

No. JKCW/ENV/2022-23/ EC Compliance /2<sup>nd</sup> Half(PLANT)/89/22

Date- 19-05-2023

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 Oct-2022 to Mar-2023 (2<sup>nd</sup> Half) for expansion of Cement Grinding Unit (2.5 MTPA to 3.5 MTPA) of JK Cement Works, Village-Muddapur, Taluka-Mudhol, District-Bagalkot (Karnataka)**

Ref: **MoEF Letter No. F.No. J-11011/263/2009-IA II (I) dated 26-06-2010**

Dear Sir,

With reference to your above cited environmental clearance letters for expansion of Cement Grinding Unit (2.5 MTPA to 3.5 MTPA) of JK Cement Works, Village - Muddapur, Taluka- Mudhol, District - Bagalkot (Karnataka), we are sending here with point wise EC compliance report for the period from **Oct-2022 to Mar-2022 (2<sup>nd</sup> Half)** for your kind information and record please, along with **Annexure-1 to 8**.

Thanking you

Yours faithfully  
For J.K. Cement Works

  
Umashankar Choudhary  
(Unit Head)

 Enclosures as above:

- |   |  |
|---|--|
| 1. EC Compliance Report <b>Annexure-1</b>         | 5. Fugitive emission Monitoring - <b>Annexure -5</b> |
| 2. AAQ Monitoring <b>Annexure -2</b>              | 6. Water Quality Monitoring - <b>Annexure 6</b>      |
| 3. Stack Emission Monitoring - <b>Annexure -3</b> | 7. Environmental expenditures <b>Annexure-7</b>      |
| 4. Noise Level Monitoring- <b>Annexure -4</b>     | 8. CSR Report <b>Annexure-8</b>                      |

Corporate Office

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



**JK SUPER  
CEMENT**  
BUILD SAFE

Manufacturing Units at :  
Nimbahera, Mangrol, Gotan (Rajasthan) | Muddapur (Karnataka)  
Jharli (Haryana) | Katni (M.P.) | Aligarh (U.P.) | Balasinor (Gujarat)

**JK CEMENT**  
**WallMaxX**  
White Cement Wall Putty



Registered Office : Kamla Tower, Kanpur-208001, U.P., India. +91-512-2371478 to 85 +91-512-2399854 www.jkcement.com

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, Nisarga Bhavan, Bengaluru
- 4- Member Secretary, Karnataka Pollution Control Board, Church Street, Bangalore
- 5- The Environmental officer, Karnataka State Pollution Control Board, Bagalkot – 587102.

**Subject:** Expansion of Cement Grinding Unit (2.50 MTPA to 3.5 MTPA) at Village Muddapur, Taluka Mudhol, District Bagalkot, Karnataka by M/s J.K. Cement Works, (Unit JK Cement Ltd)

**Reference:** MoEF Letter No. F.No. J-11011/263/2009-IA II (I) dated 21-06-2010

**EC Compliance Report for the period October, 2022 to March, 2023**

**A. SPECIFIC CONDITIONS:**

**Annexure-1**

S.NO	CONDITION	REPLY
i)	All other necessary statutory clearances from the concerned departments including No Objection Certificate from the Karnataka State Pollution Control Board (KSPCB) shall be obtained prior to commencement of construction and / or operation.	Complied, we obtained statutory clearances from the Karnataka State Pollution Control Board (KSPCB) prior to commencement of construction i.e, CTE and CTO during operation. Consent to Operate from Karnataka Pollution Control Board is being renewed once in every Five years. Latest Consent to Operate granted by KSPCB vide Order No. AW-326481 dated 30-08-2021 which is valid till 30-06-2026.
ii)	Compliance to all the specific and general conditions stipulated for the existing plant by the Central/State Govt. shall be ensured and regular reports submitted to the Ministry and its regional Office at Bangalore.	Complying. All the specific and general conditions stipulated by the Central/State Govt for the existing plant are complying and six monthly compliance reports are being submitted to the Ministry and its Regional office at Bangalore, CPCB & KSPCB boards also.
iii)	Adequate pollution control measures viz. bag filters shall be provided to control emissions from various sources within 50 mg/Nm <sup>3</sup> . At no time, particulate emissions from the grinding unit shall exceed 50 mg/Nm <sup>3</sup> . Interlocking facility shall be provided in the pollution control equipments so that in the event of the pollution control equipment not working, the respective unit (s) is shut down automatically.	Complied, Adequate pollution control measures viz. bag filters have been provided to control emissions from various sources not exceeding 30 mg/Nm <sup>3</sup> and interlocking facility has been facilitated in the pollution control equipment.
iv)	Cement grinding shall be carried out in closed circuit and shall have highly efficient reverse pulse jet type bag filters.	Complied, Cement grinding is being carried out in closed circuit and pulse jet bag filter has been installed.
v)	Ambient air quality monitoring stations (AAQMS) shall be set up as per statutory requirement in consultation with the Karnataka Pollution Control Board (KSPCB). Ambient air quality including ambient noise levels shall not exceed the standards stipulated under EPA or by the State authorities. Monitoring of ambient air quality shall be carried out regularly in consultation with KSPCB and must not	Complied, Ambient air quality monitoring stations (AAQMS) have been set up in consultation with the Karnataka Pollution Control Board (KSPCB). Ambient air quality including ambient noise levels is not exceeding the standards stipulated under EPA or by the State authorities. Ambient air quality is being carried out regularly in consultation with KSPCB and results are not exceeding the NAAQM standards, 2009.



**Subject:** Expansion of Cement Grinding Unit (2.50 MTPA to 3.5 MTPA) at Village Muddapur, Taluka Mudhol, District Bagalkot, Karnataka by M/s J.K. Cement Works, (Unit JK Cement Ltd)

**Reference:** MoEF Letter No. F.No. J-11011/263/2009-IA II (I) dated 21-06-2010

**EC Compliance Report for the period October, 2022 to March, 2023**

	exceed the standards stipulated under EPA or by the State Authorities. Monitoring reports for ambient air, stack and fugitive emissions shall be submitted to the Ministry's regional Office at Bangalore, Central Pollution Control Board (CPCB) and KSPCB half-yearly. The instrument used for ambient air quality monitoring shall be calibrated time to time.	Ambient air, stack and fugitive emission monitoring reports are being submitted to Ministry's regional Office at Bangalore, Central Pollution Control Board (CPCB) and KSPCB half-yearly. The Instruments, used for ambient air quality/stack/noise/ fugitive monitoring are calibrated regularly from time to time.
vi)	The company shall install adequate dust collection and extraction system to control fugitive dust emissions at loading/unloading points and all the transfer points. Dust extraction system with bag filters at raw material handling areas shall be provided, collected in bag filters and recycled back to the process. Storage of raw material shall be in closed roof sheds. Water sprinkling arrangement shall be made in the raw material stock yard and cement bag loading areas.	Complied, we have installed adequate dust collection and extraction system to control fugitive dust emissions at loading/unloading points and all the transfer points. The dust, collected in bag filters is recycled back to the process. Raw material is being stored in closed roof sheds. water sprinkling in raw material stock yard and cement bag loading areas through water tankers. Dust sweeping machines also being used for paved roads.
vii)	Secondary fugitive emissions shall be controlled and shall be within the prescribed limits and regularly monitored. Guidelines / Code of Practice issued by the CPCB in this regard shall be followed. Transportation of raw materials shall be covered means.	Complying, Secondary fugitive emissions have been monitored periodically and controlled and well within the prescribed norms. CPCB guidelines have been adopted for code of practice to control fugitive emission. Raw materials are being transported through covered means.
viii)	Total ground water requirement shall not exceed 200 m <sup>3</sup> /day. No waste water shall be generated from the cement grinding unit.	Complying, Abstraction of ground water is not exceeding the permitted quantity. No waste water is being generated from the cement grinding unit.
ix)	All the solid waste viz. fly ash and dust etc. should be properly recycled and reutilized in the process itself.	Complying, All the solid wastes viz. fly ash and dust etc. are being properly recycled and re-utilized in the process itself. 100% fly ash, generated in Captive power plant, is used in the cement plant for manufacturing of cement.
x)	As proposed, green belt shall be developed in at least 34.5 ha of land area to land area to mitigate the impact of fugitive emissions in and around the expansion project as per the CPCB guidelines in consultation with the local DFO.	Complying, out of 104.55 ha, 48.12 Ha have been covered under green cover which is more than 33% area. additional plantation has been taken up to mitigate and reduce the impact of fugitive emissions. We are continuously developing the green belt in and



**Subject:** Expansion of Cement Grinding Unit (2.50 MTPA to 3.5 MTPA) at Village Muddapur, Taluka Mudhol, District Bagalkot, Karnataka by M/s J.K. Cement Works, (Unit JK Cement Ltd)

**Reference:** MoEF Letter No. F.No. J-11011/263/2009-IA II (I) dated 21-06-2010

**EC Compliance Report for the period October, 2022 to March, 2023**

		surrounding the area as per the CPCB guidelines and in consultation with the local DFO.
xi)	Proper housekeeping and adequate occupational health programs shall be taken up.	Complying, Proper housekeeping and adequate occupational health programs are being taken up time to time.
xii)	All the recommendations made in the charter on Corporate Responsibility for Environment Protection (CREP) for the 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.
xiii)	Rainwater harvesting measures shall be adopted. The company must also harvest the rainwater from the roof tops and storm water drains to recharge the ground water and use the same water for the various activities of the project to conserve fresh water.	Complied, Rainwater harvesting measures in cement plant and residential colony have been adopted. We are harvesting the rainwater from the roof tops and storm water drains to recharge the ground water.
xiv)	At least 5% of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program should be ensured accordingly in a time bound manner.	Complying, item-wise details along with time bound action plan has been prepared and submitted to the Ministry's Regional Office at Bangalore.
xv)	The company shall provide housing for construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Complied, All facilities had been provided to labour during project time.
<b>B. GENERAL CONDITION:</b>		
i)	The project authorities must strictly adhere to the stipulations made by the Karnataka State Pollution Control Board and the State Government.	Noted.
ii)	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.	Noted.
iii)	The gaseous emissions from various process	Noted.

**Subject:** Expansion of Cement Grinding Unit (2.50 MTPA to 3.5 MTPA) at Village Muddapur, Taluka Mudhol, District Bagalkot, Karnataka by M/s J.K. Cement Works, (Unit JK Cement Ltd)

**Reference:** MoEF Letter No. F.No. J-11011/263/2009-IA II (I) dated 21-06-2010

**EC Compliance Report for the period October, 2022 to March, 2023**

	units shall conform to the load/mass based standards notified by this Ministry on 19th may, 1993 and standard prescribed from time to time. The State Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location.	
iv)	At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM10, SO <sub>2</sub> and NO <sub>x</sub> are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its regional Office at Bangalore and the SPCB/CPCB once in six Months.	Complied, we have established five (AAQMS) monitoring stations and monitored data of ambient air quality and stack emission are being regularly submitted to the Ministry including its regional Office at Bangalore and the SPCB/CPCB once in six Months. Six monthly report of Ambient Air Quality, Stack emission and Fugitive emissions has been enclosed <b>as Annexure- 2, 3, 5.</b>
v)	Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose.	Complying, No waste water is generated from cement plant and the waste water, generated in captive power plant is collected in neutrilsation pit and treated properly and the treated waste water is being used for process itself.
vi)	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 should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).	Complying, the noise levels in and around plant are 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 also within the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (night time) <b>as per Annexure- 4</b>
Vii)	Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factory Act.	Complying, Occupational health surveillance of the workers is being done on a regular basis and records are being maintained as per the Factory Act.
viii)	The company shall develop surface water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.	Complied.
ix)	The Project proponent shall also comply with all the environmental protection measures and safeguards recommended in	Complying, Environmental protection measures and safeguards recommended in the EIA/EMP report are being followed.



**Subject:** Expansion of Cement Grinding Unit (2.50 MTPA to 3.5 MTPA) at Village Muddapur, Taluka Mudhol, District Bagalkot, Karnataka by M/s J.K. Cement Works, (Unit JK Cement Ltd)

**Reference:** MoEF Letter No. F.No. J-11011/263/2009-IA II (I) dated 21-06-2010

**EC Compliance Report for the period October, 2022 to March, 2023**

	the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programme, educational programs, drinking water supply and health care etc.	socio-economic development activities along with expenditure in the surrounding villages for community development Programmes, educational programs, drinking water supply and health care for the period October-2022 to March-2023 is enclosed as <b>Annexure-8</b> .
X)	As proposed, Rs. 431 lakhs and Rs. 117.95 lakhs shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the regional Office of the Ministry at Bangalore. The funds so provided shall not be diverted for any other purpose.	Complied. expenditure incurred on environmental pollution control measures taken up on environment management plan and the details of expenditure are enclosed as <b>Annexure-7</b> .
xi)	A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/representations, if any were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.	Complied, a copy of clearance letter had been sent to concerned local bodies. No suggestions & representation were received, the same also displayed on the web site of the company.
xii)	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the regional Office of the MoEF at Bangalore, The respective Zonal Office of CPCB and the CECB. The criteria pollutant levels namely; PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>x</sub> (ambient for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	Complying, Environment clearance conditions status and results of monitored data are being updated & uploaded on company website periodically. The same report is being sent to the regional Office of the MoEF at Bangalore and the respective Zonal Office of CPCB. The pollutants levels namely; PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>x</sub> are displaying near the plant main gate of the company in the public domain.
xiii)	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored	Complying, we are submitting six monthly reports on the status of the compliance of the stipulated environmental conditions and monitored data in soft copies only by e-mail



**Subject:** Expansion of Cement Grinding Unit (2.50 MTPA to 3.5 MTPA) at Village Muddapur, Taluka Mudhol, District Bagalkot, Karnataka by M/s J.K. Cement Works, (Unit JK Cement Ltd)


**Reference:** MoEF Letter No. F.No. J-11011/263/2009-IA II (I) dated 21-06-2010

**EC Compliance Report for the period October, 2022 to March, 2023**

	data (both in hard copies as well as by e-mail) to the Regional Office of this Ministry at Bangalore/CPCB/SPCB shall monitor the stipulated conditions.	and to the Regional Office of this Ministry at Bangalore and upload the same in Parivesh website. Also the same report is submitted to CPCB/SPCB as well.
xiv)	The environmental statement for each financial year ending 31 <sup>st</sup> March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (protection) Rules, 19086, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective regional Office of the MoEF at Bangalore by e mail.	Complying, the environmental statement for each financial year ending 31 <sup>st</sup> March in Form-V is being submitted by us to the concerned State Pollution Control Board and is also sent to the respective regional office of the MoEF at Bangalore by e mail. Environmental Statement Report (Form-V) for F.Y. 2021-22 was submitted to regulatory authority via. letter no. JKCW/ENV./CFO (Plant)/60/15 dated 05-09-2022.
xv)	The Project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> . This shall be advertised within seven days from the date of issue of the 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 should be forwarded to the regional office at Bangalore.	Complied, we had informed the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> . This had been advertised within seven days from the date of issue of the 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 had been forwarded to the regional office at Bangalore.
xvi)	Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	Complied, we had informed the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

Yours faithfully

For J.K. Cement Works, Muddapur (Karnataka)

  
Uma Shankar Choudhary  
(Unit Head)



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


CEMENT PLANT &amp; 2X25 CPP MW

HALF YEARLY AAQM REPORT (SO<sub>2</sub>, NO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>), FOR THE MONTH OF OCTOBER-2022 TO MARCH-2023

( ALL VALUES IN MICROGRAMS / CUBIC METER )

Month	Sl.No.	Date	Week	SO <sub>2</sub>				NO <sub>2</sub>				PM <sub>10</sub>				PM <sub>2.5</sub>			
				Locations				Locations				Locations				Locations			
				Admin Bld	Guest House	Muddapur	Bamanbuddhini	Admin Bld	Guest House	Muddapur	Bamanbuddhini	Admin Bld	Guest House	Muddapur	Bamanbuddhini	Admin Bld	Guest House	Muddapur	Bamanbuddhini
OCTOBER	1	1.10.2022	1st	8.0	7.0	7.5	7.7	18.0	17.2	17.5	18.0	59.8	40.4	49.4	47.8	12.5	20.8	12.5	16.7
	2	5.10.2022		7.7	8.0	8.0	6.8	17.0	18.0	18.0	16.8	56.6	45.3	44.6	44.8	17.5	22.9	20.8	20.8
	3	8.10.2022	2nd	9.5	7.7	6.8	8.0	19.3	17.7	16.8	18.0	64.6	49.1	36.3	45.6	13.3	12.5	16.7	18.8
	4	12.10.2022		8.0	6.8	7.0	7.5	18.7	16.8	17.0	17.5	62.9	47.1	40.7	48.1	16.7	20.8	18.8	21.7
	5	15.10.2022	3rd	8.2	8.2	6.8	8.2	17.8	18.2	16.8	18.0	70.1	50.0	46.3	53.0	14.2	22.9	10.0	23.3
	6	19.10.2022		9.0	7.0	7.3	6.7	19.0	17.7	17.3	16.8	60.3	48.0	51.0	43.3	18.8	16.7	17.5	20.8
	7	22.10.2022	4th	8.3	8.0	6.8	7.0	18.3	18.0	16.8	17.5	68.1	50.4	49.4	54.3	14.2	12.5	15.8	16.7
	8	26.10.2022		9.0	7.0	8.2	7.5	18.0	17.0	18.2	17.5	59.5	49.6	46.3	47.1	20.5	20.8	18.3	13.7
	9	29.10.2022		7.5	6.8	7.0	8.2	16.5	16.8	17.7	18.7	67.3	46.1	43.3	41.3	11.7	15.4	16.7	16.7
NOVEMBER	1	3.11.2022	1st	5.5	7.5	6.0	6.0	16.7	18.7	16.5	16.5	55.8	44.9	74.8	47.4	17.9	25.0	16.7	20.8
	2	7.11.2022		6.2	5.5	7.3	7.3	16.8	17.3	18.3	18.3	47.0	59.0	57.6	45.9	12.5	29.2	23.8	25.0
	3	10.11.2022	2nd	8.2	6.7	8.8	8.8	17.8	17.0	18.0	18.0	52.8	47.7	68.4	43.3	20.8	33.3	17.9	29.2
	4	14.11.2022		7.0	11.0	6.8	6.8	17.0	18.0	17.5	17.5	63.3	44.7	57.1	40.2	12.5	20.8	20.8	22.1
	5	17.11.2022	3rd	8.0	9.8	7.3	7.3	18.0	18.3	17.5	17.5	60.5	50.6	46.6	33.7	20.8	31.3	20.8	25.0
	6	21.11.2022		6.8	9.0	6.8	6.8	16.8	17.2	18.0	18.0	55.1	59.9	56.5	41.3	16.7	29.2	16.7	33.3
	7	24.11.2022	4th	8.0	8.5	7.2	7.2	18.0	18.0	17.8	17.8	63.7	45.6	61.8	46.6	20.8	32.5	20.8	20.8
	8	28.11.2022		7.5	6.8	8.0	8.0	17.5	17.0	18.8	18.8	42.6	50.2	65.6	40.7	16.0	20.8	23.3	29.2
	9	30.11.2022		7.0	7.3	9.0	7.0	17.0	17.5	19.0	17.0	52.6	56.0	49.9	52.4	12.5	23.3	16.7	24.2
DECEMBER	1	3.12.2022	1st	7.8	6.8	7.7	7.5	17.8	16.7	17.5	18.0	53.3	55.5	50.2	46.2	23.3	25.0	27.1	20.8
	2	7.12.2022		8.0	7.5	6.0	5.5	18.0	17.5	17.3	15.0	51.0	57.5	85.1	41.0	33.3	37.5	25.8	25.0
	3	10.12.2022	2nd	7.8	8.0	7.0	8.0	18.8	18.0	18.0	17.3	60.4	52.7	61.3	52.4	29.2	17.9	20.8	20.8
	4	14.12.2022		8.0	6.8	8.5	6.8	18.0	16.8	18.3	16.8	67.6	54.0	42.7	50.3	20.8	33.3	20.8	22.5
	5	17.12.2022	3rd	8.3	7.8	5.5	8.0	18.3	17.8	17.3	15.8	56.8	63.4	62.9	44.0	22.9	20.8	21.7	15.4
	6	21.12.2022		6.2	6.8	6.7	5.8	17.5	16.8	17.8	14.2	50.8	57.8	46.8	57.9	25.0	46.7	29.2	37.5
	7	24.12.2022	4th	8.0	7.5	6.2	6.8	18.0	17.5	16.8	14.2	55.7	49.8	58.4	50.1	41.7	37.5	20.8	33.3
	8	28.12.2022		8.0	8.0	7.7	8.2	18.2	18.0	18.5	18.3	57.8	55.7	64.6	53.4	28.0	20.8	25.0	20.8
	9	31.12.2022		8.0	8.0	8.3	5.5	18.0	18.0	19.0	17.5	52.1	48.0	53.2	57.0	29.2	33.3	31.7	33.3
JANUARY	1	3.1.2023	1st	7.0	8.0	6.8	7.7	17.7	18.5	16.5	17.8	89.5	79.0	65.2	57.7	50.0	25.0	20.8	20.8
	2	7.1.2023		6.8	10.2	7.5	8.0	16.8	19.3	17.5	18.0	80.9	66.1	60.0	48.8	45.8	37.5	25.0	25.0
	3	10.1.2023	2nd	9.7	6.7	5.8	6.8	19.7	16.7	15.8	16.8	75.2	57.1	68.1	55.0	37.5	29.2	33.3	16.7
	4	14.1.2023		6.2	7.0	6.7	8.0	16.2	17.0	16.7	18.7	69.8	63.1	51.6	63.1	29.2	20.8	37.5	29.2
	5	17.1.2023	3rd	7.2	6.5	8.0	7.5	17.7	16.8	18.7	17.5	73.3	69.4	64.8	59.0	27.5	33.3	41.7	20.8
	6	21.1.2023		8.0	7.3	6.7	7.2	17.0	18.0	17.3	18.0	68.1	67.1	58.2	65.5	20.8	41.7	29.2	16.7
	7	24.1.2023	4th	8.0	8.0	8.0	10.3	18.5	18.0	18.0	20.3	65.4	60.2	65.4	56.2	24.6	16.7	25.0	12.5
	8	28.1.2023		6.8	6.8	7.0	7.5	16.8	17.5	16.8	17.5	57.1	73.3	62.6	67.7	28.0	20.8	31.3	20.8
FEBRUARY	1	3.2.2023	1st	8.0	8.0	6.2	6.8	18.0	17.8	16.2	16.7	61.8	67.8	68.9	73.1	25.0	33.3	41.7	33.3
	2	7.2.2023		7.7	7.7	8.0	7.0	17.0	17.7	18.0	17.5	75.9	61.2	76.6	70.6	29.2	37.5	33.3	37.5
	3	10.2.2023	2nd	9.8	8.0	9.2	6.8	19.3	18.0	19.2	16.8	69.3	72.6	91.7	72.8	33.3	41.7	50.0	29.2
	4	14.2.2023		8.0	10.3	8.0	8.0	18.7	19.8	18.0	18.0	77.5	65.9	69.0	69.0	31.3	40.0	37.5	41.7
	5	17.2.2023	3rd	8.2	7.7	9.3	7.0	17.8	17.5	19.0	16.8	73.9	75.2	75.8	84.2	33.3	45.8	35.4	45.8
	6	21.2.2023		9.0	8.0	8.3	6.5	19.0	18.7	18.2	16.5	69.6	64.2	70.0	65.1	37.5	37.5	37.5	25.0
	7	24.2.2023	4th	8.3	9.0	10.0	7.5	18.3	18.8	19.3	17.5	71.0	60.0	76.6	70.0	45.8	29.2	45.8	33.3
	8	28.2.2023		9.0	7.2	8.0	6.7	18.0	17.8	18.0	16.7	79.9	71.9	61.5	61.0	38.0	50.0	25.0	36.7
MARCH	1	3.3.2023	1st	7.5	7.7	8.0	7.7	17.5	17.7	18.0	17.7	79.7	79.1	85.7	66.0	37.5	32.5	41.7	29.2
	2	7.3.2023		8.2	9.0	7.5	6.7	18.7	19.0	16.3	16.7	87.4	68.2	64.7	71.8	41.7	28.3	33.3	33.3
	3	10.3.2023	2nd	10.0	6.7	8.0	8.0	20.0	16.7	16.7	18.0	65.0	84.6	75.7	69.7	33.3	41.7	35.4	25.0
	4	14.3.2023		8.0	8.0	6.7	6.8	18.0	17.3	17.3	16.8	72.8	74.0	62.4	75.3	38.3	33.3	34.6	37.5
	5	17.3.2023	3rd	7.3	7.0	8.0	7.0	17.5	17.5	18.0	17.5	69.6	68.0	68.8	69.4	31.3	28.3	35.0	33.4
	6	21.3.2023		6.7	8.0	7.2	8.0	16.7	18.7	18.0	18.0	59.4	78.2	64.4	73.3	25.0	42.5	29.2	31.8
	7	24.3.2023	4th	7.3	6.7	6.7	7.3	18.2	16.7	16.7	17.3	64.2	91.6	56.5	67.1	29.2	49.2	20.8	30.7
	8	28.3.2023		8.2	7.8	6.3	8.0	18.2	17.7	17.0	18.0	69.4	80.9	68.3	81.1	32.0	41.7	32.5	45.4
Minimum				5.5	5.5	5.5	5.5	16.2	16.7	15.8	14.2	42.6	40.4	36.3	33.7	11.7	12.5	10.0	12.5
Maximum				10.0	11.0	10.0	10.3	20.0	19.8	19.3	20.3	89.5	91.6	91.7	84.2	50.0	50.0	50.0	45.8
Average				7.8	7.7	7.4	7.3	17.9	17.7	17.6	17.4	64.6	60.3	60.8	56.5	26.4	29.8	26.7	26.3

  
 Vinit Kumar Sharma  
 Monitored by

  
 Vinit Kumar Sharma  
 Checked by



# SCIENTIFIC & INDUSTRIAL RESEARCH CENTRE

#91/43, 1<sup>st</sup> Floor, 8<sup>th</sup> cross Goraguntepalya, Yeshwantpur Industrial area, Bangalore-560022.

E-mail: sircbangalore@yahoo.com, www.sircblr.in

Mob: 8494900231, 8892972297, 9632917186.

Recognized by MoEF & CC.

ISO 9001:2015 & ISO 45001:2018 Certified Laboratory.

## Plant AAQ sample

<b>Name and Address of Customer:</b> M/s. JK Cement Works, Muddapur (Unit : J.K. Cement LTD.,) Muddapur -587122 Distt. Bagalkot (Karnataka) India				<b>Report Date:</b> 26/02/2023			
				<b>Date of Receipt of sample:</b> 20/02/2023			
				<b>Test Report No:</b> SIRC/2023/02/4825			
				<b>Test Completed on:</b> 26/02/2023			
<b>Test Performed On:</b> 20/02/2023				<b>Sample Packing:</b> Absorbing solution Sealed Bottle and Filter paper zip lock covered			
S.N o	Parameters	Method	NAAQ standards 2009	Location			
				Site-1	Site-2	Site-3	Site-4
1	Particulate Matter (PM10), µg/m <sup>3</sup>	IS 5182 (P23):2006	100	68.5	58	52.4	73
2	Particulate Matter (PM2.5), µg/m <sup>3</sup>	40CFR Part 53& 58	60	33	25.7	40.5	45.2
3	Sulfur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	IS 5182 (P2):2001	80	12	16.5	9.5	21.3
4	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	IS 5182 (P6):2006	80	15	12.5	25.4	29.3
5	Ammonia (NH <sub>3</sub> ), µg/m <sup>3</sup>	Method 401, Air Sampling	400	18.4	10.4	30.4	24
6	Carbon Monoxide (CO), mg/m <sup>3</sup>	Non-Dispersive Infra-Red Method	04	ND	ND	ND	ND
7	Ozone (O <sub>3</sub> ), µg/m <sup>3</sup>	Method 411, Air Sampling	180	9.6	6.5	16.1	18.5
8	Lead (Pb), µg/m <sup>3</sup>	EPA compendium method IO 3.2	1.0	BDL	BDL	BDL	BDL
9	Nickel (Ni), ng/m <sup>3</sup>	EPA compendium method IO 3.2	20	BDL	BDL	BDL	BDL
10	Arsenic (As), ng/m <sup>3</sup>	EPA compendium method IO 3.2	06	BDL	BDL	BDL	BDL
11	Benzo(a)Pyrene(BaP), ng/m <sup>3</sup>	IS 5182 (Part 12):2004	01	BDL	BDL	BDL	BDL
12	Benzene (C <sub>6</sub> H <sub>6</sub> ), µg/m <sup>3</sup>	IS 5182 (Part 11):2006	05	BDL	BDL	BDL	BDL

Note: Site-1: Near Administration Building Site-2: Near Guest House Site-3: Near D Block & Site-4: Dispatch Gate

BDL: Below detectable limit, ND: Not Detected

<b>INFERENCE</b>	As per NAAQMS Standards, Report Status: - - The measured values for the above parameters are within the standards
------------------	--

## AUTHORIZED SIGNATORY

Sateesh G Muttagi  
Technical Manager

### NOTE

1. The results listed refer only to the tested samples & applicable parameters. Endorsement of product is neither inferred nor implied.
2. Samples will be destroyed after specified retention time.
3. This report is not to be reproduced wholly or in part & cannot be used as evidence in the court of law & should not be used in any advertising media without our special permission in writing.
4. Sample(s) not drawn by us unless otherwise stated.
5. Total liability of our laboratory is limited to the invoice amount. Any dispute arising out of this report is subjected to Bangalore Jurisdiction only.

\*\*\*\*\*We Provide Environmental Services\*\*\*\*\*



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

(Unit : J.K. Cement Ltd.)

Stack monitoring report of Cement plant &amp; 2x25 MW Thermal power plant for October-2022 to March-2023

Sl. No.	Month/Year	Stack locations						
		Thermal Power Plant			Kiln / Raw Mill			DG Set
		SPM in mg/Nm <sup>3</sup>	SO <sub>2</sub> in mg/Nm <sup>3</sup>	NO <sub>x</sub> in mg/Nm <sup>3</sup>	SPM in mg/Nm <sup>3</sup>	SO <sub>2</sub> in mg/Nm <sup>3</sup>	NO <sub>x</sub> in mg/Nm <sup>3</sup>	SPM in mg/Nm <sup>3</sup>
1	Oct-22	Plant Shutdown			13.9	0.0	421.0	-
2	Nov-22				17.2	0.0	410.0	-
3	Dec-22				13.6	0.0	405.2	-
4	Jan-23				20.9	0.0	539.0	-
5	Feb-23				17.0	0.0	478.0	-
6	Mar-23				12.3	0.0	305.0	-

Sl. No.	Month/Year	Stack locations						
		SPM in mg/Nm <sup>3</sup>						
		CM-3 (Slag Cement Mill)	Coal crusher	LSC	CM-1	CM-2	Cooler	Coal Mill
1	Oct-22	7.2	13.0	9.6	13.28	16.00	7.4	13.0
2	Nov-22	13.2	7.5	16.2	7.1	13.2	9.5	11.2
3	Dec-22	14.1	9.7	10.0	10.2	29.6	12.3	15.3
4	Jan-23	11.0	13.3	13.4	8.27	13.06	15.1	17.3
5	Feb-23	17.4	11.0	12.1	7.3	11.8	10.1	10.5
6	Mar-23	16.4	13.2	10.9	7.3	11.9	8.5	17.1

  
Vinit Patil  
Monitored by

  
Vinit Kumar Sharma  
Checked by



# SCIENTIFIC & INDUSTRIAL RESEARCH CENTRE

#91/43, 1<sup>st</sup> Floor, 8<sup>th</sup> cross Goraguntepalya, Yeshwantpur Industrial area, Bangalore-560022.

E-mail: sircbangalore@yahoo.com. www.sircblr.in

Mob: 8494900231, 8892972297, 9632917186.

Recognized by MoEF & CC.

ISO 9001:2015 & ISO 45001:2018 Certified Laboratory.

## TEST REPORT

<b>Name and Address of Customer:</b>  M/s. JK Cement Works, Muddapur (Unit : J.K. Cement LTD.,) Muddapur -587122 Distt. Bagalkot (Karnataka) India	<b>Report Date:</b> 05/03/2023
	<b>Date of Receipt of sample:</b> 25/02/2023
	<b>Test Report No:</b> SIRC/2023/02/4831
	<b>Test Completed On:</b> 27/02/2023
<b>Test Performed On:</b> 25/02/2023	<b>Date of Monitoring:</b> 24/02/2023

<b>Sample Collected By</b>	<b>Sample Nature</b>	<b>Stack ID</b>	<b>Sample Packing:</b>
SIRC	STACK	RAW MILL	Thimble in zip lock covered

## Stack Details

<b>Stack Id</b>	RAW MILL
<b>Ambient Temperature, (°C)</b>	34
<b>Stack Temperature, (°C)</b>	166
<b>Diameter, (m)</b>	7.54
<b>Cross Sectional Area in meter square, (m<sup>2</sup>)</b>	19.63
<b>Velocity, (m/s)</b>	5.61
<b>Flue gas Discharge, Nm<sup>3</sup>/hr</b>	278012
<b>Dust Emission, mg/Hr</b>	2.6

## Results

S.No	Parameters	Unit	Results	Limits	Method
1	Particulate Matter	mg/Nm <sup>3</sup>	10.5	30	IS 11255 (P1) 2003
2	Moisture	%	<1	NS	IS 11255 (P1) 2003
3	Sulphur Dioxide	mg/Nm <sup>3</sup>	ND	100	IS 11255 (P2) 2003
4	Oxides of nitrogen	mg/Nm <sup>3</sup>	388	800	Flue gas analyzer

Note: ND: Not Detected, NS: Not Specified

<b>INFERENCE</b>	<b>As per MOEF Standards,</b> <b>Report Status:</b> -- The measured values for the above parameters are within the standards.
------------------	--

**AUTHORIZED SIGNATORY**

Sateesh G Muttagi  
Technical Manager

## NOTE

1. The results listed refer only to the tested samples & applicable parameters. Endorsement of product is neither inferred nor implied.
2. Samples will be destroyed after specified retention time.
3. This report is not to be reproduced wholly or in part & cannot be used as evidence in the court of law & should not be used in any advertising media without our special permission in writing.
4. Sample(s) not drawn by us unless otherwise stated.
5. Total liability of our laboratory is limited to the invoice amount. Any dispute arising out of this report is subjected to Bangalore Jurisdiction only.

\*\*\*\*\*We Provide Environmental Services\*\*\*\*\*





# SCIENTIFIC & INDUSTRIAL RESEARCH CENTRE

#91/43,1<sup>st</sup>Floor,8<sup>th</sup> cross Goraguntepalya,Yeshwantpur Industrial area,Bangalore-560022.

E-mail:sircbangalore@yahoo.com.www.sircblr.in

Mob: 8494900231, 8892972297, 9632917186.

Recognized by MoEF &CC.

ISO 9001:2015 &ISO 45001:2018Certified Laboratory.

## TEST REPORT

<b>Name and Address of Customer:</b>	<b>Report Date:</b> 05/03/2023
M/s. JK Cement Works, Muddapur (Unit : J.K. Cement LTD.,) Muddapur -587122 Distt. Bagalkot (Karnataka) India	<b>Date of Receipt of sample:</b> 23/02/2023
	<b>Test Report No:</b> SIRC/2023/02/4832
	<b>Test Completed On:</b> 25/02/2023
<b>Test Performed On:</b> 23/02/2023	<b>Date of Monitoring:</b> 22/02/2023

<b>Sample Collected By</b>	<b>Sample Nature</b>	<b>Stack ID</b>	<b>Sample Packing:</b>
SIRC	STACK	Cement Mill-2	Thimble in zip lock covered

## Stack Details

<b>Stack Id</b>	Cement Mill-2
<b>Ambient Temperature ,(°C)</b>	30
<b>Stack Temperature, (°C)</b>	122
<b>Diameter, (m)</b>	1.4
<b>Cross Sectional Area in meter square, (m<sup>2</sup>)</b>	1.23
<b>Velocity, (m/s)</b>	5.21
<b>Flue gas Discharge, Nm<sup>3</sup>/hr</b>	18101.2
<b>Dust Emission , mg/Hr</b>	0.19

## Results

S.No	Parameters	Unit	Results	Limits	Method
1	Particulate Matter	mg/Nm <sup>3</sup>	11.3	30	IS 11255 (P1) 2003
2	Moisture	%	<1	NS	IS 11255 (P1) 2003

Note: NS: Not Specified

<b>INFERENCE</b>	As per MOEF Standards, <b>Report Status:</b> - - The measured values for the above parameters are within the standards.
------------------	--

## AUTHORIZED SIGNATORY

Sateesh G Muttagi

Technical Manager

## NOTE

1. The results listed refer only to the tested samples & applicable parameters. Endorsement of product is neither inferred nor implied.
2. Samples will be destroyed after specified retention time.
3. This report is not to be reproduced wholly or in part & cannot be used as evidence in the court of law & should not be used in any advertising media without our special permission in writing.
4. Sample(s) not drawn by us unless otherwise stated.
5. Total liability of our laboratory is limited to the invoice amount. Any dispute arising out of this report is subjected to Bangalore Jurisdiction only.

\*\*\*\*\*We Provide Environmental Services\*\*\*\*\*



# SCIENTIFIC & INDUSTRIAL RESEARCH CENTRE

#91/43,1<sup>st</sup> Floor,8<sup>th</sup> cross Goraguntepalya,Yeshwantpur Industrial area,Bangalore-560022.

E-mail:sircbangalore@yahoo.com.www.sircblr.in

Mob: 8494900231, 8892972297, 9632917186.

Recognized by MoEF &CC.

ISO 9001:2015 &ISO 45001:2018 Certified Laboratory.

## TEST REPORT

<b>Name and Address of Customer:</b>	<b>Report Date:</b> 05/03/2023
<b>M/s. JK Cement Works, Muddapur</b> (Unit : J.K. Cement LTD.,) Muddapur -587122 Distt. Bagalkot (Karnataka) India	<b>Date of Receipt of sample:</b> 24/02/2023
	<b>Test Report No:</b> SIRC/2022/08/4833
	<b>Test Completed On:</b> 28/02/2023
<b>Test Performed On:</b> 25/02/2023	<b>Date of Monitoring:</b> 23/02/2023

<b>Sample Collected By</b>	<b>Sample Nature</b>	<b>Stack ID</b>	<b>Sample Packing:</b>
SIRC	STACK	Cement Mill-1	Thimble in zip lock covered

### Stack Details

<b>Stack Id</b>	Cement Mill-1
<b>Ambient Temperature ,(<sup>0</sup>C)</b>	32
<b>Stack Temperature, (<sup>0</sup>C)</b>	112
<b>Diameter, (m)</b>	1.4
<b>Cross Sectional Area in meter square, (m<sup>2</sup>)</b>	1.23
<b>Velocity, (m/s)</b>	5.21
<b>Flue gas Discharge, Nm<sup>3</sup>/hr</b>	17801
<b>Dust Emission , mg/Hr</b>	0.12

### Results

S.No	Parameters	Unit	Results	Limits	Method
1	Particulate Matter	mg/Nm <sup>3</sup>	6.9	30	IS 11255 (P1) 2003
2	Moisture	%	<1	NS	IS 11255 (P1) 2003

Note: NS: Not Specified

<b>INFERENCE</b>	As per MOEF Standards, <b>Report Status:</b> - - The measured values for the above parameters are within the standards.
------------------	--

### AUTHORIZED SIGNATORY

Sateesh G Muttagi  
Technical Manager

### NOTE

1. The results listed refer only to the tested samples & applicable parameters. Endorsement of product is neither inferred nor implied.
2. Samples will be destroyed after specified retention time.
3. This report is not to be reproduced wholly or in part & cannot be used as evidence in the court of law & should not be used in any advertising media without our special permission in writing.
4. Sample(s) not drawn by us unless otherwise stated.
5. Total liability of our laboratory is limited to the invoice amount. Any dispute arising out of this report is subjected to Bangalore Jurisdiction only.

\*\*\*\*\*We Provide Environmental Services\*\*\*\*\*





# SCIENTIFIC & INDUSTRIAL RESEARCH CENTRE

#91/43, 1<sup>st</sup> Floor, 8<sup>th</sup> cross Goraguntepalya, Yeshwantpur Industrial area, Bangalore-560022.

E-mail: sircbangalore@yahoo.com. www.sircblr.in

Mob: 8494900231, 8892972297, 9632917186.

Recognized by MoEF & CC.

ISO 9001:2015 & ISO 45001:2018 Certified Laboratory.

## TEST REPORT

<b>Name and Address of Customer:</b>	<b>Report Date:</b> 05/03/2023
<b>M/s. JK Cement Works, Muddapur</b> (Unit : J.K. Cement LTD.,) Muddapur -587122 Distt. Bagalkot (Karnataka) India	<b>Date of Receipt of sample:</b> 24/02/2023
	<b>Test Report No:</b> SIRC/2022/08/4834
	<b>Test Completed On:</b> 28/02/2023
<b>Test Performed On:</b> 25/02/2023	<b>Date of Monitoring:</b> 23/02/2023

<b>Sample Collected By</b>	<b>Sample Nature</b>	<b>Stack ID</b>	<b>Sample Packing:</b>
SIRC	STACK	Cement Mill-3	Thimble in zip lock covered

### Stack Details

<b>Stack Id</b>	Cement Mill-3
<b>Ambient Temperature ,(<sup>0</sup>C)</b>	32
<b>Stack Temperature, (<sup>0</sup>C)</b>	108
<b>Diameter, (m)</b>	3.75
<b>Cross Sectional Area in meter square, (m<sup>2</sup>)</b>	11.04
<b>Velocity, (m/s)</b>	5.65
<b>Flue gas Discharge, Nm<sup>3</sup>/hr</b>	179317.2
<b>Dust Emission , mg/Hr</b>	2.7

### Results

S.No	Parameters	Unit	Results	Limits	Method
1	Particulate Matter	mg/Nm <sup>3</sup>	14.1	30	IS 11255 (P1) 2003
2	Moisture	%	<1	NS	IS 11255 (P1) 2003

Note: NS: Not Specified

<b>INFERENCE</b>	<b>As per MOEF Standards,</b> <b>Report Status:</b> -- The measured values for the above parameters are within the standards.
------------------	--

### AUTHORIZED SIGNATORY

Sateesh G Muttagi  
Technical Manager

### NOTE

1. The results listed refer only to the tested samples & applicable parameters. Endorsement of product is neither inferred nor implied.
2. Samples will be destroyed after specified retention time.
3. This report is not to be reproduced wholly or in part & cannot be used as evidence in the court of law & should not be used in any advertising media without our special permission in writing.
4. Sample(s) not drawn by us unless otherwise stated.
5. Total liability of our laboratory is limited to the invoice amount. Any dispute arising out of this report is subjected to Bangalore Jurisdiction only.

\*\*\*\*\*We Provide Environmental Services\*\*\*\*\*



# SCIENTIFIC & INDUSTRIAL RESEARCH CENTRE

#91/43, 1<sup>st</sup> Floor, 8<sup>th</sup> cross Goraguntepalya, Yeshwantpur Industrial area, Bangalore-560022.

E-mail: sircbangalore@yahoo.com. www.sircblr.in

Mob: 8494900231, 8892972297, 9632917186.

Recognized by MoEF & CC.

ISO 9001:2015 & ISO 45001:2018 Certified Laboratory.

## TEST REPORT

<b>Name and Address of Customer:</b>	<b>Report Date:</b> 05/02/2023
<b>M/s. JK Cement Works, Muddapur</b> (Unit : J.K. Cement LTD.,) Muddapur -587122 Distt. Bagalkot (Karnataka) India	<b>Date of Receipt of sample:</b> 26/03/2023
	<b>Test Report No:</b> SIRC/2023/02/4835
	<b>Test Completed On:</b> 01/03/2023
<b>Test Performed On:</b> 27/02/2023	<b>Date of Monitoring:</b> 25/02/2023

<b>Sample Collected By</b>	<b>Sample Nature</b>	<b>Stack ID</b>	<b>Sample Packing:</b>
SIRC	STACK	Coal Mil	Thimble in zip lock covered

### Stack Details

<b>Stack Id</b>	Coal Mil
<b>Ambient Temperature, (°C)</b>	29
<b>Stack Temperature, (°C)</b>	86
<b>Diameter, (m)</b>	1.80
<b>Cross Sectional Area in meter square, (m<sup>2</sup>)</b>	2.54
<b>Velocity, (m/s)</b>	5.23
<b>Flue gas Discharge, Nm<sup>3</sup>/hr</b>	34039.2
<b>Dust Emission, mg/Hr</b>	0.6

### Results

S.No	Parameters	Unit	Results	Limits	Method
1	Particulate Matter	mg/Nm <sup>3</sup>	15.3	30	IS 11255 (P1) 2003
2	Moisture	%	<1	NS	IS 11255 (P1) 2003

Note: NS: Not Specified

<b>INFERENCE</b>	<b>As per MOEF Standards,</b> <b>Report Status:</b> - - The measured values for the above parameters are within the standards.
------------------	---

**AUTHORIZED SIGNATORY**

Sateesh G Muttagi

Technical Manager

### NOTE

1. The results listed refer only to the tested samples & applicable parameters. Endorsement of product is neither inferred nor implied.
2. Samples will be destroyed after specified retention time.
3. This report is not to be reproduced wholly or in part & cannot be used as evidence in the court of law & should not be used in any advertising media without our special permission in writing.
4. Sample(s) not drawn by us unless otherwise stated.
5. Total liability of our laboratory is limited to the invoice amount. Any dispute arising out of this report is subjected to Bangalore Jurisdiction only.

\*\*\*\*\*We Provide Environmental Services\*\*\*\*\*





# SCIENTIFIC & INDUSTRIAL RESEARCH CENTRE

#91/43,1<sup>st</sup>Floor,8<sup>th</sup> cross Goraguntepalya,Yeshwantpur Industrial area,Bangalore-560022.

E-mail:sircbangalore@yahoo.com.www.sircblr.in

Mob: 8494900231, 8892972297, 9632917186.

Recognized by MoEF &CC.

ISO 9001:2015 &ISO 45001:2018Certified Laboratory.

## TEST REPORT

<b>Name and Address of Customer:</b>	<b>Report Date:</b> 05/03/2023
<b>M/s. JK Cement Works, Muddapur</b> (Unit : J.K. Cement LTD.,) Muddapur -587122 Distt. Bagalkot (Karnataka) India	<b>Date of Receipt of sample:</b> 25/02/2023
	<b>Test Report No:</b> SIRC/2023/02/4836
	<b>Test Completed On:</b> 27/02/2023
<b>Test Performed On:</b> 25/02/2023	<b>Date of Monitoring:</b> 24/02/2023

<b>Sample Collected By</b>	<b>Sample Nature</b>	<b>Stack ID</b>	<b>Sample Packing:</b>
SIRC	STACK	Clinker Cooler Stack	Thimble in zip lock covered

### Stack Details

<b>Stack Id</b>	Clinker Cooler Stack
<b>Ambient Temperature ,(<sup>0</sup>C)</b>	36
<b>Stack Temperature, (<sup>0</sup>C)</b>	285
<b>Diameter, (m)</b>	3.86
<b>Cross Sectional Area in meter square, (m<sup>2</sup>)</b>	12.56
<b>Velocity, (m/s)</b>	7.22
<b>Flue gas Discharge, Nm<sup>3</sup>/hr</b>	173116.6
<b>Dust Emission , mg/Hr</b>	1.23

### Results

S.No	Parameters	Unit	Results	Limits	Method
1	Particulate Matter	mg/Nm <sup>3</sup>	5.8	30	IS 11255 (P1) 2003
2	Moisture	%	<1	NS	IS 11255 (P1) 2003

Note: ND: Not Detected, NS: Not Specified

<b>INFERENCE</b>	<b>As per MOEF Standards GSR 612 E dated 25.08 2014.</b> <b>Report Status:</b> - - The measured values for the above parameters are within the standards.
------------------	--

**AUTHORIZED SIGNATORY**

Sateesh G Muttagi

Technical Manager

### NOTE

1. The results listed refer only to the tested samples & applicable parameters. Endorsement of product is neither inferred nor implied.
2. Samples will be destroyed after specified retention time.
3. This report is not to be reproduced wholly or in part & cannot be used as evidence in the court of law & should not be used in any advertising media without our special permission in writing.
4. Sample(s) not drawn by us unless otherwise stated.
5. Total liability of our laboratory is limited to the invoice amount. Any dispute arising out of this report is subjected to Bangalore Jurisdiction only.

\*\*\*\*\*We Provide Environmental Services\*\*\*\*\*



# SCIENTIFIC & INDUSTRIAL RESEARCH CENTRE

#91/43, 1<sup>st</sup> Floor, 8<sup>th</sup> cross Goraguntepalya, Yeshwantpur Industrial area, Bangalore-560022.

E-mail: sircbangalore@yahoo.com. www.sircblr.in

Mob: 8494900231, 8892972297, 9632917186.

Recognized by MoEF & CC.

ISO 9001:2015 & ISO 45001:2018 Certified Laboratory.

## TEST REPORT

<b>Name and Address of Customer:</b>	<b>Report Date:</b> 05/02/2023
<b>M/s. JK Cement Works,</b>	<b>Date of Receipt of sample:</b> 26/03/2023
<b>Muddapur</b>	<b>Test Report No:</b> SIRC/2023/02/4837
(Unit: J.K. Cement LTD.,)	<b>Test Completed On:</b> 01/03/2023
Muddapur -587122	<b>Date of Monitoring:</b> 25/02/2023
Distt. Bagalkot (Karnataka) India	
<b>Test Performed On:</b> 27/02/2023	

<b>Sample Collected By</b>	<b>Sample Nature</b>	<b>Stack ID</b>	<b>Sample Packing:</b>
SIRC	STACK	Limestone Crusher	Thimble in zip lock covered

### Stack Details

<b>Stack Id</b>	Crusher
<b>Ambient Temperature, (°C)</b>	33
<b>Stack Temperature, (°C)</b>	59
<b>Diameter, (m)</b>	1.20
<b>Cross Sectional Area in meter square, (m<sup>2</sup>)</b>	1.13
<b>Velocity, (m/s)</b>	4.99
<b>Flue gas Discharge, Nm<sup>3</sup>/hr</b>	18742.3
<b>Dust Emission, mg/Hr</b>	0.25

### Results

S. No	Parameters	Unit	Results	Limits	Method
1	Particulate Matter	mg/Nm <sup>3</sup>	12.7	30	IS 11255 (P1) 2003

<b>INFERENCE</b>	As per MOEF Standards, <b>Report Status:</b> - - The measured values for the above parameters are within the standards.
------------------	--

### AUTHORIZED SIGNATORY

Sateesh G Muttagi  
Technical Manager

### NOTE

1. The results listed refer only to the tested samples & applicable parameters. Endorsement of product is neither inferred nor implied.
2. Samples will be destroyed after specified retention time.
3. This report is not to be reproduced wholly or in part & cannot be used as evidence in the court of law & should not be used in any advertising media without our special permission in writing.
4. Sample(s) not drawn by us unless otherwise stated.
5. Total liability of our laboratory is limited to the invoice amount. Any dispute arising out of this report is subjected to Bangalore Jurisdiction only.

\*\*\*\*\*We Provide Environmental Services\*\*\*\*\*



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

**Half Yearly Noise monitoring report of Cement & Power Plant for the month of October-2022 to March-2023**

Ambient Noise																			
Sl. No.	Location Name	Oct-22		Nov-22		Dec-22		Jan-23		Feb-23		Mar-23		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	69.5	66.8	68.2	65.4	66.5	63.6	65.6	62.5	67.5	65.3	68.5	62.8	65.6	62.5	69.5	66.8	67.6	64.4
2	Administrative Building	65.2	63.8	64.5	62.2	62.8	60.7	61.2	58.6	64.8	62.7	62.7	60.4	61.2	58.6	65.2	63.8	63.5	61.4
3	Lime Stone gate	71.4	68.5	67.3	64.3	65.4	63.5	67.8	65.3	70.5	68.5	72.5	67.5	65.4	63.5	72.5	68.5	69.2	66.3
4	Despatch gate	68.6	65.2	66.5	63.8	63.2	61.6	62.5	60.7	68.7	65.6	65.5	63.2	62.5	60.7	68.7	65.6	65.8	63.4
5	Near QC Lab.	60.6	58.4	62.8	60.3	64.5	62.8	66.8	66.8	67.5	64.6	63.8	60.7	60.6	58.4	67.5	64.6	64.3	61.7
6	Near Canteen	65.2	62.5	60.5	58.5	62.8	60.4	60.7	58.5	62.8	60.7	64.7	60.1	60.5	58.5	65.2	62.5	62.8	60.1
7	Plant main gate	60.5	58.2	62.3	58.2	60.6	57.6	65.5	63.4	68.6	66.2	67.9	62.6	60.5	57.6	68.6	66.2	64.2	61.0
8	General Store	62.2	60.7	60.3	56.4	62.5	58.8	64.6	62.7	65.9	63.8	62.6	59.5	60.3	56.4	65.9	63.8	63.0	60.3

Sl. No.	Location Name	Oct-22 (dB) Leq	Nov-22 (dB) Leq	Dec-22 (dB) Leq	Jan-23 (dB) Leq	Feb-23 (dB) Leq	Mar-23 (dB) Leq	Minimum (dB) Leq	Maximum (dB) Leq	Average (dB) Leq
		(dB) Leq	(dB) Leq	(dB) Leq	(dB) Leq	(dB) Leq	(dB) Leq	(dB) Leq	(dB) Leq	(dB) Leq
1	Lime Stone Crusher	78.6	82.5	84	82	80	82	78.6	84	81.5
2	Kiln Cooler	80.5	80.6	82	80	82	80	80	82	80.9
3	Kiln Platform	79.6	78.5	80	78	76	74	74	80	77.7
4	Power Plant	50.6	50.2	52	56	58	60	50.2	60	54.5
5	Coal Yard	64.3	60.6	62	64	66	64	60.6	66	63.5
6	Slag yard	60.7	62.5	64	66	68	66	60.7	68	64.5
7	Gypsum yard	62.8	63.7	61	62	64	68	61	68	63.6
8	Raw mill proportioning hopper	70.8	68.5	70	74	72	74	68.5	74	71.6
9	coal mill	72.7	72.8	73	72	70	72	70	73	72.1
10	Near silo clinker loading point	74.3	68.5	70	73	71	73	68.5	74.3	71.6
11	CM-1 weigh feeder	70.4	70.2	72	75	74	78	70.2	78	73.3
12	CM-2 weigh feeder	72.2	73.7	75	78	76	76	72.2	78	75.2
13	Cement silo Packer-1	80.4	80.6	82	84	82	80	80	84	81.5
14	Cement silo Packer-2	72.6	72.4	76	75	73	74	72.4	76	73.8
15	Cement silo Packer-3	76.5	73.6	78	80	78	76	73.6	80	77.0
16	Cement silo Packer-4	78.5	80.5	81	82	80	73	73	82	79.2
17	Truck Loading point- 1	70	73	75	76	78	77	70	78	74.8
18	Truck Loading point- 2	72.4	68	70	72	73	75	68	75	71.7
19	Truck Loading point- 3	73.6	72.8	74	76	75	78	72.8	78	75.2
20	Truck Loading point- 4	73.7	74.5	75	78	77	76	73.7	78	75.7
21	Slag mill weigh feeder	68.5	66.5	68	70	71	73	66.5	73	69.5

Monitored by  
  
Vinil Kumar Sharma

Checked by  
  
Vinil Kumar Sharma

**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-2022 to March-2023

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	Oct-22	902.8	752.6	867.0	1055.9	583.3	574.6	695.5	1030.6
2	Nov-22	897.4	821.6	1046.8	931.6	565.6	580.6	906.0	861.1
3	Dec-22	1004.5	1012.8	937.8	1082.8	579.2	597.9	1056.1	1146.5
4	Jan-23	901.2	811.2	1015.3	968.1	713.4	603.6	1031.4	1278.7
5	Feb-23	737.7	940.9	1323.1	1045.2	811.6	1059.8	1247.8	1331.8
6	Mar-23	1056.4	1231.8	1459.4	1215.5	1007.3	953.8	1139.8	1188.9
	Minimum	737.74	752.58	866.99	931.65	565.60	574.60	695.51	861.05
	Maximum	1056.45	1231.84	1459.39	1215.51	1007.30	1059.81	1247.76	1331.82
	Average	916.67	928.48	1108.24	1049.87	710.08	728.38	1012.75	1139.60

  
Vinit Patel  
Monitored by

  
Vinit Kumar Sharma  
Checked by





# SCIENTIFIC & INDUSTRIAL RESEARCH CENTRE

#91/43, 1<sup>st</sup> Floor, 8<sup>th</sup> cross Goraguntepalya, Yeshwantpur Industrial area, Bangalore-560022.

E-mail: sircbangalore@yahoo.com. www.sircblr.in

Mob: 8494900231, 8892972297, 9632917186.

Recognized by MoEF & CC.

ISO 9001:2015 & ISO 45001:2018 Certified Laboratory.

## TEST REPORT

<b>Name and Address of Customer:</b>	<b>Report Date:</b> 26/02/2023
<b>M/s. JK Cement Works, Muddapur</b>	<b>Date of Receipt of sample:</b> 22/02/2023
(Unit : J.K. Cement LTD.,)	<b>Test Report No:</b> SIRC/2023/02/4925-4932
Muddapur -587122 Distt. Bagalkot	<b>Test Completed on:</b> 22/02/2023
(Karnataka) India	
<b>Test Performed On:</b> 22/02/2023	

## RESULTS

Sample Collected By	Sample Nature	Sample Location	Sample Condition on Receipt
SIRC	Fugitive Emission Monitoring	Mentioned Below	Satisfactory

Job Code	Locations	SPM (ug/m3)	Fugitive emission standard as per CPCB
4925	Near slag Storage shed	1645.3	5000µg/m3
4926	Near Gypsum Storage Shed	1232.5	
4927	Near Cement Mill Area	1303.3	
4928	Near Laterite Storage Area	1287.5	
4929	Near Cement Plant Coal Storage Shed	1580.4	
4930	Near Lime Stone Crusher area	1645.9	
4931	Near Packing Plant area	1298.4	2000µg/m3
4932	Near CPP Coal storage shed	1249.9	

**AUTHORIZED SIGNATORY**

Sateesh G Muttagi  
Technical Manager

## NOTE

1. The results listed refer only to the tested samples & applicable parameters. Endorsement of product is neither inferred nor implied.
2. Samples will be destroyed after specified retention time.
3. This report is not to be reproduced wholly or in part & cannot be used as evidence in the court of law & should not be used in any advertising media without our special permission in writing.
4. Sample(s) not drawn by us unless otherwise stated.
5. Total liability of our laboratory is limited to the invoice amount. Any dispute arising out of this report is subjected to Bangalore Jurisdiction only.

\*\*\*\* We Provide Environmental Services \*\*\*\*

Annexure-6

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

(Unit: J.K. Cement Ltd.)

**EFFLUENT WATER ANALYSIS REPORT (Monthly Average) FOR THE MONTH OF OCTOBER-2022 TO MARCH-2023**

Constituents	Suspended Solids (mg/L)	Temperature (°C) max	pH value	Oils and Grease (mg/L)
Permissible limit				
Oct-22	PLANT SHUT DOWN			
Nov-22				
Dec-22				
Jan-23				
Feb-23				
Mar-23				
Half Avg	#DIV/0!	#DIV/0!	#DIV/0!	Nil
Half Minimum	0.0	0.00	0.00	Nil
Half Maximum	0.0	0.00	0.00	Nil

  
Vani Patil  
Monitored by

  
Vinit Kumar Sharma  
Checked by





# SCIENTIFIC & INDUSTRIAL RESEARCH CENTRE

#91/43, 1<sup>st</sup> Floor, 8<sup>th</sup> cross Goraguntepalya, Yeshwantpur Industrial area, Bangalore-560022.

E-mail: sircbangalore@yahoo.com. www.sircblr.in

Mob: 8494900231, 8892972297, 9632917186.

Recognized by MoEF & CC.

ISO 9001:2015 & ISO 45001:2018 Certified Laboratory.

## STP WATER ANALYSIS REPORT

<b>Name and Address of Customer:</b>			<b>Date of Receipt of sample:</b> 25/02/2023		
<b>M/s. JK Cement Works, Muddapur</b>			<b>Test Performed On:</b> 25/02/2023		
(Unit: J.K.CementLTD.,) Muddapur -587122 Dist. Bagalkot (Karnataka) India			<b>Test Completed On:</b> 05/03/2023		
			<b>Report Date:</b> 05/03/2023		
			<b>Test Report No:</b> SIRC/2023/02/4994		
Sl. No	Parameters	Protocol	Result		Standards As per IS :3025
			STP In Let	STP Out Let	
1.	pH	APHA 23 <sup>rd</sup> Edition-2017, 4500H+B	7.33	8.2	6.5-9.0
2.	Total Suspended Solids	APHA 23 <sup>rd</sup> Edition-2017, 2540 D	25	12	20
3.	BOD, mg/lt, 3 days at 270 C	APHA 23 <sup>rd</sup> Edition- 2017, 5210B	42	6.2	10
4.	COD, mg/lt	APHA 23 <sup>rd</sup> Edition- 2017, 5220B	121	19.5	50
5.	Ammonical Nitrogen mg/lt	APHA 23 <sup>rd</sup> Edition-2017, 4500 NH <sub>3</sub> C	3.6	1.7	05
6.	Phosphorous as P	APHA 23 <sup>rd</sup> Edition-2017, 4500 P D	1.28	0.55	2
7.	Total Nitrogen mg/lt	APHA 23 <sup>rd</sup> Edition-2017, 4500- NO <sub>3</sub> E, 4500 NH <sub>3</sub> C, 4500Norg	6.9	4.5	10
8.	Faecal Coliforms, cfu/100ml	APHA 23 <sup>rd</sup> Edition-2017, 9222 D	Present	Absent	250

**AUTHORIZED SIGNATORY**

Dr. Siddalingeshwara K G

Quality Manager

### NOTE

1. The results listed refer only to the tested samples & applicable parameters. Endorsement of product is neither inferred nor implied.

2. Samples will be destroyed after specified retention time.

3. This report is not to be reproduced wholly or in part & cannot be used as evidence in the court of law & should not be used in any advertising media without our special permission in writing.

4. Sample(s) not drawn by us unless otherwise stated.

5. Total liability of our laboratory is limited to the invoice amount. Any dispute arising out of this report is subjected to Bangalore Jurisdiction only.

\*\*\*\*\* We Provide Environmental Services \*\*\*\*\*

### Annexure-7

#### EXPENDITURE ON THE ENVIRONMENTAL MANAGEMENT PLAN FOR PERIOD FROM OCTOBER 2022 TO MARCH 2023

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.	1146.51
Fly ash Silo's and ash handling systems.	57.53
Emission Monitoring equipment (including online emission monitoring equipment (CEMS) at sources and ambient air quality in the vicinity) and laboratory.	20.89
Green Belt Development, Sewage Treatment plant and Water Harvesting Schemes for plant.	45.08
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.	4185.03
Other environmental management costs (AFR system operation, odour control, environmental training/Award, SNCR system CPP, Environmental License Fees).	762.38
<b>TOTAL (Rs in Lakhs)</b>	<b>6217.43</b>

  
Prepared by

  
Checked by



## Annexure-8

## JK CEMENT WORKS, MUDDAPUR

DETAILS OF CSR ACTIVITY UNDERTAKEN DURING OCTOBER-2022 TO MARCH-2023		
SL NO	Particulars	Amount (RS)
1	Health Camp at nearby village Halki	85,000
2	Running and maintenance of Sir Padampat School	1,165,243
3	Education aid and support	59,055
4	Pooja/ Fair/Festival/temple contributions	1,199,352
5	Rural development & other welfare activities	139,699
Total		2648349

Prepared by



Checked By

