

Through Mail

NBH/PC-14/C11/

Date: 25.05.2022

To,

The Director (M),

Ministry of Environment, Forest & Climate Change,

Indira Paryavaran Bhawan,

JOR Bagh Road, Aliganj,

New Delhi-110003

Sub: Compliance report of Environmental Clearance for Expansion of Integrated Cement Plant (Clinker 5.0 MTPA to 5.2 MTPA) Cement 3.6 MTPA to 6.5 MTPA) WHRS {13.2 (Water Cooled) to 15 MW (Air Cooled)} along with additional WHRS {15 MW (Air Cooled)} and Reduction in capacity of Captive Power Plant (47 to 22 MW) at Nimbahera, District: Chittorgarh (Rajasthan) by M/s. JK Cement Limited

Ref: EC letter no. - IA-J-11011/243/2016-IA-II(I) dated 23.07.2018 and amended on vide letter no IA-J-11011/243/2016-IA-II(I) dated 14.02.2022

Dear Sir,

Kindly refer to the above subject matter and refer above EC letter no., please find attached herewith compliance of EC for the period of **October'2021 to March'2022**.

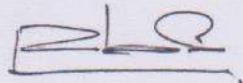
As per MoEF & CC notification no. S.O. 5845 (E) 26.11.2018 the soft copy of same has been sent through email to iro.jaipur-mefcc@gov.in, moef@nic.in, ccb.cpcb@nic.in, member-secretary@rpcb.nic.in, cpcb.bhopal@gov.in, monitoring-ec@nic.in, iro.jaipur-mefcc@gov.in

We hope that the compliance is in order.

Thanking you.

Yours Faithfully

For J. K. Cement Works, Mangrol



R.B.M Tripathi

President (Operations)

Encl: as above

Copy to:

1. The Deputy Director(S), Ministry of Environment, Forests & Climate Change, Integrated Regional office, Jaipur, A-218, Aranya Bhawan, Jhalana Institutional Area, Jaipur-302004
2. The Regional Director Central Pollution Control Board, Paryavaran Parisar, E-5, Arera colony, Bhopal (M.P) 462016
3. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-CUM office complex, East Arjun Nagar, New Delhi 110032.
4. The Chairman, Rajasthan State Pollution Control Board, 4, Institutional Area, Jhalana Doongri, Jaipur - 302004 (Rajasthan)

Corporate Office

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**HALF YEARLY COMPLIANCE REPORT
OF
ENVIRONMENTAL CLEARANCE LETTER NO.**

IA-J-11011/243/2016-IA-II(I) dated 14.02.2022

Period: October-2021 to March-2022

**For
Integrated Cement Project:
Expansion in Clinker Production Capacity (5.0 to 5.2 MTPA) and WHRS
{13.2 (Water Cooled) to 15 MW (Air Cooled)} along with additional
WHRS {15 MW (Air Cooled)} and Reduction in capacity of Captive
Power Plant (47 to 22 MW)**

**Submitted to:
MoEF&CC, New Delhi & Integrated Regional Office, Jaipur
Central Pollution Control Board, New Delhi & Bhopal
Rajasthan State Pollution Control Board, Jaipur**

**Submitted by:
M/s J. K. CEMENT WORKS, NIMBAHERA,
Kailash Nagar, Tehsil: Nimbahera, District: Chittorgarh (Raj)**


J. K. Cement Works, Nimbahera

Dist: Chittorgarh, Rajasthan

EC Compliance Report

Period: October 2021 to March 2022

Expansion in Clinker Production Capacity (5.0 to 5.2 MTPA) and WHRS {13.2 (Water Cooled) to 15 MW (Air Cooled)} along with additional WHRS {15 MW (Air Cooled)} and Reduction in capacity of Captive Power Plant (47 to 22 MW) at Nimbahera, District: Chittorgarh (Rajasthan) by M/s. J. K. Cement Limited		
Environment Clearance no. IA-J-11011/243/2016-IA-II(I) dated 14.02.2022		
Specific Condition		
SN	Conditions	EC Compliances
i.	All the observations made in the inspection report of Regional Office dated 02/12/2021 shall be compiled within one month from date of issue of the Environment Clearance. Compliance status in this regard shall be furnished to the Ministry and the concerned Regional Office of the MoEF&CC.	Complied, Report has been submitted to IRO & RO MoEFCC, Jaipur on 22.12.2021.
ii.	Particulate matter emissions from all the stacks shall be less than 30 mg/Nm ³ .	Being Complied, Stack emission are less than 30 mg/Nm ³ . In house and NABL accredited third party report of Stack monitoring are enclosed as Annexure-1
iii.	Air Cooled condensers shall be used in the captive power plant in place of water-cooled system	Being Complied Air Cooled Condensers is being used in Captive Power plant and Erection and commissioning of ACC is going on in WHR.
iv.	Water consumption shall be reduced from 4071 KLD to 2892 KLD due to switch over from water cooled system to air cooled condensers. Compliance status in this regard shall be submitted to the concerned Regional Office of the MoEF&CC along with the six-monthly compliance report.	Will be complied, switch over from water cooled system to air cooled condenser is in under progress in WHR for which CTE has been granted from Rajasthan State Pollution Control Board, Jaipur. Water consumption will be reduced after commissioning of Air Cooled Condenser and it will be informed to the concern Regional Office of the MoEF&CC along with the six-monthly compliance report.
v.	Dioxin and furans shall be monitored twice a year during co-processing of hazardous waste and report shall be submitted to the Regional Office of the MoEF&CC.	Being Complied, Latest monitoring report is enclosed as Annexure-2 .
vi.	Greenbelt shall be developed in 33% of the total area all the entire periphery of the area with a density of 2500 trees per ha by 31st December, 2022 as committed. This shall include development of greenbelt with a	Complied, Total Plant area- 98.05 ha. Total Plantation cover – 32.36 ha. Total nos. of plant – 82186 nos. till FY 2020-21. Plantation done in FY 2021-22 – 8295 nos. to increase the

	width of 20 m within the project site towards 4 villages around the plant i.e. Rampura (220 m), Ahirpura (340 m), Kautha (350 m) and Nimbaheda (860 m) from the project site. Additionally, 14.57 ha land located outside the project shall be brought under greenbelt development as committed by the proponent.	<p>plant density.</p> <p>Apart from above additional plantation has done on 14.57 ha outside the plant premises.</p> 
vii.	Rainwater harvesting shall be implemented as per the action plan submitted in the addendum EIA report.	We have not proposed any action plan for Rainwater harvesting implementation in addendum EIA report however we have already constructed 5 Nos of Injection well, 2 Nos of Check dam in seasonal Nalla south side of Plant and one water pond.
viii.	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 run off material.	Complied, covered storage yard has been provided with impervious flooring. However covered shed is sufficient to check air born due to blowing of air.
ix.	Slip roads shall be provided at the gates and along crossings on main roads.	Complied, Separate entry and exit gates are provided for raw material and manpower, hence slip road is not required.
x.	All internal and connecting road to the Highway shall be black topped / concreted with suitable load in term of Million Standard Axle (MSA) as per IRC guidelines.	Complied, All internal and connecting roads to the Highways are blacked topped & concreted.
xi.	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.	Performance monitoring of pollution control equipment are being done, however stack emissions are less than 30 mg/Nm ³ as prescribed. Please refer annexure-1 for In house and NABL accredited third party report.
xii.	The recommendations 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.	<p>Complying with</p> <p>The Wildlife conservation plan has been prepared for six nos. of the following Schedule-I species found in the buffer area during the survey: -</p> <p>(a.) Pavocristatus (Indian Peafowl),</p> <p>(b.) Pantherapadusfusca (Indian Leopard),</p> <p>(c.) Prionailurusrubiginosus (Rusty-Spotted Cat),</p> <p>(d.) Canis lupus pallipes (Indian Wolf),</p>

		<p>(e.) Varanus bengalensis (Indian Monitor Lizard)</p> <p>(f.) Gyps indicus/Gyps bengalensis (Indian Vulture)</p> <p>5 Nos. of captive Limestone Mines and 2 Nos. of Integrated Cement Plant of J K Cement Ltd are situated within 10 KMS radius in Tehsil Nimbahera, Chittorgarh District and accordingly, Cumulative Wildlife Conservation Plan for 6 Sch-1 Species (Indian Peafowl (Pavo cristatus), Panther (Panthera pardus fusca), Rusty Spotted Cat (Prionailurus rubiginosus), Indian Wolf (Canis lupus pallipes), Indian Monitor lizard (Varanus bengalensis) and Indian vulture (Gyps indicus/bengalensis). Wild life conservation plan has been forwarded by the DFO Chittorgarh to Divisional chief conservator of forest vide letter no F (5) survey/UVS/2021-22/4089 dated 13.07.2021 and accordingly 20% amount of Rs. 57.07 Lakh deposited by us against total WCP cost of Rs.285.30 Cr in July,21. Copy of Letter is enclosed as Annexure-3.</p>
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B. General EC Conditions:

I. Statutory compliance


i.	<p>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.</p>	Noted & Agreed
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II. Air quality monitoring and preservation

i.	<p>The project proponent shall install 24 x 7 Continuous Emission Monitoring System (CEMS) at process stacks to monitor stack emission as well as 4 Nos. 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.</p>	<p>Complied With.</p> <ul style="list-style-type: none"> • Continuous emission monitoring system has been installed for monitoring of PM, SO₂ and NO_x at the stack of all Kilns, Boilers. • Opacity meters have been installed for continuous monitoring of PM at the stack of coal mill, cement mill and clinker cooler • Real time continuous monitoring system has been connected 24x7 with RSPCB and CPCB online server. • CEMS Remote calibration done by CPCB and periodical calibration by OEM.
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		 <ul style="list-style-type: none"> Online CAAQMS system already installed at 4 locations in periphery of plant within plant area and 24x7 connected to RPCB/CPCB web portal. Ambient Air Quality report is enclosed as Annexure-4
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.	<p>Complying with.</p> <p>Fugitive emission monitoring is being carried out by in-house facility as well as NABL recognized lab, Copy of report is enclosed as Annexure- 5.</p>
iii.	The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.	<p>Complying with.</p> <p>The bag house and bag filter are having mechanized bag cleaning system and DP system provided which indicate the leakages.</p>
iv.	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.	<p>Complying with.</p> <p>All the raw material transported through trucks with covered with tarpaulin and bulker are being used for fly ash transportation.</p>
v.	The project proponent shall provide wind shelter fence and chemical spraying on the raw material stock piles;	<p>Complied.</p> <p>Covered shed are provided for storage of raw materials & also developed dense plantation around the plant hence, wind shelter fence is not required.</p>



		
vii.	Ventilation system shall be designed for adequate air changes as per the prevailing norms for all tunnels, motor houses, cement bagging plants.	<p>Complied.</p> <p>Ventilation system has been provided at all the required locations.</p>
III. Water quality monitoring and preservation		
i.	The project proponent shall install 24 x 7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 612 (E) dated 25 th August, 2014 (Cement) and subsequent amendment dated 9 th May, 2016 (Cement) and 10 th May, 2016 (in case of Co-processing Cement) as amended from time to time; S.O. 3305(E) dated 7 th 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.	<p>Complied.</p> <ul style="list-style-type: none"> • The unit is Zero liquid discharge facility and as per the CPCB guideline, the continuous effluent monitoring system is not required for cement plant. • OCEMS have been installed and connected 24x7 with RSPCB and CPCB online server. • CEMS Remote calibration done by CPCB and periodical calibration by OEM.
ii.	The project proponent shall regularly monitor ground water quality at least twice a year (pre-and post-monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	<p>Complying with.</p> <p>Ground water quality is being test by NABL recognized lab, the pre- monsoon GW quality report is enclosed in Annexure- 6.</p>
iii.	Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.	<p>Complied with.</p> <p>STP of capacity: 500KLD; based on Activated Sludge Process (ASP) technology has been provided for domestic waste water treatment and treated water is being utilized for plantation. Additionally, we have installed two reed bed technology based STP with the capacity of 55 KLD & 35 KLD each. The test reports of treated water is enclosed as Annexure-7</p>



iv.	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 run off.	Complied with. Raw material stored in covered shed and finished product in silo. The garland drains and collection pits for each stock pile to arrest the run-off in the event of heavy rains has been provided.
v	Water meters shall be provided at the inlet to all unit processes in the cement plant.	Complying with. Water meters at all strategic locations has been provided in the existing plant.
vi	The project proponent shall make efforts to minimize water consumption in the cement plant complex by segregation of used water, practicing cascade use and by recycling treated water.	Complying with. <ul style="list-style-type: none"> • Cement manufacturing process is based on dry process technology. • Air cooled condensers in captive power plant is installed • Treated waste water from CPP is being reused in coal yard for dust suppression • WHR treated waste water is being recycle in cement plant for machineries cooling purpose only. • Domestic sewage generated is being treated at STP and the treated water is used for plantation and greenbelt development. • 'Zero' liquid discharge are being maintained

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.	Complying with. Periodically ambient noise level are being monitored, report is enclosed in Annexure- 8 .
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V. Energy Conservation measures

i.	Waste heat recovery system shall be provided for kiln and cooler.	Complied with. Presently waste Heat Recovery Plant has been installed with capacity of 13.2 MW and further its capacity will be increase from 13.2 MW to 15 MW. The same will be explore in Line-4 also.
ii.	The project proponent makes efforts to achieve power consumption less than 65 units/ton for Portland Pozzolona Cement (PPC) and 85 units/ton for Ordinary Portland Cement (OPC) production and thermal energy consumption of 670 Kcal/Kg of clinker.	Complying with. All suitable measures like VVFD, high efficient motors have been adopted to reduce power consumption.
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 with. Unit has recently installed & commissioned 7.0 MW solar power plant, apart from this solar street light in colony and rooftop solar system has provided.

		 															
iv.	Provide the project proponent for LED lights in their offices and residential areas.	LED lights provided in office & residential township.															
VI. Waste management																	
i.	Used refractories shall be recycled as far as possible.	Used refractories is sold and partially recycled in existing plant and same practice will be adopted in proposed plant															
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 by trees in the plant premises.	Complying with. GHG emission inventory report is attached as Annexure-9 .															
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.	Complying with. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan are implemented.															
ii.	The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms.	There is no any activity is carried out in high temperature work zone however during shutdown we start working after cooling of equipment and same practice will be followed in proposed unit. Personal protective equipment is being provided to respective worker.															
iii.	Occupational health surveillance of the workers shall be done on a regular basis and records maintained.	Complying with. The periodical medical examination of all employee and workmen are being carried out.															
IX. Environment Management																	
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.	<p>Complied.</p> <p>The unit has been carried out combined CSR activities for cement plant & its associated mines, on the focus area of infrastructure, health, sanitation & water, women-empowerment, sports, education etc. The Expenditure occurred in the FY-2020-2021 are given as below.</p> <table border="1"> <thead> <tr> <th>S.N.</th><th>Focus Area</th><th>Amount Expenditure (Rs.)</th></tr> </thead> <tbody> <tr> <td>1</td><td>Community Welfare</td><td>8934820</td></tr> <tr> <td>2</td><td>Disaster Relief</td><td>366000</td></tr> <tr> <td>3</td><td>Drinking Water Arrangement</td><td>5364266</td></tr> <tr> <td>4</td><td>Educational Charity</td><td>8702182</td></tr> </tbody> </table>	S.N.	Focus Area	Amount Expenditure (Rs.)	1	Community Welfare	8934820	2	Disaster Relief	366000	3	Drinking Water Arrangement	5364266	4	Educational Charity	8702182
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1	Community Welfare	8934820															
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		5	Environment	524384.40	
		6	Health	6009698	
		7	Livelihood Promotion	2935787	
		8	Sports Promotion	458695	
		9	Infrastructure Development	14442664	
			Total Expenditure (Rs.)	47738496	
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 ofthe 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 with. Well define environment policy has been implemented. Copy of Policy is enclosed as Annexure- 10.			
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.	Complying with. A separate environmental management cell with qualified personnel is already established & has sufficient monitoring equipment in environmental laboratory.			
X. Miscellaneous					
i.	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 with. Publically published in 02 local newspapers namely Rajasthan Patrika and Dainik Bhaskar on 17/02/2022 regarding grant of Environment Clearance, copy of the same enclosed in Annexure-11.			
ii.	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 with. A copy of EC has been submitted to the all concern local authority and pollution control board, Zila Parishad Chittorgarh, DIC office Chittorgarh, District Collector Chittorgarh, SDM office Nimbahera on 16/02/2022, copy of same is enclosed as Annexure -11.			
iii.	The project proponent shall upload the status	Complying with.			

	of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.	Six monthly compliance report is being uploaded at company website, which can be access on https://www.jkcement.com/environmental-compliance
iv.	The project proponent shall monitor the criteria pollutants level namely; PM ₁₀ , SO ₂ , NO _x (ambient levels as well as stack emissions) or critical sectoral 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.	<p>Complying with.</p> <p>Regular monitoring of PM₁₀, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters are being monitored. Data on PM, SO_x and NO_x are continuously displayed outside the premises of plant and uploaded on the website of the company along with EC compliance report.</p> 
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.	<p>Complying with.</p> <p>Six monthly reports are being regularly submitting through e-mail to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB. EC compliance report is also uploaded at MoEF&CC website.</p>
vi.	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.	<p>Complying with.</p> <p>The Environment statement i.e. Form V is being submitted regularly of each financial year of existing plant. FY 2020-21 ESR cement plant, Nimbahera, 22 MW CPP and 13.2 MW WHR has submitted at RSPCB office vide letter no. NBH-PC-ESR-21-2259, 2260 & 2261 respectively, dated 17.09.2021</p>
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.	Point noted and will be complied.
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.

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).	Noted.
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.	Agreed and Noted.
xi.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Noted and agreed.
xii.	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	Noted and 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.	Noted and agreed.
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.	Noted and agreed.

J.K. Cement WORKS, NIMBAHERA (RAJ)

HALF YEARLY REPORT FY-2021-22 (October' 2021 to March' 2022)

DATE	NAME OF THE STACK / DUCT ATTACHED WITH UNIT	CROSS SECTIONAL AREA OF DUCT (M ²)	STACK GASES TEMP. (⁰ K)	STACK GASES VELOCITY (M / Sec.)	FLOW OF GASES IN STACK (NM ³ /Sec.)	DUST CONC. (Mg/NM ³)	MEAN DUST CONC. (Mg/NM ³)	EMISSION RATE (Ts/DAY)
October'2021								
01.10.2021	L.S. CRUSHER (B.F.)	0.26	324	8.43	2.02	15.9	13.5	0.003
05.10.2021	L.S. CRUSHER (B.F.)	0.26	323	7.87	1.89	17.2		0.003
13.10.2021	L.S. CRUSHER (B.F.)	0.26	321	8.83	2.13	11.8		0.002
21.10.2021	L.S. CRUSHER (B.F.)	0.26	322	9.53	2.29	9.1		0.002
November '2021								
01.11.2021	L.S. CRUSHER (B.F.)	0.26	328	7.84	1.85	13.6	12.6	0.002
11.11.2021	L.S. CRUSHER (B.F.)	0.26	329	8.18	1.93	12.5		0.002
19.11.2021	L.S. CRUSHER (B.F.)	0.26	322	7.27	1.75	11.3		0.002
30.11.2021	L.S. CRUSHER (B.F.)	0.26	331	7.28	1.70	13.0		0.002
December'2021								
01.12.2021	L.S. CRUSHER (B.F.)	0.26	329	7.43	1.75	16.6	16.7	0.003
09.12.2021	L.S. CRUSHER (B.F.)	0.26	320	9.29	2.25	14.5		0.003
16.12.2021	L.S. CRUSHER (B.F.)	0.26	326	9.84	2.34	16.4		0.003
24.12.2021	L.S. CRUSHER (B.F.)	0.26	332	7.81	1.82	19.4		0.003
January'2022								
04.01.2022	L.S. CRUSHER (B.F.)	0.26	331	8.20	1.92	12.2	15.3	0.002
13.01.2022	L.S. CRUSHER (B.F.)	0.26	327	9.59	2.27	16.8		0.003
20.01.2022	L.S. CRUSHER (B.F.)	0.26	336	9.17	2.11	17.1		0.003
25.01.2022	L.S. CRUSHER (B.F.)	0.26	330	7.87	1.85	15.0		0.002
February'2022								
02.02.2022	L.S. CRUSHER (B.F.)	0.26	338	8.29	1.90	16.2	14.8	0.003
10.02.2022	L.S. CRUSHER (B.F.)	0.26	327	7.58	1.80	14.6		0.002
18.02.2022	L.S. CRUSHER (B.F.)	0.26	328	7.84	1.85	15.4		0.002
26.02.2022	L.S. CRUSHER (B.F.)	0.26	334	8.39	1.95	13.1		0.002
March'2022								
01.03.2022	L.S. CRUSHER (B.F.)	0.26	321	6.72	1.62	13.1	13.0	0.002
09.03.2022	L.S. CRUSHER (B.F.)	0.26	324	5.63	1.35	11.8		0.001
16.03.2022	L.S. CRUSHER (B.F.)	0.26	320	7.16	1.73	13.4		0.002
25.03.2022	L.S. CRUSHER (B.F.)	0.26	335	6.67	1.54	13.8		0.002
October'2021								
04.10.2021	KILN No.1 (Bag House)	4.90	441	13.18	43.64	12.2	11.8	0.046
13.10.2021	KILN No.1 (Bag House)	4.90	428	13.79	47.05	9.5		0.039
19.10.2021	KILN No.1 (Bag House)	4.90	411	14.08	50.02	13.4		0.058
25.10.2021	KILN No.1 (Bag House)	4.90	424	12.54	43.19	11.9		0.044
November '2021								
02.11.2021	KILN No.1 (Bag House)	4.90	425	14.15	48.62	10.5	10.50	0.044
STOPPED		Not in operation						
December'2021								
STOPPED	KILN No.1 (Bag House)	Not in operation						
January'2022								
STOPPED	KILN No.1 (Bag House)	Not in operation						
February'2022								
STOPPED	KILN No.1 (Bag House)	Not in operation						
March'2022								
STOPPED	KILN No.1 (Bag House)	Not in operation						

October'2021								
07.10.2021	KILN No. 2 (Bag house)	3.80	454	15.21	37.94	10.60	10.4	0.035
13.10.2021	KILN No. 2 (Bag house)	3.80	432	15.92	41.73	10.30		0.037
20.10.2021	KILN No. 2 (Bag house)	3.80	450	17.24	43.38	12.50		0.047
28.10.2021	KILN No. 2 (Bag house)	3.80	427	14.36	38.08	8.10		0.027
November '2021								
02.11.2021	KILN No. 2 (Bag house)	3.80	420	14.15	38.15	13.30	11.10	0.044
09.11.2021	KILN No. 2 (Bag house)	3.80	428	11.99	31.72	10.50		0.029
16.11.2021	KILN No. 2 (Bag house)	3.80	421	13.14	35.34	12.10		0.037
22.11.2021	KILN No. 2 (Bag house)	3.80	425	13.88	36.98	8.50		0.027
December'2021								
STOPPED	KILN No. 2 (Bag house)	Not in operation						
January'2022								
STOPPED	KILN No. 2 (Bag house)	Not in operation						
February'2022								
STOPPED	KILN No. 2 (Bag house)	Not in operation						
March'2022								
STOPPED	KILN No. 2 (Bag house)	Not in operation						
October'2021								
05.10.2021	KILN No. 3 (Bag House)	15.89	426.00	14.45	160.62	13.00	12.2	0.180
12.10.2021	KILN No. 3 (Bag House)	15.89	433.00	14.97	163.71	11.50		0.163
20.10.2021	KILN No. 3 (Bag House)	15.89	378.00	14.70	184.15	13.00		0.207
27.10.2021	KILN No. 3 (Bag House)	15.89	393.00	13.77	165.91	11.30		0.162
November '2021								
03.11.2021	KILN No. 3 (Bag House)	15.89	394.00	14.25	171.26	11.00	11.7	0.163
10.11.2021	KILN No. 3 (Bag House)	15.89	378.00	14.63	183.27	10.00		0.158
19.11.2021	KILN No. 3 (Bag House)	15.89	417.00	17.03	193.38	13.30		0.222
27.11.2021	KILN No. 3 (Bag House)	15.89	381.00	15.24	189.41	12.50		0.205
December'2021								
02.12.2021	KILN No. 3 (Bag House)	15.89	368.00	15.26	196.36	12.20	10.70	0.207
07.12.2021	KILN No. 3 (Bag House)	15.89	385.00	14.61	179.69	11.30		0.175
13.12.2021	KILN No. 3 (Bag House)	15.89	391.00	15.24	184.56	12.70		0.203
22.12.2021	KILN No. 3 (Bag House)	15.89	398.00	14.70	174.89	6.60		0.100
January'2022								
03.01.2022	KILN No. 3 (Bag House)	15.89	403	14.08	165.44	10.00	9.2	0.143
10.01.2022	KILN No. 3 (Bag House)	15.89	401	14.54	171.70	8.50		0.126
17.01.2022	KILN No. 3 (Bag House)	15.89	408	15.36	178.27	9.20		0.142
24.01.2022	KILN No. 3 (Bag House)	15.89	396	15.33	183.31	9.20		0.146
February'2022								
03.02.2022	KILN No. 3 (Bag House)	15.89	405	12.89	150.71	9.80	10.2	0.128
11.02.2022	KILN No. 3 (Bag House)	15.89	398	13.77	163.83	10.10		0.143
17.02.2022	KILN No. 3 (Bag House)	15.89	402	14.40	169.62	11.20		0.164
24.02.2022	KILN No. 3 (Bag House)	15.89	404	12.33	144.52	9.50		0.119
March'2022								
02.03.2022	KILN No. 3 (Bag House)	15.89	411	14.08	162.22	8.30	7.500	0.116
08.03.2022	KILN No. 3 (Bag House)	15.89	424	13.83	154.45	5.80		0.077
14.03.2022	KILN No. 3 (Bag House)	15.89	415	14.74	168.19	6.90		0.100
22.03.2022	KILN No. 3 (Bag House)	15.89	413	14.37	164.76	8.90		0.127
October'2021								
06.10.2021	FOLAX COOLER (E.S.P)	12.56	421.00	15.56	192.85	28.60	27.0	0.477
11.10.2021	FOLAX COOLER (E.S.P)	12.56	426.00	16.57	204.68	25.10		0.444
23.10.2021	FOLAX COOLER (E.S.P)	12.56	422.00	16.10	197.57	28.80		0.492
29.10.2021	FOLAX COOLER (E.S.P)	12.56	429.00	17.12	212.18	25.50		0.467

November '2021								
03.11.2021	FOLAX COOLER (E.S.P)	12.56	438.00	16.09	200.08	18.90	18.6	0.327
09.11.2021	FOLAX COOLER (E.S.P)	12.56	431.00	15.72	194.19	15.20		0.255
19.11.2021	FOLAX COOLER (E.S.P)	12.56	420.00	16.21	200.90	22.10		0.384
27.11.2021	FOLAX COOLER (E.S.P)	12.56	428.00	15.63	193.71	18.10		0.303
December'2021								
02.12.2021	FOLAX COOLER (E.S.P)	12.56	421.00	13.14	165.59	19.60	21.4	0.280
07.12.2021	FOLAX COOLER (E.S.P)	12.56	435.00	13.86	174.08	22.30		0.335
13.12.2021	FOLAX COOLER (E.S.P)	12.56	433.00	10.63	133.07	19.20		0.221
22.12.2021	FOLAX COOLER (E.S.P)	12.56	429.00	11.43	143.56	24.30		0.301
January'2022								
03.01.2022	FOLAX COOLER (E.S.P)	12.56	425	15.38	197.14	27.40	24.2	0.467
10.01.2022	FOLAX COOLER (E.S.P)	12.56	437	16.11	206.50	25.80		0.460
17.01.2022	FOLAX COOLER (E.S.P)	12.56	427	15.17	193.13	21.40		0.357
24.01.2022	FOLAX COOLER (E.S.P)	12.56	429	14.47	186.12	22.10		0.355
February'2022								
03.02.2022	FOLAX COOLER (E.S.P)	12.56	405	9.58	121.96	25.10	23.5	0.264
11.02.2022	FOLAX COOLER (E.S.P)	12.56	428	10.58	135.15	21.90		0.256
17.02.2022	FOLAX COOLER (E.S.P)	12.56	440	14.48	183.72	28.40		0.451
24.02.2022	FOLAX COOLER (E.S.P)	12.56	428	13.25	167.54	18.40		0.266
March'2022								
02.03.2022	FOLAX COOLER (E.S.P)	12.56	406	17.09	211.11	19.10	17.5	0.264
07.03.2022	FOLAX COOLER (E.S.P)	12.56	398	14.01	172.49	20.30		0.256
19.03.2022	FOLAX COOLER (E.S.P)	12.56	413	14.59	180.23	15.20		0.451
26.03.2022	FOLAX COOLER (E.S.P)	12.56	406	11.85	146.38	15.30		0.266
October'2021								
04.10.2021	COAL MILL - 1 (B.F.)	0.38	333	12.77	4.79	10.5	9.5	0.004
12.10.2021	COAL MILL - 1 (B.F.)	0.38	331	13.18	4.96	9.4		0.004
18.10.2021	COAL MILL - 1 (B.F.)	0.38	336	14.14	5.25	9.8		0.004
30.10.2021	COAL MILL - 1 (B.F.)	0.38	343	12.70	4.73	8.3		0.003
November '2021								
02.11.2021	COAL MILL - 1 (B.F.)	0.38	344	12.50	4.70	10.3	10.30	0.004
STOPPED	COAL MILL - 1 (B.F.)	Not in operation						
December'2021								
STOPPED	COAL MILL - 1 (B.F.)	Not in operation						
January'2022								
STOPPED	COAL MILL - 1 (B.F.)	Not in operation						
February'2022								
STOPPED	COAL MILL - 1 (B.F.)	Not in operation						
March'2022								
STOPPED	COAL MILL - 1 (B.F.)	Not in operation						
October'2021								
07.10.2021	COAL MILL - 2 (B.F.)	0.38	345	12.47	4.69	11.2	10.8	0.005
13.10.2021	COAL MILL - 2 (B.F.)	0.38	338	12.91	4.84	8.7		0.004
22.10.2021	COAL MILL - 2 (B.F.)	0.38	347	13.39	5.04	13.1		0.006
25.10.2021	COAL MILL - 2 (B.F.)	0.38	342	13.79	10.89	10.0		0.009
November '2021								
02.11.2021	COAL MILL - 2 (B.F.)	0.38	339	12.18	4.60	12.1	11.1	0.005
09.11.2021	COAL MILL - 2 (B.F.)	0.38	348	13.04	4.91	10.2		0.004
16.11.2021	COAL MILL - 2 (B.F.)	0.38	346	13.82	10.98	9.9		0.009
22.11.2021	COAL MILL - 2 (B.F.)	0.38	337	13.31	5.02	12.0		0.005
December'2021								
STOPPED	COAL MILL - 2 (B.F.)	Not in operation						

January'2022								
STOPPED	COAL MILL - 2 (B.F.)	Not in operation						
February'2022								
STOPPED	COAL MILL - 2 (B.F.)	Not in operation						
March'2022								
STOPPED	COAL MILL - 2 (B.F.)	Not in operation						
October'2021								
05.10.2021	COAL MILL - 3 (B.F.)	3.52	334	11.32	39.45	11.8	11.5	0.040
12.10.2021	COAL MILL - 3 (B.F.)	3.52	332	12.23	42.48	11.0		0.040
20.10.2021	COAL MILL - 3 (B.F.)	3.52	333	12.61	43.94	12.8		0.049
27.10.2021	COAL MILL - 3 (B.F.)	3.52	327	12.90	44.81	10.4		0.040
November '2021								
06.11.2021	COAL MILL - 3 (B.F.)	3.52	321	11.87	41.50	15.0	12.5	0.054
10.11.2021	COAL MILL - 3 (B.F.)	3.52	325	12.53	43.67	11.2		0.042
19.11.2021	COAL MILL - 3 (B.F.)	3.52	342	13.60	47.55	12.9		0.053
29.11.2021	COAL MILL - 3 (B.F.)	3.52	339	14.21	49.85	11.0		0.047
December'2021								
03.12.2021	COAL MILL - 3 (B.F.)	3.52	321	12.37	43.69	12.5	11.8	0.047
10.12.2021	COAL MILL - 3 (B.F.)	3.52	332	12.16	42.80	10.5		0.039
17.12.2021	COAL MILL - 3 (B.F.)	3.52	342	13.28	46.90	10.8		0.044
25.12.2021	COAL MILL - 3 (B.F.)	3.52	344	12.10	42.59	13.3		0.049
January'2022								
03.01.2022	COAL MILL - 3 (B.F.)	3.52	333	8.55	30.82	12.9	15.2	0.034
10.01.2022	COAL MILL - 3 (B.F.)	3.52	338	9.44	34.15	17.5		0.052
18.01.2022	COAL MILL - 3 (B.F.)	3.52	340	7.98	28.57	15.5		0.038
24.01.2022	COAL MILL - 3 (B.F.)	3.52	346	7.97	28.63	15.0		0.037
February'2022								
05.02.2022	COAL MILL - 3 (B.F.)	3.52	347	12.10	43.32	14.2	14.6	0.053
12.02.2022	COAL MILL - 3 (B.F.)	3.52	341	12.80	45.67	16.6		0.066
18.02.2022	COAL MILL - 3 (B.F.)	3.52	345	11.95	42.49	15.1		0.055
24.02.2022	COAL MILL - 3 (B.F.)	3.52	342	12.40	44.09	12.3		0.047
March'2022								
02.03.2022	COAL MILL - 3 (B.F.)	3.52	344	7.56	26.17	13.4	13.5	0.030
08.03.2022	COAL MILL - 3 (B.F.)	3.52	341	7.11	24.53	11.2		0.024
14.03.2022	COAL MILL - 3 (B.F.)	3.52	351	9.32	32.16	13.8		0.038
22.03.2022	COAL MILL - 3 (B.F.)	3.52	361	10.75	37.09	15.5		0.050
October'2021								
STOPPED	COAL MILL - 4 (BAG FILTER)	Not in operation						
November '2021								
STOPPED	COAL MILL - 4 (BAG FILTER)	Not in operation						
December'2021								
STOPPED	COAL MILL - 4 (BAG FILTER)	Not in operation						
January'2022								
STOPPED	COAL MILL - 4 (BAG FILTER)	Not in operation						
February'2022								
STOPPED	COAL MILL - 4 (BAG FILTER)	Not in operation						
March'2022								

STOPPED	COAL MILL - 4 (BAG FILTER)	Not in operation						
October'2021								
07.10.2021	CEMENT MILL - 1 (BAG FILTER)	0.28	357	13.09	3.62	14.7	16.8	0.005
11.10.2021	CEMENT MILL - 1 (BAG FILTER)	0.28	350	13.60	3.77	13.4		0.004
19.10.2021	CEMENT MILL - 1 (BAG FILTER)	0.28	356	15.12	4.21	22.3		0.008
STOPPED	CEMENT MILL - 1 (BAG FILTER)	Not in operation						
November '2021								
STOPPED	CEMENT MILL - 1 (BAG FILTER) CEMENT MILL - 1 (BAG FILTER) CEMENT MILL - 1 (BAG FILTER)	Not in operation						
29.11.2021	CEMENT MILL - 1 (BAG FILTER)	0.28	350	13.93	3.86	15.6	15.6	0.005
December'2021								
STOPPED	CEMENT MILL - 1 (BAG FILTER)	Not in operation						
January'2022								
06.01.2022	CEMENT MILL - 1 (BAG FILTER)	0.28	348	13.19	3.77	19.2	17.20	0.006
13.01.2022	CEMENT MILL - 1 (BAG FILTER)	0.28	345	13.49	3.87	15.2		0.005
STOPPED	CEMENT MILL - 1 (BAG FILTER)	Not in Operation						
STOPPED	CEMENT MILL - 1 (BAG FILTER)							
February'2022								
STOPPED	CEMENT MILL - 1 (BAG FILTER)	Not in operation						
STOPPED	CEMENT MILL - 1 (BAG FILTER)							
22.02.2022	CEMENT MILL - 1 (BAG FILTER)	0.28	360.00	14.13	8.71	18.70	17.4	0.014
28.02.2022	CEMENT MILL - 1 (BAG FILTER)	0.28	358.00	13.22	8.15	16.00		0.011
March'2022								
01.03.2022	CEMENT MILL - 1 (BAG FILTER)	0.28	342	13.43	3.70	18.0	14.50	0.006
11.03.2022	CEMENT MILL - 1 (BAG FILTER)	0.28	355	13.88	3.81	13.4		0.004
16.03.2022	CEMENT MILL - 1 (BAG FILTER)	0.28	347	12.32	3.38	14.6		0.004
25.03.2022	CEMENT MILL - 1 (BAG FILTER)	0.28	344	11.88	3.27	12.0		0.003
October'2021								
01.10.2021	CEMENT MILL - 2 (BAG FILTER)	0.61	342.00	11.92	7.20	15.8	15.2	0.010
06.10.2021	CEMENT MILL - 2 (BAG FILTER)	0.61	347.00	12.66	7.62	12.1		0.008
11.10.2021	CEMENT MILL - 2 (BAG FILTER)	0.61	346.00	13.12	7.92	18.1		0.012
19.10.2021	CEMENT MILL - 2 (BAG FILTER)	0.61	353.00	13.66	8.28	14.6		0.010
November '2021								
STOPPED	CEMENT MILL - 2 (BAG FILTER)	Not in operation					17.4	
10.11.2021	CEMENT MILL - 2 (BAG FILTER)	0.61	341.00	12.21	7.37	18.8		
STOPPED	CEMENT MILL - 2 (BAG FILTER)	Not in operation						0.011
30.11.2021	CEMENT MILL - 2 (BAG FILTER)	0.61	374.00	13.58	8.23	15.9		
December'2021								
STOPPED	CEMENT MILL - 2 (BAG FILTER)	Not in operation						
23.12.2021	CEMENT MILL - 2 (BAG FILTER)	0.61	367.00	14.88	9.08	18.5	16.4	0.015
31.12.2021	CEMENT MILL - 2 (BAG FILTER)	0.61	356.00	13.57	8.31	14.2		0.010
January'2022								
05.01.2022	CEMENT MILL - 2 (BAG FILTER)	0.61	348	13.05	8.12	16.2	16.5	0.011
12.01.2022	CEMENT MILL - 2 (BAG FILTER)	0.61	341	11.70	7.33	17.2		0.011
17.01.2022	CEMENT MILL - 2 (BAG FILTER)	0.61	345	12.52	7.82	16.1		0.011
STOPPED	CEMENT MILL - 2 (BAG FILTER)	Not in operation						
February'2022								
STOPPED	CEMENT MILL - 2 (BAG FILTER)	Not in operation						
22.02.2022	CEMENT MILL - 2 (BAG FILTER)	0.61	360	14.13	8.71	18.70	17.4	0.014
28.02.2022	CEMENT MILL - 2 (BAG FILTER)	0.61	358	13.22	8.15	16.0		0.011
March'2022								
07.03.2022	CEMENT MILL - 2 (BAG FILTER)	0.61	350	14.42	8.65	10.6	13.5	0.008
17.03.2022	CEMENT MILL - 2 (BAG FILTER)	0.61	362	13.34	7.98	13.0		0.009
23.03.2022	CEMENT MILL - 2 (BAG FILTER)	0.61	357	15.03	8.99	16.4		0.013
30.03.2022	CEMENT MILL - 2 (BAG FILTER)	0.61	363	14.34	8.57	13.8		0.010
October'2021								
05.10.2021	CEMENT MILL - 3 (BAG FILTER)	0.50	353	12.05	5.97	15.7	16.4	0.008
13.10.2021	CEMENT MILL - 3 (BAG FILTER)	0.50	347	12.66	6.30	14.1		0.008
20.10.2021	CEMENT MILL - 3 (BAG FILTER)	0.50	341	14.01	6.99	19.1		0.012
25.10.2021	CEMENT MILL - 3 (BAG FILTER)	0.50	344	13.44	6.68	16.5		0.010

November '2021								
05.11.2021	CEMENT MILL - 3 (BAG FILTER)	0.50	347.00	13.38	6.63	14.3	14.8	0.008
12.11.2021	CEMENT MILL - 3 (BAG FILTER)	0.50	338.00	14.17	7.05	13.3		0.008
17.11.2021	CEMENT MILL - 3 (BAG FILTER)	0.50	361.00	15.39	7.68	20.5		0.014
25.11.2021	CEMENT MILL - 3 (BAG FILTER)	0.50	347.00	14.16	7.04	11.1		0.007
December'2021								
04.12.2021	CEMENT MILL - 3 (BAG FILTER)	0.50	355.00	12.24	6.19	14.4	13.9	0.008
09.12.2021	CEMENT MILL - 3 (BAG FILTER)	0.50	350.00	12.59	6.35	12.2		0.007
17.12.2021	CEMENT MILL - 3 (BAG FILTER)	0.50	344.00	12.96	6.51	15.4		0.009
24.12.2021	CEMENT MILL - 3 (BAG FILTER)	0.50	367.00	13.76	6.89	13.4		0.008
January'2022								
05.01.2022	CEMENT MILL - 3 (BAG FILTER)	0.50	358	13.22	6.80	14.5	18.5	0.009
12.01.2022	CEMENT MILL - 3 (BAG FILTER)	0.50	361	15.11	7.75	18.2		0.012
19.01.2022	CEMENT MILL - 3 (BAG FILTER)	0.50	345	14.41	7.39	23.8		0.015
27.01.2022	CEMENT MILL - 3 (BAG FILTER)	0.50	358	14.29	7.30	17.3		0.011
February'2022								
04.02.2022	CEMENT MILL - 3 (BAG FILTER)	0.50	342	12.82	6.55	21.2	19.4	0.012
11.02.2022	CEMENT MILL - 3 (BAG FILTER)	0.50	344	12.91	6.60	19.5		0.011
18.02.2022	CEMENT MILL - 3 (BAG FILTER)	0.50	355	13.53	6.89	20.7		0.012
25.02.2022	CEMENT MILL - 3 (BAG FILTER)	0.50	360	14.28	7.27	16.2		0.010
March'2022								
11.03.2022	CEMENT MILL - 3 (BAG FILTER)	0.50	365	13.24	6.54	14.5	12.2	0.008
15.03.2022	CEMENT MILL - 3 (BAG FILTER)	0.50	357	14.27	7.03	12.5		0.008
23.03.2022	CEMENT MILL - 3 (BAG FILTER)	0.50	349	12.36	6.09	11.4		0.006
29.03.2022	CEMENT MILL - 3 (BAG FILTER)	0.50	361	14.69	7.21	10.2		0.006
October'2021								
04.10.2021	CEMENT MILL - 4 (BAG FILTER)	0.63	339.00	12.93	8.06	18.2	17.8	0.013
13.10.2021	CEMENT MILL - 4 (BAG FILTER)	0.63	357.00	14.58	9.12	14.4		0.011
19.10.2021	CEMENT MILL - 4 (BAG FILTER)	0.63	353.00	13.71	8.55	24.3		0.018
26.10.2021	CEMENT MILL - 4 (BAG FILTER)	0.63	347.00	14.09	8.76	14.3		0.011
November '2021								
04.11.2021	CEMENT MILL - 4 (BAG FILTER)	0.63	345.00	13.13	8.19	18.2	16.7	0.013
11.11.2021	CEMENT MILL - 4 (BAG FILTER)	0.63	361.00	15.21	9.52	16.5		0.014
18.11.2021	CEMENT MILL - 4 (BAG FILTER)	0.63	352.00	15.47	9.65	17.4		0.015
27.11.2021	CEMENT MILL - 4 (BAG FILTER)	0.63	342.00	13.08	8.13	14.5		0.010
December'2021								
08.12.2021	CEMENT MILL - 4 (BAG FILTER)	0.63	356.00	14.73	9.28	14.2	14.2	0.011
15.12.2021	CEMENT MILL - 4 (BAG FILTER)	0.63	367.00	13.91	8.73	14.4		0.011
23.12.2021	CEMENT MILL - 4 (BAG FILTER)	0.63	351.00	13.20	8.34	14.2		0.010
29.12.2021	CEMENT MILL - 4 (BAG FILTER)	0.63	354.00	12.16	7.66	13.8		0.009
January'2022								
03.01.2022	CEMENT MILL - 4 (BAG FILTER)	0.63	359	12.53	8.08	25.8	19.3	0.018
10.01.2022	CEMENT MILL - 4 (BAG FILTER)	0.63	357	13.67	8.79	15.2		0.012
18.01.2022	CEMENT MILL - 4 (BAG FILTER)	0.63	352	14.65	9.48	19.0		0.016
29.01.2022	CEMENT MILL - 4 (BAG FILTER)	0.63	357	13.10	8.39	17.2		0.012
February'2022								
05.02.2022	CEMENT MILL - 4 (BAG FILTER)	0.63	361	13.28	8.51	15.8	12.2	0.008
12.02.2022	CEMENT MILL - 4 (BAG FILTER)	0.63	358	12.15	7.76	12.2		0.008
18.02.2022	CEMENT MILL - 4 (BAG FILTER)	0.63	352	10.81	6.88	10.1		0.006
25.02.2022	CEMENT MILL - 4 (BAG FILTER)	0.63	378	13.96	8.88	10.7		0.006
March'2022								
11.03.2022	CEMENT MILL - 4 (BAG FILTER)	0.63	348	14.12	8.72	12.3	11.5	0.009
15.03.2022	CEMENT MILL - 4 (BAG FILTER)	0.63	351	13.61	8.43	11.1		0.008
23.03.2022	CEMENT MILL - 4 (BAG FILTER)	0.63	342	12.45	7.69	15.0		0.010
29.03.2022	CEMENT MILL - 4 (BAG FILTER)	0.63	353	13.20	8.15	7.6		0.005

J.K. Cement WORKS, NIMBAHERA (RAJ) (1.3 MMTPA HRP)								
DATA SHEET FOR PARTICULATE MATTER EMISSION FROM POINT SOURCE								
HALF YEARLY REPORT FY-2021-22 (October' 2021 to March' 2022)								
DATE	NAME OF THE STACK / DUCT ATTACHED WITH UNIT	CROSS SECTIONAL AREA OF DUCT (M ²)	STACK GASES TEMP. (^o K)	STACK GASES VELOCITY (M / Sec.)	FLOW OF GASES IN STACK (NM ³ /Sec.)	DUST CONC. (Mg/NM ³)	MEAN DUST CONC. (Mg/NM ³)	EMISSION RATE (Ts/DAY)
Oct-21								
05.10.2021	HYRADULIC ROLLER PRESS- Bag House	7.07	368	6.8	38.8	18.4	16.2	0.062
11.10.2021		7.07	383	8.0	44.1	13.2		0.050
19.10.2021		7.07	370	9.6	54.7	16.3		0.077
26.10.2021		7.07	358	8.2	55.0	16.7		0.079
Nov-21								
04.11.2021	HYRADULIC ROLLER PRESS- Bag House	7.07	365	7.7	44.7	18.0	15.7	0.069
11.11.2021		7.07	369	9.5	54.4	14.8		0.070
18.11.2021		7.07	377	10.4	58.3	15.9		0.080
24.11.2021		7.07	370	8.4	47.9	13.9		0.058
Dec-21								
08.12.2021	HYRADULIC ROLLER PRESS- Bag House	7.07	388	8.4	45.3	16.0	14.3	0.063
15.12.2021		7.07	403	9.3	48.7	14.6		0.061
23.12.2021		7.07	394	10.1	54.0	15.1		0.070
29.12.2021		7.07	367	8.3	47.3	11.6		0.047
Jan-22								
03.01.2022	HYRADULIC ROLLER PRESS- Bag House	7.07	378	8.2	45.4	17.7	18.2	0.069
10.01.2022		7.07	368	7.1	40.6	16.9		0.059
18.01.2022		7.07	384	8.9	48.9	19.6		0.083
29.01.2022		7.07	370	8.2	46.4	18.7		0.075
Feb-22								
02.02.2022	HYRADULIC ROLLER PRESS- Bag House	7.07	375	5.5	30.8	24.2	19.5	0.064
10.02.2022		7.07	378	7.2	40.1	18.6		0.064
16.02.2022		7.07	388	8.2	44.6	18.9		0.073
25.02.2022		7.07	398	7.3	38.5	16.1		0.053
Mar-22								
02.03.2022	HYRADULIC ROLLER PRESS- Bag House	7.07	388	8.0	43.3	7.9	12.3	0.030
08.03.2022		7.07	398	9.0	47.7	12.6		0.052
14.03.2022		7.07	381	7.2	39.7	15.3		0.052
24.03.2022		7.07	383	9.1	50.0	13.4		0.058

J.K. Cement WORKS, Nimbahera (RAJ)							
22 MW THERMAL POWER PLANT							
Stack monitoring results (October '2021 - March '2022)							
S.No.	Location/Month	SPM (Mg/Nm3)					
		Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22
1	Stack attached with Boiler	36.5	Not in Operation	Not in Operation	Not in Operation	Not in Operation	Not in Operation
2	Stack attached with Coal Handling system	24.9	Not in Operation	Not in Operation	Not in Operation	Not in Operation	Not in Operation
3	Stack attached with Coal transfer point	20.4	Not in Operation	Not in Operation	Not in Operation	Not in Operation	Not in Operation



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Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522500001780	Date :	08-01-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Cement Plant
Type of Sample :	Stack Emission Level	Date of Sample Collection/Monitoring :	01-12-2021
Point of Collection :	Limestone Crusher	Date of Receipt :	22-12-2021
Date of Test/Analysis :	22-12-2021 to 08-01-2022	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Particulate matter [mg/Nm ³]	12.09	IS 11255 (Part 1):1985 Reaffirmed 2014	30

Notes :-

NOTE : Opacity Meter Reading during Monitoring Time(11:00AM-12:00Noon) was 12.35mg/m³

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Senior Analyst
Purnima Yogi

Authorized Signatory
(Report No: TC502522500001780)



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TEST REPORT

Report No./ULR No. :	TC502522500001781	Date :	08-01-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Cement Plant
Type of Sample :	Stack Emission Level	Date of Sample Collection/Monitoring :	03-12-2021
Point of Collection :	Kin 3 (ILC)	Date of Receipt :	24-12-2021
Date of Test/Analysis :	24-12-2021 to 08-01-2022	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Particulate matter [mg/Nm3]	13.01	IS 11255 (Part 1):1985 Reaffirmed 2014	30
2	Sulphur Dioxide [mg/Nm3]	39.47	IS 11255(Part 2) :1985 Reaffirmed 2014	-
3	Oxides of Nitrogen [mg/Nm3]	352	IS 11255 (Part 7) :1985 Redfirmed 2012	-

Notes :-

NOTE : Opacity Meter Reading during Monitoring Time(14:00AM-14:30AM) was 12.40mg/m3

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Senior Analyst

Puran Mal Yodh

Authorized Signatory

(Report No: TC502522500001781)



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TEST REPORT

Report No./ULR No. :	TC502522500001782	Date :	08-01-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Cement Plant
Type of Sample :	Stack Emission Level	Date of Sample Collection/Monitoring :	03-12-2021
Point of Collection :	Clinker Cooler Line _3	Date of Receipt :	24-12-2021
Date of Test/Analysis :	24-12-2021 to 08-01-2022	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Particulate matter [mg/Nm ³]	17.57	IS 11255 (Part 1):1985 Reaffirmed 2014	30

Notes :-

NOTE : Opacity Meter Reading during Monitoring Time(15:00AM-15:30AM) was 18.1mg/m³

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P. Singh
Senior Analyst
Puran Mal Yogi

Rajesh Maheshwari
Authorized Signatory
(Report No: TC502522500001782)



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TEST REPORT

Report No./ULR No. :	TC502522500001783	Date :	08-01-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Cement Plant
Type of Sample :	Stack Emission Level	Date of Sample Collection/Monitoring :	03-12-2021
Point of Collection :	Coal Mill-3 (vrm)	Date of Receipt :	24-12-2021
Date of Test/Analysis :	24-12-2021 to 08-01-2022	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Particulate matter [mg/Nm ³]	9.67	IS 11255 (Part 1):1985 Reaffirmed 2014	30

Notes :-

NOTE : Opacity Meter Reading during Monitoring Time(10:00AM-10:30AM) was 10.25mg/m³.03

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Senior Analyst
Purav Mal-Yogi

Authorized Signatory
Rajesh Maheshwar

(Report No: TC502522500001783)



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TEST REPORT

Report No./ULR No. :	TC502522500001784	Date :	08-01-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Cement Plant
Type of Sample :	Stack Emission Level	Date of Sample Collection/Monitoring :	01-12-2021
Point of Collection :	Cement Mill-2	Date of Receipt :	24-12-2021
Date of Test/Analysis :	24-12-2021 to 08-01-2022	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Particulate matter [mg/Nm ³]	13.71	IS 11255 (Part 1):1985 Reaffirmed 2014	30

Notes :-

NOTE : Opacity Meter Reading during Monitoring Time(10:45AM-11:15AM) was 12.68mg/m³.13

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Senior Analyst

Authorized Signatory

(Report No: TC502522500001784)



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TEST REPORT

Report No./ULR No. :	TC502522500001785	Date :	08-01-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Cement Plant
Type of Sample :	Stack Emission Level	Date of Sample Collection/Monitoring :	02-12-2021
Point of Collection :	Cement Mill-3	Date of Receipt :	24-12-2021
Date of Test/Analysis :	24-12-2021 to 08-01-2022	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Particulate matter [mg/Nm ³]	24.28	IS 11255 (Part 1):1985 Reaffirmed 2014	30

Notes :-

NOTE : Opacity Meter Reading during Monitoring Time(10:30AM-11:00AM) was 23.6mg/m³4.13

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Rajesh Mal Yogi
Senior Analyst

Rajesh Maheshwari
Authorized Signatory
(Report No: TC502522500001785)



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TEST REPORT

Report No./ULR No. :	TC502522500001786	Date :	08-01-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Cement Plant
Type of Sample :	Stack Emission Level	Date of Sample Collection/Monitoring :	02-12-2021
Point of Collection :	Cement Mill-4	Date of Receipt :	24-12-2021
Date of Test/Analysis :	24-12-2021 to 08-01-2022	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Particulate matter [mg/Nm ³]	7.03	IS 11255 (Part 1):1985 Reaffirmed 2014	30

Notes :-

NOTE : Opacity Meter Reading during Monitoring Time(12:00AM-13:00AM) was 6.2mg/m³

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P. Singh
Senior Analyst

Rajesh Maheshwari
Authorized Signatory
(Report No: TC502522500001786)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522500001787	Date :	08-01-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Cement Plant
Type of Sample :	Stack Emission Level	Date of Sample Collection/Monitoring :	02-12-2021
Point of Collection :	Hydraulic roller Press	Date of Receipt :	24-12-2021
Date of Test/Analysis :	24-12-2021 to 08-01-2022	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Particulate matter [mg/Nm ³]	16.8	IS 11255 (Part 1):1985 Reaffirmed 2014	30

Notes :-

NOTE : Opacity Meter Reading during Monitoring Time(11:00AM-11:30AM) was 16.12mg/m³

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Senior Analyst
Mal Yogi

Authorized Signatory
Rajesh Maheshwari

(Report No: TC502522500001787)



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TEST REPORT

Report No./ULR No. :	TC502522500000166	Date :	25-02-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Stack Emission Level	Date of Sample Collection/Monitoring :	03-02-2022
Point of Collection :	Kin 3 (ILC)	Date of Receipt :	22-02-2022
Date of Test/Analysis :	22-02-2022 to 24-02-2022	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Krashtra Murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Particulate matter [mg/Nm ³]	17.43	IS 11255 (Part 1):1985 Reaffirmed 2014	30
2	Sulphur Dioxide [mg/Nm ³]	26	IS 11255(Part 2) :1985 Reaffirmed 2014	-
3	Oxides of Nitrogen [mg/Nm ³]	764	IS 11255 (Part 7) :1985 Redffirmed 2012	-

Notes :-

NOTE :- Opacity Meter Reading during Monitoring Time(09:30AM-10:00AM) was PM-19.8 mg/m³

- # The results listed refer only to the tested sample (s) & parameters (s). Endorsement of products is neither inferred nor implied.
- # This report is not to be reproduced wholly or in part and can not be used evidence in the court of law and should not be used in any advertising media without our special permission in writing.
- # The samples will be destroyed after 15 days from the date of issue of test report unless otherwise specified.

Purni Mal Yogi

Senior Analyst

Rajesh Maheshwar
Authorized Signatory

(Report No: TC502522500000166)



TEAM TEST HOUSE
(Unit of Team Institute of Science & Technology Pvt. Ltd.)



Approved by Ministry of Environment and Forest, Government of India as Environmental Laboratory

RSPCB

ISO 9001:2015,

ISO 14001:2015,

ISO 45001:2018 (OH&S)

JDA/UDH

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Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522500000167	Date :	25-02-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Stack Emission Level	Date of Sample Collection/Monitoring :	03-02-2022
Point of Collection :	Clinker Cooler Line _3	Date of Receipt :	22-02-2022
Date of Test/Analysis :	22-02-2022 to 25-02-2022	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Krashna Murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Particulate matter [mg/Nm ³]	19.56	IS 11255 (Part 1):1985 Reaffirmed 2014	30

Notes :-

NOTE :- Opacity Meter Reading during Monitoring Time(11:30AM-12:00 Noon) was 17.91 mg/m³

- # The results listed refer only to the tested sample (s) & parameters (s). Endorsement of products is neither inferred nor implied.
- # This report is not to be reproduced wholly or in part and can not be used evidence in the court of law and should not be used in any advertising media without our special permission in writing.
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Ratan Mal Yogi
Senior Analyst

Rakesh Maheshwar
Authorized Signatory
(Report No: TC502522500000167)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522500000168	Date :	25-02-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Stack Emission Level	Date of Sample Collection/Monitoring :	03-02-2022
Point of Collection :	Coal Mill-3 (vrm)	Date of Receipt :	22-02-2022
Date of Test/Analysis :	22-02-2022 to 24-02-2022	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Krashtra Murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Particulate matter [mg/Nm ³]	5.28	IS 11255 (Part 1):1985 Reaffirmed 2014	30

Notes :-

NOTE :- Opacity Meter Reading during Monitoring Time(14:30PM-15:00PM) was 4.74 mg/m³

- # The results listed refer only to the tested sample (s) & parameters (s). Endorsement of products is neither inferred nor implied.
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Puran Mal Yogi
Senior Analyst

Rajesh Maheshwari
Authorized Signatory
(Report No: TC502522500000168)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522500000169	Date :	25-02-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Stack Emission Level	Date of Sample Collection/Monitoring :	03-02-2022
Point of Collection :	Cement Mill-3	Date of Receipt :	22-02-2022
Date of Test/Analysis :	22-02-2022 to 24-02-2022	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Krashtra Murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Particulate matter [mg/Nm ³]	10.91	IS 11255 (Part 1):1985 Reaffirmed 2014	30

Notes :-

NOTE :- Opacity Meter Reading during Monitoring Time(15:30PM-16:00PM) was 11.61 mg/m³

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Puran Mal Yogi
Senior Analyst


Rajesh Maheshwar
Authorized Signatory
(Report No: TC502522500000169)



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Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522500000170	Date :	25-02-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Stack Emission Level	Date of Sample Collection/Monitoring :	02-02-2022
Point of Collection :	Cement Mill-4	Date of Receipt :	22-02-2022
Date of Test/Analysis :	22-02-2022 to 24-02-2022	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Krashtra Murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Particulate matter [mg/Nm ³]	13.1	IS 11255 (Part 1):1985 Reaffirmed 2014	30

Notes :-

NOTE :- Opacity Meter Reading during Monitoring Time(11:30AM-12:00Noon) was 10.23 mg/m³

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Puran Mal Yogi
Senior Analyst

Rajesh Maheshwari
Authorized Signatory
(Report No: TC502522500000170)



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Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522500000171	Date :	25-02-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Stack Emission Level	Date of Sample Collection/Monitoring :	02-02-2022
Point of Collection :	Hydraulic roller Press	Date of Receipt :	22-02-2022
Date of Test/Analysis :	22-02-2022 to 24-02-2022	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Krashtra Murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Particulate matter [mg/Nm3]	17.8	IS 11255 (Part 1):1985 Reaffirmed 2014	30

Notes :-

NOTE :- Opacity Meter Reading during Monitoring Time(12:00 Noon-12:30PM) was 17.83 mg/m3

- # The results listed refer only to the tested sample (s) & parameters (s). Endorsement of products is neither inferred nor implied.
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- # The samples will be destroyed after 15 days from the date of issue of test report unless otherwise specified.

Purshottam Yogi

Senior Analyst

Rajesh Maheshwari
Authorized Signatory

(Report No: TC502522500000171)



TEAM TEST HOUSE

(Unit of Team Institute of Science & Technology Pvt. Ltd.)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522500000165	Date :	25-02-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Stack Emission Level	Date of Sample Collection/Monitoring :	02-02-2022
Point of Collection :	Limestone Crusher	Date of Receipt :	22-02-2022
Date of Test/Analysis :	22-02-2022 to 24-02-2022	Sampling Plan :	IS 11255:2008(Part 3)RA 2018
Quantity of Sample :	-	Sample Collected By :	Krashtra Murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Particulate matter [mg/Nm ³]	10.37	IS 11255 (Part 1):1985 Reaffirmed 2014	30

Notes :-

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Senior Analyst

Rajesh Maheshwari
Authorized Signatory
(Report No: TC502522500000165)

Vimta Labs Limited

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**ISSUED TO:**

M/S. J.K. CEMENT LIMITED
Unit: - J.K. CEMENT WORKS
KAILASH NAGAR, NIMBAHERA,
DIST: CHITTORGARH,
RAJASTHAN-312617,
INDIA.

Report Number : VLL/VLS/21/13454/001
Issued Date : 2022-01-18
P.O. Ref : 4600075521
P.O. Date : 01.09.2021

Page 1 of 3

SAMPLE PARTICULARS : Stack Connected to Bag House Kiln-III

Sample Registration Date	: 2022-01-03	Sample Collection Date	: 2021-12-30
Analysis Starting Date	: 2022-01-03	Analysis Completion Date	: 2021-01-18
Test Required	: O ₂ , PM, SO ₂ , NO _x , HCl, HF, CO, CO ₂ and TOC.		
Sample Collected by Vimta Labs Ltd.			

TEST REPORT

Sr. No.	Parameters	UoM	Method of Testing	Results	Limits as per MoE, F & CC Notification GSR 497(E)
1	Diameter of stack	m	-	4.5	--
2	Flue gas temperature	°C	-	103	--
3	Fuel	-	Co-processing of AFR Liquid and Solid waste	--	--
4	Velocity	m/sec	USEPA Method -3	12.3	--
5	Volumetric flow rate	Nm ³ /Sec		148.9	--
6	Oxygen as O ₂	%	Combustion Analyzer	8.5	--
7	Carbon Monoxide as CO	mg/Nm ³		91.3	<100.0
8	Carbon Dioxide as CO ₂	%		14.2	--
9	Sulphur Dioxide	mg/Nm ³		59.2	<100.0
10	Oxides of Nitrogen, NO _x as NO ₂	mg/Nm ³		601	<1000.0
11	Particulate Matter	mg/Nm ³	USEPA method-5	20.4	<30.0
12	Hydrogen Chloride as HCl	mg/Nm ³	USEPA method -26	2.8	<10.0
13	Hydrogen Fluoride as HF	mg/Nm ³	USEPA method -13	0.61	<1.0
14	Total Organic Compounds as TOC	mg/nm ³	USEPA method -40 & MM5(10)	2.8	<10.0

All the Values are represented at 10% O₂

Dr. SubbaReddy Mallampati
Group Leader-Environment.

ISSUED TO:

M/S. J.K. CEMENT LIMITED
Unit: - J.K. CEMENT WORKS
KAILASH NAGAR, NIMBAHERA,
DIST: CHITTORGARH,
RAJASTHAN-312617,
INDIA.

Report Number : VLL/VLS/21/13454/001
Issued Date : 2022-01-18
P.O. Ref : 4600075521
P.O. Date : 01.09.2021

Page 2 of 3

SAMPLE PARTICULARS : Stack Connected to Bag House Kiln-III

Sample Registration Date : 2022-01-03 Sample Collection Date : 2021-09-23
Analysis Starting Date : 2022-01-03 Analysis Completion Date : 2021-01-18
Test Required : O₂, PM, SO₂, NO_x, HCl, HF, CO, CO₂ and TOC.
Sample Collected by Vimta Labs Ltd.

TEST REPORT

Sr. No	Parameters	UoM	Method of Testing	Results	Limits as per MoE, F&CC Notification GSR 497(E)
1	Mercury as Hg + their Compound	mg/Nm ³	USEPA method - 29	<0.001	< 0.05
2	Cadmium + Thallium (Cd + Tl) + their Compound			<0.001	< 0.05
3	Chromium as Cr + their Compound			0.011	--
	Manganese as Mn + their Compound			0.019	
	Arsenic as As + their Compound			0.014	
	Antimony as Sb + their Compound			0.010	
	Lead as Pb + their Compound			0.012	
	Cobalt as Co + their Compound			0.021	
	Copper as Cu + their Compound			0.020	
	Nickel as Ni + their Compound			0.025	
	Vanadium as V + their Compound			0.014	
	Sb+ As+ Pb+ Co+ Cr+ Cu+ Mn+ Ni+ V+ Their compounds			0.146	< 0.5

Instruments used: GC-FID, ICP-MS, Cold Vapor AAS and GC-MS
All the values are represented at 10% O₂

Dr. SubbaReddy Mallampati
Group Leader-Environment.

ISSUED TO:

M/S. J.K. CEMENT LIMITED
Unit: - J.K. CEMENT WORKS
KAILASH NAGAR, NIMBAHERA,
DIST: CHITTORGARH,
RAJASTHAN-312617,
INDIA.

Report Number : VLL/VLS/21/13454/001
Issued Date : 2022-01-18
P.O. Ref : 4600075521
P.O. Date : 01.09.2021

Page 3 of 3

SAMPLE PARTICULARS : Stack Connected to Bag House Kiln-III


Sample Registration Date	: 2022-01-03	Sample Collection Date	: 2021-09-23
Analysis Starting Date	: 2022-01-03	Analysis Completion Date	: 2021-01-18
Test Required	: PCDD & PCDF		
Sample Collected by Vimta Labs Ltd.			

TEST REPORT

Sr.No.	Congeners of Dioxin & Furans	UoM	Results
1	1234678-HpCDD	ng/Nm ³ , TEQ	0.0013
2	1234678-HpCDF		0.0001
3	1234789-HpCDF		0.0000
4	123478-HxCDD		0.0007
5	123478-HxCDF		0.0000
6	123678-HxCDD		0.0018
7	123678-HxCDF		0.0030
8	123789-HxCDD		0.0018
9	123789-HxCDF		0.0001
10	12378-PeCDD		0.0118
11	12378-PeCDF		0.0002
12	234678-HxCDF		0.0003
13	23478-PeCDF		0.0194
14	2378-TCDD		0.0000
15	23478-TCDF		0.0003
16	OCDD		0.0001
17	OCDF		0.0000
Total Furans & Dioxins		ng/Nm³, TEQ	0.0408
Total Furans & Dioxins		ng/Nm³, TEQ Corrected to 10% O₂ Concentration	0.0318
Limits as per MoE, F & CC Notification GSR 497(E)			<0.1

Method of Testing: As per USEPA 23 A & 8290

Instruments used: Auto spec Premier (HRGC/HRMS). Detection Limit: 0.01ng


Dr. SubbaReddy Mallampati
Group Leader-Environment.

राजस्थान सरकार

कार्यालय उप वन संरक्षक, चित्तौड़गढ़ (राज.)

(वन विभाग परिसर, प्रताप सर्किल, चित्तौड़गढ़-312001; Ph&Fax :01472-294001 ;email : dcf.chitor.forest@rajasthan.gov.in)

क्रमांक :- एफ ()सर्वे/उवस/2021-22/4089

दिनांक :- 13.7.2021

निमित्त,

संभागीय मुख्य वन संरक्षक,
उदयपुर

विषय :- Request for approval of combined Wildlife Conservation Plan for Six Scheduled-I species Viz. Indian peafowl (*Pavo cristatus*) & Panther (*Panthera pardus fusca*), Rusty-spotted cat (*Prionailurus rubiginosus*), Indian wolf (*Canis lupus pallipes*) Indian Monitor Lizard (*Varanus bengalensis*) and Indian Vulture (*Gyps indicus/gyps bengaliensis*) proposed by J.K. Cement Works(J.K. Cement, Nimbahera, J.K. Mangrol Cement plant, Ahirpura Limestone Mine, Karunda Limestone Mine, Maliakhera Limestone Mine, Mangrol Kimestone mine and Mangrol- Tilakhera Limestone Mine) Tehsil- Nimbahera, Dist- Chittorgarh (Rajasthan).

प्रसंग :- प्रधान मुख्य वन संरक्षक एवं मुख्य वन्यजीव प्रतिपालक, अरण्य भवन, झालाना संस्थानिक क्षेत्र, राजस्थान, जयपुर का पत्र क्रमांक एफ.11(419) विकास-II/मुवजीप्र/2020-21/4-6 दिनांक 4.1.2021 एवं आपका पत्र क्रमांक 484 दिनांक 19.1.2021 एवं 1793 दिनांक 17.3.2021 व J.K. Cement Works, (J.K. Cement, Nimbahera) का पत्र क्रमांक - दिनांक 29.6.2021 के क्रम में।

महोदय,

उपरोक्त विषयान्तर्गत निवेदन है, कि प्रासंगिक पत्र द्वारा Wildlife Conservation Plan में लगाए गए आक्षेपों की पूर्ति की जाकर निम्नानुसार प्रेषित है :-

क्र.सं.	आक्षेप	प्रत्युत्तर
1	पर्यावरण एवं जलवायु परिवर्तन मंत्रालय केन्द्र सरकार/ राज्य सरकार द्वारा जारी ToR पत्र की प्रति संलग्न कर प्रस्तुत करें।	प्रयोक्ता एजेन्सी द्वारा ToR की प्रतियां संलग्न कर दी गई है।
2	एनेक्सचर-1 के बिन्दु संख्या 1 से 14 तक पूर्ण रूप से भरकर उप वन संरक्षक द्वारा प्रमाणित कराया जावे एवं इस के बिन्दु संख्या-9 में वित्तीय प्रावधान फोरमुला-1 व फोरमुला-2 के अनुसार गणना कर जो भी अधिकतम परियोजना लागत दर्शायी जावे।	एनेक्सचर-1 के बिन्दु संख्या 1 से 14 तक पूर्ण रूप से भरकर उप वन संरक्षक द्वारा प्रमाणित कर दिया गया है एवं इस के बिन्दु संख्या-9 में वित्तीय प्रावधान फोरमुला-1 व फोरमुला-2 के अनुसार गणना कर ली गई है तथा अधिकतम परियोजना लागत दर्शायी जा चुकी है।
3	इस कार्यालय द्वारा जारी दिशा निर्देशों दिनांक 24.5.2019 के अनुसार WCP के 20% धनराशि RPACS के खाता संख्या 61087162999 IFSC Code SBIN0031510 में जमा कर प्राप्ति रसीद इस कार्यालय को प्रस्तुत करें।	प्रयोक्ता एजेन्सी द्वारा बैंक संख्या 00245671 राशि 57,07,000/- RPACS के खाता संख्या 61087162999 में जमा करवा दी गई है।



4	आवेदित खनन पट्टा क्षेत्र से 10 कि.मी. परिधि के दायरे में वन्यजीव/टाईगर रिजर्व या सेन्चूरी नहीं होने का पत्र उप वन संरक्षक, चित्तौड़गढ़ के द्वारा जारी कर WCP में संलग्न करें।	आवेदित खनन पट्टा क्षेत्र से 10 कि.मी. परिधि के दायरे में वन्यजीव/टाईगर रिजर्व या सेन्चूरी नहीं होने का प्रमाण पत्र उप वन संरक्षक, वन्यजीव चित्तौड़गढ़ के पत्र क्रमांक 2909 दिनांक 22.4.2021 प्रेषित किया गया है प्रति संलग्न है।
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संलग्न :- उपरोक्तानुसार

भवदीय

(सुगना राम जाट)

उप वन संरक्षक,

चित्तौड़गढ़

दिनांक :- 13.7.2021

क्रमांक :- एफ () सर्वे/उवस/2021-22/4090-91

प्रतिलिपि :-

1. प्रधान मुख्य वन संरक्षक एवं मुख्य वन्यजीव प्रतिपालक, अरण्य भवन, झालाना संस्थानिक क्षेत्र, राजस्थान, जयपुर।

✓ 2. Unit Head, J.K. Cement Works, (J.K. Cement, Nimbahera)

(सुगना राम जाट)

उप वन संरक्षक,

चित्तौड़गढ़



o/c
JK Cement LTD.

CIN : L17229UP1994PLC017199

ISO 9001:2015 | ISO 14001:2015 | ISO 45001:2018 | ISO 50001:2018 CERTIFIED COMPANY

Phone : +91-1477-220098, 220087
Fax : +91-1477-220027, 220049
E-mail : jkc.nbh@jkcement.com
Web : www.jkcement.com

J.K. Cement Works
Kailash Nagar - 312617, Nimbahera
Distt. Chittorgarh (Raj.) INDIA

NBH/PC/C-FO/21/

Date: 29.06.2021

To,
The Divisional Forest Officer
Chittorgarh, Rajasthan

Sub.: Regarding submission of desired documents sought by DFO, Chittorgarh for approval of combined Wildlife Conservation Plan for six Schedule-I species Viz. Indian Peafowl (*Pavo cristatus*), Panther (*Panthera pardus fusca*), Rusty Spotted Cat (*Prionailurus rubiginosus*), Indian Wolf (*Canis lupus pallipes*), Indian Monitor lizard (*Varanus bengalensis*) and Indian vulture (*Gyps indicus/ bengalensis*) for M/s J.K.Cement Works-Nimbahera, J K Cement Works-Mangrol, Nimbahera-Ahирра Limestone Mine (ML No.02/1997), Karunda Limestone Mine (ML No.03/2003), Maliakhara Limestone Mine (ML No.04/2003), Mangrol-Tilakhara Limestone Mine (ML No.07/1997) and Mangrol Limestone Mine (ML No.26/2008) in Tehsil Nimbahera, District - Chittorgarh, Rajasthan.

Reference: 1.DFO letter no.F () Survey/DFO/2021-22/3252, Chittorgarh, Dated 10.06.2021.
2.PCCF Letter No. F.11(419) DEV-II/ PCCF-CWLW/2020-21/4, Jaipur, Dated 04.01.2021.

Respected Sir,

Kindly refer to the above subject matter and referred letter, we are enclosing herewith pointwise reply as under: -

Point No.1: Submission of TOR letters granted by the Ministry of Environment, Forest and Climate Change, Govt of India.

Compliance: Copy of TOR Letters of above projects granted by MOEF &CC has been submitted vide letter no. NBH/PC/C/EC/112020-21, dated 21/01/2021.

Point No.2: Submission of duly filled annexure-1 from point no 1 to 14 & calculation of financial outlay in point no.9 as per the formula-1 & 2 and duly authenticated by DFO.

Compliance: Duly filled Annexure-I (Sr. No. 1 to 14) has been submitted with financial outlay according to formula 1 and 2. Financial outlay of formula-2 is enclosed herewith for Rs. 285.35 lakh in Annexure-1 as mention in letter received from your office dated 10.06.2021.

Corporate & Registered Office : Kamla Tower, Kanpur-208001, (U. P.) INDIA
Phone : +91-512-2371478 to 81 **Fax :** 2399854 **E-mail :** ho.grey@jkcement.com

J. K. Cement Works, Nimbahera
J. K. Cement Works Mangrol
J. K. Cement Works, Gotan
J. K. Cement Works, Jharli

J. K. Power, Bamania
J. K. Cement Works, Muddapur
J. K. White Cement Works, Gotan
J. K. White, Katni





JK Cement LTD.

CIN : L17229UP1994PLC017199

ISO 9001:2015 | ISO 14001:2015 | ISO 45001:2018 | ISO 50001:2018 CERTIFIED COMPANY

Phone : +91-1477-220098, 220087
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Web : www.jkcement.com

J.K. Cement Works
Kailash Nagar - 312617, Nimbahera
Distt. Chittorgarh (Raj.) INDIA

Point No.3: Deposition of 20% amount of WCP as per the CWLW guidelines dated 24th May 2019 and submit the receipt.

Compliance: Receipt of amount 57.07 Lakh deposited into account of RPACS on dated 28.06.2021, Jaipur, (20% of 285.35 Lakh, approved cost of Wilf life conservation plan) enclosed as Annexure-2.

Point No.4: Submission of certificate from the DFO Chittorgarh for non-existence of Wildlife Sanctuary /Tiger Reserve or sanctuary within the 10 Km radius of the Projects.

Compliance: A copy of NOC for no Wildlife Sanctuary/ Tiger Reserve or Sanctuary present in the 10 Km radius of the above project issued by DFO Chittorgarh, enclosed as Annexure-3.

Thanking You,

Yours Faithfully,

J.K. Cement Works, Nimbahera

R.B.M. Tripathi
(President(O)& Unit Head)

R.B.M. TRIPATHI
UNIT HEAD
J. K. Cement Works
Nimbahera, Mangrol (Raj.)

Enclosed as above

Copy to: The Principal Chief Conservator of Forests,
Chief Wildlife Warden (CWLW), Jaipur, Rajasthan

5
व
25
1-07-2021
D



Corporate & Registered Office : Kamla Tower, Kanpur-208001, (U. P.) INDIA
Phone : +91-512-2371478 to 81 Fax : 2399854 E-mail : ho.grey@jkcement.com

J. K. Cement Works, Nimbahera
J. K. Cement Works Mangrol
J. K. Cement Works, Gotan
J. K. Cement Works, Jharli

J. K. Power, Bamania
J. K. Cement Works, Muddapur
J. K. White Cement Works, Gotan
J. K. White, Katni



राजस्थान सरकार

कार्यालय उप वन संरक्षक, चित्तौड़गढ़ (राज.)

(वन विभाग परिसर, प्रताप सर्किल, चित्तौड़गढ़-312001; Ph&Fax :01472-294001; email : dcf.chltor.forest@rajasthan.gov.in)

क्रमांक :- एफ () सर्वे/उवस/2021-22/ 3252

दिनांक :- 10.6.2021

निमित्त,

Unit Head,
J.K. Cement Works,
(J.K. Cement, Nimbahera)

विषय :- Request for approval of combined Wildlife Conservation Plan for Six Scheduled-I species Viz. Indian peafowl (*Pavo cristatus*) & Panther (*Panthera pardus fusca*), Rusty-spotted cat (*Prionailurus rubiginosus*), Indian wolf (*Canis lupus pallipes*) Indian Monitor Lizard (*Varanus bengalensis*) and Indian Vulture (*Gyps indicus/gyps bengaliensis*) proposed by J.K. Cement Works(J.K. Cement, Nimbahera, J.K. Mangrol Cement plant, Ahirpura Limestone Mine, Karunda Limestone Mine, Maliakhera Limestone Mine, Mangrol Kimestone mine and Mangrol- Tilakhera Limestone Mine) Tehsil- Nimbahera, Dist- Chittorgarh (Rajasthan).

प्रसंग :- प्रधान मुख्य वन संरक्षक एवं मुख्य वन्यजीव प्रतिपालक, अरण्य भवन, झालाना संस्थानिक क्षेत्र, राजस्थान, जयपुर का पत्र क्रमांक एफ.11(419) विकास-II/मुवजीप्र/2020-21/4-6 दिनांक 4.1.2021 एवं आपका पत्र क्रमांक 484 दिनांक 19.1.2021 एवं 1793 दिनांक 17.3.2021 के क्रम में।

महोदय,

उपरोक्त विषयान्तर्गत लेख है, कि प्रासंगिक पत्र द्वारा Wildlife Conservation Plan में लगाए गए आक्षेपों की पूर्ति हेतु आपको इस कार्यालय के पत्र क्रमांक 335 दिनांक 19.1.2021 से लिखा गया। आपके द्वारा दिनांक 21.1.2021 को प्रस्तुत प्रत्युत्तर का परिक्षण करने पर पाया गया कि आप द्वारा प्रेषित Wildlife Conservation Plan 285.35 लाख का प्रेषित किया गया है, किन्तु RPACS में राशि 13.07 लाख ही जमा करवाया जाना प्रस्तावित किया गया है।

अतः आप प्रधान मुख्य वन संरक्षक एवं मुख्य वन्यजीव प्रतिपालक, राजस्थान जयपुर के प्रासंगिक पत्र के आक्षेप संख्या 3 अनुसार Wildlife Conservation Plan की पूर्ण लागत 285.35 लाख रु. का 20% राशि RPACS में जमा करवाया जाना सुनिश्चित करें। आपकी सुविधा हेतु खाता संख्या विवरण के लिए प्रासंगिक पत्र की छाया प्रति संलग्न प्रेषित है।

संलग्न :- उपरोक्तानुसार

(सुगना राम जाट)
उप वन संरक्षक,
चित्तौड़गढ़

कार्यालय प्रधान मुख्य वन संरक्षक एवं मुख्य वन्य जीव प्रतिपालक, अरण्य
भवन, झालाना संस्थानिक क्षेत्र, राजस्थान, जयपुर

फोन नम्बर: 0141-2700151

ई-मेल: cwlw.raj@gmail.com

क्रमांक : एफ.11(419)विकास-II/मुवजीप्र/2020-21/4
निमित्त,

दिनांक : 14-01-2021

सम्भागीय मुख्य वन संरक्षक,
उदयपुर।

विषय :- Request for approval of combined wildlife conservation plan for six scheduled I species Viz. Indian peafowl (Pavo Cristatus) and Panther (Panthera pardus fusca), Rusty-spotted cat (prionailurus rubiginosus, Indian wolf (Cains lupus pallipes) Indian Monitor Lizard (Varanus bengalensis) and Indian Vulture (gyps indicus/gypts bengaliensis) proposed by J.K. Cement works Nimbahera, J.K. Cement Works Mangrol Ahirpura Limestone Mine, Mangrol Limestone Mine and Mangrol-Tilakhera Limestone Mine) Tehsil-Nimbahera, District-Chittorgarh (Raj.).

संदर्भ:- उप वन संरक्षक(एफ.सी.ए.) कार्यालय प्रधान मुख्य वन संरक्षक (हॉफ) के पत्रांक 2967 एवं आपका पत्रांक 5002 दिनांक 24.09.2020 के क्रम में।

महोदय,

विषयान्तर्गत संदर्भित पत्र के क्रम में लेख है कि इस कार्यालय के पत्रांक 6451-6483 दिनांक 24.05.2019 के अनुसार वाईल्डलाइफ कंजर्वेशन प्लान मूल ही लौटाकर निम्नांकित आक्षेप की पूर्ति कर भिजवायें :-

1. पर्यावरण एवं जलवायु परिवर्तन मंत्रालय केन्द्र सरकार/राज्य सरकार द्वारा जारी ToR पत्र की प्रति संलग्न कर प्रस्तुत करें।
2. एनेक्सर-1 के बिन्दु संख्या 1 से 14 तक पूर्ण रूप से भरकर उप वन संरक्षक द्वारा प्रमाणित कराया जावे एवं इस के बिन्दु संख्या-9 में वित्तीय प्रावधान फोरमूला-1 व फोरमूला-2 के अनुसार गणना कर जो भी अधिकतम परियोजना लागत दर्शायी जावे।
3. इस कार्यालय द्वारा जारी दिशा निर्देशों दिनांक 24.05.2019 के अनुसार WCP के 20% धनराशि RPACS के खाता संख्या 61087162999 IFS Code SBIN0031510 में जमा कर प्राप्ति रसीद इस कार्यालय को प्रस्तुत करें।
4. आवेदित खनन पट्टा क्षेत्र से 10 कि.मी. परिधि के दायरे में वन्यजीव अभयारण्य/टाईगर रिजर्व या सेन्चुरी नही होने का पत्र उप वन संरक्षक, चित्तौड़गढ़ के द्वारा जारी कर WCP में संलग्न करें।

उपरोक्तानुसार पालना के पश्चात् स्वीकृति जारी की जायेगी।

संलग्न :- उपरोक्तानुसार,
(मूल प्रस्ताव 2 प्रतियों में)

PCA
8/1/21

R

140
12/1/21

भवदीय,

(एम.एल. मीना)

प्रधान मुख्य वन संरक्षक एवं मुख्य
वन्यजीव प्रतिपालक,
राजस्थान, जयपुर

क्रमांक : एफ.11(419)विकास-II/मुवजीप्र/2020-21/

दिनांक :

प्रतिलिपि : निम्न को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित है :-

1. उप वन संरक्षक, चित्तौड़गढ़।
2. Unit Head M/s J.K. Cement works Nimbahera, District-Chittorgarh (Raj.).

1. प्रधान मुख्य वन संरक्षक
एवं मुख्य वन्यजीव प्रतिपालक,
राजस्थान, जयपुर

PROJECT:- J.K. CEMENT WORKS NIMBAHERA, J.K. CEMENT WORKS MANGROL, NIMBAHERA-AHIRPURA LIMESTONE MINE, KARUNDA LIMESTONE MINE, MALAKHERA LIMESTONE MINE, MANGROL LIMESTONE MINE AND MANGROL-TILAKHERA LIMESTONE MINE
 APPLICANT:- J. K. CEMENT WORKS
 DOCUMENT NO.- COMBINED WILDLIFE CONSERVATION PLAN

Financial outlay of WCP 285.35 Lakh for combined wildlife conservation plan for J.K. CEMENT WORKS NIMBAHERA, J.K. CEMENT WORKS MANGROL, NIMBAHERA-AHIRPURA LIMESTONE MINE, KARUNDA LIMESTONE MINE, MALAKHERA LIMESTONE MINE, MANGROL LIMESTONE MINE AND MANGROL-TILAKHERA LIMESTONE MINE, YEAR 2021

S.No	Activities	Year Wise Fund Allocation (in Lakhs)										Total
		1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	9 th	10 th	
1	Habitat improvement & mitigative measures (Food, Water, shelter, Movement etc) and measures to reduce/minimize the human-animal conflict (50% of total outlay of WCP = 142.67 lacs.)											
1a	Plantation including maintenance in forest area and buffer zone in consultation with DFO Chittorgarh suitable for peafowl and other birds	-	5	5	7	7	10	10	15	15	14.67	88.67
1b	Rejuvenation of existing water bodies in forest area	-	5	5	5	6	6	6	7	7	7	45
1.	Awareness and extension (Forest staff will also be invited for various activities to ensure Participation) 10 % of total outlay of WCP = 28.53 lacs)											
2a	Provision of Awareness and educational programme for wildlife, biodiversity significance at school level, village level and Gram Panchayat level in consultation of forest department.	-	2	2	2	3	3	3	4	4	5.54	28.53
3	Support for Forest Department for monitoring, rescue & rehabilitation of wildlife Veterinary care, animal health, rescue, tools and equipment etc. (10 % of total outlay of WCP = 28.53 lacs)											
3a	Provision for necessary Veterinary medicine and rescue etc	-	2	2	2	3	3	3	4	4	5.54	28.53
4	Contribution towards conservation of wildlife in Pas (to be deposited in RPACS) Wetland Development, Research & Monitoring – Wildlife, census of wildlife etc (10 % of total outlay of WCP = 28.53 lacs)											
4a	Provision for Research and monitoring etc.	28.53	-	-	-	-	-	-	-	-	-	28.53
5	Administration Cost for processing inspection etc (to be deposited in RPACS) (10 % of total outlay of WCP = 28.53 lacs)											
5a	Administration Cost for processing inspection etc	28.53	-	-	-	-	-	-	-	-	-	28.53
6	Miscellaneous including Eco-Development and capacity building (10 % of total outlay of WCP = 28.53 lacs)											
6a	Miscellaneous including Eco-Development and capacity building	-	2	2	2	3	3	3	4	4	5.54	28.53
	TOTAL FOR WCP FOR TOR PROJECTS	57.06	16	16	18	22	25	25	34	34	38.29	285.35



ENKAY ENVIRO SERVICES PVT. LTD., JAIPUR

उप वन संरक्षक
चित्तौड़गढ़

JK Cement LTD

R.B.M. TRIPATHI

UNIT HEAD

J. K. Cement Works
Nimbahera, Mangrol, Ahirpura

(Signature)

ANNEXURE-2**M/s JK Cement Works Nimbahera,**

Deposition of 20% amount of WCP as per the CWLW guidelines dated 24th May 2019,

Details are under

Post Date	Remitter Branch	Description	Cheque No.	Debit Amount(Rs.)
28/06/2021	NIMBAHERA	CHQ TRANSFER PRINCIPAL CHIEF IDIBR52021062823940774	00245671	5707000.00


R.B.M. TRIPATHI
UNIT HEAD
J. K. Cement Works
Nimbahera, Mangrol (Raj.)

कार्यालय उप वन संरक्षक, वन्यजीव, चित्तौड़गढ़

Phone No. 01472-244915.

E-mail ID - dcfwlchittorgarh@gmail.com

क्रमांक : एफ() सर्वे/उवस/वजी/2020-21/

दिनांक:

निमित्त

उप वन संरक्षक

चित्तौड़गढ़

विषय :- Request for approval of combined wildlife conservation plan for Scheduled-I species Viz, Indian Peafowl (*Pavo cristatus*) & Panther (*Panthera Pardus fusca*), Rusty-spotted cat (*Prionailurus rubiginosus*), Indian wolf (*Canis lupus pallipes*) Indian Monitor Lizard (*Varanus bengalensis*) and Indian vulture (*Gyps indicus/gyps bengaliensis*) proposed by J.K. Cement Works(J.K. Cement Nimbahera, J.K. Mangrol Cement Plant, Ahirpura Limestone Mine, Karunda Limestone Mine, Malikhera Limestone Mine, Mangrol Limestone Mine, Mangrol-Tilakhera Limestone Mine) Tehsil-Nimbahera, Dist-Chittorgarh (Rajasthan)

प्रसंग :- आपका पत्र क्रमांक 2050 दिनांक 01.04.2021 के कम में।

महोदय,

उपरोक्त विषयान्तर्गत प्रासंगिक पत्र के कम में निवेदन है कि प्रधान मुख्य वन संरक्षक एवं मुख्य वन्यजीव प्रतिपालक राजस्थान जयपुर के पत्रांक एफ 11(419)विकास-ग/मुवजीप्र/2020-21/5-6 दिनांक 4.1.2021 में उल्लेखित बिन्दु संख्या 4 अनुसार मैसर्स जे.के. सीमेन्ट वर्क्स के निम्नांकित खनन पट्टा एवं सीमेन्ट प्लांट इस कार्यालय अधिनस्थ आने वाले बस्सी एवं सीतामाता वन्यजीव अभयारण्य के 10 किमी. परिधि में स्थित नहीं है-

S. No.	M.L. No./ Plant name	Name of Lease/Plant
1	J.K. Cement Works-Nimbahera	J.K. Cement Works-Nimbahera
2	J K Cement Works- Mangrol	J K Cement Works- Mangrol
3	ML No. 02/1997	Ahirpura Limestone Mine
4	ML No. 03/2003	Karunda Limestone Mine
5	ML. No. 04/2003	Malikhera Limestone Mine
6	ML No. 07/1997	Mangrol-Tilakhera Limestone Mine
7	ML No. 26/2008	Mangrol Limestone Mine

भवदीय

(डॉ. टी. मोहनराज)

उप वन संरक्षक

वन्यजीव, चित्तौड़गढ़

क्रमांक : एफ() सर्वे/उवस/वजी/2020-21/ 2910

दिनांक : 22.04.2021

प्रतिलिपि : मैसर्स जे.के. सीमेन्ट वर्क्स, कैलाश नगर, निम्बाहेड़ा, जिला-चित्तौड़गढ़ को सूचनार्थ प्रेषित है।

(डॉ. टी. मोहनराज)

उप वन संरक्षक

वन्यजीव, चित्तौड़गढ़

UTR Number	IDIBR52021062823940774	
Value Date:	28/06/2021	
Amount	5707000.00	INR
Related Ref.No:		Commission 0

Beneficiary Details

Beneficiary A/C: 61087162999
 Benef. Name And Address:
 PRINCIPAL CHIEF CONSERVATOR OF
 FORESTS WILD LIFE

Remitting Customer Details

Account Number: 00000021411544392
 Remitter's Name And Address:
 M/s. J K CEMENT LIMITED
 J K CEMENT LTD
 KAMLA TOWER
 KANPUR Kanpur M Corp O

Beneficiary bank/branch

IFSC Code: SBIN0031510

Details of Payment:

RTGS

Sender's To Receiver Information

Error Code

Sender IFSC Code IDIB000N598

Close



J.K. Cement WORKS, NIMBAHERA (RAJ) Annexure-4
AMBIENT AIR QUALITY AVERAGE SPM RESULTS
 (ALL VALUES IN MICROGRAMS / CUBIC METER)

HALF YEARLY REPORT (October-21 - March '22)

FY (2021-22)

S.No.	LOCATION	Month	PM 10 (2021-22)				
			PM10	PM2.5	SO2	NOx	CO
1	NEAR MAIN SECURITY GATE	Oct-21	36.4	26.5	11.4	27.5	570
2		Nov-21	30.7	23.8	11.0	26.4	594
3		Dec-21	40.5	29.9	10.1	18.1	540
4		Jan-22	52.1	44.9	8.8	15.2	660
5		Feb-22	42.9	33.9	9.8	11.5	725
6		Mar-22	49.8	43.0	13.2	17.5	717
Half Yearly Average			42.1	33.7	10.7	19.3	634
1	NEAR NEW J.K. FACTORY GATE	Oct-21	74.7	41.9	12.6	23.8	520
2		Nov-21	48.1	39.1	11.4	16.2	695
3		Dec-21	59.3	41.7	10.6	17.5	723
4		Jan-22	54.7	32.2	9.6	19.6	862
5		Feb-22	52.6	46.8	13.7	19.1	876
6		Mar-22	42.6	35.3	16.9	25.1	899
Half Yearly Average			55.4	39.5	12.5	20.2	763
1	NEAR MINE GATE	Oct-21	77.7	32.7	17.9	34.9	574
2		Nov-21	68.7	51.8	9.1	21.0	591
3		Dec-21	55.4	39.4	10.7	22.4	811
4		Jan-22	58.8	48.1	8.5	20.1	835
5		Feb-22	58.8	47.1	13.0	20.4	790
6		Mar-22	45.2	38.1	12.9	18.8	689
Half Yearly Average			60.8	42.8	12.0	22.9	715
1	NEAR THERMAL POWER PLANT GATE	Oct-21	72.7	33.8	11.5	24.1	633
2		Nov-21	67.6	35.0	10.5	20.9	624
3		Dec-21	58.4	36.1	11.4	26.0	570
4		Jan-22	57.4	44.3	9.5	26.5	620
5		Feb-22	65.6	47.5	13.0	23.6	640
6		Mar-22	70.5	56.4	14.4	25.8	838
Half Yearly Average			65.4	42.2	11.7	24.5	654



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Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522400003714	Date :	08-01-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Cement Plant
Type of Sample :	Ambient Air Quality Monitoring	Date of Sample Collection/Monitoring :	03-12-2021
Point of Collection :	Near Main Security Gate	Date of Receipt :	24-12-2021
Date of Test/Analysis :	24-12-2021 to 08-01-2022	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per National Ambient Air Quality Standard, 2009
1	Carbon Monoxide [microgram/m3]	320	TTH/AAQM/08	4000
2	Nitrogen Dioxide as NO2 [microgram/m3]	10.7	IS 5182 (Part 6) : 2006 Reaffirmed 2017	80.00
3	Particulate Matter (PM2.5) [microgram/m3]	33.71	IS 5182 (Part 24) : 2019	60.00
4	Sulphur Dioxide [microgram/m3]	2.76	IS 5182 (Part 2) : 2001 RA 2017	80.00
5	Particulate Matter (PM 10) [microgram/m3]	68.97	IS 5182 (Part 23)-2006 RA 2017	100.00

Notes :-

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Senior Analyst
Puran Mal Yogi

Authorized Signatory
Rajesh Maheshwan

(Report No: TC502522400003714)



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Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522400003715	Date :	08-01-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Cement Plant
Type of Sample :	Ambient Air Quality Monitoring	Date of Sample Collection/Monitoring :	03-12-2021
Point of Collection :	Near Thermal Power Plant	Date of Receipt :	24-12-2021
Date of Test/Analysis :	24-12-2021 to 08-01-2022	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per National Ambient Air Quality Standard, 2009
1	Carbon Monoxide [microgram/m3]	370	TTH/AAQM/08	4000
2	Nitrogen Dioxide as NO2 [microgram/m3]	13.21	IS 5182 (Part 6) : 2006 Reaffirmed 2017	80.00
3	Particulate Matter (PM2.5) [microgram/m3]	37.03	IS 5182 (Part 24) : 2019	60.00
4	Sulphur Dioxide [microgram/m3]	2.49	IS 5182 (Part 2) : 2001 RA 2017	80.00
5	Particulate Matter (PM 10) [microgram/m3]	74.75	IS 5182 (Part 23)-2006 RA 2017	100.00

Notes :-

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Senior Analyst

Puran Mal Yogi

Rajesh Maheshwari
Authorized Signatory

(Report No: TC502522400003715)



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Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522400003716	Date :	08-01-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Cement Plant
Type of Sample :	Ambient Air Quality Monitoring	Date of Sample Collection/Monitoring :	04-12-2021
Point of Collection :	Near new J.k Factory Gate	Date of Receipt :	24-12-2021
Date of Test/Analysis :	24-12-2021 to 08-01-2022	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per National Ambient Air Quality Standard, 2009
1	Carbon Monoxide [microgram/m3]	320	TTH/AAQM/08	4000
2	Nitrogen Dioxide as NO2 [microgram/m3]	10.05	IS 5182 (Part 6) : 2006 Reaffirmed 2017	80.00
3	Particulate Matter (PM2.5) [microgram/m3]	34.04	IS 5182 (Part 24) : 2019	60.00
4	Sulphur Dioxide [microgram/m3]	2.06	IS 5182 (Part 2) : 2001 RA 2017	80.00
5	Particulate Matter (PM 10) [microgram/m3]	59.75	IS 5182 (Part 23)-2006 RA 2017	100.00

Notes :-

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Senior Analyst

Puran Mal Yogi

Rajesh Maheshwan
Authorized Signatory

(Report No: TC502522400003716)



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Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522400003717	Date :	08-01-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Cement Plant
Type of Sample :	Ambient Air Quality Monitoring	Date of Sample Collection/Monitoring :	04-12-2021
Point of Collection :	Near Mine Gate	Date of Receipt :	24-12-2021
Date of Test/Analysis :	24-12-2021 to 08-01-2022	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per National Ambient Air Quality Standard, 2009
1	Carbon Monoxide [microgram/m3]	360	TTH/AAQM/08	4000
2	Nitrogen Dioxide as NO2 [microgram/m3]	14.71	IS 5182 (Part 6) : 2006 Reaffirmed 2017	80.00
3	Particulate Matter (PM2.5) [microgram/m3]	41.65	IS 5182 (Part 24) : 2019	60.00
4	Sulphur Dioxide [microgram/m3]	2.63	IS 5182 (Part 2) : 2001 RA 2017	80.00
5	Particulate Matter (PM 10) [microgram/m3]	83.07	IS 5182 (Part 23)-2006 RA 2017	100.00

Notes :-

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Senior Analyst

Puran Mal Yogi

Authorized Signatory

(Report No: TC502522400003717)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522400000397	Date :	25-02-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Air Quality Monitoring	Date of Sample Collection/Monitoring :	04-02-2022
Point of Collection :	Near Main Security Gate	Date of Receipt :	22-02-2022
Date of Test/Analysis :	22-02-2022 to 24-02-2022	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	Krashna Murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per National Ambient Air Quality Standard, 2009
1	Ammonia [microgram/m3]	BDL (<10.0)	IS 5182 (Part 25) : 2018	400.00
2	Carbon Monoxide [microgram/m3]	360	TTH/AAQM/08	4000
3	Lead [microgram/m3]	0.2	IS 5182 (Part 22) : 2004 Reaffirmed 2019	1.00
4	Nitrogen Dioxide as NO2 [microgram/m3]	12.01	IS 5182 (Part 6) : 2006 Reaffirmed 2017	80.00
5	Ozone [microgram/m3]	BDL (<20.0)	APHA 1977, Part 819	100.00
6	Particulate Matter (PM2.5) [microgram/m3]	28.94	IS 5182 (Part 24) : 2019	60.00
7	Sulphur Dioxide [microgram/m3]	5.13	IS 5182 (Part 2) : 2001 RA 2017	80.00
8	Particulate Matter (PM 10) [microgram/m3]	80.71	IS 5182 (Part 23)-2006 RA 2017	100.00
9	Arsenic [ng/m3]	BDL(<2.0)	IS 5182 (Part 22) : 2004 Reaffirmed 2019	6.00
10	Nickel [ng/m3]	7.6	IS 5182 : Part 26 : 2020	20.00

Notes :-

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Puran Mal Yogi

Rajesh Maheshwari



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	400000397	Date :	25-02-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Air Quality Monitoring	Date of Sample Collection/Monitoring :	04-02-2022
Point of Collection :	Near Main Security Gate	Date of Receipt :	22-02-2022
Date of Test/Analysis :	22-02-2022 to 24-02-2022	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	Krashtra Murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per National Ambient Air Quality Standard, 2009
1	Benzene [microgram/m3]	BDL (<1.0)	IS 5182 (Part 11) : 2012 RA 2017	5.00
2	Benzo-alfa- Pyrene [ng/m3]	BDL(<0.5)	CPCB Guidelines	1.00

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Pulkit Mal
Pulkit Mal Yogi

Senior Analyst

Rajesh
Rajesh Maheshwar
Authorized Signatory
(Report No: 400000397)



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Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522400000398	Date :	25-02-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Air Quality Monitoring	Date of Sample Collection/Monitoring :	04-02-2022
Point of Collection :	Near Thermal Power Plant	Date of Receipt :	22-02-2022
Date of Test/Analysis :	22-02-2022 to 24-02-2022	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	Krashna Murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per National Ambient Air Quality Standard, 2009
1	Ammonia [microgram/m3]	BDL (<10.0)	IS 5182 (Part 25) : 2018	400.00
2	Carbon Monoxide [microgram/m3]	310	TTH/AAQM/08	4000
3	Lead [microgram/m3]	0.15	IS 5182 (Part 22) : 2004 Reaffirmed 2019	1.00
4	Nitrogen Dioxide as NO2 [microgram/m3]	13.59	IS 5182 (Part 6) : 2006 Reaffirmed 2017	80.00
5	Ozone [microgram/m3]	BDL (<20.0)	APHA 1977, Part 819	100.00
6	Particulate Matter (PM2.5) [microgram/m3]	28.25	IS 5182 (Part 24) : 2019	60.00
7	Sulphur Dioxide [microgram/m3]	5.34	IS 5182 (Part 2) : 2001 RA 2017	80.00
8	Particulate Matter (PM 10) [microgram/m3]	69.72	IS 5182 (Part 23)-2006 RA 2017	100.00
9	Arsenic [ng/m3]	BDL(<2.0)	IS 5182 (Part 22) : 2004 Reaffirmed 2019	6.00
10	Nickel [ng/m3]	8.4	IS 5182 : Part 26 : 2020	20.00

Notes :-

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Puran Mar Yogi

Rajesh Maheshwari



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Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	400000398	Date :	25-02-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Air Quality Monitoring	Date of Sample Collection/Monitoring :	04-02-2022
Point of Collection :	Near Thermal Power Plant	Date of Receipt :	22-02-2022
Date of Test/Analysis :	22-02-2022 to 24-02-2022	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	Krashna Murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per National Ambient Air Quality Standard, 2009
1	Benzene [microgram/m ³]	BDL (<1.0)	IS 5182 (Part 11) : 2012 RA 2017	5.00
2	Benzo-alfa- Pyrene [ng/m ³]	BDL(<0.5)	CPCB Guidelines	1.00

Notes :-

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Senior Analyst

Authorized Signatory

(Report No: 400000398)



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Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522400000399	Date :	25-02-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Air Quality Monitoring	Date of Sample Collection/Monitoring :	04-02-2022
Point of Collection :	Near new J.k Factory Gate	Date of Receipt :	22-02-2022
Date of Test/Analysis :	22-02-2022 to 24-02-2022	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	Krashtra Murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per National Ambient Air Quality Standard, 2009
1	Ammonia [microgram/m3]	BDL (<10.0)	IS 5182 (Part 25) : 2018	400.00
2	Carbon Monoxide [microgram/m3]	360	TTH/AAQM/08	4000
3	Lead [microgram/m3]	0.16	IS 5182 (Part 22) : 2004 Reaffirmed 2019	1.00
4	Nitrogen Dioxide as NO2 [microgram/m3]	13.94	IS 5182 (Part 6) : 2006 Reaffirmed 2017	80.00
5	Ozone [microgram/m3]	BDL (<20.0)	APHA 1977, Part 819	100.00
6	Particulate Matter (PM2.5) [microgram/m3]	34.33	IS 5182 (Part 24) : 2019	60.00
7	Sulphur Dioxide [microgram/m3]	5.92	IS 5182 (Part 2) : 2001 RA 2017	80.00
8	Particulate Matter (PM 10) [microgram/m3]	72.92	IS 5182 (Part 23)-2006 RA 2017	100.00
9	Arsenic [ng/m3]	BDL(<2.0)	IS 5182 (Part 22) : 2004 Reaffirmed 2019	6.00
10	Nickel [ng/m3]	8.4	IS 5182 : Part 26 : 2020	20.00

Notes :-

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Puran Mal Yogi

Rajesh Manishwar



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Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	400000399	Date :	25-02-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Air Quality Monitoring	Date of Sample Collection/Monitoring :	04-02-2022
Point of Collection :	Near new J.k Factory Gate	Date of Receipt :	22-02-2022
Date of Test/Analysis :	22-02-2022 to 24-02-2022	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	Krashtra Murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per National Ambient Air Quality Standard, 2009
1	Benzene [microgram/m3]	BDL (<1.0)	IS 5182 (Part 11) : 2012 RA 2017	5.00
2	Benzo-alfa- Pyrene [ng/m3]	BDL(<0.5)	CPCB Guidelines	1.00

Notes :-

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P. Singh
Senior Analyst

Rajesh Maheshwari
Authorized Signatory
(Report No: 400000399)



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TEST REPORT

Report No./ULR No. :	TC502522400000400	Date :	25-02-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Air Quality Monitoring	Date of Sample Collection/Monitoring :	04-02-2022
Point of Collection :	Near Mine Gate	Date of Receipt :	22-02-2022
Date of Test/Analysis :	22-02-2022 to 24-02-2022	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	Krashtra Murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per National Ambient Air Quality Standard, 2009
1	Ammonia [microgram/m3]	BDL (<10.0)	IS 5182 (Part 25) : 2018	400.00
2	Carbon Monoxide [microgram/m3]	340	TTH/AAQM/08	4000
3	Lead [microgram/m3]	0.15	IS 5182 (Part 22) : 2004 Reaffirmed 2019	1.00
4	Nitrogen Dioxide as NO2 [microgram/m3]	13.26	IS 5182 (Part 6) : 2006 Reaffirmed 2017	80.00
5	Ozone [microgram/m3]	BDL (<20.0)	APHA 1977, Part 819	100.00
6	Particulate Matter (PM2.5) [microgram/m3]	29.62	IS 5182 (Part 24) : 2019	60.00
7	Sulphur Dioxide [microgram/m3]	5.04	IS 5182 (Part 2) : 2001 RA 2017	80.00
8	Particulate Matter (PM 10) [microgram/m3]	69.85	IS 5182 (Part 23)-2006 RA 2017	100.00
9	Arsenic [ng/m3]	BDL(<2.0)	IS 5182 (Part 22) : 2004 Reaffirmed 2019	6.00
10	Nickel [ng/m3]	5.4	IS 5182 : Part 26 : 2020	20.00

Notes :-

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Puran Mal Yogi
Puran Mal Yogi

Rajesh Mohashwan
Rajesh Mohashwan



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	400000400	Date :	25-02-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Air Quality Monitoring	Date of Sample Collection/Monitoring :	04-02-2022
Point of Collection :	Near Mine Gate	Date of Receipt :	22-02-2022
Date of Test/Analysis :	22-02-2022 to 24-02-2022	Sampling Plan :	IS 5182:2000(Part 14)RA 2014
Quantity of Sample :	-	Sample Collected By :	Krashna Murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per National Ambient Air Quality Standard, 2009
1	Benzene [microgram/m3]	BDL (<1.0)	IS 5182 (Part 11) : 2012 RA 2017	5.00
2	Benzo-alfa- Pyrene [ng/m3]	BDL(<0.5)	CPCB Guidelines	1.00

Notes :-

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Puran Mal Yogi
Senior Analyst


Rajesh Maheshwar
Authorized Signatory
(Report No: 400000400)

J.K. Cement Works, Nimbahera
Fugitive Emission Monitoring Report
October '2021 - March '2022

S.No.	Month/Year	SPM ($\mu\text{g}/\text{m}^3$)			
		NEAR COAL YARD-1	NEAR LIMESTONE CRUSHING SITE-1	NEAR STACKER RECLAIMER-1	NEAR GYPSUM YARD-1
1	Oct-21	1776.3	1677.4	1560.0	2145.4
2	Nov-21	1434.8	1762.7	1396.6	2154.2
3	Dec-21	1106.0	2485.4	1956.5	2292.5
4	Jan-22	820.0	2250.0	1476.2	2039.3
5	Feb-22	890.0	2300.0	1630.0	2264.0
6	Mar-22	955.0	2250.0	1230.0	2341.0

J.K. Cement WORKS, Nimbahera (RAJ)
22 MW CPP Fugitive Emission Monitoring Report
April '2021 - September '2021

(ALL VALUES IN MICROGRAMS / CUBIC METER)

Month/Year	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22
NEAR COAL YARD OF 22 MW CPP	1467.9	1184.1	1142.6	514.0	488.0	452.0



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522100000673	Date :	10-05-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Cement Plant
Type of Sample :	Borewell Water	Date of Sample Collection/Monitoring :	25-04-2022
Point of Collection :	Borewell No. -01	Date of Receipt :	27-04-2022
Date of Test/Analysis :	27-04-2022 to 09-05-2022	Sampling Plan :	IS 3025:1987(Part 1)RA 2014
Quantity of Sample :	2ltr.	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible Limit in the absence of alternative Source as per IS 10500 : 2012
1	Color [Hazen]	Less than 5	IS 3025 (Part 4) : 1983 RA 2017	5.00	15.00
2	Odour	Agreeable	IS 3025 (Part 5) : 2018	Agreeable	-
3	Taste	Agreeable	IS 3025 (Part 7) : 2017 & (Part 8) : 1984 RA 2017	Agreeable	-
4	Turbidity [NTU]	BDL (<0.1)	IS 3025 (Part 10) : 1984 RA 2017	1.00	5.00
5	pH	8.18	IS 3025 (Part 11) : 1983 RA 2017	6.5 to 8.5	No relaxation
6	Hardness (total) [mg/l]	411.65	IS 3025 (Part 21) : 2009 RA 2019	200.00	600.00
7	Iron [mg/l]	BDL(<0.01)	IS 3025 (Part 53) : 2003 RA 2019	1.0	-
8	Chloride [mg/l]	82.78	IS 3025 (Part 32) : 1988 RA 2019	250.00	1000.00

Note:

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RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible Limit in the absence of alternative Source as per IS 10500 : 2012
9	Total Dissolved Solids [mg/l]	551	IS 3025 (Part 16) : 1984 RA 2017	500.00	2000.00
10	Calcium [mg/l]	142.91	IS 3025 (Part 40) : 1991 RA 2019	75.00	200.00
11	Magnesium [mg/l]	13.21	IS 3025 (Part 46) : 1994 RA 2019	30.00	100.00
12	Copper [mg/l]	BDL(<0.01)	IS 3025 (Part 42) : 1992 RA 2019	0.05	1.50
13	Manganese [mg/l]	BDL(<0.01)	IS 3025 (Part 59) : 2006 RA 2017	0.1	0.3
14	Sulphate [mg/l]	44.7	IS 3025 (Part 24) : 1986 RA 2019	200.00	400.00
15	Nitrate [mg/l]	14.48	IS 3025 (Part 34) : 1988 RA 2019	45.00	-
16	Fluoride [mg/l]	0.69	IS 3025 (Part 60) : 2008 RA 2019	1.00	1.50
17	Cadmium [mg/l]	BDL(<0.001)	IS 3025 (Part 41) : 1992 RA 2019	0.003	-
18	Arsenic [mg/l]	BDL(<0.001)	IS 3025 (Part 37) : 1988 RA 2019	0.01	-
19	Lead [mg/l]	BDL(<0.01)	IS 3025 (Part 47) : 1994 RA 2019	0.01	-
20	Zinc [mg/l]	BDL(<0.01)	IS 3025 (Part 49) : 1994 RA 2019	5	15
21	Chromium [mg/l]	BDL(<0.01)	IS 3025 (Part 52) : 2003 RA 2019	0.05	-
22	Alkalinity - T [mg/l]	222.72	IS 3025 (Part 23) : 1986 RA 2019	200	600
23	Aluminum [mg/l]	BDL(<0.01)	IS 3025 (Part 55) : 2003 RA 2019	0.03	0.2
24	Boron [mg/l]	0.71	APHA 2017 : 4500- B C	0.5	2.4
25	Sulphide [mg/l]	Less than 0.05	IS 3025 (Part 29) : 1986 RA 2019	0.05	-
26	Total Coliform [MPN/100ml]	Not Detected	IS 5401 (Part 2) : 2012 RA 2018	Shall not be detectable in any any 100 ml sample	-
27	E-Coli [MPN/100ml]	Not Detected	IS 5887 (Part 1) : 1976 RA 2018	Shall not be detectable in any 100 ml sample	-
28	Phenolic Compound [mg/l]	BDL(<0.001)	IS 3025 (Part 41) : 1992 RA 2019	0.001	0.002



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S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible Limit in the absence of alternative Source as per IS 10500 : 2012
29	Selenium as Se [mg/l]	BDL(<0.01)	IS 3025 (Part 56) : 2003 RA 2019	0.01	-
30	Residual free chlorine [mg/l]	BDL (<0.1)	IS 3025 (Part 26) : 1986 RA 2019	-	-
31	Mineral oil [mg/l]	BDL(<0.5)	IS 3025 (Part 39) : 1991 RA 2019	1.0	-
32	Anionic Detergents as MBA's [mg/l]	BDL(<0.1)	IS 13428 (Annexure K)	0.2	1.0
33	Cyanide as CN [mg/l]	BDL(<0.01)	IS 3025 (Part 27) : 1986 RA 2019	0.05	-
34	Nickel [mg/l]	BDL(<0.01)	IS 3025 (Part 54) : 2003 RA 2019	0.02	-
35	Silver [mg/l]	BDL(<0.01)	APHA :2017 :3111- B	0.1	-
36	Ammonia [mg/l]	BDL(<0.1)	IS 3025 (Part 34) : 1988 RA 2019	0.5	-
37	Barium [mg/l]	BDL(<0.5)	IS 13428 (Annexure F)	0.7	-
38	Chloramines [mg/l]	BDL (<0.1)	IS 3025 (Part 26) : 1986 RA 2019	4.0	-
39	Molybdenum as Mo [mg/l]	BDL(<0.01)	APHA :2017 :3111- B	0.07	-

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Puran Mal Yogi
Senior Analyst

Rajesh Mishra
Authorized Signatory
(Report No: TC502522100000673)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522100000674	Date :	10-05-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Cement Plant
Type of Sample :	Borewell Water	Date of Sample Collection/Monitoring :	25-04-2022
Point of Collection :	Borewell No. -02	Date of Receipt :	27-04-2022
Date of Test/Analysis :	27-04-2022 to 09-05-2022	Sampling Plan :	IS 3025:1987(Part 1)RA 2014
Quantity of Sample :	2ltr.	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible Limit in the absence of alternative Source as per IS 10500 : 2012
1	Color [Hazen]	Less than 5	IS 3025 (Part 4) : 1983 RA 2017	5.00	15.00
2	Odour	Agreeable	IS 3025 (Part 5) : 2018	Agreeable	-
3	Taste	Agreeable	IS 3025 (Part 7) : 2017 & (Part8) : 1984 RA 2017	Agreeable	-
4	Turbidity [NTU]	BDL (<0.1)	IS 3025 (Part 10) : 1984 RA 2017	1.00	5.00
5	pH	7.90	IS 3025 (Part 11) : 1983 RA 2017	6.5 to 8.5	No relaxation
6	Hardness (total) [mg/l]	415.53	IS 3025 (Part 21) : 2009 RA 2019	200.00	600.00
7	Iron [mg/l]	BDL(<0.01)	IS 3025 (Part 53) : 2003 RA 2019	1.0	-
8	Chloride [mg/l]	78.84	IS 3025 (Part 32) : 1988 RA 2019	250.00	1000.00

Note:

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Email : marketinglab@teamtesthouse.com

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible Limit in the absence of alternative Source as per IS 10500 : 2012
9	Total Dissolved Solids [mg/l]	509	IS 3025 (Part 16) : 1984 RA 2017	500.00	2000.00
10	Calcium [mg/l]	135.15	IS 3025 (Part 40) : 1991 RA 2019	75.00	200.00
11	Magnesium [mg/l]	18.87	IS 3025 (Part 46) : 1994 RA 2019	30.00	100.00
12	Copper [mg/l]	BDL(<0.01)	IS 3025 (Part 42) : 1992 RA 2019	0.05	1.50
13	Manganese [mg/l]	BDL(<0.01)	IS 3025 (Part 59) : 2006 RA 2017	0.1	0.3
14	Sulphate [mg/l]	33.4	IS 3025 (Part 24) : 1986 RA 2019	200.00	400.00
15	Nitrate [mg/l]	10.91	IS 3025 (Part 34) : 1988 RA 2019	45.00	-
16	Fluoride [mg/l]	0.80	IS 3025 (Part 60) : 2008 RA 2019	1.00	1.50
17	Cadmium [mg/l]	BDL(<0.001)	IS 3025 (Part 41) : 1992 RA 2019	0.003	-
18	Arsenic [mg/l]	BDL(<0.001)	IS 3025 (Part 37) : 1988 RA 2019	0.01	-
19	Lead [mg/l]	BDL(<0.01)	IS 3025 (Part 47) : 1994 RA 2019	0.01	-
20	Zinc [mg/l]	BDL(<0.01)	IS 3025 (Part 49) : 1994 RA 2019	5	15
21	Chromium [mg/l]	BDL(<0.01)	IS 3025 (Part 52) : 2003 RA 2019	0.05	-
22	Alkalinity - T [mg/l]	188.16	IS 3025 (Part 23) : 1986 RA 2019	200	600
23	Aluminum [mg/l]	BDL(<0.01)	IS 3025 (Part 55) : 2003 RA 2019	0.03	0.2
24	Boron [mg/l]	0.70	APHA 2017 : 4500- B C	0.5	2.4
25	Sulphide [mg/l]	Less than 0.05	IS 3025 (Part 29) : 1986 RA 2019	0.05	-
26	Total Coliform [MPN/100ml]	Not Detected	IS 5401 (Part 2) : 2012 RA 2018	Shall not be detectable in any 100 ml sample	-
27	E-Coli [MPN/100ml]	Not Detected	IS 5887 (Part 1) : 1976 RA 2018	Shall not be detectable in any 100 ml sample	-
28	Phenolic Compound [mg/l]	BDL(<0.001)	IS 3025 (Part 41) : 1992 RA 2019	0.001	0.002



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Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible Limit in the absence of alternative Source as per IS 10500 : 2012
29	Selenium as Se [mg/l]	BDL(<0.01)	IS 3025 (Part 56) : 2003 RA 2019	0.01	-
30	Residual free chlorine [mg/l]	BDL (<0.1)	IS 3025 (Part 26) : 1986 RA 2019	0.2	1.0
31	Mineral oil [mg/l]	BDL(<0.5)	IS 3025 (Part 39) : 1991 RA 2019	1.0	-
32	Anionic Detergents as MBA's [mg/l]	BDL(<0.1)	IS 13428 (Annexure K)	0.2	1.0
33	Cyanide as CN [mg/l]	BDL(<0.01)	IS 3025 (Part 27) : 1986 RA 2019	0.05	-
34	Nickel [mg/l]	BDL(<0.01)	IS 3025 (Part 54) : 2003 RA 2019	0.02	-
35	Silver [mg/l]	BDL(<0.01)	APHA :2017 :3111- B	0.1	-
36	Ammonia [mg/l]	BDL(<0.1)	IS 3025 (Part 34) : 1988 RA 2019	0.5	-
37	Barium [mg/l]	BDL(<0.5)	IS 13428 (Annexure F)	0.7	-
38	Chloramines [mg/l]	BDL (<0.1)	IS 3025 (Part 26) : 1986 RA 2019	4.0	-
39	Molybdenum as Mo [mg/l]	BDL(<0.01)	APHA :2017 :3111- B	0.07	-

Notes :-

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- # The samples will be destroyed after 15 days from the date of issue of test report unless otherwise specified.

Puran
Puran Mai Yogi
Senior Analyst

Rajesh
Rajesh Maheshwan
Authorized Signatory

(Report No: TC502522100000674)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522100000675	Date :	10-05-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Cement Plant
Type of Sample :	Borewell Water	Date of Sample Collection/Monitoring :	25-04-2022
Point of Collection :	Borewell No. -03	Date of Receipt :	27-04-2022
Date of Test/Analysis :	27-04-2022 to 10-05-2022	Sampling Plan :	IS 3025:1987(Part 1)RA 2014
Quantity of Sample :	2ltr.	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible Limit in the absence of alternative Source as per IS 10500 : 2012
1	Color [Hazen]	Less than 5	IS 3025 (Part 4) : 1983 RA 2017	5.00	15.00
2	Odour	Agreeable	IS 3025 (Part 5) : 2018	Agreeable	-
3	Taste	Agreeable	IS 3025 (Part 7) : 2017 & (Part 8) : 1984 RA 2017	Agreeable	-
4	Turbidity [NTU]	BDL (<0.1)	IS 3025 (Part 10) : 1984 RA 2017	1.00	5.00
5	pH	8.02	IS 3025 (Part 11) : 1983 RA 2017	6.5 to 8.5	No relaxation
6	Hardness (total) [mg/l]	411.65	IS 3025 (Part 21) : 2009 RA 2019	200.00	600.00
7	Iron [mg/l]	BDL(<0.01)	IS 3025 (Part 53) : 2003 RA 2019	1.0	-
8	Chloride [mg/l]	84.75	IS 3025 (Part 32) : 1988 RA 2019	250.00	1000.00

Note:

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Rajesh
Rajesh Maheshwari



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Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible Limit in the absence of alternative Source as per IS 10500 : 2012
9	Total Dissolved Solids [mg/l]	540	IS 3025 (Part 16) : 1984 RA 2017	500.00	2000.00
10	Calcium [mg/l]	146.02	IS 3025 (Part 40) : 1991 RA 2019	75.00	200.00
11	Magnesium [mg/l]	11.32	IS 3025 (Part 46) : 1994 RA 2019	30.00	100.00
12	Copper [mg/l]	BDL(<0.01)	IS 3025 (Part 42) : 1992 RA 2019	0.05	1.50
13	Manganese [mg/l]	BDL(<0.01)	IS 3025 (Part 59) : 2006 RA 2017	0.1	0.3
14	Sulphate [mg/l]	37.4	IS 3025 (Part 24) : 1986 RA 2019	200.00	400.00
15	Nitrate [mg/l]	12.57	IS 3025 (Part 34) : 1988 RA 2019	45.00	-
16	Fluoride [mg/l]	0.85	IS 3025 (Part 60) : 2008 RA 2019	1.00	1.50
17	Cadmium [mg/l]	BDL(<0.001)	IS 3025 (Part 41) : 1992 RA 2019	0.003	-
18	Arsenic [mg/l]	BDL(<0.001)	IS 3025 (Part 37) : 1988 RA 2019	0.01	-
19	Lead [mg/l]	BDL(<0.01)	IS 3025 (Part 47) : 1994 RA 2019	0.01	-
20	Zinc [mg/l]	BDL(<0.01)	IS 3025 (Part 49) : 1994 RA 2019	5	15
21	Chromium [mg/l]	BDL(<0.01)	IS 3025 (Part 52) : 2003 RA 2019	0.05	-
22	Alkalinity - T [mg/l]	180.48	IS 3025 (Part 23) : 1986 RA 2019	200	600
23	Aluminum [mg/l]	BDL(<0.01)	IS 3025 (Part 55) : 2003 RA 2019	0.03	0.2
24	Boron [mg/l]	0.76	APHA 2017 : 4500- B C	0.5	1.0
25	Sulphide [mg/l]	Less than 0.05	IS 3025 (Part 29) : 1986 RA 2019	0.05	-
26	Total Coliform [MPN/100ml]	Not Detected	IS 5401 (Part 2) : 2012 RA 2018	Shall not be detectable in any any 100 ml sample	-
27	E-Coli [MPN/100ml]	Not Detected	IS 5887 (Part 1) : 1976 RA 2018	Shall not be detectable in any 100 ml sample	-
28	Phenolic Compound [mg/l]	BDL(<0.001)	IS 3025 (Part 41) : 1992 RA 2019	0.001	0.002



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Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible Limit in the absence of alternative Source as per IS 10500 : 2012
29	Selenium as Se [mg/l]	BDL(<0.01)	IS 3025 (Part 56) : 2003 RA 2019	0.01	No relaxation
30	Residual free chlorine [mg/l]	BDL (<0.1)	IS 3025 (Part 26) : 1986 RA 2019	0.2	1.0
31	Mineral oil [mg/l]	BDL(<0.5)	IS 3025 (Part 39) : 1991 RA 2019	1.0	-
32	Anionic Detergents as MBA's [mg/l]	BDL(<0.1)	IS 13428 (Annexure K)	0.2	1.0
33	Cyanide as CN [mg/l]	BDL(<0.01)	IS 3025 (Part 27) : 1986 RA 2019	0.05	-
34	Nickel [mg/l]	BDL(<0.01)	IS 3025 (Part 54) : 2003 RA 2019	0.02	-
35	Silver [mg/l]	BDL(<0.01)	APHA :2017 :3111- B	0.1	-
36	Ammonia [mg/l]	BDL(<0.1)	IS 3025 (Part 34) : 1988 RA 2019	0.5	-
37	Barium [mg/l]	BDL(<0.5)	IS 13428 (Annexure F)	0.7	-
38	Chloramines [mg/l]	BDL (<0.1)	IS 3025 (Part 26) : 1986 RA 2019	4.0	-
39	Molybdenum as Mo [mg/l]	BDL(<0.01)	APHA :2017 :3111- B	0.07	-

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Puran Mal Yogi
Senior Analyst

Rajesh Maheshwari
Rajesh Maheshwari
Authorized Signatory

(Report No: TC502522100000675)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522100000676	Date :	10-05-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Cement Plant
Type of Sample :	Borewell Water	Date of Sample Collection/Monitoring :	25-04-2022
Point of Collection :	Borewell No. -04	Date of Receipt :	27-04-2022
Date of Test/Analysis :	27-04-2022 to 10-05-2022	Sampling Plan :	IS 3025:1987(Part 1)RA 2014
Quantity of Sample :	2ltr.	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible Limit in the absence of alternative Source as per IS 10500 : 2012
1	Color [Hazen]	Less than 5	IS 3025 (Part 4) : 1983 RA 2017	5.00	15.00
2	Odour	Agreeable	IS 3025 (Part 5) : 2018	Agreeable	-
3	Taste	Agreeable	IS 3025 (Part 7) : 2017 & (Part 8) : 1984 RA 2017	Agreeable	-
4	Turbidity [NTU]	BDL (<0.1)	IS 3025 (Part 10) : 1984 RA 2017	1.00	5.00
5	pH	7.99	IS 3025 (Part 11) : 1983 RA 2017	6.5 to 8.5	No relaxation
6	Hardness (total) [mg/l]	419.42	IS 3025 (Part 21) : 2009 RA 2019	200.00	600.00
7	Iron [mg/l]	BDL(<0.01)	IS 3025 (Part 53) : 2003 RA 2019	1.0	-
8	Chloride [mg/l]	80.81	IS 3025 (Part 32) : 1988 RA 2019	250.00	1000.00

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Rajin



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RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible Limit in the absence of alternative Source as per IS 10500 : 2012
9	Total Dissolved Solids [mg/l]	551	IS 3025 (Part 16) : 1984 RA 2017	500.00	2000.00
10	Calcium [mg/l]	144.47	IS 3025 (Part 40) : 1991 RA 2019	75.00	200.00
11	Magnesium [mg/l]	14.16	IS 3025 (Part 46) : 1994 RA 2019	30.00	100.00
12	Copper [mg/l]	BDL(<0.01)	IS 3025 (Part 42) : 1992 RA 2019	0.05	1.50
13	Manganese [mg/l]	BDL(<0.01)	IS 3025 (Part 59) : 2006 RA 2017	0.1	0.3
14	Sulphate [mg/l]	36.7	IS 3025 (Part 24) : 1986 RA 2019	200.00	400.00
15	Nitrate [mg/l]	11.63	IS 3025 (Part 34) : 1988 RA 2019	45.00	-
16	Fluoride [mg/l]	0.72	IS 3025 (Part 60) : 2008 RA 2019	1.00	1.50
17	Cadmium [mg/l]	BDL(<0.001)	IS 3025 (Part 41) : 1992 RA 2019	0.003	-
18	Arsenic [mg/l]	BDL(<0.001)	IS 3025 (Part 37) : 1988 RA 2019	0.01	-
19	Lead [mg/l]	BDL(<0.01)	IS 3025 (Part 47) : 1994 RA 2019	0.01	-
20	Zinc [mg/l]	BDL(<0.01)	IS 3025 (Part 49) : 1994 RA 2019	5	15
21	Chromium [mg/l]	BDL(<0.01)	IS 3025 (Part 52) : 2003 RA 20193	0.05	-
22	Alkalinity - T [mg/l]	188.16	IS 3025 (Part 23) : 1986 RA 2019	200	600
23	Aluminum [mg/l]	BDL(<0.01)	IS 3025 (Part 55) : 2003 RA 2019	0.03	0.2
24	Boron [mg/l]	0.70	APHA 2017 : 4500- B C	0.5	2.4
25	Sulphide [mg/l]	Less than 0.05	IS 3025 (Part 29) : 1986 RA 2019	0.05	-
26	Total Coliform [MPN/100ml]	Not Detected	IS 5401 (Part 2) : 2012 RA 2018	Shall not be detectable in any 100 ml sample	-
27	E-Coli [MPN/100ml]	Not Detected	IS 5887 (Part 1) : 1976 RA 2018	Shall not be detectable in any 100 ml sample	-
28	Phenolic Compound [mg/l]	BDL(<0.001)	IS 3025 (Part 41) : 1992 RA 2019	0.001	0.002



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Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible Limit in the absence of alternative Source as per IS 10500 : 2012
29	Selenium as Se [mg/l]	BDL(<0.01)	IS 3025 (Part 56) : 2003 RA 2019	0.01	-
30	Residual free chlorine [mg/l]	BDL (<0.1)	IS 3025 (Part 26) : 1986 RA 2019	0.2	1.0
31	Mineral oil [mg/l]	BDL(<0.5)	IS 3025 (Part 39) : 1991 RA 2019	1.0	-
32	Anionic Detergents as MBA's [mg/l]	BDL(<0.1)	IS 13428 (Annexure K)	0.2	1.0
33	Cyanide as CN [mg/l]	BDL(<0.01)	IS 3025 (Part 27) : 1986 RA 2019	0.05	-
34	Nickel [mg/l]	BDL(<0.01)	IS 3025 (Part 54) : 2003 RA 2019	0.02	-
35	Silver [mg/l]	BDL(<0.01)	APHA :2017 :3111- B	0.1	-
36	Ammonia [mg/l]	BDL(<0.1)	IS 3025 (Part 34) : 1988 RA 2019	0.5	-
37	Barium [mg/l]	BDL(<0.5)	IS 13428 (Annexure F)	0.7	-
38	Chloramines [mg/l]	BDL (<0.1)	IS 3025 (Part 26) : 1986 RA 2019	4.0	-
39	Molybdenum as Mo [mg/l]	BDL(<0.01)	APHA :2017 :3111- B	0.07	-

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Senior Analyst

Rajesh Maheshwar
Authorized Signatory
(Report No: TC502522100000676)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522100000677	Date :	10-05-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Cement Plant
Type of Sample :	Borewell Water	Date of Sample Collection/Monitoring :	25-04-2022
Point of Collection :	Borewell No. -05	Date of Receipt :	27-04-2022
Date of Test/Analysis :	27-04-2022 to 10-05-2022	Sampling Plan :	IS 3025:1987(Part 1)RA 2014
Quantity of Sample :	2ltr.	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible Limit in the absence of alternative Source as per IS 10500 : 2012
1	Color [Hazen]	Less than 5	IS 3025 (Part 4) : 1983 RA 2017	5.00	15.00
2	Odour	Agreeable	IS 3025 (Part 5) : 2018	Agreeable	-
3	Taste	Agreeable	IS 3025 (Part 7) : 2017 & (Part8) : 1984 RA 2017	Agreeable	-
4	Turbidity [NTU]	BDL (<0.1)	IS 3025 (Part 10) : 1984 RA 2017	1.00	5.00
5	pH	7.83	IS 3025 (Part 11) : 1983 RA 2017	6.5 to 8.5	No relaxation
6	Hardness (total) [mg/l]	423.3	IS 3025 (Part 21) : 2009 RA 2019	200.00	600.00
7	Iron [mg/l]	BDL(<0.01)	IS 3025 (Part 53) : 2003 RA 2019	1.0	-
8	Chloride [mg/l]	80.81	IS 3025 (Part 32) : 1988 RA 2019	250.00	1000.00

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RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible Limit in the absence of alternative Source as per IS 10500 : 2012
9	Total Dissolved Solids [mg/l]	549	IS 3025 (Part 16) : 1984 RA 2017	500.00	2000.00
10	Calcium [mg/l]	80.78	IS 3025 (Part 40) : 1991 RA 2019	75.00	200.00
11	Magnesium [mg/l]	53.79	IS 3025 (Part 46) : 1994 RA 2019	30.00	100.00
12	Copper [mg/l]	BDL(<0.01)	IS 3025 (Part 42) : 1992 RA 2019	0.05	1.50
13	Manganese [mg/l]	BDL(<0.01)	IS 3025 (Part 59) : 2006 RA 2017	0.1	0.3
14	Sulphate [mg/l]	45.4	IS 3025 (Part 24) : 1986 RA 2019	200.00	400.00
15	Nitrate [mg/l]	13.88	IS 3025 (Part 34) : 1988 RA 2019	45.00	-
16	Fluoride [mg/l]	0.86	IS 3025 (Part 60) : 2008 RA 2019	1.00	1.50
17	Cadmium [mg/l]	BDL(<0.001)	IS 3025 (Part 41) : 1992 RA 2019	0.003	-
18	Arsenic [mg/l]	BDL(<0.001)	IS 3025 (Part 37) : 1988 RA 2019	0.01	-
19	Lead [mg/l]	BDL(<0.01)	IS 3025 (Part 47) : 1994 RA 2019	0.01	-
20	Zinc [mg/l]	BDL(<0.01)	IS 3025 (Part 49) : 1994 RA 2019	5	15
21	Chromium [mg/l]	BDL(<0.01)	IS 3025 (Part 52) : 2003 RA 2019	0.05	-
22	Alkalinity - T [mg/l]	180.48	IS 3025 (Part 23) : 1986 RA 2019	200	600
23	Aluminum [mg/l]	BDL(<0.01)	IS 3025 (Part 55) : 2003 RA 2019	0.03	0.2
24	Boron [mg/l]	0.71	APHA 2017 : 4500- B C	0.5	1.0
25	Sulphide [mg/l]	Less than 0.05	IS 3025 (Part 29) : 1986 RA 2019	0.05	-
26	Total Coliform [MPN/100ml]	Not Detected	IS 5401 (Part 2) : 2012 RA 2018	Shall not be detectable in any any 100 ml sample	-
27	E-Coli [MPN/100ml]	Not Detected	IS 5887 (Part 1) : 1976 RA 2018	Shall not be detectable in any 100 ml sample	-
28	Phenolic Compound [mg/l]	BDL(<0.001)	IS 3025 (Part 41) : 1992 RA 2019	0.001	0.002



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Phone : +91 9460222039, 9460222049,
Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible Limit in the absence of alternative Source as per IS 10500 : 2012
29	Selenium as Se [mg/l]	BDL(<0.01)	IS 3025 (Part 56) : 2003 RA 2019	0.01	No relaxation
30	Residual free chlorine [mg/l]	BDL (<0.1)	IS 3025 (Part 26) : 1986 RA 2019	0.2	1.0
31	Mineral oil [mg/l]	BDL(<0.5)	IS 3025 (Part 39) : 1991 RA 2019	1.0	-
32	Anionic Detergents as MBA's [mg/l]	BDL(<0.1)	IS 13428 (Annexure K)	0.2	1.0
33	Cyanide as CN [mg/l]	BDL(<0.01)	IS 3025 (Part 27) : 1986 RA 2019	0.05	-
34	Nickel [mg/l]	BDL(<0.01)	IS 3025 (Part 54) : 2003 RA 2019	0.02	-
35	Silver [mg/l]	BDL(<0.01)	APHA :2017 :3111- B	0.1	-
36	Ammonia [mg/l]	BDL(<0.1)	IS 3025 (Part 34) : 1988 RA 2019	0.5	-
37	Barium [mg/l]	BDL(<0.5)	IS 13428 (Annexure F)	0.7	-
38	Chloramines [mg/l]	BDL (<0.1)	IS 3025 (Part 26) : 1986 RA 2019	4.0	-
39	Molybdenum as Mo [mg/l]	BDL(<0.01)	APHA :2017 :3111- B	0.07	-

Notes :-

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Puran Mal Yogi
Senior Analyst

Rajeshwari
Authorized Signatory
(Report No: TC502522100000677)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522100000678	Date :	10-05-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Cement Plant
Type of Sample :	Borewell Water	Date of Sample Collection/Monitoring :	25-04-2022
Point of Collection :	Borewell No. -06	Date of Receipt :	27-04-2022
Date of Test/Analysis :	27-04-2022 to 10-05-2022	Sampling Plan :	IS 3025:1987(Part 1)RA 2014
Quantity of Sample :	2ltr.	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible Limit in the absence of alternative Source as per IS 10500 : 2012
1	Color [Hazen]	Less than 5	IS 3025 (Part 4) : 1983 RA 2017	5.00	15.00
2	Odour	Agreeable	IS 3025 (Part 5) : 2018	Agreeable	-
3	Taste	Agreeable	IS 3025 (Part 7) : 2017 & (Part8) : 1984 RA 2017	Agreeable	-
4	Turbidity [NTU]	BDL (<0.1)	IS 3025 (Part 10) : 1984 RA 2017	1.00	5.00
5	pH	7.84	IS 3025 (Part 11) : 1983 RA 2017	6.5 to 8.5	No relaxation
6	Hardness (total) [mg/l]	419.42	IS 3025 (Part 21) : 2009 RA 2019	200.00	600.00
7	Iron [mg/l]	BDL(<0.01)	IS 3025 (Part 53) : 2003 RA 2019	1.0	-
8	Chloride [mg/l]	82.78	IS 3025 (Part 32) : 1988 RA 2019	250.00	1000.00

Note:

Continue to next page...

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Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible Limit in the absence of alternative Source as per IS 10500 : 2012
9	Total Dissolved Solids [mg/l]	547	IS 3025 (Part 16) : 1984 RA 2017	500.00	2000.00
10	Calcium [mg/l]	139.81	IS 3025 (Part 40) : 1991 RA 2019	75.00	200.00
11	Magnesium [mg/l]	16.99	IS 3025 (Part 46) : 1994 RA 2019	30.00	100.00
12	Copper [mg/l]	BDL(<0.01)	IS 3025 (Part 42) : 1992 RA 2019	0.05	1.50
13	Manganese [mg/l]	BDL(<0.01)	IS 3025 (Part 59) : 2006 RA 2017	0.1	0.3
14	Sulphate [mg/l]	42.1	IS 3025 (Part 24) : 1986 RA 2019	200.00	400.00
15	Nitrate [mg/l]	15.17	IS 3025 (Part 34) : 1988 RA 2019	45.00	-
16	Fluoride [mg/l]	0.70	IS 3025 (Part 60) : 2008 RA 2019	1.00	1.50
17	Cadmium [mg/l]	BDL(<0.001)	IS 3025 (Part 41) : 1992 RA 2019	0.003	-
18	Arsenic [mg/l]	BDL(<0.001)	IS 3025 (Part 37) : 1988 RA 2019	0.01	-
19	Lead [mg/l]	BDL(<0.01)	IS 3025 (Part 47) : 1994 RA 2019	0.01	-
20	Zinc [mg/l]	BDL(<0.01)	IS 3025 (Part 49) : 1994 RA 2019	5	15
21	Chromium [mg/l]	BDL(<0.01)	IS 3025 (Part 52) : 2003 RA 2019	0.05	-
22	Alkalinity - T [mg/l]	180.48	IS 3025 (Part 23) : 1986 RA 2019	200	600
23	Aluminum [mg/l]	BDL(<0.01)	IS 3025 (Part 55) : 2003 RA 2019	0.03	0.2
24	Boron [mg/l]	0.71	APHA 2017 : 4500- B C	0.5	2.4
25	Sulphide [mg/l]	Less than 0.05	IS 3025 (Part 29) : 1986 RA 2019	0.05	-
26	Total Coliform [MPN/100ml]	Not Detected	IS 5401 (Part 2) : 2012 RA 2018	Shall not be detectable in any any 100 ml sample	-
27	E-Coli [MPN/100ml]	Not Detected	IS 5887 (Part 1) : 1976 RA 2018	Shall not be detectable in any 100 ml sample	-
28	Phenolic Compound [mg/l]	BDL(<0.001)	IS 3025 (Part 41) : 1992 RA 2019	0.001	0.002



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Email : marketinglab@teamtesthouse.com

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible Limit in the absence of alternative Source as per IS 10500 : 2012
29	Selenium as Se [mg/l]	BDL(<0.01)	IS 3025 (Part 56) : 2003 RA 2019	0.01	No relaxation
30	Residual free chlorine [mg/l]	BDL (<0.1)	IS 3025 (Part 26) : 1986 RA 2019	0.2	1.0
31	Mineral oil [mg/l]	BDL(<0.5)	IS 3025 (Part 39) : 1991 RA 2019	1.0	-
32	Anionic Detergents as MBA's [mg/l]	BDL(<0.1)	IS 13428 (Annexure K)	0.2	1.0
33	Cyanide as CN [mg/l]	BDL(<0.01)	IS 3025 (Part 27) : 1986 RA 2019	0.05	-
34	Nickel [mg/l]	BDL(<0.01)	IS 3025 (Part 54) : 2003 RA 2019	0.02	-
35	Silver [mg/l]	BDL(<0.01)	APHA :2017 :3111- B	0.1	-
36	Ammonia [mg/l]	BDL(<0.1)	IS 3025 (Part 34) : 1988 RA 2019	0.5	-
37	Barium [mg/l]	BDL(<0.5)	IS 13428 (Annexure F)	0.7	-
38	Chloramines [mg/l]	BDL (<0.1)	IS 3025 (Part 26) : 1986 RA 2019	4.0	-
39	Molybdenum as Mo [mg/l]	BDL(<0.01)	APHA :2017 :3111- B	0.07	-

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Puran Mal Yogi
Senior Analyst

Rajesh Maheshwar
Authorized Signatory
(Report No: TC502522100000678)



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Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522100000679	Date :	10-05-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Cement Plant
Type of Sample :	Borewell Water	Date of Sample Collection/Monitoring :	25-04-2022
Point of Collection :	Borewell No. -07	Date of Receipt :	27-04-2022
Date of Test/Analysis :	27-04-2022 to 10-05-2022	Sampling Plan :	IS 3025:1987(Part 1)RA 2014
Quantity of Sample :	2ltr.	Sample Collected By :	Banwari Lal Kumawat
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible Limit in the absence of alternative Source as per IS 10500 : 2012
1	Color [Hazen]	Less than 5	IS 3025 (Part 4) : 1983 RA 2017	5.00	15.00
2	Odour	Agreeable	IS 3025 (Part 5) : 2018	Agreeable	-
3	Taste	Agreeable	IS 3025 (Part 7) : 2017 & (Part 8) : 1984 RA 2017	Agreeable	-
4	Turbidity [NTU]	BDL (<0.1)	IS 3025 (Part 10) : 1984 RA 2017	1.00	5.00
5	pH	7.88	IS 3025 (Part 11) : 1983 RA 2017	6.5 to 8.5	No relaxation
6	Hardness (total) [mg/l]	442.72	IS 3025 (Part 21) : 2009 RA 2019	200.00	600.00
7	Iron [mg/l]	BDL(<0.01)	IS 3025 (Part 53) : 2003 RA 2019	1.0	-
8	Chloride [mg/l]	86.72	IS 3025 (Part 32) : 1988 RA 2019	250.00	1000.00

Note:

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RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible Limit in the absence of alternative Source as per IS 10500 : 2012
9	Total Dissolved Solids [mg/l]	572	IS 3025 (Part 16) : 1984 RA 2017	500.00	2000.00
10	Calcium [mg/l]	152.23	IS 3025 (Part 40) : 1991 RA 2019	75.00	200.00
11	Magnesium [mg/l]	15.1	IS 3025 (Part 46) : 1994 RA 2019	30.00	100.00
12	Copper [mg/l]	BDL(<0.01)	IS 3025 (Part 42) : 1992 RA 2019	0.05	1.50
13	Manganese [mg/l]	BDL(<0.01)	IS 3025 (Part 59) : 2006 RA 2017	0.1	0.3
14	Sulphate [mg/l]	53.3	IS 3025 (Part 24) : 1986 RA 2019	200.00	400.00
15	Nitrate [mg/l]	11.91	IS 3025 (Part 34) : 1988 RA 2019	45.00	-
16	Fluoride [mg/l]	0.74	IS 3025 (Part 60) : 2008 RA 2019	1.00	1.50
17	Cadmium [mg/l]	BDL(<0.001)	IS 3025 (Part 41) : 1992 RA 2019	0.003	-
18	Arsenic [mg/l]	BDL(<0.001)	IS 3025 (Part 37) : 1988 RA 2019	0.01	-
19	Lead [mg/l]	BDL(<0.01)	IS 3025 (Part 47) : 1994 RA 2019	0.01	-
20	Zinc [mg/l]	BDL(<0.01)	IS 3025 (Part 49) : 1994 RA 2019	5	15
21	Chromium [mg/l]	BDL(<0.01)	IS 3025 (Part 52) : 2003 RA 2019	0.05	-
22	Alkalinity - T [mg/l]	215.04	IS 3025 (Part 23) : 1986 RA 2019	200	600
23	Aluminum [mg/l]	BDL(<0.01)	IS 3025 (Part 55) : 2003 RA 2019	0.03	0.2
24	Boron [mg/l]	0.97	APHA 2017 : 4500- B C	0.5	2.4
25	Sulphide [mg/l]	Less than 0.05	IS 3025 (Part 29) : 1986 RA 2019	0.05	-
26	Total Coliform [MPN/100ml]	Not Detected	IS 5401 (Part 2) : 2012 RA 2018	Shall not be detectable in any 100 ml sample	-
27	E-Coli [MPN/100ml]	Not Detected	IS 5887 (Part 1) : 1976 RA 2018	Shall not be detectable in any 100 ml sample	-
28	Phenolic Compound [mg/l]	BDL(<0.001)	IS 3025 (Part 41) : 1992 RA 2019	0.001	0.002



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S.No	Parameters	Observed Value	Testing Protocol	Requirement (Acceptable Limit) as per IS 10500 : 2012 (RA 2018) Max.	Standard Permissible Limit in the absence of alternative Source as per IS 10500 : 2012
29	Selenium as Se [mg/l]	BDL(<0.01)	IS 3025 (Part 56) : 2003 RA 2019	0.01	No relaxation
30	Residual free chlorine [mg/l]	BDL (<0.1)	IS 3025 (Part 26) : 1986 RA 2019	0.2	1.0
31	Mineral oil [mg/l]	BDL(<0.5)	IS 3025 (Part 39) : 1991 RA 2019	1.0	-
32	Anionic Detergents as MBA's [mg/l]	BDL(<0.1)	IS 13428 (Annexure K)	0.2	1.0
33	Cyanide as CN [mg/l]	BDL(<0.01)	IS 3025 (Part 27) : 1986 RA 2019	0.05	-
34	Nickel [mg/l]	BDL(<0.01)	IS 3025 (Part 54) : 2003 RA 2019	0.02	-
35	Silver [mg/l]	BDL(<0.01)	APHA :2017 :3111- B	0.1	-
36	Ammonia [mg/l]	BDL(<0.1)	IS 3025 (Part 34) : 1988 RA 2019	0.5	-
37	Barium [mg/l]	BDL(<0.5)	IS 13428 (Annexure F)	0.7	-
38	Chloramines [mg/l]	BDL (<0.1)	IS 3025 (Part 26) : 1986 RA 2019	4.0	-
39	Molybdenum as Mo [mg/l]	BDL(<0.01)	APHA :2017 :3111- B	0.07	-

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Puran
Puran Mal Yogi
Senior Analyst

Rajesh
Rajesh Maheshwan
Authorized Signatory
(Report No: TC502522100000679)

J.K. Cement WORKS, Nimbahera (RAJ)
Treated Domestic Effluent Analysis Report
HALF YEARLY REPORT (October'21- March'22)

S.No.	PARAMETER	Standards	October-21	November-21	December-21	January-22	February-22	March-22
1	pH	Between 5.5 to 9.0	7.40	7.25	7.32	7.20	7.51	7.25
2	Total Suspended solids	Not to exceed 100 mg/l	41.00	38.00	32.00	35.00	30.00	39.00
3	Chemical Oxygen Demand	Not to exceed 250 mg/l	144.00	135.00	147.39	125.00	133.76	144.00
4	Biological Oxygen Demand (3 days at 27 Degree C)	Not to exceed 30 mg/l	12.33	6.33	16.33	10.41	14.67	10.86
5	Oil & Grease	Not to exceed 10 mg/l	<3.1	<2.00	4.00	<2.1	4.00	<2.10
6	Ammonical Nitrogen (as N)	Not to exceed 50 mg/l	11.50	8.33	13.75	13.20	15.28	10.40
7	Sulphide (as S)	Not to exceed 2.0 mg/l	<0.20	<0.1	<0.1	<0.10	<0.1	<0.1
8	Total Kjeldahl Nitrogen (as N)	Not to exceed 100 mg/l	12.33	9.66	19.77	13.52	17.22	12.25
9	Residual Chlorine	Not to exceed 1.0 mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1



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Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502521200002440	Date :	30-12-2021
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Cement Plant
Type of Sample :	Wastewater Sample	Date of Sample Collection/Monitoring :	06-12-2021
Point of Collection :	STP Kailash Nagar Colony	Date of Receipt :	24-12-2021
Date of Test/Analysis :	24-12-2021 to 30-12-2021	Sampling Plan :	APHA 2017 : 1060
Quantity of Sample :	2 Ltr.	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Total Suspended Solids [mg/l]	32	APHA.2017:2540-D	100
2	Ammonical Nitrogen as N [mg/l]	13.75	APHA 2017 : 4500-NH3 C	50
3	Biochemical Oxygen Demand (BOD) [mg/l]	16.33	APHA 2017:5210-B	30
4	Chemical Oxygen Demand (COD) [mg/l]	147.39	APHA:2017 : 5220-C	250
5	pH	7.32	APHA:2017 : 4500 H+B	5.5 - 9.0
6	Sulphide as S [mg/l]	BDL (<0.1)	APHA. 2017 : 4500-S2-F	2
7	Total Kjeldahl Nitrogen (TKN) [mg/l]	19.77	APHA 2017 : 4500-Norg B	100
8	Oil & Grease [mg/l]	4	APHA 2017 : 5520 B	10
9	Total Nitrogen [mg/l]	12.45	APHA 2017 : 4500-Norg B	100
10	Residual Free Chlorine [mg/l]	BDL (<0.1)	APHA 2017 : 4500- Cl- B	1.0

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Senior Analyst
Sunil Kumar

Authorized Signatory
Rajesh Maheshwari
(Report No: TC502521200002440)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	200002440	Date :	30-12-2021
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Cement Plant
Type of Sample :	Wastewater Sample	Date of Sample Collection/Monitoring :	06-12-2021
Point of Collection :	STP Kailash Nagar Colony	Date of Receipt :	24-12-2021
Date of Test/Analysis :	24-12-2021 to 30-12-2021	Sampling Plan :	APHA 2017 : 1060
Quantity of Sample :	2 Ltr.	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Faecal coliform [MPN/100ml]	Not Detected	IS 1622 : 1981	-

Notes :-

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Senior Analyst
Sunil Kumar


Authorized Signatory
(Report No: 200002440)



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Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522200000364	Date :	02-03-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Wastewater Sample	Date of Sample Collection/Monitoring :	07-02-2022
Point of Collection :	STP Kailash Nagar Colony	Date of Receipt :	23-02-2022
Date of Test/Analysis :	23-02-2022 to 28-02-2022	Sampling Plan :	APHA 2017 : 1060
Quantity of Sample :	2 Ltr.	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Total Suspended Solids [mg/l]	30	APHA.2017:2540-D	100
2	Ammonical Nitrogen as N [mg/l]	15.28	APHA 2017 : 4500-NH3 C	50
3	Biochemical Oxygen Demand (BOD) [mg/l]	14.67	APHA 2017:5210-B	30
4	Chemical Oxygen Demand (COD) [mg/l]	133.76	APHA:2017 : 5220-C	250
5	pH	7.51	APHA:2017 : 4500 H+B	5.5 - 9.0
6	Sulphide as S [mg/l]	BDL (<0.1)	APHA. 2017 : 4500-S2-F	2
7	Total Kjeldahl Nitrogen (TKN) [mg/l]	17.22	APHA 2017 : 4500-Norg B	100
8	Oil & Grease [mg/l]	4	APHA 2017 : 5520 B	10
9	Total residual chlorine [mg/l]	BDL (<0.1)	APHA 2017 : 4500- Cl- B	1.0

Notes :-

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Sunil Kumar
Senior Analyst

Rajesh Maheshwari
Authorized Signatory
(Report No: TC502522200000364)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	200000364	Date :	02-03-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Wastewater Sample	Date of Sample Collection/Monitoring :	07-02-2022
Point of Collection :	STP Kailash Nagar Colony	Date of Receipt :	23-02-2022
Date of Test/Analysis :	23-02-2022 to 28-02-2022	Sampling Plan :	APHA 2017 : 1060
Quantity of Sample :	2 Ltr.	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Faecal coliform [MPN/100ml]	Not Detected	IS 1622 : 1981	-

Notes :-

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Sunil Kumar
Senior Analyst


Rakesh Maheshwari
Authorized Signatory
(Report No: 200000364)



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TEST REPORT

Report No./ULR No. :	TC502522200000372	Date :	02-03-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Wastewater Sample	Date of Sample Collection/Monitoring :	07-02-2022
Point of Collection :	STP - 35 KLD	Date of Receipt :	23-02-2022
Date of Test/Analysis :	23-02-2022 to 28-02-2022	Sampling Plan :	APHA 2017 : 1060
Quantity of Sample :	2 Ltr.	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Total Suspended Solids [mg/l]	33	APHA.2017:2540-D	100
2	Ammonical Nitrogen as N [mg/l]	11.82	APHA 2017 : 4500-NH3 C	50
3	Biochemical Oxygen Demand (BOD) [mg/l]	14.33	APHA 2017:5210-B	30
4	Chemical Oxygen Demand (COD) [mg/l]	126.72	APHA:2017 : 5220-C	250
5	pH	7.32	APHA:2017 : 4500 H+B	5.5 - 9.0
6	Sulphide as S [mg/l]	BDL (<0.1)	APHA. 2017 : 4500-S2-F	2
7	Total Kjeldahl Nitrogen (TKN) [mg/l]	19.74	APHA 2017 : 4500-Norg B	100
8	Oil & Grease [mg/l]	6	APHA 2017 : 5520 B	10
9	Total residual chlorine [mg/l]	BDL (<0.1)	APHA 2017 : 4500- Cl- B	0.5

Notes :-

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Senior Analyst
Sunil Kumar

Authorized Signatory
(Report No: TC502522200000372)



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TEST REPORT

Report No./ULR No. :	200000372	Date :	02-03-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Wastewater Sample	Date of Sample Collection/Monitoring :	07-02-2022
Point of Collection :	STP - 35 KLD	Date of Receipt :	23-02-2022
Date of Test/Analysis :	23-02-2022 to 28-02-2022	Sampling Plan :	APHA 2017 : 1060
Quantity of Sample :	2 Ltr.	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Faecal coliform [MPN/100ml]	Not Detected	IS 1622 : 1981	-

Notes :-

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Senior Analyst
Sunil Kumar


Authorized Signatory
(Report No: 200000372)



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TEST REPORT

Report No./ULR No. :	TC502522200000373	Date :	02-03-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Wastewater Sample	Date of Sample Collection/Monitoring :	07-02-2022
Point of Collection :	STP - 55 KLD	Date of Receipt :	23-02-2022
Date of Test/Analysis :	23-02-2022 to 28-02-2022	Sampling Plan :	APHA 2017 : 1060
Quantity of Sample :	2 Ltr.	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Total Suspended Solids [mg/l]	30	APHA.2017:2540-D	100
2	Ammonical Nitrogen as N [mg/l]	9.82	APHA 2017 : 4500-NH3 C	50
3	Biochemical Oxygen Demand (BOD) [mg/l]	13.67	APHA 2017:5210-B	30
4	Chemical Oxygen Demand (COD) [mg/l]	144.32	APHA:2017 : 5220-C	250
5	pH	7.51	APHA:2017 : 4500 H+B	5.5 - 9.0
6	Sulphide as S [mg/l]	BDL (<0.1)	APHA. 2017 : 4500-S2-F	2
7	Total Kjeldahl Nitrogen (TKN) [mg/l]	18.72	APHA 2017 : 4500-Norg B	100
8	Oil & Grease [mg/l]	6	APHA 2017 : 5520 B	10
9	Total residual chlorine [mg/l]	BDL (<0.1)	APHA 2017 : 4500- Cl- B	0.5

Notes :-

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Senior Analyst

Authorized Signatory
(Report No: TC502522200000373)



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Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Wastewater Sample	Date of Sample Collection/Monitoring :	07-02-2022
Point of Collection :	STP - 55 KLD	Date of Receipt :	23-02-2022
Date of Test/Analysis :	23-02-2022 to 28-02-2022	Sampling Plan :	APHA 2017 : 1060
Quantity of Sample :	2 Ltr.	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Faecal coliform [MPN/100ml]	Not Detected	IS 1622 : 1981	-

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Sunil Kumar
Senior Analyst


Rakesh Maheshwari
Authorized Signatory
(Report No: 200000373)

J.K. Cement WORKS, Nimbahera (RAJ)**Noise Monitoring Report****(All Values in dB)**

Month	HALF YEARLY REPORT (October-21 - March '22) FY 2021-22							
	Main Security Gate		Thermal Power Plant		New JK Factory Gate		Mines Office	
	Day	Night	Day	Night	Day	Night	Day	Night
Oct-21	66.3	57.8	60.2	53.2	62.1	54.2	68.6	56.9
Nov-21	68.3	55.3	67.2	57.9	61.5	54.7	68.5	56.3
Dec-21	64.6	54.3	64.2	55.5	63.5	58.4	66.4	53.4
Jan-22	62.5	53.5	67.8	50.6	66.8	55.5	68.4	50.5
Feb-22	69.2	52.3	67.2	52.21	64.2	52.3	64.1	50.22
Mar-22	64.6	54.2	69.5	53.5	63.2	56.1	62	55.4
Average	65.9	54.6	66.0	53.8	63.6	55.2	66.3	53.8



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TEST REPORT

Report No./ULR No. :	TC502522600002688	Date :	08-01-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Cement Plant
Type of Sample :	Ambient Noise Level Monitoring	Date of Sample Collection/Monitoring :	06-12-2021
Point of Collection :	Near Main Security Gate	Date of Receipt :	24-12-2021
Date of Test/Analysis :	24-12-2021 to 27-12-2021	Sampling Plan :	TTH/NOISE/01
Quantity of Sample :	-	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Noise Level (Night Time) : Leq [dB(A)]	55.3	IS 9989	70
2	Noise Level (Day Time) : Leq [dB(A)]	62.6	IS 9989	75

Notes :-

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Senior Analyst

Purni Mal Yogi

Rajesh Maheshwari

(Report No: TC502522600002688)



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TEST REPORT

Report No./ULR No. :	TC502522600002689	Date :	08-01-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Cement Plant
Type of Sample :	Ambient Noise Level Monitoring	Date of Sample Collection/Monitoring :	06-12-2021
Point of Collection :	Near Thermal Power Plant	Date of Receipt :	24-12-2021
Date of Test/Analysis :	24-12-2021 to 08-01-2022	Sampling Plan :	TTH/NOISE/01
Quantity of Sample :	-	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Noise Level (Night Time) : Leq [dB(A)]	57.8	IS 9989	70
2	Noise Level (Day Time) : Leq [dB(A)]	65.6	IS 9989	75

Notes :-

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Senior Analyst

Authorized Signatory

(Report No: TC502522600002689)



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Email : director@teamtesthouse.com,
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TEST REPORT

Report No./ULR No. :	TC502522600002690	Date :	08-01-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Cement Plant
Type of Sample :	Ambient Noise Level Monitoring	Date of Sample Collection/Monitoring :	06-12-2021
Point of Collection :	New J.k Factory Gate	Date of Receipt :	24-12-2021
Date of Test/Analysis :	24-12-2021 to 08-01-2022	Sampling Plan :	TTH/NOISE/01
Quantity of Sample :	-	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Noise Level (Night Time) : Leq [dB(A)]	52.6	IS 9989	70
2	Noise Level (Day Time) : Leq [dB(A)]	59.5	IS 9989	75

Notes :-

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Senior Analyst

Authorized Signatory
(Report No: TC502522600002690)



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Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522600002691	Date :	08-01-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Cement Plant
Type of Sample :	Ambient Noise Level Monitoring	Date of Sample Collection/Monitoring :	06-12-2021
Point of Collection :	Near Mine Gate	Date of Receipt :	24-12-2021
Date of Test/Analysis :	24-12-2021 to 08-01-2022	Sampling Plan :	TTH/NOISE/01
Quantity of Sample :	-	Sample Collected By :	kishan murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Noise Level (Night Time) : Leq [dB(A)]	58.8	IS 9989	70
2	Noise Level (Day Time) : Leq [dB(A)]	66.8	IS 9989	75

Notes :-

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Senior Analyst
Puran Mal Yogi

Authorized Signatory
(Report No: TC502522600002691)



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Email : director@teamtesthouse.com,
Email : marketinglab@teamtesthouse.com

TEST REPORT

Report No./ULR No. :	TC502522600000252	Date :	25-02-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Noise Level Monitoring	Date of Sample Collection/Monitoring :	07-02-2022
Point of Collection :	Near Main Security Gate	Date of Receipt :	22-02-2022
Date of Test/Analysis :	22-02-2022 to 24-02-2022	Sampling Plan :	TTH/NOISE/01
Quantity of Sample :	-	Sample Collected By :	Krashtra Murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Noise Level (Night Time) : Leq [dB(A)]	55.6	IS 9989	70
2	Noise Level (Day Time) : Leq [dB(A)]	63.8	IS 9989	75

Notes :-

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Purni Mal Yogi
Senior Analyst

Rajesh Maheshwar
Authorized Signatory
(Report No: TC502522600000252)



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TEST REPORT

Report No./ULR No. :	TC502522600000253	Date :	25-02-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Noise Level Monitoring	Date of Sample Collection/Monitoring :	07-02-2022
Point of Collection :	Near Thermal Power Plant	Date of Receipt :	22-02-2022
Date of Test/Analysis :	22-02-2022 to 24-02-2022	Sampling Plan :	TTH/NOISE/01
Quantity of Sample :	-	Sample Collected By :	Krashtra Murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Noise Level (Night Time) : Leq [dB(A)]	57.6	IS 9989	70
2	Noise Level (Day Time) : Leq [dB(A)]	65.2	IS 9989	75

Notes :-

- # The results listed refer only to the tested sample (s) & parameters (s). Endorsement of products is neither inferred nor implied.
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- # The samples will be destroyed after 15 days from the date of issue of test report unless otherwise specified.

Purnan Mal Yogi
Senior Analyst

Rajesh Maheshwari
Authorized Signatory
(Report No: TC502522600000253)



TEAM TEST HOUSE

(Unit of Team Institute of Science & Technology Pvt. Ltd.)



Approved by Ministry of Environment and Forest, Government of India as Environmental Laboratory

RSPCB

ISO 9001:2015,

ISO 14001:2015,

ISO 45001:2018 (OH&S)

JDA/UDH

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TEST REPORT

Report No./ULR No. :	TC502522600000254	Date :	25-02-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Noise Level Monitoring	Date of Sample Collection/Monitoring :	07-02-2022
Point of Collection :	New J.k Factory Gate	Date of Receipt :	22-02-2022
Date of Test/Analysis :	22-02-2022 to 24-02-2022	Sampling Plan :	TTH/NOISE/01
Quantity of Sample :	-	Sample Collected By :	Krashtra Murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Noise Level (Night Time) : Leq [dB(A)]	56.7	IS 9989	70
2	Noise Level (Day Time) : Leq [dB(A)]	64.2	IS 9989	75

Notes :-

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Purnan Mal Yogi
Senior Analyst


Rajesh Maheshwari
Authorized Signatory
(Report No: TC502522600000254)



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TEST REPORT

Report No./ULR No. :	TC502522600000255	Date :	25-02-2022
Issued To :	M/S J.K. Cement Works, Nimbahera Tehsil - Nimbahera, Dist.- Chittorgarh (Rajasthan),	Type of Unit :	Mines
Type of Sample :	Ambient Noise Level Monitoring	Date of Sample Collection/Monitoring :	07-02-2022
Point of Collection :	Near Mine Gate	Date of Receipt :	22-02-2022
Date of Test/Analysis :	22-02-2022 to 24-02-2022	Sampling Plan :	TTH/NOISE/01
Quantity of Sample :	-	Sample Collected By :	Krashtra Murari
Unit's representative :	Mr Sunil Singh	Condition of Sample :	Fit for testing

RESULTS

S.No	Parameters	Observed Value	Testing Protocol	Limits as per Environment protection rules, 1986
1	Noise Level (Night Time) : Leq [dB(A)]	53.6	IS 9989	70
2	Noise Level (Day Time) : Leq [dB(A)]	61.3	IS 9989	75

Notes :-

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Purni Mal Yogi
Senior Analyst


Rajesh Maheshwar
Authorized Signatory
(Report No: TC502522600000255)



REPORT ON
GREEN HOUSE GAS (GHG) EMISSION INVENTORY
(Period April-2021 – March-2022)
OF
M/s J. K. CEMENT WORKS
NIMBAHERA, DIST: CHITTORGARH (RAJASTHAN)

Prepared by:
Environment Department

DECLARATION BY J. K. WORKS

J. K. Cement Works (hereafter referred as JKCW) has undertaken Greenhouse Gas (GHG) accounting study for its integrated cement plant situated at

- JKCW, Nimbahera, Dist Chittorgarh (Rajasthan) with 2.8 MMTPA Clinker & 4.9 MMTPA Cement

The study was undertaken by industry to evaluate the greenhouse gas (GHG) emission of its integrated cement unit for the above mentioned unit for the period April 2021 to March 2022. The following methodologies and standards were used for assessment of the GHG inventory from the operations of the unit of JKCW:

1. *"Greenhouse Gases – Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals"*
International Standard ISO 14064 Part-1, 2006

2. *"GHG Protocol Corporate Accounting and Reporting Standard"*
- Greenhouse Gas Protocol

3. *"CO₂ Accounting & Reporting"*
- WBCSD Cement Sustainability Initiative Cement CO₂ and Energy Protocol Version 3.1, Emissions and Energy Inventory

The entire accounting exercise has been carried out and the GHG inventory report has been prepared in line with the ISO 14064-1:2006 and WBCSI Cement Sustainability Initiative Cement CO₂ and Energy Protocol Version 3.1, Emissions and Energy Inventory standard as mentioned above. The ISO 14064-1:2006 requires that:

"The organization should prepare a GHG report to facilitate GHG inventory verification, participation in a GHG programme, or to inform external or internal users."

Accordingly, this report has been prepared to facilitate GHG verification of the emission inventory and to enhance transparency of stakeholder communication. The compliance to ISO 14064-1:2006 in the inventory estimation and reporting exercise has been objectively demonstrated in different sections of the report. Various assumptions, inclusions and exclusions of data; and deviations from methodologies/standards, wherever applicable, have been appropriately documented with explanations in the report.

This report covers direct and indirect Carbon Dioxide (CO₂) emissions. Other GHG's i.e. Methane (CH₄), Nitrous Oxide (N₂O), Sulphur Hexafluoride (SF₆), Perfluorocarbon (PFCs), Nitrogen Trifluoride (NF₃) and Hydrofluorocarbon (HFCs) emissions have not been accounted for since the emissions of these gases do not have any material impact on the overall emissions from the operations of the above mentioned unit and are hence not considered relevant for the present study. The scope covers emissions under "Direct" and "Energy Indirect" (i.e. scope 1 & scope 2 respectively as defined in GHG protocol) categories.

Foreword

Environmental, Health and Safety Policy of J. K. Cement

We at J.K. Cement Ltd. (Grey Cement) are committed to Manufacturing and Supply of cements and cement derivative products to the satisfaction of our customers with due consideration to legal and other requirements by;

- Continually improve the effectiveness of Integrated Management System, which includes Quality Management System (QMS), Environmental Management System (EMS), Energy management System (EnMS) and Occupational Health & Safety Management System (OHSMS).
- Minimize and / or control environmental impacts, significant energy use and emphasis on elimination of hazards associated with its operations.
- Continuous Prevention and reduce pollution, resources wastage and probability of injury and ill health of Employees & interested parties.
- Inculcate a working culture with emphasis on prevention of pollution, minimizing and controlling waste generation, Safe work practices and optimize consumption of resources/energy.
- Provide necessary resources and information to achieve objectives and targets.
- Support purchase of environment friendly & energy efficient products, services & design.
- Provide effective facilities for consultation between management and worker' representatives.

The policy is made available to all employees and interested parties.

Energy Policy of J. K. Cement

We, at JK Cement Works are committed to demonstrate the excellence in Energy management in all our activities of cement manufacturing on continual basis as to make our operations environmentally sustainable.

We are improving energy efficiency & conservation by:

- We have implemented IS 9001: 50001, Energy Management System in our organization.
- Establishing a framework for setting energy objectives and targets through effective energy management cell with certified energy managers.
- Reviewing, monitoring and analyzing energy consumption and bench marking performances and set new targets.
- Conducting audits for improvement of overall energy efficiency of the plant.
- Purchasing equipment and appliances with consideration of the Bureau of Energy Efficiency Star Rating and Energy Efficiency.
- Using alternative fuels which helps the environment also directly/ indirectly to protect natural resources.
- Ensuring energy conservation, Management and Awareness throughout the organization.
- Always complying with relevant and applicable laws and regulations.
- Maximizing generation of Waste Heat Recovery Power & Solar Power in our organization.
- We have collaborated with EESL (Energy Efficiency Service Limited), Govt. of India improving energy efficiency in our organization.

To promote energy conservation & energy saving propagate awareness amongst all employee and stakeholders.

Water Management Policy of J. K. Cement

JK Cement committed toward water management & conservation that water is a key resource for continuing its business operations and the value attached to it for all its stakeholders as an integral part of business philosophy. We recognize that good quality water has strong sustainability and ecosystem service values. Protecting and conserving water resources through excellent water management practices and governance systems. Water management is not only a business imperative but also provide it with a competitive advantage in the long run.

We shall endeavor to:

- Complying with all legal and applicable rule, law, regulation and other requirement to water related.
- Minimize our impact on water resources from operations by measuring and understanding water use, management and wastewater generation
- Reduce water consumption (freshwater, groundwater) by re-use, recycling water and implementing more sustainable use of water sources.
- Implementation of rain water harvesting measure to increase water table.
- Implement a water monitoring system for water usage & consumption.
- Implementation of latest technology to reduce water consumption and ensure zero water leakages.
- Involve our employees and contract workers in water conservation initiatives.
- Engage with our stakeholders and communities to increase their awareness on the responsible use of water and involve them in protection of water resources.
- Communicate on the progress and performance of water conservation and water management efforts to stakeholders

Intended Use and Intended Users of the report

This report will further serve as the launching pad for more detailed and inclusive studies for the installations and operations of JKCW. Since GHG emission and energy /fuel costs have a direct correlation, this may serve as an ideal platform to identify GHG hotspots for any future GHG emission/fuel consumption reduction program. This report will also be the reference point for any verification of GHG inventory to be estimated in future.

Overall and specific responsibilities for preparing and producing the report:

JKCW owns the overall responsibility for preparing and producing this report, by data collection & calculation of GHG emissions as per applicable standards. The responsibility of ascertaining calculation methods in line with ISO 14064-1:2006 was entrusted by JKCW.

Frequency and base year selection

JKCW envisages assessing its GHG performance on an annual basis. Hence Inventorization of GHG emissions will be taken up on an annual frequency. The present study period includes data from 1st April 2021 to 31st March 2022, both days inclusive. As this is the first year of evaluation, hence the base year for the present GHG Inventorization Study has been selected as 2021-22.

Format & Contents

The report is organized in 3 chapters excluding the Executive Summary. The first section provides the background & scope of the GHG estimation study including the corporate EHS, Energy policy and Water Management Policy of JKCW and relevance of the study, Objectives and Scope of the exercise. The second chapter deals with the approach for calculation of emissions including description of operational boundary and quantification methodology. The third and final section provides the detailed organization-wise, unit-wise and GHG-wise break-up of the emissions and results.

Executive Summary

Statement of Intent

As a responsible corporate citizen JKCW aims to own and manage the greenhouse gas emission inventory due to its operation. Through this exercise, the site of JKCW intends to

- Volunteer its resources to adopt sustainability as a core business value and thereby showcase its commitment towards clean and green future to its stakeholders.
- To monitor, inventorize, report and own the Greenhouse Gas emissions due to its operation.
- Lay the foundation for future roll up of the inventory to arrive at inventory for JKCW.

Emission Summary

The overall emission inventory has been calculated as aggregated emissions from the operation of JKCW site. The table below presents the emission inventory for the year 2021-22:

Table 1 : Absolute GHG emissions in tCO₂e for the unit of JKCW

Emissions	Classification	Nimbahera
<i>Direct Emissions (Scope 1)</i>	<i>Total CO₂ from Raw Materials</i>	<i>818727</i>
	<i>Total CO₂ from fossil based kiln fuels</i>	<i>474028</i>
	<i>Total Direct Emissions</i>	<i>1292755</i>
<i>Indirect Emissions (Scope 2)</i>	<i>CO₂ from External Power Generation</i>	<i>50400</i>

** Both direct emission and indirect emission figures have been rounded-up to the nearest integer. The total figure reported is the sum of the rounded-up figures. The emission figures reported*

The emission sources for JKCW (Nimbahera unit) have been tabulated below:

Table 2: Explanation of Direct Emission Sources

Emission Type	Direct Emissions
CO ₂ Emissions from Raw Materials	Emissions from Calcination of raw materials consumed for clinker production
	Emissions from organic carbon content of raw meal
CO ₂ Emissions from Kiln Fuels (incl. of Drying of Fuels & Raw Materials)	Emissions from fossil fuel consumption (conventional)
	Emissions from alternative fossil fuel consumption
CO ₂ Emissions from Non- Kiln Fuels	Emissions from fossil fuel consumption
	Emissions from fossil fuel consumption for onsite vehicles and equipment's
	Emissions from fossil fuel consumption in onsite power generation

Table 3: Explanation of Indirect Emission Sources

Emission Type	Indirect Emissions
Main Sources	Emissions from External Power Generation

The emission sources have been referenced from WBCSI Cement Sustainability Initiative Version 3.1

Background and Scope

A leading cement manufacturer in the country, JK Cement Ltd is an affiliate in an multi-disciplinary industry conglomerate JK Organization which was founded by Lala Kamlapat Singhanian. For over four decades, JK Cement has partnered India multi-sectoral infrastructure needs on the strength of its product excellence, customer orientation and technology leadership. The Company has over four decades of experience in cement manufacturing. Our operations commenced with commercial production at our first grey cement plant at Nimbahera, Rajasthan in May 1975. Subsequently, the company also set up 2 more units in Rajasthan at Mangrol and Gotan. In the year 2009, the company extended its footprint by setting up a green-field unit in Muddapur, Karnataka giving it access to the markets of south-west India. In the year 2014, the company further expanded its capacity in the north with brownfield expansion of 1.5 MnTPA integrated unit at Mangrol and split grinding unit of 1.5 MnTPA at Jhajjar. Today, JK Cement has an installed grey cement capacity of 14 MnTPA, making it one of the top cement manufacturers in the country.

JK White Cement, a division of JK Cement Ltd., enjoys a PAN India presence and the Company is the leading producer of Wall Putty in the Country. The Company is the second largest manufacturer of white cement in India, with an annual capacity of 600,000 tonnes. Having established a strong presence in India, the Company made its first international foray with the setting up of a green-field dual process White Cement-cum-Grey Cement plant in the free trade zone at Fujairah, U.A.E to cater to the GCC and African markets. JK White Cement is sold across 43 countries around the globe. With the commissioning of this plant, JK Cement became one of largest producers of White Cement in the world, with a total white cement capacity of 1.20 MnTPA and wall putty capacity of 0.9 MnTPA.

JK Cement was the first company to install a captive power plant in the year 1987 at Bamanian, Rajasthan and the first cement company to install a waste heat recovery power plant to take care of the need of green power. Today at its different locations, the Company has captive power generation capacity of over 125.7 MWs which includes 23.2 MW of waste heat recovery power plants.

We are steadily enhancing our capacity, diversifying our range of products, ushering in advanced technology and quality assurance, and above all, expanding our presence nationally and internationally. Our brands continue to enjoy the trust of millions of consumers for the high quality and innovation benchmarks that we have attained.

Superior products and a strong Brand name, an extensive marketing and distribution network and the technical know-how represent JK Cement's abiding strengths.

About the Unit:

J. K. Cement Works, Nimbahera is situated at Nimbahera tehsil in Chittorgarh district, Rajasthan. Near Railway station is Nimbahera (2 km), NH - (1.5 km), airport Udaipur (120 km). Production Capacity: Clinker - 2.80 MMTPA, Cement - 4.90 MMTPA, CPP - 22 MW, WHRS 13.2 MW and Total Area: 98.05 Hectare

Our plant is also ISO 9001:2015 & ISO 14001:2015 certified and our laboratory is accredited with the NABL-National Accreditation Board for Testing and Calibration Laboratories. Plant is also certified with ISO 5001: 2011 & ISO 45001: 2018

Our Products & Informations



OPC



PPC



Weather Sheild

Ordinary cement (OPC)

Company also produces Ordinary Portland cement (OPC) which is much in demand for its extra strength and fineness. It is ideal for all kinds of construction jobs and concrete components production. OPC has three grade that we produce, that are differentiated by their compressive strengths expressed in Mega Pascals (MPa) as specified by BIS. These grades are 53 grade OPC, 43 grade OPC, 33 grade OPC, 53 grade OPC having the highest compressive strength. The customer selects the grade of OPC based on the intended application. Our most popular cement is 43 grade cement, with 53 grade cement being used in application which require high strength characteristics.

Portland

JK Super Cement (PPC)

JK Super Cement is one of the premium gray cement brands in the country, available as application friendly Portland Pozzolona Cement (PPC). The product complies with quality standards specified by the Bureau of Indian Standard (BIS) and is much in demand by both the retail and the institutional segment.

JK Super strong Weather Shield Cement

JK Super strong Weather Shield Cement is a water repellent cement having and integral water repellent property at the cement particle level manufactured through a technology developed in-house called PWRT (Particle Level Water Repellent Technology). Cement manufactured with PWRT exhibits resistance to penetration of water in mortar, plaster & concrete. This property is incorporated by modifying the particle size distribution and fineness of cement through an innovative technique. It significantly reduces water permeation to concrete or mortar, which results in dry walls and healthy indoor climate. This cement can be used all applications such as foundations, masonry & concrete work.

JK Cement: Environment, Health & Safety (EHS) Policy

JK Cement actively promotes environment, health & safety responsibility as one of its core business values and is committed towards environmental protection and providing healthy & safe work environment by way of

- ❖ *Compliance with all applicable legal, social and other requirements.*
- ❖ *Improvement in environmental performance and resource efficiency*
- ❖ *Reviewing objectives and targets for continual improvement in environment, workplace, health and safety*
- ❖ *Engaging and training human capital to enhance their skills and augment resources for effective EHS performance.*
- ❖ *Controlling Pollution*
- ❖ *Prevention of occupational injuries and health hazards*

JK Cement: Energy Policy

JK Cement is also committed towards improvement of Energy Efficiency and performance by using alternative fuels and by identification and reduction of energy losses by:

- ❖ *Establishing framework for setting energy objectives and targets*
- ❖ *Reviewing, monitoring and analysing Energy Consumption*
- ❖ *Conducting audits for improvement of overall Energy Efficiency of the plant*
- ❖ *Purchasing equipment and appliances with consideration of the Bureau of Energy Efficiency Star Ratings and energy efficiency.*
- ❖ *Ensuring Energy conservation, management and awareness throughout the organization*
- ❖ *Always complying with relevant and applicable Laws and Regulations*

JKCW has initiated estimation of Greenhouse Gas inventory from cement manufacturing unit in the same spirit. JKCW management has already reported the GHG emissions as a key performance indicator in its annual Sustainability Report.

GHG Footprint Assessment: Drivers and Benefits

Greenhouse gas emissions being one of the key concerns of “cost to environment” for modern businesses, JKCW wishes to embark on a low carbon growth trajectory in its operations. Managing GHG emissions is only possible with effective monitoring set-up and practices to measure, record, calculate and report emissions over a period of time. Hence, JKCW has decided to calculate the GHG inventory of its installation at Nimbahera. The initial study will help to fulfil the following objectives:

1. Review its monitoring set-up and improve it to enable a corporate level replication for future.
2. Increase know-how of the employees for future repetitions of the exercise.
3. Capitalize on the benefits of GHG inventory estimation.

Various business goals that may be served by GHG footprint estimation include:

- (I) Managing GHG risks and identifying reduction opportunities – By becoming cognizant to the current emission status of the organization a company can:

(a) Evaluate its position with respect to industry leaders

(b) Identify risks associated with GHG constraints in the future - Identification and quantification of the carbon assets and liabilities of an organization which are the two essential components for understanding climate change risk-return perspective of the organization.

(c) Identify cost effective reduction opportunities - Identification of potential opportunities of GHG emission reduction (Energy optimization, Process modifications and improvements, adoption of clean technologies etc.). JK Cement has already implemented CDM projects off set RPO obligation of RE power (Solar + Wind) by WHRS power plant.

(d) Set GHG targets, measuring and reporting progress

(II) Public reporting and participation in voluntary GHG programs – Voluntary GHG abatement initiatives are globally acknowledged. It requires:

(a) Voluntary stakeholder reporting of GHG emissions and progress towards GHG targets.

(b) Reporting to Government and NGO reporting programs, including GHG registries.

(c) Eco-labelling, benchmarking and GHG Certification

(III) Recognition for early action and associated intangible benefits, which include:

(a) Recognition for early accounting and taking ownership of its emission inventory leading to enhancement of brand image and pan industry recognition.

(b) Greater preparedness to effectively align present and future business policies in line with the GHG risk exposure.

(c) Optimum utilization of the carbon market to avail financial incentives and credits for GHG abatement measures, as applicable presently.

(d) Align with Indian government climate policy

Approach and Methodology

Approach

The GHG Inventorization was carried out in the below mentioned way:

- ❖ Training Programs on GHG Inventorization were conducted.
- ❖ An understanding of the cement manufacturing process.
- ❖ Determination of operational boundary and emission sources.
- ❖ This was followed by data collection and subsequent analysis
- ❖ Determination of GHG Inventory and Submission of Results

Methodology

The methodology for GHG Footprint Estimation has been designed in line with ISO 14064-1:2006 Guidelines. The key steps followed in the determination of the GHG Footprint are as follows:

- ❖ Confirmation of Organizational Boundary
- ❖ Determination of Operational Boundary
- ❖ Quantification of GHG emission and removal
- ❖ Quantification of directed actions in the organization
- ❖ Reporting of GHG emissions and removals

Determination of Organizational Boundary

The organization may comprise one or more facilities. Facility-level GHG emissions or removals may be produced from one or more GHG sources or sinks. The organization shall consolidate its facility-level GHG emissions and removals by one of the following approaches:

- (a) Control: the organization accounts for all quantified GHG emissions and/or removals from facilities over which it has financial or operational control; or
- (b) Equity share: the organization accounts for its portion of GHG emissions and/or removals from respective facilities.

It is imperative from the above guidance that if the reporting company wholly own operation, its organizational boundary will be the same, whichever approach is used. The unit of JKCW covered under this study is operationally directly controlled by JK Cement Limited and hence the **Operational Control** approach for setting the organizational boundaries has been selected.

Determination of Operational Boundary

The establishment of operational boundaries includes identifying GHG emissions and removals associated with the organization's operation, categorizing GHG emissions and removals into direct emissions, energy indirect emissions and other indirect emissions. It includes choosing which of the other indirect emissions will be quantified and reported." In line with the above guidance, the operational boundary for JKCW has been determined. The boundary encompasses the process operation at the following location:

Integrated Cement Unit at Kailash Nagar, PO-Nimbahera, Chittorgarh District, Rajasthan

This includes the cement manufacturing operations in the above mentioned sites. The following operations/activities are included in the operational boundary of JKCW:

- Calcination of raw materials consumed for clinker production
- Kiln Fuel Consumption
- Non-Kiln Fuel Consumption
- Alternative Fuel Consumption
- Fossil fuel consumption in onsite vehicles and equipments
- Purchased Electricity
- Electricity Generated by own thermal power plant

The standard ISO 14064-1:2006

- ❖ mandates quantification of Direct GHG emissions in the boundary
- ❖ recommends quantification of Direct GHG removals in the operational boundary
- ❖ mandates quantification of energy indirect GHG emissions from the generation of imported electricity, heat or steam consumed
- ❖ provides for the choice to (or not to) quantify other indirect GHG emissions.

Accordingly, JKCW has chosen to quantify and report **direct GHG emissions (scope 1) and energy indirect GHG emissions (scope 2)** from all sources within the chosen operational boundary.

Direct emissions accounts for all operations related emissions due to Raw Material consumption for clinker production, Kiln and Non Kiln Fuel Consumption, Alternative Fuel Consumption, Fossil Fuel consumption in onsite vehicles and equipments, the Kiln related emissions for the unit location.

Energy Indirect emissions accounts for emissions due to electricity purchased from the grid.

JKCW has decided not to report Scope 3 (**Other Indirect**) emissions due to non-availability of data.

Quantification of GHG emissions and removals

Quantification of GHG emissions have been carried out as per the steps outlined in ISO14064-1:2006 and WBCSI Cement Sustainability Initiative (Cement CO2 and Energy Protocol, Version 3.1, CO2 Emissions Energy Inventory). GHG removals in the operational boundary have not been quantified due to absence of verifiable data. The steps of calculation are as presented in the list below:



Identification of GHG Sources and sinks

An activity wise or process wise approach was considered for evaluating the GHG emissions. The following sources were identified and accordingly data collection templates were prepared and circulated.

Table 4 : Direct and Indirect Emission Sources for JKCW

Source		GHG	Unit
Scope 1 (Direct Emissions)			
Kiln operations	Raw Material Consumption for clinker production	CO2	tCO2e
	Organic Carbon Content of Raw Material	CO2	tCO2e
	Consumption of Fossil based kiln fuels	CO2	tCO2e
Non-kiln Operations	Consumption of non-kiln fossil fuels	CO2	tCO2e
Mobile Emissions	Fossil Fuel Consumption usage in onsite vehicles and equipment's	CO2	tCO2e
On-site power generation	Consumption of Fossil based fuels	CO2	tCO2e
Scope 2 (Energy Indirect Emissions)			
Consumption of purchased electricity from grid	Emissions associated with power generation in the power plants connected to the regional grid	CO2	tCO2e

Memo Item:

Table 5: Memo Item representing Biomass consumption

Source		GHG	Unit
Direct CO2 from Biomass			
Biomass Consumption	Combustion of Biomass (kiln fuel)	CO2	tCO2e

The only GHG sink relevant is due to afforestation within the physical boundaries. However, quantification of these being extremely difficult due to requirement of tree species specific data which is unavailable, GHG sinks have not been reported in this study. Further, JKCW would like to focus on reducing emission at source for mitigating their GHG inventory.

Selection and Collection of GHG activity data

The different emission sources, activity data required and algorithm for determination of emissions is presented below:

I. Direct Emissions:

The following sources were considered while computing the direct emissions:

- *Emissions from calcination of raw materials consumed for clinker production*
- *Emissions from organic carbon content of raw meal*
- *Emissions from consumption of fossil based kiln fuel*
- *Emissions from consumption of fossil based non-kiln fuel*
- *Emissions from consumption of fossil fuel in onsite power generation*

The computation for direct GHG Emissions have been done based on WBCSI Cement Sustainability Initiative (Cement CO2 and Energy Protocol, Version 3.1, CO2 Emissions and Energy Inventory) GNR database.

II. Indirect Emissions

The following sources were considered while computing the indirect emissions:

- *Emissions from external power generation*

The computation for indirect GHG Emissions have been done based on GHG Protocol (Scope 2 Guidance on how corporations measure emissions from purchased or acquired electricity, steam, heat, and cooling)

Selection or development of GHG emission factors

JKCW has selected GHG emission factors as per recognized sources such as 2006 IPCC Guidelines for National Greenhouse Gas Inventories, IPCC Fourth Assessment Report, CSI default and CEA. The following emission factors have been used in the calculations:

Table 6: List of emission factors and other constants

Type	Category		IPCC default kg CO2/GJ	CSI default kg CO2/GJ	CSI default % biomass
Fossil fuels					
1		coal + anthracite + waste coal	96		
2		petrol coke		92.8	
3		(ultra) heavy fuel	77.4		
4		diesel oil	74.1		
5		natural gas (dry)	56.1		
6		oil shale	107		
6, a		lignite	101		
7		gasoline	69.3		
Alternative fossil fuels					
8		waste oil		74	
9		tyres		85	27.00%
10		plastics		75	
11		solvents		74	
12		impregnated saw dust		75	
12,a		mixed industrial waste		83	
13		other fossil based wastes		80	
Biomass fuels					
14		dried sewage sludge		110	
15		wood, non-impregnated saw dust		110	
16		paper, carton		110	
17		animal meal		89	
18		animal bone meal		89	
19		animal fat		89	
20		agricultural, organic, diaper waste, charcoal		110	
21		other biomass		110	

The values have been sourced from IPCC Guidelines for National Greenhouse Gas Inventories, Prepared by the National Greenhouse Gas Inventories Programme, and WBCSI Cement Sustainability Initiative Cement CO₂ and Energy Protocol, Version 3.1, CO₂ Emissions and Energy Inventory

Table 7: Grid Emission Factor

Parameter	Unit	Value
Grid Emission Factor	tCO2/MWh	0.79
Grid Emission Factor	tCO2/MWh	0.79

This may be noted that the CEA Data base version 10 has been used to compute the GHG emissions from external power generation.

Calculation of GHG emissions and removals

Using the activity data collected as explained above and the emission factors selected in previous section, emissions due to different processes / activities are calculated. The next chapter provides the result of the calculations for FY 2021-22 for JKCW.

GHG Emissions & Performance Indicators

This section provides the specific activity wise details on data and information that has been collated, verified and used as per the computation methodology described in the previous sections of this report, to estimate the greenhouse gas emissions due to the operations of JKCW. This chapter includes the following:

- I. Total GHG emission (Direct & Energy Indirect) for Nimbahera
- II. CO₂ Specific Performance Indicators
- III. Other Performance Indicators

Total GHG Emissions (Direct & Indirect for Nimbahera)

Table 8: Source wise Direct GHG Emissions for JKCW (Nimbahera Unit) (all units in tCO₂e)

<i>Location</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Source</i>	<i>Total Emissions</i>
JK Cement Works, Nimbahera	24°38”18.46 to 24°38,41.50 N	74°41”5.93 to 74°41:1.84 E	Calcination of Raw Materials consumed for Clinker Production (absolute)	818727
			Consumption of Fossil based Kiln Fuels (absolute)	474028
<i>Total Direct Emissions (Scope 1)</i>				<i>1292755</i>

**Total figures rounded-up to the nearest integer*

Table 9: Source wise Energy Indirect GHG Emissions for JKCW (Nimbahera Unit) (all units in tCO₂e)

Location	Latitude	Longitude	Source	Total Emissions
JK Cement Works, Nimbahera	24°38'18.46 to 24°38,41.50 N	74°41'5.93 to 74°41:1.84 E	External Power Generation	50400
Energy Indirect Emissions (Scope 2)				

**Total figures rounded-up to the nearest integer*

CO₂ specific Performance Indicators

Following performance indicators have been shown for Nimbahera:

- Specific Gross CO₂ per tonne of cementitious product
- Specific Gross CO₂ per tonne of calcination component
- Specific Gross CO₂ per tonne of fuel component
- Specific Net CO₂ per tonne of cementitious product

Table 10: CO₂ specific performance indicators (all units in tCO₂e)

Location	Specific Net CO ₂ per tonne of cementitious product	Specific Net CO ₂ per tonne of calcination component
	Kg CO ₂ /t cem. prod	Kg CO ₂ /t cem. prod
Nimbahera	601	382

Other performance parameters

Apart from the CO₂ specific parameters, other general performance indicators have been identified for Nimbahera Unit:

- Specific heat consumption of clinker production
- Biomass fuel rate
- Specific total power consumption
- Specific power consumption of clinker production
- Specific power consumption of cement production

Performance indicators and relevant values for Nimbahera Unit have been provided below:

Table 11: Other Performance Indicators -Nimbahera (all units in tCO₂e)

Performance Indicator	Unit	Value
Specific heat consumption of clinker production	MJ/t clinker	788.27
Specific total power consumption	kWh/t cem. Prod.	79.20
Specific power consumption of clinker production	kWh/t clinker	42.87
Specific power consumption of cement production	kWh/t cem. Prod.	29.77
Total alternative fuel rate at plant level	AFR %	0.79%
Total conventional fossil fuel rate at plant level	Coal %	11.95%

Table 12: Key performance Indicator –Nimbahera (all units in tCO₂e)

Performance Indicator	Unit	Value
Specific Net CO ₂ per tonne of cementitious product	Kg CO ₂ /t cem. Prod.	601

Energy Efficiency Measures

Cement is a highly energy intensive industry. The energy cost accounts to almost 50% of the total operational cost, hence reduction in the energy cost is JKCW prime target. BEE in this PAT cycle has given targets and 24 energy intensive sectors to reduce their specific energy consumption. JKCW Nimbahera unit has been a designated consumer under PAT is in the process of reducing its specific energy consumption. Thus JKCW gives priority to fulfilling regulatory obligations arising out of the climate change policies of the government. The company also prioritizes and identifies improvement opportunities based on return on investment and effect on the organization on a mid to long term basis which reduces the input costs and increases operational efficiency.

Energy Efficiency Measures Taken by JKCW during 2021-22

As a part of the improvement opportunities, JKCW has identified and implemented the following improvement measures:

With emission reduction and energy efficiency improvement measures in place, it is anticipated that JK Cement Works would take realistic and achievable GHG reduction targets which not only reduces the GHG emissions from present level but also increases the resource efficiency.

Table 13: Energy Efficiency Measures taken at Nimbahera unit

S. No.	Project Type	Description	Electricity Saved (kWh)
1	Process Optimisation	Thermal Energy Saving due to Line 3 Upgradation	16977256
		Energy Saving Due to Project Modification in Line 3 (Raw Mill)	11150856
		Energy Saving Due to Project Modification in Line 3 (Kiln)	3267000
		Limestone Sieve size reduction in Raw Mill HRP and increase in output and reduction in power consumption	3135790
		Energy Saving Due to Project Modification in Line 3 (Coal Mill)	1219460
		CM 4 Mechanical Transport	943800
		Speed Optimization of RM HRP Fan (88% to 85%)	456299
		Compressor's optimization. (One compressor 325CP720 stopped as low efficiency 72% and Line connected from 423CP700,710)	151872
		Replacement of P2J01 600mm Screw Conveyor Motor 110KW to 55KW. Motor run at a lower torque point making it to run less efficiently and drawing more power than its needed	137940

		Power Saving Due to Raw Mill Fan Inlet Damper Removal	134640
		P&V System Replacement to BLDC Motor Operated AHU System	99000
		CF Silo Blower Rotor Pulley Diameter reduced (236mm to 195 mm)	97425
		Bag Filters operation changed from timer mode to DP mode (Crusher, RM, Kiln, coal Mill and Cement Mills)	79200
		Power saving due to CCX spreader Bearing Cooling system optimization	69300
		Coal Mill Product Transport Group Running Optimization (RAL & SC's)	67200
		DOL to VFD Operation of Packing Plant Compressor-CP200	39446
		DOL to VFD Operation of Dust Filter Fan- P3P10	37376
		Replacement of 512 nos conventional tube lights 40watt to high efficient 20watt led light	35221
		Run Time optimization in Boiler 5 Screw Conveyor P88	33179
		Replacement of 90 nos conventional lights 125watt to high efficient 24watt panel led light	30525
		Coal Mill VRM Coal Feeding belts run time optimization	25160
		Replacement of office lights (CCR, instt. room) 92nos conventional tube lights-40watt to high efficient 32nos 24 watt panel led light	17820
		Automation of 15KW Tube Well Pump with a timer (24 hrs slots) in circuit with setting of 2hrs running & one hour stop	13971
		CM HRP Main Bag house one air slide blower disconnected	13207
		Run Time optimization in Boiler 5 Screw Conveyor P87	11753
		Replacement of 70 nos conventional lights 72watt to high efficient 24watt panel led light	8225
		Replacement of office lights (general stores) 56nos conventional tube lights-40watt to high efficient 14nos 24-watt panel led light.	7057

		Coal Belt L1L02 Running optimization while C01 running only	7008
		Alternate lighting pole circuits are separated and timer circuit synchronized with it in such a way that 160Nos. Colony poles will illuminate from 7:30PM to 11:30PM and Afterwards 50% poles switched off automatically	3943
2	TECHNOLOGY ABSORPTION	In Raw Grinding, Raw mill HRP Installed	16977256
		In Pyro, Installed ILC preheater	11150856
		In Coal Mill VRM installed	3135790
	Total		69534830

J K Cement Limited

CORPORATE ENVIRONMENT POLICY

JK Cement Limited is committed to ensure clean, green and healthy environment for sustainable development through:

- By ensuring that the activities of the company comply with all the relevant laws, regulations and industry and applicable codes of standards and practices, as well as to take any additional measures considered necessary.
- By involving all employees in implementation of the Company's policy and imparting appropriate training, providing for dissemination of information to employees on Environmental objectives and performance through suitable communication networks.
- By involving the Suppliers, Vendors, Customers, Clients and other Business Associates to promote awareness among them for their responsibility towards Environment and to encourage their participation in achieving our Environmental Goals.
- Continuously improve in effectiveness of environmental management with proper systems to prevent, mitigate and control environmental impacts due to operations across the value chain and local community.
- By building awareness to all stakeholders including employees, customers, vendors etc. on environmental issues as well as compliance of relevant environmental legislation by implementing the environmental management system.
- By improvement in environment management, efficient use of natural resources, energy & plant equipments.
- By promoting reuse and recycling wastes, reduction in emission, noise, waste and greenhouse gases.
- By greenbelt development for local bio-diversity management and conservation in coalition with local communities, authorities and other stakeholders.
- By reporting of non-compliances (if any), violations of environmental norms of the conditions of environment clearance/ consent/ NOC/ authorization and permission etc. relevant to the environmental conditions, wherever required to the director and occupier by the respective Unit Head, Administrative Head, Technical Head and Environment Head so as to fulfil the deviation from compliances as and when required.

This policy will be reviewed periodically and updated as may be required. This Policy shall be made known to all our customers and stakeholders, apart from all our employees.



K.N. Khandelwal
Director and Occupier



UNITS:

J.K. Cement Works, Nimbahera
J.K. Cement Works, Mangrol
J.K. Cement Works, Gotan
J.K. Cement Works, Muddapur
J.K. Cement Works, Jharli

J.K. Cement Works, Aligarh
J.K. Cement Works, Balasinor
J.K. White Cement Works, Gotan
J.K. White, Katni



ENVIRONMENT MANAGEMENT SYSTEM

1. LEGAL & OTHER REQUIREMENTS

- a) The company is IMS certified and have established and maintained a procedure to identify, access and update legal and other requirements to which we subscribe, that are applicable to the environmental aspects / impacts. The list of legal and other requirements applicable to our operations are maintained separately and are communicated to our stakeholders. Main legal requirements are as follows:

- Environmental acts & rules
- Mines acts & rules
- Factory acts & rules
- Boiler acts & rules

2. OPERATIONAL CONTROL PROCEDURES

- a) We have identified our operations and activities that are associated with Environmental aspects and OHS risks in line with our Environmental Policy.
- We have established and maintained SOP's to check out the deviations from Environment Management System.
 - We have maintained rule and regulation register comply with legal and other requirement.
 - We ensure to review control measures and SOP's on regular intervals, effectiveness of system checked by IMS audit and necessary implement.
- b) Relevant Operation Control Measures
- Limestone mines operation- Water sprinkling on the haulage road and at unloading point (crusher), raw material transportation by covered belt and emission control system at transfer points.
 - Clinkerization- Covered storage of raw materials, petcoke and coal, clinker in silos, use of high efficient pollution control measures such as ESP, Bag house, bag filters at all transfer points, coved conveyors and De-NOx system etc.
 - Cement Grinding & Packing- Bag Filters at all transfer points, storage of fly ash in silo and pneumatic Fly ash handling, automatic bag filing machines, use of tarpaulin to each truck and wagon and vacuum sweeping machine.
 - Storage in yard- Covered.
 - Utility operation- Management of waste/used oil, oily wastes and management by 100% recycling/ sold to authorized recycler in process to maintain ZLD and treatment of domestic sewage water in STP to use for plantation and process.
 - General- Dust control by good housekeeping & maintenance, use of dust extraction and recycling systems to remove dust from work areas, contractor activities and task observations.
 - Use of proper personal protective equipment (PPE).
 - Minimum 33 % plantation in the project area with native species in a time bound manner.



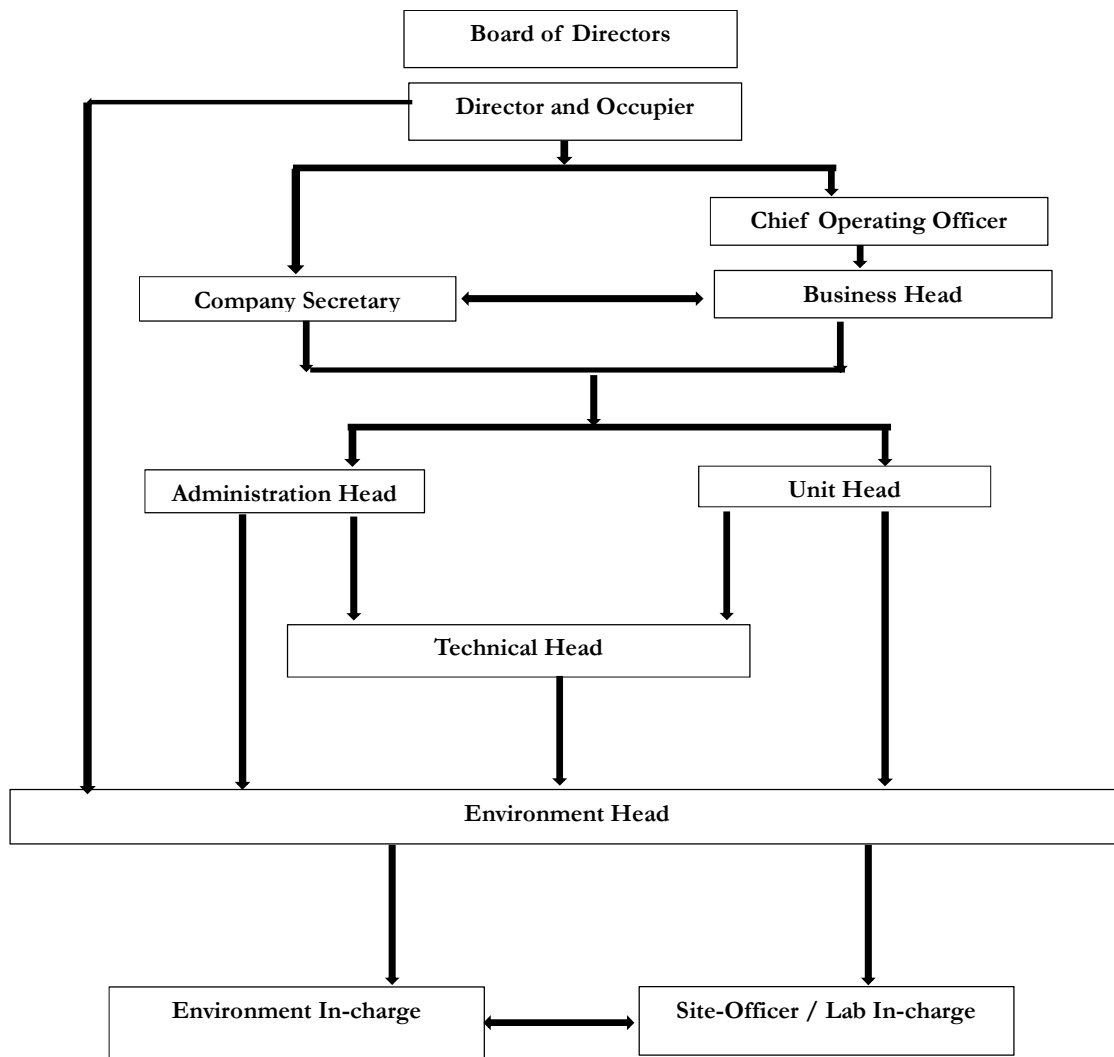
K.N. Khandelwal
Director and Occupier



3. ROLES & RESPONSIBILITIES

We have established, implemented and maintained EMS to meet its requirements at all of our locations within the organizational boundaries. Roles and responsibilities of various personnel, who manage, perform and verify the activities and their impacts on environment and/or OH&S have been defined by the top management as per hierarchy or administrative order by board of directors.

The below organizational structure Management Cell is responsible for any non-compliance/ infringement/ deviation/ violation of the environmental or forest norms under the supervision of Board of Directors.



K.N. Khandelwal

K.N. Khandelwal
 Director and Occupier



NBH/PC/C/EC/CPM/

4034

Date: 19.02.2022

To,

The Deputy Director General of Forest (C)

Integrated Regional Office,

A - 209 & 218, Aranya Bhawan, Mahatma Gandhi Road

Jhalana Institutional Area,

Jaipur (Rajasthan) - 304002

Sub: Compliance of EC conditions granted for expansion of Clinker Production Capacity (5.0 to 5.2 MTPA) and WHRS {13.2 (Water Cooled) to 15 MW (Air Cooled)} along with additional WHRS {15 MW (Air Cooled)} and Reduction in capacity of Captive Power Plant (47 to 22 MW) of M/s J. K. Cement Works, Nimbahera, Dist. Chittorgarh (Rajasthan).

Ref: EC file no. IA-J-11011/ 243 / 2016-IA-II (I) dated 14.02.2022

Dear Sir,

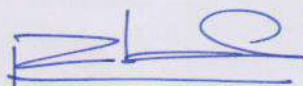
Kindly refer to the above EC letter, submitting herewith compliance status of **miscellaneous condition no. (x) (i).**

- Copy of EC has been marked to the local concern authority (receipt enclosed).
- EC granted information published in two local newspapers i.e. Dainik Bhaskar & Rajasthan Patrika on 17.02.2022 (copy enclosed).

Thanking You.

Yours faithfully,

For J. K. Cement Works, Nimbahera



(R. B. M. Tripathi)

President (O) & Unit Head

Encl.: as above



Corporate Office

- Padam Tower, 19 DDA Community Centre Okhla, Phase - 1, New Delhi - 110020, India
- +011-49220000
- admin.padamtower@jkcement.com
- www.jkcement.com

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Registered Office : Kamla Tower, Kanpur-208001, U.P., India. +91-512-2371478 to 85 +91-512-2399854 www.jkcement.com

NBH/PC-A/CPM/11-

Date: 16.02.2022

To,
The Deputy Director General of Forest (C)
Integrated Regional Office,
A - 209 & 218, Aranya Bhawan, Mahatma Gandhi Road
Jhalana Institutional Area,
Jaipur (Rajasthan) - 304002

Sub: Regarding information for grant of Environmental Clearance for J. K. Cement Works, Nimbahera, Tehsil Nimbahera, Dist. Chittorgarh (Rajasthan).

Dear Sir,

Kindly refer to the above subject matter, we hereby intend to environment clearance has been granted by the MoEF&CC vide letter no. F. No. IA-J-11011/243/2016-IA-II(I) dated 14.02.2022 for expansion of Clinker Production Capacity (5.0 to 5.2 MTPA) and WHRS (13.2 (Water Cooled) to 15 MW (Air Cooled)) along with additional WHRS (15 MW (Air Cooled)) and Reduction in capacity of Captive Power Plant (47 to 22 MW) at Nimbahera, District: Chittorgarh (Rajasthan) by M/s. JK Cement Limited

We hereby enclosing the copy of EC for your reference please.

Thanking you.

Yours faithfully,

For J. K. Cement Works, Nimbahera

(R. B. M. Tripathi)
President (Operations)

Encl: As above.

Copy:

1. The Member Secretary, Rajasthan State Pollution Control Board, 4, Institutional Area, Jhalana Doongri, Jaipur- 302004, Rajasthan.
2. The Regional Officer, Rajasthan State Pollution Control Board, Near FCI Godawn, Chnadaria, Dist. Chittorgarh (Rajasthan)
3. The District Collector, Collectorate Office, Chittorgarh (Rajasthan)
4. The Chief Executive Office, Zila Parishad, Dist. Chittorgarh (Rajasthan)
5. The General Manager, District Industrial Center, Dist. Chittorgarh (Rajasthan)
6. The SDM, Sub Divisional Office, Tehsil: Nimbahera, Dist. Chittorgarh (Rajasthan)
7. The Executive Officer, Nagar Palika, Nimbahera, Dist. Chittorgarh (Rajasthan)

प्रमुख कार्यकारी अधिकारी
जिला परिषद, चित्तौड़गढ़
प्राप्ति लिपिक
आवक शाखा
जिला कलेक्टर कार्यालय
चित्तौड़गढ़

Recd
13/2/22

Signature

Corporate Office

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Jharli (Haryana) | Katni (M.P.) | Aligarh (U.P.) | Balasinor (Gujarat)

जे. के. सीमेन्ट वर्क्स, निम्बाहेड़ा (राज.)

दिनांक 16 फरवरी 2022

सूचना

सर्व सम्बन्धित को सूचित किया जाता है कि जे. के. सीमेन्ट वर्क्स, निम्बाहेड़ा, तहसील-निम्बाहेड़ा, जिला-चित्तौड़गढ़ की उत्पादन क्षमता में विस्तार (क्लीकर-50 लाख टन से 52 लाख टन, डब्ल्यू.एच.आर.एस. 13.5 मेगावाट (वाटर कूलड) से 15 मेगावाट (एयर कूलड), अतिरिक्त डब्ल्यू.एच.आर.एस. 15 मेगावाट (एयर कूलड), कैप्टिव पावर प्लान्ट की क्षमता में कमी 47 मेगावाट से 22 मेगावाट एवं सीमेन्ट उत्पादन क्षमता 65 लाख टन (कोई परिवर्तन नहीं) हेतु भारत सरकार की वन, पर्यावरण एवं जलवायु परिवर्तन मन्त्रालय, नई दिल्ली द्वारा पत्र क्रमांक IA-J-11011/243/2016-IA-J II (1), दिनांक 14 फरवरी 2022 के माध्यम से पर्यावरण स्वीकृति प्राप्त हुई है।

उपरोक्त पर्यावरण स्वीकृति की प्रतिलिपी भारत सरकार की वन, पर्यावरण एवं जलवायु परिवर्तन मन्त्रालय की वेबसाइट www.parvivesh.nic.in एवम् जे. के. सीमेन्ट लिमिटेड की वेबसाइट तथा राजस्थान राज्य प्रदूषण नियन्त्रण मण्डल के कार्यालय में उपलब्ध है।

अध्यक्ष-ऑपरेशन्स
जे.के.सीमेन्ट वर्क्स,
निम्बाहेड़ा राजस्थान

दैनिक भास्कर

जे.के.सीमेन्ट वर्क्स, निम्बाहेड़ा (राज.)

सूचना

दिनांक 16 फरवरी 2022

सर्व सम्बन्धित को सूचित किया जाता है कि जे. के. सीमेन्ट वर्क्स, निम्बाहेड़ा, तहसील-निम्बाहेड़ा, जिला-चित्तौड़गढ़ की उत्पादन क्षमता में विस्तार (क्लीकर) 50 लाख टन से 52 लाख टन, डब्ल्यू.एच.आर.एस. 13.5 मेगावाट (वाटर कूलड) से 15 मेगावाट (एयर कूलड), अतिरिक्त डब्ल्यू.एच.आर.एस. 15 मेगावाट (एयर कूलड), कैप्टिव पावर प्लान्ट की क्षमता में कमी 47 मेगावाट से 22 मेगावाट एवं सीमेन्ट उत्पादन क्षमता 65 लाख टन (कोई परिवर्तन नहीं) हेतु भारत सरकार की वन, पर्यावरण एवं जलवायु परिवर्तन मन्त्रालय, नई दिल्ली द्वारा पत्र क्रमांक IA-J-11011/243/2016-IA-II(I), दिनांक 14 फरवरी 2022 के माध्यम से पर्यावरण स्वीकृति प्राप्त हुई है।

उपरोक्त पर्यावरण स्वीकृति की प्रतिलिपी भारत सरकार की वन, पर्यावरण एवं जलवायु परिवर्तन मन्त्रालय की वेबसाइट www.parvivesh.nic.in एवम् जे. के. सीमेन्ट लिमिटेड की वेबसाइट तथा राजस्थान राज्य प्रदूषण नियन्त्रण मण्डल के कार्यालय में उपलब्ध है।

अध्यक्ष-ऑपरेशन्स
जे.के.सीमेन्ट वर्क्स,
निम्बाहेड़ा राजस्थान