

JK Cement Works, Panna (Formerly known as Jaykaycem (Central) Ltd. now amalgamated) A Unit of JK Cement Ltd.

CIN: L17229UP1994PLC017199

- n Village Harduwaken, Tehsli Amangan District - Panna, State - Madhya Pradesh, Indla - 488 441
- 9329141591 pikc.panna@jkcement.com

er www.jkcement.com

Ref.No.: JKCEMENT/ENV./EC/PLANT/2024-25/01/22

Date: 28.11.2024

To, Regional Office (WZ), Kendriya Paryavaran Bhawan, E-5, Arera Colony, Link Road-3, Ravi Shankar Nagar BHOPAL - 462 016 E-Mail: rowz.bpl-mef@nic.in

Subject: Submission of Half Yearly Environmental Clearance Compliance Status Report for period from April 2024 to September 2024 for Greenfield Integrated Clinker/ Cement manufacturing unit (5.28MTPA Clinker; 6.0MTPA Cement) and captive power plant including waste heat recovery plant and Power generation thorough WHRB (80 MW FBC; 30 MW WHRB) and expansion in Clinker Production Capacity from 5.28 Million TPA to 6.6 Million TPA, Power generation capacity of WHRS from 30 MW to 50 MW, DG Set from 500 KVA to 2500 KVA and reduction in Captive Power Plant Capacity from 80 MW to 40 MW in Phased manner without change in Cement Production capacity of 6.0 Million TPA at Villages: Devra, Hardua, Puraina, Sotipura & Madaiyan, Tehsil: Amanganj, District: Panna (Madhya Pradesh) by M/s. JK Cement Limited.

Ref.: 1- Environment Clearance vide no IA-J-11011/224/2016-IA.II(I) dated 14.10.2020.

- 2- Environment Clearance vide no IA-J-11011/224/2016-IA.II(I) dated 02.03.2022.
- 3- MoEF & CC notification no. S.O. 5845 (E) 26.11.2018.

Dear Sir,

With reference to above stated Environment Clearances (ECs) and MoEF &CC notification no. S.O. 5845 (E) 26.11.2018, we are submitting Half Yearly Environment Clearance Compliance Status Report for period from April 2024 to September 2024 for Greenfield integrated Clinker/ Cement manufacturing unit (5,28MTPA Clinker; 6.0MTPA Cement) and captive power plant including waste heat recovery plant and Power generation thorough WHRB (80 MW FBC; 30 MW WHRB) and expansion in Clinker Production Capacity from 5.28 Million TPA to 6.6 Million TPA, Power generation capacity of WHRS from 30 MW to 50 MW, DG Set from 500 KVA to 2500 KVA and reduction in Captive Power Plant Capacity from 80 MW to 40 MW in Phased manner without change in Cement Production capacity of 6.0 Million TPA at Villages: Devra, Hardua, Puraina, Sotipura & Madaiyan, Tehsil: Amanganj, District: Panna (Madhya Pradesh) by M/s. JK Cement Limited for your kind information and record, please.

Corporate Office

- Prism Tower, Ground Floor, Ninaniya Estate, Gwel Pahari, Gurugram, Haryana - 122102, India
- +0124-6919000

CIN: L17229UP1994PLC017199







Manufacturing Units at : Nimbahera, Mangrot, Gotan (Rajasthan) | Muddapur (Karnataka) Jharti (Haryana) | Katni, Panna, Ujjain (M.P.) | Prayagraj, Aligarh, Hamirpur (U.P.) | Batasinor (Gujarat) | Fujairah





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- 9329141591 jkc.panna@jkcement.com

ff www.jkcement.com

Thanking you,

Yours Sincerely

For: J K Cement Limited.

(Unit Head)

Encl.: Copy of EC Compliance Status Report Soft copy sent by mail to:

- 1. Member Secretary, MP Pollution Control Board, Paryawaran Parisar, E-5, Arera Colony, Bhopal (MP).
- 2. Regional Officer, Regional Office, MP Pollution Control Board, Makronia, Sagar (MP)
- 3. Regional Director- CPCB, Paryawaran Parisar, E-5, Arera Colony, Bhopal (MP).
- 4. Deputy Director General of forest (C), MoEFCC, Integrated Regional Office, Bhopal-462016.
- 5. The Director, MoEFCC, Indira Paryavaran Bhavan, New Delhi-11003



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Name of the Project- Expansion in Clinker Production Capacity from 5.28 Million TPA to 6.6 Million TPA, Power generation capacity of WHRS from 30 MW to 50 MW, DG Set from 500 KVA to 2500 KVA and reduction in Captive Power Plant Capacity from 80 MW to 40 MW in Phased manner without change in Cement Production capacity of 6.0 Million TPA at Villages: Devra, Hardua, Puraina, Sotipura & Madaiyan, Tehsil: Amanganj, District: Panna (Madhya Pradesh) by M/s. JK Cement Ltd.

Environment Clearance vide no IA-J-11011/224/2016-IA. II (I) dated 02.03.2022

Specifi	Specific Condition					
S. No.	EC Conditions					
i.	Particulate matter emission from cement mill stad					

Specific Condition

EC Compliance Status

Complied.

Particulate matter emission from cement mill stacks shall be less than 20 mg/Nm3 and for CPP less than 30 mg/Nm3.

We are complying with emission limit of 20 mg/Nm3.

Stack	Standard value (in mg/Nm3)	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24
Cement mill	20 mg/Nm³	10.60	11.90	8.15	11.27	6.30	7.82
Coal mill		5.65	6.20	11.25	7.91	3.41	4.17
Cooler		6.75	11.70	8.84	10.08	13.04	14.63
Raw mill Kiln		11.46	12.50	7.20	7.92	13.68	13.98

ii.	Air cooled condenser shall be used in the captive power plant in place of water-cooled system.
iii.	Project proponent is permitted to abstract up to 2140 KLD ground water, for next 15 months from the date of issue of the Environment Clearance after obtaining requisite permission from the concerned Competent Authority. Thereafter, water from mine pit and Ken River shall be used and ground water abstraction is not permitted.

Agreed. In first phase, CPP has not been installed. We assure that CPP will be installed with Air cooled condenser in

that CPP will be installed with Air cooled condenser in the captive power plant.

Complied.

We have obtained NOC for ground water abstraction of 2140 KLD for industrial purpose vide NOC No. CGWA/NOC/IND/ORIG/2022/16811 valid from 15.10.2022 to 14.10.2025. Copy is mentioned below.



Total water requirement after expansion shall not exceed 5125 KLD. Water shall be sourced from ground (195 KLD) and 4930 KLD from mine pit and Ken river.

Complied.

Total water requirement is not exceeding 5125 KLD. The per day average ground water & Ken river water consumption are 60 KLD and 1036 KLD respectively during the period from Apr-24 to Sep-24.

Months	Total Water withdrawal (in KL)						
Wionths	Borewell	KL/Day	River	KL/Day			
Apr-24	851	28	52013	1734			
May-24	1681	54	52255	1686			
Jun-24	1083	36	54009	1800			
Jul-24	927	30	31399	1013			
Aug-24	3094	100	0	0			
Sep-24	3262	109	0	0			
Total	10898	60	189676	1036			

v. Dioxins and furans shall be monitored twice a year during co-processing of hazardous waste and report shall be submitted to Regional Office of the MoEF &CC.

Complied

Plant was commissioned on 02nd November 2022. Monitoring was conducted on 26.10.2024 and result is awaited. Last Dioxins and furans was monitored on 21.03.2024 by Vimta lab Limited. Report copy attached below.





Dioxins and furans test report

vi. Green belt shall be developed in 33% of the total area all along the entire periphery of the area with a density of 2500 trees per ha. This shall include development of green belt with a width of 20 m within the project site towards the mining area and Hardua village located at 0.5 km from the project site.

Complied

Plantation is being done with density of 2500 trees/ha of native species. Till FY 2024-25, (Up to Sep-2024) a total of 96208 No. of saplings have been planted in 38.48 Ha. in and around the periphery of the plant area which is 31.22% of total land area i.e. 123.25 Ha. Some pictures of plantation are mentioned below.







vii



All stockyards shall be having impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains to trap the runoff material.

Complied.

Raw material yard has paved with covered shed. However, garland drainage system is developed surrounding the shed and connected with a reservoir for collection and ground water recharge. Some pictures are mention below.

Cover Shed for Gypsum



Impervious flooring in stock yards



Cover Shed for Pet-Coke



Garland drain



Rain water harvesting pond (30000m3 capacity)



River reservoir (40000 m3 capacity)



viii Slip roads shall be provided at the gates and along crossing on main roads.

Complied.

Slip roads have been provided at the gates and along crossing on main roads. Some pictures are mentioned below.





Internal road

ix

χi.

Connecting roads to the Highway

All internal and connecting roads to the Highway shall be black topped/concreted with suitable load in term of Million Standard Axle (MSA) as per IRC guidelines

Complied.

Internal and connecting roads to highway have been concreted. Some pictures are mentioned below.





x. Performance monitoring of pollution control equipment shall be taken up yearly and compliance status in this regard shall be reported to the concerned Regional Office of the MoEF &CC.

Complied.

We have taken Performance monitoring of pollution control equipment through NABL approved lab and report sent to Regional Office of the MoEF &CC. by email on dated 02.08.2024. Email copy as well as performance monitoring report is enclosed as **Annexure-.1.**

The recommendation of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF & CC.

Complied. We have already deposited Rs. 289.90 Lakh via. E Cheque no. CTY3061751 dated 19.08.2023 as per fund allocated for implementation of approved Wild Life Conservation Plan (WLCP) approval Letter no. V.Pra/Ma.Chi./8847 dated 13.12.2019 for JK Cement Limited Integrated Cement Plant Project. Acknowledgement copy of amount deposition is given below:

However, we are following up to State Forest Department regarding implementation of Wildlife conservation plan and letters have been submitted to Wild Life Department on dated 06.03.2024 via letter no. JKCEMENT/PCP/EMD/2023-24/F 04/10, follow up letter on 18.04.2024 via letter no.

JKCEMENT/PCP/EMD/2024-25/F 04/11. Copy are mentioned below.





xii Limestone from the mines to the cement plant shall be transported through overhead conveyor belt within a period of two years from date of issue of the Environment Clearance.

Compliance in progress

- We are transporting limestone from Kakra mine crusher to Cement plant through Overland Covered Belt Conveyor.
- Transportation from Koni mine crusher to cement plant is required.
- Amendment in EC has been done for Koni Mine and need to install OLBC by August 2025.
- Permission from water resource department and Madhya Pradesh Rural Road Development Authority, Madhya Pradesh are obtained.
- Land is being procured.
- Applied for amendment in EC condition of cement plant also via. MoEFCC Proposal No. IA/MP/IND1/457262/2023
- ➢ Proposal was presented in 57th meeting of the Expert Appraisal Committee (Industry-1 sector), scheduled on 25 April, 2024, 61st meeting of the Expert Appraisal Committee (Industry-1 sector), scheduled on 18th June, 2024 and 67th meeting of the Expert Appraisal Committee (Industry-1 sector), scheduled on 15th October, 2024

xiii. Hot air dryer shall not be installed. Flue gases of preheater shall be used to dry the slag/bottom ash.

Compliance on progress.

Flue gases of preheater is used to dry the slag/bottom ash. However, we have applied for amendment in this EC condition of cement plant also via. MoEFCC Proposal No. IA/MP/IND1/457262/2023. Proposal was presented in 57th meeting of the Expert Appraisal Committee - (Industry-1 sector), scheduled on 25 April, 2024, 61st meeting of the Expert Appraisal Committee - (Industry-1 sector), scheduled on 18th June, 2024 and 67th meeting of the Expert Appraisal Committee - (Industry-1 sector), scheduled on 15th October, 2024

B. General EC Conditions:

I. Statutory compliance

The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.

Complied with all applicable legislation

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 Continuous Emission Monitoring System (CEMS) at process stacks to monitor stack emission as well as Continuous Ambient Air Quality Station (CAAQS) for monitoring AAQ parameters with respect to standards prescribed in Environment (Protection) Rules 1986 as amended from time to time. The CEMS and CAAQMS shall be connected to SPCB and CPCB online servers and calibrate these systems from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

Complied.

CEMS have been installed at major stacks viz. Raw mill kiln, Coal mill, Cement mill and Cooler exit stacks and online data connectivity is done at CPCB & MPPCB portal. Pictures of CEMS analysers are given below.

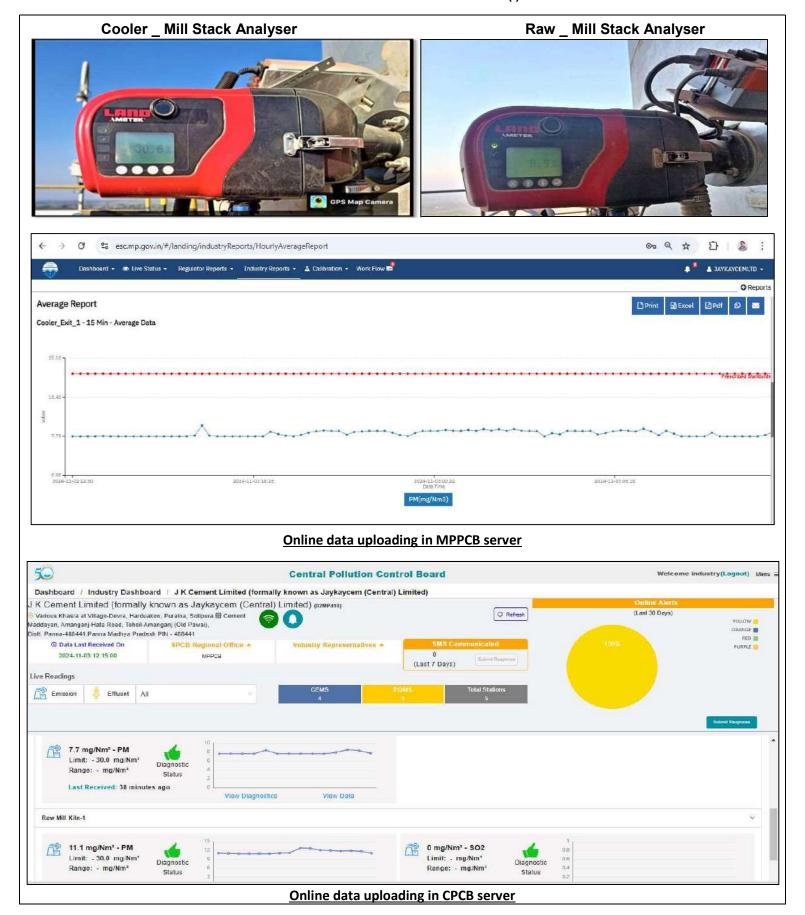
CAAQMS have also been installed at 04 Nos. of locations of plant and online data connectivity is done at CPCB & MPPCB portal. Pictures of CAAQMS analysers are given below.

We are calibration these analysers time to time through external agency. Calibration copies are enclosed as **Annexure no-2**.

1- CEMS:

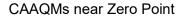






2-CAAQMS

CAAQMs near Reservoir







CAAQMs behind Store

CAAQMs near Guest house





ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognized under Environment (Protection) Act, 1986.

Complied. Fugitive emission is being monitored by approved lab in every quarter in the plant premises. Latest quarterly monitoring reports of fugitive emission are enclosed as **Annexure-3**.

Sources/Locations	Parameter	Results (in μg/m3)			
Sources/Locations	Parameter	May-24	Sep-24		
Near packing Plant area		312.1	389.0		
Near Gypsum yard		288.5	352.0		
Near Raw Mill		290.2	345.0		
Near Coal Mill	SPM	263.9	415.0		
Near Cement Mill	SEIVI	274.1	312.0		
Near Clinker Silo		296.5	389.0		
Near Coal Shed		270.8	548.0		
Near Lime Stone Shed		301.5	326.0		

iii. The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.

Complied.

It has been provided with APCDs in **Cement Bag cleaning system** Pictures are mentioned below.



Cement Bag cleaning system

The project proponent shall ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation; Use closed bulkers for carrying fly ash.

Complied.

Raw materials are transporting through covered vehicles and fly ash in closed bulker. Some pictures are mentioned below.

Closed bulker for transport of flyash

iv.



Covered Truck



Covered belt conveyors



v. The project proponent shall provide wind shelter fence and chemical spraying on the raw material stock piles;

Complied.

We would like to share that covered sheds have been provided for all the raw materials.

vi. Ventilation system shall be designed for adequate air changes as per the prevailing norms for all tunnels, motor houses, cement bagging plants.

Complied. Ventilation system with sufficient no. of bag filters for all tunnels, motor houses, cement bagging plant have been provided.

III. Water quality monitoring and preservation

The project proponent shall install 24x7 continuous effluent monitoring system with respect to standard prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 612 (E) dated 25th August 2014 (Cement) and subsequent amendment dated 9th May, 2016 (Cement) and 10th May, 2016 (in case of Co-processing Cement) as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time) and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.

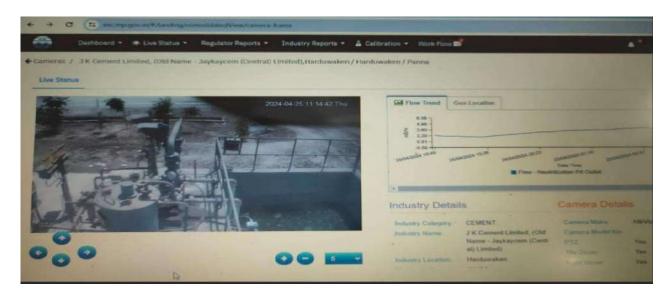
Complied.

Waste water is generated from WHRS plant only which is used in mill spray after treatment in neutralization pit. Hence, ZERO liquid discharge system has been adopted. Flow meter and camera are installed at outlet of neutralization pit (Picture are mentioned below.

WHRS Flow meter and Camera have been installed:



Connected to SPCB and CPCB online servers



ii. The project proponent shall regularly monitor ground water quality at least twice a year (pre and post monsoon) at sufficient numbers piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.

Complied.

Ground water quality is being monitored twice a year (pre and post monsoon) of plant and adjacent areas through recognized/NABL accredited Lab. Ground water quality monitoring reports is attached Annexure- 4.

Sewage Treatment Plant shall be provided for treatment of domestic waste water to meet the prescribed standards.

Complied

Total 07 Nos. of STPs have been installed.

- ➤ 5 KLD Capacity- 03Nos
- > 10 KLD Capacity- 01 Nos
- 25 KLD Capacity-02 Nos.
- > 300 KLD Capacity- 01 no.

Sewage Treatment plant test report enclosed as **Annexure-5**. Some pictures are given below:

STP With Capacity 300KLD

iii.

STP Admin Building 5 KLD





STP With Capacity 25 KLD

STP Admin Building 10 KLD





ίV. Garland drains and collection pits shall be provided for each stock pile to arrest the run- off in the event of heavy rains and to check the water pollution due to surface runoff

Complied.

Concreted drains have been provided in surrounding the covered raw material sheds. This water will be recharged with rain water harvesting structures (Picture are mentioned below.)

Storm Water Drain







Reservoir (40000m3)

v. Water meters shall be provided at the inlet to all unit processes in the cement plant

Complied.

Water meters have been installed at the inlet to all unit processes. Some pictures are given below.





WHRS meter/DM inlet



Fireline Meter



Cooler spray meter

Packing plant meter

		proponent				
minir	nize wat	er consump	tion in	the ce	ment pla	ant
		egregation				ing
casc	ade use	and by recyc	cling tre	eated w	ater.	

Complied

- Dual Flush Toilets have been installed.
- Aerator Faucets are provided in taps.
- Sewage treatment plant is installed and treated water of sewage is being used in plant activities.
- WHRS treated waste water is being used in mill.

	STP		WHRS		
Month	Total Waste Water generation (in KL)	Treated water Used (in KLD)	Total Waste Water generation (in KL)	Treated water Used (in KLD)	
Apr-24	871	29.0	1161	38.7	
May-24	1375	44.3	719	23.2	
Jun-24	1214	40.5	944	31.5	
Jul-24	1212	39.1	1133	36.5	
Aug-24	833	26.9	1876	60.5	
Sep-24	884	29.5	862	28.7	

IV. Noise and vibration monitoring and prevention

i. Noise quality shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules,2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

Complied. Noise quality is being monitored and report is mentioned below.

Point or our mornamy	part of 31x-monthly compliance report.							
Locations	Manath	Limit		Results (in dB (A))				
Locations	Month	dB (A)	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24
Near Cuest House Area	Day time	75	60.6	58.4	52.4	50.3	53.2	54.8
Near Guest House Area	Night time	70	51.2	50.2	49.4	49.1	49.9	48.5
Noar Socurity Barrock	Day time	75	64.4	63.1	60.5	57.8	59.1	55.9
Near Security Barrack	Night time	70	57.6	49.3	51.5	49.5	50.2	50.9
Near Zero Point Area	Day time	75	66.3	64.2	65.3	65.8	67.1	70.8
iveal Zelo Politi Area	Night time	70	58.6	57.3	51.4	51.9	52.7	55.9
Near Reservoir	Day time	75	64.8	63.3	58.2	55.2	51.6	52.9
iveal Reservoir	Night time	70	49.8	43.2	44.2	44.0	45.6	46.3
Near Main Gate	Day time	75	71.1	68.3	69.5	69.9	71.2	72.4
incai iviaiii Gale	Night time	70	65.3	60.3	61.6	61.9	62.4	65.1
Near CCR building	Day time	75	65.8	62.4	69.2	69.5	70.5	71.9
inear Cort building	Night time	70	53.7	51.2	55.6	57.1	63.8	67.5
Harduaken Village	Day time	55	53.4	51.3	51.9	51.3	51.0	52.8
i iai uuakeii viiiage	Night time	45	42.9	39.7	39.9	40.2	40.5	40.9
Sotipura Village	Day time	55	52.2	50.1	51.9	50.3	51.8	52.3
Gotipula village	Night time	45	42.4	38.8	41.8	41.2	40.1	40.3
Devra Village	Day time	55	53.2	49.3	50.3	50.6	51.2	53.5
Devia village	Night time	45	43.5	41.2	40.3	40.1	39.4	41.2
Kakra Village	Day time	55	51.9	48.3	51.7	51.1	51.9	53.2
Takia village	Night time	45	40.4	39.4	38.2	39.3	39.9	41.3
Pagra Villaga	Day time	55	50.7	47.7	50.7	50.2	51.2	52.9
Pagra Village	Night time	45	43.6	40.3	40.5	40.1	40.9	41.2

V. Ene	rgy Conservation measures	
i.	Waste heat recovery system shall be provided for kilr	Complied.
	and cooler.	A Waste heat recovery system (WHRS) of 25 MW has been installed.
ii.	Pozzolona Cement (PPC) and 85 units/ton for	Our average power consumption (Apr-2024 to September-2024) for manufacture of OPC & PPC and thermal energy are following:
		 We have done following efforts to reduce the thermal energy consumption: 1- False air reduction done From Currently 8 % to 6.3 %. 2- TAD NOx reduction damper is opened from 50 % to 80 % to Optimized Recuperation efficiency. 3- Shift Wise Comparison of Heat to optimize SHC per shift (Optimizer Data Provided per shift). 4- TAD male female joints near PC Covered completely result in temperature drop across TAD duct is 25 degree. 5- Online Heat Balance with Actual CV based SHC is provided in CCR to monitor the current Specific Heat. 6- Optimized Fine coal temperature from 60 to 65 degree by reducing False air across Coal Mill Circuit. 7- Optimized Raw meal Temperature from 75 to 80 degree by reducing False air across Raw Mill Circuit. 8- Linear pile maintained by stacking of Coal to Reduce variation of its CV. 9- Flap gate of Cyclone From 1 no to 4th cyclone from Top is made free. 10- Cooler Fan Specific air input is maintained at 1.85 Nm3/kg of Clinker @ 10000 TPD as per HMBD by TKII. We have installed state of the art
	Describe sedem many "	technology to conserve energy and meet GOI's targets for GHG emissions.
iii.	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly.	Complied. Solar power generation on admin building roof top has been installed and solar lights have also been provided in streets (Some picture are mentioned below.



Solar power generation on admin building of roof top:





Solar lights have provided in streets

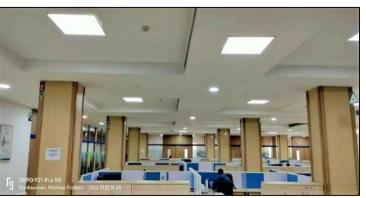
iv. Provide the project proponent for LED lights in their offices and residential areas.

Complied. LED lights have been provided in offices and residential areas (Some picture are mentioned below.)

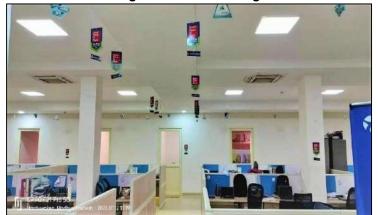
LED Lights in Admin building



LED Lights in Project building



LED Lights in CCR building





VI. Waste management

i. Used refractories shall be recycled as far as possible.

Complied.

In FY 2024-25 (Apr-24 to Sept-2024), we have collected and sold qty. 48.43 MT used refractories to M/s Refcast And Ceramics Industries, Nagpur.

VII. Green Belt

i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the program for reduction of the same including carbon sequestration including plantation.

Complied.

First baseline data of GHG emission for FY 2023-24 is following:

- 1- Scope 1 Emission- 1974792 tCO2e
- 2- Scope 2 Emission- 82995 tCO2e
- 3- Scope 1&2 Emission- 2057787 tCO2e

<u>Program for further reduction of GHG emission is following:</u>

We will work on below mentioned work to further reduce of GHG emission:

- 1- Increase use of green power.
- 2- Increase renewable power generation.
- 3- Increase the capacity of waste heat recovery system (WHRS). As of now 25 MW WHRS has been installed.
- 4- Improve thermal and electrical energy efficiency.
- 5- Encourage rail transportation in near future.
- 6- Increase electric and CNG vehicle.
- 7- Increase replacement of virgin raw materials and fuels with alternative raw material and other substitute.
- 8- Reduce clinker ratio.
- 9- Increase production of blended cement.

VIII. Public hearing and human health issues

 i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.

Complied

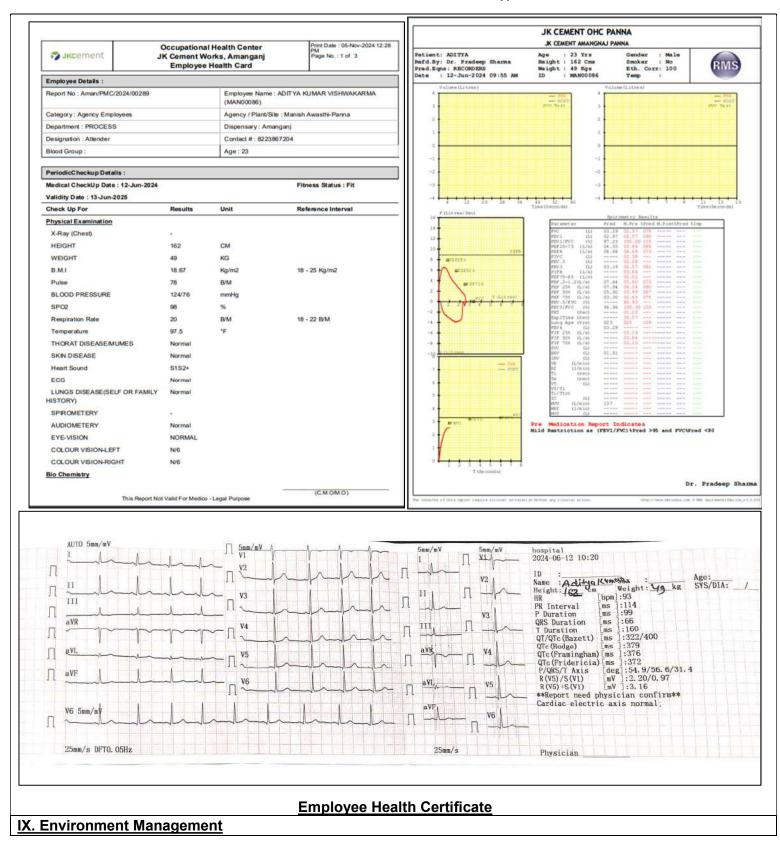
Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan is prepared and implemented. Onsite emergency plan was approved by DISH vide OSEP NO: RE30052412223371 dated 01.07.2024. Approval of onsite emergency plan is mentioned below.





On-site Emergency Site Plan Copy

ii.	The Project Proponent shall carry out heat stress	Complied.
	analysis for the workmen who work in high	Based on the procedure mentioned in "Industrial and
	temperature work zone and provide Personal	Occupational Health" by S.K. Haldar, our doctors'
	Protection Equipment (PPE) as per the norms of	team have conducted heat stress analysis for the
	Factory Act.	workmen who work in high temperature work zone in
		the plant. An analysis report is prepared and enclosed
		as Annexure-6 . However, we are also providing
		Personal Protection Equipment (PPE) as per the
		norms of Factory Act.
iii.	Occupational health surveillance of the workers shall	Complied.
	be done on a regular basis and records maintained.	Occupational health surveillance of the employees &
		workers are being carrying out on a regular basis.
		In FY 2024-25 during (Apr-24 to Sep-24) total 416 nos
		PME is carried out for employees & and Contact
		workers. Report of some of them is given below



i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020.

Complied.

CER proposal is being implemented as per Ministry's OM vide F. No. 22-65/2017-IA.III dated 1st May 2018. Present status is mentioned below.

S.No.	Activities	Expenditure till	Expenditure	Total
		Oct2023	from	Expenditure
		(in Lakhs)	November 23 to	((in Lakhs)
			September-24	
			(in Lakhs)	
1	Health (Health, Check-up, Camp, Sports etc.)	211.73	56.93	268.66
2	Education (Books, Bags, Stationary etc.)	54.80	262.93	317.73
3	Sanitation (Domestic water, Toilets etc.)	40.99	7.09	48.08
4	Skill Development (Training centre etc.)	8.21	6.35	14.56
5	Infrastructure (Road, Community Centers, etc.)	132.0	395.43	527.43
6	Other Local Social Need	45.32	36.51	81.83
7	Greenery Development Nearby Area	251.66	145.35	397.01
	Total	744.71	910.59	1655.30

Corporate Environment Responsibility (CER) Expenditure Report of Cement Plant





Conducted road sfety program and helmet distribution

Environment Awareness session at near School



Bridge construction at Kakra village.



Support 25 orphaned children with financial help

ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/ deviation/ violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and/ or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

Complied.

Company has Corporate Environmental Policy duly approved by the Board (Policy copy attached are mentioned below.)



association with local communities, authorities and other stakeholders.

8. Involving the Employees, Suppliers, Vendors, Customers, Clients and other Business Associates to promote awareness among them for their responsibility to achieve our sustainable Goals.

9. Creating awareness among all stakeholders including employees, customers, vendors and supplier for environmental issues us well as compliance of relevant environmental legislation.

10. Reporting of compliances, non-compliances and violations of environmental norms to the concerned authority and also to our stakeholders with measures to address such non-compliance

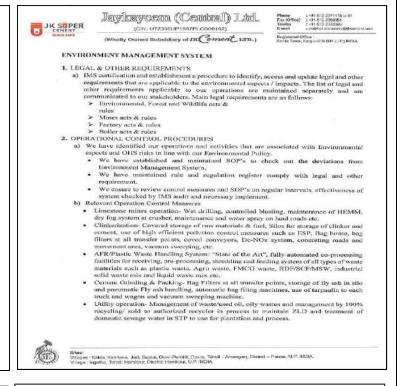
For Jaykaycem (Central) Ltd.

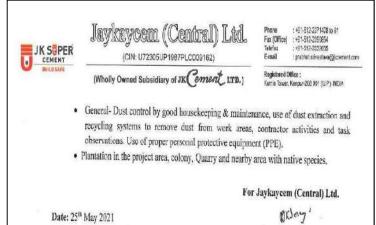
Ajay Kumar Saraogi Managing Director

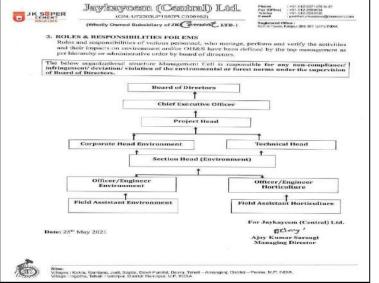
Ajay Kumar Saraogi Managing Director

on priority.

Date: 25th May 2021







iii. A Separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

Complied.

A Separate Environmental Cell both at the project and company head quarter level, with qualified personnel has been set up under the control of senior Executive, who is directly reporting to the head of the organization.

X. Miscellaneous

ii.

The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which on shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.

Complied.

Published in two local newspapers namely Nav Swadesh and Nav Bharat on dated 08.03.2022 and also displayed at company's website. (Advertisement copy are mentioned below.)



पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय (एम.ओ.ई.एफ.सी.सी.) भारत सरकार नई दिख्ने ने ई.आई.ए. अधिसूचना 2006 के अधीन मेससे जेके सेम सेन्ट्रल लिमिटेड ग्रामो-हरदुआकेन, पुरैना, सोतीपुरा व महेयवन तहसील अमानगंज जिला एत्रा (म.प्र.) की प्रस्तावित सीमेंट प्लांट की ग्रीनफील्ड इंटीग्रेटेड सीमेंट परियोजना के लिए पर्यावरण की अनुमति प्रदान की गई है. यह विज्ञापन आम जनता के सूचनार्थ हैं। पर्यावरण स्वीकृति पत्र क्रमांक IA-J-11011/224/2016-IA-II (I) दिनांक 14.10.2020 की प्रति म.प्र. प्रदूषण नियंत्रण बोर्ड अरेरा कालोनी, पर्यावरण परिसर, भोपाल (म.प्र.) और एम.ओ.ई.एफ.सी. की वेबसाईंट www.parivesh.nic.in पर भी उपलब्ध है। परियोजना प्राधिकारी

परियोजना प्राधिकारी जेके सेम सेन्ट्रल लिमिटेड

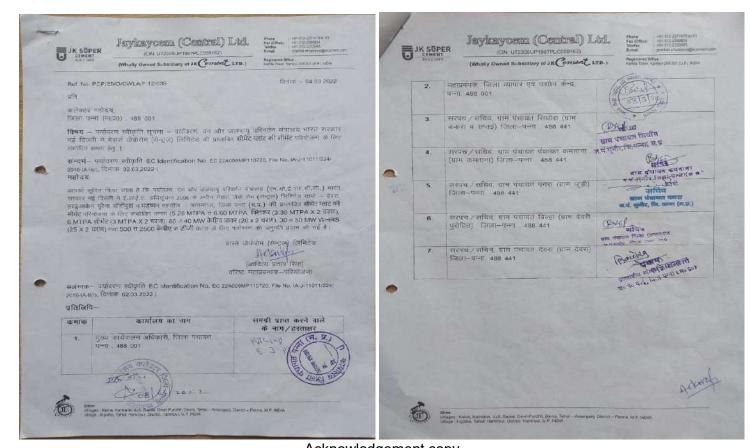
पर्यावरण स्वीकृति के संबंध में आम सूचना
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ग्रामो-हरदुआकेन, पुरैना, सोतीपुरा व मडैयन तहसील अमानगंज जिला पत्रा (म.प्र.) की
प्रस्ताबित सीमेंट प्लांट की ग्रीन फील्ड इंटीग्रेटेड सीमेंट परियोजना के लिए पर्यावरण की
अनुमति प्रदान की गई है। यह विज्ञापन आम जनता के सूचनार्थ है। पर्यावरण स्वीकृति
पत्र क्रमांक IA-J-11011/224/2016-IA-II(I) दिनांक 14.10.2020
की प्रति म.प्र. प्रदूषण नियंत्रण बोर्ड अरेरा कालोनी पर्यावरण परिसर भोपाल म.प्र. और
एम.ओ.ई.एफ.सी.सी. की बेबसाईट WWW.parivesh.nic.in पर उपलब्ध है।
परियोजना प्राधिकारी

The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

Complied.

Copy of the EC has been submitted to concerned vide letter No. PCP/EMD/CWLA/F12/039 dated 04.03.2022 (Acknowledgement copy are mentioned below.)

जेके सेम सेन्ट्रल लिमिटेड



Acknowledgement copy

iii. The project proponent shall upload the status of compliance of the stipulated environment clearance condition, including result of monitored data on there website and update the same on half -yearly basis.

Complied. Six monthly compliance status report along with monitoring data is uploaded at company's website conditions, including results of monitored mentioned as below.) their website and update the same on half-yearly basis.



Uploaded EC report in company's website

iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectorial parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.

Complied. Ambient air quality and stack emission are being monitored and displayed at main gate through a LED system and reports are uploaded along with the EC compliance report at company website (LED picture is mentioned below.)



v. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.

Complied.

Six monthly compliance status is being reported to the MoEF&CC website and Climate Change at environment clearance portal (Screenshot of parivesh portal is mentioned below.)



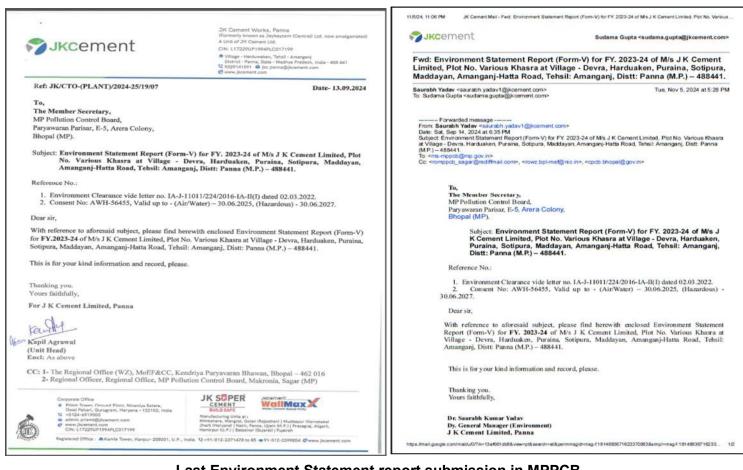
EC Compliance report uploading in Parivesh portal

The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

νi.

Complied.

Environmental statement report for F.Y. 2023-24 has been submitted to the MPPCB in prescribed format and put on the website of the company (Email sent copy and company website screenshot are mentioned below.)



Last Environment Statement report submission in MPPCB



Environment Statement report uploading in Company website.

vii The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.

Complied. Intimation regarding the date of financial closure, final approval of concerned authority, commencing the land development work and start of production have been submitted to the Ministry via. letter no. JAYKAYCEM/ENV. /Corres./2022-23/03 dated 12.11.2022 & JKCEMENT/ENV./CORRES./2024-25/07/10 dated 13.06.2024.



Viii	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee	Complied with 1st year CER Budget target and Compliance in Progress with 2nd year CER budget expenditure. We would like to appraise you that our year wise expenditure under CER is following: 1st year- November 22 to October 23- Rs. 744.71 Lakhs 2nd year -(November 23 to till September-2024)- Rs. 910.59 Lakh (2nd year will be completed in Oct. 24)
		Our total expenditure done from November 2022 to September 2024 is Rs. 1655.30 Lakhs.
ix	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).	Agreed
X	Concealing factual data or submission of false / fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.	
xi	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	
xii	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	Agreed
xiii	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.	
xiv	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	

Environment Clearance vide no. IA-J-11011/224/2016-IA.II(I) dated 14.10.2020							
Specific Condition							
S. No.	EC Conditions	EC Compliance Status					
i.	Project proponent shall comply with the outcome of the court case pending before the Lok Adalat, Panna. (Specific Condition –i)						

V.	Waste management-(i) Kitchen waste shall be composted or converted t biogas for further use.	Complied We have installed waste composter of capacity 150 Kg/Day and compost is used in horticulture. Picture are mentioned below.						
			10tai 001.37 WI					
		1	Iron Sludge Total	26.1		861.57 861.57 MT		
		S.No	Waste Name	HW category.		Consumed (Qty.) MT		
		Hazardous waste						
		Total	RICE HUSK PLASTIC WASTE RDF DOLACHAR		95.84 21427.29 (MT)			
		3 4			21273.81			
		2			38.75			
		1			18.89			
		S.No			Consumed (Qty.) MT			
		Non- Hazardous waste						
iv.	Energy Conservation measures (ii) Maximize utilization of alternate fuels and Coprocessing to achieve best practice norms	Complied We have consumed following wastes since Apr-2024 to Sept-2024.						
iii.	Plant shall operate on ZLD. (Specific Condition –ix)	Complied. Plant is being operated on ZLD. The Waste water generated from the Waste Heat Recovery System (WHRS) is used in the mill spray.						
ii.	 Following points shall be complied. a. Residential colony as proposed by PP in North East direction of the plot is not permitted. PP shall not construct any residential accommodation inside the project area. b. CPP shall be relocated in the area allocated for colony to reduce dust and noise impact on village in south west area of the proposed site. c. A 100 m wide green belt shall be provided on south west side of the plant to protect the village from pollution. d. Revised lay out map to this effect shall be furnished within 15 days to the Ministry and its Regional Office for records. 	 Complied. a. No Colony is constructed in North East direction. b. No CPP is installed. c. Green belt of 100m wide in SW side of the plant boundary towards the village. d. Revised layout has already been submitted to the Ministry on 15.10.2020 in soft copy by mail. Layout copy enclosed as Annexure-8. 						



Waste composter

Yours Sincerely

For: JK Cement Limited, Panna,

Kapil Agrawal

(Authorized signatory & Unit Head)





Sudama Gupta <sudama.gupta@jkcement.com>

Submission of performance monitoring reports of pollution control equipment's for J K Cement Ltd. located at Villages Devra, Hardua, Puraina, Sotipura & Madaiyan, Tehsil: Amanganj(Old Pawai), Dist. Panna, Madhya Pradesh.

Saurabh Yadav <saurabh.yadav1@jkcement.com>

Fri, Aug 2, 2024 at 5:15 PM

To: rowz.bpl-mef@nic.in

Cc: dirind-moefcc@gov.in, Kapil Agrawal kapil.agrawal@jkcement.com, Sudama Gupta

<sudama.gupta@jkcement.com>

To,

The Regional Office (WZ),

Kendriya Paryavaran Bhawan, E-5, Arera Colony, Link Road-3,

Ravi Shankar Nagar, Bhopal - 462 016

E-Mail: rowz.bpl-mef@nic.in

Subject: Submission of performance monitoring reports of pollution control equipments for J K Cement Ltd. located at Villages Devra, Hardua, Puraina, Sotipura & Madaiyan, Tehsil: Amanganj (Old Pawai), Dist. Panna, Madhya Pradesh.

Reference No.: Environment Clearance no IA-J-11011/224/2016-IA. II (I) dated 02.03.2022 (Condition no. A. Specific Conditions - X).

Dear sir,

With reference to aforesaid subject, please find herewith enclosed performance monitoring reports of pollution control equipments for J K Cement Ltd. located at Village - Devra, Harduaken, Puraina, Sotipura, Madaiyan, Tehsil - Amanganj District Panna (Madhya Pradesh) 488441.

This is for your kind information and record, please.

With Regards,
Dr. Saurabh Kumar
Dy. General Manager (Environment)

J K Cement Limited

Village- Harduwaken, Tahsil- Amanganj,

District- Panna

Email- saurabh.yadav1@jkcement.com Web:-www.jkcement.com

Mob.:- +91 9686502172

7

Submission of performance monitoring reports of pollution control equipment's.pdf 4258K



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
- mww.jkcement.com

Ref. No. JKCEMENT/ENV./CORRES./2024-25/07/11

Dated: 01.08.2024

To,

The Regional Office (WZ), Kendriya Paryavaran Bhawan, E-5, Arera Colony, Link Road-3, Ravi Shankar Nagar, Bhopal - 462 016

E-Mail: rowz.bpl-mef@nic.in

Subject: Submission of performance monitoring reports of pollution control equipment's for J K Cement Ltd. located at Villages Devra, Hardua, Puraina, Sotipura & Madaiyan, Tehsil: Amanganj (Old Pawai), Dist. Panna, Madhya Pradesh.

Reference No.: Environment Clearance no IA-J-11011/224/2016-IA. II (I) dated 02.03.2022 (Condition no. A. Specific Conditions - X).

Dear sir.

With reference to aforesaid subject, please find herewith enclosed performance monitoring reports of pollution control equipment's for J K Cement Ltd. located at Village - Devra, Harduaken, Puraina, Sotipura, Madaiyan, Tehsil - Amanganj District Panna (Madhya Pradesh) 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: The Director, Ministry of Env., Forest and Climate Change, Indira Paryavaran Bhawan Jorbagh Road, New Delhi - 110 003.

Corporate Office

- Prism Tower, Ground Floor, Ninaniya Estate, Gwal Pahari, Gurugram, Haryana - 122102, India
- +0124-6919000
- admin.prismt@jkcement.com
- g www.jkcement.com CIN: L17229UP1994PLC017199





Manufacturing Units at :

Nimbahera, Mangrol, Gotan (Rajasthan) | Muddapur (Karnataka) Jharli (Haryana) | Katni, Panna, Ujjain (M.P.) | Prayagraj, Aligarh, Hamirpur (U.P.) | Balasinor (Gujarat) | Fujairah



Performance Monitoring Reports of Air Pollution Control Device's (APCD).



Sponsor:



Cement Division, Unit-Panna.

Report Prepared by:



Vimta Labs Ltd.

142, IDA, Phase-II, Cherlapally
Hyderabad–500 051
env@vimta.com, www.vimta.com
(QCI/NABET Accredited EIA Consultancy Organization,
NABL Accredited & ISO 17025 Certified and MoEF &CC Recognized Laboratory)

PREFACE

J K CEMENTS LIMITED. Cement Division, Unit- Panna.

Performance Monitoring Reports of Air Pollution Control Device's (APCD).

For and on behalf of VIMTA Labs Limited

Approved by : Lavanya Bende

Signed: 73 havany-

Designation : Senior Scientist – Environment

Date : 2024/07/19

This report has been prepared by Vimta Labs Limited with all reasonable skill, care, and diligence within the terms of the contract with the client, incorporating our General Terms and Conditions of Business and taking account of the resources devoted to it by agreement with the client.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.



June-2024

1.0 Introduction

JK Cement Ltd. is one of India's leading manufacturers of Grey Cement and one of the leading White Cement manufacturers in the World. Over four decades, the Company has partnered India's multi-sectoral infrastructure needs on the strength of its product excellence, customer orientation and technology leadership. JK Cement's operations commenced with commercial production at its flagship grey cement unit at Panna, Madhya Pradesh in November 2022. The Company has an installed Grey Cement capacity of 3.0 MnTPA & Clinker capacity 3.3 MnTPA & WHRS 25 MW as on date, making it one of the top cement manufacturers in the Country.

2.0 Background

Cement, power, chemical, textile and various other industries are indicators of country's progress, however all these industries have adverse impact on environment through emission of pollutants. India, like many other countries, has put in place a regulatory regime to control industrial emissions into air. For industries it is very difficult to follow these regimes due to continuous varying emission level depending on various factors like variation in per day production based on market demand, load, operating hours, season etc. and conventional emission monitoring system represent the emission level of particular time period only.

Continuous emission monitoring system (CEMS) has become necessity to monitor & regulate emission level. CEMS refers to the instrumentation and associated computing hardware and software used to measure pollutant levels in exhaust gas from industrial sources at a higher frequency (e.g., once or more per minute). Most PM CEMS device technologies employ indirect measurement principles and therefore require calibration before use. For instance, light scattering CEMS technology, which is commonly used to measure PM emissions, calculates the concentration of pollutants based on changes in the optical properties of stack gas. Calibration

1



(performance & reliability) of CEMS ensures the complete integrity & reliability of data acquired from CEMS.

JK Cement Ltd, Situated at Village Harduwaken, Tehsil Amanganj, Distt Panna Madhya Pradesh, has put Particulate matter for APCD monitoring of particulate matter emission level. Performance monitoring of APCD Performance monitoring of PCE was performed by M/s. Vimta Labs Limited, Hyderabad. To comply the regulatory requirement M/s Vimta Labs Limited was follow Central Pollution Control Board specifications and guidelines for continuous emissions monitoring systems (CEMS) for Particulate Matter (PM) measurement with special reference to emission trading programs (CPCB/e-PUBLICATION/2013-14) and 1st Revised Guidelines for Continuous emission monitoring systems in September 2018. Standard reference method of Isokinetic sampling technique was adopted for comparison study of online data received from Stacks.

3.0 Standard Reference Method (SRM)

Particulate matter is withdrawn Iso-kinetically from the duct/stack and collected in a Micro Glass fibre thimble maintained at duct/stack temperature. The particulate matter, which includes any material that collects in the Filter thimble, is determined gravimetrically after the removal of uncombined moisture. The Iso-kinetic flow rate is calculated from the arrived flue gas velocity inside the duct/stack at respective traverse points, which is calculated based on the measured parameters like temperature, moisture, molecular weight, velocity head at respective traverse points and static head.

4.0 Calibration Procedure:

Particulate matter emission level of 4 stacks (stationary source of emission) installed in plant was measured by standard reference method of Isokinetic sampling technique. Total three measurements were carried out in each stack of Concern Mills (wherever possible). Micro Glass Fiber Filter thimbles are used for dust collection. And were conditioned at 120°C to constant



weighing before & after sampling. Data acquired from APCD for each stack during Real time period of Iso-kinetic sampling was collected. Since in every study each collected data is associated with some inherent error due to various unavoidable factors, therefore to standard reference method of Iso-kinetic sampling method. As per CPCB/e-Publication/2013-14 guideline, maximum acceptable limit for %RMSPE is less than 30. If %RMSE is more than 30.

5.0 Instruments:

For this study, Iso-kinetic sampling train for Particulate Matter was carried out in different stacks in J K Cement Works Panna, in Panna district, Madhya Pradesh, by stack sampling kit VSS- 1 of Envirotech Instruments Private Limited. Dust sample was collected in Whatman glass fiber thimbles.

6.0 Gaseous Composition Measurement

The measurement of the O_2 , & CO_2 was carried out with the Portable Combustion Flue Gas Analyzer Make of MRU GmBH Model Optima 7 with according to USEPA Method 30&34.



FIGURE-1
PORTABLE COMBUSTION GAS ANALYSER



7.0 Exhaust Gas Volume Stream

7.1 Velocity

The velocity profile was measured using S-type Pitot tube according to USEPA-guideline method no.2.

TABLE-1
INSTRUMENT DETAILS FOR VELOCITY MEASUREMENT

Parameter	Instrument and its Specification
S- Type Pitot tube	 Envirotech Stack Sampling Kit Validated with calibration Report
Dynamic pressure	 Incline cum vertical manometer Envirotech Stack Sampling Kit Accuracy: ± 1 [%] of measuring range
Static pressure	 Incline cum vertical manometer Envirotech Stack Sampling Kit Accuracy: ± 1 [%] of measuring range
Ambient pressure	 Digital Barometer, Testo 511, Germany Range: 300 – 1200 hPa [mbar] Accuracy: ± 3 hPa



7.2 Exhaust gas temperature

During the whole measuring period the temperature of the exhaust gas was measured in multi- points of the cross-section area of the stack with a K type thermocouple in connection with a display unit.

Envirotech Stack Sampling Kit

TABLE-2
INSTRUMENT DETAILS OF TEMPERATURE MEASUREMENT

Parameter	Device and its Specification				
Temperature	 Digital Thermo Meter Range: 0 - 1300 [°C] Accuracy: ± 0.3% + 1°C 				

8.0 Measurement of Particulate Matter (PM):

Envirotech Iso-kinetic Source Sampling Kit Model APM 620 was used to collect dust Sample Iso-kinetically as Per USEPA Method 5 with valid calibration report of Manometer, Orifice Meter, Dry Gas Meter, Sampling Nozzle, Vacuum gauge, Temp indicator, Pitot tube. Sample was collected in Glass Fiber Filter. Hot gas was dried using silica Gel and cooled less than 20° C before entering to metering Device (Dry Gas Meter). Initial & Final Weight of Filter Thimble was taken at site Laboratory by using Digital Balance.



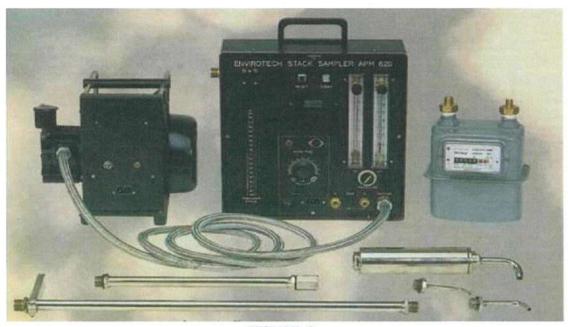


FIGURE-2 STACK EMISSION MONITORING KIT

9.0 QA /QC for Dust Measurement during sampling

The instruments used for measurement are duly calibrated as per applicable norms as mentioned in ISO/IEC: 17025.

Calibrated S-type Pitot tube, manometer, digital thermometer, Rota meter, dry gas meter & vacuum gauges were used.

For QA/QC Leak Check was done before & after sampling of each port hole at pressure of (-15) inch Hg & was found 100% leak Proof.

Iso-kinetic Percentage was in between 90-110 % at Each Port Hole & over all Iso-kinetic Percentage was also in the same range. Field Blank sample was taken care at site.



10.0 Results & Discussion:

Results obtained from APCD & Iso-kinetic sampling are summarized in Table-3 and Regression trend data are given in below.

TABLE-3
SUMMARY OF REGRESSION ANALYSIS

Sr. No	Stack Identity	PM (mg/nm3)	EFFENCICY	
01	Cement Mill-1 Outlet	7.3		
02	Cement Mill-1 Inlet	292000	99.99	
03	RABH kiln -1 Outlet	7.76	99.94	
04	RABH ESP-1 Inlet	13900		
05	Cooler ESP Outlet	8.9	99.80	
06	Cooler ESP Inlet	4500		
07	Coal Mill-1 Outlet	7.9	99.99	
08	Coal Mill-1 Inlet	122333		



June-2024

ISSUED TO:

M/S. J K Cement Works Panna, A-Unit of J K Cement Ltd.

Village Harduwaken, Tehsil Amanganj,

Distt- Panna, MP-488441 India.

Report Number : VLL/VLS/24/04577/001

Issue Date

2024.06.22

P.O. Number : 4600099519 P.O. Date : 05.01.2024

05.01.2024

Page 1 of 1

Sample Registration Date : 2024.06.07

Sampling Date

: 2024.05.29

Analysis Starting Date

: 2024.06.07

Analysis Completion Date

: 2024.06.21

Samples collected by Vimta Labs Ltd.

TEST REPORT

Plant Name & Address

J K Cement Works, Panna A-Unit of J K Cement Ltd.

Sampling Location

Cement Mill-1 (BAG HOUSE) OUTLET

Test protocol

IS:11255 Part-1,2003, IS: Part-3, 2008, USEPA Method

No. 3A, 6C & 10B

Stack Height

54.0 m

Height of Sampling Point

40.0 m

Stack Diameter at Test Location

3.40 m

\$.no	Test Id	Time (Hrs)	Temp. (°C)	Velocity (m/s)	Flow Rate (Nm³/S)	Particulate Matter (mg/Nm³)
1	1 st	16:00	87	15.4	107.45	8.7
2	2nd	16:50	89	15.0	104.08	6.7
3	3rd	17:45	88	15.2	105.76	6.5

Name & Designation of Authorized Signatory

B. Lavarya



June-2024

ISSUED TO:

M/S. J K Cement Works Panna, A-Unit of J K Cement Ltd.

Village Harduwaken, Tehsil Amanganj,

Distt- Panna, MP-488441 India.

Report Number : VLL/VLS/24/04577/002

Issue Date 2024.06.22

P.O. Number

: 4600099519

P.O. Date 05.01.2024

Page 1 of 1

Sample Registration Date : 2024.06.07

Sampling Date

2024.05.29

Analysis Starting Date

: 2024.06.07

Analysis Completion Date : 2024.06.21

Samples collected by Vimta Labs Ltd.

TEST REPORT

Plant Name & Address

J K Cement Works, Panna A-Unit of J K Cement Ltd.

Sampling Location

Cement Mill-1 (BAG HOUSE) INLET

Test protocol

IS:11255 Part-1,2003, IS: Part-3, 2008, USEPA Method

No. 3A, 6C & 10B

Stack Diameter at Test Location

: 4.2 m

S.no	Test Id	Time (Hrs)	Temp. (°C)	Velocity (m/s)	Flow Rate (Nm³/S)	Particulate Matter (g/Nm³)
1	1 _{st}	16:00	93	25.7	254.79	289
2	2 _{nd}	16:50	95	27.4	270.16	268
3	3rd	17:45	94	26.8	264.97	319

Name & Designation of Authorized Signatory

Lavanya Bende Senior Environment

B. Lawany.



June-2024

ISSUED TO:

M/S. J K Cement Works Panna, A-Unit of J K Cement Ltd.

Village Harduwaken, Tehsil Amanganj,

Distt- Panna, MP-488441 India.

Report Number : VLL/VLS/24/04577/003

Issue Date

P.O. Number

2024.06.22 : 4600099519

P.O. Date

: 05.01.2024

Page 1 of 1

Sample Registration Date : 2024.06.07

Sampling Date

: 2024.05.30

Analysis Starting Date

: 2024.06.07

Analysis Completion Date: 2024.06.21

Sample Collected by Vimta Labs Ltd.

TEST REPORT

Plant Name & Address

: J K Cement Works, Panna A-Unit of J K Cement Ltd.

Sampling Location

RAW MILL KILN -1 STACK (RMBH OUTLET)

Test protocol

: IS:11255 Part-1,2003, IS: Part-3, 2008, USEPA Method

No. 3A, 6C & 10B

Stack Height

: 183.0 m

Height of Sampling Point

140.0 m

Stack Diameter at Test Location

5.42 m

S.no	Test Id	Time (Hrs)	Temp. (°C)	Velocity (m/s)	Flow Rate (Nm³/S)	Particulate Matter (mg/Nm³)
1	1 st	11:00	91	10.6	182.19	6.1
. 2	2 _{nd}	11:55	93	11.0	188.03	8.0
3	3rd	12:50	91	10.5	180.47	9.2

Name & Designation of Authorized Signatory



June-2024

ISSUED TO:

M/S. J K Cement Works Panna, A-Unit of J K Cement Ltd.

Village Harduwaken, Tehsil Amanganj,

Distt- Panna, MP-488441 India.

Report Number : VLL/VLS/24/04577/004

Issue Date

2024.06.22

P.O. Number

: 4600099519

P.O. Date

: 05.01.2024

Page 1 of 1

Sample Registration Date : 2024.06.07

Sampling Date

: 2024.05.30

Analysis Starting Date

: 2024.06.07

Analysis Completion Date: 2024.06.21

Sample Collected by Vimta Labs Ltd.

TEST REPORT

Plant Name & Address

J K Cement Works, Panna A-Unit of J K Cement Ltd.

Sampling Location

RAW MILL KILN -1 STACK (RMBH INLET)

Test protocol

: IS:11255 Part-1,2003, IS: Part-3, 2008, USEPA Method

No. 3A, 6C & 10B

Stack Diameter at Test Location

6.0 m

S.no	Test Id	Time (Hrs)	Temp. (°C)	O2 (%V/V)	CO2 (%V/V)	Velocity (m/s)	Flow Rate (Nm³/\$)	Particulate Matter (gm/Nm³)
1	1 st	11:00	161	3.19	32.12	8.9	153.81	13.70
2	2 _{nd}	11:55	165	3.16	32.10	9.5	162.68	15.4
3	3rd	12:50	166	3.10	31.07	9.6	164.02	12.6

Name & Designation of Authorized Signatory

Lavanya Bende

B. Lawany

Senior Environment



June-2024

ISSUED TO:

M/S. J K Cement Works Panna, A-Unit of J K Cement Ltd.

Village Harduwaken, Tehsil Amanganj,

Distt- Panna, MP-488441 India.

Report Number : VLL/VLS/24/04577/005

Issue Date

: 2024.06.22

P.O. Number

4600099519

P.O. Date

05.01.2024

Page 1 of 1

Sample Registration Date : 2024.06.07

Sampling Date

: 2024.05.31

Analysis Starting Date

: 2024.06.07

Analysis Completion Date: 2024.06.21

Sample Collected by Vimta Labs Ltd.

TEST REPORT

Plant Name & Address

J K Cement Works, Panna A-Unit of J K Cement Ltd.

Sampling Location

Cooler ESP-1 OUTLET

Test protocol

IS:11255 Part-1,2003, IS: Part-3, 2008, USEPA Method

No. 3A, 6C & 10B

Stack Height

72.0 m

Height of Sampling Point

40.0 m

Stack Diameter at Test Location

4.82 m

S.no	Test Id	Time (Hrs)	Temp. (°C)	Velocity (m/s)	Flow Rate (Nm³/S)	Particulate Matter (mg/Nm³)
1	1 st	11:30	76	7.9	113.38	8.7
2	2 _{nd}	12:20	77	8.2	117.35	9.1
3	3rd	13:05	79	0.8	113.84	8.8

Name & Designation of Authorized Signatory



June-2024

ISSUED TO:

M/S. J K Cement Works Panna,

A-Unit of J K Cement Ltd. Village Harduwaken, Tehsil Amanganj,

Distt- Panna, MP-488441 India.

Report Number : VLL/VLS/24/04577/006

Issue Date

: 2024.06.22

P.O. Number : 4600099519 P.O. Date : 05.01.2024

Page 1 of 1

Sample Registration Date : 2024.06.07

Sampling Date

: 2024.05.31

Analysis Starting Date

: 2024.06.07

Analysis Completion Date : 2024.06.21

Sample Collected by Vimta Labs Ltd.

TEST REPORT

Plant Name & Address

Sampling Location

Test protocol

Stack Diameter at Test Location

J K Cement Works, Panna A-Unit of J K Cement Ltd.

Cooler ESP-1 INLET

IS:11255 Part-1,2003, IS: Part-3, 2008, USEPA Method

No. 3A, 6C & 10B

: 5.0 m

\$.no	Test Id	Time (Hrs)	Temp. (°C)	Velocity (m/s)	Flow Rate (Nm³/S)	Particulate Matte (gm/Nm³)
1	1 st	11:30	169	9.5	117.46	4.5
2	2nd	12:20	171	9.9	121.86	3.9
3	3rd	13:05	174	9.7	118.60	5.1

Name & Designation of Authorized Signatory



June-2024

ISSUED TO:

M/S. J K Cement Works Panna,

A-Unit of J K Cement Ltd.

Village Harduwaken, Tehsil Amanganj,

Distt- Panna, MP-488441 India.

Report Number : VLL/VLS/24/04577/007

Issue Date

: 2024.06.22

P.O. Number

: 4600099519

P.O. Date

05.01.2024

Page 1 of 1

Sample Registration Date : 2024.06.07

Sampling Date

: 2024.06.01

Analysis Starting Date

: 2024.06.07

Analysis Completion Date

: 2024.06.21

Sample Collected by Vimta Labs Ltd.

TEST REPORT

Plant Name & Address

: J K Cement Works, Panna A-Unit of J K Cement Ltd.

Sampling Location

Coal Mill-1 (BAG HOUSE) OUTLET)

Test protocol

: IS:11255 Part-1,2003, IS: Part-3, 2008, USEPA Method

No. 3A, 6C & 10B

Stack Height

78.0 m

Height of Sampling Point

40.0 m

Stack Diameter at Test Location

2.3 m

S.no	Test Id	Time (Hrs)	Temp. (°C)	Velocity (m/s)	Flow Rate (Nm³/S)	Particulate Matter (mg/Nm³)
1	1 st	14:10	73	18.1	55.18	8.5
2	2nd	15:00	72	17.8	54.43	7.2
3	3rd	15:50	74	18.0	54.72	8.0

Name & Designation of Authorized Signatory



June-2024

ISSUED TO:

M/S. J K Cement Works Panna, A-Unit of J K Cement Ltd.

Village Harduwaken, Tehsil Amanganj, Distt- Panna, MP-488441 India. Report Number : VLL/VLS/24/04577/008

Issue Date : 2024.06.22
P.O. Number : 4600099519
P.O. Date : 05.01.2024

Page 1 of 1

Sample Registration Date : 2024.06.07 Sampling Date : 2024.06.01 Analysis Starting Date : 2024.06.07 Analysis Completion Date : 2024.06.21

Sample Collected by Vimta Labs Ltd.

TEST REPORT

Plant Name & Address : J K Cement Works, Panna A-Unit of J K Cement Ltd.

Sampling Location : Coal Mill-1 (BAG HOUSE)- INLET

Test protocol : IS:11255 Part-1,2003, IS: Part-3, 2008, USEPA Method

No. 3A, 6C & 10B

Stack Diameter at Test Location : 2.2 m

S.no	Test Id	Time (Hrs)	Temp. (°C)	Velocity (m/s)	Flow Rate (Nm³/S)	Particulate Matter (gm/Nm³)
1	1 st	14:10	77	24.3	64.07	116.1
2	2nd	15:00	79	25.0	65.54	127.2
3	3rd	15:50	78	24.7	64.94	123.7

Name & Designation of Authorized Signatory



June-2024

ISSUED TO:

M/S. J K Cement Works Panna, A-Unit of J K Cement Ltd.

Village Harduwaken, Tehsil Amanganj, Distt- Panna, MP-488441 India.

Report Number : VLL/VLS/24/04577/009

Issue Date : 2024.06.22

P.O. Number : 4600099519 P.O. Date : 05.01.2024

Page 1 of 1

Sample Registration Date : 2024.06.07

Analysis Starting Date : 2024.06.07 Sampling Date

: 2024.06.01

Sample Collected by Vimta Labs Ltd.

TEST REPORT

Plant Name & Address

J K Cement Works, Panna A-Unit of J K Cement Ltd.

Analysis Completion Date : 2024.06.21

Sampling Location

Efficiency Details

Test protocol

IS:11255 Part-1,2003, IS: Part-3, 2008, USEPA Method

No. 3A, 6C & 10B

Stack Diameter at Test Location

: 2.2 m

Sr.no	Test Location	Date & Time (Hrs)	APC Device	Efficiency (%)	
1	Cement Mill Stack	29.05.2024 16:00- 18:30 hrs	BAG HOUSE	99.99	
2	RABH Klin Stack	30.05.2024 11:00 to 14:00 hrs	BAG HOUSE	99.94	
3	Cooler ESP stack	31.05.2024 11:30 hrs to 14:30 hrs	ESP	99.80	
4	Coal Mill Stack	01.06.2024 14:10 hrs to 16:30 hrs	BAG FILTER	99.99	

Name & Designation of Authorized Signatory





Custo	mer: JK Cement Limited	Mod	del: MKIII	SICK INDIA PVT LTD		
Date: 30.08.2024		Make: LAND (S.N 26559)		Done by: Mayank Sharma		
	Manual Sampling Done by	Details of Manual sampling company details				
	Mr. Rajkumar	JK Cement Limited				
		Make: Vayu Bodhak India, Model: SERRAX SKM150(SI.No.223 DTF 2				
S. No	Manual sampling Results in (mg/Nm3)	Instrument Reading before calibration in mg/Nm3	Instrument Reading after calibration in mg/Nm3	% Of Error after calibration		
1	13.68	14.71	13.71	0.219		

With reference to the manual sampling results instrument was calibrated.





CALIBRATION REPORT FOR CEMS GAS ANALYZER

JK CEMENT LIMITED	Model: ULTRAMAT 23	SICK INDIA PVT LTD
Calibration Date: 29.08.2024	Equipment Number: (S.N: NN-554)	Done by: Mayank Sharma

1. Model No: ULTRAMAT 23

2. Customer Name: J K CEMENT WORKS, PANNA

Village Harduwaken, Tehsil Amanganj,

PIN - 488441, Distt. Panna (M.P.)

3. Instrument Tag No: RABH Stack (SO2/NOx/CO) Analyzer

4. Calibration Due Date: 28.02.2025

S.N.	Cylinder No	Expiry date of calibration cylinder	Component	Cylinder Value (unit)	Before Calibration Value	After Calibration Value	Remarks
1	16243960	28.07.2025	SO2	4115 PPM	4196 PPM	4117 ppm	Calibrated
2	16243979	28.07.2025	NO	4227 PPM	4301 PPM	4226 ppm	Calibrated
3	16244079	28.07.2025	CO	2.0 %	2.05 %	2.0 %	Calibrated
					•		



For Sick India Pvt Ltd



Custo	mer: JK Cement Limited	Mod	del: MKIII	SICK INDIA PVT LTD			
Date: 30.08.2024		Equipment N Make: LAND Clinker Coole		Done by: Mayank Sharma			
	Manual Sampling Done by		Details of Manual sampling company details				
	Mr. Rajkumar	JK Cement Limited					
		Make: Vayu Bodhak India, Model: SERRAX SKM150(SI.No.223 DTF 22)					
S. No	Manual sampling Results in (mg/Nm3)	Instrument Reading before	Instrument Reading after calibration in mg/Nm3	% Of Error after calibration			
	(6)	calibration in mg/Nm3					
1	13.04	13.37	13.10	0.460			

With reference to the manual sampling results instrument was calibrated.





Custo	mer: JK Cement Limited	Mod	el: SP-100	SICK INDIA PVT LTD				
	Date: 30.08.2024		umber: SP-100, 5.No21418402)	Done by: Mayank Sharma				
	Manual Sampling Done by		Details of Manual sampling company details					
	Mr. Rajkumar	JK Cement Limited						
		Make: Vayu I	Bodhak India, Model: S	SERRAX SKM150(SI.No.223 DTF 22)				
S. No	Manual sampling Results in (mg/Nm3)	Instrument Reading before calibration in mg/Nm3	Instrument Reading after calibration in mg/Nm3	% Of Error after calibration				
1	12.99	12.3	12.97	-0.153				

With reference to the manual sampling results instrument was calibrated.





Custo	mer: JK Cement Limited	Mod	el: SP-100	SICK INDIA PVT LTD			
	Date: 30.08.2024	1	umber: SP-100, S.No21418403)	Done by: Mayank Sharma			
	Manual Sampling Done by		Details of Manual sampling company details				
	Mr. Rajkumar	JK Cement Limited					
		Make: Vayu I	Bodhak India, Model: S	SERRAX SKM150(SI.No.223 DTF 22)			
S. No	Manual sampling Results in (mg/Nm3)	Instrument Reading before calibration in mg/Nm3	Instrument Reading after calibration in mg/Nm3	% Of Error after calibration			
1	6.30	5.80	6.32	0.317			

With reference to the manual sampling results instrument was calibrated.





CONTINUOUS AMBIENT AIR QUALITY MONITORING STATION (CAAQMS) **CALIBRATION REPORT**

Customer Name

: J K Cement Ltd. Panna, M P.

Date: 05.10.2024

Station Name

: CAAQMS 1 : NEAR Reservoir

Station Location

Calibration Standards:

Particulars	Make	Serial No.	Concentration
SO2 Gas Cylinder	Vadilal Gases	06805	48 PPM
NOx Gas Cylinder	Vadilal Gases	285395	52.9 PPM
CO Gas Cylinder	Vadilal Gases	295248	89 PPM

Calibration Results (Gas Analysers):

Gas Analyser			Zero Cal	ibration			Span	Calibrat	tion		
	Range	Zero R	Zero Reading Background		round	Span	Span Reading		Coefficient		Remark
			Old	New	Old	New	Value	Old	New	Old	New
SO2	0-500	2.1	0.0	37.6	38.9	100 PPB	104	100.0	1.40	1.21	ОК
NOX	0-500	2.8	0.0	12.5	15.3	100 PPB	96	100.0	1.06	1.19	ОК
СО	0-50	-0.020	0.0	0.100	0.080	02 PPM	2.11	2.0	0.937	0.90	ОК

^{*} GAS ANALYSER CALIBRATION DONE IN PPB EXCEPT CO. CO IS IN PPM.

Foil calibration -		Zero value - 0.0 Foil value - 1215		15 ug/m3
DA4 A I		Amplificat	tion Factor	Damark
PM Analysers	Range	Old Value	New Value	Remark
PM 10	0-1000	7013	6978	Ok
PM 2.5	0-1000	6994	7103	Ok

Calibration Done by Thermo Fisher Scientific Pvt. Ltd.

Mumbai

Thermo Fisher Scientific India Pvt. Ltd. Plot No. C-327 TTC Industrial Area

Corporate Office:

102,104, Delphi 'C' Wing Hiranandani Business Park

Pawane, Navi Mumbai - 400 705.

Powai, Mumbai- 400 076

INDIA

+91-22-4157 8800 tel +91-22-4157 8888 tel

+91-22-6742 9494 tel +91-22-6742 9495 fax



CONTINUOUS AMBIENT AIR QUALITY MONITORING STATION (CAAQMS) CALIBRATION REPORT

Customer Name

: J K Cement Ltd. Panna, M P.

Date: 04.10.2024

Station Name

: CAAQMS 2

Station Location

: NEAR Zero Point

Calibration Standards:

Particulars	Make	Serial No.	Concentration
SO2 Gas Cylinder	Phoenix	AL6196	48 PPM
NOx Gas Cylinder	Phoenix	AL6235	49 PPM
CO Gas Cylinder	Phoenix	AL6248	189 PPM

Calibration Results (Gas Analysers):

Gas Analyser			Zero Ca	libration			Span (Calibratio	on			
	Range	Range	Zero Re	eading	Backg	round	Span	Span Re	ading	Coef	ficient	Remark
		Old	New	Old	New	Value	Old	New	Old	New		
SO2	0-500	1.6	0.0	34.8	31.9	100 PPB	107	100	1.21	0.94	ОК	
NOX	0-500	-2.1	0.0	7.9	5.8	100 PPB	102	100	1.41	1.40	ОК	
СО	0-50	-0.030	0.0	0.090	0.060	02 PPM	1.98	2.0	0.76	0.96	ОК	

^{*} GAS ANALYSER CALIBRATION DONE IN PPB EXCEPT CO. CO IS IN PPM.

Foil calibration -		Foil calibration -		Zero value - 0.0	Foil value - 11	95 ug/m3
DNA Amelyana	Danas	Amplifica	tion Factor	Domonic		
PM Analysers	Range	Old Value	New Value	Remark		
PM 10	0-1000	7103	7120	Ok		
PM 2.5	0-1000	7076	6988	Ok		

Calibration Done by Thermo Fisher Scientific Pvt. Ltd.

Thermo Fisher Scientific India Pvt. Ltd. Plot No. C-327

Corporate Office:

Plot No. C-327 TTC Industrial Area

102,104, Delphi 'C' Wing Hiranandani Business Park Pawane, Navi Mumbai - 400 705.

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CONTINUOUS AMBIENT AIR QUALITY MONITORING STATION (CAAQMS)

CALIBRATION REPORT

Customer Name

: J K Cement Ltd. Panna, M P.

Date: 05.10.2024

Station Name
Station Location

: CAAQMS 3 : NEAR Store

Calibration Standards:

Particulars	Make	Serial No.	Concentration
SO2 Gas Cylinder	Vadilal Gases	067993	53 PPM
NOx Gas Cylinder	Phoenix	AL6235	49 PPM
CO Gas Cylinder	Vadilal Gases	295245	94 PPM

Calibration Results (Gas Analysers):

			Zero Ca	libration			Span Calibration					
Gas Analyser	Range	Zero Re	Zero Reading		Background		Span Span Re		Span Span Reading Coefficient		ficient	Remark
Analysei		Old	New	Old	New	Value	Old	New	Old	New		
SO2	0-500	2.7	0.0	40.7	43.1	100 PPB	104.5	100.0	1.72	1.65	ОК	
NOX	0-500	-2.0	0.0	3.9	1.9	100 PPB	96	100.0	0.98	1.01	ОК	
СО	0-50	0.060	0.0	-0.020	0.040	02 PPM	1.99	2.0	0.932	0.959	ОК	

^{*} GAS ANALYSER CALIBRATION DONE IN PPB EXCEPT CO. CO IS IN PPM.

Foil calibration -		Zero value - 0.0 Foil value - 124		19 ug/m3
DAG Avealuses	D	Amplification Factor		Damania
PM Analysers	Range	Old Value	New Value	Remark
PM 10	0-1000	6984	6966	Ok
PM 2.5	0-1000	7063	6912	Ok

Calibration Done by Thermo Fisher Scientific Pvt. Ltd.

Scientific and Scient

Thermo Fisher Scientific India Pvt. Ltd. Plot No. C-327

Corporate Office:

Plot No. C-327 TTC Industrial Area

102,104, Delphi 'C' Wing Hiranandani Business Park Pawane, Navi Mumbai - 400 705. INDIA

INDIA

Powai, Mumbai- 400 076 INDIA +91-22-6742 9495 fax



CONTINUOUS AMBIENT AIR QUALITY MONITORING STATION (CAAQMS) CALIBRATION REPORT

Customer Name

: J K Cement Ltd. Panna, M P.

Date: 08.10.2024

Station Name

: CAAQMS 4

Station Location : NEAR Guest House

Calibration Standards:

Particulars	Make	Serial No.	Concentration
SO2 Gas Cylinder	Phoenix	14033	45 PPM
NOx Gas Cylinder	Phoenix	6240	50 PPM
CO Gas Cylinder	Phoenix	6209	186 PPM

Calibration Results (Gas Analysers):

			Zero Ca	libration			Span Calibration				
Gas Analyser	Range	Zero Re	eading	Backg	round	Span Span Reading Coefficient		ficient	Remark		
Analysei		Old	New	Old	New	Value	Old	New	Old	New	
SO2	0-500	-0.7	0.0	25.2	24.5	100 PPB	103	100.0	0.85	0.80	ОК
NOX	0-500	-2.2	0.0	3.1	0.9	100 PPB	96	100.0	1.09	1.20	ОК
СО	0-50	-0.020	0.0	0.090	0.070	02 PPM	2.02	2.0	0.89	0.79	ОК

^{*} GAS ANALYSER CALIBRATION DONE IN PPB EXCEPT CO. CO IS IN PPM.

Foil calibration -		Zero value - 0.0	Zero value - 0.0 Foil value - 1254	
DAA A l		Amplifica	tion Factor	Damanla
PM Analysers Ra	Range	Old Value	New Value	Remark
PM 10	0-1000	6988	7076	Ok
PM 2.5	0-1000	7013	7159	Ok

Calibration Done by Thermo Fisher Scientific Pvt. Ltd.

Thermo Fisher Scientific India Pvt. Ltd. Plot No. C-327

Corporate Office:

Plot No. C-327 TTC Industrial Area

102,104, Delphi 'C' Wing Hiranandani Business Park Pawane, Navi Mumbai - 400 705.

Powai, Mumbai- 400 076

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Mumbai

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An Analytical Laboratory

Recognized by MoEF & CC, Accredited by ISO/IEC-17025:2017 (NABL) (An ISO 9001:2015, 14001:2015 & 45001:2018 Certified Company)

TEST REPORT CODE: VGL/FE/24/05/17/N-001

TEST REPORT ISSUE DATE: 10.05.2024

TEST REPORT (FUGITIVE EMISSION)

Name & Address of Customer : M/s. J K CEMENT WORKS, PANNA,

(A UNIT OF JK CEMENT LIMITED.)

VILLAGE-HARDUWAKEN, TEHSIL- AMANGANJ,

DISTT. - PANNA, (M.P)

Sampling Location : NEAR GYPSUM YARD

Duration of Sampling : 01.05.2024 TO 01.05.2024 Time of Sampling : 08:00 AM TO 04:00 PM

Sample Done By : VGL STAFF
Packing Condition : SEALED

Environmental Condition TEMP.(°C)- 25.3 & RH (%)- 57.0

Method of Sampling : IS:5182 Sample Receiving Date : 04.05.2024

Sample Processing Date : 05.05.2024 TO 10.05.2024

Equipment Used : HIGH VALUME SAMPLER

TEST RESULTS

SL. NO.	PARAMETERS	TEST METHOD	RESULTS	UNIT	SPECIFICATION / LIMIT (AS PER CPCB)
1	Suspended Particulate Matter (SPM)	IS 5182 (Part-4)	288.5	μg/m3	600

Page 1 of 1

Note:

- This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
- 2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.

3. Any discrepancy in test result should be reported within 15Days.

The above results are related to the tested sample only.

Review By:

GLO

Dr. Ashok Kumar Technical Manager Virat Global Lab Authorized Signatory

Authorised Signatory



An Analytical Laboratory

Recognized by MoEF & CC, Accredited by ISO/IEC-17025:2017 (NABL) (An ISO 9001:2015, 14001:2015 & 45001:2018 Certified Company)

TEST REPORT CODE: VGL/FE/24/05/17/N-002

TEST REPORT ISSUE DATE: 10.05.2024

TEST REPORT (FUGITIVE EMISSION)

Name & Address of Customer

M/s. J K CEMENT WORKS, PANNA,

(A UNIT OF JK CEMENT LIMITED.)

VILLAGE-HARDUWAKEN, TEHSIL- AMANGANJ,

DISTT. - PANNA, (M.P)

Sampling Location

NEAR PACKING PLANT

Duration of Sampling Time of Sampling

01.05.2024 TO TO

08:20 AM

04:20 PM

01.05.2024

Sample Done By **Packing Condition**

VGL STAFF SEALED

Environmental Condition

:

TEMP.(°C)- 25.3 & RH (%)- 57.0

Method of Sampling Sample Receiving Date IS:5182

Sample Processing Date

04.05.2024

TO 10.05.2024

Equipment Used

05.05.2024

HIGH VALUME SAMPLER

TEST RESULTS

SL. NO.	PARAMETERS	TEST METHOD	RESULTS	UNIT	SPECIFICATION / LIMIT (AS PER CPCB)
1	Suspended Particulate Matter (SPM)	IS 5182 (Part-4)	312.1	μg/m3	600

Page 1 of 1

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- The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
- Any discrepancy in test result should be reported within 15Days.

The above results are related to the tested sample only.

GLOP Review By:

Dr. Ashok Kumar Technical Manager

irat Global Lab Authorized Signatory

Authorised Signatory



An Analytical faboratory

Recognized by MoEF & CC, Accredited by ISO/IEC-17025:2017 (NABL) (An ISO 9001:2015, 14001:2015 & 45001:2018 Certified Company)

TEST REPORT CODE: VGL/FE/24/05/17/N-003

TEST REPORT ISSUE DATE: 10.05.2024

TEST REPORT (FUGITIVE EMISSION)

Name & Address of Customer

M/s. J K CEMENT WORKS, PANNA,

TO

TO

(A UNIT OF JK CEMENT LIMITED.)

VILLAGE-HARDUWAKEN, TEHSIL- AMANGANJ,

DISTT. - PANNA, (M.P)

Sampling Location

NEAR RAW MILL

Duration of Sampling

01.05.2024

01.05.2024

Time of Sampling

08:50 AM

TO 04:50 PM

Sample Done By **Packing Condition** VGL STAFF

Environmental Condition

SEALED

TEMP.(°C)- 25.3 & RH (%)- 57.0

Method of Sampling

IS:5182

Sample Receiving Date

04.05.2024

Sample Processing Date

05.05.2024

10.05.2024

Equipment Used

HIGH VALUME SAMPLER

TEST RESULTS

SL. NO.	PARAMETERS	TEST METHOD	RESULTS	UNIT	SPECIFICATION / LIMIT (AS PER CPCB)
1	Suspended Particulate Matter (SPM)	IS 5182 (Part-4)	290.2	μg/m3	600

Page 1 of 1

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- The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.

:

Any discrepancy in test result should be reported within 15Days.

The above results are related to the tested sample only.

LOA Review By:

Dr. Ashok Kumar Technical Manager Authorized Signatory

Author



An Analytical Laboratory

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TEST REPORT CODE: VGL/FE/24/05/17/N-004

TEST REPORT ISSUE DATE: 10.05.2024

TEST REPORT (FUGITIVE EMISSION)

Name & Address of Customer

M/s. J K CEMENT WORKS, PANNA,

(A UNIT OF JK CEMENT LIMITED.)

VILLAGE-HARDUWAKEN, TEHSIL- AMANGANJ,

DISTT. - PANNA, (M.P)

Sampling Location

NEAR COAL MILL

Duration of Sampling

02.05.2024 TO 02.05.2024

Time of Sampling

09:00 AM TO 05:00 PM

Sample Done By **Packing Condition** VGL STAFF

TO

SEALED

Environmental Condition

TEMP.(°C)- 25.3 & RH (%)- 57.0

Method of Sampling Sample Receiving Date IS:5182

Sample Processing Date

04.05.2024 05.05.2024

10.05.2024

Equipment Used

HIGH VALUME SAMPLER

TEST RESULTS

SL. NO.	PARAMETERS	TEST METHOD	RESULTS	UNIT	SPECIFICATION / LIMIT (AS PER CPCB)
1	Suspended Particulate Matter (SPM)	IS 5182 (Part-4)	263.9	μg/m3	600

Page 1 of 1

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Any discrepancy in test result should be reported within 15Days.

The above results are related to the tested sample only.

Virat Global Lab

Authorized Signatory

D. K. Yadav Lab In-charge

Review By:

Dr. Ashok Kumar Technical Manager



An Analytical faboratory

Recognized by MoEF & CC, Accredited by ISO/IEC-17025:2017 (NABL) (An ISO 9001:2015, 14001:2015 & 45001:2018 Certified Company)

TEST REPORT CODE: VGL/FE/24/05/17/N-005

TEST REPORT ISSUE DATE: 10.05.2024

TEST REPORT (FUGITIVE EMISSION)

Name & Address of Customer : M/s. J K CEMENT WORKS, PANNA,

(A UNIT OF JK CEMENT LIMITED.)

VILLAGE-HARDUWAKEN, TEHSIL- AMANGANJ,

DISTT. - PANNA, (M.P)

Sampling Location : NEAR CEMENT MILL

Duration of Sampling : 02.05.2024 TO 02.05.2024 Time of Sampling : 05:00 PM TO 01:00 AM

Sample Done By : VGL STAFF
Packing Condition : SEALED

Environmental Condition : TEMP.(°C)- 25.3 & RH (%)- 57.0

Method of Sampling : IS:5182 Sample Receiving Date : 04.05.2024

Sample Processing Date : 05.05.2024 TO 10.05.2024

Equipment Used : HIGH VALUME SAMPLER

TEST RESULTS

SL. NO.	PARAMETERS	TEST METHOD	RESULTS	UNIT	SPECIFICATION / LIMIT (AS PER CPCB)
1	Suspended Particulate Matter (SPM)	IS 5182 (Part-4)	274.1	μg/m3	600

Page 1 of 1

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- 2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.
- 3. Any discrepancy in test result should be reported within 15Days.

4. The above results are related to the tested sample only.

E (Ludzow)

Review By:

Dr. Ashok Kumar Technical Manager Virat Global Lab

Authorized Signatory

Authorised Signatory



An Analytical Laboratory

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TEST REPORT CODE: VGL/FE/24/05/17/N-006

TEST REPORT ISSUE DATE: 10.05.2024

TEST REPORT (FUGITIVE EMISSION)

Name & Address of Customer :

M/s. J K CEMENT WORKS, PANNA,

(A UNIT OF JK CEMENT LIMITED.)

VILLAGE-HARDUWAKEN, TEHSIL- AMANGANJ,

DISTT. - PANNA, (M.P)

Sampling Location

NEAR CLINKER SILO

03.05.2024 TO

03.05.2024

Duration of Sampling Time of Sampling

05:20 PM TO

01:20 AM

Sample Done By

VGL STAFF

Packing Condition

SEALED

Environmental Condition

TEMP.(°C)- 25.3 & RH (%)- 57.0

Method of Sampling

IS:5182

Sample Receiving Date

04.05.2024

Sample Processing Date

05.05.2024

10.05.2024

Equipment Used

HIGH VALUME SAMPLER

TO

TEST RESULTS

SL. NO.	PARAMETERS	TEST METHOD	RESULTS	UNIT	SPECIFICATION / LIMIT (AS PER CPCB)
1	Suspended Particulate Matter (SPM)	IS 5182 (Part-4)	296.5	μg/m3	600

Page 1 of 1

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3. Any discrepancy in test result should be reported within 15Days.

The above results are related to the tested sample only.

Review By:

Dr. Asbok Kumar Technical Manager Virat Global Lab Authorized Signatory



An Analytical Laboratory

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TEST REPORT CODE: VGL/FE/24/05/17/N-007

TEST REPORT ISSUE DATE: 10.05.2024

TEST REPORT (FUGITIVE EMISSION)

Name & Address of Customer

M/s. J K CEMENT WORKS, PANNA,

(A UNIT OF JK CEMENT LIMITED.)

TO

VILLAGE-HARDUWAKEN, TEHSIL- AMANGANJ,

DISTT. - PANNA, (M.P)

Sampling Location

NEAR COAL SHED 03.05.2024

03.05.2024

Duration of Sampling Time of Sampling

05:50 PM

01:50 AM

Sample Done By

TO VGL STAFF

Packing Condition

SEALED

Environmental Condition

TEMP.(°C)- 25.3 & RH (%)- 57.0

Method of Sampling

IS:5182

Sample Receiving Date Sample Processing Date 04.05.2024 05.05.2024

TO 10.05.2024

Equipment Used

HIGH VALUME SAMPLER

TEST RESULTS

SL. NO.	PARAMETERS	TEST METHOD	RESULTS	UNIT	SPECIFICATION / LIMIT (AS PER CPCB)
1	Suspended Particulate Matter (SPM)	IS 5182 (Part-4)	270.8	μg/m3	600

Page 1 of 1

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Any discrepancy in test result should be reported within 15Days.

The above results are related to the tested sample only.

Review By:

Dr. Ashok Kumar Technical Manager

Virat Global Lab Authorized Signatory



An Analytical Laboratory

Recognized by MoEF & CC, Accredited by ISO/IEC-17025:2017 (NABL) (An ISO 9001:2015, 14001:2015 & 45001:2018 Certified Company)

TEST REPORT CODE: VGL/FE/24/05/17/N-008

TEST REPORT ISSUE DATE: 10.05.2024

TEST REPORT (FUGITIVE EMISSION)

Name & Address of Customer

M/s. J K CEMENT WORKS, PANNA,

(A UNIT OF JK CEMENT LIMITED.)

TO

VILLAGE-HARDUWAKEN, TEHSIL- AMANGANJ,

DISTT. - PANNA, (M.P)

Sampling Location

NEAR LIME STONE SHED

Duration of Sampling

03.05.2024

03.05.2024

Time of Sampling

06:00 PM TO 02:00 AM

Sample Done By

VGL STAFF

Packing Condition

SEALED *

Environmental Condition

TEMP.(°C)- 25.3 & RH (%)- 57.0

TO

Method of Sampling

IS:5182

Sample Receiving Date Sample Processing Date 04.05.2024

05.05.2024

.

:

:

10.05.2024

Equipment Used

HIGH VALUME SAMPLER

TEST RESULTS

SL. NO.	PARAMETERS	TEST METHOD	RESULTS	UNIT	SPECIFICATION / LIMIT (AS PER CPCB)
1	Suspended Particulate Matter (SPM)	IS 5182 (Part-4)	301.5	μg/m3	600

Page 1 of 1

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Any discrepancy in test result should be reported within 15Days.

The above results are related to the tested sample only.

Review By:

Dr. Ashok Kumar Technical Manager bal Lab



Sample Number:

Name & Address of the Party

Sample Description:

VTL/FD/01

M/s JK Cement Works, Panna (A Unit Of JK

Cement Ltd.)

Village-Harduwaken Tehsil-Amangani

Fugitive Emission Monitoring

PIN-488441 Dist-Panna

Report No.:

VTL/FD/2409160001

Format No.:

7.8 F 02

Party Reference No.:

NIL

Report Date:

25/09/2024

Period of Analysis:

16-25/09/2024

Receipt Date

16/09/2024

General Information:-

Sampling Location

Sample collected by

Sampling Equipment used

Instrument Code

Latitude

Longitude

Meteorological condition during monitoring

Date of Sampling

Time of Sampling

Ambient Temperature (°C)

Surrounding Activity

Method of Sampling Sampling Duration

Parameter Required

: Gypsum Yard Area

: VTL Team

: HVS

: VTL/HVS/01

: Clear sky

: 02/09/2024

: 07:30 to 15:30 Hrs.

: Min. 28°C, Max. 32°C

: Human, Vehicular& Plant Activities

: IS-5182 & CPCB Guidelines

: 8 hrs.

: As Per Work Order

Results

Parameter	Protocol	Result	Unit	Limit
Suspended Particulate Matter (SPM)	VTL/STP/02/STP/01	352.0	μg/m3	5000
		C. I. In .: I. M (open)	C. L. D. C. L. M. COND.	Suspended Particulate Matter (SDM)





RK Yadav Lab Incharge

Authorized Signator

Pages 1 of 1

Approved & Certified EPA 1986 Recognised, ISO:9001 and OHSAS:45001 Certified

Vibrant Techno Lab Pvt. Ltd.

SC-40, 3rd Floor, Narayan Vihar S, Ajmer Road, Jaipur Raj. 302020

9929108691, 9810205356, 8005707098, 9549956601

2 0141-2954638

M bd@vibranttechnolab.com



Sample Number:

Name & Address of

Sample Description:

the Party

VTL/FD/02

M/s JK Cement Works, Panna (A Unit Of JK

Cement Ltd.)

Village-Harduwaken Tehsil-Amanganj

Fugitive Emission Monitoring

PIN-488441 Dist-Panna

Report No .:

VTL/FD/2409160002

Format No.:

7.8 F 02

Party Reference No.:

NIL

Report Date:

25/09/2024

Period of Analysis:

16-25/09/2024

Receipt Date

16/09/2024

General Information:-

Sampling Location

Sample collected by

Sampling Equipment used

Instrument Code

Latitude

Longitude

Meteorological condition during monitoring

Date of Sampling

Time of Sampling

Ambient Temperature (°C)

Surrounding Activity

Method of Sampling

Sampling Duration

Parameter Required

: Packing Plant Area

: VTL Team

: HVS

: VTL/HVS/01

: Clear sky

: 02-03/09/2024

: 18:00 to 02:00 Hrs.

: Min. 25°C, Max. 28°C

: Human, Vehicular& Plant Activities

: IS-5182 & CPCB Guidelines

: 8 hrs.

: As Per Work Order

Results

Parameter	Protocol	Result	Unit	Limit
nded Particulate Matter (SPM)	VTL/STP/02/STP/01	389.0	μg/m3	5000
	nded Particulate Matter (SPM)	and and Department of Maria (CDM)	add Parkindak M. H. (CDA)	and ad David Late Mark (CDN)



RK Yadav Lab Incharge

Authorized Signatory

Pages 1 of 1

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Vibrant Techno Lab Pvt. Ltd.

SC-40, 3rd Floor, Narayan Vihar S, Ajmer Road, Jaipur Raj. 302020

9929108691, 9810205356, 8005707098, 9549956601

2 0141-2954638

M bd@vibranttechnolab.com



Sample Number:

VTL/FD/03

Name & Address of the Party

Sample Description:

M/s JK Cement Works, Panna (A Unit Of JK

Cement Ltd.)

Village-Harduwaken Tehsil-Amangani

Fugitive Emission Monitoring

PIN-488441 Dist-Panna

Report No .:

VTL/FD/2409160003

Format No.:

7.8 F 02

Party Reference No.:

NIL

Report Date:

25/09/2024

Period of Analysis:

16-25/09/2024

Receipt Date

16/09/2024

General Information:-

Sampling Location

Sample collected by

Sampling Equipment used

Instrument Code

Latitude

Longitude

Meteorological condition during monitoring

Date of Sampling

Time of Sampling

Ambient Temperature (°C)

Surrounding Activity

Method of Sampling

Sampling Duration

Parameter Required

: Raw Mill Area

: VTL Team

: HVS

: VTL/HVS/01

: --

: Clear sky

: 03/09/2024

: 07:30 to 15:30 Hrs.

: Min. 29°C, Max. 33°C

: Human, Vehicular& Plant Activities

: IS-5182 & CPCB Guidelines

: 8 hrs.

: As Per Work Order

Results

S. No.	Parameter	Protocol	Result	Unit	Limit
1.	Suspended Particulate Matter (SPM)	VTL/STP/02/STP/01	345.0	μg/m3	5000
		End of the Beneut		PB/ 1113	3000



RK Yadav Lab Incharge

Authorized Signatory

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Vibrant Techno Lab Pvt. Ltd.

SC-40, 3rd Floor, Narayan Vihar S, Ajmer Road, Jaipur Raj. 302020

9929108691, 9810205356, 8005707098, 9549956601

3 0141-2954638

M bd@vibranttechnolab.com



Sample Number:

Name & Address of the Party

Sample Description:

VTL/FD/04

M/s JK Cement Works, Panna (A Unit Of JK

Cement Ltd.)

Village-Harduwaken Tehsil-Amanganj

Fugitive Emission Monitoring

PIN-488441 Dist-Panna

Report No.:

VTL/FD/2409160004

Format No.:

7.8 F 02

Party Reference No.:

NIL

Report Date:

Period of Analysis:

25/09/2024 16-25/09/2024

Receipt Date

16/09/2024

General Information:-

Sampling Location

Sample collected by

Sampling Equipment used

Instrument Code

Latitude

Longitude

Meteorological condition during monitoring

Date of Sampling

Time of Sampling

Ambient Temperature (°C)

Surrounding Activity

Method of Sampling

Sampling Duration

Parameter Required

: Coal Mill Area

: VTL Team

: HVS

: VTL/HVS/01

: --

: Clear sky

: 03-04/09/2024

: 18:00 to 02:00 Hrs.

: Min. 24°C, Max. 29°C

: Human, Vehicular& Plant Activities

: IS-5182 & CPCB Guidelines

: 8 hrs.

: As Per Work Order

Results

S. No.	Parameter	Protocol	Result	Unit	Limit
1.	Suspended Particulate Matter (SPM)	VTL/STP/02/STP/01	415.0	μg/m3	2000
		Fnd of the Ren		μ6/1113	2000



RK Yadav Lab Incharge Authorized Signatory

Pages 1 of 1

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Vibrant Techno Lab Pvt. Ltd.

SC-40, 3rd Floor, Narayan Vihar S, Ajmer Road, Jaipur Raj. 302020

9929108691, 9810205356, 8005707098, 9549956601

2 0141-2954638

M bd@vibranttechnolab.com



Sample Number:

Name & Address of

the Party

Sample Description:

VTL/FD/05

M/s JK Cement Works, Panna (A Unit Of JK

Cement Ltd.)

Village-Harduwaken Tehsil-Amanganj

Fugitive Emission Monitoring

PIN-488441 Dist-Panna

Report No.:

VTL/FD/2409160005

Format No.:

7.8 F 02

Party Reference No.:

NIL

Report Date:

Period of Analysis:

25/09/2024 16-25/09/2024

Receipt Date

16/09/2024

General Information:-Sampling Location

Sample collected by

Sampling Equipment used

Instrument Code

Latitude

Longitude

Meteorological condition during monitoring

Date of Sampling

Time of Sampling

Ambient Temperature (°C)

Surrounding Activity

Method of Sampling

Sampling Duration Parameter Required

: HVS

: VTL/HVS/01

: VTL Team

: Cement Mill Area

: Clear sky

: 04/09/2024

: 07:30 to 15:30 Hrs.

: Min. 28°C, Max. 35°C

: Human, Vehicular& Plant Activities

: IS-5182 & CPCB Guidelines

: 8 hrs.

: As Per Work Order

Results

Unit	Limit
ug/m3	5000
	μg/m3



RK Yadav

Lab Incharge Authorized Signatory

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Vibrant Techno Lab Pvt. Ltd.

SC-40, 3rd Floor, Narayan Vihar S, Ajmer Road, Jaipur Raj. 302020

9929108691, 9810205356, 8005707098, 9549956601

2 0141-2954638

M bd@vibranttechnolab.com



Sample Number:

Name & Address of the Party

VTL/FD/06

M/s JK Cement Works, Panna (A Unit Of JK

Cement Ltd.)

Village-Harduwaken Tehsil-Amanganj

PIN-488441 Dist-Panna

Report No .:

VTL/FD/2409160006

Format No.:

7.8 F 02

Party Reference No.:

NIL

Report Date:

25/09/2024

Period of Analysis: Receipt Date

16-25/09/2024 16/09/2024

Sample Description:

Fugitive Emission Monitoring

General Information:-

Sampling Location

Sample collected by

Sampling Equipment used

Instrument Code

Latitude

Longitude

Meteorological condition during monitoring

Date of Sampling

Time of Sampling

Ambient Temperature (°C)

Surrounding Activity

Method of Sampling

Sampling Duration

Parameter Required

: Clinker Silo Area

: VTL Team

: HVS

: VTL/HVS/01

: Clear sky

: 04-05/09/2024

: 18:00 to 02:00 Hrs.

: Min. 25°C, Max. 28°C

: Human, Vehicular& Plant Activities

: IS-5182 & CPCB Guidelines

: 8 hrs.

: As Per Work Order

Results

	Parameter	Protocol	Result	Unit	Limit
uspended	Particulate Matter (SPM)	VTL/STP/02/STP/01	389.0	ug/m3	5000
uspended		VTL/STP/02/STP/01		μg/m3	



RK Yadav (Lab Incharge Authorized Signatory

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Vibrant Techno Lab Pvt. Ltd.

SC-40, 3rd Floor, Narayan Vihar S, Ajmer Road, Jaipur Raj. 302020

9929108691, 9810205356, 8005707098, 9549956601

2 0141-2954638

M bd@vibranttechnolab.com



Sample Number:

Name & Address of

the Party

VTL/FD/07

M/s JK Cement Works, Panna (A Unit Of JK

Cement Ltd.)

Village-Harduwaken Tehsil-Amanganj

PIN-488441 Dist-Panna

Report No.:

VTL/FD/2409160007

Format No.:

7.8 F 02

Party Reference No.:

NIL

Report Date:

25/09/2024

Period of Analysis:

16-25/09/2024

Receipt Date

16/09/2024

Sample Description:

Fugitive Emission Monitoring

General Information:-

Sampling Location Sample collected by

Sampling Equipment used

Instrument Code

Latitude

Longitude

Meteorological condition during monitoring

Date of Sampling

Time of Sampling

Ambient Temperature (°C)

Surrounding Activity

Method of Sampling

Sampling Duration

Parameter Required

: Coal shed Area

: VTL Team

: HVS

: VTL/HVS/01

: Clear sky

: 05/09/2024

: 07:30 to 15:30 Hrs.

: Min. 28°C, Max. 37°C

: Human, Vehicular& Plant Activities

: IS-5182 & CPCB Guidelines

: 8 hrs.

: As Per Work Order

Results

S. No.	Parameter	Protocol	Result	Unit	Limit
1. Suspe	ended Particulate Matter (SPM)	VTL/STP/02/STP/01	548.0	μg/m3	2000



RK Yadav Lab Incharge Authorized Signatory

Pages 1 of 1

Approved & Certified EPA 1986 Recognised, ISO:9001 and OHSAS:45001 Certified

Vibrant Techno Lab Pvt. Ltd.

9929108691, 9810205356, 8005707098, 9549956601

SC-40, 3rd Floor, Narayan Vihar S, Ajmer Road, Jaipur Raj. 302020

2 0141-2954638

M bd@vibranttechnolab.com



Sample Number:

Name & Address of

Sample Description:

the Party

VTL/FD/08

M/s JK Cement Works, Panna (A Unit Of JK

Cement Ltd.)

Village-Harduwaken Tehsil-Amanganj

Fugitive Emission Monitoring

PIN-488441 Dist-Panna

Report No.:

VTL/FD/2409160008

Format No.:

7.8 F 02

Party Reference No.:

NIL

Report Date:

25/09/2024

Period of Analysis:

16-25/09/2024

Receipt Date

16/09/2024

General Information:-

Sampling Location

Sample collected by

Sampling Equipment used

Instrument Code

Latitude

Longitude

Meteorological condition during monitoring

Date of Sampling

Time of Sampling

Ambient Temperature (°C)

Surrounding Activity

Method of Sampling

Sampling Duration

Parameter Required

: Lime Stone Shed Area

: VTL Team

: HVS

: VTL/HVS/01

: Clear sky

: 05-06/09/2024

: 18:00 to 02:00 Hrs.

: Min. 24°C, Max. 26°C

: Human, Vehicular& Plant Activities

: IS-5182 & CPCB Guidelines

: 8 hrs.

: As Per Work Order

Results

Parameter	Protocol	Result	Unit	Limit
ded Particulate Matter (SPM)	VTL/STP/02/STP/01	326.0	μg/m3	5000
	ded Particulate Matter (SPM)	1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ded Particulate Matter (SPM) VTL/STP/02/STP/01 326.0	ded Particulate Matter (SPM) VTL/STP/02/STP/01 326.0 µg/m3



RK Yadav Lab Incharge

Authorized Signatory

Pages 1 of 1

Approved & Certified EPA 1986 Recognised, ISO:9001 and OHSAS:45001 Certified

Vibrant Techno Lab Pvt. Ltd.

SC-40, 3rd Floor, Narayan Vihar S, Ajmer Road, Jaipur Raj. 302020

9929108691, 9810205356, 8005707098, 9549956601

3 0141-2954638

M bd@vibranttechnolab.com



Annexure-4

An Analytical Laboratory

Recognized by MoEF & CC, Accredited by ISO/IEC-17025:2017 (NABL) (An ISO 9001:2015, 14001:2015 & 45001:2018 Certified Company)

TEST REPORT CODE: VGL/W/24/06/17/N-031

TEST REPORT ISSUE DATE: 24.05.2024

TEST REPORT (WATER) PART - A (CHEMICAL)

Name and Address of Customer

: M/s. J K CEMENT WORKS, PANNA,

(A UNIT OF JK CEMENT LIMITED.)

05:00 PM

VILLAGE-HARDUWAKEN, TEHSIL- AMANGANJ,

DISTT. - PANNA, (M.P) DEORA VILLAGE

Location of Sample Sample Description

GROUND WATER Date & Time of Sampling 13.05.2024

Sample Collected by Environmental Condition (Temp. & RH)

VGL STAFF : 25.5 °C & 58% : SEALED

Sample Packing Sample Id No.

: 031 : 17.05.2024

Laboratory Sample Receiving Date **Duration of Sample Analysis**

: 18.05.2024 TO 24.05.2024 APHA 1060B & 9060A

Method of Sampling

TEST RESULTS

Sr.	Parameters	Test Method	Result	Unit		IS 10500:1991 f:2012)
No.					Desirable	Permissible
1.	pH at 25 °C	APHA 4500H+A+B	7.24	-	6.5-8.5	No relaxation
2.	Temperature	APHA 2550-A+B	25.9	°C	Not Specified	Not Specified
3.	Colour	APHA 2120-B	<5.0	Hazen	5	15
4.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Alkalinity	APHA 2320-A+B	152.0	mg/L	200	600
7.	Total Dissolved Solids	APHA2540-C	456.0	mg/L	500	2000
8.	Total Hardness	APHA 2340 A+C	188.0	mg/L	200	600
9.	Calcium	APHA 3500 Ca- A+B	40.1	mg/L	75	200
10.	Magnesium	APHA 3500 Mg A+B	21.4	mg/L	30	100
11.	Sodium	APHA 3500 Na, A+B	19.0	mg/L	-	-
12.	Phosphate	APHA 4500-PD	BDL	mg/L	-	
13.	Sulfate	APHA 4500-SO42- E	31.4	mg/L	200	400
14.	Potassium	APHA 3500 K, A+B	9.0	mg/L	-	-

Page 1 of 3

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The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.

Any discrepancy in test result should be reported within 15Days.

The above Results are related to the tested sample only.

Review By:

Technical Manager

Lab In-charge



An Analytical faboratory

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TEST REPORT CODE: VGL/W/24/06/17/N-031

TEST REPORT ISSUE DATE: 24.05.2024

TEST REPORT (WATER) PART - A (CHEMICAL)

TEST RESULTS

15.	Nitrate ,	APHA 4500-NO3- B	8.2	mg/L	45.0	.#.0
16.	Free Residual Chlorine	APHA 4500-Cl B	< 0.2	mg/L	0.2	1.0
17.	Chloride	APHA 4500 Cl A+B	32.0	mg/L	250	1000
18.	Boron	APHA 4500 B A+C	BDL	mg/L	0.5	1.0
19.	Copper	APHA 3111 A+B	BDL	mg/L	0.05	1.5
20.	Cadmium	APHA 3111 A+B	BDL	mg/L	0.003	No relaxation
21.	Iron	APHA 3500 FeB	0.19	mg/L	0.3	No relaxation
22.	Lead	APHA 3111 A+B	BDL	mg/L	0.01	No relaxation
23.	Nickel	APHA 3111 A+B	BDL	mg/L	0.02	No relaxation
24.	Zinc	APHA 3111 A+B	BDL	mg/L	5	15
25.	Fluoride	APHA 4500-C	0.55	mg/L	1.0	1.5
26.	Hexavalent Chromium	APHA 3500 B	ND	mg/L	0.001	No relaxation
27.	Electrical Conductivity	APHA 2510 B	685	μS/cm	No relaxation	No relaxation

Page 2 of 3

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The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.

Any discrepancy in test result should be reported within 15Days. The above Results are related to the tested sample only.

Virat Global Lab Authorized Signatory

> 10 decrees Authorised Signatory

D. K. Yadav Lab In-charge

Dr. Ashok Kumar Technical Manager

Review By:



An Analytical Laboratory

Recognized by MoEF & CC, Accredited by ISO/IEC-17025:2017 (NABL) (An ISO 9001:2015, 14001:2015 & 45001:2018 Certified Company)

TEST REPORT CODE: VGL/W/24/06/17/N-031

TEST REPORT ISSUE DATE: 24.05.2024

TEST REPORT (WATER) PART - B (BIOLOGICAL)

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit		er IS 10500:1991 eaff:2012)
					Desirable	Permissible
1.	Total Coliform Count	APHA 9221 B	<2.0	MPN/100 ML	Shall not be detectable in any 100 ml sample	
2.	Fecal coliform	APHA 9221 E	<2.0	MPN/100 ML	Shall not be detectable in any 100 ml sample	

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

The sample will be destroyed after 3days from the date of issue of test certificate unless otherwise specified.

Any discrepancy in test result should be reported within 3Days.

The above Results are related to the tested sample only

Review By:

Technical Manager

Authorized Signatory

Authorised Signatory

Saveed Ahmad Quality Manager



An Analytical Laboratory

Recognized by MoEF & CC, Accredited by ISO/IEC-17025:2017 (NABL) (An ISO 9001:2015, 14001:2015 & 45001:2018 Certified Company)

TEST REPORT CODE: VGL/W/24/06/17/N-032

TEST REPORT ISSUE DATE: 24.05.2024

TEST REPORT (WATER) PART - A (CHEMICAL)

Name and Address of Customer

: M/s. J K CEMENT WORKS, PANNA,

(A UNIT OF JK CEMENT LIMITED.)

VILLAGE-HARDUWAKEN, TEHSIL- AMANGANJ,

DISTT. - PANNA, (M.P)

Location of Sample Sample Description NEAR ZERO POINT GROUND WATER

Date & Time of Sampling

: 15.05.2024 09:30 AM

Sample Collected by

: VGL STAFF

Environmental Condition (Temp. & RH)

: 25.0 °C & 57%

Sample Packing Sample Id No.

: SEALED

Laboratory Sample Receiving Date

: 032

Duration of Sample Analysis

: 17.05.2024

Method of Sampling

18.05.2024 TO 24.05.2024 : APHA 1060B & 9060A

TEST RESULTS

Sr.	Parameters	Test Method	Result	Unit		IS 10500:1991 f:2012)
No.					Desirable	Permissible
1.	pH at 25 °C	APHA 4500H+A+B	7.74	-	6.5-8.5	No relaxation
2.	Temperature	APHA 2550-A+B	25.4	°C	Not Specified	Not Specified
3.	Colour	APHA 2120-B	<5.0	Hazen	5	15
4.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Alkalinity	APHA 2320-A+B	152.0	mg/L	200	600
7.	Total Dissolved Solids	APHA2540-C	396.0	mg/L	500	2000
8.	Total Hardness	APHA 2340 A+C	144.0	mg/L	200	600
9.	Calcium	APHA 3500 Ca- A+B	28.0	mg/L	75	200
10.	Magnesium	APHA 3500 Mg A+B	18.0	mg/L	30	100
11.	Sodium	APHA 3500 Na, A+B	18.0	mg/L	-	-
12.	Phosphate	APHA 4500-PD	BDL	mg/L	-	-
13.	Sulfate	APHA 4500-SO42- E	22.5	mg/L	200	400
14.	Potassium	APHA 3500 K, A+B	9.0	mg/L	-	*

Page 1 of 3

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The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.

Any discrepancy in test result should be reported within 15Days

The above Results are related to the tested sample only.

Review By:

Dr. Ashok Kumar Technical Manager irat Global Lab Authorized Signatory 100cocces

Authorised Signatory D. K. Yadav

Lab In-charge

Address: Ground Floor, Khasra No.973, BDS Hostel Campus, Opp. Gate No.2 CRPF Camp, Bijnaur, Sarojini Nagar, Lucknow (U.P.) - 226008, Mob. - +91-9990366186, 9415135012, 0522 -7118739



An Analytical Laboratory

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TEST REPORT CODE: VGL/W/24/06/17/N-032

TEST REPORT ISSUE DATE: 24.05.2024

TEST REPORT (WATER) PART – A (CHEMICAL)

TEST RESULTS

15.	Nitrate ,	APHA 4500-NO3-B	7.2	mg/L	45.0	2/
16.	Free Residual Chlorine	APHA 4500-Cl B	<0.2	mg/L	0.2	1.0
17.	Chloride	APHA 4500 CLA+B	32.0	mg/L	250	1000
18.	Boron	APHA 4500 B A+C	BDL	mg/L	0.5	1.0
19.	Copper	APHA 3111 A+B	BDL	mg/L	0.05	1.5
20.	Cadmium	APHA 3111 A+B	BDL	mg/L	0.003	No relaxation
21.	Iron	APHA 3500 FeB	0.21	mg/L	0.3	No relaxation
22.	Lead	APHA 3111 A+B	BDL	mg/L	0.01	No relaxation
23.	Nickel	APHA 3111 A+B	BDL	mg/L	0.02	No relaxation
24.	Zinc	APHA 3111 A+B	BDL	mg/L	5	15
25.	Fluoride	APHA 4500-C	0.36	mg/L	1.0	1.5
26.	Hexavalent Chromium	APHA 3500 B	ND	mg/L	0.001	No relaxation
27.	Electrical Conductivity	APHA 2510 B	612	μS/cm	No relaxation	No relaxation

Page 2 of 3

Note

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The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified
 Any discrepancy in test result should be reported within 15Days.

The above Results are related to the tested sample only.

Review By:

Dr. Ashok Kumar Technical Manager Virat Global Lab Authorized Signatory

> Authorised Signatory D. K. Yadav

Lab In-charge



An Analytical Laboratory

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TEST REPORT CODE: VGL/W/24/06/17/N-032

TEST REPORT ISSUE DATE: 24.05.2024

TEST REPORT (WATER) PART – B (BIOLOGICAL)

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	HALLESCOON SAUDE OF THE	er IS 10500:1991 eaff:2012)
					Desirable	Permissible
1.	Total Coliform Count	APHA 9221 B	<2.0	MPN/100 ML	Shall not be detectable in any 100 ml sample	
2.	Fecal coliform	APHA 9221 E	<2.0	MPN/100 ML	Shall not be detectable in any 100 ml sample	

Page 3 of 3

Note:

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The sample will be destroyed after 3days from the date of issue of test certificate unless otherwise specified.

Any discrepancy in test result should be reported within 3Days.

The above Results are related to the tested sample only.

Review By:

Dr. Ashok Kumar Technical Manager Virat Global Lab Authorized Signatory

Authorised Signatory

Sayeed Ahmad Quality Manager



An Analytical Laboratory

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TEST REPORT CODE: VGL/W/24/06/17/N-033

TEST REPORT ISSUE DATE: 24.05.2024

TEST REPORT (WATER) PART - A (CHEMICAL)

Name and Address of Customer

: M/s. J K CEMENT WORKS, PANNA,

(A UNIT OF JK CEMENT LIMITED.)

VILLAGE-HARDUWAKEN, TEHSIL- AMANGANJ,

DISTT. - PANNA, (M.P)

Location of Sample Sample Description

NEAR HR OFFICE GROUND WATER

Date & Time of Sampling

: 15.05.2024 09:30 AM

Sample Collected by

Environmental Condition (Temp. & RH)

: VGL STAFF

Sample Packing

: 25.0 °C & 57%

Sample Id No.

: SEALED

Laboratory Sample Receiving Date

033 17.05.2024

Duration of Sample Analysis

18.05.2024 TO 24.05.2024

Method of Sampling

APHA 1060B & 9060A

TEST RESULTS

Sr.	Parameters	Test Method	Result	1		IS 10500:1991 f:2012)
No.				etti titotti tito	Desirable	Permissible
1.	pH at 25 °C	APHA 4500H+A+B	7.31	-	6.5-8.5	No relaxation
2.	Temperature	APHA 2550-A+B	26.0	°C	Not Specified	Not Specified
3.	Colour	APHA 2120-B	<5.0	Hazen	5	15
4.	Turbidity	APHA 2130-A+B	<1.0	NTU	1	5
5.	Odour	APHA 2150-B	Agreeable	-	Agreeable	Agreeable
6.	Alkalinity	APHA 2320-A+B	152.0	mg/L	200	600
7.	Total Dissolved Solids	APHA2540-C	405.0	mg/L	500	2000
8.	Total Hardness	APHA 2340 A+C	160.0	mg/L	200	600
9.	Calcium	APHA 3500 Ca- A+B	32.2	mg/L	75	200
10.	Magnesium	APHA 3500 Mg A+B	19.3	mg/L	30	100
11.	Sodium	APHA 3500 Na, A+B	16.0	mg/L	-	-
12.	Phosphate	APHA 4500-PD	BDL	mg/L	-	10
13.	Sulfate	APHA 4500-SO42- E	25.4	mg/L	200	400
14.	Potassium	APHA 3500 K, A+B	8.0	mg/L	-	-

Page 1 of 3

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Any discrepancy in test result should be reported within 15Days. The above Results are related to the tested sample only

Review, By:

Dr. Ashok Kumar Technical Manager Virat Global Lab **Authorized Signatory** Todoxoos

Authorised Signatory

D. K. Yadav Lab In-charge

Address: Ground Floor, Khasra No.973, BDS Hostel Campus, Opp. Gate No.2 CRPF Camp, Bijnaur, Sarojini Nagar, Lucknow (U.P.) - 226008, Mob. - +91-9990366186, 9415135012, 0522 -7118739



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TEST REPORT CODE: VGL/W/24/06/17/N-033

TEST REPORT ISSUE DATE: 24.05.2024

TEST REPORT (WATER) PART – A (CHEMICAL)

TEST RESULTS

		1123	I KESULIS		,	
15.	Nitrate ,	APHA 4500-NO3- B	8.2	mg/L	45.0	
16.	Free Residual Chlorine	APHA 4500-Cl B	<0.2	mg/L	0.2	1.0
17.	Chloride	APHA 4500 CI A+B	36.0	mg/L	250	1000
18.	Boron	APHA 4500 B A+C	BDL	mg/L	0.5	1.0
19.	Copper	APHA 3111 A+B	BDL	mg/L	0.05	1.5
20.	' Cadmium	APHA 3111 A+B	BDL	mg/L	0.003	No relaxation
21.	Iron	APHA 3500 Fe B	0.19	mg/L	0.3	No relaxation
22.	Lead	APHA 3111 A+B	BDL	mg/L	0.01	No relaxation
23.	Nickel	APHA 3111 A+B	BDL	mg/L	0.02	No relaxation
24.	Zinc	APHA 3111 A+B	BDL	mg/L	5	15
25.	Fluoride	APHA 4500-C	0.58	mg/L	1.0	1.5
26.	Hexavalent Chromium	APHA 3500 B	ND	mg/L	0.001	No relaxation
27.	Electrical Conductivity	APHA 2510 B	638	μS/cm	No relaxation	No relaxation

Page 2 of 3

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media without our special permission in writing.

media without our special permission in writing.

2. The sample will be destroyed after 15days from the date of issue of test certificate unless otherwise specified.

Any discrepancy in test result should be reported within 15Days.

4. The above Results are related to the tested sample only.

Review By:

Dr. Ashok Kumar Technical Manager Virat Global Lab Authorized Signatory

Authorised Signatory

D. K. Yadav Lab In-charge



An Analytical Laboratory

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(An ISO 9001:2015, 14001:2015 & 45001:2018 Certified Company)

TEST REPORT CODE: VGL/W/24/06/17/N-033

TEST REPORT ISSUE DATE: 24.05.2024

TEST REPORT (WATER) PART – B (BIOLOGICAL)

TEST RESULTS

Sr. No.	Parameters	Test Method	Result	Unit	Limit as per IS 10500:19 (Reaff:2012)	
1,0.					Desirable	Permissible
1.	Total Coliform Count	APHA 9221 B	<2.0	MPN/100 ML	Shall not be detectable in any 100 ml sample	
2.	Fecal coliform	APHA 9221 E	<2.0	MPN/100 ML	Shall not be detected sample	table in any 100 ml

Page 3 of 3

Note

- This report is not to be reproduced wholly or in part and cannot be used as evidence in the court of law and should not be used in any advertising media without our special permission in writing.
- The sample will be destroyed after 3days from the date of issue of test certificate unless otherwise specified.
- Any discrepancy in test result should be reported within 3Days.

The above Results are related to the tested sample only.

Review By:

Dr. Ashok Kumar Technical Manager Virat Global Lab

Authorized Signatory

Sol

Sayeed Ahmad Quality Manager



Sample Number:

Sample Description:

Sample Collected by:

Preservation:

Name & Address of the Party:

VTL/ W/02-03

M/s JK Cement Works, Panna

Vibrant Techno Lab Representative

(A Unit Of JK Cement Ltd.) Koni-Simariya Limestone Mine Village-Harduwaken Tehsil-Amanganj PIN-488441 Dist-

Panna

Format No.: Party Reference No.:

Report No.:

VTL/W/2408300041-42

7.8 F-01 NIL

Report Date:

20/09/2024

Ground Water

Suitable Preservation

Period of Analysis:

30/08/2024 to 20/09/2024

Receipt Date: Sampling Date: 30/08/2024 25/08/2024

Sampling Quantity:

2.0Ltr.+ 250 ml

Para	ervation: meter Required: pling and Analysis Protocol:	As Per Work Order APHA 24 th Edition 202		Sampling Sampling	Quantity: Type:	2.0Ltr.+ 250 m Grab		
						Limits of IS	nits of IS:10500-2012	
S.No.	Parameters	Test-Method	Near Zero Point	Near HR Office	Unit	Requirement (Acceptable Limits)	Permissible Limit in the Absence of Alternate Source	
1.	pH (at 25°C)	IS 3025 (Part 11): 2022	7.34	7.43		6.5 to 8.5	No Relaxation	
2.	Colour	IS 3025 (Part 4): 2021	*BLQ(**LOQ 1.0)	*BLQ(**LOQ 1.0)	Hazen	5	15	
3.	Turbidity	IS 3025 (Part 10) : 2023	*BLQ(**LOQ 1.0)	*BLQ(**LOQ 1.0)	NTU	1	5	
4.	Odour	IS 3025 (Part 5) : 2018	Agreeable	Agreeable	**	Agreeable	Agreeable	
5.	Temperature	IS 3025 (Part 9): 2023	24.7	25.1				
6.	Total Hurdness as CaCO ₃	IS 3025 (Part 21) : 2009, RA : 2019	195.0	210.0	mg/l	200	600	
7.	Calcium as Ca	IS 3025 (Part 40) : 1991, RA : 2019	42.0	51.0	mg/l	75	200	
8.	Alkalinity as CaCO ₃	IS 3025 (Part 23) : 2023	74.0	83.1	mg/l	200	600	
9.	Sodium	APHA, 24th Edition, 3500 Na, A+B	60.0	76.0	mg/l	*	H	
10.	Residual free Chlorine	IS 3025 (Part 26) : 2021 Clause 7.0	*BLQ(**LOQ 0.2)	*BLQ(**LOQ 0.2)	mg/l	0.2	1	
11.	Phosphate	IS 3025 (Part 31)	*BLQ(**LOQ 0.02)	*BLQ(**LOQ 0.02)	mg/l			
12.	Magnesium as Mg	APHA, 24sh Edition, 3500 Mg B, Calculation Method	21.92	20.11	mg/I	30	100	
13.	Total Dissolved Solids	IS 3025 (Part 16) :2023	510.0	635.0	mg/l	500	2000	
14.	Sulphate as SO ₄	IS 3025 (Part 24/Sec 1) : 2022 Clause 5.0	31.82	38.94	mg/l	200	400	
15.	Fluoride as F	APHA, 24th Edition, 4500F-D : 2023	0.27	0.35	mg/l	1.0	1.5	
16.	Nitrate as NO ₃	IS 3025 (Part 34/Sec 1) : 2023 Clause 6.4	10.82	14.26	mg/l	45	No Relaxation	
17.	Iron as Fe	APHA 24th Edition, 3111 B, 2023	0.17	0.22	mg/l	1.0	No Relaxation	
18.	Potassium	APHA 24th Edition, 3500 K, A+B	6.58	9.45	mg/l	5		
19.	Boron	APHA, 24th Edition, 4500 B-C : 2023	*BLQ(**LOQ 0.2)	*BLQ(**LOQ 0.2)	mg/I	0.5	2.4	
20.	Hexavalent Chromium as Cr+6	APHA, 24 th Edition, 3500 Cr- B	*BLQ(**LOQ 0.02)	*BLQ(**LOQ 0.02)	mg/I	0.05	No Relaxation	
21.	Nickel	APHA, 24 th Edition, 3111 B : 2023	*BLQ(**LOQ 0.2)	*BLQ(**LOQ 0.2)	mg/l	0.02	No Relaxation	
22.	Electrical Conductivity	IS 3025 (Part 14)	790	990	µs/cm		122	
23.	Zinc as-Zn	APHA, 24th Edition, 3111 B: 2023	*BLQ(**LOQ 0.2)	*BLQ(**LOQ 0.2)	mg/l	5	15	
24.	Copper as Cu	APHA, 24th Edition, 3111 B: 2023	*BLQ(**LOQ 0.02)	*BLQ(**LOQ 0.02)	mg/l	0.05	1.5	
26.	Cadmium as Cd	APHA, 24th Edition, 3111 B : 2023	*BLQ(**LOQ 0.002)	*BLQ(**LOQ 0.002)	mg/I	0.003	No Relaxation	
27.	Lead as Pb	APHA, 24th Edition, 3111 B : 2023	*BLQ(**LOQ 0.005)	*BLQ(**LOQ 0.005)	mg/l	0.01	No Relaxation	
28	Total Coliform	IS 15185 : 2016, RA 2021	Absent	Absent	Per 100 ml	Shall not be	Detectable in	
29	E. Coli	IS 15185 : 2016, RA 2021 ion, **LOO-Limit of Ouantificatio	Absent	Absent	Per 100 ml	Any 100	ml sample	

*BLQ-Below Limit of Quantification, **LOQ-Limit of Quantification.

Approved & Certified EPA 1986 Recognised, ISO:9001 and OH5AS:45001 Certified

JAIPUR

RK Yadav Lab Incharge Authorized Signatory

Vibrant Techno Lab Pvt. Ltd.

SC-40, 3rd Floor, Narayan Vihar S, Ajmer Road, Jaipur Raj. 302020

9929108691, 9810205356, 8005707098, 9549956601

2 0141-2954638

bd@vibranttechnolab.com



Sample Number:

Sample Description:

Sample Collected by

Method of Sampling:

Sample Location:

Preservation:

VTL/WW/02

Name & Address of Party:

M/s JK Cement Works, Panna (A Unit Of

JK Cement Ltd.)

Waste Water

VTL Team

Village-Harduwaken Tehsil-Amanganj

PIN-488441 Dist-Panna

Suitable Preservation

APHA 24th Edition

Report No.: Format No.: VTL/WW/2409160002

Party Reference No.:

7.8 F 01 NA

Report Date:

25/09/2024

Period of Analysis:

16-25/09/2024

Receipt Date:

16/09/2024

Sampling Date: Sampling Type: 10/09/2024 Grab

Sample Quantity:

2.0 Ltr.

Guest House STP Outlet

Test Results

S. No.	Parameter	Test Method	Results	Unit	Limits
1.	pH (at 25 °C)	IS 3025 (P-11): 2022	7.12	**	6.5 to 9.0
2.	Total Suspended Solids	IS 3025 (P-17): 2022	35.6	mg/l	100
3.	Oil &Grease	IS 3025 (P-39):2021	*BLQ(**LOQ-4.0)	mg/l	10
4.	BOD (3days at 27 °c)	IS 3025(P-44):2023	15.1	mg/l	30
5.	Chemical Oxygen Demand (COD)	IS: 3025 (P-58): 2023	60.5	mg/l	250
6.	Fecal Coliform	APHA 23rd Ed. 9221 C 2023	94	MPN/100 ml	<1000

Note: - *BLQ-Below Limit Quantification, *LOQ- Limit of Quantification



RK Yadav

Lab Incharge

Authorized Signatory



Name & Address of Party:

Sample Description:

Sample Collected by

Method of Sampling:

Sample Location:

Preservation:

VTL/WW/03

M/s JK Cement Works, Panna (A Unit Of

JK Cement Ltd.)

Waste Water

VTL Team

Village-Harduwaken Tehsil-Amanganj

PIN-488441 Dist-Panna

Suitable Preservation

Guest House STP Inlet

APHA 24th Edition

Format No.:

Report No.:

VTL/WW/2409160003

7.8 F 01

Party Reference No.: Report Date:

NA 25/09/2024

Period of Analysis:

16-25/09/2024

Receipt Date: Sampling Date: 16/09/2024 10/09/2024

Grab

Sampling Type: Sample Quantity:

2.0 Ltr.

Test Results

S. No.	Parameter	Test Method	Results	Unit
1.	pH (at 25 °C)	IS 3025 (P-11): 2022	6.82	
2.	Total Suspended Solids	IS 3025 (P-17): 2022	52.10	mg/l
3.	Oil &Grease	IS 3025 (P-39):2021	*BLQ(**LOQ-4.0)	mg/l
4.	BOD (3days at 27 °c)	IS 3025(P-44):2023	32.50	mg/l
5.	Chemical Oxygen Demand (COD)	IS: 3025 (P-58): 2023	128.0	mg/l
6.	Fecal Coliform	APHA 23rd Ed. 9221 C 2023	542	MPN/100 ml

Note: - *BLQ-Below Limit Quantification, *LOQ- Limit of Quantification

ABA

RK Yadav

Lab Incharge **Authorized Signatory**



Name & Address of Party:

Sample Description:

Sample Collected by

Method of Sampling:

Sample Location:

Preservation:

VTL/WW/04

Waste Water

VTL Team

M/s JK Cement Works, Panna (A Unit Of

JK Cement Ltd.)

Village-Harduwaken Tehsil-Amanganj

PIN-488441 Dist-Panna

Suitable Preservation

Security Barack STP Inlet

APHA 24th Edition

Report No.: Format No.:

Report Date:

VTL/WW/2409160004

7.8 F 01

Party Reference No.:

NA 25/09/2024

Period of Analysis:

16-25/09/2024

Receipt Date:

16/09/2024

Sampling Date:

10/09/2024

Sampling Type: Sample Quantity:

Grab 2.0 Ltr.

Test Results

S. No.	Parameter	Test Method	Results	Unit
1,	pH (at 25 °C)	IS 3025 (P-11): 2022	7.19	
2.	Total Suspended Solids	IS 3025 (P-17): 2022	29.3	mg/l
3.	Oil &Grease	IS 3025 (P-39):2021	*BLQ(**LOQ-4.0)	mg/l
4.	BOD (3days at 27 °c)	IS 3025(P-44):2023	42.0	mg/l
5.	Chemical Oxygen Demand (COD)	IS: 3025 (P-58): 2023	102.0	mg/l
6.	Fecal Coliform	АРНА 23 rd Ed. 9221 C 2023	348	MPN/100 ml

Note: - *BLQ-Below Limit Quantification, *LOQ- Limit of Quantification



RK Yadav

Lab Incharge Authorized Signatory



Name & Address of Party:

Sample Description:

Sample Collected by

Preservation:

VTL/WW/05

M/s JK Cement Works, Panna (A Unit Of

JK Cement Ltd.)

Waste Water

VTL Team

Village-Harduwaken Tehsil-Amanganj

PIN-488441 Dist-Panna

Suitable Preservation

Report No.: Format No.: VTL/WW/2409160005

7.8 F 01

Party Reference No.:

NA

Report Date:

25/09/2024

Period of Analysis:

16-25/09/2024

Receipt Date:

16/09/2024

Sampling Date: Sampling Type: 10/09/2024

Sample Quantity:

Grab 2.0 Ltr.

Method of Sampling: Sample Location:

APHA 24th Edition Security Barrack STP Outlet

Test Results

S. No.	Parameter	Test Method	Results	Unit	Limits
1.	pH (at 25 °C)	IS 3025 (P-11): 2022	7.44	**	6.5 to 9.0
2.	Total Suspended Solids	IS 3025 (P-17): 2022	22.2	mg/l	100
3.	Oil &Grease	IS 3025 (P-39):2021	*BLQ(**LOQ-4.0)	mg/l	10
4.	BOD (3days at 27 °c)	IS 3025(P-44):2023	22.0	mg/l	30
5.	Chemical Oxygen Demand (COD)	IS: 3025 (P-58): 2023	60.0	mg/l	250
6.	Fecal Coliform	APHA 23rd Ed. 9221 C 2023	79	MPN/100 ml	<1000

Note: - *BLQ-Below Limit Quantification, *LOQ- Limit of Quantification



RK Yadav

Lab Incharge Authorized Signatory



Sample Number: Name & Address of Party:

Sample Description:

Sample Collected by

Method of Sampling:

Sample Location:

Preservation:

VTL/WW/06

M/s JK Cement Works, Panna (A Unit Of

JK Cement Ltd.)

Village-Harduwaken Tehsil-Amanganj

PIN-488441 Dist-Panna

Waste Water

VTL Team

Suitable Preservation APHA 24th Edition

Admin Building STP Inlet

Report No.: Format No.:

VTL/WW/2409160006

7.8 F 01

NA

Party Reference No.: Report Date:

25/09/2024

Period of Analysis: Receipt Date:

16-25/09/2024 16/09/2024

Sampling Date:

10/09/2024

Sampling Type: Sample Quantity: Grab 2.0 Ltr.

Test Results

S. No.	Parameter	Test Method	Results	Unit
1.	pH (at 25 °C)	IS 3025 (P-11): 2022	6.82	
2.	Total Suspended Solids	IS 3025 (P-17): 2022	41.0	mg/l
3.	Oil &Grease	IS 3025 (P-39):2021	*BLQ(**LOQ-4.0)	mg/l
4.	BOD (3days at 27 °c)	IS 3025(P-44):2023	26.0	mg/l
5.	Chemical Oxygen Demand (COD)	IS: 3025 (P-58): 2023	70.0	mg/l
6.	Fecal Coliform	APHA 23rd Ed. 9221 C 2023	343	MPN/100 ml

Note: - *BLQ-Below Limit Quantification, *LOQ-Limit of Quantification



RK Yadav

Lab Incharge Authorized Signatory



Sample Number:

Sample Description:

Sample Collected by

Method of Sampling:

Sample Location:

Preservation:

Name & Address of Party:

VTL/WW/07

M/s JK Cement Works, Panna (A Unit Of

JK Cement Ltd.)

Waste Water

VTL Team

Village-Harduwaken Tehsil-Amanganj

PIN-488441 Dist-Panna

Suitable Preservation

Gate Complex STP Inlet

APHA 24th Edition

Report No.: Format No.: VTL/WW/2409160007

7.8 F 01

Party Reference No.:

NA

Report Date:

25/09/2024

Period of Analysis:

16-25/09/2024 16/09/2024

Receipt Date: Sampling Date:

10/09/2024

Sampling Type:

Grab

Sample Quantity:

2.0 Ltr.

Test Results

S. No.	Parameter	Test Method	Results	Unit
1.	pH (at 25 °C)	IS 3025 (P-11): 2022	6.75	
2.	Total Suspended Solids	IS 3025 (P-17): 2022	35.0	mg/l
3.	Oil &Grease	IS 3025 (P-39):2021	*BLQ(**LOQ-4.0)	mg/l
4.	BOD (3days at 27 °c)	IS 3025(P-44):2023	35.7	mg/l
5.	Chemical Oxygen Demand (COD)	IS: 3025 (P-58): 2023	82.4	mg/I
6.	Fecal Coliform	APHA 23rd Ed. 9221 C 2023	540	MPN/100 ml

Note: - *BLQ-Below Limit Quantification, *LOQ- Limit of Quantification

AB AIPUR

RK Yadav

Lab Incharge Authorized Signatory



Name & Address of Party:

Sample Description:

Sample Collected by

Method of Sampling:

Sample Location:

Preservation:

VTL/WW/08

M/s JK Cement Works, Panna (A Unit Of

JK Cement Ltd.)

Waste Water

VTL Team

Village-Harduwaken Tehsil-Amanganj

PIN-488441 Dist-Panna

Suitable Preservation

Admin building STP Outlet

APHA 24th Edition

Report No.: Format No.: VTL/WW/2409160008

7.8 F 01

Party Reference No.:

NA

Report Date:

25/09/2024

Period of Analysis: Receipt Date:

16-25/09/2024 16/09/2024

Sampling Date:

10/09/2024

Sampling Type:

Grab

Sample Quantity:

2.0 Ltr.

Test Results

S. No.	Parameter	Test Method	Results	Unit	Limits
1.	pH (at 25 °C)	IS 3025 (P-11): 2022	7.56		6.5 to 9.0
2.	Total Suspended Solids	IS 3025 (P-17): 2022	14.9	mg/l	100
3.	Oil &Grease	IS 3025 (P-39):2021	*BLQ(**LOQ-4.0)	mg/l	10
4.	BOD (3days at 27 °c)	IS 3025(P-44):2023	15.8	mg/l	30
5.	Chemical Oxygen Demand (COD)	IS: 3025 (P-58): 2023	54.6	mg/l	250
5.	Fecal Coliform	APHA 23rd Ed. 9221 C 2023	84	MPN/100 ml	<1000

Note: - *BLQ-Below Limit Quantification, *LOQ- Limit of Quantification

LAB

RK Yadav

Lab Incharge **Authorized Signatory**



Name & Address of Party:

Sample Description:

Sample Collected by

Method of Sampling:

Sample Location:

Preservation:

VTL/WW/09

M/s JK Cement Works, Panna (A Unit Of

JK Cement Ltd.)

Waste Water

VTL Team

Village-Harduwaken Tehsil-Amanganj

PIN-488441 Dist-Panna

Suitable Preservation

APHA 24th Edition

Report No.: Format No.: VTL/WW/2409160009

7.8 F 01

Party Reference No.:

NA 25/09/2024

Report Date:

16-25/09/2024

Period of Analysis: Receipt Date: Sampling Date:

16/09/2024 10/09/2024

Sampling Type:

Grab

Sample Quantity:

2.0 Ltr.

Gate Complex STP Outlet

Test Results

S. No.	Parameter	Test Method	Results	Unit	Limits
1.	pH (at 25 °C)	IS 3025 (P-11): 2022	7.57	-	6.5 to 9.0
2.	Total Suspended Solids	IS 3025 (P-17): 2022	15.9	mg/l	100
3.	Oil &Grease	IS 3025 (P-39):2021	*BLQ(**LOQ-4.0)	mg/l	10
4.	BOD (3days at 27 °c)	IS 3025(P-44):2023	14.9	mg/l	30
5.	Chemical Oxygen Demand (COD)	IS: 3025 (P-58): 2023	50.7	mg/l	250
6.	Fecal Coliform	APHA 23rd Ed. 9221 C 2023	70	MPN/10 0 ml	<1000

Note: - *BLQ-Below Limit Quantification, *LOQ- Limit of Quantification



RK Yadav

Lab Incharge

Authorized Signator



Name & Address of Party:

Sample Description:

Sample Collected by

Method of Sampling:

Sample Location:

Preservation:

VTL/WW/10

M/s JK Cement Works, Panna (A Unit Of

JK Cement Ltd.)

Waste Water

VTL Team

Village-Harduwaken Tehsil-Amanganj

PIN-488441 Dist-Panna

Report No.: Format No.: VTL/WW/2409160010

7.8 F 01

Party Reference No.: Report Date:

NA

25/09/2024

Period of Analysis:

16-25/09/2024

Receipt Date:

16/09/2024

Sampling Date:

10/09/2024

Sampling Type: Sample Quantity:

Grab 2.0 Ltr.

CCR STP Outlet

Suitable Preservation

APHA 24th Edition

Test Results

S. No.	Parameter	Test Method	Results	Unit	Limits
1.	pH (at 25 °C)	IS 3025 (P-11): 2022	7.63	-	6.5 to 9.0
2.	Total Suspended Solids	IS 3025 (P-17): 2022	16.3	mg/l	100
3.	Oil &Grease	IS 3025 (P-39):2021	*BLQ(**LOQ-4.0)	mg/l	10
4.	BOD (3days at 27 °c)	IS 3025(P-44):2023	14.9	mg/l	30
5.	Chemical Oxygen Demand (COD)	IS: 3025 (P-58): 2023	49.8	mg/l	250
6.	Fecal Coliform	APHA 23rd Ed. 9221 C 2023	63	MPN/10 0 ml	<1000

Note: - *BLQ-Below Limit Quantification, *LOQ- Limit of Quantification



RK Yadav

Lab Incharge

Authorized Signatory



Name & Address of Party:

Sample Description:

Sample Collected by

Method of Sampling:

Sample Location:

Preservation:

VTL/WW/11

Waste Water

CCR STP Inlet

VTL Team

M/s JK Cement Works, Panna (A Unit Of

JK Cement Ltd.)

Village-Harduwaken Tehsil-Amanganj

PIN-488441 Dist-Panna

Suitable Preservation

APHA 24th Edition

Report No.: Format No.: VTL/WW/2409160011

7.8 F 01

NA

Party Reference No.: Report Date:

25/09/2024

Period of Analysis: Receipt Date:

16-25/09/2024 16/09/2024

Sampling Date:

10/09/2024

Grab

Sampling Type: Sample Quantity:

2.0 Ltr.

Test Results

S. No.	Parameter	Test Method	Results	Unit
1.	pH (at 25 °C)	IS 3025 (P-11): 2022	6.98	-
2.	Total Suspended Solids	IS 3025 (P-17): 2022	46.4	mg/l
3.	Oil &Grease	IS 3025 (P-39):2021	*BLQ(**LOQ-4.0)	mg/l
4.	BOD (3days at 27 °c)	IS 3025(P-44):2023	32.0	mg/l
5.	Chemical Oxygen Demand (COD)	IS: 3025 (P-58): 2023	79.0	mg/l
6.	Fecal Coliform	APHA 23rd Ed. 9221 C 2023	350	MPN/1

Note: - *BLQ-Below Limit Quantification, *LOQ- Limit of Quantification



RK Yadav

Lab Incharge Authorized Signatory



Name & Address of Party:

Sample Description:

Sample Collected by

Method of Sampling:

Sample Location:

Preservation:

VTL/WW/12

Waste Water

VTL Team

M/s JK Cement Works, Panna (A Unit Of

JK Cement Ltd.)

Village-Harduwaken Tehsil-Amanganj

PIN-488441 Dist-Panna

Suitable Preservation

Report No.: Format No.: Party Reference No.:

Report Date:

VTL/WW/2409160012

7.8 F 01

NA

25/09/2024

Period of Analysis:

16-25/09/2024 16/09/2024

Receipt Date: Sampling Date:

10/09/2024

Grab

Sampling Type: Sample Quantity:

2.0 Ltr.

APHA 24th Edition Labour Colony STP Outlet

Test Results

S. No.	Parameter	Test Method	Results	Unit	Limits
1.	pH (at 25 °C)	IS 3025 (P-11): 2022	7.61		6.5 to 9.0
2.	Total Suspended Solids	IS 3025 (P-17): 2022	39.0	mg/l	100
3.	Oil &Grease	IS 3025 (P-39):2021	*BLQ(**LOQ-4.0)	mg/l	10
4.	BOD (3days at 27 °c)	IS 3025(P-44):2023	23.8	mg/l	30
5.	Chemical Oxygen Demand (COD)	IS: 3025 (P-58): 2023	74.0	mg/l	250
5.	Fecal Coliform	APHA 23rd Ed. 9221 C 2023	63	MPN/10 0 ml	<1000

Note: - *BLQ-Below Limit Quantification, *LOQ- Limit of Quantification



RK Yadav

Lab Incharge Authorized Signatory



Name & Address of Party:

Sample Description:

Sample Collected by

Method of Sampling:

Sample Location:

Preservation:

VTL/WW/13

M/s JK Cement Works, Panna (A Unit Of

JK Cement Ltd.)

Village-Harduwaken Tehsil-Amanganj

PIN-488441 Dist-Panna

Waste Water

VTL Team

Suitable Preservation **APHA 24th Edition**

Labour Colony STP Inlet

Report No.: Format No.:

Report Date:

VTL/WW/2409160013

7.8 F 01

NA

25/09/2024

Period of Analysis: Receipt Date:

Party Reference No.:

16-25/09/2024 16/09/2024

Sampling Date:

10/09/2024

Sampling Type: Sample Quantity: Grab 2.0 Ltr.

Test Results

S. No.	Parameter	Test Method	Results	Unit
1.	pH (at 25 °C)	IS 3025 (P-11): 2022	6.42	
2.	Total Suspended Solids	IS 3025 (P-17): 2022	62.6	mg/l
3.	Oil &Grease	IS 3025 (P-39):2021	*BLQ(**LOQ-4.0)	mg/l
4.	BOD (3days at 27 °c)	IS 3025(P-44):2023	45.0	mg/l
5.	Chemical Oxygen Demand (COD)	IS: 3025 (P-58): 2023	130.0	mg/l
6.	Fecal Coliform	APHA 23rd Ed. 9221 C 2023	240	MPN/100

Note: - *BLQ-Below Limit Quantification, *LOQ- Limit of Quantification



RK Yadav

Lab Incharge Authorized Signatory



Name & Address of Party:

Sample Description:

Sample Collected by

Method of Sampling:

Sample Location:

Preservation:

VTL/WW/14

Waste Water

VTL Team

M/s JK Cement Works, Panna (A Unit Of

JK Cement Ltd.)

Village-Harduwaken Tehsil-Amanganj

PIN-488441 Dist-Panna

Suitable Preservation

Project office STP Inlet

APHA 24th Edition

Report Date:

Report No.:

Format No.:

VTL/WW/2409160014

7.8 F 01 NA

Party Reference No.:

25/09/2024

Period of Analysis: Receipt Date:

16-25/09/2024 16/09/2024

Sampling Date:

10/09/2024

Sampling Type:

Grab

Sample Quantity:

2.0 Ltr.

Test	Resu	ts

S. No.	Parameter	Test Method	Results	Unit
1.	pH (at 25 °C)	IS 3025 (P-11): 2022	6.82	
2.	Total Suspended Solids	IS 3025 (P-17): 2022	32.2	mg/l
3.	Oil &Grease	IS 3025 (P-39):2021	*BLQ(**LOQ-4.0)	mg/l
4.	BOD (3days at 27 °c)	IS 3025(P-44):2023	41.6	mg/l
5.	Chemical Oxygen Demand (COD)	IS: 3025 (P-58): 2023	73.4	mg/l
6.	Fecal Coliform	APHA 23rd Ed. 9221 C 2023	49	MPN/1

Note: - *BLQ-Below Limit Quantification, *LOQ- Limit of Quantification



RK Yadav

Lab Incharge

Authorized Signatory



Name & Address of Party:

Sample Description:

Sample Collected by

Method of Sampling:

Sample Location:

Preservation:

VTL/WW/15

M/s JK Cement Works, Panna (A Unit Of

JK Cement Ltd.)

Village-Harduwaken Tehsil-Amanganj

PIN-488441 Dist-Panna

Waste Water

VTL Team Suitable Preservation

APHA 24th Edition

Project office STP Outlet

Report No.: Format No.:

Report Date:

VTL/WW/2409160015

7.8 F 01

NA

25/09/2024

Period of Analysis: Receipt Date:

Party Reference No.:

16-25/09/2024 16/09/2024

Sampling Date:

10/09/2024

Sampling Type:

Grab

Sample Quantity:

2.0 Ltr.

Test Results

S. No.	Parameter	Test Method	Results	Unit	Limits
1.	pH (at 25 °C)	IS 3025 (P-11): 2022	7.29		6.5 to 9.0
2.	Total Suspended Solids	IS 3025 (P-17): 2022	14.3	mg/l	100
3.	Oil &Grease	IS 3025 (P-39):2021	*BLQ(**LOQ-4.0)	mg/l	10
4.	BOD (3days at 27 °c)	IS 3025(P-44):2023	19.8	mg/l	30
5.	Chemical Oxygen Demand (COD)	IS: 3025 (P-58): 2023	50.4	mg/I	250
6.	Fecal Coliform	APHA 23rd Ed. 9221 C 2023	58	MPN/10 0 ml	<1000

LAB

JAIPUF

Note: - *BLQ-Below Limit Quantification, *LOQ- Limit of Quantification

RK Yadav

Lab Incharge

Authorized Signatory

Approved & Certified EPA 1986 Recognised, ISO:9001 and OHSAS:45001 Certified

Vibrant Techno Lab Pvt. Ltd.

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9929108691, 9810205356, 8005707098, 9549956601

3 0141-2954638

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JK Cement Limited, Panna

Heat Stress Analysis Report

Key finding- Summarize the main take way from the analysis. This include

- Identification of specific area with high heat stress potential e.g. kiln zone and clinker cooler
- Evaluation of work practice that contribute to worker heat stress.
- Assessment of current control measure and their effectiveness.

Criteria-

Physiological test- As per factory act in house medical examination facilities available in our OHC to workers and operators.

Working guideline of heat stress-

- 1. Walk around inspection During the walk around inspection we determine the building and operation characteristics whether engineering control are functional properly.
- 2. Work load assessment To determine under condition of high temp and heavy work load activity.
- 3. <u>Cool rest area</u>- Shelter room available at kiln zone with all the facilities (like: water cooler ,fans, good sitting place) are available for the prevention of heat stress.

Sampling method-

During inspection of the heat area of plant we have to done the method of measurement of body temperature, environment measurement, **wet bulb glob temperature index** and another thermal index are available and worked properly as per guideline and factory act.

Engineering controls

There are five major type of engineering control to be followed to reduce heat stress in hot working environment.

- 1.General ventilation
- 2. Air cooling
- 3. Air conditioning
- 4. Local air cooling

5. Fans

- 1. General ventilation- in our plant we have used to dilute hot air with cooler air.
- 2. Air treatment- we have air Treatment facilities with different from of ventilation because it reduces the temperature of air by removing heat from air.
- 3. Air conditioning- in our plant we have used method of air cooling but it is expansive to install and operate.
- 4. local air cooling- in our plant we have providing local Air-cooling facilities. It can be effective in reducing air temperature is specific areas.
- 5. fans- another way to reduce heat stress is to increase the air flow or convection using fans (as long as the air temperature is less than the worker skin temperature)

Fluid replace arrangement-

We have providing Cooling drinking water and other cooling liquid like glucose and energy drink electrolytes is available near rest room to encourage them to drink small amount frequently, e.g. one cup every 20 minutes and 10-12 liter of water intake advisable.

Fluid replacement strategies are primarily designed to counter dehydration and electrolytes loss.

Administrative controls

Following administrative controls to be follow to reduce heat stress.

- 1. Reduce the physical demands of work e.g. excessive lifting and heavy object.
- 2. Provided recovery area like air conditioning room
- 3. Scheduled shifts e.g. early morning, day shift and night work
- 4. Used relief workers
- 5. Pre -employment medical examination with physical fitness.

Continues improvement-

- Regular reviewing WBGT reading and worker feedback.
- Updating control measure needed based on changing condition or new technology.

Good work Practice-

- We have providing good work practice training for the prevention of heat stress to the workers and operators.
- As per NIOSH (1986) state conduct good heat stress training program include:
 - A. Providing Knowledge of the hazard of heat stress
 - B. Providing Awareness of first aid procedure for potential health effect of heat stroke

- **C.** Providing good practice for using of protecting cloths and equipment. **(heat resistance suit)**
- D. Provide awareness to using danger drugs during and alcohol in hot work environment.
- E. We have provided emergency & medical facilities 24*7 hours at our plant premise's with ambulance facilities.





Submitted by-Dr. Pradeep kumar Sharma MBBBS (AFIH) Reg. no. 10156

11-156 c.J.

Case No. of 20.....

Date of order or Proceeding	Order or proceeding with signature of Presiding Officer	Signature of parties or pleaders where necessary
05.12.2020	आवेदक चन्द्रबदन तिवारी उपस्थिति।	
	अनावेदक क्रमांक 01 व 02 अनुपस्थित।	3.7
	अनावेदक क्रमांक 03 व 04 की ओर से श्री मृणाल सिंह उपस्थित।	
	अनावेदक क्रमांक 05 की ओर से श्री आर.के. निगम अधिवक्ता उपस्थित।	
	इस अधिनिर्णय द्वारा आवेदन पत्र एवं अंतिरिम आवेदन पत्रों का निराकरण	I shine
	किया जा रहा है।	
	आवेदन पत्र संक्षेप में इस प्रकार है कि सीमेन्ट प्लान्ट हरदुआकेन, पुरैना,	
	सोतीपुरा, मडैयन, ककरा, कमताना, सप्तई, जूडी, देवरी पुरोहित एवं देवरा के	
	किसानों के हितों को अनदेखा कर उनकी जमीनों के भुगतान करने में भिन्नता	
	रखी गयी है तथा लोक सुनवाई दिनांक 17.07.2019 नियमानुसार न की जाकर	
	प्रस्तुत अपत्ति व सुझाव पर कोई कार्यवाही नहीं की गयी है। भारत सरकार के	
	पर्यावरण एवं वन मंत्रालय द्वारा जारी नोटिफिकेशन के अनुसार ही पर्यावरण	Marin 19
	स्वीकृति की पात्रता है, जिसका अनावेदकगण द्वारा कोई पालन नहीं किया गया	11.
	है। एकपक्षीय जन सुनवाई दिनांक 17.07.2019 को निरस्त किया जाये।	
	अनावेदक क्रमांक 01 व 02 की ओर से जवाब संक्षेप में इस प्रकार है कि	1-63
	क्षेत्रीय कार्यालय सागर द्वारा लोक सुनवाई की संपूर्ण कार्यवाही भारत सरकार के	
	नोटिफिकेशन दिनांक 14.09.2006 के प्रावधानानुसार बोर्ड मुख्यालय भोपाल से	
	प्राप्त निर्देशों के परिपेक्ष्य में अपर कलेक्टर पन्ना की अध्यक्षता में सपन्न की गयी	
	है। कार्यालय द्वारा पूरी पारदर्शिता अपनाते हुए कार्यावाही पूर्ण की गयी हैं।	
	आवेदक के आरोप सत्य नहीं है।	
	अनावेदक क्रमांक 03 व 04 की ओर से जवाब संक्षेप में इस प्रकार है कि	
	लोक जनसुनवाई जनता के हितों को नजर अंदाज कर एक पक्षीय रूप से नहीं	

की गयी है। पर्यावरणीय स्वीकृति हेतु लोक जनसुनवाई दिनांक 17.07.2019 को ग्राम देवरा तहसील अमानगंज जिला पन्ना में अपर कलेक्टर जिला पन्ना की अध्यक्षता में संपन्न हुई है। आवेदक द्वारा लगाये गये कथित आरोप पूर्णतः बिना किसी आधार के मात्र काल्पनिक है जो व्यक्तिगत हित को लेकर लेख किये गये है। आवेदक द्वारा जिस प्रकार का विवाद अध्यक्ष महोदय के समक्ष प्रस्तुत किया है उक्त विवाद विधिक सेवा प्राधिकरण (संशोधन) अधिनियम 2000 की धारा 22 (ख) के अन्तर्गत नहीं आता है। मेसर्स जेकसेम(सेन्ट्रल) लिमिटेड कंपनी को जो कि कंपनी अधिनियम 1956 के अन्तर्गत रजिस्टर्ड है, से कथित विवाद जिस प्रकार लेख किया गया है उस कंपनी की संपत्ति का मूल्य दस लाख रूपये से भी बहुत अधिक है, इस कारण भी विधिक सेवा प्राधिकरण अधिनियम(संशोधन) 2000 की धारा 22(ग) के पंरतुक 1 के अन्तर्गत भी आवेदन प्रचलन योग्य नहीं है। हस्तगत प्रस्तुत आपत्तियां भारत सरकार पर्यावरण वन एवं जल—वायु परिवर्तन मंत्रालय नई दिल्ली के समक्ष विचारणीय है। फलतः आवेदन पत्र आधारहीन तथा स्थाई लोक अदालत के समक्ष पोषंणीय न होने से खारिज किया जावे।

अनावेदक कमांक 05 की ओर से जवाब संक्षेप में इस प्रकार है कि लोक सुनवाई दिनांक 17.07.2019 को ग्राम पंचायत देवरा में अपर कलेक्टर पन्ना एवं क्षेत्रीय अधिकारी प्रदूषण नियंत्रण बोर्ड सागर द्वारा जन सामान्य द्वारा प्रस्तुत आपित्तयों एवं सुझाव प्राप्त कर की गयी और उनके द्वारा पर्यावरण एवं वन एवं जल—वायु परिवर्तन मंत्रालय भारत सरकार नई दिल्ली को प्रतिवेदन प्रेषित किया गया। पर्यावरण वन एवं जल—वायु परिवर्तन मंत्रालय भारत सरकार द्वारा पर्यावरण स्वीकृति के संबंध में अंतिम निर्णय लिया जाना है। लोक सुनवाई पर्यावरण स्वीकृति संबंधी प्रारंभिक तथा अंतिरिम कार्यवाही है। आवेदन पत्र में जो तथ्य प्रश्नगत किया गया है उसका कोई आचित्य व आधार नहीं है। फलतः आवेदन पत्र निरस्त किया जावे।

आवेदक की ओर से इस आशय का भी अंतरिम आवेदन पत्र प्रस्तुत है कि अनावेदक क्रमांक 03 व 04 से जेकेसेम(सेन्ट्रल) सीमेन्ट प्लांट का संपूर्ण नक्शा तलब कराया जावे। अनावेदक क्रमांक 03 व 04 की ओर से जवाब संक्षेप में इस प्रकार है कि आवेदक दस्तावेज की मांग नहीं कर सकता है। प्रकरण की प्रचलनशीलता के संबंध में अपितत पूर्व से उल्लेखित है। फलतः आवेदन पत्र निरस्त किया जावे। आवेदक की ओर से इस आशय का भी अंतरिम आवेदन पत्र प्रस्तुत है कि अनावेदकगण द्वारा आवासीय क्षेत्र व उल्खन्न क्षेत्र के वास्तविक तथ्यों को

है कि अनावेदकगण द्वारा आवासीय क्षेत्र व उत्खन्न क्षेत्र के वास्तविक तथ्यों को परियोजना व जवाब में छिपाया गया है। प्रकरण की अंतिम सुनवाई के पूर्व तथ्यों की जांच कराई जाकर, विधिक सम्यक कार्यवाही किये जाने का निवेदन किया।

अनावेदक क्रमांक 03 एवं 04 की ओर से जवाब संक्षेप में इस प्रकार है कि आवेदन पूर्णतः झूठा व बनावटी है। आवेदक येनकेन प्रकार प्रकरण को लंबित रखना चाहता है। आवेदक को किसी भी प्रकार की जांच इस फोरम में कराये जाने की अधिकारिता नहीं है। भारत सरकार पर्यावरण एवं वन मंत्रालय द्वारा जन सुनवाई दिनांक 17.07.2019 को सही पाकर पर्यावरणीय स्वीकृति दी गयी है। आवेदन पत्र सारहीन होने से निरस्त किया जावें।

अनावेदक क्रमांक 05 की ओर से जवाब संक्षेप में इस प्रकार है कि आवेदन पत्र कें पद क्रमांक 01, 02, 03 में वर्णित तथ्य पूर्णतः मिथ्या व बनावटी है। आवेदक द्वारा प्रस्तुत मूल आवेदन पत्र प्रचलनशील नहीं है। आवेदक द्वारा आवेदन पत्र मूलरूप से पर्यावरण स्वीकृति के संबंध में की गई लोक सुनवाई दिनांक 17.07.2019 के संबंध में प्रस्तुत किया गया, जो इस फोरम में सुनवाई योग्य नहीं है। पर्यावरण स्वीकृति भी दी जा चुकी है। फलतः आवेदन पत्र सारहीन होने से निरस्त किया जावे।

अभिलेख से यह प्रकट है कि अनावेदकराण की ओर से आवेदक की ओर से प्रस्तुत आवेदन पत्र की प्रचलनशीलता पर अपत्ति की गयी हैं, उक्त परिप्रेक्ष्य में सर्वप्रथम प्रकरण की प्रचलनशीलता पर विचार किया जाना और उसका निराकरण किया जाना विधिसम्मत प्रतीत होता है।

आवेदक की ओर से प्रचलनशीलता पर लिखित तर्क प्रस्तुत किये गये हैं एवं अनावेदकगण की ओर से मौखिक तर्क प्रस्तुत किये गये हैं। आवेदक ने यह लिखित तर्क किया है कि उक्त विबाद आवास और भू—संपदा के विवाद से संबंधित हैं जो विधिक सेवा प्राधिकरण अधिनियम 1987 की धारा 22 बी. में आवास और भू-संपदा सेवा के विवाद में शामिल है।

अभिलेख का अवलोकन व परिशीलन किया गया एवं लिखित व मौखिक तर्को पर विचार किया गया।

विधिक सेवा प्राधिकरण अधिनियम 1987 की धारा 22 ए(बी) के आधीन निम्नाकिंत लोकोपयोगी सेवाएं निहित है—

- 1. हवा, सड़क अथवा जल के द्वारा यात्रियों अथवा माल के लिए परिवहन सेवा या
- 2. पोस्टल, टेलीफोन या दूरभाष सेवा या
- 3. किसी भी स्थापना द्वारा जनता को विद्युत प्रकाश या जल की आपूर्ति या
- 4. सार्वजनिक संरक्षण या स्वच्छता की प्रणाली या
- 5. अस्पताल या डिस्पेसंरी में सेवा या
- 6. बीमा सेवा या
- 7. आवासीय और संपदा या
- 8. बैंकिंग एवं वित्त

आवेदन पत्र के तथ्यों से यह प्रकट है कि आवेदक लोक जन सुनवाई दिनांक 17.07.2019 की कार्यवाही को विधिसंग्यत न बताते हुए उक्त कार्यवाही को निरस्त कराना चाहता है और भारत सरकार के पर्यावरण वन मंत्रलाय के नोटिफिकेशन का पालन कराना चाहता है। आवेदन पत्र के तथ्यों से पक्षकारों के मध्य आवासीय और संपदा के संबंध में विवाद होना प्रथम दृष्ट्या प्रतीत नहीं होता है। सेवा प्रदाता की कमी का कोई मामला हो ऐसा भी आवेदन पत्र में लेख नहीं है।

लोकोपयोगी लोक अदालत को विधिक सेवा प्राधिकरण अधिनियम की धारा 22 क(ख) में वर्णित सेवाओं सें उत्पन्न विवाद/मामलों की सुनवाई की क्षेत्राधिकारिता है। अभिलेख से यह प्रकट है कि लोक जन सुनवाई दिनांक 17. 07.2019 के परिप्रेक्ष्य में पर्यावरण स्वीकृति प्रदाय की गयी है। आवेदक द्वारा लोक जनसुनवाई को चुनौती दी गयी है। अभिलेख पर जो साक्ष्य है उससे प्रथम दृष्ट्या ऐसा दर्शित नहीं होता है कि पक्षकारों के मध्य अधिनियम की धारा 22 क(ख) में वर्णित सेवाओं से उत्पन्न विवाद/मामला है। उक्त परिप्रेक्ष्य में इस प्रक्रम पर आवेदक की ओर से प्रस्तुत आवेदन पत्र नक्शा तलब कराये जाने व तथ्यों की जांच कराये जाने का भी कोई आधार दर्शित नहीं होता है

उपरोक्तानुसार आवेदन पत्रों का निराकरण किया जाता है।

उभय पक्षकारगण को अधिनिर्णय की सत्य प्रति निःशुल्क प्रदाय की जावे।

प्रकरण का परिणाम पंजी में दर्ज कर प्रकरण नियमानुसार जमा किया जावे।

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सही/(सदस्य)

सही/(सदस्य)

सही/(सवस्य)

स्थाई लोक अदालत

लोक उपयोगी सेवा

साटम अर्द्धितिक विकास करा । इरियो २०२० इरियो २०२०

Jaykaycem (Central) Limited, Tehsil: Amanganj, District: Panna (MP) Revised Plant Layout as per EC Conditions

Annexure-8

