0	16.3	16.2	16.3	77.8	84.2	59.4	73.2	27.5	25.0	29.2	29.2
	7	22.3.2021	4th	8.5	9.0	7.3	5.5	19.0	18.5	18.8	17.0	64.5	77.3	56.8	59.7	27.5	29.2	16.7	37.5
	8	25.3.2021		5.7	5.5	6.0	5.5	12.5	15.8	6.0	6.0	31.2	23.2	30.8	30.1	8.3	12.5	4.2	8.3
	9	29.3.2021		9.0	9.0	8.3	9.2	20.0	20.2	18.8	19.2	89.8	94.4	90.8	88.3	54.2	54.2	45.8	45.8
Minimum				7.3	7.5	7.3	7.4	17.3	17.7	15.7	15.6	65.1	71.7	66.2	65.5	28.8	34.9	30.5	30.1
Maximum																			
Average																			



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(Unit : J.K. Cement Ltd.)

Half Yearly Stack monitoring report of Cement plant & 2x25 MW Thermal power plant for October-2020 to March-2021

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	Oct-20	26.3	150.0	170.0	7.3	7.0	500.0	9.3	8.3	7.7	7.9	5.6
2	Nov-20	28.5	200.0	80.0	11.1	6.0	520.0	11.9	8.1	7.3	8.0	6.6
3	Dec-20	23.1	110.0	68.0	21.3	6.5	680.0	17.7	8.0	14.2	11.9	18.3
4	Jan-21	39.8	145.0	68.0	9.7	6.0	528.0	14.9	10.2	18.5	10.4	9.8
5	Feb-21	36.4	420.0	160.0	18.2	10.0	700.0	18.8	12.0	15.6	6.8	15.8
6	Mar-21	37.6	132.0	84.0	15.0	14.0	784.0	11.6	6.2	9.5	8.3	14.5
Avg		31.9	192.8	105.0	13.8	8.3	618.7	14.0	8.8	12.1	8.9	11.8
Min		23.1	110.0	68.0	7.3	6.0	500.0	9.3	6.2	7.3	6.8	5.6
Max		39.8	420.0	170.0	21.3	14.0	784.0	18.8	12.0	18.5	11.9	18.3

Sl. No.	Month/Year	Stack locations										
		SPM in mg/Nm ³										
		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	Oct-20	15.6	11.6	12.7	11.6	8.4	12.0	12.3	14.0	10.8	7.9	5.6
2	Nov-20	10.8	20.8	14.2	18.5	14.4	12.5	14.2	14.1	12.7	8.0	6.6
3	Dec-20	3.9	18.8	14.6	16.0	13.7	18.2	16.8	15.9	12.1	11.9	18.3
4	Jan-21	12.1	16.5	12.4	16.5	14.9	12.8	12.3	19.0	12.1	10.4	9.8
5	Feb-21	8.0	16.8	13.8	16.7	12.7	14.1	11.7	11.4	15.1	6.8	15.8
6	Mar-21	6.9	9.3	17.7	15.5	10.1	13.4	12.1	15.2	13.2	8.3	14.5
Avg		9.5	15.6	14.2	15.8	12.4	13.8	13.2	14.9	12.6	8.9	11.8
Min		3.9	9.3	12.4	11.6	8.4	12.0	11.7	11.4	10.8	6.8	5.6
Max		15.6	20.8	17.7	18.5	14.9	18.2	16.8	19.0	15.1	11.9	18.3


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J.K. Cement WORKS, MUDDAPUR (KARNATAKA)

(Unit : J.K. Cement Limited)

Half Yearly Fugitive Emission Monitoring Report of Cement plant for the month of October-2020 to March-2021

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	Oct-20	704.0	723.1	645.3	800.6	714.6	787.5	722.5
2	Nov-20	977.0	1024.0	1167.9	866.9	906.3	1029.6	799.3
3	Dec-20	1173.4	1115.4	1202.1	1033.5	1035.8	1156.4	1059.5
4	Jan-21	844.0	1008.9	1006.4	980.2	1030.2	1354.9	879.9
5	Feb-21	1229.3	786.0	979.5	968.1	589.6	584.6	1124.3
6	Mar-21	1570.8	1189.9	1100.0	1013.5	592.5	573.2	1078.8
	Minimum	703.99	723.11	645.30	800.57	589.60	573.20	722.50
	Maximum	1570.83	1189.93	1202.10	1033.51	1035.76	1354.93	1124.29
	Average	1083.10	974.55	1016.87	943.80	811.50	914.37	944.05


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J.K. Cement WORKS, MUDDAPUR (KARNATAKA)

(Unit: J.K. Cement Ltd.)

STP water Analysis Report (Monthly Average) for the Month of October-2020 to March-2021

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	Oct-20	8.31	7.63	7.93	23.66	3.63	7.38	Nil	0.75
2	Nov-20	8.28	7.57	7.57	25.80	3.72	7.55	Nil	0.76
3	Dec-20	8.31	7.47	7.38	24.83	3.44	7.53	Nil	0.76
4	Jan-21	7.84	7.53	7.17	23.94	3.54	7.10	Nil	0.68
5	Feb-21	7.94	7.57	7.13	24.89	3.40	7.37	Nil	0.73
6	Mar-21	7.90	7.55	7.12	23.24	4.05	7.04	Nil	0.73
	Half Yearly Min.	7.84	7.47	7.12	23.24	3.40	7.04	Nil	0.7
	Half Yearly Max.	8.31	7.63	7.93	25.80	4.05	7.55	Nil	0.8
	Half Yearly Avg.	8.09	7.55	7.38	24.40	3.63	7.33	Nil	0.7


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(Unit: J.K. Cement Ltd.)

EFFLUENT WATER ANALYSIS REPORT (Monthly Average) FOR THE MONTH OF OCTOBER-2020 TO MARCH-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
Oct-20	42.2	0.46	8.29	Nil
Nov-20	50.8	0.48	8.14	Nil
Dec-20	53.4	0.42	8.20	Nil
Jan-21	53.6	0.41	8.21	Nil
Feb-21	55.7	0.37	8.26	Nil
Mar-21	49.4	0.39	8.28	Nil
Half Yearly Avg	50.9	0.42	8.23	Nil
Half Yearly Minimum	42.2	0.37	8.14	Nil
Half Yearly Maximum	55.7	0.48	8.29	Nil


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(Unit: J.K. Cement Ltd.)

Half Yearly Noise monitoring report of Cement & Power Plant for the month of October-2020 to March-2021

Sl. No.	Location Name	Oct-20		Nov-20		Dec-20		Jan-21		Feb-21		Mar-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	47.2	35.6	47.5	38.8	46.2	33.8	46.7	36.7	48.5	37.5	48.6	36.7	46.2	33.8	48.6	38.8	47.5	36.5
2	Administrative Building	45.4	32.8	44.7	32.5	40.8	30.2	44.5	33.2	45.3	35.4	46.7	34.5	40.8	30.2	46.7	35.4	44.6	33.1
3	Lime Stone gate	52.8	45.6	52.6	45.5	55.7	40.7	53.8	48.5	54.7	48.8	56.4	48.8	52.6	40.7	56.4	48.8	54.3	46.3
4	Lime Stone Crusher	62.5	50.7	66.7	48.5	47.2	37.5	66.7	57.6	65.8	58.5	60.5	52.5	47.2	37.5	66.7	58.5	61.6	50.9
5	Kiln/Cooler	66.8	52.5	58.7	38.5	55.8	41.2	70.8	61.5	67.6	60.2	68.6	53.4	55.8	38.5	70.8	61.5	64.7	51.2
6	Kiln Platform	73.5	64.5	67.5	53.4	60.6	43.6	74.2	65.5	73.6	64.5	74.6	65.5	50.5	43.6	74.6	65.5	69.0	59.5
7	Power Plant	64.7	52.2	69.8	48.5	60.6	50.7	66.5	50.8	65.4	53.6	68.5	55.8	60.6	48.5	69.8	55.8	65.9	51.9
8	Despatch gate	54.6	41.5	53.6	42.5	53.5	41.6	54.6	42.3	55.5	43.6	52.8	43.6	52.8	41.5	55.5	43.6	54.1	42.5
9	Near QC Lab.	49.7	39.6	43.6	38.2	45.9	36.2	47.5	38.5	48.2	37.5	48.5	38.5	43.6	36.2	49.7	39.6	47.2	38.1
10	Coal Yard	54.8	43.8	60.5	48.5	54.7	38.5	56.8	49.7	57.6	48.5	55.7	44.6	54.7	38.5	60.5	49.7	56.7	45.6
11	Slag Yard	67.5	42.6	54.6	38.5	66.8	41.2	50.44	47.5	51.2	46.7	68.8	46.7	50.44	38.5	68.8	47.5	59.9	43.9
12	Gypsum yard	66.8	51.5	58.5	44.6	65.7	40.1	58.7	46.3	60.5	48.2	67.5	54.5	58.5	40.1	67.5	54.5	63.0	47.5
13	Near Canteen	63.4	50.6	50.2	35.5	62.2	40.2	50.6	40.7	52.5	43.5	64.4	52.8	50.2	35.5	64.4	52.8	57.2	43.9
14	Plant main gate	57.5	45.8	48.8	35.8	59.8	45.5	54.2	44.8	55.6	45.7	58.6	48.7	48.8	35.8	59.8	48.7	55.8	44.4
15	Dispensary	46.5	36.5	46.6	37.5	46.5	40	48.6	38.6	48.2	37.5	48.2	36.5	46.5	36.5	48.6	40	47.4	37.8
16	Packing Plant	71.5	65.4	55.8	44.6	71.5	55.4	58.8	48.6	60.4	50.5	68.9	66.5	55.8	44.6	71.5	66.5	64.5	55.2
17	General Store	62.5	52.8	47.3	35.5	60.1	45.5	52.5	46.5	54.6	48.7	63.6	55.4	47.3	35.5	63.6	55.4	56.8	47.4
18	DG House (1-meter distance)	80.5	-	78.6	-	75.5	-	78.2	-	77.6	-	78.5	-	75.5	0	80.5	0	78.2	-
19	DG House (2-meter distance)	78.6	-	76.4	-	71.5	-	76.5	-	75.4	-	76.6	-	71.5	0	78.6	0	75.8	-
20	Raw mill proportioning hopper	70.4	63	68.5	59.5	79.9	63	73.6	66.7	74.6	65.8	70.2	64	68.5	59.5	79.9	66.7	72.9	63.7
21	coal mill	68.5	55.7	66.7	56.8	77	61	70.2	64.8	72.5	65.4	65.8	50.4	65.8	50.4	77	65.4	70.1	59.0
22	Near silo clinker loading point	62.8	51.6	63.4	52.8	64.2	51.8	67.5	58.6	68.8	57.5	63.5	52.8	62.8	51.6	68.8	58.6	65.0	54.2
23	CM-1 weigh feeder	70.6	61.5	68.6	58.9	71.5	55.5	62.8	53.8	63.5	54.4	68.5	56.2	62.8	53.8	71.5	61.5	67.6	56.7
24	CM-2 weigh feeder	68.5	53.8	70.4	55.4	67.7	52.6	66.4	56.6	65.3	55.4	67.6	54.8	65.3	52.6	70.4	56.6	67.7	54.8
25	Cement silo Packer-1	61.7	50.6	62.5	52.5	64.8	50.7	63.7	54.7	60.8	52.5	63.5	51.7	60.8	50.6	64.8	54.7	62.8	52.1
26	Cement silo Packer-2	65.5	52.7	66.8	54.3	69.5	45.2	67.5	57.3	66.7	58.4	64.3	54.6	64.3	45.2	69.5	58.4	66.7	53.8
27	Cement silo Packer-3	62.6	50.5	60.4	51.6	64.8	52.5	64.8	56.5	65.5	55.8	60.5	49.8	60.4	49.8	65.5	56.5	63.1	52.8
28	Cement silo Packer-4	58.4	48.6	58.7	48.6	57.5	47.2	62.8	53.8	61.6	54.4	57.8	49.5	57.5	47.2	62.8	54.4	59.5	50.4
29	Truck Loading point- 1	70.5	60.5	68.5	58.9	71.6	54.7	60.5	50.8	63.7	51.5	68.3	58.7	60.5	50.8	71.6	60.5	67.2	55.9
30	Truck Loading point- 2	65.3	55.8	66.9	56.7	61.8	48.5	68.6	57.5	65.6	56.8	66.2	56.5	61.8	48.5	68.6	57.5	65.7	55.3
31	Truck Loading point- 3	68.8	52.4	69.5	53.5	65.2	50.5	68.3	60.8	67.4	59.5	67.5	50.3	65.2	50.3	69.5	60.8	67.8	54.5
32	Truck Loading point- 4	64.6	50.5	65.5	51.8	60.7	48.5	65.5	57.4	64.6	57.5	65.4	52.3	60.7	48.5	65.5	57.5	64.4	53.0
33	Slag mill weigh feeder	62.4	52.6	60.8	53.5	73.8	55.4	60.2	55.8	62.8	56.8	63.7	53.5	60.2	52.6	73.8	56.8	64.0	54.6


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Station: AAQMS-1 Periodically: October 2020 to March 2021 Type: AVG Monthly [15 Mins.]						
Date & Time	PM 10 µg/m3	PM2.5 µg/m3	SO2 µg/m3	NO2 µg/m3	CO mg/m3	
Oct-20	61.61	23.22	Analyzer Problem	12	1.82	
Nov-20	85.54	55.61	Analyzer Problem	14	2.1	
Dec-20	Analyzer Problem	Analyzer Problem	10.65	15.33	2.3	
Jan-21	78.47	48.28	11.48	Analyzer Problem	2.7	
Feb-21	Analyzer Problem	45.67	13.4	Analyzer Problem	2.2	
Mar-21	Analyzer Problem	48.79	12.98	6.87	3	
Minimum	61.61	23.22	10.65	6.87	1.82	
MinDate	Oct-20	Oct-20	Dec-20	Mar-21	Oct-20	
Maximum	85.54	55.61	13.4	15.33	3	
MaxDate	Nov-20	Nov-20	Feb-21	Dec-20	Mar-21	
Avg	75.21	44.31	12.13	12.05	2.35	
Num	6	6	6	6	6	

Station: AAQMS2 Periodically: October 2020 to March 2021 Type: AVG Monthly [15 Mins.]						
Date & Time	PM 10 µg/m3	PM2.5 µg/m3	SO2 µg/m3	NO2 µg/m3	CO mg/m3	
Oct-20	60.64	25.71	Analyzer Problem	Analyzer Problem	1.12	
Nov-20	74.81	38.23		Analyzer Problem	Analyzer Problem	
Dec-20	Analyzer Problem	Analyzer Problem		Analyzer Problem	1.42	
Jan-21	84.62	47.31		14.65	1.01	
Feb-21	79.75	50.54		19.95	1.23	
Mar-21	81.65	35.63	Analyzer Problem	19.53	1.51	
Minimum	60.64	25.71		14.65	1.01	
MinDate	Oct-20	Oct-20		Jan-21	Jan-21	
Maximum	84.62	50.54		19.95	1.51	
MaxDate	Jan-21	Feb-21		Feb-21	Mar-21	
Avg	76.29	39.48		18.04	1.26	
Num	6	6		6	6	

Station: CEMS Periodically: October 2020 to March 2021 Type: AVG Monthly [15 Mins,1]

[illegible]

**EXPENDITURE ON THE ENVIRONMENTAL MANAGEMENT PLAN FOR PERIOD
FROM OCTOBER 2020 TO MARCH 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	756.512
Fly ash Silo's and ash handling systems	112.54
Emission Monitoring equipment (including online emission monitoring equipment (CEMS) at sources and ambient air quality in the vicinity) and laboratory	5.04
Green Belt Development, Sewage Treatment plant and Water Harvesting Schemes for plant	28.15
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	2369.44
Other environmental management costs (AFR system operation, odour control, environmental training/Award, SNCR system CPP, Environmental License Fees)	307.09
TOTAL (Rs in Lakhs)	3578.77