



J.K. Cement WORKS

MUDDAPUR

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

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Fax : +91-8350-289001
E-mail : factory.muddapur@jkcement.com

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

No. - JKCW/ENV./CFO (Plant)/60/13

Date: 08-09-2020

To
The Member Secretary
Karnataka State Pollution Control Board,
"Parisar Bhavan" 4th & 5th Floor,
49, Church Street, Bangalore- 560 001

Subject- Environmental Statement Report for the financial year April-2019 to March-2020


Ref: 1- Notification no. G.S.R. 329(E), dated 13.03.92. and G.S.R. 386(E), dated 22.4.93
2- Combined Consent Order No. AWH-301684 dated 19-12-2016

Dear Sir

With reference to the above, please find herewith enclosed Environmental Statement Report (Form-V) of J.K. Cement Works, Village- Muddapur, Dist. - Bagalkot (Karnataka) for the financial year **2019-2020**.

Thanking you,

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


R.B.M. Tripathi
(Unit Head)

Encl:

- 1- Environmental Statement in duly filled Form-V
- 2- Treated waste water of Captive Power Plant analysis report as per annexure-1
- 3- Treated STP waste water analysis report as per annexure-2
- 4- Ambient air quality monitoring report as per annexure-3
- 5- Stack emission monitoring report as per annexure-4
- 6- Fugitive emission monitoring report as per annexure-5
- 7- Noise monitoring report as per annexure-6

CC:

- 1- The Addl. Principle Chief Conservator of Forest (C), Ministry of Environment & Forests, Regional Office (South Zone), Bangalore- 560034
- 2- Scientist 'E' & In-charge, Central Pollution Control Board, 1st & 2nd Floors, Nisarga Bhavan, A-Block, Thimmaiah Main Road, 7th D Cross, Shivanagar, Bengaluru -560 079
- 3- Environment Officer, Karnataka State Pollution Control Board, Bagalkot- 587 102



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FORM – V

ENVIRONMENTAL STATEMENT REPORT FOR THE FINANCIAL YEAR 2019-20

PART – A

(I)	Name & Address of the Owner / Occupier of the Industry Operation or Process	Mr. R.B.M. Tripathi (Unit Head) J.K. Cement Works (Unit: J. K. Cement Limited) Village- Muddapur, Taluka- Mudhol, District- Bagalkot (Karnataka)- 587122
(II)	Industry Category Primary (STC CODE) Secondary (SIC CODE)	Large Scale Red Category
(III)	Production Capacity	3.5 MTPA (Cement)
(IV)	Year of Establishment	Year 2009
(V)	Date of last Environmental Statement Submitted	11-09-2019

PART – B

Water & Raw Material Consumption and Cement Production

A. Water

- (i) Over All Consumption - N.A. (As plant is based on dry Process Technology)
- (ii) Process - Nil
- (iii) Cooling and power plant - 71310 KL
- (iv) Domestic - 28879 KL

Consumption per unit of production

Name of the Product	Process Water Consumption per unit of Product Output	
	During the Previous Financial Year (2018-19)	During the Current Financial Year (2019-20)
Cement (OPC, PPC, Slag) and Tile fixer adhesive	0.0378 m3/mt. of cement	0.0381 m3/mt. of cement

B. Raw Material Consumption in Cement production

Name of the Raw Material	Name of Product	Consumption of Raw Material per Unit Product Output (MT/MT of Cement)	
		During the Previous Financial Year (2018-19)	During the Current Financial Year (2019-20)
Lime Stone	Cement (OPC, Blended cement, PSC)	1.090	1.153
Iron-ore		0.020	0.022
Coal/Pet coke (Cement Plant)		0.057	0.056
Gypsum		0.021	0.025
Fly ash		0.316	0.326
Slag (for PSC)		0.537	0.669
Slag (for OPC)		0.049	0.050

Slag (for blended cement)		0.220	0.0
		Consumption of Raw Material per Unit Product Output (MT/KWH of Power)	
Coal/Petcoke (CPP)	Power	0.000933	0.001091

C. Total Cement & Clinker production (MT):

During the Previous Financial Year (2018-19)		During the Current Financial Year (2019-20)	
Clinker	1529047	Clinker	1607736
OPC	781417	OPC	865724
Blended cement	649137	Blended cement	829399
PSC	428942	PSC	175940

D. Total Tile fixer production (MT):

During the Previous Financial Year (2018-19)	During the Current Financial Year (2019-20)
822.180	0.0

E. Raw Material Consumption in Tile fixer production

Name of the Raw Material	Name of Product	Consumption of Raw Material per Unit Product Output (MT/MT of Cement)	
		During the Previous Financial Year (2018-19)	During the Current Financial Year (2019-20)
Cement Consumption	Tile fixer adhesive	0.364	0.0
Ground stone powder		0.624	0.0
Polymer and product performance enhance		0.012	0.0

F. Total Power production from Captive Power Plant (KWH):

During the Previous Financial Year (2018-19)	During the Current Financial Year (2019-20)
119861270	111502740

G. Total Power consumption in Cement plant (KWH/Ton of Cement):

During the Previous Financial Year (2018-19)	During the Current Financial Year (2019-20)
68.07	65.7

H. Total Power consumption in Tile fixer adhesive production (KWH/Ton of Tile fixer adhesive):

During the Previous Financial Year (2018-19)	During the Current Financial Year (2019-20)
6.33	0.0

I. Total Power consumption in Captive Power Plant (KWH/ KWH of power production):

During the Previous Financial Year (2018-19)	During the Current Financial Year (2019-20)
0.0835	0.0792

PART - C

Pollutant Discharged to Environment / Unit of Output

(Parameters as specified in the consent issued)

S. No.	Pollutants	Quantity of Pollutants Discharged (Mass / day) (tonne/day)	Concentrations of Pollutants in discharged (Mass / Volume) (kg/m ³)	Percentage of variation from prescribed standard with reasons
(a)	Water	<p>As the plant is being operated on dry process technology, no liquid effluent is generated from the cement plant process.</p> <p>Waste water generated from Captive power plant is treated in neutralization pit and after neutralization, it is used for dust suppression, gardening and cooling purpose. Report of treated water is attached as Annexure-1</p> <p>Domestic waste water generated from residential colony is treated in STP and treated water is used in existing cement plant for cooling purpose and gardening. Report of treated waste water of STP is attached as Annexure-2</p>		
(b)	Air	<p>Please refer Annexure- 3 (Ambient air quality monitoring), Annexure- 4 (Stack emission monitoring), Annexure- 5 (Fugitive emission monitoring) and Annexure- 6 (Noise monitoring)</p>		

PART – D

(As specified under Hazardous waste / Management and Handling rules, 1989 as Amended -2016)

Hazardous Waste		Total Quantity (KL)	
		During the Previous Financial Year (2018-19)	During the Current Financial Year (2019-20)
(a) From Process	(a) Category 5.1- Used Oil	Generated Quantity in 2018-19 = 19.116 KL including balance qty. of 2017-18 i.e. 7.52 KL. Out of 19.116 KL, Qty. 8.516 KL Used oil used in own cement plant and Qty. 10.600 KL was sold out to authorized recycler.	Generated Quantity in 2019-20 = 03.032 KL including balance qty. of 2018-19 i.e. 0.0 KL. Out of 03.032 KL, Qty. 02.122 KL Used oil used in own cement plant and stored at end of financial year 2019-20, 0.91 KL was in stock.
	(b) Category 5.2- Oil soaked cotton waste	Oil Soaked Cotton Waste generation was 0.016 MT and it was disposed of in own cement kiln.	Oil Soaked Cotton Waste generation was Nil.
	(b) Category 5.2- Oil Filter	Oil filters generation- NIL	Oil filters generation- NIL
(b) From Pollution Control Facilities	Nil	Nil	Nil

Co-Processing of Hazardous Waste in 2019-20-

Sl. No.	Name of Hazardous waste	HW. Cat.	Qty. Receipt in 2019-20 (in MT)	Qty. Consumed (in 2019-20) (in MT)	Quantity in stock at the beginning of the year (in 2019-20) (in MT)	Quantity in storage at the end of the year in 2019-20 (in MT)
1	Sludge containing residual pesticide	29.2	0	0	0	0
2	Sludge from treatment of wastewater arising out of cleaning/disposal of barrels/containers	34.2	0	0	0	0
3	Exhaust air or gas cleaning residue	35.1	14.695	0	0	14.695
4	Chemical sludge from waste water treatment	35.3	869.69	883.36	33.919	20.249
5	Tarry residues	1.2	0	0	0	0
6	Process waste sludge/residues containing acid, toxic metals, organic compounds	26.1	0	0	0	0
7	Dust from air filtration system	26.2	0	0	0	0
8	Process residues	22.2	0	0	0	0
9	Spent carbon	28.3	12.851	0	0	12.851
10	Process wastes, residues and sludges	21.1	78.962	51.87	0	27.092
11	Process residue and wastes	28.1	541.745	493	3.309	52.054
12	Off specification products	28.4	443.688	450	47.391	41.079
13	Date expired products	28.5	221.273	183.324	1.496	39.445
14	Process wastes or residue	29.1	3689.48	3674.81	2.93	17.6
15	Empty Barrels/liners contaminated with hazardous chemicals/wastes	33.1	223	200	20.48	43.48
16	Chemical containing residue arising from de-contamination	34.1	7.12	0	0	7.12
17	Oily Sludge emulsion	4.1	371.1	523	152.295	0.395
18	Wastes or residues containing oil	5.2	4.58	0.3	0	4.28
19	Plating metal sludge	12.8	0	0	0	0
20	Any process/ distillation residue	36.1	26.37	10	0	16.37
21	Spent carbon or filter medium	36.2	1.54	0	0	1.54
22	Sludge from wet scrubbers	37.1	0	0	0	0

23	Concentration or evaporation residue	37.3	0	0	0	0
24	Carbon residue	18.2	0	0	0	0
25	Decanter tank Tar sludge	13.4	0	0	0	0
26	Phosphate sludge	12.5	0	0	0	0
27	Wastes or residues/ FRP waste (Not made with vegetable or animal materials).	23.1	3.308	0.283	0	3.025
28	Benzol acid sludge	13.3	0	0	0	0
29	Cathode residues including pot lining wastes	11.2	0	0	0	0
30	Sludge from acid recovery unit	13.2	0	0	0	0
31	Process residues	7.2	0	0	0	0
32	Spent clay containing oil	4.5	38.04	47	27.68	18.72
33	Distillation residues	20.3	0	0	0	0
34	Organic residues from process	4.4	0	0	0	0
35	Spent catalyst	4.2	472.83	457	181.85	197.68
36	Used/ Spent Oil, Waste grease/ oil (In house generated)	5.1	0	0	0	0
37	Spent Solvent	21.2	0	0	0	0
38	Process Residue	22.2	0	0	0	0
39	Spent catalyst	28.2	0	0	0	0
40	Organic Spent Solvents	28.6	24.8	9	0	15.8
41	Ash from incinerator and flue gas cleaning residue	37.2	0	0	0	0
42	GEIPL Solid Waste	--	29.89	29	0	0.89
43	GEIPL Liquid Waste	--	149.18	149.18	0	0
44	RSPL Liquid Waste	--	6694.945	6694.945	0	0.125

Co-Processing of Non-Hazardous Waste in 2019-20-

S. No	Waste Name	Quantity in stock at the beginning of the year 2019-20	Quantity of waste received during the year 2019-20	Quantity recycled or co-processed or used during the year 2019-20	Quantity in storage at the end of the year 2019-20
1	Coal Dust	66.68	442.23	508	0.91
2	Char Dust	-	49.14	-	49.14
3	Dolochar AFR	-	6,197.20	5,902.32	294.88
4	Carbon Black Crumb Powder	-	-	-	-
5	Non Hazardous Liquid Waste	-	77.38	77	0.38
6	Boiler Ash(Non Hazardous Waste)	2.105	35.495	23	14.6

7	RDF	7.83	15,657.00	13,520.00	2,144.83
8	Non Hazardous Solid Mix Waste	36.69	147.97	111	73.66
9	Non Hazardous Solid Waste	42.225	289.51	255	76.735
10	MSW	588.82	12,345.48	10,679.90	2,254.39
12	In-house Collection	383.29	2,051.36	2,132.00	302.65
13	Shreds Tyre Chips Size 100	-	-	-	-
14	Low CV PPF Oil	-	54.88	54	0.88
15	Rejected POP Material	-	50.8	-	50.8
16	BBD- COCA COLA AFR	-	717.715	-	717.715

Quantity of e-waste under E-Waste (Management) Rules, 2016- We have disposed following quantity of e-waste to authorized recycler in 2019-20:

S. No.	E Waste Name	E waste quantity in stock at the beginning of the year 2019-20	E waste quantity generated during the year 2019-20
1	E-SCRAP	141 kg	3099 kg

Batteries (Management and Handling) Rules, 2001 – We have purchased 187 nos. battery and disposed 07 Nos. used batteries to authorized dismantler in 2019-20.

PART – E Solid Wastes

Solid Waste		Total Quantity	
		During the Previous Financial Year (2018-19)	During the Current Financial Year (2019-20)
1 (a)	From Process (Fly ash from Captive Thermal Power plant)	<ul style="list-style-type: none"> ➤ NIL from Cement Plant ➤ Ash generated at our CPP (in MT)-27415.0 ➤ Out of 27415.0 MT, 27175 MT was used in own cement plant for Cement manufacturing and remaining 240 MT was used for In-house civil flooring work. 	<ul style="list-style-type: none"> ➤ NIL from Cement Plant ➤ Ash generated at our CPP (in MT)- 23948.0 ➤ Out of 23948.0 MT, 21798 MT was used in own cement plant for Cement manufacturing and remaining 2150 MT was used for In-house civil flooring work.

1 (b)	Fly ash from other Thermal Power plant/KPCL	Ash procured from NTPC, RTPS /BTPS or outside source (in MT)-202745.0	Ash procured from NTPC, RTPS /BTPS or M/s JSW source (in MT)-137206.0
2	From Pollution Control facilities	Dust collected in ESP, Bag House and Bag Filters are recycled back into the process.	Dust collected in ESP, Bag House and Bag Filters are recycled back into the process.
3	(i) Qty. recycled or reused within the unit.	Fly ash generated in Captive power plant sent to own cement plant for cement manufacturing and dust collected in APCD were re-used 100% in cement manufacturing.	Fly ash generated in Captive power plant sent to own cement plant for cement manufacturing and dust collected in APCD were re-used 100% in cement manufacturing.
	(ii) Sold	Nil	Nil
	(iii) Disposed	Nil	Nil

PART – F

PLEASE SPECIFY THE CHARACTERISATIONS (IN TERMS OF COMPOSITION AND QUANTUM) OF HAZARDOUS AS WELL AS SOLID WASTES AND INDICATE DISPOSAL PRACTICE ADOPTED FOR BOTH THE CATEGORIES OF WASTES.

Hazardous waste: only Used oil/waste oil, oil soaked cotton waste and oil filters are generated from plant as hazardous wastes. Hazardous waste i.e. used oil is drained from Machineries / Equipments of the different sections of plant. It is collected in empty drums and barrels and stored at hazardous waste storage site. We have obtained permission from KSPCB for Co-processing above said hazardous wastes.

Solid waste: Dust collected in pollution control equipment is recycled back in cement manufacturing process and fly ash generated in Captive Thermal Power Plant is used in cement manufacturing in own cement plant. Besides it, Sewage Treatment Plant's Sludge is used as manure in gardening. Hence, there is no solid waste generated during the process of cement manufacturing and others.

PART – G

IMPACT OF THE POLLUTION ABATEMENT MEASURES TAKEN ON CONSERVATION OF NATURAL RESOURCES AND ON THE COST OF PRODUCTION.

Following measures have been adopted for abatement of pollution, conservation of natural resources:-

Conservation of limestone-

Limestone is being used for the manufacturing of cement by the proper blending of different grade of limestone for preparation of proper raw mix design which can be produced a good

quality of cement. The raw mix design has been prepared in such a way that it reduces the limestone stone saturation factor by which substantial quality of limestone has been conserved. In the same manner as per the Regulation of Bureau of Indian Standard we are also using the fly ash in grinding of cement manufacturing up to 30% of the total cement manufactured which ultimately reduces the raising of limestone from mines. By reduction of consumption of limestone in cement manufacturing process it also leads to the reduce the consumption of fossil fuel and it ultimately reduce the quantity of generation of different pollutant like suspended particulate matter, emission of SO₂ and NO_x, fugitive emission from various stages of handling of limestone (Drilling to Grinding stages). Substantial quantity of electrical and thermal energy has been also saved.

Utilization of fly ash for the manufacturing of cement-

We have a Captive Power Plant having capacity of 25 MW X 2. The fly ash generated from it, is stored in hopper and from there, it is conveyed to cement plant through completely covered truck. In cement plant, it is being stored in closed silos. From Truck to Silo, Fly ash is conveyed through pneumatic system and from silo, it is directly fed in cement mill for the cement grinding process.

Use of STP treated water for the gardening purpose-

We have latest and advance technology based Sewage Treatment Plant. A sewage treatment plant has been envisaged on the basis of flow rate- 75 KL per day. The total quantity of treated water is being used in gardening and dust suppression.

Extensive plantation in and around the plant-

We have a horticulture officer for the forestation and greenery development program at our plant and mines under the supervision of senior experienced person.

Financial Year	No. of Plantation in Cement plant and Colony area
2007-2008	500
2008-2009	2242
2009-10	2317
2010-11	5040
2011-12	5483
2012-13	26687
2013-14	41808
2014-15	10104
2015-16	11739
2016-17	1394
2017-18	9456
2018-19	6359
2019-20	15275

Total area covered from plantation up to 31 March 2020 = 93.82 Acres which is 36.31% of total land area (258.37 Acre).

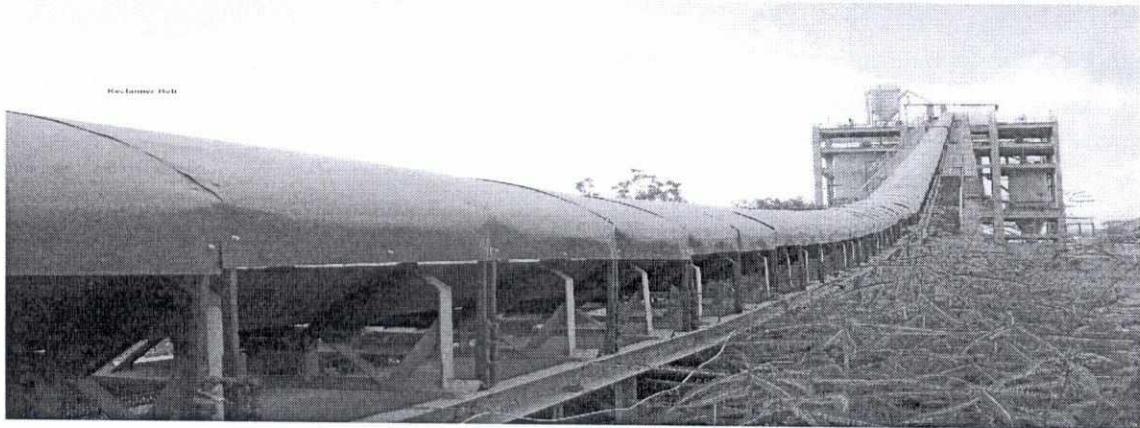
Covering of raw materials-

- i- All the raw material is being stored in the covered yards if in case any raw material stored in ground that time it is covered by tarpaulin. For example, please see picture. 1.



Picture 1- Raw material stored in covered manner

ii- The conveyor belts are fully covered. For example, please see picture. 2.



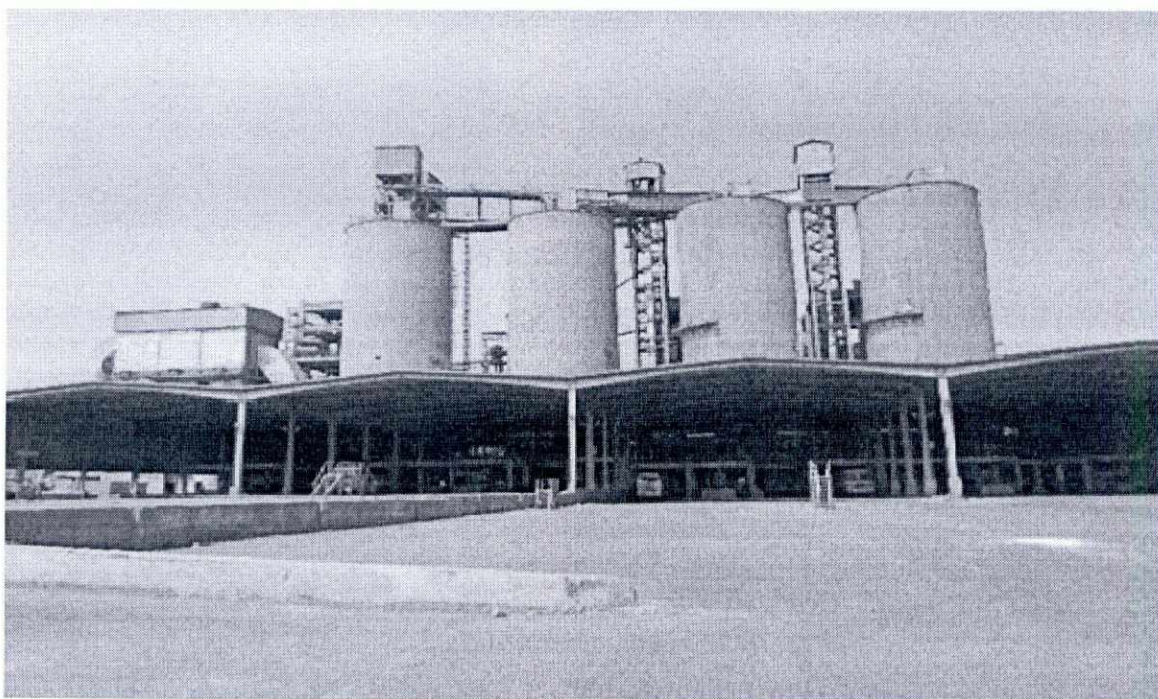
Picture 2- Covered raw material belt conveyor

iii- Clinker and cement is being stored in the covered silos. For example, please see picture. 3.

iv- CPPs treated water is being utilized for the regular road water spraying.

Concreting of Kachcha roads/floor-

Maximum roads of plant and colony are being concreted / paved as well as flowers and plantation is being done side by the roads for the beautification. Development of plantation and greenery along the road and unused areas. Cemented flooring work is being done in kiln and raw mill section.



Picture 3- Cement stored in Silos

Scheduled maintenance and monitoring of Pollution Control Devices-

All the Pollution Control Devices have been maintained as per scheduled maintenance by dedicated environmental management team which is comprises of mechanical, electrical and environmental officers and monitoring of all these have been done regularly as per PCB Norms.

The list of major Pollution Control Devices installed is as under:-

Sr. No.	Pollution Control Devices attached with	Pollution Control Devices installed
1	Limestone Crusher	Bag Filter
2	Raw Mill/Kiln	Bag House
3	Coal Mill	Bag Filter
4	Raw Material Transport System	Bag Filter
5	Cooler	Electro Static Precipitator
6	Clinker transport	Bag Filter
7	Clinker Storage	Bag Filter
8	Cement Mill, 2 Nos.	Bag Filter
9	Cement Mill Separator venting, 2 Nos.	Bag Filter
10	Packing Plant, 4 Nos.	Bag Filter
11	Coal crusher	Bag Filter
12	CPP	Electro Static Precipitator
13	Stack attached to slag grinding unit	Bag Filter

Modifications for the year 2019-20 for energy conservation and better environment-

Sr. No.	Energy efficiency improvement measures (EEIM)	Energy Saving (Kwh)
1	Installation of VFD in PACKER NO- IV Bagfilter fan and reduce fan speed 80%	7665

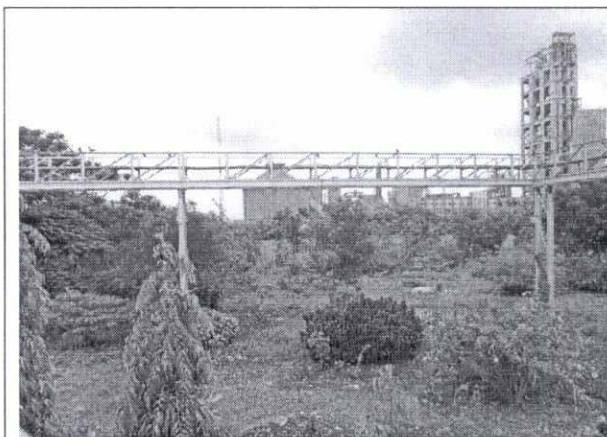
2	CM-1 Vent bag filter hopper discharge air slide replaced by duct.	5760
3	Cement Mill -3 Roller lubrication pump connection changed from Delta to star.	8640
4	Raw mill dam ring optimization.	427680
5	55 kw vertical turbine pump replaced in to 37kw vertical turbine pump for same working conditions.	95040
6	Increased the angle of discharge chute & clay chute of Cement Mill-3 through modification.	2000
7	Cement Mill -1&2 mill Inlet seal air fan and Lubrication pump motor connection changed from Delta to star.	23040
8	Optimization of recirculation circuit running of Packer No-II	9307.5
9	Optimization of main bag fan filter fan speed of Packer No-II & IV	8212.5
10	Cooler Fan K-31 motor de-rating for Energy Conservation purpose.	66528
11	Provided Auto start logic for Coal Reclaimer	9990
12	Optimization Main burner transport air.	47520
13	Reduction of CM-3 Fan Cone gap by putting felt inside to increase the efficiency by 3%	110880
14	Preheater Fan tipping to increase the PH Sp. Air.	6788.57
15	Coal crusher by pass installation	40075.2
16	Calcliner firing blower Flow optimization through VFD installation.	105600
17	Raw mill Seperator stator gap optimisation	68640
18	Coal Mill booster fan motor de-rating	42240
19	Installation Raw mill RAL bypass system	20000
20	Reduce power consumption in OPC bulk loading bag filter fan	7300
21	Cement Mill-3 (VRM) Seperator stator gap optimisation	63360
22	Cement Mill-3 (VRM) Bag house Fan Damper removal.	237600
23	Cement mill MCC room P&V system power optimization.	52560
24	Kiln feed bin aeration blower speed reduction.	12460.8
25	Slag mill Triple flap gate IE3 Motor changed in place of IE2 motor	43200
26	Cement Silo-4 discharge air slide fan was 5.5 KW motor changed the fan with 3.7 kw motor.	8100
27	Single service air compressor is only running to cater the air requirement, instead of both Instrument & Service air compressor. (100 % Indonesian coal firing)	108000
28	VFD installation to the ACC fan no-5 (Unit-1)	60000
29	Leakages present across compressor airline, leading to more loading hours of compressor.	9600
30	VFD installation to the FD Fan motor	288000
31	Both Muffle furnace and Hot Air Oven Switching OFF practice implemented.	33000
32	Optimization done in PA fan discharge header pressure (from 1050 mmWC to 1000 mmWC)	52800
33	CHP crusher house DE system – Bag filter fan motor Pulley Dia reduction (300 mm to 200 mm)	24000
34	Air washer fan motor Pulley Dia reduction (220 mm to 165 mm)	21600
35	Bed Material charging done through newly installed higher dia 8" pipe instead of old lesser dia 6 " pipe, which is resulting in reduction of bed charging time from 90 minutes to 45 minutes.	6750

36	Replacement of old model cooling tower fan set by newly designed Aerodynamic technology lighter weight epoxy Energy Efficient FRP fan set.	6480
37	Reduced the set point of Hopper Heater temperature (105°C to 90°C) of all ESP field.	7200
38	Replacement of Conventional Light by LED Light (36 W / 20 W) - WTP Control room & QC lab	937
39	Replacement of Conventional Light by LED Light (400 W / 120 W), Boiler Bunker floor - 400 W light had been switched off	1843
40	Replacement of Conventional Light by LED Light (120 W / 30 W)	864
41	Export Power Control Logic implemented to control free cost power export from CPP to grid.	525000
42	Optimization done in ACW pump VFD set points.	11200
43	Optimization done in CEP pump VFD set points.	12600
44	Boiler Feed pump operation under auto mode cascade logic implemented	36000
45	Split AC temperature setpoint raised	600
46	CEP operation under Auto mode cascade logic implemented	6000
47	Optimization - FD Fan air flow	30000
48	Exhaust heat extraction from the VFD Panel	3420
49	VFD optimization in the ACC Fan (02 no, from setpoint 50 % to 48 %)	2560
50	VFD optimization in the ACC Fan (05 no, from setpoint 48 % to 42 %)	7200
51	Replacement of Old model ACC Fan by Aerodynamic technology Energy Efficient light weight Epoxy FRP Fan set (04 no.)	65280
52	Replacement of Conventional Light by LED light (120 W / 20 W)	504
53	Replacement of Conventional Light by LED Light (400 W / 20 W)	1051
54	VFD installation to the ACC Fan no. 03	13040
55	Blending of Rice Husk along with Indonesian coal	40
56	Replacement of ACC 07th cell Fan motor 132 KW by 110 KW	1000
57	Replacement of Old model ACC Fan by Aerodynamic technology Energy Efficient light weight Epoxy FRP Fan set (02 no.)	16320
	Total Energy saving (In Kwh)	2883076

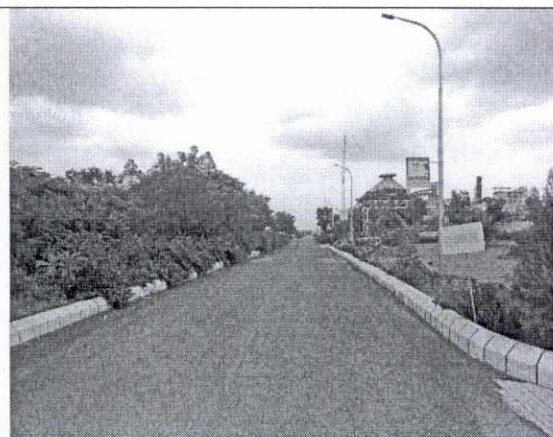
PART – H

ADDITONAL MEASURES / INVESTMENT PROPOSALS FOR ENVIRONMENTAL PROTECTION INCLUDING ABATEMENT POLLUTION, PREVENTION OF POLLUTION.

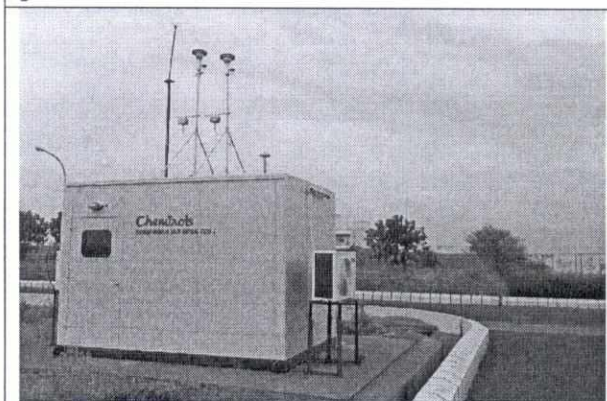
- 1- Green belt development and tree plantation is our ongoing process. We are continuously doing the plantation in and around the cement plant, power plant, colony and mines area. For example, please see the pictures 4 & 5.
- 2- We have installed 2 Nos. continuous ambient air quality monitoring systems (CAAQMS). Please see the picture of one instrument in Picture 6.
- 3- We have installed 6 Nos. continuous emission monitoring systems (CEMS). Please see the picture of one instrument in picture 7.
- 4- We have installed camera at captive power plant's waste water discharging point. Please see the picture of one instrument in picture 8.



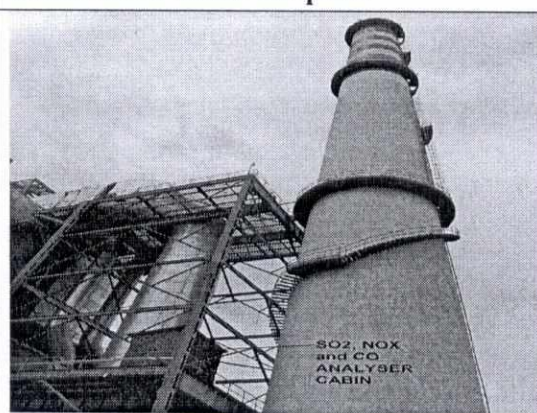
Picture 4- Plantation inside the Factory premises



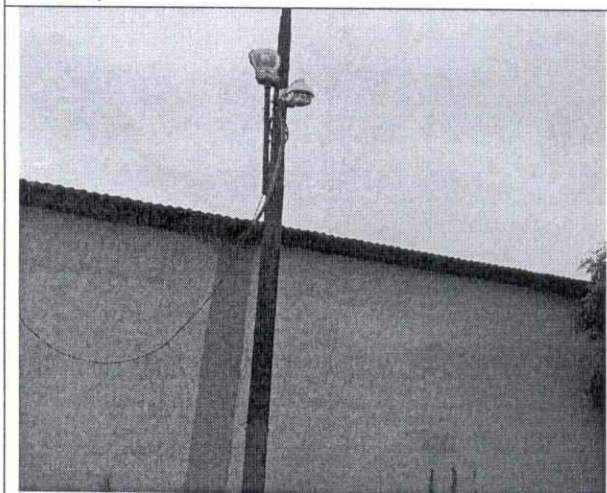
Picture 5- Plantation along with the road constructed inside the plant



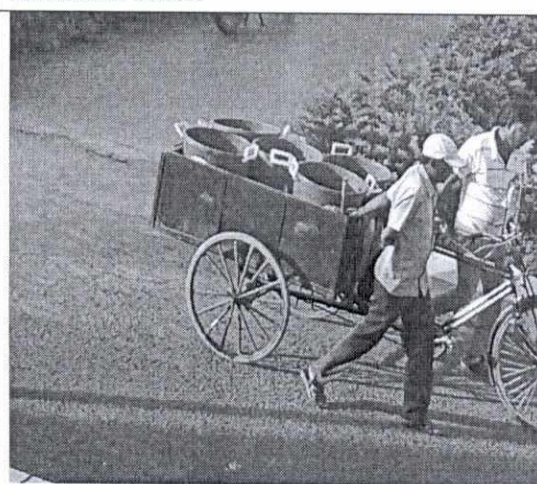
Picture 6- CAAQMS installed in Residential Colony



Picture 7- CEMS installed at Raw mill/Kiln stack



Picture 8- Camera installed at captive power plant's waste water discharging point



Picture 9- Waste collection system in colony

PART – I

ANY OTHER PARTICULARS FOR IMPROVING THE QUALITY OF ENVIRONMENT.

- 1- Domestic waste is collected and disposed properly. Please see the picture 9.

- 2- We have registered with Common Bio Medical Waste Disposal Facility, Bagalkot and disposing our Biomedical Waste with them. Please see the picture 10.



Picture 10- CBMWDF's Vehicle for collecting Bio Medical Waste

- 3- We have installed bar code system in dispensary for Bio medical waste management.
- 4- We have full-fledged Environment Department with three separate cells, one for monitoring and one for maintenance of pollution control equipment and one for Green Belt development.
- 5- Monitoring of stack emission, ambient air and water quality is being done regularly. Maintenance deptt. is regular checking and maintaining all the pollution control devices.
- 6- Domestic waste water is treated in STP and treated waste water is used for gardening.
- 7- Horticulture Department is taking care of tree plantation and green belt development.
- 8- Some committees have been formed by company i.e. Stoppage Analysis Committee, Spillage Study & Control Committee, Safety Committee, Task force committee for Scrap material and Committee of shining the plant area. These committees work to improve the environment in different ways.
- 9- Industry is taking energy conservation measures.
- 10- Company helps the engineering and management students to carry out their project works.
- 11- Fugitive dust, ambient air and Noise are being monitored regularly.
- 12- Surface water, treated waste water and ground water are being testing time to time.
- 13- Industry has been certified for standards ISO 9001: 2008, ISO 14001: 2004, OHSAS 18001, ISO 45001 and ISO 50001.
- 14- We have purchased 33173 MWh Renewable energy during F.Y. 2019-20.

For J.K. Cement Works, Muddapur (Karnataka)
(Unit: J.K. Cement Limited)


R.B.M. Tripathi
(Unit Head)


Annexure-1

J.K. Cement WORKS, MUDDAPUR (KARNATAKA)

(Unit: J.K. Cement Ltd.)

Effluent Water Analysis Report (Monthly Average) For The Month Of April-2019 To March-2020				
Constituents	Suspended Solids (mg/L)	Temperature (°C) max	pH value	Oils and Grease (mg/L)
Permissible limit	100	Unobjectionable	5.5 to 9	10
Apr-19	49.95	0.38	8.14	Nil
May-19	54.10	0.36	8.13	Nil
Jun-19	66.31	0.40	8.22	Nil
Jul-19	48.05	0.38	8.18	Nil
Aug-19	58.63	0.44	8.23	Nil
Sep-19	50.69	0.41	8.17	Nil
Oct-19	54.00	0.42	8.22	Nil
Nov-19	47.52	0.41	8.20	Nil
Dec-19	52.12	0.32	8.19	Nil
Jan-20	52.93	0.30	8.31	Nil
Feb-20	48.40	0.37	8.28	Nil
Mar-20	40.29	0.31	8.21	Nil
Yearly Average	51.9	0.37	8.21	Nil
Yearly Minimum	40.3	0.30	8.13	Nil
Yearly Maximum	66.3	0.44	8.31	Nil


Vairi Patil
Monitored by


Dr. Saurabh Kumar
Sr.Mgr(Env)

Annexure-2

J.K. Cement WORKS, MUDDAPUR (KARNATAKA)

(Unit: J.K. Cement Ltd.)

STP Water Analysis Report (Monthly Average) for the Month of April-2019 to March-2020									
Sl.No.	Month	Suspended Solids	PH	BOD	COD	NH4-N	N-total	Fecal Coliform	PO4-P,
	Tolerance limit	10	6 to 9	10	50	5	10	<230	2
1	Apr-19	7.80	6.60	6.31	32.37	4.08	7.02	Nil	0.74
2	May-19	8.10	7.26	6.79	25.80	3.83	7.19	Nil	0.80
3	Jun-19	8.03	7.51	6.68	24.92	4.64	7.21	Nil	0.80
4	Jul-19	8.73	7.15	7.14	25.12	4.03	6.70	Nil	0.82
5	Aug-19	8.16	7.02	7.10	29.16	4.13	7.18	Nil	0.60
6	Sep-19	7.94	7.40	7.01	31.09	3.77	7.56	Nil	0.84
7	Oct-19	7.93	7.25	7.03	37.55	3.97	7.43	Nil	0.86
8	Nov-19	8.17	7.33	7.94	35.50	3.50	6.61	Nil	0.79
9	Dec-19	8.08	7.31	6.88	28.53	3.35	7.02	Nil	0.77
10	Jan-20	8.26	7.42	6.73	33.41	3.39	7.49	Nil	0.78
11	Feb-20	7.98	7.26	6.38	33.55	3.85	7.51	Nil	0.76
12	Mar-20	7.97	7.16	8.02	28.39	3.77	7.46	Nil	0.79
Yearly Minimum		7.80	6.60	6.31	24.92	3.35	6.61	Nil	0.60
Yearly Maximum		8.73	7.51	8.02	37.55	4.64	7.56	Nil	0.86
Yearly Average		8.10	7.22	7.00	30.45	3.86	7.20	Nil	0.78


Vani Pathi
Analysed by

Dr.Saurabh Kumar
Sr.Mgr(Env)


Kumar

J.K. Cement Works, Village- Muddapur (Karnataka)

(Unit: J.K. Cement Ltd.)

Ambient Air Quality Monitoring Report for the period from April-2019 to March-2020

(All Values are in Micrograms / Cubic meter)

Month	Sl. No.	Date	Week	SO ₂				NO ₂				PM ₁₀				PM _{2.5}			
				Locations				Locations				Locations				Locations			
				Adm	D-Block	weigh bridge	Guest House	Adm	D-Block	weigh bridge	Guest House	Adm	D-Block	weigh bridge	Guest House	Adm	D-Block	weigh bridge	Guest House
A P R I L	1	3.4.2019	1st	2.8	5.0	6.8	3.8	5.5	17.5	9.8	10.8	53.2	60.6	66.0	66.0	12.5	25.0	25.0	45.8
	2	6.4.2019		1.3	4.2	5.7	5.8	4.5	15.5	7.5	11.5	33.6	43.9	57.0	57.0	16.7	25.0	25.0	29.2
	3	10.4.2019	2nd	6.5	3.2	7.8	7.5	8.2	12.0	12.7	12.7	45.2	49.9	58.0	46.4	12.5	29.2	29.2	37.5
	4	13.4.2019		6.5	4.3	7.5	5.0	7.5	17.5	10.2	13.7	46.6	54.6	69.1	52.8	16.7	29.2	29.2	25.0
	5	17.4.2019	3rd	3.0	4.7	6.5	6.2	5.2	16.3	10.8	12.2	40.9	57.0	58.1	73.8	29.2	33.3	33.3	20.8
	6	20.4.2019		8.3	5.8	5.3	6.5	20.3	23.7	12.5	9.8	48.2	75.0	67.4	67.9	33.3	25.0	25.0	25.0
	7	24.4.2019	4th	3.5	4.8	7.2	5.0	16.7	14.5	12.5	8.5	62.6	56.1	71.2	62.4	25.0	25.0	25.0	20.8
	8	27.4.2019		3.5	6.2	4.8	6.5	5.5	14.3	6.8	11.5	54.6	44.0	69.9	64.3	37.5	37.5	37.5	29.2
M A Y	1	1.5.2019	1st	4.2	8.3	8.0	8.2	7.0	12.3	16.3	16.8	87.4	83.4	65.9	59.9	12.5	29.2	25.0	29.2
	2	4.5.2019		5.0	5.5	7.8	7.5	6.7	10.7	17.0	17.0	79.0	78.3	59.7	53.7	20.8	25.0	29.2	25.0
	3	8.5.2019		9.2	7.7	8.0	6.8	11.7	11.7	15.0	15.3	74.7	88.7	75.2	60.8	25.0	29.2	37.5	29.2
	4	11.5.2019	2nd	7.7	8.3	9.3	11.0	13.5	15.8	17.7	16.8	70.5	52.1	65.0	66.7	20.8	20.8	29.2	20.8
	5	15.5.2019		9.3	9.0	8.5	10.8	15.8	18.0	18.0	17.3	83.7	96.0	52.6	47.7	25.0	25.0	50.0	33.3
	6	18.5.2019		8.8	8.3	8.0	8.7	17.7	14.7	18.3	17.5	90.5	81.6	55.6	40.6	33.3	45.8	25.0	37.5
	7	22.5.2019	3rd	20.2	8.3	7.5	9.8	22.2	18.0	16.5	18.5	32.3	63.4	47.9	50.5	29.2	25.0	20.8	33.3
	8	25.5.2019		19.7	10.5	8.2	8.0	23.0	17.2	16.0	16.7	46.3	53.1	45.9	43.3	25.0	29.2	25.0	25.0
	9	29.5.2019		10.0	7.8	7.7	5.0	19.0	18.8	18.0	18.0	53.9	72.0	58.7	47.7	25.0	20.8	37.5	20.8
J U N E	1	1.6.2019	1st	8.2	8.5	7.5	8.5	17.8	17.2	17.0	17.5	31.8	57.5	60.7	58.6	29.2	25.0	33.3	29.2
	2	5.6.2019		7.8	8.0	8.3	9.2	18.2	16.8	18.0	18.2	48.1	46.4	53.5	52.2	25.0	20.8	29.2	37.5
	3	8.6.2019		8.2	8.2	7.0	8.2	17.5	17.5	17.2	18.2	32.3	32.7	41.7	45.5	12.5	16.7	20.8	20.8
	4	12.6.2019	2nd	7.2	7.2	9.2	6.5	15.5	9.8	18.0	15.7	14.2	19.1	34.1	17.3	8.3	8.3	25.0	12.5
	5	15.6.2019		9.0	6.8	8.8	7.8	17.8	16.8	18.3	18.0	50.3	50.4	55.0	45.8	12.5	12.5	29.2	16.7
	6	19.6.2019		6.5	8.2	7.5	7.5	15.2	17.3	18.5	16.5	76.6	70.7	68.2	50.9	16.7	12.5	29.2	20.8
	7	22.6.2019	3rd	8.0	7.5	9.2	7.2	18.0	16.8	18.0	17.2	35.0	35.1	39.1	58.0	12.5	20.8	29.2	20.8
	8	26.6.2019		8.3	8.2	7.5	8.2	18.0	18.3	17.7	17.5	47.8	41.4	62.6	49.3	16.7	16.7	37.5	25.0
	9	29.6.2019		7.0	7.5	7.5	7.0	18.2	17.5	18.0	18.2	36.8	69.4	59.5	53.3	33.3	20.8	25.0	16.7
J U L Y	1	2.7.2019	1st	7.5	7.5	8.5	7.2	17.8	17.8	18.0	17.2	55.6	56.7	62.5	46.4	16.7	12.5	20.8	12.5
	2	5.7.2019		8.0	8.0	7.8	8.2	18.3	18.0	17.7	18.2	49.3	60.1	57.4	41.4	20.8	20.8	25.0	20.8
	3	9.7.2019		8.2	8.3	8.3	8.5	19.2	19.2	19.0	18.8	53.5	64.5	73.3	53.5	8.3	12.5	12.5	16.7
	4	12.7.2019	2nd	9.0	9.0	7.5	9.2	20.0	20.2	18.3	19.0	59.4	48.4	68.2	55.3	16.7	20.8	20.8	16.7
	5	16.7.2019		7.8	7.2	6.5	7.5	18.3	18.3	16.5	18.0	46.1	50.5	60.7	47.8	16.7	20.8	25.0	16.7
	6	19.7.2019		6.5	7.8	7.5	6.5	16.5	18.5	17.3	16.5	32.6	46.9	46.5	33.0	12.5	16.7	16.7	12.5
	7	23.7.2019	3rd	6.5	7.0	5.7	5.8	17.2	18.3	15.2	15.8	27.4	30.5	30.9	27.3	8.3	12.5	12.5	8.3
	8	26.7.2019		6.5	6.5	6.5	7.5	16.5	16.7	16.5	16.3	32.9	24.5	26.1	31.8	12.5	20.8	20.8	12.5
	9	30.7.2019		6.5	6.7	6.5	7.2	16.5	16.7	16.8	17.5	23.0	29.9	20.0	28.1	16.7	16.7	16.7	12.5
A U G U S T	1	2.8.2019	1st	8.3	8.0	7.8	6.5	18.3	18.2	17.2	17.5	19.8	14.1	41.5	18.3	8.3	10.4	12.5	12.5
	2	6.8.2019		7.5	6.8	8.3	8.2	17.5	16.5	18.7	18.3	14.7	17.5	51.6	16.1	4.2	12.5	25.0	8.0
	3	9.8.2019		8.2	7.8	6.8	7.8	18.2	17.5	16.8	17.5	29.9	26.7	55.8	27.0	8.3	16.7	29.2	12.5
	4	13.8.2019	2nd	8.0	9.3	7.5	9.8	18.0	19.5	17.5	19.2	35.6	57.2	62.4	47.7	20.8	16.7	25.0	20.8
	5	16.8.2019		9.2	7.5	8.3	10.2	19.2	17.0	18.3	20.2	41.8	49.2	50.6	51.8	16.7	25.0	37.5	25.0
	6	20.8.2019		8.2	8.3	7.5	7.5	18.3	19.7	18.3	17.5	54.1	59.8	56.6	46.9	12.5	12.5	29.2	12.5
	7	23.8.2019	3rd	8.2	9.8	9.5	8.0	18.2	20.5	20.8	18.0	47.0	51.7	60.4	28.5	16.7	8.3	33.3	16.7
	8	26.8.2019		9.8	8.3	9.8	9.5	19.8	18.3	20.5	19.5	55.0	60.4	54.0	34.1	12.5	12.5	36.3	25.0
	9	29.8.2019		7.5	10.5	8.5	8.0	17.5	20.5	18.5	18.0	47.2	43.2	41.0	23.9	16.7	8.3	33.3	16.0
S E P T E M B E R	1	2.9.2019	1st	7.5	7.5	9.7	7.5	19.2	17.5	20.2	17.3	36.1	38.0	51.0	34.5	8.3	16.7	20.8	12.5
	2	5.9.2019		7.8	8.3	8.0	8.2	17.8	18.3	21.2	18.3	28.5	44.5	50.8	41.6	12.5	12.5	25.0	16.7
	3	9.9.2019		8.3	9.0	9.8	6.8	18.3	19.0	19.8	16.8	44.4	40.5	61.4	46.4	16.7	20.8	25.0	12.5
	4	12.9.2019	2nd	8.0	10.2	10.2	8.3	19.2	20.2	20.2	18.3	42.3	49.8	64.6	38.0	20.8	37.5	29.2	20.8
	5	16.9.2019		7.7	8.3	8.7	7.8	17.2	18.3	18.7	18.8	36.3	22.7	59.8	42.7	12.5	12.5	20.8	25.0
	6	19.9.2019		7.0	7.5	8.0	8.8	17.5	17.3	19.5	17.5	21.6	18.7	29.6	18.8	16.7	20.8	16.7	8.3
	7	23.9.2019	3rd	7.2	6.7	9.5	6.7	17.5	16.7	20.0	17.0	30.0	24.9	42.7	28.0	12.5	25.0	33.3	20.8
	8	26.9.2019		7.5	7.5	8.2	7.5	19.2	17.5	18.0	17.5	38.1	28.7	52.3	35.9	20.8	12.5	29.2	25.0
	9	30.9.2019		7.7	7.7	9.8	8.0	18.0	17.8	20.0	19.2	42.2	35.3	66.2	44.4	29.0	16.7	33.3	12.5
O C T O B E R	1	3.10.2019	1st	6.7	7.5	8.3	7.5	16.8	18.3	18.3	18.3	37.1	34.8	43.2	28.5	12.5	12.5	20.8	8.3
	2	7.10.2019		8.3	7.8	7.5	8.0	18.3	18.0	18.0	18.3	40.5	36.9	51.0	31.9	8.3	12.5	16.7	4.2
	3	10.10.2019		7.5	6.8	8.3	7.2	19.2	19.2	19.2	17.7	32.4	30.7	45.2	38.1	16.7	20.8	33.3	11.5
	4	14.10.2019	2nd	8.0	8.3	9.5	9.2	18.8	19.5	19.5	19.2	56.7	55.3	40.3	41.7	25.0	24.0	25.0	21.9
	5	17.10.2019		9.8	9.2	8.8	8.8	19.7	18.8	18.8	20.2	47.0	69.6	54.0	22.6	33.3	26.9	33.4	19.9
	6	21.10.2019		8.8	10.0	10.3	7.7	18.7	20.0	20.0	18.8	35.4	19.8	50.1	12.6	20.8	11.5	28.5	20.8
	7	24.10.2019	3rd	6.7	10.2	10.2	8.0	17.3	20.2	20.2	18.0	56.6	17.9	46.7	14.5	16.7	21.9	30.7	25.0
	8	28.10.2019		7.5	9.5	8.7	6.8	18.3	19.2	19.2	17.2	59.2	37.1	63.1	35.5	16.7	19.9	29.2	20.8
	9	31.10.2019		8.5	7.7	8.0	8.3	18.5	19.2	19.2	19.2	63.1	16.4	67.7	20.0	12.5	12.5	25.0	12.5

N O V E M B E R	1	4.11.2019	1st	8.0	7.2	9.2	7.5	18.5	17.7	19.2	18.0	41.2	43.3	63.7	39.9	12.5	16.7	20.8	12.5
	2	7.11.2019		7.5	8.0	8.0	8.2	18.0	18.7	18.0	18.2	38.9	48.5	55.4	35.9	16.7	12.5	25.0	8.3
	3	11.11.2019	2nd	6.5	6.8	7.3	6.5	16.5	16.8	17.3	16.5	57.9	53.2	76.8	44.9	33.3	29.2	41.7	16.7
	4	14.11.2019		7.0	7.2	9.2	7.3	17.0	17.5	18.5	17.3	79.1	61.0	70.4	50.5	37.5	33.3	33.3	20.8
	5	18.11.2019	3rd	8.5	6.5	9.2	8.3	18.3	16.8	19.2	18.3	46.5	66.9	65.5	59.4	41.7	45.8	37.5	33.3
	6	21.11.2019		8.0	8.0	7.5	9.2	18.0	18.5	18.8	19.2	66.3	57.7	68.9	66.6	29.2	37.5	41.7	41.7
	7	25.11.2019	4th	8.5	9.0	8.3	8.0	19.2	19.2	19.2	18.8	83.3	46.6	46.5	46.7	29.2	50.0	45.8	37.5
	8	28.11.2019		10.2	8.7	9.2	8.7	20.2	20.0	19.7	19.3	77.7	66.6	60.9	62.0	37.5	37.5	37.5	33.3
D E C E M B E R	1	2.12.2019	1st	6.0	6.7	7.5	6.8	16.0	16.7	16.8	17.5	47.8	34.8	50.1	38.8	25.0	16.7	33.3	20.8
	2	5.12.2019		5.8	5.8	6.2	5.2	18.3	16.0	17.2	16.5	83.4	58.3	57.2	54.5	37.5	29.2	37.5	25.0
	3	9.12.2019	2nd	4.2	5.0	5.5	5.7	15.8	15.8	15.5	15.0	59.3	43.9	52.9	45.2	20.8	16.7	25.0	16.7
	4	12.12.2019		3.8	4.8	4.8	4.8	16.0	14.7	15.0	14.8	89.7	67.2	67.9	52.0	33.3	29.2	37.5	20.8
	5	16.12.2019	3rd	4.5	4.5	6.3	4.3	16.5	15.5	16.3	15.0	57.7	52.6	60.6	42.1	20.8	16.7	25.0	12.5
	6	19.12.2019		3.7	4.0	5.8	3.8	17.7	14.0	17.7	13.8	52.8	69.3	55.8	56.9	41.7	41.7	45.8	37.5
	7	23.12.2019	4th	3.2	5.5	6.2	5.5	19.3	16.0	18.2	16.0	62.4	71.1	60.2	68.9	37.5	37.5	41.7	33.3
	8	26.12.2019		5.5	6.2	5.5	6.2	16.2	17.7	15.2	16.7	64.6	56.0	69.4	49.5	37.5	33.3	33.3	20.8
	9	30.12.2019		5.7	7.3	6.8	7.2	17.0	17.3	17.0	18.3	64.5	66.3	78.2	59.7	33.3	37.5	29.2	33.3
J A N U A R Y	1	2.1.2020	1st	6.8	6.0	5.3	7.5	16.7	16.0	16.7	18.0	88.9	74.9	92.4	71.4	41.7	37.5	37.5	25.0
	2	6.1.2020		7.3	7.2	6.5	8.0	18.2	17.5	16.7	16.7	81.7	68.2	79.3	65.5	45.8	37.5	41.7	20.8
	3	9.1.2020	2nd	6.5	6.5	8.7	6.7	17.7	16.8	18.3	17.7	74.6	83.2	50.7	69.8	33.3	33.3	45.8	29.2
	4	13.1.2020		7.5	8.0	7.7	7.3	17.3	18.2	19.2	18.2	47.5	47.0	59.2	47.9	25.0	41.7	37.5	33.3
	5	16.1.2020	3rd	8.2	8.0	9.0	5.8	18.2	18.5	19.2	15.7	75.6	66.8	54.5	59.2	37.5	33.3	41.7	33.3
	6	20.1.2020		5.3	6.7	7.5	6.0	17.3	16.7	18.5	16.7	70.9	75.6	62.5	64.0	25.0	37.5	33.3	33.3
	7	23.1.2020	4th	7.2	7.7	8.5	7.7	17.7	17.7	18.8	17.7	48.5	58.3	69.2	55.1	29.2	25.0	37.5	29.2
	8	27.1.2020		6.8	6.7	7.0	8.0	16.5	17.5	17.3	18.8	56.7	54.8	59.4	50.5	33.3	29.2	41.7	25.0
	9	30.1.2020		7.7	8.0	7.7	7.7	17.7	18.0	18.7	17.7	49.7	58.9	60.0	31.7	41.7	37.5	33.3	29.2
F E B R U A R Y	1	3.2.2020	1st	7.7	5.8	8.0	7.3	17.8	17.2	18.0	17.3	54.7	79.6	69.7	64.7	45.8	37.5	41.7	33.3
	2	6.2.2020		6.7	7.2	6.7	6.7	16.7	18.0	17.3	18.2	64.6	66.4	60.7	69.5	33.3	41.7	37.5	29.2
	3	10.2.2020	2nd	8.0	8.0	7.3	7.0	18.2	18.8	18.3	17.5	56.4	68.5	51.7	56.0	37.5	37.5	45.8	20.8
	4	13.2.2020		7.2	6.5	8.0	8.0	17.8	16.5	18.8	18.8	70.6	59.8	57.7	61.1	37.5	25.0	41.7	33.3
	5	17.2.2020	3rd	8.0	8.0	7.5	7.5	18.0	17.8	17.8	17.8	62.5	52.3	46.2	59.9	41.7	37.5	33.3	41.7
	6	20.2.2020		7.8	6.8	7.2	6.7	18.0	16.7	18.8	17.5	58.9	64.7	69.6	70.4	29.2	33.3	37.5	29.2
	7	24.2.2020	4th	7.7	8.0	6.8	8.5	17.7	18.0	18.8	18.7	78.0	59.0	61.8	74.6	37.5	45.8	45.8	33.3
	8	27.2.2020		6.2	7.3	7.7	6.7	17.7	17.3	17.7	17.3	70.0	52.5	53.8	54.4	33.3	41.7	37.5	20.8
M A R C H	1	2.3.2020	1st	8.0	8.0	9.5	7.5	18.0	18.0	19.5	18.8	54.8	74.7	65.4	63.2	29.2	29.2	25.0	16.7
	2	5.3.2020		7.8	7.7	8.3	8.0	17.8	18.5	18.8	18.0	72.2	89.2	60.5	57.4	20.8	25.0	29.2	20.8
	3	9.3.2020	2nd	6.2	8.8	7.5	6.7	15.8	18.0	17.5	17.5	40.5	70.8	56.4	60.2	25.0	16.7	33.3	25.0
	4	12.3.2020		7.5	6.7	6.7	7.5	17.0	17.3	16.7	18.0	34.7	62.6	50.5	68.4	12.5	12.5	25.0	16.7
	5	16.3.2020	3rd	6.3	5.0	8.0	7.0	16.5	16.8	18.0	17.5	57.6	53.8	63.2	58.2	20.8	29.2	29.2	29.2
	6	19.3.2020		6.8	7.3	7.7	6.7	17.3	17.3	18.0	16.8	60.6	83.2	68.0	47.0	25.0	29.2	37.5	25.0
	7	23.3.2020	4th	7.3	6.7	7.7	7.7	17.8	18.2	18.5	17.7	68.4	77.8	89.5	65.7	33.3	25.0	20.8	20.8
	8	26.3.2020		6.8	7.3	5.8	6.7	18.2	18.7	17.8	17.2	57.6	67.6	80.3	59.1	16.7	29.2	29.2	33.3
	9	30.3.2020		6.8	8.0	8.0	6.0	17.0	19.0	17.0	16.0	65.4	41.8	42.3	54.1	29.2	25.0	25.0	25.0
Yearly Average				7.4	7.4	7.8	7.4	16.9	17.4	17.5	17.1	52.8	53.5	57.8	48.2	23.5	24.8	30.4	22.9
Yearly Minimum				1.3	3.2	4.8	3.8	4.5	9.8	6.8	8.5	14.2	14.1	20.0	12.6	4.2	8.3	12.5	4.2
Yearly Maximum				20.2	10.5	10.3	11.0	23.0	23.7	21.2	20.2	90.5	96.0	92.4	74.6	45.8	50.0	50.0	45.8

Vani Pati
Monitored by

Dr. Saurabh Kumar
Sr.Mgr.(Env.)

J.K. Cement WORKS, MUDDAPUR (KARNATAKA)

(Unit : J.K. Cement Ltd.)

Yearly Stack monitoring report of Cement plant & 2x25 MW Thermal power plant for April-2019 to March-2020

Sl. No.	Month/Year	Stack locations										
		Thermal Power Plant			Kiln / Raw Mill			SPM in mg/Nm ³				
		SPM in mg/Nm ³	SO ₂ in mg/Nm ³	NO _x in mg/Nm ³	SPM in mg/Nm ³	SO ₂ in mg/Nm ³	NO _x in mg/Nm ³	Coal Mill Bag Filter	Cooler	LSC	CM-1	CM-2
1	Apr-19	18.4	414.0	240.0	19.4	39.0	712.0	13.1	7.6	13.4	6.4	9.7
2	May-19	15.6	170.0	250.0	7.7	44.0	700.0	12.7	15.9	12.5	7.2	10.7
3	Jun-19	23.3	178.0	285.0	8.7	68.0	624.0	13.2	13.8	15.6	12.6	12.7
4	Jul-19	27.4	120.0	43.0	10.8	18.0	500.0	19.2	11.9	13.0	7.7	9.1
5	Aug-19	20.8	360.5	230.0	16.7	65.2	425.6	15.6	13.3	12.0	Not in operation	
6	Sep-19	26.4	306.0	270.0	15.6	70.0	412.0	18.8	12.3	13.0	5.1	9.1
7	Oct-19	19.6	350.0	175.0	11.9	60.0	450.0	13.2	7.8	5.2	7.5	6.3
8	Nov-19	19.6	310.0	200.0	9.4	43.0	450.0	19.3	7.3	7.5	6.1	5.0
9	Dec-19	20.1	182.0	115.0	8.7	43.0	670.0	15.9	8.1	7.2	8.4	5.9
10	Jan-20	26.0	205.0	148.0	7.2	48.0	495.0	13.4	6.9	8.3	9.5	8.0
11	Feb-20	28.9	465.0	214.0	14.2	0.0	316.0	9.9	10.1	10.1	10.6	8.0
12	Mar-20	25.5	528.0	252.0	20.5	0.0	446.0	18.7	10.4	9.0	8.1	12.1
Yearly Average		22.6	299.0	201.8	12.5	41.5	516.7	15.2	10.4	10.6	8.1	8.8
Yearly Minimum		15.6	120.0	43.0	7.2	0.0	316.0	9.9	6.9	5.2	5.1	5.0
Yearly Maximum		28.9	528.0	285.0	20.5	70.0	712.0	19.3	15.9	15.6	12.6	12.7

Sl. No.	Month/Year	Stack locations										
		Slag mill	Coal crusher	Packing plant No-1	Packing plant No-2	Packing plant No-3	Packing plant No-4	RMT System	Clinker Transport	Clinker Storage	CM Sep-1	CM Sep-2
1	Apr-19	8.7	13.0	13.2	11.7	15.5	11.7	10.7	9.5	9.5	6.4	9.7
2	May-19	13.3	14.9	10.9	10.8	13.7	11.3	9.6	8.8	14.1	7.2	10.7
3	Jun-19	14.2	11.8	11.7	14.0	9.7	10.1	12.7	12.1	10.0	12.6	12.7
4	Jul-19	11.4	14.4	13.7	13.5	9.4	14.2	12.6	11.7	7.2	7.7	9.1
5	Aug-19	12.5	16.4	13.60	15.13	14.48	11.61	13.8	12.1	15.2	Not in operation	
6	Sep-19	12.4	14.8	13.82	16.22	13.93	15.23	17.9	9.5	15.8	5.1	9.1
7	Oct-19	9.9	12.3	11.65	14.91	14.91	13.59	12.1	15.1	11.7	7.5	6.3
8	Nov-19	16.4	19.3	12.1	10.2	7.8	9.3	11.8	10.2	10.9	6.1	5.0
9	Dec-19	19.6	12.2	13.1	10.0	14.9	10.9	11.7	15.2	13.6	8.4	5.9
10	Jan-20	18.2	14.2	12.08	10.23	10.77	14.13	10.9	12.1	14.5	9.5	8.0
11	Feb-20	15.9	15.0	12.19	13.39	11.65	10.19	15.6	12.1	11.7	10.6	8.0
12	Mar-20	14.6	15.7	17.09	15.13	11.65	13.48	12.0	20.0	12.9	8.1	12.1
Yearly Average		13.9	14.5	12.9	12.9	12.4	12.1	12.6	12.4	12.3	8.1	8.8
Yearly Minimum		8.7	11.8	10.9	10.0	7.8	9.3	9.6	8.8	7.2	5.1	5.0
Yearly Maximum		19.6	19.3	17.1	16.2	15.5	15.2	17.9	20.0	15.8	12.6	12.7

Monitored by

 V. Pratik

Dr. Saurabh Kumar
 Sr. Mgr. (Env)


J.K. Cement Works, Village- Muddapur (Karnataka)

(Unit: J.K. Cement Ltd.)

Fugitive Emission Monitoring Report of Cement plant for the period from April-2019 to March-2020

Sl.No.	Month/Year	SPM (microgram/cubic meter)							
		Gypsum Yard	Slag Yard	Flyash Yard	Cement mill	Lime stone unloading hopper	Lime stone crushing Site	Coal Yard	Packing Plant
1	Apr-19	602.5	822.7	322.0	635.2	862.4	929.2	900.5	716.9
2	May-19	726.4	898.5	341.5	796.7	909.2	876.6	964.6	796.4
3	Jun-19	742.9	853.9	317.5	986.6	930.0	912.8	1035.8	987.9
4	Jul-19	806.3	1010.8	488.5	769.6	1092.2	1008.2	835.7	1003.1
5	Aug-19	927.9	1006.2	569.1	833.2	985.0	989.5	1081.3	822.7
6	Sep-19	1047.0	992.3	911.1	993.3	1001.8	897.2	823.9	755.1
7	Oct-19	802.3	1006.8	1040.1	1062.7	1071.6	714.4	983.8	712.8
8	Nov-19	743.1	1093.3	496.2	693.7	908.7	864.9	863.6	630.2
9	Dec-19	871.4	1046.4	947.4	985.7	1051.6	977.2	1007.4	756.8
10	Jan-20	979.9	897.4	750.7	1008.7	915.4	739.6	984.5	774.4
11	Feb-20	885.1	714.2	877.3	984.7	1001.9	851.6	901.3	830.4
12	Mar-20	930.2	970.4	1036.0	1025.6	1051.0	1020.0	1072.0	1047.0
Yearly Minimum		602.5	714.2	317.5	635.2	862.4	714.4	823.9	630.2
Yearly Maximum		1047.0	1093.3	1040.1	1062.7	1092.2	1020.0	1081.3	1047.0
Yearly Average		838.7	942.7	674.8	898.0	981.7	898.4	954.5	819.5


Vani Patil
Monitored by


Dr. Saurabh Kumar
Sr.Mgr.(Env.)

J.K. Cement Works, Village- Muddapur (Karnataka)
(Unit: J.K. Cement Ltd.)

Noise monitoring report of Cement & Power Plant for the period from April-2019 to March-2020

Sl. No.	Location Name	Apr-19		May-19		Jun-19		Jul-19		Aug-19		Sep-19		Oct-19		Nov-19		Dec-19	
		Day (dB) Leq	Night (dB) Leq	Day (dB) Leq	Night (dB) Leq	Day (dB) Leq	Night (dB) Leq	Day (dB) Leq	Night (dB) Leq	Day (dB) Leq	Night (dB) Leq	Day (dB) Leq	Night (dB) Leq	Day (dB) Leq	Night (dB) Leq	Day (dB) Leq	Night (dB) Leq	Day (dB) Leq	Night (dB) Leq
1	Boundary side	47.5	31.5	48.6	32.5	50.2	32.8	50.2	33.7	47.5	35.2	48.9	36.4	46.8	36.5	44.7	35.3	48.6	36.4
2	Administrative Building	43.5	32.4	42.5	30.2	41.5	30.6	41.7	30.2	41.6	30.6	42.1	31.2	42.6	31.4	44.8	30.1	45.8	32.7
3	Lime Stone gate	51.6	43.5	50.6	42.1	49.5	38.2	50.2	48.4	50.4	46.8	51.6	40.8	52.8	47.7	53.5	46.6	60.7	43.2
4	Lime Stone Crusher	48.5	36.4	49.2	35.4	40.5	30.8	46.5	36.2	51.8	40.5	55.6	42.8	68.5	49.8	65.7	47.8	69.5	45.2
5	Kiln/Cooler	54.6	40.1	55.4	41.2	51.6	41.5	52.1	42.3	54.6	36.8	60.9	40.2	55.8	37.6	54.6	35.5	57.4	40.2
6	Kiln Platform	53.1	45.5	50.6	40.1	54.4	43.2	58.5	40.2	66.2	53.4	70.5	58.9	65.5	52.8	62.2	50.7	70.5	58.4
7	Power Plant	62.7	51.5	60.8	50.4	57.3	41.6	62.2	46.7	65.4	45.7	68.2	50.2	70.6	46.8	68.5	43.2	72.5	48.7
8	Despatch gate	52.8	42.2	49.6	35.5	50.8	39.5	52.3	41.2	52.6	43.8	54.1	44.8	55.8	45.6	50.4	40.8	54.2	40.8
9	Near QC Lab.	46.5	35.4	45.4	34.6	46.6	34.1	46.6	33.8	44.8	35.8	45.1	34.6	42.5	34.8	45.6	35.5	46.2	37.4
10	Coal Yard	55.8	39.6	50.7	33.6	52.8	42.2	55.7	41.6	57.6	43.7	60.8	49.8	58.6	42.8	59.5	40.6	60.5	42.1
11	Slag yard	52.7	35.4	57.5	37.3	47.5	34.4	47.5	34.4	50.2	35.6	55.4	34.8	52.5	36.6	50.8	35.5	65	40.9
12	Gypsum yard	58.5	38.1	44.8	32.7	50.7	31.7	55.2	40.2	54.5	42.8	60.2	54.5	55.8	43.5	54.6	42.8	69	43.8
13	Near Canteen	43.2	31.8	51.6	36.8	45.5	38.8	45.5	31.6	46.7	31.5	55.3	48.7	48.9	32.8	45.2	30.5	66	42.9
14	Plant main gate	50.5	35.7	53.2	36.4	47.6	35.2	51.6	36.6	48.6	35.4	46.5	36.8	46.6	33.7	48.7	34.6	56.7	44.3
15	Dispensary	42.5	28.5	43.3	29.4	42.6	30.1	42.2	31.8	45.2	34.8	50.6	34.5	42.8	35.8	42.5	31.8	47	40
16	Packing Plant	50.6	42.7	51.4	41.7	54.6	42.2	52.4	41.6	52.8	43.6	52.8	40.3	53.6	45.5	55.8	44.2	70.2	59.7
17	General Store	55.5	31.1	54.5	32.5	50.8	34.5	49.6	36.5	47.8	32.8	51.1	29.9	46.8	33.7	48.5	35.7	58	46.5
18	DG House (1-meter distance)	64.2	—	63.6	—	56.6	—	61.7	—	62.5	—	64.5	—	60.2	—	62.5	—	72	—
19	DG House (2-meter distance)	63.3	—	61.4	—	60.5	—	63.6	—	65.6	—	62.8	—	63.6	—	60.3	—	74	—
20	Raw mill proportioning hopper	58.5	42.5	57.4	41.6	52.8	42.2	54.4	41.8	61.3	41.8	63.6	42.8	65.8	42.5	66.7	42.8	80	65
21	coal mill	60.4	48.5	60.2	46.5	58.4	48.1	57.6	46.6	58.9	46.5	70.5	56.9	57.5	45.2	56.6	43.7	76	62
22	Near silo clinker loading point	62.3	51.7	61.8	50.7	59.6	48.5	55.2	51.8	61.5	52.8	62.3	51.6	60.6	50.8	61.5	48.8	65.8	52.5
23	CM-1 weigh feeder	61.5	52.8	60.2	51.3	60.5	50.8	60.1	50.7	68.2	55.6	60.8	50.5	65.8	56.4	66.7	55.6	70.5	56.9
24	CM-2 weigh feeder	67.4	59.5	66.5	58.8	68.2	50.2	68.5	52.9	65.8	58.2	68.5	55.6	63.2	55.6	60.2	52.6	68.7	56.2
25	Cement silo Packer-1	64.7	51.5	63.8	52.5	62.4	49.5	61.9	52.2	61.3	50.7	65.2	50.8	61.4	49.8	62.8	48.6	65.2	52.1
26	Cement silo Packer-2	63.3	49.8	61.6	48.6	65.5	48.7	63.5	51.2	62.5	48.8	60.4	47.6	65.8	47.6	66.7	46.7	68.6	46.5
27	Cement silo Packer-3	61.4	51.4	60.7	50.2	56.6	50.4	68.2	50.6	65.6	50.4	61.5	50.7	68.5	52.4	70.8	60.8	63.3	53.6
28	Cement silo Packer-4	60.9	52.7	62.2	51.8	60.2	49.8	60.4	49.5	57.5	49.2	60.8	51.5	59.6	48.5	60.7	47.7	56.4	46.5
29	Truck Loading point- 1	59.5	48.6	58.7	49.5	52.2	47.6	56.6	48.2	63.2	50.5	59.6	50.2	64.8	51.5	63.5	50.2	70.6	52.4
30	Truck Loading point- 2	61.5	52.8	60.3	50.5	61.8	51.5	63.2	50.7	60.8	52.7	61.7	51.6	61.6	53.8	68.7	54.5	62.6	50.5
31	Truck Loading point- 3	63.2	50.7	62.3	51.4	60.2	49.2	62.2	49.5	64.5	50.4	63.4	52.8	65.6	51.8	66.6	50.4	69.2	60.5
32	Truck Loading point- 4	60.5	50.9	60.2	50.4	56.6	46.4	56.6	44.2	61.6	52.7	60.8	50.7	60.8	50.7	62.5	51.6	74.5	66.6
33	Slag mill weigh feeder	63.7	51.7	64.5	50.8	61.8	50.5	62.8	51.5	63.5	50.8	65.5	55.2	62.2	51.5	64.4	50.8	73.1	64.5

J.K. Cement Works, Village- Muddapur (Karnataka)

(Unit: J.K. Cement Ltd.)

Noise monitoring report of Cement & Power Plant for the period from April-2019 to March-2020

Sl. No.	Location Name	Jan-20		Feb-20		Mar-20		Yearly Minimum	Yearly Maximum	Yearly 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		
1	Boundary side	48.2	32.8	48.5	30.6	48.2	30.4	44.7	30.4	50.2	36.5	48.2	33.7
2	Administrative Building	40.5	30.2	42.5	31.6	44.5	30.6	40.5	30.1	45.8	32.7	42.8	31.0
3	Lime Stone gate	50.7	40.7	50.7	42.7	51.6	41.8	49.5	38.2	60.7	48.4	52.0	43.5
4	Lime Stone Crusher	47.2	37.5	46.8	35.3	47.5	36.3	40.5	30.8	69.5	49.8	53.1	39.5
5	Kiln/ Cooler	55.8	41.2	53.7	38.8	53.3	38.8	51.6	35.5	60.9	42.3	55.0	39.5
6	Kiln Platform	50.5	43.6	50.5	43.6	52.4	44.5	50.5	40.1	70.5	58.9	58.7	47.9
7	Power Plant	60.6	50.7	64.6	50.7	65.5	52.8	57.3	41.6	72.5	52.8	64.9	48.3
8	Despatch gate	53.5	41.6	53.7	41.6	54.6	42.8	49.6	35.5	55.8	45.6	52.9	41.7
9	Near QC Lab.	45.9	36.2	47.5	36.4	49.5	35.2	42.5	33.8	49.5	37.4	46.0	35.3
10	Coal Yard	54.7	38.5	56.7	38.5	55.6	39.8	50.7	33.6	60.8	49.8	56.6	41.1
11	Slag yard	66.8	41.2	54.8	36.6	56.7	37.5	47.5	34.4	66.8	41.2	54.8	36.7
12	Gypsum yard	65.7	40.1	57.2	37.5	58.8	38.6	44.8	31.7	69	54.5	57.1	40.5
13	Near Canteen	62.2	40.2	44.7	30.6	44.7	32.8	43.2	30.5	66	48.7	50.0	35.8
14	Plant main gate	58.8	45.5	51.8	36.4	52.7	35.5	46.5	33.7	58.8	45.5	51.1	37.2
15	Dispensary	46.5	40	45.6	30.5	46.6	32.8	42.2	28.5	50.6	40	44.8	33.3
16	Packing Plant	71.5	55.4	51.7	41.6	52.8	40.5	50.6	40.3	71.5	59.7	55.9	44.9
17	General Store	60.1	45.5	56.8	31.7	57.5	32.5	46.8	29.9	60.1	46.5	53.1	35.2
18	DG House (1-meter distance)	71.5	—	65.5	—	66.7	—	56.6	—	72	—	64.3	—
19	DG House (2-meter distance)	75.5	—	62.7	—	63.5	—	60.3	—	75.5	—	64.7	—
20	Raw mill proportioning hopper	79.9	63	57.6	43.8	58.5	43.2	52.8	41.6	80	65	63.0	46.1
21	coal mill	77	61	61.5	46.5	62.8	47.4	56.6	43.7	77	62	63.1	49.9
22	Near silo clinker loading point	64.2	51.8	64.7	50.6	61.4	49.7	55.2	48.5	65.8	52.8	61.7	50.9
23	CM-1 weigh feeder	71.5	55.5	62.8	53.7	60.3	52.6	60.1	50.5	71.5	56.9	64.1	53.5
24	CM-2 weigh feeder	67.7	52.6	66.5	58.2	64.8	56.4	60.2	50.2	68.7	58.8	66.3	55.6
25	Cement silo Packer-1	64.8	50.7	61.7	50.8	60.6	48.7	60.6	48.6	65.2	52.5	63.0	50.7
26	Cement silo Packer-2	69.5	45.2	64.8	50.6	62.7	51.4	60.4	45.2	69.5	51.4	64.6	48.6
27	Cement silo Packer-3	64.8	52.5	60.3	49.5	60.2	50.4	56.6	49.5	70.8	60.8	63.5	51.9
28	Cement silo Packer-4	57.5	47.2	62.7	53.4	63.4	51.8	56.4	46.5	63.4	53.4	60.2	50.0
29	Truck Loading point- 1	71.6	51.7	60.8	47.5	60.5	46.7	52.2	46.7	71.6	52.4	61.8	49.6
30	Truck Loading point- 2	61.8	52.8	62.5	53.7	62.7	52.4	60.3	50.5	68.7	54.5	62.4	52.3
31	Truck Loading point- 3	65.2	50.5	60.8	51.8	62.8	50.2	60.2	49.2	69.2	60.5	63.8	51.6
32	Truck Loading point- 4	60.7	48.5	62.5	50.5	60.4	46.5	56.6	44.2	74.5	66.6	61.5	50.8
33	Slag mill weigh feeder	73.8	55.4	60.7	53.6	60.7	50.3	60.7	50.3	73.8	64.5	64.7	53.1

Varad Patil
Monitored by

Dr. Saurabh Kumar
Sr. Mgr. (Env.)



JK Cement WORKS

MUDDAPUR

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

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Fax : +91-8350-289001
E-mail : factory.muddapur@jkcement.com

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

No. JKCW/ENV./PETCOKE/2020-21/79/36

Date: 08.09.2020

To,
The Member Secretary
Karnataka State Pollution Control Board
"Parisara Bhavan", #49, 4th & 5th Floor,
Church Street, Bangalore-560001

Sub: Opening and Closing Stock of Imported Pet coke Along with Quantity of Pet coke Imported and Consumed during the Month of August 2020

Reference: KSPCB letter no. PCB/17Cat/385/HPI/2018/4223 dated 19-11-2018

Dear Sir,

Please find herewith enclosed opening and closing stock of imported pet coke along with quantity of pet coke imported and consumed in prescribed format during the month of August 2020 for your kind information & record please.

Sincerely yours

For J.K. Cement Works

 R.B.M. Tripathi
(Unit Head)

Encl: As Above.

CC: The Environmental Officer, Karnataka State Pollution Control Board, Sector no.07, by pass road, Navanagar, Bagalkot – 587102



Registered & Corporate Office :
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Central Marketing Office :
4th Floor, Krsna Chambers, Plot No. 11, Galaxy Garden
North Main Road, Koregaon Park, Pune - 411001
Ph. : 020-41350000 **Fax :** 020-41350099
Email : cmo.south@jkcement.com

Name & address of the industry: M/s JK Cement Works, Village- Muddapur, Taluka- Mudhol, District- Bagalkot (Karnataka)-587122

Consented Clinker Production/Month-183333.33 MT

Sl. No.	Month & Year	Opening Stock of pet coke			Pet Coke procured during the month			Pet Coke consumption during the month			Closing balance of pet coke			Quantity of clinker produced during the month	Remarks
		Indian	Imported	Total	Indian	Imported	Total	Indian	Imported	Total	Indian	Imported	Total		
1	Aug-20	3,795.738	91.390	3,887.128	7,705.475	7,808.340	15,513.815	9,087.000	4,169.000	13,256.000	2,414.213	3,730.730	6,144.943	1,70,186.00	

Note: The quantity of pet coke and clinker has been given in Tonnes only.


Signature of the Occupier