JK Cement Works, Mangrol
A unit of JK Cement Ltd.
CIN: L17229UP1994PLC017199
C/o. Kailash Nagar-312617, Nimbahera Distt., Chittorgarh (Raj.) INDIA
+91-1477-220098, 220087 jkc.mgrl@jkcement.com
www.jkcement.com

JKCW/MGR/ESR/FY-25-26/27 **Date:** 17.09.2026

To,
The Group In charge, CPP
Rajasthan State Pollution Control Board
4, Industrial area, Jhalana Doongri
Jaipur-302004 (Raj.)

Sub: Submission of Environmental Statement Report in Form- V for Financial Year 2025-26 by M/s J.K. Cement Works, Mangrol for Cement Plant Line 1 situated at Mangrol Village, Tehsil Nimbahera, Chittorgarh, Rajasthan- 312601.

Ref: CTO letter No.- F(Mines)/Chittorgarh(Nimbahera)/1873(1)/2021-2022/1152-1154 dated 13th July 2022.

Dear Sir,

With reference to the above citied subject, we M/S J.K. Cement Works, Mangrol, hereby submitting the environmental statement report of **Cement Plant (Line 1)** in Form- V for Financial Year 2025-26 as per, Rule No.14 of the Environment (Protection) Rules, 1986, EC & CTO order.

This is for your kind information.

Yours Faithfully,
For J.K. Cement Works, Mangrol

Manish Toshniwal
Unit Head (Operations)

Encl: Form- V Environmental Statement report.

Copy: The Regional Officer, Rajasthan State Pollution Control Board, Near FCI Godown, Chanderiya, District- Chittorgarh (Raj): - 312021

ENVIRONMENTAL STATEMENT

FORM - V

Environmental Statement for the financial year 2025-26, ending the 31st March 2026

PART-A

Name an address of the owner/occupier of the industry operation or process	Manish Toshniwal Unit Head (Operations) J.K. Cement Works, Mangrol Cement Plant (Unit-I, II and III) Village Mangrol, Tehsil Nimbahera, District Chittorgarh Rajasthan, Pin Code- 312617
Industry category **Primary - (STC Code)** **Secondary - (STC Code)**	Primary
Production capacity	Clinker: 0.75 MMTPA Cement: 0.95 MMTPA
Year of establishment- (UNIT WISE)	Grinding & packing unit started in the year 1995 & Clinker production started in Dec-2001
Date of last environmental statement submitted	27.09.2025

PART-B

WATER AND RAW MATERIAL CONSUMPTION

WATER CONSUMPTION in m^3/day

Process, Cooling & Other : - **772 m^3/day**
Domestic : - **30 m^3/day** (for plant domestic use)

Name of products	Process water consumption per unit of products (For cooling & domestic)	
	During the previous financial year (2024-2025) (KL/MT)	During the current financial year (2025-2026) (KL/MT)
CEMENT	0.072	0.093

**Specific water consumption for cement production is combined for Unit-1, Unit-2 & Unit-3*

RAW MATERIAL CONSUMPTION

Name of Raw Material	Name of Products	Consumption of raw material per unit of output (in MT)	
		During the previous financial year (2024-25)	During the current financial year (2025-26)
LIMESTONE	CLINKER	0.349	0.0380
RED OCHRE		0.0382	0.0447
Bauxite		0.0233	0.0146
LATERITE		0.0276	0.0355
LEAD ZINC SLAG		0	0
RED CLAY		0.0006	0.0056
RED MUD		0.0038	0.0026
COAL		0.0026	0.0092
PETCOKE		0.0803	0.0724
ALTERNATIVE FUEL REPLACEMENT		0.0271	0.0432
Gypsum**	CEMENT	0.0752	0.0664
Fly ash% of PPC*		30.07	29.12
Alternative Raw Material & Performance improver*		0.0325	0.0302

PART-C

POLLUTION DISCHARGE TO ENVIRONMENT / UNIT OF OUTPUT

Pollutants	Quantity of pollutants discharged (kg/ ton of Clinker)	Concentration of pollutants in discharge (mg/Nm3)	Percentage of variation from prescribed standards with reasons
Water	Cement plant is being operated on dry process technology, hence no liquid effluent is generated. Domestic waste water generated from the office toilet and canteen is being treated in STP and treated water used in plantation & horticulture purposes within the premises.		

A. WATER

Domestic Treated Water Quality Data (Average) FY 2025-26		
Parameters	**Standards**	**Average results of YTD**
pH (at 25° C)	Between 5.5 to 9.0	7.63
Total Suspended solids	Not to exceed 20 mg/l	12.55
Biological Oxygen Demand (3 days at 27 Degree C)	Not to exceed 10 mg/l	7.03
Chemical Oxygen Demand	Not to exceed 50 mg/l	32.35
Oil & Grease	Not to exceed 10 mg/l	2.00
Ammoniacal Nitrogen (as N)	Not to exceed 5 mg/l	3.11
Sulfide (as S)	-	0.12

B. AIR

STACKS	**KILN & RABH STACK- LINE-I**			**COOLER STACK LINE-I**	**COAL MILL STACK LINE-I**	**CEMENT MILL STACK-2**	**CEMENT MILL STACK-4**	**CEMENT MILL STACK-3**
	PM (mg/nm^3)	**SO_2 (mg/nm^3)**	**NOx (mg/nm^3)**	**PM (mg/nm^3)**	**PM (mg/nm^3)**	**PM (mg/nm^3)**	**PM (mg/nm^3)**	**PM (mg/nm^3)**
MINIMUM	11.5	BDL (DL 5)	362.42	7.9	12.56	6.1	12.7	6.1
MAXIMUM	14.7	27.51	772	26.65	19.4	18.2	24.01	18.2
AVERAGE	12.2475	BDL (DL 5)	534.68	14.61	15.96	14.27	16.92	14.27

Location	**Ambient Air quality Monitoring data (Average) FY 2025-26**				
	PM_{10} (µg/m^3)	**$PM_{2.5}$ (µg/m^3)**	**SO_2 (µg/m^3)**	**NO_2 (µg/m^3)**	**CO (mg/m^3)**
NEAR TIME OFFICE	66.48	32.6	10.17	21.99	0.58
NEAR THERMAL POWER PLANT	78.67	39.93	13.59	21.82	0.80
NERA FACTORY GATE LINE-1	66.48	31.23	8.42	19.36	0.63
NEAR COLONY GUEST HOUSE	60.34	29.73	7.45	17.82	0.52

***** *Common for plant & colony*

C. NOISE

Station Point	Ambient Noise Level Monitoring data (Average) in dB(A)FY 2025-26			
	Sound pressure level during day time in dB		Sound pressure level during night time in dB	
	Min	Max	Min	Max
NEAR TIME OFFICE	53.75	63.27	45.65	56.62
NEAR THERMAL POWER PLANT	64.77	71.17	55.77	65.17
NERA FACTORY GATE LINE-1	56.85	66.4	50.47	60.4
NEAR COLONY GUEST HOUSE	49.25	60.4	40.2	51.95

PART-D

(As specified under Hazardous & Other Waste Management Rules-2016)

Hazardous Waste	Total Quantity	
	During previous financial year (2024-25) (KL)	During current financial year (2025-26) (KL)
From Process	Used or Spent Oil (5.1) - 9.7 KL	Used or Spent Oil (5.1) - 12.56 KL
From Pollution Control Facility	Material is being stored as per CPCB guideline and being sold through an authorized recycler by CPCB/SPCB.	

**Including Cement Plant Line-1, Line-2, & Line-3, CPP, WHRS, Mines & Colony. Hazardous waste generated is being sold through an authorized recycler by CPCB.*

E-WASTE			
NAME OF THE AUTHORIZED VENDOR	AUTHORIZATION NO	QTY SOLD	DATE OF SALE
Shukla E – waste Processor	F(Tech)Alwar(Tijara)7133 (1)2021-2022/7302-7304	2040 kg	01-04-2025
ECO LAYER E-WASTE RECYCLING	RED/S.S.I (R15) No:- Format 1.0/RO-HQ/UAN No.MPCBCONSENT-0000186189/CO/2401001387	3100 kg	21-08-2025

**Including Cement Plant Line-1, Line-2, & Line-3, CPP, WHRS, Mines & Colony.*

PART-E

SOLID WASTE

S.No	Description	Total Quantity	
		During previous financial year (2024-25) (MT/Year)	**During current financial year (2025-26) (MT/Year)**
1	From process	Nil	Nil
2	From pollution control facility	All fine material collected in de-dusting during hoppers of APCDs are reused in process, therefore, No any waste generation form pollution control facility	
	Fly Ash	**42118.42**	**49624.22**
3	Quantity reutilized with in the unit	100%	100%

PART-F

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

1. All the used oil and waste oil generated from the different sections of the plant is being collected in empty drums and barrels and then sent to the store department for proper handling and storage. The department stores all collected hazardous waste at specified locations as per Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 1989 amendment 2003, 2008, 2010 & 2016 from where the hazardous waste is being sold out to SPCB authorized recyclers.

2. Dust collected from pollution control equipment (i.e. from ESP, Bag house and Bag filter) is totally recycled in the process.

PART-G

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

Cement manufacturing is a dry process technology, hence no effluent generated from the process. Which is cost effective and environmentally clean technology.

The advantage of the dry process is also in fuel economy. The stack emissions from the plant are controlled by equipment like ESPs and Bag filters installed at various material transfer points to arrest the fugitive emissions.

The particulate matter collected from the pollution control equipment is recycled in process and optimizes the cost of operation of pollution control equipment, conserving natural raw material and hence no impact on the environment**.**

1. Use of Alternative fuels: - In this system three separate hoppers with load cells are provided for transportation of alternate fuels. Here the materials are unloaded by truck unloaders, which are operated by telescopic hydraulic cylinders. The belts transporting the alternate fuels are fully covered and bag filters are provided at every transfer point. The entire alternate fuel feeding system is fully automatic and is controlled through programmable logic controllers (PLC).

S. No.	Name of waste	Quantity in stock at the beginning of the year (in MT)	Quantity of waste received during the year (in MT)	Quantity recycled or co-processed or used (in MT)	Closing Stock as on 31st March 2026
1	ETP SLUDGE 35.3	2.06	23725.515	22770	957.575
2	FILTER MEDIUM 36.2	24.98	315.98	170	170.96
3	DISCARDED AND OFF SPECIFICATION PRODUCTS-28.4	28.36	65.78	94.14	0

4	OILY SLUDGE EMULSION 1.3	33.56	75.76	109.32	0
5	PROCESS WASTES, RESIDUES AND SLUDGE-21.1	642.13	850.83	1479.1	13.86
6	WASTE RESIDUES CONTAINING OIL COTTON 5.2	24.795	1267.243	1274.858	17.18
7	Process Residue 38.1	1284.435	11527.98	12468.031	344.384
8	Barrel/liner chem waste-33.1	11.9	51	62.9	0
9	Phosphate Sludge 12.5	75.05	143	0	218.05
10	Process residue & wastes-solid-28.1	295.31	183.14	478.45	0
11	Process residue and waste liquid-29.1	0	65.45	65.45	0
12	PLASTIC & RESIN WASTE	91.52	221.82	263.12	50.22
13	Plastic waste (TON)	684.97	3006.73	3659.97	31.73
14	RDF	4988.4	148342.72	149618.081	3713.039
15	SHREDS TYRE CHIPS	0	70.08	28	42.08
16	TYRE FIBRE MASS (TYRE CHIPS)	0	1130.16	1125.29	4.87
17	WASTE MIX LIQUID	292.205	39978.54	39636.22	634.525
18	WASTE MIX SOLID	288.92	10641	9398.06	1531.86
19	Chemical Gypsum	10678.694	38779.42	45723.915	3734.199
20	JAROSITE	1408.717	31133.46	30030.691	2511.486

**Including Cement Plant Line-1, Line-2, & Line-3.*

2. Conservation of Limestone: Limestone is being used for the manufacturing of cement by the proper blending of different grades of limestone for preparation of proper raw mix design which can produce 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 (BIS).

3. Conservation of Mineral Gypsum: Utilization of Chemical Gypsum We have used fertilizer industry byproduct which is waste in nature and its chemical properties are as good Chemical gypsum was used for cement manufacturing process.

4. Conservation of Fossil Fuel:
(a) Utilization of Plastic waste as AFR We have used high calorific value waste in co-processed.
(b) Utilization of Pet coke We have used refinery industry byproducts which is waste in nature and its chemical properties are as good fuel pet coke was used as pet coke for replace of coal.

(c) Utilization of Red Mud We have used Aluminum industry byproduct which is waste in nature and its chemical properties are as good Raw Material Red Mud was used Red mud for replace of Laterite & Bauxite.

PART-H

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

1. Conducted third party stack emission monitoring during co-processing of AFR in Cement Kiln.
2. Covered shed constructed for Raw Material, Coal & AFR Storage Storage.

3. Mini STP installed with capacity 5 KLD each Near Dispensary & Behind Quality Lab at Cement Plant to treat the additional Sewage.

4. Water and biodiversity conservation
   • Increase the use of low-grade limestone to reduce dependence on high-grade limestone and extend quarry lives.
   • Increase the green belt of the entire occupied area
   • Scale up rainwater harvesting efforts
   • Reduce dependence on groundwater by increasing mine water utilization.

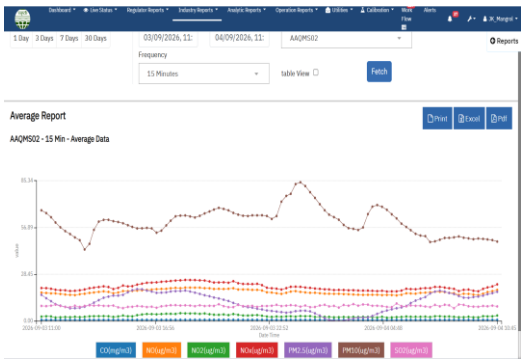
5. Increase use of AFR
   • Increase replacement of virgin raw materials and fuels with alternative raw materials and other substitutes, Reduce clinker ratio & Increase production of blended cements.

6. WHRS water cooled to the Air Cooled system.

PART-I

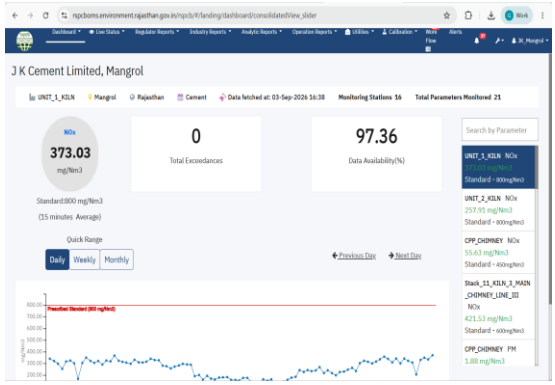
ANY OTHER PARTICULARS FOR IMPROVING THE QUALITY OF ENVIRONMENT

1. Monitoring of stack emission and ambient air and water quality is being done regularly as mentioned in consent to operate.
2. Continuous Ambient Air Quality Monitoring Systems (CAAQMS) has been installed at the periphery of the plant.



Continuous Ambient Air Quality Monitoring Station (CAAQMS)

3. Continuous Emission Monitoring Systems (CEMS) for PM, SO2 & NOx have been installed at the Kiln section and for monitoring of PM emission CEMS has been installed at stack coal mill, cooler & cement mill and real time data transfer to RSPCB & CPCB.



4. Bag filters have been installed at various material transfer points to control fugitive emission.

5. Cement is being manufactured in a dry process and there is no effluent generated from the process hence maintaining Zero Effluent Discharge unit.

6. Apart from this fly ash purchased from nearby thermal power plant and use for cement production.

7. Proper Housekeeping and cleaning is being done with the help of four road sweeping machines.

8. Domestic waste water generated is being treated in sewage treatment plants (STP). Treated water is utilized for plantation / horticulture development.

9. Cover shed & Silos Constructed to store the raw material, to avoid fugitive emission. Finish product stored in closed silo.

Covered Shed for storage to Raw Material

10. 16 Rain water harvesting structures have been constructed in plant and colony areas to recharge ground water.

11. Cemented road constructed to avoid fugitive dust generation during the movement of vehicles.

12. Telemetry system installed for online ground water level monitoring.

13. Green cover is not only pleasing to the eyes but also beneficial in many ways such as conservation of biodiversity, retention of soil moisture, recharge of ground water and moderation of micro climate. It has been derived that trees can act as carbon sinks & efficient biological filters, removing significant amounts of particulate pollution and has tremendous potential for improved air quality. The dust capturing phenomenon of plant species is a cost effective technology for reduction of particulate load in urban agglomerations. Raising of green belt at the project site with right types of species can serve as a useful buffer to contain the menace of pollution from different sources. Whatever space is available around the periphery of the plant will be planned to be utilized for green belt and the open spaces within the factory will be converted to green areas in the form of lawns or flowering plants. A wide range of plant species have been planted in and around the premises to help capture the fugitive emissions and noise levels attenuate the noise generated and improve the aesthetics. This wide range covers plants of fast growing type with thick canopy cover, perennial green nature, native origin and a large leaf area index.

Green Belt: In FY 2025- 2026 total 3381 no. of plantation was done. Total 220381 nos. plants are already existing within plant area which is more than 33 percent of plant area. Native species as per the CPCB guidelines are planted.

GREEN BELT DEVELOPMENT

PLANTATION DRIVE

We have a dedicated team for planning execution of combined CSR activities for Both Cement Plant (Nimbahera and Mangrol unit) and its associated mines, on the focus area of infrastructure, health, sanitation & water, women-empowerment, sports, education etc.

Area wise CSR activities with expenditure details for the period from April - 2025 to March - 2026 is given as below: -

Focus area	Beneficiaries reached		Expenditure (In Rs.)
	Direct	Indirect	CSR
Health	34070	28451	38,07,099
Education	3476	15904	74,63,287
Livelihood	56354	225416	31,83,770
Rural transformation	13559	30836	77,19,246
Environment & sustainability	17000	48000	5,28,701
Disaster relief & others	1700	800	1,20,621
Total	**126159**	**349407**	**2,28,22,724**

Evidences: -

1. **Health**

2. **Education**

3. Livelihood

4. Rural transformation

5. Environment & sustainability

जे. के. सीमेंट वर्क्स, निम्बाहेड़ा व मांगरोल प्लान्ट एवं आर. एस. पी. सी. बी चित्तोडगढ़ टीम द्वारा ओज़ोन दिवस का आयोजन

जन जागरण संदेश

मोहन लाल चित्तौड़गढ़। विश्व ओज़ोन दिवस के अवसर पर जे. के. सीमेंट वर्क्स,निम्बाहेड़ा व मांगरोल प्लान्ट, आर. एस. पी. सी. बी चित्तोडगढ़ और सी एस आर टीम के सहयोग से फाचर अहीरान और अरनिया जोशी ग्राम पंचायतों के राजकीय उच्च माध्यमिक विद्यालय मे जागरूकता कार्यक्रम आयोजित किया गया। यह कार्यक्रम जे.के. सीमेंट के यूनिट हेड मनीष तोषनीवाल और एचआर हेड प्रभाकर मिश्रा के मार्गदर्शन में आयोजित किए गए। कार्यक्रम का उद्देश्य बच्चों को रोचक और सार्थक तरीके से जोड़ते हुए उन्हें ओज़ोन परत के महत्व के बारे में जागरूक करना था। इस दौरान जागरूकता सत्र, पोस्टर प्रतियोगिता, निबंध लेखन प्रतियोगिता तथा प्रस्नोत्तरी प्रतियोगिता का आयोजन किया गया, जिसमें विद्यार्थियों ने पूरे उत्साह से भाग लिया। उनके उत्तरों से यह स्पष्ट हुआ कि वे पर्यावरणीय विषयों और ओज़ोन संरक्षण की आवश्यकता को गहराई से समझते हैं। पोस्टर प्रतियोगिता, निबंध लेखन प्रतियोगिता तथा प्रस्नोत्तरी प्रतियोगिता मे प्रथम द्वितीय व तृतीय स्थान प्राप्त छात्र छात्राओं को पुरस्कार एवं आर एस पी सी बी चित्तोडगढ़ द्वारा उपलब्ध कराए गए प्रशस्ति पत्र वितरण के साथ आनंदमय सहभागिता सत्र से समापन हुआ। अंत में छात्रों को पौधे उपहार स्वरूप प्रदान किए गए, जो पर्यावरण संरक्षण और हरित भविष्य के प्रति हमारी सामूहिक जिम्मेदारी का प्रतीक हैं। यह कार्यक्रम न केवल जागरूकता फैलाने में सफल रहा बल्कि बच्चों को पर्यावरण की रक्षा के लिए छोटे-छोटे मगर महत्वपूर्ण कदम उठाने के लिए प्रेरित भी किया। इस अवसर पर जे के सीमेंट के खनन विभाग के वरिष्ठ प्रबन्धक योगेश दशोरा, प्रबन्धक राजेश रवि, पर्यावरण विभाग के प्रमुख अजय शर्मा, प्रबन्धक माधुरी, गौतिका, सी एस आर प्रमुख राहुल कुमार एच आर टीम से लोकेश व आयुष जी आदि उपस्थित थे।

6. Disaster relief & others

14. Expenditure for pollution control Equipment given as below:

S. No.	Expenditure for Environment Protection Measures FY 2025-26	Cost Lakhs
1	Installation of New RO Plant	6.95
2	Installation of New 02 Nos. STP(5 KLD)	20.32
3	Installation of New Water Softener Plant	10.50
4	1. Maintenance and servicing of Bag Filters, Bag Houses, and ESP 2. Cost of bag replacements, cages, valves and other related spare parts.	77.17
5	Equipment replacement cost, New Installations of data loggers IT/OT devices, AMC/CAMS	52.10
6	Audits (Water/ Flyash), Environmental Monitoring	31.42
7	Plantation Cost	60.00
8	STP Operation & Maintenance Cost	11.68
	Total	**270.15**

----------X----------