JK Cement Works, Panna
(Formerly known as Jaykaycem (Central) Ltd. now amalgamated)
A Unit of JK Cement Ltd.
CIN: L17229UP1994PLC017199
Village - Harduwaken, Tehsil - Amanganj
District - Panna, State - Madhya Pradesh, India - 488 441
9329141591 jkc.panna@jkcement.com
www.jkcement.com

Ref: JK/CTO-(PLANT)/2024-25/19/07 **Date- 13.09.2024**

To,
The Member Secretary,
MP Pollution Control Board,
Paryawaran Parisar, E-5, Arera Colony,
Bhopal (MP).

Subject: **Environment Statement Report (Form-V) for FY. 2023-24 of M/s J K Cement Limited, Plot No. Various Khasra at Village - Devra, Harduaken, Puraina, Sotipura, Maddayan, Amanganj-Hatta Road, Tehsil: Amanganj, Distt: Panna (M.P.) – 488441.**

Reference No.:

1. Environment Clearance vide letter no. IA-J-11011/224/2016-IA-II(I) dated 02.03.2022.
2. Consent No: AWH-56455, Valid up to - (Air/Water) – 30.06.2025, (Hazardous) - 30.06.2027.

Dear sir,

With reference to aforesaid subject, please find herewith enclosed Environment Statement Report (Form-V) for **FY.2023-24** of M/s J K Cement Limited, Plot No. Various Khasra at Village - Devra, Harduaken, Puraina, Sotipura, Maddayan, Amanganj-Hatta Road, Tehsil: Amanganj, Distt: Panna (M.P.) – 488441.

This is for your kind information and record, please.

Thanking you.
Yours faithfully,

For J K Cement Limited, Panna

Kapil Agrawal
(Unit Head)
Encl: As above

CC: 1- The Regional Office (WZ), MoEF&CC, Kendriya Paryavaran Bhawan, Bhopal – 462 016
2- Regional Officer, Regional Office, MP Pollution Control Board, Makronia, Sagar (MP)

FORM – V

ENVIRONMENTAL STATEMENT REPORT FOR THE FINANCIAL YEAR 2023-24

PART – A

(I)	Name & Address of the Owner / Occupier of the Industry Operation or Process	Mr. Kapil Agrawal (Unit Head) J K Cement Limited Village-Devra, Harduaken, Puraina, Sotipura, Maddayan,, Tehsil-Amanganj (Old Pawai), Distt. Panna-488441 (M.P.)
(II)	Industry Category Primary (STC CODE) Secondary (SIC CODE)	 Large Scale Red Category
(III)	Production Capacity	3.0 MTPA (Cement), 3.3 MTPA (Clinker), WHRS (25 MW) and DG (1750 KVA)
(IV)	Year of Establishment	Year 2022
(V)	Date of last Environmental Statement Submitted	27.09.2023

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 WHRS - 365271 KL (Cement Plant) & 55549 KL (WHRS Plant)
(iv) Domestic - 27925 KL

Consumption per unit of production

Name of the Product	Process Water Consumption per unit of Product Output	
	During the Previous Financial Year (2022-23)	During the Current Financial Year (2023-24)
Cement and Clinker (KL/MT Cement)	0.467	0.190
WHRS (KL/MW Power Production)	0.000	0.790

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 (2022-23)	During the Current Financial Year (2023-24)
Lime Stone	Cement & Clinker	1.032	1.235
Coal		0.049	0.087
Pet coke		0.033	0.029
Gypsum		0.046	0.072
Flyash		0.318	0.325
Iron ore/ Laterite/Red Ochre/Red Mud		0.035	0.057
Alternate Fuel		0.000	0.004
Alternate Raw material and performance improver		0.000	0.081

C. Total Cement and Clinker Production (MT):

Product	During the Previous Financial Year (2022-23)	During the Current Financial Year (2023-24)
OPC	98993	850886
PPC	320860	1070600
Other blended cement	8176	0
Clinker	4,16,964	23,94,022

D. Total Power Production from WHRS (KWH)

Product	During the Previous Financial Year (2022-23)	During the Current Financial Year (2023-24)
WHRS (Power Production)	00	70,301,100

E. Total Power consumption in Cement Plant (KWH/ Ton of Cement)

During the Previous Financial Year (2022-23)	During the Current Financial Year (2023-24)
68.78	69.03

F. Total Power consumption in WHRS Plant (KWH/ KWH of Power production)

During the Previous Financial Year (2022-23)	During the Current Financial Year (2023-24)
0.00	0.034

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	1. As plant is operated on dry process technology, no liquid effluent is generated from cement plant. 2. Domestic waste water generated from office toilet and canteen is being treated with STP and treated water is being used in green belt development in plant premises. 3. Treated Effluent water from WHRS is being used in Cement Plant Process hence Zero Liquid Discharge (ZLD) maintained. 4. Please refer Water consumption and waste water generation report as **Annexure I,** STP treated water analysis report as **Annexure II** and Drinking water analysis report as **Annexure III**		
(b)	Air	Please refer Ambient Air Quality Monitoring Reports as **Annexure IV,** Stack emission monitoring report as **Annexure V**, Fugitive emission monitoring report as **Annexure VI** and Noise Monitoring reports as **Annexure VII**		

PART – D

(As specified under Hazardous waste / Management and Handling rules, 1989 as Amended -2000)

Hazardous waste	During the Previous Financial Year (2022-23) in MT	During the Current Financial Year (2023-24) in MT

From Process	(a) Category 35.3 Chemical sludge from waste water treatment	00	00
	(b) Category 35.4 Oil and Grease, Skimming	00	00
	(c) Category 33.1 Empty Barrels /Containers/ Liners Contaminated with Hazardous Chemicals /Wastes	00	00
	(d) Category 33.2 Contaminated Cotton Rags or Other Cleaning Materials	00	00
	(e) Sludge And Filters Contaminated with Oil	00	00
	(f) Category 5.2 Wastes Or Residues Containing Oil	00	4.392
	(g) Category 1.7 Oil from Waste Water Treatment	00	00
	(h) Category 4.1 Oily Sludge or Emulsion	00	00
	(i) Category 35.2 Spent Ion Exchange Resin Containing Toxic Metals	00	00
	(j) Category 5.1 Used or Spent Oil	00	2.130
From Pollution Control Facilities	Nil	00	00

Co processing of HW Waste in FY 2023-24 –

Sl. No.	Name of Hazardous waste	HW. Cat.	Quantity in stock at the beginning of the year 01.04.2023	Quantity of waste received during the FY: 2023-24	Quantity recycled or co-processed or used during the FY: 2023-24	Quantity in storage at the end of the year 31.03.2024
1	Spent solvent	I-21.2	0.00	0.00	0.00	0.00
2	Spent catalyst	I-26.5	0.00	0.00	0.00	0.00
3	Any Process or Distillation Residue	I-36.1	0.00	0.00	0.00	0.00
4	Spent Carbon or Filter Medium	I-36.2	0.00	0.00	0.00	0.00
5	Process Residue and Wastes	I-28.1	0.00	0.00	0.00	0.00
6	Spent Carbon	I-28.2	0.00	0.00	0.00	0.00
7	Date-Expired Products	I-28.5	0.00	0.00	0.00	0.00
8	Spent Catalysts	I-22.1	0.00	0.00	0.00	0.00
9	Process Waste Sludge/Residues Containing Acid, Toxic Metals, Organic Compounds	I-26.1	0.00	1099.13	914.73	184.4
10	Chemical Gypsum	I-26.1	0.00	0.00	0.00	0.00

11	Distillation Residues	I-20.3	0.00	0.00	0.00	0.00
12	Process Wastes, Residues and Sludges	I-21.1	0.00	0.00	0.00	0.00
13	Spent Catalyst	I-28.2	0.00	0.00	0.00	0.00
14	Off Specification Products	I-28.4	0.00	0.00	0.00	0.00
15	Spent Solvents	I-28.6	0.00	0.00	0.00	0.00
16	Process residues	I-22.2	0.00	0.00	0.00	0.00
17	Spent solvent	I-26.4	0.00	0.00	0.00	0.00
18	Process Wastes, Residues And Sludges	I-21.1	0.00	0.00	0.00	0.00
19	Carbon Residue	I-18.2	0.00	0.00	0.00	0.00

Co processing of Non- HW Waste in FY 2023-24 –

S.No.	Non-Hazardous waste	Quantity in stock at the beginning of the year 01.04.2023	Quantity of waste received during the FY: 2023-24	Quantity recycled or co-processed or used during the FY: 2023-24	Quantity in storage at the end of the year 31.03.2024
1	Agro waste/Biomass	0.00	0.00	0.00	0.00
2	FMCG	0.00	0.00	0.00	0.00
3	Municipal Solid Waste	0.00	0.00	0.00	0.00
4	Plastic waste	0.00	55.02	16.28	38.75
5	RDF	0.00	15410.65	7941.00	7469.65
6	Slag	0.00	0.00	0.00	0.00
7	Bagasse	0.00	0.00	0.00	0.00
8	Blast furnace flue dust/Blast furnace sludge	0.00	0.00	0.00	0.00
9	Bottom ash	0.00	0.00	0.00	0.00
10	Carbide lime sludge	0.00	0.00	0.00	0.00
11	Carbon black	0.00	0.00	0.00	0.00
12	Carbon Residue	0.00	0.00	0.00	0.00
13	Copper slag/Blast furnace	0.00	0.00	0.00	0.00
14	Dolochar	0.00	0.00	0.00	0.00
15	Dry food waste	0.00	0.00	0.00	0.00
16	Fly ash	4078.2	339914.33	341808.09	2184.44
17	GCB dust	0.00	0.00	0.00	0.00
18	Iron sludge	0.00	1099.13	914.73	184.4
19	Jarosite	0.00	0.00	0.00	0.00
20	leather waste	0.00	0.00	0.00	0.00
21	Pyrolysis Oil	6.89	306.39	306.28	7.00
22	Red mud	2342.42	0.00	2059.52	282.90
23	Rice husk	13.87	0.00	13.87	0.00
24	Rubber waste	0.00	0.00	0.00	0.00
25	STP sludge	0.00	0.00	0.00	0.00
26	Textile Waste	0.00	0.00	0.00	0.00
27	Tyre chips	0.00	0.00	0.00	0.00
28	Waste Liquid blend and solid blend (Iron Sludge)	0.00	0.00	0.00	0.00

Quantity of E-Waste under E-Waste (Management) Rule 2016 -

S.No.	E-Waste Name	E-Waste quantity in stock at the beginning of the year 01.04.2023	E-Waste quantity generated during the FY: 2023-24	E-Waste quantity sold out to recycler during the FY: 2023-24	E-Waste quantity in storage at the end of the year 31.03.2024
1	E-Scrap	0.00	0.00	0.00	0.00

The Batteries (Management and Handling) Rules, 2001 –

In FY 2023-24, we have purchased 49 nos. batteries and no waste generated in FY 2023-24.

PART – E
Solid Wastes

Solid Waste		Total Quantity	
		During the Previous Financial Year (2022-23)	During the Current Financial Year (2023-24)
(a)	From Process (Cement Plant)	Nil	Nil
(b)	From Pollution Control facilities	Dust Collected in ESP and Bag houses are recycled back into the process.	Dust Collected in ESP and Bag houses are recycled back into the process.
(c)	(i) Qty. recycled or reused Within the unit.	Dust collected in APCD is 100% utilized in cement manufacturing	Dust collected in APCD is 100% utilized 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 generated in the form of used/spent oil (Cat. 5.1) & Wastes or Residues Containing Oil (Cat. 5.2) which are being stored in barrel at safe and dedicated area and sold to authorized recycler of MPPCB.

Solid waste: Dust collected from pollution control equipment (i.e. from ESP and Bag houses) is totally recycled in process.

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 (PPC) manufacturing up to maximum 35% 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 NOx, fugitive emission from various stages of handling of limestone (Drilling to Grinding stages). Substantial quantity of electrical and thermal energy has been also saved.

Use of STP treated water for the gardening purpose-

We have latest and advance technology-based Sewage Treatment Plant. We have installed total 07 Nos. STP (Capacity= 25 KLD- 02 Nos., 05 KLD- 04 Nos. and 300 KLD-01 Nos.). Total quantity of treated waste water generated in FY 2023-24 from STPs was 7814 KL which was used in gardening.

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.

Year	Greenbelt Area in Ha.	Numbers of Saplings (nos.)
	Achieved (Ha)	Achieved
Up to March 2022	1.64	4,109
FY 2022-23	14.32	35,788
FY 2023-24	9.46	23,661
Total	**25.42**	**63,558**

Storage of raw materials-

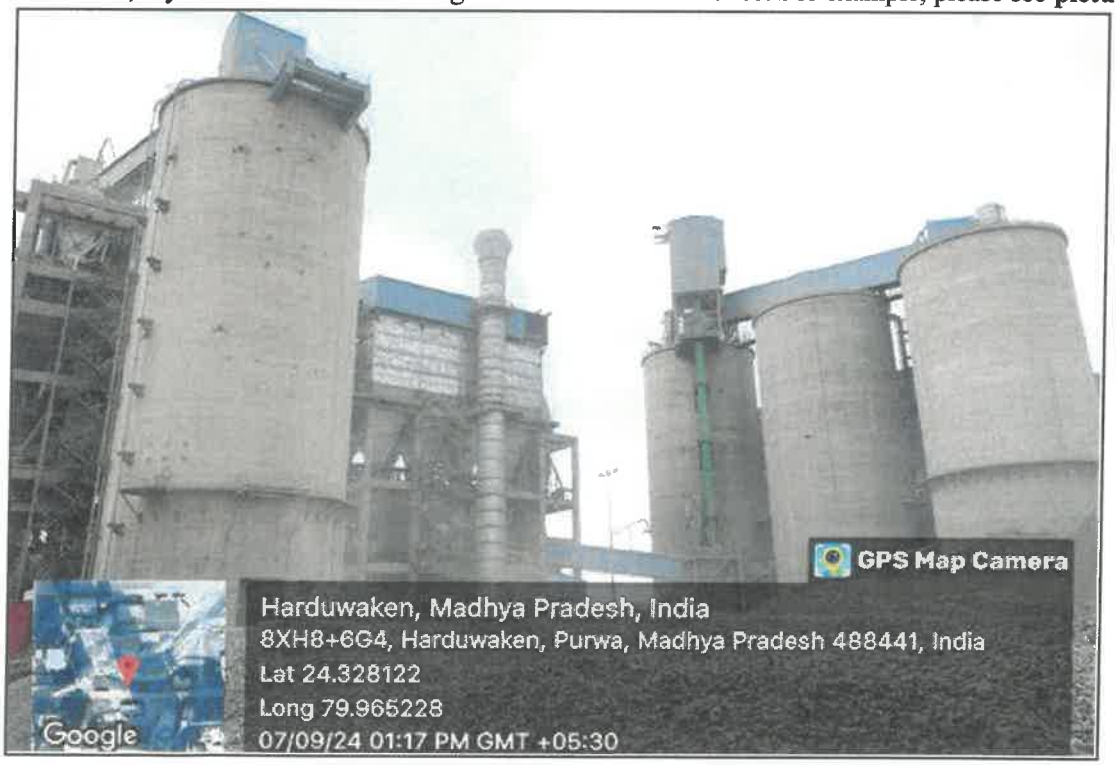
i- All the raw materials are stored in the covered sheds. For example, please see **picture 1**.

Picture 1- Covered sheds for storage of raw materials

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

Picture 2- Covered raw material belt conveyor

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



Picture 3- Flyash & Cement Silos

iv- Waste Heat Recovery Plant (WHRS)'s treated water is being utilized for spraying in cement mill. Our plant is ZERO Liquid Discharge.

Concreting of Kachcha roads/floor-

All roads of plant have been concreted / paved. For example, please see **picture 4.**

Picture 4- Paved roads and Paved floor

Installation of Pollution Control Devices-

Following devices are installed for emission control and emission is well within the prescribed limits.

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

Sr. No.	Pollution Control Devices attached with	Pollution Control Devices installed
1	Raw Mill (02 Nos.)/Kiln (01 Nos.)	Bag House
2	Coal Mill (01 Nos.)	Bag House
3	Cooler (01 Nos.)	Electro Static Precipitator
4	Cement Mill (01 Nos.)	Bag House

Energy conservation measures-

1- We have installed solar street lights.

2- We have installed roof top solar system of 75.6 KW.

PART – H

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

1- Green belt development or tree plantation is our ongoing process. We are continuously doing the plantation in and around the cement plant. For example, please see the **pictures 5.**

2- We have installed 4 Nos. Continuous Ambient Air Quality Monitoring Systems (CAAQMS) and real time data is connected at MPPCB and CPCB portal.

3- We have installed 4 Nos. Continuous Emission Monitoring Systems (CEMS) and real time data is connected at MPPCB and CPCB portal. Please see the picture of one instrument in **picture 6.**

4- We have installed camera at WHRS Waste water discharging point/Neutralization pit. Please see the picture of one instrument in **picture 7.**

Picture 5- Plantation inside the Factory premises

Picture 6- Continuous Emission Monitoring Systems (CEMS) installed

Picture 7- Camera installed at WHRS Treated water discharging point

PART – I
ANY OTHER PARTICULARS FOR IMPROVING THE QUALITY OF ENVIRONMENT.

1- 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.
2- Monitoring of stack emission, ambient air and water quality is being done regularly. Maintenance dept. is regular checking and maintaining all the pollution control devices.
3- Domestic waste water is treated in STP and treated waste water is used for gardening.
4- Horticulture Department is taking care of tree plantation and green belt development.
5- Fugitive dust, ambient air and Noise are being monitored regularly.
6- Surface water, treated waste water and ground water are being testing time to time.

For J K Cement Limited
(Unit: J.K. Cement Limited)

Kapil Agrawal
(Unit Head)

ANNEXURE - I

JK Cement Ltd., Panna

A unit of JK Cement Ltd.

Water Consumption & Waste Waster Generation Report in for FY 2023-24

Month	Water Consumption in (KL)			Waste Water Generation in (KL)		
	Water Consumption for Mnfg. Process	Water Consumption for DM water plant for boiler & WHRB	Domestic Water Consumption	Waste Water generation for Mnfg. Process	Waste Water generation for DM water plant for boiler & WHRB	Waste Water generation for Domestic Purposes
Apr-23	54187	0	2529.96	0	0	175
May-23	40719	9325	2562.71	0	3045	464
Jun-23	41611	6791	2048.53	0	1983	399
Jul-23	29845	7670	2050.35	0	2307	775
Aug-23	13628.8	6048	1800.98	0	2317	868
Sep-23	13434	3593	1158.12	0	1232	788
Oct-23	13751	4243	1161.88	0	1616	774
Nov-23	30044	3734	4337.86	0	1287	827
Dec-23	17851	3462	2695.33	0	1323	905
Jan-24	37507	2630	2783.92	0	1190	644
Feb-24	30476	4451	2754.34	0	1520	633
Mar-24	42218	3602	2040.58	0	1047	563
Total	**365271**	**55549**	**27925**	**0**	**18867**	**7814**

ANNEXURE - II

JK Cement Ltd., Panna
A unit of JK Cement Ltd.

STP WASTE AND TREATED WATER ANALYSIS REPORT FOR FY-2023-24

Parameters	Standards	Average results					
		STP - Guest House	STP - Admin Building	STP - CCR	STP - Gate Complex	STP - Secruity Barrack	STP - Labour Colony
pH	6.5 - 9.0	7.64	7.41	7.51	7.39	7.33	7.52
TSS mg/L	100	20.13	17.13	19.65	21.13	22	20.40
COD mg/L	250	80.50	76.25	82.50	82.75	56	77.75
BOD mg/L	30	14.03	16.88	15.95	18.63	16	14.95
O & G mg/L	10	<2	<2	<2	<2	<2	<2

ANNEXURE - III

JK Cement Ltd., Panna

A unit of JK Cement Ltd.

DRINKING WATER ANALYSIS REPORT FOR FY-2023-24

Sr. No.	Parameters	Test Method	Unit	Limit as per IS 10500:1991 (Reaff:2012)		Near Zero Point Borewell	Near HR Office	Devra Village
				Desirable	Permissible			
1	pH at 25 ^{0}C	APHA 4500H+A+B	-	6.5-8.5	No relaxation	7.35	7.33	7.41
2	Temperature	APHA 2550-A+B	$_{o}$C	Not Specified	Not Specified	23.5	24	23.5
3	Colour	APHA 2120-B	Hazen	5	15	<5.0	<5.0	<5.0
4	Turbidity	APHA 2130-A+B	NTU	1	5	<1.0	<1.0	<1.0
5	Odour	APHA 2150-B	-	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
6	Alkalinity	APHA 2320-A+ B	mg/L	200	600	144	144	148
7	Total Dissolved Solids	APHA2540-C	mg/L	500	2000	423	390	474
8	Total Hardness	APHA 2340 A+C	mg/L	200	600	138	152	164
9	Calcium	APHA 3500 Ca- A+B	mg/L	75	200	26	38	46
10	Magnesium	APHA 3500 Mg A+B	mg/L	30	100	17.8	13.9	12
11	Sodium	APHA 3500 Na, A+B	mg/L	-	-	19	17	20
12	Phosphate	APHA 4500-PD	mg/L	-	-	BDL	BDL	BDL
13	Sulfate	APHA 4500-SO42- E	mg/L	200	400	24.5	29.5	30.5
14	Potassium	APHA 3500 K, A+B	mg/L	-	-	8	10	10
15	Nitrate	APHA 4500-NO3- B	mg/L	45	-	6.5	7.6	7.5
16	Free Residual Chlorine	APHA 4500-Cl B	mg/L	0.2	1	<0.2	<0.2	<0.2
17	Chloride	APHA 4500 Cl A+B	mg/L	250	1000	30.4	32	30.8
18	Boron	APHA 4500 B A+C	mg/L	0.5	1	BDL	BDL	BDL
19	Copper	APHA 3111 A+B	mg/L	0.05	1.5	BDL	BDL	BDL
20	Cadmium	APHA 3111 A+B	mg/L	0.003	No relaxation	BDL	BDL	BDL
21	Iron	APHA 3500 Fe B	mg/L	0.3	No relaxation	0.22	0.17	0.16
22	Lead	APHA 3111 A+B	mg/L	0.01	No relaxation	BDL	BDL	BDL
23	Nickel	APHA 3111 A+B	mg/L	0.02	No relaxation	BDL	BDL	BDL
24	Zinc	APHA 3111 A+B	mg/L	5	15	BDL	BDL	BDL
25	Fluoride	APHA 4500-C	mg/L	1	1.5	0.55	0.66	0.69
26	Hexavalent Chromium	APHA 3500 B	mg/L	0.001	No relaxation	ND	ND	ND
27	Electrical Conductivity	APHA 2510 B	µS/cm	No relaxation	No relaxation	711	782	774
28	Total Coliform Count	APHA 9221 B	MPN/100 ML	Shall not be detectable in any 100 ml		<2.0	<2.0	<2.0
29	Fecal coliform	APHA 9221 E	MPN/100 ML	Shall not be detectable in any 100 ml		<2.0	<2.0	<2.0

ANNEXURE - IV

JK Cement Ltd., Panna

A unit of JK Cement Ltd.

AMBIENT AIR QUALITY MONITORING DATA FOR FY-2023-24

Month /Year	PM10 (µg/Cum)				PM2.5 (µg/Cum)				SO2 (µg/Cum)				NO2 (µg/Cum)			
	Permissble Limit for 24 hours - 100 (µg/Cum)				Permissble Limit for 24 hours - 60 (µg/Cum)				Permissble Limit for 24 hours - 80 (µg/Cum)				Permissble Limit for 24 hours - 80 (µg/Cum)			
	Near Zero Point	Near Reservoir	Near Store	Near Guest House	Near Zero Point	Near Reservoir	Behind Store	Near Guest House	Near Zero Point	Near Reservoir	Behind Store	Near Guest House	Near Zero Point	Near Reservoir	Behind Store	Near Guest House
Apr-23	48.29	48.16	49.64	50.50	29.53	28.88	26.86	31.26	6.68	6.87	6.72	6.47	11.35	11.41	12.27	13.34
May-23	46.48	47.51	49.32	51.33	30.31	30.31	27.21	31.34	6.46	6.86	6.80	6.63	11.49	11.50	11.94	12.66
Jun-23	47.24	47.68	49.90	51.25	29.82	28.36	27.38	31.30	6.58	6.71	6.81	6.53	11.27	11.09	12.39	13.07
Jul-23	50.55	51.35	56.27	56.73	32.30	32.65	29.20	34.58	6.83	6.79	7.35	6.91	11.40	11.99	13.47	13.31
Aug-23	52.85	54.46	57.04	57.49	35.49	35.76	31.09	36.72	6.71	7.05	7.45	6.86	11.33	12.64	13.88	13.89
Sep-23	53.79	53.59	58.56	58.74	33.13	34.28	29.66	35.66	6.80	6.90	7.45	6.91	11.36	12.62	13.91	13.80
Oct-23	56.06	57.08	58.88	60.55	30.29	29.27	30.90	31.73	8.43	8.01	7.48	8.49	13.34	13.27	15.13	14.97
Nov-23	58.92	61.12	62.93	65.19	31.82	31.20	33.29	33.51	9.47	9.13	8.79	9.60	15.41	15.28	17.47	16.73
Dec-23	53.72	57.02	58.13	60.59	28.32	27.80	30.39	30.67	8.67	8.23	8.09	8.50	14.31	14.23	15.75	15.63
Jan-24	59.82	62.82	63.23	65.39	32.22	31.10	33.77	34.77	10.57	9.73	9.54	9.72	16.11	16.03	17.36	16.93
Feb-24	61.24	58.48	54.82	59.37	31.66	30.78	25.98	28.41	8.24	7.47	8.70	7.91	14.41	14.20	13.41	12.01
Mar-24	65.72	64.63	67.53	58.65	29.87	29.25	30.28	26.18	7.44	6.64	7.85	7.04	13.39	13.17	12.36	10.95
Minimum	**46.48**	**47.51**	**49.32**	**50.50**	**28.32**	**27.80**	**25.98**	**26.18**	**6.46**	**6.64**	**6.72**	**6.47**	**11.27**	**11.09**	**11.94**	**10.95**
Maximum	**65.72**	**64.63**	**67.53**	**65.39**	**35.49**	**35.76**	**33.77**	**36.72**	**10.57**	**9.73**	**9.54**	**9.72**	**16.11**	**16.03**	**17.47**	**16.93**
Average	**54.56**	**55.33**	**57.19**	**57.98**	**31.23**	**30.80**	**29.67**	**32.18**	**7.74**	**7.53**	**7.75**	**7.63**	**12.93**	**13.12**	**14.11**	**13.94**

ANNEXURE -V

JK Cement Ltd., Panna

A unit of JK Cement Ltd.

STACK MONITORING DATA FOR FY-2023-24

Sr No.	Month /Year	Stack locations					
		Cement Mill	Coal Mill	Cooler Esp	Raw Mill Kiln		
		PM in mg/Nm3	PM in mg/Nm3	PM in mg/Nm3	PM in mg/Nm3	SO2 in mg /Nm3	NOx in mg/Nm3
1	Apr-23	15.5	3.5	14.7	5.2	88.9	111.3
2	May-23	13.9	9.9	8.3	17.4	34.5	419.6
3	Jun-23	14.4	13.4	14.0	17.7	30.9	404.5
4	Jul-23	9.6	16.7	3.1	17.3	86.5	348.0
5	Aug-23	6.6	4.9	15.7	8.4	85.3	386.2
6	Sep-23	9.8	9.2	7.9	10.1	78.2	296.0
7	Oct-23	8.6	8.6	9.5	9.2	55.7	251.8
8	Nov-23	9.1	9.9	7.6	8.8	46.7	243.6
9	Dec-23	8.9	8.6	9.6	8.3	40.3	224.6
10	Jan-24	8.4	9.7	6.7	8.4	32.9	228.6
11	Feb-24	11.6	10.3	8.3	10.8	35.5	226.0
12	Mar-24	12.3	10.6	9.3	9.5	32.1	220.3
	Min	**6.6**	**3.5**	**3.1**	**5.2**	**30.9**	**111.3**
	Max	**15.5**	**16.7**	**15.7**	**17.7**	**88.9**	**419.6**
	Avg	**10.73**	**9.61**	**9.55**	**10.92**	**53.95**	**280.05**

ANNEXURE -VI

JK Cement Ltd., Panna

A unit of JK Cement Ltd.

Sr. No.	Sources/Locations	Parameter	Results (in µg/m3)			
			May-23	Aug-23	Nov-23	Jan-24
1	Near packing Plant area	SPM	159.4	308.5	284.6	296.3
2	Near Gypsum yard		185.5	284.5	278.2	302.4
3	Near Raw Mill		143.3	292.0	273.4	284.5
4	Near Coal Mill		157.4	288.6	280.5	275.6
5	Near Cement Mill		188.0	318.6	302.0	298.5
6	Near Cooler		136.2	322.0	308.2	302.7
7	Near Coal Shed		223.6	276.0	282.6	288.6
8	Near Lime Stone Shed		216.2	280.2	268.5	275.6

ANNEXURE -VII

JK Cement Ltd., Panna

A unit of JK Cement Ltd.

NOISE MONITORING REPORT FOR FY-2023-24

Sr. No.	Zone	Location Name	Permissible Limits	Apr-23		May-23		Jun-23		Jul-23		Aug-23		Sep-23	
				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	Core	Near Guest House Area	**Ambient Noise** Day time - 75 dB (A) Night time - 70 dB (A) **Work Zone Noise** Work Zone - 85 dB (A)	55.21	44.21	54.23	45.21	52.34	44.32	51.48	45.12	50.46	44.98	49.50	48.76
2		Near Security Barrack		54.71	40.31	53.71	42.35	56.72	41.74	54.89	40.34	51.78	39.47	43.61	43.09
3		Near Zero Point Area		54.31	44.31	57.62	46.21	51.39	45.87	50.01	42.18	52.98	37.28	43.18	42.75
4		Near Reservoir		64.32	45.32	67.63	42.13	52.97	41.36	51.64	40.02	49.35	38.04	50.12	41.46
5		Near Main Gate		64.92	48.71	65.71	43.25	59.87	45.28	62.15	46.27	60.19	47.24	66.06	48.34
6		Near CCR building		61.71	43.74	69.23	45.71	62.91	44.38	64.34	45.69	62.08	42.13	65.58	41.05
7		Near Project Office		68.76	51.39	58.90	52.18	59.72	55.27	68.76	64.26	59.01	51.39	58.03	53.26
8		Near Packing Plant		70.03	57.27	60.38	54.27	64.93	60.19	70.03	64.29	64.98	57.27	65.24	56.73
9		Near Cement Mill		84.19	64.27	81.73	62.17	83.29	76.38	84.19	77.18	65.95	64.27	63.28	60.17
10		Near Preheater		81.42	70.83	78.34	65.28	79.45	72.19	81.42	73.27	75.96	70.83	73.19	69.27
11		Near Stacker & Reclaimer		61.72	64.27	53.72	61.38	67.54	62.48	61.72	58.28	75.41	64.27	72.18	65.27
12		Near Store Area		54.22	53.27	40.64	39.28	53.36	49.28	54.22	50.19	54.32	53.27	53.12	49.27
13		At Kiln Platform		82.97	79.38	83.02	76.27	72.90	65.38	82.97	78.37	82.11	79.38	81.37	75.27
14		Near Raw Mill		73.29	74.28	68.77	63.27	82.12	76.28	73.29	69.01	82.13	74.28	80.28	74.37
15		Near DG Set		69.38	71.37	50.18	46.27	78.80	76.28	69.38	63.28	76.71	71.37	74.27	68.37
16		Near Cooler		75.77	65.37	69.44	62.01	72.36	67.82	75.77	69.09	71.17	65.37	70.26	64.27
17	Buffer	Harduaken Village		43.21	31.71	45.71	32.71	44.21	33.73	42.15	31.05	40.39	30.12	43.97	33.18
18		Sotipura Village		42.34	34.23	45.43	33.98	46.62	32.98	44.89	34.75	42.16	33.48	44.75	38.46
19		Purwa Village		45.87	36.21	43.76	32.94	43.98	34.87	45.67	33.09	44.98	30.45	43.65	36.45
20		Kakra Village		41.91	34.54	42.37	33.64	44.28	35.34	40.17	31.89	40.67	34.82	45.27	34.85
21		Pagra Village		37.23	31.76	41.24	35.72	47.87	31.09	48.34	30.87	45.87	31.28	46.27	36.81

Sr. No.	Zone	Location Name	Permissible Limits	Oct-23		Nov-23		Dec-23		Jan-24		Feb-24		Mar-24	
				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	Core	Near Guest House Area	**Ambient Noise** Day time - 75 dB (A) Night time - 70 dB (A) **Work Zone Noise** Work Zone - 85 dB (A)	50.90	43.22	51.23	42.18	61.26	54.89	53.40	42.60	56.40	47.60	58.80	50.80
2		Near Security Barrack		48.60	42.14	49.71	39.01	43.14	35.97	62.40	53.80	60.80	52.60	63.20	55.80
3		Near Zero Point Area		58.80	40.12	56.82	41.38	55.27	42.71	65.80	55.20	62.70	53.80	65.10	57.00
4		Near Reservoir		49.08	44.21	50.92	45.62	50.92	39.02	65.60	40.60	64.20	42.10	66.60	45.30
5		Near Main Gate		60.30	42.19	58.82	43.18	63.60	44.57	66.30	57.90	67.50	59.60	69.90	62.80
6		Near CCR building		54.40	41.37	55.72	42.47	54.26	55.12	60.20	49.50	62.20	51.70	64.60	54.90
7		Near Project Office		63.95	47.79	54.78	48.53	55.54	51.40	63.95	59.76	54.88	47.79	53.97	49.53
8		Near Packing Plant		65.13	53.26	56.15	50.47	60.38	55.98	65.13	59.79	60.43	53.26	60.67	52.76
9		Near Cement Mill		78.30	59.77	76.01	57.82	77.46	71.03	78.30	71.78	61.33	59.77	58.85	55.96
10		Near Preheater		75.72	65.87	72.86	60.71	73.89	67.14	75.72	68.14	70.64	65.87	68.07	64.42
11		Near Stacker & Reclaimer		57.40	59.77	49.96	57.08	62.81	58.11	57.40	54.20	70.13	59.77	67.13	60.70
12		Near Store Area		50.42	49.54	37.80	36.53	49.62	45.83	50.42	46.68	50.52	49.54	49.40	45.82
13		At Kiln Platform		77.16	73.82	77.21	70.93	67.80	60.80	77.16	72.88	76.36	73.82	75.67	70.00
14		Near Raw Mill		68.16	69.08	63.96	58.84	76.37	70.94	68.16	64.18	76.38	69.08	74.66	69.16
15		Near DG Set		64.52	66.37	46.67	43.03	73.28	70.94	64.52	58.85	71.34	66.37	69.07	63.58
16		Near Cooler		70.47	60.79	64.58	57.67	67.29	63.07	70.47	64.25	66.19	60.79	65.34	59.77
17	Buffer	Harduaken Village		45.67	32.12	43.44	33.18	52.11	36.53	51.80	40.70	52.50	41.50	53.40	43.30
18		Sotipura Village		46.27	34.39	45.91	33.18	50.06	38.91	50.40	40.20	51.70	40.80	51.60	42.60
19		Purwa Village		43.47	34.29	44.95	33.18	47.90	33.68	50.40	42.30	53.60	43.90	52.50	41.70
20		Kakra Village		47.27	37.36	45.29	36.92	48.59	40.12	51.40	41.20	52.10	40.30	52.80	42.60
21		Pagra Village		44.28	33.28	46.92	31.84	51.38	39.15	51.60	41.50	53.90	42.40	51.80	43.20