



JK Cement WORKS

MUDDAPUR

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

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

No. - JKCW/ENV./CFO (Plant)/60/11

Date: 22-09-2018

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-2017 to March-2018


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 **2017-2018**.

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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Email : cmo.south@jkcement.com

FORM – V

ENVIRONMENTAL STATEMENT REPORT FOR THE FINANCIAL YEAR 2017-18

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	01-09-2017

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 - 76818 KL
- (iv) Domestic - 28782 KL

Consumption per unit of production

Name of the Product	Process Water Consumption per unit of Product Output	
	During the Previous Financial Year (2016-17)	During the Current Financial Year (2017-18)
Cement (OPC, PPC, Slag) and Tile fixer adhesive	0.0521 m ³ /mt. of cement	0.0403 m ³ /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 (2016-17)	During the Current Financial Year (2017-18)
Lime Stone	Cement (OPC, PPC & PSC)	1.191	1.103
Iron-ore		0.023	0.025
Coal/Pet coke (Cement Plant)		0.077	0.071
Gypsum		0.015	0.017
Dry fly ash		0.113	0.214
Pond ash		0.172	0.089
Slag (for PSC)		0.464	0.514

Slag (for OPC)		0.00	0.031
		Consumption of Raw Material per Unit Product Output (MT/KWH of Power)	
Coal/Petcoke (CPP)	Power	0.000656	0.000844

C. Total cement (OPC, PPC and Slag cement) production (MT):

During the Previous Financial Year (2016-17)		During the Current Financial Year (2017-18)	
OPC	725359	OPC	849792
PPC	544888	PPC	609608
PSC	395249	PSC	445015

D. Total Tile fixer production (MT):

During the Previous Financial Year (2016-17)	During the Current Financial Year (2017-18)
432.75	868.105

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 (2016-17)	During the Current Financial Year (2017-18)
Cement Consumption	Tile fixer adhesive	0.478	0.351
Ground stone powder		0.425	0.640
Polymer and product performance enhance		0.001	0.009

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

During the Previous Financial Year (2016-17)	During the Current Financial Year (2017-18)
158444110	138054619

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

During the Previous Financial Year (2016-17)	During the Current Financial Year (2017-18)
84.74	72.53

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

During the Previous Financial Year (2016-17)	During the Current Financial Year (2017-18)
6.36	6.21

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

During the Previous Financial Year (2016-17)	During the Current Financial Year (2017-18)
0.0899	0.0929

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	Please refer Annexure- 3 (Ambient air quality monitoring), Annexure- 4 (Stack emission monitoring), Annexure- 5 (Fugitive emission monitoring) and Annexure- 6 (Noise monitoring)		

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 (2016-17)	During the Current Financial Year (2017-18)
(a) From Process	(a) Category 5.1- Used Oil	Generated Quantity in 2016-17 = 9.77 KL including balance qty. of 2015-16 i.e. 2.27 KL. Out of 9.77 KL, Qty. 4.20 KL Used oil used in the plant for lubrication purpose and Qty. 5.57 KL was in balance.	Generated Quantity in 2017-18 = 14.32 KL including balance qty. of 2016-17 i.e. 5.57 KL. Out of 14.32 KL, Qty. 6.8 KL Used oil used in the plant and Qty. 7.52 KL was in balance.
	(b) Category 5.2- Oil soaked cotton waste	Total generated oil soaked cotton waste was 24 kg and it was disposed of in own cement plant's kiln.	Oil Soaked Cotton Waste generation- NIL
	(b) Category 5.2- Oil Filter	Total generated oil filters was 6 nos. and these were disposed of in own cement plant's kiln.	Oil filters generation- NIL

(b) From Pollution Control Facilities	Nil		
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Co-Processing of Hazardous Waste in 2017-18-

HW Category	HW Name	Quantity of waste received	Quantity co-processed	Quantity in storage at the end of the year
34.3/35.3	Chemical / ETP sludge	709.15 MT	583.61 MT	125.54 MT
21.1	Paint / Ink sludge	270.485 MT	160 MT	110.485 MT
28.2	Spent carbon	56.385 MT	53.385 MT	03 MT
-	Waste mix Liquid (GEIPL)	516.02 MT	516.020 MT	00 MT
28.1	Process Residue	14.20 MT	00 MT	14.20 MT
20.1	Distillation solvent (Residue)	20.565 MT	00 MT	20.565 MT
	Solid mixed waste	446.23 MT	00 MT	446.23 MT

Note- Only above mentioned hazardous wastes have been received from list of hazardous waste mentioned in Hazardous Waste Authorization no. 305094 dated 15/03/2018 and PCB/WMC/293/ HWM /2016/6968 dated 28/03/2018 and other authorization mentioned in S.No.2.

Co-Processing of Hazardous Waste in 2017-18-

S. No.	Waste Name	Quantity in stock at the beginning of the year	Quantity of waste received during the year 2017-18	Quantity recycled or co-processed or used during the year 2017-18	Quantity in storage at the end of the year
1	Coal Dust (in MT)	536.605	2091.240	2561.325	66.520
2	Non-hazardous Liquid Waste (in MT)	0	75.52	75.52	0
3	Carbon Black Crumb Powder (in MT)	0	44.52	0	44.52
4	Plastic Waste (in kg)	33590	69655.000	103245.000	0
5	RDF Non Hazardous (in MT)	0	94.790	0	94.790

Quantity of e-waste under E-Waste (Management) Rules, 2016- We have disposed following quantity of e-waste to authorized recycler in 2017-18. This quantity included previous year's quantity i.e. 875 kg.

S. No.	Material	Unit	Qty.
1	Monitor	NO	6
2	CPU	No	10
3	Keyboard	No	73
4	Mouse	No	38
5	Hard disk	No	19
6	Printer	No	9
7	Smps	No	1
8	Cartridge	No	6
9	Loose Cables	No	80
10	Pressure Switch, Solenoid Valve, Connector And Coil, Pcb Transformer, Semiconductor , Fuse, Mcb Wire Wound Resister, Limit Shitch, Control Statin For Emergency Switch, Proxy, Thermostatic Water Valve	KG	500
11	Geyser	NO	8
12	Signal Isolator	NO	4
13	Electronics Card		8
14	Telephone	NO	2
15	CFL	NO	177
16	T-Rod	NO	110
17	Energy Meter	NO	3
18	Fan	NO	5
19	T-Light Fitting	NO	32
20	Exhaust Fan	NO	5
21	Street Light	NO	18
22	Street Light Fitting	NO	4
23	Halogen Light	NO	4
24	Ball	NO	10
25	Hand Light	NO	2
26	Choke Sl	NO	6
27	Led Lights	NO	6
28	Gi Wire	LOT	1
29	Geyser Coil	NO	4
30	T Light Choke	NO	15
31	High Mast Tower	NO	4
32	Garden Light	NO	5
33	Fan Capacitor	NO	8
34	Big Meter	NO	1
35	Choke Single	NO	44
36	Choke Double	NO	26
37	Choke-150/125/250	NO	61
38	Solenoid Valve, Proxymity Switches, Jb, Conduits, Load Cell	KG	114

39	Camera	NO	6
40	Instrument Loose Materials	KG	48
41	Mixed Ele. Scrap	KG	500
42	Punch Machine	NO	6
43	Scanner	NO	6

Batteries (Management and Handling) Rules, 2001 – We have purchased 263 nos. battery and disposed 137 Nos. used batteries to authorized dismantler in 2017-18.

PART – E
Solid Wastes

Solid Waste		Total Quantity	
		During the Previous Financial Year (2016-17)	During the Current Financial Year (2017-18)
1 (a)	From Process (Fly ash from Captive Thermal Power plant)	NIL from Cement Plant Ash generated at our CPP (in MT)-14520.45 Disposal of Fly ash which was generated at our CPP (in MT) - 14520.45 and balance qty. was NIL.	NIL from Cement Plant Ash generated at our CPP (in MT)-35375.0 Disposal of Fly ash which was generated at our CPP (in MT) – 35375.0 sent in our cement plant and balance qty. in CPP was NIL.
1 (b)	Fly ash from other Thermal Power plant/KPCL	Ash procured from RTPS or outside source (in MT)-123201.15.	Ash procured from RTPS or outside source (in MT)-157304.
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 JK Cement Plant's Captive power plant 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: 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 it.

Solid waste: Dust collected in pollution control equipment is recycled back in cement manufacturing process and fly ash generated in Captive Thermal Power Plant which contains Silica, Alumina, Iron, Sulphur tri oxide etc., is used in cement manufacturing in own cement plant. Besides it, Sewage Treatment Plant 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

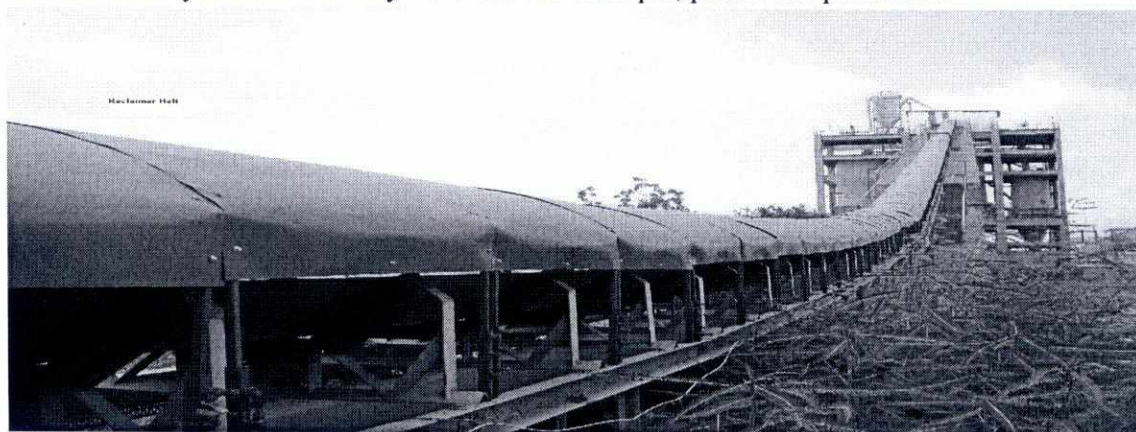
Covering of raw materials-

- 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.



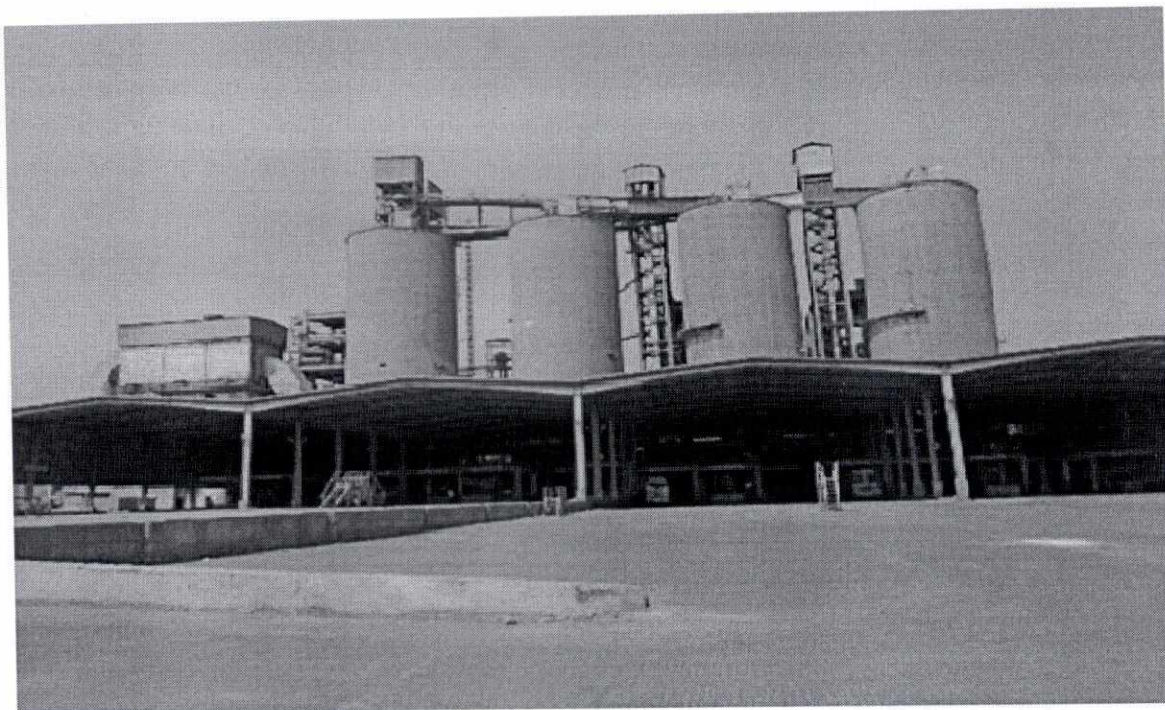
Picture 2- Covered raw material belt conveyor

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 2017-18 for energy conservation and better environment-

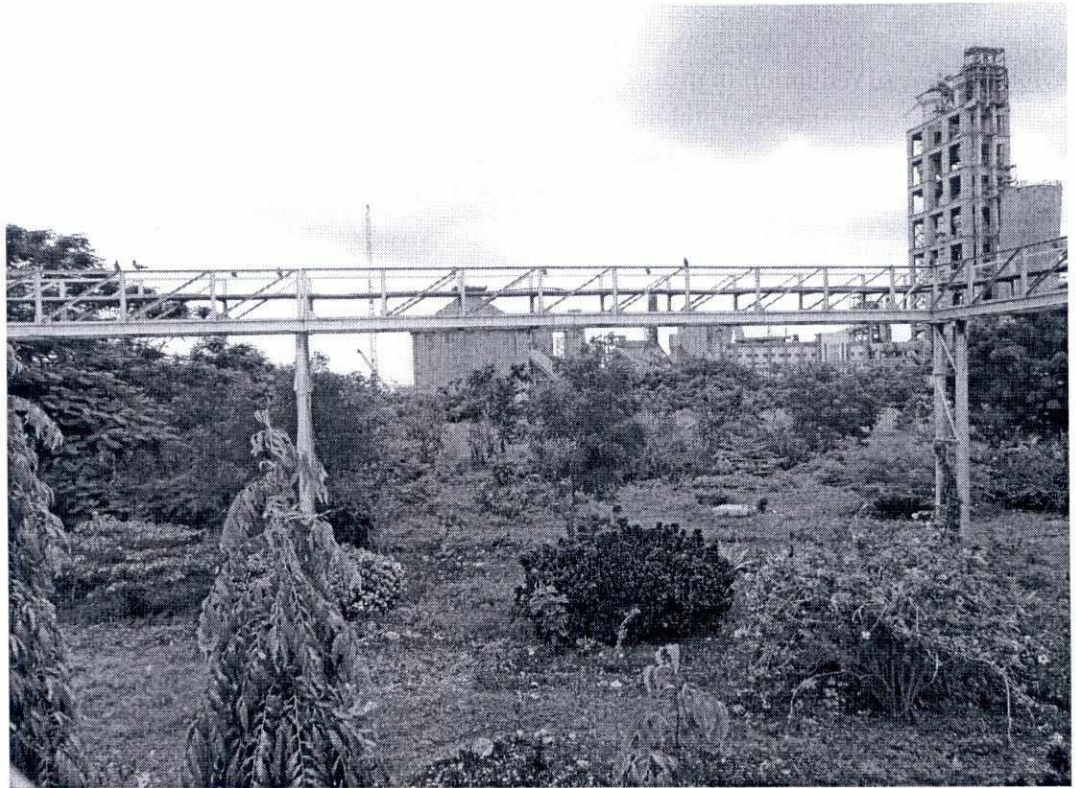
Sr. No.	Energy efficiency improvement measures (EEIM)	Annual Energy (Electricity) Saving (Kwh)
		57600
2	Kiln firing motor derated	42100
3	Calcliner firing motor derated	51200
4	Modification in Pulley dia. of calciner coal firing blower with replacement of existing motors	22200
5	RABH reverse air fan operation optimization	37800
6	Auto PID logic for controlling of Preheater outlet pressure	216000
7	RM: Saving through reduction of false air	29568
8	Saving by reduction of Raw Mill product cyclone dip tube height	50029
9	Optimization of Raw mill residue on 90 micron as well as 212 micron	52283
10	Coal Mill Hot air cyclone tube height reduction by 200 mm, pressure drop reduction of 25 mmWG	7320
11	Stopped 01 bag filter at PH 1st floor and connecting duct to 2nd bag filter duct	14688
12	4 No. of RAL of RABH is optimized in sequential running in place of continuous running.	5760
13	Pre-Heater Fan outlet pressure /draught optimization, results in saving of power	412020
14	Kiln inlet seal air fan converted into VFD	24192
15	Pressure drop across booster fan is reduced by adjusting booster fan damper	22964
16	Coal mill dust transport chain conveyor and rotary air lock cyclic off time changed from 5 to 7 min	13083
17	Optimization done in RABH hopper heaters operation	30240
18	Auto PID operation of Coal Mill outlet temperature controlling with booster fan speed as well Coal Mill inlet pressure by recirculation damper	13200
19	Installation of Shell cooling fan at kiln inlet for kiln cooling purpose during shut down	33600
20	CM-3:PPC output increased from 260 to 280 TPH by VFD installation in silo top Elevator	1192500
21	CM-2:Compressor air pressure optimized from 6.5 bar to 5.8 bar	46058

22	CM-3:Modification in water injection nozzle and achieved reduction in mill vibration stoppage as well as Improvement in mill stability	14500
23	CM3:Feed belt BF fan motor converted from DOL to VFD mode for power saving in different grinding	46666
24	CM3: 535RF413 and 535RF416 (RAL's) converted from Delta to Star connection	3600
25	CM3:Water injection capacity changeover done from 10 KL to 12 KL, which resulted into minimized stoppage by vibration	260000
26	Cement Mill up-gradation by Liners replacement & Media regarding	60000
27	CM-1 Grinding media optimization for 1st chamber	180000
28	CM1&2:Mill vent fan damper removed and resulted reduction in pressure drop	14167
29	CM2:Transport Bag Filter stopped during Slag/Pond ash feeding	44167
30	CM3:Trial taken for OPC & PPC Grinding without hot gases during shutdown and stabilized successfully	150000
31	CM3: Cost saving Initiative taken in CM-3 for diversion of OPC material to Silo-01	19800
32	CM2: Slag feeding started from CM-1 & 2 Gypsum belt to utilize idle time of the Gypsum belt and also reduce the power consumption of conveyor belt	16667
33	Packing Plant-1 Bag filter VFD conversion	20440
34	Packing Plant-2 Bag filter VFD conversion	20440

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.

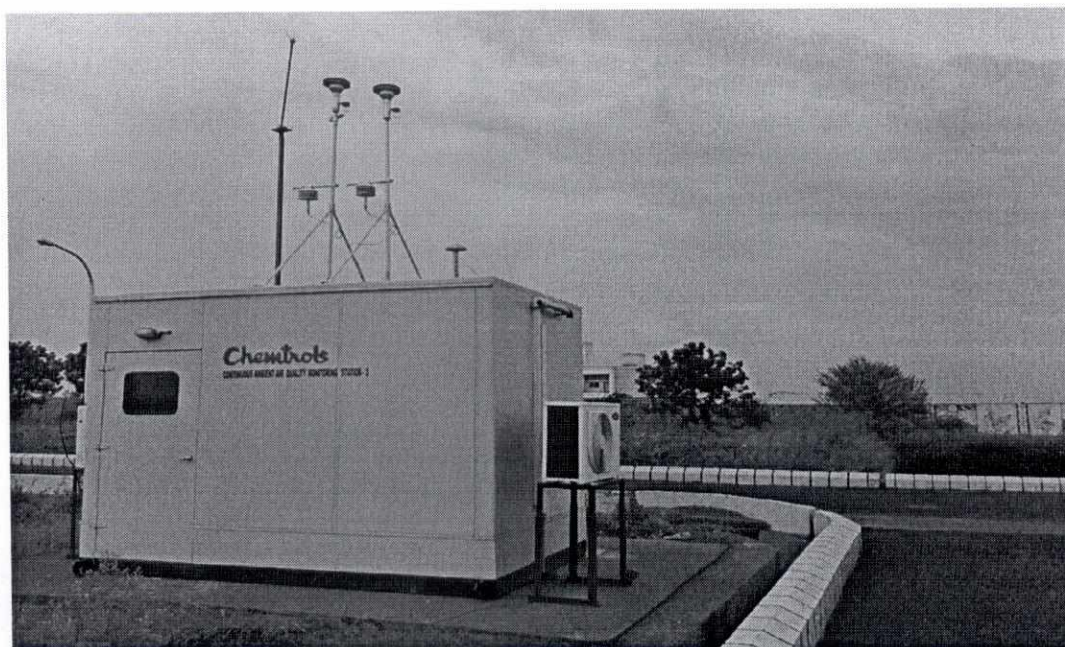


Picture 4- Plantation inside the Factory premises

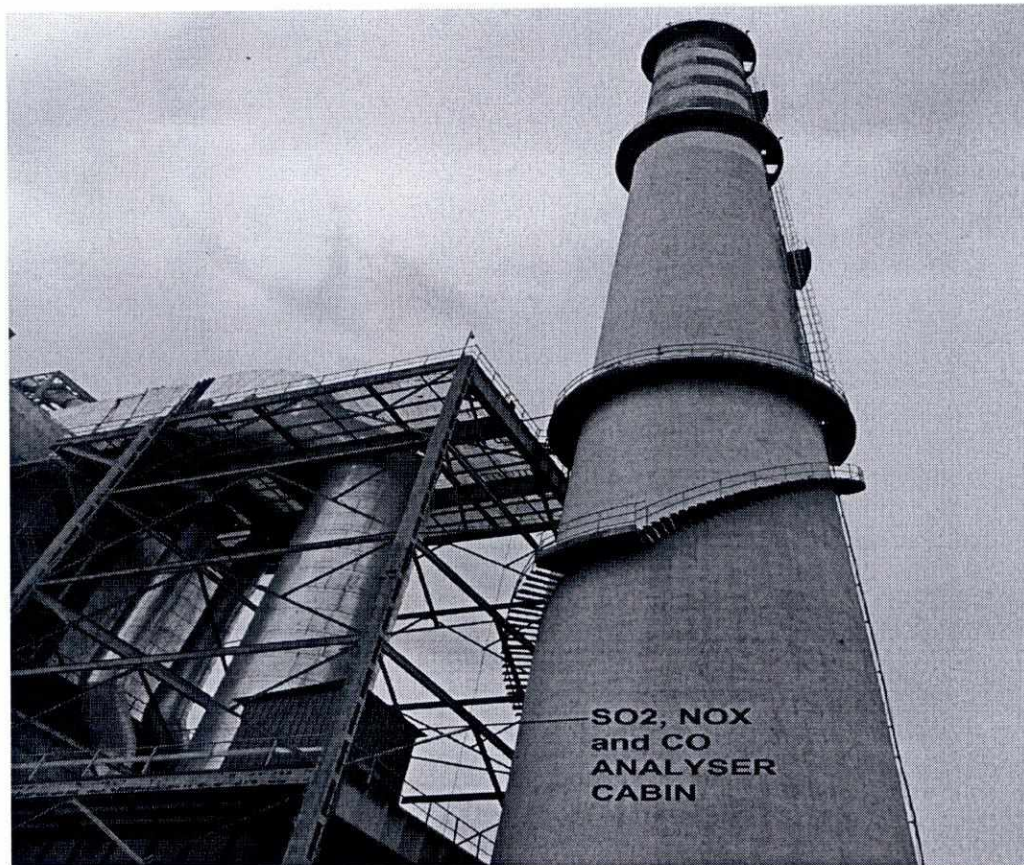




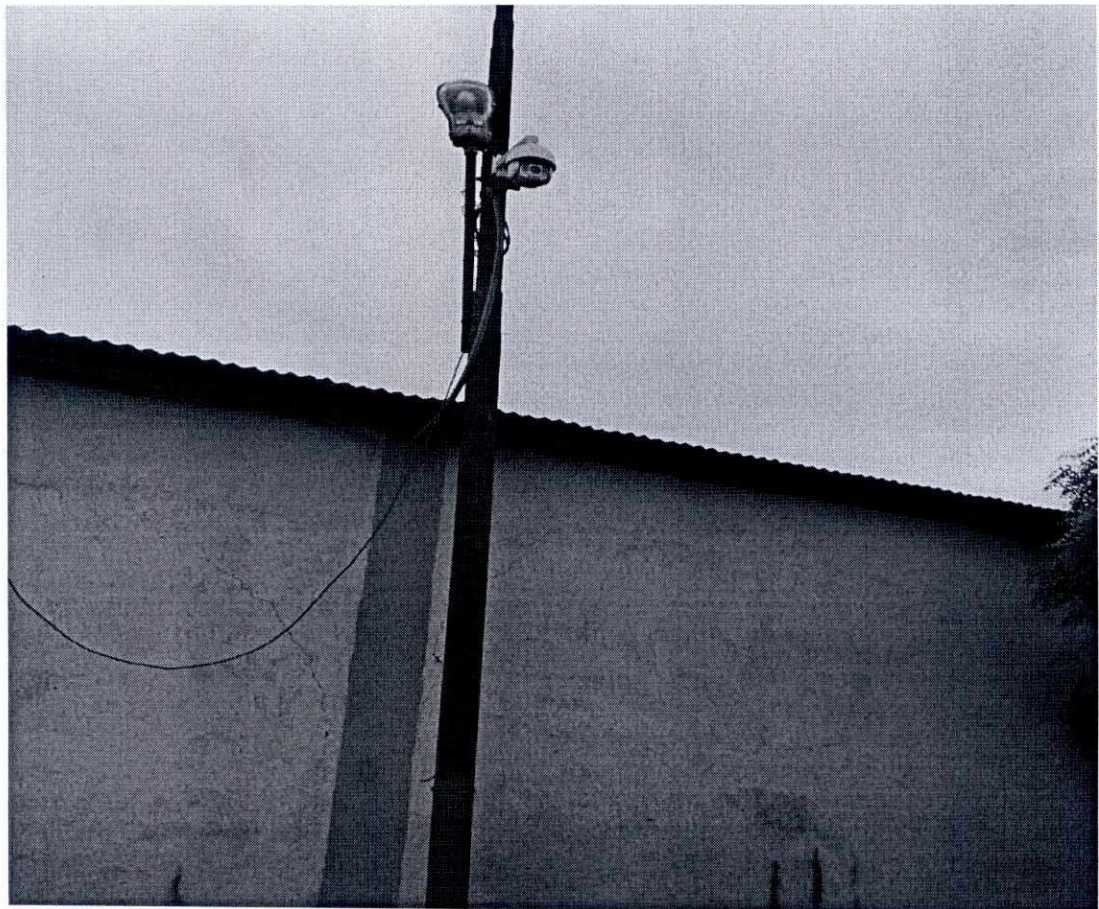
Picture 5- Plantation along with the road constructed inside the plant



Picture 6- Continuous Ambient Air Quality Monitoring Systems (CAAQMS) installed in Residential Colony



Picture 7- Continuous Emission Monitoring Systems (CEMS) installed at Raw mill/Kiln stack

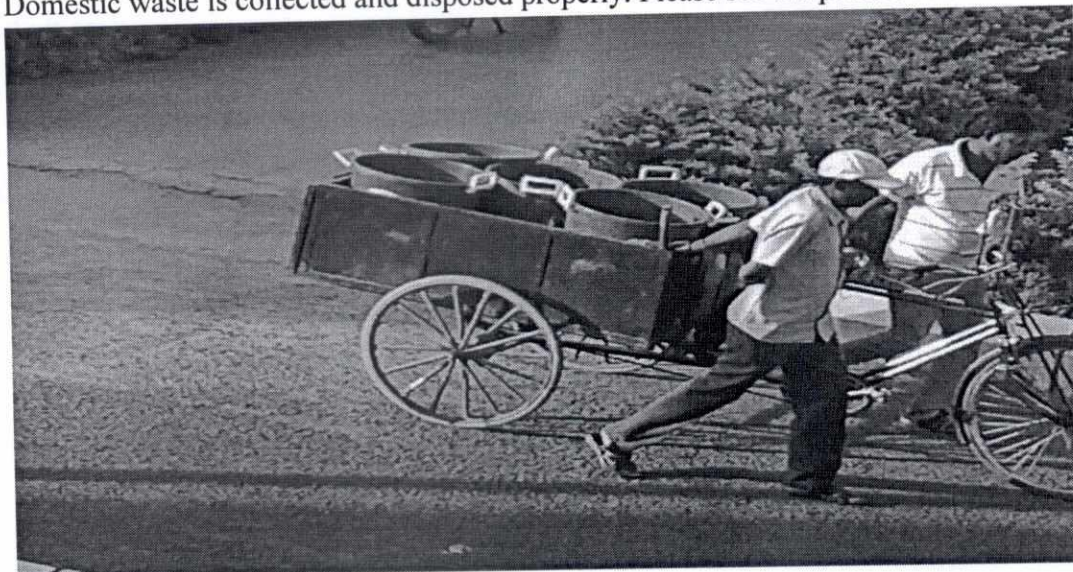


Picture 8- Camera installed at captive power plant's waste water discharging point

PART – I

ANY OTHER PARTICULARS FOR IMPROVING THE QUALITY OF ENVIRONMENT.

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



Picture 9- Door to door collection of domestic waste

- 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 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.
- 4- 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.
- 5- Domestic waste water is treated in STP and treated waste water is used for gardening.

- 6- Horticulture Department is taking care of tree plantation and green belt development.
- 7- 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.
- 8- Industry is taking energy conservation measures.
- 9- Company helps the engineering and management students to carry out their project works.
- 10- Fugitive dust, ambient air and Noise are being monitored regularly.
- 11- Surface water, treated waste water and ground water are being testing time to time.
- 12- Industry has been certified for standards ISO 9001: 2008, ISO 14001: 2004 and OHSAS 18001.

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


R.B.M. Tripathi
(Unit Head)

Treated Effluent Water Analysis Report for the period from April-2017 to March-2018
(Unit: J.N. Cement Ltd.)

[illegible]

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

Sewage Treatment Plant's Treated Water Analysis Report for the period from April-2017 to March-2018

Sl.No.	Month	Suspended Solids	PH	BOD	COD	NH4-N	N-total	PO4-P,
1	Apr-17	6.00	7.70	6.80	36.30	3.70	7.20	0.8
2	May-17	5.57	7.65	6.66	38.42	3.85	6.91	0.83
3	Jun-17	5.57	7.65	6.66	38.42	3.85	6.91	0.83
4	Jul-17	5.57	7.65	6.66	38.42	3.85	6.91	0.83
5	Aug-17	7.33	6.79	7.39	22.52	3.44	7.26	0.76
6	Sep-17	6.82	6.59	6.70	28.88	3.73	7.38	0.72
7	Oct-17	7.02	6.58	6.77	31.63	3.96	7.71	0.80
8	Nov-17	7.33	6.77	7.35	22.60	3.43	7.27	0.8
9	Dec-17	7.47	6.75	7.13	21.83	3.33	7.25	0.75
10	Jan-18	7.36	7.54	6.51	38.77	3.96	7.50	0.72
11	Feb-18	7.47	6.75	7.13	21.83	3.33	7.25	0.75
12	Mar-18	7.60	6.76	7.08	26.76	3.49	7.59	0.57
Yearly Min.		5.6	6.6	6.5	21.8	3.3	6.9	0.6
Yearly Max.		7.6	7.7	7.4	38.8	4.0	7.7	0.8
Yearly Avg.		6.8	7.1	6.9	30.5	3.7	7.3	0.8

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

Ambient Air Quality Monitoring Report for the period from April-2017 to March-2018
(All Values are in Micrograms / Cubic meter)

(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			
				A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D
A P R I L	1	4.4.2017	1st	7.6	7.2	7.1	7.4	8.1	7.6	7.0	7.9	58.2	57.5	57.3	57.5	20.1	31.0	22.4	21.9
	2	6.4.2017		7.4	7.3	7.2	7.2	7.8	7.7	7.6	7.7	59.0	57.9	57.4	57.6	17.8	30.7	15.8	19.7
	3	10.4.2017		6.6	7.1	7.0	7.2	7.0	7.8	7.9	7.6	58.1	58.1	57.8	58.8	58.3	29.2	25.0	47.5
	4	13.4.2017	2nd	7.4	7.3	7.2	7.4	8.0	7.5	7.5	7.7	57.7	57.4	56.4	58.1	58.3	28.5	37.5	60.0
	5	15.4.2017		7.2	7.4	7.5	7.5	7.6	8.0	7.6	7.8	56.9	57.5	57.6	57.2	16.7	52.6	41.7	30.8
	6	18.4.2017	3rd	7.5	7.5	7.1	7.2	7.9	8.1	8.0	7.5	56.4	57.7	57.4	56.7	37.5	46.2	45.8	35.0
	7	22.4.2017		7.1	7.6	7.2	7.3	7.5	8.0	7.6	7.6	57.8	58.0	58.7	57.2	29.2	37.5	54.2	29.2
	8	25.4.2017		7.3	7.4	7.0	7.6	7.6	7.8	7.7	8.0	58.9	57.9	58.7	56.2	45.8	45.8	45.8	52.1
	9	30.4.2017	4th	7.2	7.3	7.1	7.5	7.6	7.6	7.5	8.2	58.2	58.9	58.5	57.0	50.0	54.2	29.2	45.8
M A Y	1	1.5.2017	1st	6.5	7.2	6.8	6.7	7.5	8.3	7.8	7.8	59.4	58.7	57.2	57.9	39.1	24.2	23.0	48.9
	2	4.5.2017		7.5	6.5	7.5	7.5	8.2	7.5	8.5	8.5	56.7	57.4	56.6	57.4	16.7	33.3	29.2	41.7
	3	8.5.2017		6.8	7.5	6.5	6.7	7.8	8.5	7.5	8.5	81.7	81.1	80.3	81.0	20.8	25.0	20.8	25.0
	4	11.5.2017	2nd	7.5	7.0	6.5	6.7	8.5	8.5	7.8	7.5	77.8	75.3	74.1	79.9	16.7	33.3	29.2	36.7
	5	15.5.2017		7.8	6.5	7.5	7.5	8.5	7.5	8.2	8.3	48.6	46.2	42.7	47.4	24.2	37.5	25.0	33.3
	6	18.5.2017	3rd	6.5	7.5	6.5	6.8	7.8	8.2	7.5	8.5	66.7	64.8	69.2	65.1	33.3	29.2	29.2	37.5
	7	22.5.2017		7.0	7.2	7.2	5.7	8.2	8.5	8.2	7.5	84.2	87.2	86.0	83.4	20.8	25.0	20.8	33.3
	8	25.5.2017		6.5	6.5	7.3	6.5	7.3	8.5	8.5	8.0	66.3	61.8	63.8	65.1	33.3	29.2	33.3	40.8
	9	29.5.2017	4th	5.5	5.5	5.5	5.5	7.5	6.5	6.5	7.5	70.7	60.9	64.2	64.5	29.2	33.3	25.0	25.0
J U N E	1	1.6.2017	1st	6.5	6.5	7.5	6.5	7.7	7.5	8.5	7.5	60.4	64.2	62.7	58.6	37.5	37.5	16.7	48.9
	2	5.6.2017		6.7	7.5	6.7	7.5	8.7	8.5	8.0	8.2	57.7	58.6	58.6	62.9	10.4	41.7	20.8	41.7
	3	8.6.2017		7.5	8.5	7.5	7.8	9.0	9.8	9.5	8.2	61.3	69.0	60.2	56.0	16.7	29.2	25.0	25.0
	4	12.6.2017	2nd	7.0	7.5	8.0	6.5	8.5	8.5	9.5	7.8	45.5	62.4	57.8	50.4	25.0	45.8	37.5	36.7
	5	15.6.2017		8.2	7.0	7.8	7.5	9.2	8.3	8.5	8.5	57.0	59.3	50.7	53.3	29.2	33.3	25.0	33.3
	6	19.6.2017	3rd	6.5	7.3	7.5	7.3	7.5	9.3	8.7	8.7	58.3	57.7	58.0	50.2	16.7	25.0	33.3	37.5
	7	22.6.2017		7.5	7.5	8.5	7.5	9.3	8.5	9.5	9.5	53.4	48.9	61.7	62.3	12.5	25.0	37.5	33.3
	8	26.6.2017		7.8	6.5	7.2	6.7	8.2	7.8	8.2	8.0	61.3	53.4	67.2	56.8	16.7	37.5	25.0	40.8
	9	29.6.2017	4th	8.5	8.5	8.0	8.5	10.5	10.5	11.8	11.5	58.1	60.1	59.6	58.3	20.8	33.3	37.5	25.0
J U L Y	1	3.7.2017	1st	8.7	6.5	7.0	6.5	4.8	7.5	9.5	8.2	45.1	62.3	54.5	57.1	33.3	20.0	33.3	41.7
	2	6.7.2017		9.3	5.5	7.5	7.5	3.0	6.0	8.0	8.2	40.5	55.3	49.8	53.2	12.5	25.0	37.5	16.7
	3	10.7.2017		10.5	6.5	6.7	6.7	4.5	7.5	8.2	8.2	30.1	46.3	44.8	48.0	8.3	33.3	41.7	33.3
	4	13.7.2017	2nd	6.5	5.7	6.5	6.0	3.8	7.5	9.5	7.5	24.9	52.6	51.5	40.0	37.5	20.8	45.8	20.8
	5	17.7.2017		2.7	6.7	5.5	6.7	2.0	7.8	8.5	7.0	40.3	48.8	59.1	53.3	29.2	25.0	33.3	12.5
	6	20.7.2017	3rd	5.7	6.8	7.5	8.2	6.5	8.8	8.3	9.3	50.9	61.1	46.9	55.3	25.0	20.8	20.8	16.7
	7	24.7.2017		6.2	7.5	6.5	6.5	7.5	9.5	7.5	7.5	52.5	55.6	56.7	47.2	45.8	29.2	16.7	37.5
	8	27.7.2017		1.8	7.5	7.0	7.2	5.0	8.2	8.5	9.0	48.1	56.8	54.0	45.2	25.0	33.3	25.0	25.0
	9	31.7.2017	4th	0.5	5.5	6.5	5.5	3.5	6.0	8.3	7.5	39.2	65.4	50.2	57.9	25.0	37.5	20.8	20.8
A U G U S T	1	2.8.2017	1st	1.7	6.0	5.5	5.3	4.2	7.0	6.5	6.3	33.8	46.2	62.0	41.6	12.5	16.7	29.2	25.0
	2	5.8.2017		0.8	5.8	6.5	6.5	4.5	6.5	7.5	7.5	41.5	57.8	56.6	59.5	8.3	25.0	16.7	20.8
	3	9.8.2017		1.0	6.0	5.5	6.0	3.3	7.3	6.5	7.0	31.4	48.6	48.7	56.6	16.7	29.2	20.8	20.8
	4	12.8.2017	2nd	1.2	6.5	6.5	6.2	4.2	7.2	7.0	7.5	36.4	52.1	50.2	50.0	16.7	16.7	29.2	20.8
	5	16.8.2017		2.0	6.7	5.8	5.8	4.0	7.8	6.5	6.5	43.9	49.2	66.1	57.8	12.5	37.5	12.5	20.8
	6	19.8.2017	3rd	2.1	5.5	6.0	5.5	3.3	6.5	7.0	6.2	57.9	41.3	57.3	45.6	16.7	20.8	16.7	20.8
	7	23.8.2017		1.2	6.0	6.5	6.0	4.2	7.0	7.5	7.0	31.8	49.7	44.8	49.9	20.8	29.2	12.5	25.0
	8	26.8.2017		0.8	6.5	6.3	6.7	4.0	7.2	7.0	7.2	19.3	43.2	45.3	40.5	12.5	16.7	16.7	29.2
	9	30.8.2017	4th	0.5	5.5	4.3	5.0	2.5	6.0	6.0	7.5	37.3	40.5	55.3	52.1	16.7	16.7	29.2	20.8
S E P T E M B E R	1	2.9.2017	1st	1.7	2.2	6.5	5.5	5.0	6.0	7.5	7.5	43.3	47.2	51.9	46.1	12.5	12.5	16.7	16.7
	2	6.9.2017		1.3	3.5	5.5	4.5	6.3	4.5	6.7	5.5	36.8	39.0	44.2	35.9	16.7	16.7	20.8	37.5
	3	9.9.2017		1.8	5.5	4.2	2.5	7.2	6.7	5.5	3.0	46.0	29.1	37.9	24.3	16.7	24.2	37.5	20.8
	4	13.9.2017	2nd	2.2	2.7	3.8	3.7	9.7	4.3	5.2	3.7	40.1	27.1	29.7	27.9	12.4	20.0	33.3	25.0
	5	16.9.2017		1.8	2.3	2.8	2.5	4.5	3.5	4.3	3.5	17.9	24.3	28.7	22.7	4.1	33.3	29.2	33.3
	6	20.9.2017	3rd	1.5	3.5	3.8	5.2	2.8	4.5	6.7	7.5	19.1	29.1	35.5	30.6	8.3	24.2	20.8	37.5
	7	23.9.2017		2.2	6.8	5.2	6.5	7.5	7.2	6.0	7.5	40.2	54.9	40.2	41.6	16.5	20.8	29.2	16.7
	8	27.9.2017		6.8	2.5	2.3	2.5	9.2	4.5	5.0	3.5	42.8	17.3	20.2	24.0	24.8	20.8	16.7	36.7
	9	30.9.2017	4th	1.0	1.5	5.5	6.5	1.5	3.5	6.5	9.0	12.9	48.6	40.8	49.0	28.9	37.5	33.3	37.5
O C T O B E R	1	5.10.2017	1st	2.2	3.5	2.8	5.2	10.5	4.5	4.3	7.5	57.1	49.5	49.9	57.8	37.5	25.0	24.2	20.8
	2	9.10.2017		2.2	6.8	3.8	6.5	4.3	7.2	5.2	7.5	32.1	52.5	44.8	49.4	20.8	20.8	29.2	41.7
	3	12.10.2017		1.7	5.5	6.7	4.7	8.0	9.5	13.5	12.2	15.7	21.1	34.7	41.3	15.0	25.0	16.7	16.7
	4	16.10.2017	2nd	4.8	8.3	7.8	4.3	7.3	12.5	13.3	7.8	88.7	59.2	50.8	52.8	20.8	29.2	24.2	36.7
	5	19.10.2017		3.7	5.3	8.5	7.5	8.7	11.8	12.0	13.0	81.8	89.5	56.3	62.6	37.5	12.5	37.5	11.5
	6	23.10.2017	3rd	3.5	6.5	8.2	5.5	8.3	8.8	12.8	12.0	69.8	70.7	60.0	45.6	33.3	10.4	37.5	20.8
	7	26.10.2017		2.2	7.2	6.5	6.0	13.0	12.5	13.2	8.5	60.1	59.8	55.4	54.4	37.5	12.5	33.3	29.2
	8	30.10.2017		3.5	4.5	7.5	5.8	14.0	12.5	10.3	7.2	92.5	70.1	67.9	65.8	45.8	37.5	41.7	37.5
	N O V E M B E R	1	3.11.2017	1st	1.8	5.8	6.2	5.8	8.7	6.5	7.5	6.8	51.9	53.8	51.3	59.8	50.0	45.8	33.3
2		7.11.2017	2.8		7.7	7.7	7.0	7.3	13.3	15.8	9.0	30.6	60.1	58.4	48.3	20.8	24.2	29.2	41.7
3		10.11.2017	2.0		4.2	4.2	6.2	4.5	8.5	8.5	7.5	44.0	48.5	46.9	39.7	25.0	51.6	25.0	25.0
4		14.11.2017																	

M B E R	5	15.12.2017	3rd	1.2	7.5	6.5	6.8	9.8	8.5	7.8	7.5	59.0	58.3	45.9	48.6	25.0	33.3	45.8	41.7
	6	19.12.2017		4.5	7.3	3.5	6.0	9.3	8.5	4.5	7.2	64.3	56.3	66.0	71.9	50.0	37.5	20.8	37.5
	7	22.12.2017	4th	1.2	6.8	8.0	7.3	12.0	7.5	7.5	8.5	47.0	45.1	56.9	63.3	16.7	20.8	37.5	41.7
	8	26.12.2017		0.8	6.8	3.5	6.7	10.8	7.5	7.0	7.7	43.3	57.2	49.1	58.5	20.8	45.8	54.2	36.7
	9	29.12.2017		1.0	5.5	4.5	5.5	6.5	7.5	7.5	6.5	36.7	63.9	56.4	61.9	37.5	33.3	37.5	50.0
				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
J A N U A R Y	1	2.1.2018	1st	3.2	1.7	7.5	1.3	4.2	2.8	8.0	3.5	82.7	98.0	57.8	65.5	50.0	29.2	37.5	36.7
	2	5.1.2018		2.2	2.2	6.0	2.7	3.7	3.7	7.0	4.5	72.9	93.8	51.8	51.9	16.7	37.5	33.3	41.7
	3	9.1.2018	2nd	2.8	2.5	7.2	2.2	3.5	4.8	8.5	3.5	52.4	49.9	40.8	71.0	45.8	33.3	24.2	20.8
	4	12.1.2018		3.2	2.0	7.5	3.5	4.5	4.5	9.0	4.5	55.5	56.7	63.0	48.9	33.3	29.2	37.5	29.2
	5	16.1.2018	3rd	4.5	2.2	8.5	2.2	6.0	3.2	9.2	3.5	64.4	69.6	52.3	58.8	16.7	37.5	29.2	41.7
	6	19.1.2018		3.0	3.5	5.5	3.0	4.0	5.2	9.2	4.2	53.2	58.2	45.2	62.5	20.8	33.3	29.2	29.2
	7	23.1.2018	4th	2.3	2.2	6.0	3.2	4.7	3.3	9.0	4.5	74.2	95.2	58.8	55.5	37.5	41.7	41.7	20.8
	8	26.1.2018		3.5	1.7	5.8	2.5	5.8	2.8	7.5	4.5	69.1	50.2	62.7	68.9	20.8	45.8	20.8	41.7
	9	30.1.2018		1.5	2.8	8.5	2.5	3.5	3.0	10.5	4.5	65.9	36.2	56.7	49.1	20.8	25.0	33.3	48.9
F E B R U A R Y	1	2.2.2018	1st	1.8	5.8	10.2	7.3	3.8	6.8	9.3	8.2	42.9	63.7	57.2	36.1	37.5	45.8	25.8	41.7
	2	6.2.2018		5.7	3.5	10.0	6.5	6.7	7.0	8.5	7.0	83.2	55.4	68.9	72.7	50.0	33.3	45.8	37.5
	3	9.2.2018	2nd	1.5	5.3	5.8	7.3	14.3	6.7	8.5	8.7	55.7	47.7	54.9	61.4	29.2	37.5	41.7	41.7
	4	13.2.2018		14.7	4.3	5.7	6.7	3.2	7.5	6.7	7.5	45.4	59.1	71.8	51.0	25.0	33.3	54.2	48.9
	5	16.2.2018	3rd	7.8	3.0	9.5	7.2	3.5	8.8	11.8	8.5	43.1	69.2	61.9	45.9	29.2	41.7	37.5	33.3
	6	20.2.2018		1.2	3.8	8.3	7.0	2.8	4.0	12.0	8.2	70.3	68.4	84.3	62.8	33.3	29.2	33.3	50.0
	7	23.2.2018	4th	0.8	7.0	10.7	5.8	2.8	8.3	12.5	6.7	64.4	56.0	68.7	57.4	37.5	37.5	45.8	41.7
	8	27.2.2018		0.8	6.3	11.5	6.5	3.5	7.5	11.0	7.5	74.6	66.4	72.0	69.6	20.8	45.8	44.6	37.5
M A R C H	1	2.3.2018	1st	1.5	2.7	6.0	4.2	13.8	1.2	7.5	5.5	62.4	43.1	46.8	61.3	16.7	20.8	25.0	29.2
	2	6.3.2018		2.0	1.8	7.0	2.8	8.5	2.8	8.0	6.5	50.3	53.0	51.0	57.2	20.8	25.0	29.2	45.8
	3	9.3.2018	2nd	2.7	0.8	3.0	6.0	3.5	1.7	5.0	7.8	68.4	58.1	67.5	68.7	37.5	20.8	50.0	33.3
	4	13.3.2018		2.2	1.2	2.8	3.5	5.8	2.8	6.3	5.3	56.5	40.0	59.9	61.5	16.7	16.7	37.5	54.2
	5	16.3.2018	3rd	1.5	1.7	7.2	5.8	4.7	3.5	8.0	6.8	54.6	32.0	25.5	74.9	12.5	20.8	33.3	37.5
	6	20.3.2018		2.0	7.8	5.7	7.0	3.2	2.2	6.3	9.0	65.8	52.2	47.6	69.5	16.7	16.7	41.7	29.2
	7	23.3.2018	4th	1.5	11.2	5.8	2.7	6.7	4.7	6.3	3.5	60.8	67.0	40.4	57.7	20.8	20.8	37.5	50.0
	8	27.3.2018		2.7	12.2	6.2	6.5	3.5	2.7	7.5	7.5	56.4	63.5	54.6	62.4	29.2	25.0	29.2	37.5
	9	30.3.2018		1.5	11.0	5.5	4.5	4.5	1.8	6.5	7.0	66.1	57.7	73.0	67.3	25.0	20.8	33.3	45.8
Avg.				3.9	5.8	6.5	6.0	6.7	7.0	8.2	7.4	54.1	56.0	55.5	55.1	27.3	30.1	30.4	33.5
Min.				0.5	0.8	2.3	1.3	1.5	1.2	4.3	3.0	12.9	17.3	20.2	22.7	4.1	10.4	12.5	11.5
Max.				14.7	12.2	11.5	9.3	14.3	13.3	15.8	13.0	97.2	98.0	86.0	83.4	58.3	54.2	54.2	60.0

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

(Unit: J.K. Cement Ltd.)

Stack Monitoring Report for the period from April-2017 to March-2018

Sl. No.	Month/ Year	Stack locations													Clinker Transpo rt	Clinker Storage	CM Sep- 1	CM Sep- 2
		Thermal Power Plant	Kiln / Raw Mill	Coal Mill Bag Filter	Cooler ESP	LSC	CM-1	CM-2	Slag mill	Coal crusher	Packing plant No- 1	Packing plant No- 2	Packing plant No- 3	Packing plant No- 4	RMT System			
1	Apr-17	13.1	12.5	13.4	14.0	11.7	15.8	11.8	15.8	13.9	11.39	11.03	15.40	-	12.6	13.1	10.3	11.8
2	May-17	14.6	12.2	14.9	13.2	12.5	12.4	13.0	14.4	13.0	13.48	12.30	10.74	-	11.1	13.93	10.08	13.0
3	Jun-17	15.0	11.2	10.9	12.7	13.8	12.4	13.0	12.5	11.2	12.95	13.95	11.21	-	13.6	12.3	11.3	13.0
4	Jul-17	16.0	12.6	12.3	14.0	13.8	14.8	13.4	11.5	13.0	13.91	14.58	13.04	-	12.6	11.5	14.46	13.4
5	Aug-17	17.1	14.7	14.8	15.7	13.0	13.2	10.2	14.4	14.0	13.17	12.93	13.71	-	11.1	12.1	13.17	10.2
6	Sep-17	15.0	12.3	11.3	11.2	11.4	11.9	13.5	13.4	13.8	11.83	12.19	11.07	-	11.3	13.5	13.2	13.5
7	Oct-17	25.1	10.6	15.1	12.1	10.5	9.0	12.3	11.2	14.0	11.94	13.82	13.59	12.95	11.9	11.7	15.7	12.3
8	Nov-17	27.4	18.4	8.9	13.7	14.9	12.3	16.4	12.5	12.8	12.49	11.65	13.50	13.37	15.7	13.6	11.5	16.4
9	Dec-17	33.2	18.6	18.8	12.8	14.1	11.0	11.9	10.4	18.8	12.30	11.83	11.07	10.67	13.6	14.04	11.86	11.9
10	Jan-18	21.0	15.1	10.8	12.6	10.7	9.7	11.7	9.8	8.2	14.04	13.15	11.07	12.52	11.3	12.0	13.0	11.7
11	Feb-18	29.7	19.1	9.5	13.6	13.2	11.0	12.5	9.8	12.4	10.56	14.57	12.41	13.26	9.0	11.7	10.8	12.5
12	Mar-18	19.3	23.8	12.2	8.3	11.4	11.50	15.23	12.7	11.2	15.67	12.52	13.69	14.13	13.8	14.4	10.2	15.2
Avg		20.5	15.1	12.7	12.8	12.6	12.1	12.9	12.4	13.0	12.8	12.9	12.7	12.8	12.3	12.8	12.1	12.9
Min		13.1	10.6	8.9	8.3	10.5	9.0	10.2	9.8	8.2	10.6	11.0	10.7	10.7	9.0	11.5	10.1	10.2
Max		33.2	23.8	18.8	15.7	14.9	15.8	16.4	15.8	18.8	15.7	14.6	15.4	14.1	15.7	14.4	15.7	16.4

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

Fugitive Emission Monitoring Report of Cement plant for the period from April-2017 to March-2018

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-17	418.7	515.2	486.0	414.1	373.6	455.5	808.5	557.0
2	May-17	424.8	520.9	476.6	414.8	367.3	456.6	808.0	564.6
3	Jun-17	493.5	470.9	488.1	506.1	499.7	469.4	692.4	554.3
4	Jul-17	410.3	558.2	538.0	531.9	485.5	612.7	570.6	520.7
5	Aug-17	412.2	486.5	533.3	667.2	598.4	565.3	441.7	582.3
6	Sep-17	534.0	572.2	456.6	561.8	573.5	421.7	456.1	600.2
7	Oct-17	593.3	577.3	516.9	602.2	511.0	592.8	556.4	720.8
8	Nov-17	695.7	567.0	492.0	625.7	532.1	589.0	467.0	707.3
9	Dec-17	688.8	575.9	555.4	602.2	590.8	592.0	525.8	544.0
10	Jan-18	609.1	580.6	759.1	691.1	632.5	650.8	611.1	559.9
11	Feb-18	540.5	642.5	609.1	717.4	698.1	730.2	699.1	652.8
12	Mar-18	620.0	690.9	696.2	645.2	696.2	695.9	703.9	621.3
	Minimum	410.3	470.9	456.6	414.1	367.3	421.7	441.7	520.7
	Maximum	695.7	690.9	759.1	717.4	698.1	730.2	808.5	720.8
	Average	536.7	563.2	550.6	581.6	546.5	569.3	611.7	598.8

Noise monitoring report of Cement & Power Plant for the period from April-2017 to March-2018

Sl. No.	Location Name	Oct-17		Nov-17		Dec-18		Jan-18		Feb-18		Mar-18	
		Day (dB) Leq	Night (dB) Leq	Day (dB) Leq	Night (dB) Leq	Day (dB) Leq	Night (dB) Leq	Day (dB) Leq	Night (dB) Leq	Day (dB) Leq	Night (dB) Leq	Day (dB) Leq	Night (dB) Leq
1	Boundary side	45.4	38.6	44.8	36.5	43.2	35.4	44.2	36.2	46.5	38.5	48.5	34.2
2	Administrative Building	42.2	30.2	40.1	32.6	41.1	30.4	40.5	31.6	42.6	30.8	40.7	32.5
3	Near Lime Stone Crusher	48.8	40.4	50.4	40.4	56.2	42.8	55.4	41.2	52.5	40.8	51.6	40.3
4	Near Kiln/ Cooler Office	50.1	40.5	52.7	38.6	51.4	39.5	50.2	40.5	51.4	40.5	50.8	41.7
5	Near Power Plant	52.4	48.5	55.8	46.7	57.4	45.7	58.6	44.7	59.7	45.8	55.4	46.6
6	Near Despatch weigh bridge	50.4	45.6	51.4	44.8	51.2	43.6	52.3	41.5	53.3	42.2	52.2	41.5
7	Near QC Lab.	42.8	35.8	45.6	36.4	44.8	35.5	43.7	36.6	44.5	37.5	43.7	38.8
8	Near Coal Yard	55.8	40.4	56.5	41.2	55.7	42.2	54.5	41.8	55.7	41.8	56.6	42.2
9	Near Canteen	49.6	39.5	48.6	35.2	46.7	36.5	47.5	34.4	46.6	32.2	46.5	33.2
10	Near Plant main gate	44.8	38.7	42.5	36.8	43.6	35.5	42.2	36.6	43.6	35.5	50.2	36.6
11	Near Dispensary	40.2	30.4	38.5	26.9	48.6	25.5	50.6	24.4	51.5	25.5	42.5	26.2
12	Near Packing Plant	50.8	40.8	52.4	42.8	50.4	40.2	51.2	42.8	54.4	43.2	52.2	43.7
13	Near General Store	36.5	30.2	40.8	32.6	43.8	27.6	44.7	28.6	45.8	30.3	55.7	33.6
14	Near DG House (1-meter distance)	60.4	—	62.5	—	61.5	—	62.5	—	62.1	—	63.1	—
15	Near DG House (2-meter distance)	62.5	—	60.2	—	60.8	—	61.6	—	61.8	—	62.7	—