

cement! sugar! refractories! power!

Date: 26.11.2024

The Member Secretary, State Level Environment Impact Assessment Authority, Jharkhand Nursery Complex, Near Dhurwa Bus Stand, Dhurwa, Ranchi-Jharkhand -834004

Subject: Half yearly Environment Clearance (EC) Compliance report of Bokaro Cement Manufacturing Works unit of M/s Dalmia Cement (Bharat) Limited for the period of April 2024 to September 2024.

Ref: EC Letter no: EC/SEIAA/2022-23/2646/2023/366, Ranchi, Date: 08.02.2023, EC Identification no.EC23B000JH199098

Dear Sir.

Please find enclosed herewith half yearly Environment Clearance compliance report of Bokaro Cement Manufacturing works unit of Dalmia Cement (Bharat) Limited, Bokaro, Jharkhand for the period of April '2024 to September '2024 for your kind perusal.

Thanking you.

Yours Sincerely.

For M/s. Dalmia Cement (Bharat) Limited. (Unit: Bokaro Cement Manufacturing works)

**Authorized Signatory** 

- 1. The Director, Ministry of Environment, Forest and Climate Change, 2nd Floor, Headquarter-Jharkhand State Housing Board, Harmu Chowk, Ranchi, Jharkhand - 834002
- 2. The Member Secretary, Central Pollution Control Board, Parivesh Bhavan, East Arjun Negar, Delhi-110032
- 3. The Member Secretary, Jharkhand State Pollution Control Board, Township Administration Building, HEC Complex, Dhurwa, Ranchi-834004
- Regional Environmental Officer, Jharkhand State Pollution Control Board Dhanbad, HiG-1, Sardar Patel Nagar, Hirapur Dhanbad-826001

Enclosed:

- 1. EC Compliance Report
- 2. Annexure -I to XXV

Ballara Cement Manufacturing Works (A unit of Dalmiu Coment Dharot Limited)

okuro kulimurial Acro. Qulidib. According Circ. Dalamo - 827014, Jhershood, India Nel Partico Circ. Dalam 1921/1921 Circ. 1851911N1996PLC028967 11/26/2024 4:55 PM Verma Sa Registered Office: Dalmaguran, District Bristianpalli, Tanil Nada - 621651, India A Dalmin Bharat Group company, www.dalminbharat.com

### **BOKARO CEMENT MANUFACTURING WORKS**

(A Unit of M/s Dalmia Cement (Bharat) Limited

# Environment Clearance Compliance Report For the period of April 2024 to September 2024

EC Letter no: EC/SEIAA/2022-23/2646/2023/366, Ranchi, Date: 08.02.2023, EC Identification no.EC23B000JH199098



### BOKARO CEMENT MANUFACTURING WORKS

(Unit of Dalmia Cement (Bharat) Limited)
Plot No. IV/A-7(P)4, Bokaro Industrial Area, Balidih,
Bokaro Steel City, Jharkhand- 827014

### **Bokaro Cement Manufacturing Works**

(A Greenfield Standalone Grinding Unit of Dalmia Cement (Bharat) Limited)

At Plot No. IV/a-7(p)4, Village- Gorabali, Notified Bokaro Industrial Area Under JIADA,
Balidih Phase-4, Bokaro, Jharkhand

### STATUS OF COMPLIANCE OF ENVIRONMENTAL CLEARANCE FROM APRIL 2024 TO SEPTEMBER 2024

EC Letter no: EC/SEIAA/2022-23/2646/2023/366, Ranchi, Date: 08.02.2023, EC Identification no.EC23B000JH199098

. No.	EC Conditions	Compliance
Specifi	c Conditions	~
i.	This Environmental Clearance is valid subject to the following condition below — That this project has- a. Obtained all legal rights to operate at concerned place. b. Complied with all existing concerned laws of the land and c. Complied with the decisions of SEIAA on the issue of Environmental Clearance till date.	a. The project is located in Notified Industrial area. The land is allotted by JIADA to DCBL at Plot No. IV/A-7(P)4, Notified Bokaro Industrial Area Balidih Phase-4, Bokaro-827014, Jharkhand and is in possession of DCBL. b. All existing concerned laws are being complied. c. CTE and CTO obtained from JSPCB Ranchi for the construction and operation of the plant.
1.	The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act. 1986, in case of the diversion of forest land for non-forest purpose involved in the project.	Not Applicable as there is No Forest land in plant area.  The unit is located in notified Industrial area at JIADA, Bokaro, Jharkhand with due allocation through Govt of Jharkhand.  Obtained all necessary statutory clearance to operate the plant.
2	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.	Not Applicable. This clause is not applicable to our unit, as there is no wild life sanctuary within 10km radius of our unit. NOC of DFO Territorial & DFO Wildlife in this regard has been obtained vide Letter no. 3546 dated 21.12.2021 and 2058 dated 28.11.2021 respectively. The same was submitted during appraisal of plant and also is attached herewith as Annexure I&II.
3	The project proponent shall prepare a Site- Specific Conservation Plan & Wildlife	Not Applicable The unit is located in notified industrial area

5. No.	EC Conditions	Compliance
	Management Plan and approved by the Chief Wildlife Warden. 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 six- monthly compliance report. (in case of the presence of schedule –I species in the study area)	schedule —I species within 10km radius of our unit. Hence this condition is not
4	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act" 1974 from the concerned State Pollution Control Board/ Committee.	Complied with  Our unit has obtained CTE from JSPCB, Ranchi vide letter no JSPCB/ HO/RNC/CTE- 15399804/2023/128, Dated 23.02.2023and CTO obtained from JSPCB Ranchi vide letter no. JSPCB/HO/RNC/CTO-17967569/2024 /283 dated 24.02.2024attached as Annexure-III&IV
5	The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of for drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.	Complied. The permission for water connection has been obtained from JIADA and Drinking Water and Sanitation Sub-Division, Bokaro vide letter no 36 dated 13.04.2022. The same is attached herewith as an Annexure-V.
6	The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules 2016 as amended from time to time.	Complied.  Authorization under the Hazardous and other Waste Management Rules 2016 obtained from JSPCB Ranchi copy of the same attached as per Annexure: VI
7	No mining/ activity shall be undertaken in the forest land or deemed forest without obtaining requisite prior forestry clearance.	Not Applicable
8	This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India. Hon'ble High Court. Hon'ble NGT, MoEF & CC and any other Court of Law. If any, as may be applicable to this project.	Noted
9	Environmental clearance is subject to obtaining prior clearance from forestry and Wildlife angle including clearance from standing committee of NBWL, as may be applicable to this project (in case any fauna occurs/ is found in the project area or if the area involves forest land or wildlife habitat	Not Applicable and EC has already been obtained

5. No.	EC Conditions	Compliance
	i.e. core zone of elephant /tiger reserve etc. and or located within 10 km. of protected area.)	
10	The project proponent may apply simultaneously for forest and NBWL clearance, in order to complete the formalities without undue decay, which till process on their respective merits, no rights will vest in accrue to them unless all clearance are obtained.	Not Applicable.
II. Air	quality monitoring and preservation	
1	The project proponent shall install 24 x 7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R no 612 (E) dated 25 August 2014 (Cement) and subsequent amendment dated 9th May 2016 (Cement) and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act 1986 or NABL accredited laboratories.	Complied.  Continuous emission monitoring system at process stacks installed to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R no 612 (E) dated 25 August 2014 (Cement) and subsequent amendment dated 9th May 2016 (Cement) and connected to SPCB and CPCB online servers. Stack emission monitoring report from April 2024 to September 2024 is attached as per Annexure: VII. CEMS is being regularly calibrated.
2	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognized under Environment (Protection) Act. 1986	Complied With. Fugitive emission regularly monitored. Fugitive emission monitoring report from April 2024 to September 2024 attached as per Annexure: VIII
3	The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emission) within and outside the plant area at an angle of 120-degree each) covering upwind and downwind directions. (case to case basis small plant: Manual: large plants: Continuous)	On line CAAQMS installed and regularly Ambient air quality monitored. CAAQMS data regularly transmitted to JSPCB and CPCB server. On line CAAQMS and Manual Ambient air quality monitoring report from April 2024 to September 2024 attached as per Annexure: IX
4	The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive	Complied with.  Stack emission and AAQM regularly monitored. Monitored reports are being regularly submitted to JSPCB, CPCB & MoEF &CC as a part of EC Compliance report.

S. No.	EC Conditions	Compliance
	emissions to Regional Office of MoEF&CC. Zonal office of CPCB and Regional Office of SPCB along with six- monthly monitoring report	Report attached as per Annexure-VII&IX
5	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.	installed at all the material transfer and
6	The project shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.	Complied with.  Regular maintenance of bag filters, leakage checking, cleaning of bag filter is being done by dedicated mechanical maintenance team as per schedule.
7.	Pollution control system in the cement plant shall be provided as per the CREP Guidelines of CPCB	Complied with.  Plant is only grinding unit, Clinkerisation is not involved. Applicable Pollution control measures as per CREP guideline of CPCB implemented. Attached Annexure XI
8	Sufficient number of mobile or stationary vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.	Complied with.  Stationary vacuum cleaners provided to clean plant roads, shop floors, roofs, regularly.
9	Ensure covered transportation and conveying of raw material to prevent spillage and dust generation; use closed bulkers for carrying fly ash.	Complied with.
10	Provide wind shelter fence and chemical spraying on the raw material stock piles	Complied with  All the raw material, fuel and products stored within the covered storage yard and silos.
11	Have separate truck parking area and monitor vehicular emissions at regular interval.	Complied with.  PUC certified equipment as well as trucks are deployed. Separate truck parking facility provided. Regular checking of vehicles PUC certificates is being done to control of vehicular emission.
12	Efforts shall be made to reduce impact of the transport of the raw materials and end	Being complied.  All measures, detailed in PFR & EMP report,

5. No.	EC Conditions	Compliance
	product on the surrounding environment including agricultural land by the use of covered conveyor belts/railways as a mode of transport.	implemented to reduce impact of the transport. Covered conveyor belt are being used for transportation of raw material & product within plant. All raw materials and products transported in covered trucks, bulkers, and railways to reduce the fugitive dust emission.  Regular water sprinkling is being done on the roads within plant through water spray tanker to control of fugitive dust emission.
13	Ventilation system shall be designed for adequate air changes as per ACGIH Document for all tunnels, motor houses, and cement bagging plants.  Iter quality monitoring and preservation	Complied with.  Ventilation system arrangement done at motor houses, and cement bagging plants.
	The exercise assessed shall install will out	Ni-t It Li-
1	The project proponent shall install effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 612 € dated 25 <sup>th</sup> August, 2014 (Cement) and subsequent amendment dated 9 <sup>th</sup> May, 2016 (Cement) and 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. (case to case basis small plants: Manual: Large plants: Continuous).	Not applicable  There is no requirement of water for manufacturing process. Water is being used for cooling of equipment/machinery in closed loop & dust suppression. The water is either consumed or recycled, hence no effluent generation is foreseen.  In view of this effluent monitoring system is not relevant for our unit.
2	The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act. 1986 and NABL accredited laboratories.	Not Applicable.  No Ground water withdrawal in our plant. There is no effluent generation from the plant. Domestic waste water treated in STP and treated water is being used within plant for greenbelt development and dust suppression.  However, ground water quality and ground water depth level of surrounding village regularly monitored, same report attached as per Annexure-XII
3	The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluents testing and manual monitoring of ground water quality to Regional Office of	Not applicable.  There will not be any effluent generation from the plant.

S. No.	EC Conditions	Compliance
	MoEF&CC. Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.	
4	Adhere to 'Zero Liquid Damage'	Being complied.
5	Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.	Complied with.  15 KLD STP constructed for the treatment of domestic wastewater. Treated water quality meet the prescribed standards. STP Treated water quality analysis report for the period of April 2024 to September 2024 attached as per Annexure :XIII
6	Garland drains and collection pits shall be provided for each stock piles to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run-off.	Complied with.  Garland drains and collection pits provided for each stock piles to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run-off.
7	The project proponent shall practice rainwater harvesting to maximum possible extent.	Complied with  Rain water harvesting system constructed in our plant as per technical approval RWH from GWD. Ranchi. RWH implementation report attached as per Annexure: XIV
8	Water meter shall be provided at the inlet to all unit processes to maximum possible extent.	Complied with.  Water meter installed at the inlet of the unit. Photographs attached as per Annexure: XV
9"	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.	Complied with.  Optimum use of water is being practiced and All necessary efforts is being made to reduce water consumption in our plant. Domestic waste water is being treated in STP and treated water is being used for greenbelt & dust suppression. STP treated water analysis report attached as per Annexure: XIII
IV. No	ise monitoring and prevention	
1	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six- monthly compliance report.	Complied with.  Noise level is being regularly monitored in different locations as per the prescribed guidelines and is being regularly submitted to Regional Officer of the Ministry along with Half Yearly Compliance Report.
2	Ambient noise levels shall conform to the standards prescribed under EPA rules viz.	Complied with. Noise level monitoring report from April 2024 to September 2024

. No.	EC Conditions	Compliance
	75dB (A) during day time and 70db (A) during night time.	attached as per Annexure- XVI
V. Ene	rgy Conservation measures:	
1	Provide solar power generation on rooftops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly.	Complied with.  Solar based LED lights installed at different location of the plant. Photographs attached as per Annexure: XVII
2	Provide the project proponent for LED lights in their offices and residential areas.	Complied with LED lights installed for lighting purpose
3	Maximize utilization of fly ash, slag and sweetener in cement blend as per BIS Standards.	Complied  Portland Slag Cement (PSC) using waste products such as Slag (about 65 %) as per BIS norms.
VI. Wa	ste Management	
1	The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & other waste (Management & Transboundary Movement) Rules 2016.	Noted for compliance
2	Kitchen waste shall be composted or composted or converted to biogas for further use. (to be decided on case to case basis depending on type and size of plant).	Being compliance Kitchen waste composted and is being used manure in greenbelt development.
VII. Gr	een Belt	
1	Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.	Compliance under progress Greenbelt/plantation work is under progress and will be done over 33% of the total project area i.e., about 5.2 acres (2.105 ha). The green belt will inter alia cover the entire periphery of the plant. Native species with large canopy will be selected for plantation in accordance with CPCB guidelines. Green belt development report attached as per Annexure: XVIII
2	The project proponent shall prepare GHG emission inventory for the plant and shall submit the program for reduction of the same including carbon sequestration including plantation.	Complied with. GHG emission inventory report attached as per Annexure: XIX
VIII. Pu	ublic Hearing and Human Health issues:	
1	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall	Complied with.  On site emergency Preparedness plan, Hazard identification and Risk Assessment

. No.	EC Conditions	Compliance
	be implemented	(HIRA) prepared and same is approved by Chief Factory Inspector of Jharkhand.
2	The PP shall provide Personal Protection Equipment (PPE) as per the norms of factory act.	Complied with.  All Personal protective equipment's (PPE) Safety shoes, Nose mask, safety helmet, earplug, provided to all employees and contract workers for their safety.  Safety training is being regularly given to the employees for the awareness of safe working culture.
3)	Provision shall be made for the housing of construction labor within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Complied With.  Local people are employed for the construction purpose. No housing facilities will be required for them. However, all necessary infrastructure / facility is being provided to all workers.  Also, the amenities available in the adjacent unit are made accessible.
4	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Being Complied  Periodic medical health checkup of employees and workers is being done for every six months. Reports maintained as per Factory Act.
IX. Co	porate Environment Responsibility:	
1	The project proponent shall comply with the provisions contained in this Ministry's OM vide F. No. 22-65/2017-14. III dated 1 <sup>st</sup> May 2018, as applicable, regarding Corporate Environment Responsibility.	Being Complied.  The company invested around 1.5 Crores on the various socio-economic developmental activities on the basis of findings of Participatory rural appraisal which will be conducted periodically by DBF. All socio-economic developmental activities mentioned in submitted PFR & EMP report is being implemented. Apart, from this, company will spend 2% of the profit for implementation of various developmental activities for the nearby area as part of Corporate Social Responsibility Under Section 135 of Companies Act 2013 once plant commences operation. CER and CSR report for the period of April 2024 to September 2024 attached as per Annexure-XX

No.	EC Conditions	Compliance
2	The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/ deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and I or shareholders / stakeholders. The copy of the board resolution in this regard shall be submitted to the MoEF & CC as a part of sixmonthly report.	Complied  The Company has a well laid down Corporate Environmental Policy governed by all the units and head office. Accordingly, a full-fledged Environmental Management Cell (EMC) for environmental monitoring and control established. The hierarchical system or administrative order of the Company is attached as an Annexure XXI.
3	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control senior Executive, who will directly report of the head of the organization.	Complied.  Environment Management Cell has been established at our plant as well as at Corporate headquarter for the management of environmental activities with qualified person. Environment management cell is headed by Executive Director (Plant Head).
4	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the SEIAA/Ministry, Regional office along with the six-monthly compliance Report.	Complied. Action plan for EMP Implementation during construction phase is in place. Separate budget allocated for Environment Protection. It is ensured that budget shall not be diverted for any other purpose. Expenditure on environmental protection will be regularly submitted to Ministry and his Regional Office as a part of Six-Monthly EC compliance report. Expenditure on Environment protection up to April 2024 to September 2024 attached as per Annexure- XXII
5	Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.	Complied With. Environment audit report attached as per Annexure: XXIII
6	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the cement plants shall be implemented.	Complied with. Applicable Pollution control measures as per CREP guideline of CPCB implemented.

. No.	EC Conditions	Compliance
1	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 newspaper of the District or State, of which one 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  A public notice informing about grant of EC has been published in two newspapers named "The Pioneer" and "Aaj" or 02.03.2023 in English as well as in vernacular language i.e. Hindi. Copy of Advertisements are attached herewith as an Annexure XXIV.  The Newspapers with advertisement along with copy of EC have been submitted to the Regional Office of MoEF & CC, MS-SEIAA and MS- JSPCB. Copy of submission receipts are attached herewith as an Annexure-XXV.
2	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.  We have submitted copy of Environment Clearance to Regional Office of MoEF&CO MS-SEIAA, MS- JSPCB, local Panchayat and other Govt. bodies, district head quarter Copy of submission receipts are attached herewith as an Annexure-XXV.
3	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.	Complied. half yearly EC Compliance report uploaded in company official website.
4	The project proponent shall monitor the criteria pollutants level namely; PM 10, SO2, NOx (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.	Complied with. Emission monitoring data displayed at the factory main gate.
5	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.	Being complied.
6	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.	Complied with.  Environment Statement in Form V is regularly submitted to JSPCB, Dhanbad & Ranchi. Last Environment Statement was submitted vide our letter no. DCBL/ENV ES/23-24/, Dated 24.09.2024

. No.	EC Conditions	Compliance
7	The project proponent shall inform the Regional Office as well as 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.	Date of start of Land development work 29.04.2022
7.1	The project authorities must strictly adhere to the stipulation made by the State Pollution Control Board and the State Government.	Noted for compliance.
7.2	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.	Being complied
8	It shall be mandatory for the project management to submit six (06) monthly compliance report in respect of the stipulated prior environmental clearance terms and conditions in hard copies and soft copies to the regulatory authority concerned SEIAA, Regional Office of MoEF & CC at Ranchi, Jharkhand State Pollution Control Board (J.S.P.C.B), Ranchi, and Central Pollution Control Board.(CPCB)	Complied with.  Half yearly EC Compliance reports are being regularly submitted in hard copies and sof copies to the regulatory authority concerned SEIAA, Regional Office of MoEF & CC a Ranchi, Jharkhand State Pollution Control Board (J.S.P.C.B), Ranchi, and Central Pollution Control Board. (CPCB)
9	Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Noted & agreed.
10	The SEIAA, Jharkhand or any other competent Authority may alter modify the above conditions or stipulate any further conditions in the	Noted & agreed
11	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 & agreed
12	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of	

. No.	EC Conditions	Compliance
	Environment (Protection) Act, 1986.	
13	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Noted & agreed
14	The ministry may reserve the right to stipulate additional conditions if found necessary. The company in a time bound manner shall implement these conditions.	Noted & agreed
15	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.	
16	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.	
17	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 & agreed
18	This environmental clearance is valid for seven years from the date of issue.	Noted & Agreed

## Annexure-I

## No forest land in plant area, Clearance letter from DFO Territorial, Bokarovide Letter no. 3546 dated 21.12.2021

	Government of Jharkha Department of Forest, Environment and	
Acknowledgment SWSFST11112021	31031	Issue Date: 21-12-2021
Name Of Appli	cant: Daimia Cement Bharat Limited	2 0 1 5 1 V
Email ID :	sinha.rajeevkumar@dalmiacement.com.  port of Distance from Forest, Forest Reserve and	Contact 9771478206
SNo	Checkpoint	Divisional Forest Officer
1 2 3	Whether Distance of Project location from Reserved Forest/Protected Forest is 250 m Whether Project location come under No Mining Zone? Does there any National park located within 10 km from project location?	No No
· Alberta	Does there any Wildlife sanctuary located within 10 km distance from project location?	No.
5	Does there any ESZ available within 10 kr distance from project location?	n No
	Whether Proposed project comes under prohibited category of ESZ (Yes or No)?	No .
100	Name	1
	ated 12.12.1996 in case no. 202/95 passed by Designation at will be applicable in respect of GMJJ Land.  Signature	1 VUIDI
The certificate to be	s issued by the Divisional Forest Officer of the respective I	Divisions and upload
75 V		10 H-1



## Department of Forest, Environment and Climate Change

### Report of Distance from Notified Forest, National Park, Sanctuary & Eco-Sensitive Zone

				H1000		
Name ( Applie	ant Daimia Cement Bharat Limited	1120			13 TV	- 4
Institu Type	tion Non Government					
Emnit	ID sinha.rajeevkumar@dalmiacement.com	Contact	9771478206			
	L	ocation of	Proposed Land	3.		4
Distric	t Bokaro	Battery Point	Gorabali			
Thana	No.:14	Thans Name:	Jaridih	1	8	
Khata l	No.: 134,76,177,46,45,171,47,145,78,65,135,	72Khesra Name:	(P),887 (P),890 (F),8 (F),960(P),850(P),8 (P),958 (F),884 (F),8	888 (P),880 (P),853 93 (P),851 (P),858 885 (F),886 (F),776 881 (F),879 (F),878	(P),871 (F),957 (P),870 5 (P),883 (F),882 (F),87: 8 (F),874 (F),863 (F),864	5
#	Checkpoint			Range Forest Officer	Divisional Forest Officer	75
1	Whether Distance of Project location from R is 250 m? •	teserved Fo	rest/Protected Forest	Yes	Yes	
2	Whether Project location come under No Mi	ning Zone		No	No	
3	Does there any National park located within	10 km from	n project location? *	No	No	
3	Does there any Wildlife sanctuary located w project location? *	ithin 10 km	distance from	No	No	
5	Does there my ESZ available within 10 km location? •	distance fro	om project	No	No	
6	Whether Proposed project comes under proh No)? *	ribited cate	gory of ESZ (Yes or	No	No	
			3	Division DEO R	oleano	

Note:-The order dated 12.12.1996 in case no. 202/95 passed by Hon'ble Apex Court will be applicable in respect of GMJJ Land. Division DFO Bokaro

Letter No. 354 C

Date of issue 21 12 2021

Signature

Name

Barres Forest Oliverno.
Divisional Forest Officer

11/28/21, 5:06 PM

Inspection Report of Distance from Forest, Forest Reserve and Sanctuary



### Department of Forest, Environment and Climate Change

		ACCURATION OF THE PROPERTY OF
Report of Distance from Natified Forest,	National Paris, Sanctuary &	S. Ren-Sensitive Zone

Name Of Applicant Dulmia Coment Hurst Limited Institution Non Government Type Contact 9771478206 Email ID sinht:rajnevkuman@slalmincement.com Lecation of Proposed Land Buttery center District Bokaro Point. Thomas Thom No.:14 Name 892 (F),781 (P),777 (F),784 (P),779 (P),778 (P),782 (P),785 (P),887 (P),890 (F),888 (P),880 (P),852 (P),891 (F),960(P),850(P),893 (P),851 (P),858 (P),871 (F),957 Khara No.: 134,76,177,46,45,171,47,145,78,65,135,72 Khesra Name (P),870 (F),958 (F),884 (F),885 (F),886 (F),776 (P),883 (F),882 (F),875 (F),862 (F),876 (F),881 (F),879 (F),878 (F),874 (F),861 (F),866 (F),873 (F),864 (F),868 (P),561 (F),867 (P),865 (F) Range Forest Cherkpolat Divisional Ferest Officer Officer Whether Distance of Project location from Reserved Forest/Protected Forest is 250 m? No 2 Whether Project location come under No Mining Zone? \* No Does there any National park located within 10 km from project location? \* No No Does there any Wildlife sanctuary located within 10 km distance from project No No Incation? \* Does there any ESZ available within 10 km distance from project location? \* No No 5 Whether Proposed project comes under prohibited caregory of ESZ (Yes or No)? \* Yes Division DFO Wildlife Hazorthagh <u>कंपना0−1 एवं २</u>— भूमि को प्रकृति एवं बनभूमि से दूरी संबंधित वाधित सूचना यन प्रशण्डल प्रशासिकारी बोकारी वन प्रमण्डल के कार्यांतय से प्राप्त करें। Letter No. 2058 Date of issue 29 11 2021 क<del>ाउनांठ-3 से 8− को संदर्भ</del> में प्रतिवेदिश कारना **है कि** प्रस्तावित परियोजना होतु आवेदित क्यास (Mester) was Signature Hattery Point (23.6961985N 86.0644832E) # निकटलप पार्शित क्षेत्र Divisional Porest Officer (Protected Area) कोनमाची चन्यप्राणी आभागणी अवस्थित है, तथा यन् Divisional Power Officer पर्यावरण एवं वाल्यायु परिवर्तन मंत्रालय भारत तरकार प्राप्त <u>पारवाना</u>स

र्व तोपधांची वन्यप्राणी आसवणी के अधिस्थित ESZ के सीमा शे माहर अवस्थित है। जनतेका सूचना जावेदक हारा समर्थित अनिलेख एवं GPS Point भारत सरकाव हारा प्रकारित ESZ के अधिकृषणा संध्य आवेदित रुकत से ATTION THE BOOK निकरातम संशक्तित क्षेत्र (Protected Area) के बतावर पुर दी गयी है।

AND REAL PROPERTY.

### CTE obtained fromJSPCB, Ranchi vide letter no JSPCB/HO/RNC/CTE-15399804/2023/128, Dated 23.02.2023



#### JHARKHAND STATE POLLUTION CONTROL BOARD

TOWNSHIP ADMINISTRATION BUILDING, HEC COMPLEX, DHURWA, RANCHI 834004 Telephone: 0651-2400850 (Fax)/ 2400851/2400852/2401847/2400979/2400139

Ref No.: JSPCB/HO/RNC/CTE-15399804/2023/128 Dated: 2023-02-23

Consent to Establish (CTE) under section 25 /26 of the Water (Prevention & Control of Polintion) Act, 1974 and under section 21 of the Air (Prevention & Control of Polintion) Act, 1981

 Reference: Application (s) No.- 15399804 / dated: 31/01/2023 of Bokuro Cement Manufacturing Works (A Unit of DCBL.), Priya Ranjan for consent under section 25 /26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981

#### 2. Documents Relied Upon:

- (a) The content of Environmental Clearance (EC) granted vide memo no. EC/5EIAA/2022-23/26462022/366, dated 30.01.2023.
- (b) The content of Consent to Establish (CTE), vide ref. no. JSPCB/HO/RNC/CTE-12699959/2022/195, dated 28.04.2022 for the production of Cement 2.0 Million TPA and D.G. Set of 1000 KVA (2 x 500 KVA) as per EC valid for the period of one year.
- (c) The content of check-list vide ref. no. 157, dated 09.02.2023
- (d) The content of copy of the land lease document issued by BIADA for 30 yrs. w.e.f. 28.10.2021.
- (c) The content of certificate of DFO, vide ref. no. 2058, dated 28:11:2021.
- (f) The content of undertaking regarding procurement of new material from valid sources.
- (g) The content of investment figure certified by CA.
- The consent is granted under section 25 / 26 of the Water (Prevention & Control of Pollution) Act, 1974
  and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981 to establish the project in
  Mauza-Gorabali, P.S.-Bokaro, District-BOKARO as follows:

Project	Site-Azea		Investment (Rs)/ Year	Product & Capacity	Period of CTE
	Plot Nos	Area			
In Expansion	Industrial Area Plot No. IV/A- 7(P)4.	15.75 Acre	35.50 Ctore	Expansion of capacity Cement- 2.0 MTPA to 3.1 MTPA, DG set - 2x500=1000 KVA	As per EC

#### (A) Specific Conditions:

- That, the occupier shall make Work area and transport roads and approach road off the main road concrete/ black top.
- That, the occupier shall install fixed type water sprinklers to cover all dusty places in the premises to impart water spraying intermittently.
- That, the occupier shall make all roads pucca and shall maintain a good house keeping by regular cleaning and wetting of the roads and dust prone areas.
- That, the occupier shall store all raw materials and products under shed and shall as far as practicable, do
  their processing and transfer under foolproof cover(s).
- That, the occupier shall collect and treat the effluent in foolproof latest system and shall recycle treated effluent to the system for reuse and shall ensure no discharge of effluent out side the premises.
- That, the occupier shall install air pollution control devices such as Dust Catcher, Cyclone Separator, Bag filters, Venturi Scrubber, ESP etc. in suitable combination to control the emission.
- 7. That, the occupier shall use fly ash and or fly ash bricks in construction of the project.
- That, the occupier shall install only green D G Set(s) with acoustic enclosure and shall keep the height(s)
  of exhaust pipe(s) as per Central Pollution Control Board norm.
- 9. That, the occupier shall obtain NOC from Central Ground Water Authority as per the norms.
- 10. That, the occupier shall dispose the solid waste as per applicable norms.
- That, the occupier shall dispose the hazardous waste as per applicable norms and shall obtain authorization under HoWM Rules' 2016.
- That, the occupier shall adhere to ZLD.
- 13. That, the occupier shall devvelop greenery in an atleast 33 percent of area.
- 14. That, the occupier shall submit compliance of CTE and EC conditions on six monthly basis to JSPCB and other concerned organizations.
- 15. That, the occupier shall apply for CTO and shall submit compliance of CTE and EC conditions alongwith the photographs.

#### (B) General Conditions:

- (1) That, the occupier shall construct pucca (i) minimum ten feet high boundary wall and (ii) approach road and internal roads and shall keep the premises neat and clean and tidy.
- (2) That, the occupier shall install comprehensive enclosure (s) to cover the places of unloading of raw materials, the equipments of their processing & transferring, the places of loading of products, by products and wastes for prevention of fugitive emission and shall install such automatic inbuilt system(s) that in house dust/ gases collect(s) and undergo (es) cleaning and clean air goes out.
- (3) That, the occupier shall install such automatic inbuilt system(s) that process flue gas(es) / process gas(es) and undergo(es) cleaning and clean air go(es) out through the chimney(s), having height(s) as per Central Pollution Control Board norm.
- (4) That, the occupier shall have D G Set(s) of the standard as laid in the Environment (protection) Rules, 1986 and shall install it (them) within acoustic enclosure (s) and shall keep the height(s) of exhaust pipe(s) as per Central Pollution Control Board norm.
- (5) That, the occupier shall impart treatment as per Central Pollution Control Board text to wastewater and shall keep process effluent in close-circuit and effluent from other sources in conformity with the standard (s).
- (6) □That, the occupier shall install Central Ground Water Board/ State Ground Water Directorate approved system of rain water harvesting-cum-ground water recharge.
- (7) That, the occupier shall create new water body (ies) / remove deposit(s) of existing water body(ies) and nearby stream(s) and pond(s) and shall maintain the wholesomeness of water.
- (8) That, the occupier shall grow greenery in the periphery and other available spaces and shall continue enhancing its plant density and biodiversity.
- (9) That, this CTE is valid subjected to the validity of mining Lease / Mining Plan / Ecofriendly / Environmental Clearance, if applicable. In case of no renewal of Mining Lease/Mining Plan, this consent shall be treated as revoked automatically.
- (10) That, this CTE is issued from the environmental angle only and does not absolve the occupier from other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility to comply with these conditions laid down in all other laws for the time being in force, rests with the industry/ unit/ occupier.
- (11) That, this CTE shall not in any way, adversely affect or jeopardize the legal proceeding, if any, instituted in the past or that could be, instituted against you by the State Board for violation of the provisions of the Act or the Rules made there under.
- (12) That, the occupier shall comply with all applicable provisions of the Water (Prevention & Control of Pollution) Act, 1974; the Water (Prevention & Control of Pollution) Cess Act, 1977; the Air (Prevention & Control of Pollution) Act, 1981; and the Environment (Protection) Act, 1986 and Rules there under.
- That, this CTE shall not absolve the occupier from making compliance of other statutory
  prescribed under any law or direction of courts or any other instrument for the time being in
  force.
- That, this CTE is being issued on the basis of information/ documents/ certificate submitted by the unit. This CTE will be revoked if any of the information/ documents/ certificates/ undertaking given by the occupier is found false/fictitious/forged in future.

- This order shall be valid subject to compliance of all other legal requirements applicable to the
- The State Board reserves the right to revoke, withdraw or make any reasonable variation/ 7. change / alteration in condition of this consent.

This is issued with the approval of the competent authority

Digitally signed by Yatindra Yatindra Kumar. Das Kumar Das Date 2023 52.23 10:31:56 +05'30'

> (Yatindra Kumar Das) Member Secretary

> > Dated: 2023-02-23

Memo No : JSPCB/HO/RNC/CTE-15399804/2023/128

Copy to: M/s Bokaro Cement Manufacturing Works (A unit of Dalmia Cement (Bharat) Limited, At-Plot No. IV/A-7(P)4, Bokaro Industrial Area, Balidih, Bokaro Steel City, Dist-Bokaro / Director of Industry, Government of Jharkhand, Ranchi/ Deputy Commissioner, Bokaro/ Director of Mines, Government of Jharkhand, Ranchi/ Chief Inspector of Factories, Ranchi/ D.F.O., Bokaro/D.M.O., Bokaro / R.O., Dhanbad for information & ensuring compliance of the above.

Das

Digitally signed Yatindra by Yatindra Kumar Das (Yatindra Kumar Das) Kumar Date: 2021.02.23 Member Secretary

10:31:37 +05'30

Dated: 2024-02-24

### CTO obtained from JSPCB Ranchi vide letter no. JSPCB/HO/RNC/CTO-17957569/2024/283 Dated 24.02.2024 and valid up to 31.03.2029

#### JHARKHAND STATE POLLUTION CONTROL BOARD

TOWNSHIP ADMINISTRATION BUILDING, HEC COMPLEX, DHURWA, RANCHI 834004 Telephone: 0651-2400850 (Fax)/ 2400851/2400852/2401847/2400979/2400139

Ref No. JSPCD/HO/RNC/CTO-17957569/2024/283

Consent to operate (CTO) under section 25 /26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981

 Application (s) dated 2023-12-27 of Bokaro Cement Manufacturing Works (A Unit of DCBL). Occupier Name: Priya Ranjan for consent under section 25 (1)(b)/25 (1) (c)/26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21(1) of the Air (Prevention & Control of Pollution) Act, 1981.

#### 2. Documents Relied Upon:

- (ii) The content of Environmental Clearance (EC) granted vide memo no. EC/SEIAA/2022-23/26462022/366, dated 30.01.2023.
- (b) The content of Consent to Establish (CTE), vide ref. no. JSPCB/HO/RNC/CTE-12699959/2022/195, dated 28.04-2022 for the production of Cement 2.0 Million TPA and D.G. Set of 1000 KVA (2 x 500 KVA) as per EC valid for the period of one year.
- (c) The content of Consent to Establish (CTE), vide ref. no. JSPCB/HO/RNC/CTE-15399804/2023/128, dated 23.02.2023 for the production of Expansion of capacity:- Cement 2.0 MTPA to 3.1 MTPA; DG set 2x500-1000 KVA for the period as per EC.
- (d) The content of Consent to Operate (CTO), vide ref. no. JSPCB/HO/RNC/CTO-15980338/2023/1752, dated 20.10.2023 for the production of Cement- 3.1 MTPA, DG set - 2x500=1000 KVA, vlaid for the period upto 31.03.2024.
- (e) The content of Inspection Report (IR), vide ref. no. 82, dated 05.01.2024.
- (f) The content of copy of the land lesse document issued by BIADA for 30 yrs, w.e.f. 28.10.2021.
- (g) The content of undertaking regarding procurement of raw material from valid sources.
- (h) The content of investment figure certified by CA.
- The consent is granted under section 25 / 26 of the Water (Prevention & Control of Pollution) Act, 1974
  and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981 to operate the project in
  Mauza -Gerabali , P.S.-Bokaro , District -BOKARO , as follows:

Project	Site-Area		Investment (Rs)	Product & Capacity	Period of CTO
	Plot Nos.	Ann			Date of issue To

Before Expansion	As per EC	As per EC	576.04 Lacs as per inestment figure certified by CAI	Cement- 3:1 MTPA, DG set - 2x500=1000 KVA (as per CTO)	31/03/2029
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#### (A) Specific Conditions:

- hat, the occupier shall make Work area and transport roads and approach road off the main road concrete/ black top.
- That, the occupier shall install fixed type water sprinklers to cover all dusty places in the premises to impart water spraying intermittently.
- That, the occupier shall make all roads pucca and shall maintain a good house keeping by regular cleaning and wetting of the roads and dust prone areas.
- That, the occupier shall store all raw materials and products under shed and shall as far as practicable, do
  their processing and transfer under foolproof cover(s).
- That, the occupier shall collect and treat the effluent in foolproof latest system and shall recycle treated effluent to the system for reuse and shall ensure no discharge of effluent out side the premises.
- That, the occupier shall install air pollution control devices such as Dust Catcher, Cyclone Separator, Bag filters, Venturi Scrubber, ESP etc. in suitable combination to control the emission.
- 7. That, the occupier shall implement all pollution control measures as recommended in EIA/EMP.
- 8. That, the occupier shall comply the recommendations of CREP.
- 9. That, the occupier shall use all solid wastes as resource as a raw material or a product.
- That, the occupier shall install only green D G Set(s) with acoustic enclosure and shall keep the height(s)
- of exhaust pipe(s) as per Central Pollution Control Board norms.
- 11. That, the occupier shall adhere to Zero Liquid Discharge.
- 12. That, the occupier shall dispose the solid waste as per applicable norms.

- That, the occupier shall dispose the hazardous waste as per applicable norms and shall obtain authorization under HoWM Rules' 2016.
- 14. That, the occupier shall install 24 x 7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. no 612 (E) dated 25 August 2014 (Cement) and subsequent amendment dated 9th May 2016 (Cement) 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.
- 15. That, the occupier shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emission) within and outside the plant area at an angle of 120-degree each) covering upwind and downwind directions.
- 16. That, the occupier shall install STP of adequate capacity and submit its report to the Board.
- 17. That, the occupier shall construct rain water harvesting system and shall operate and maintain the same.
- 18. That, the occupier shall construct rain water harvesting system and shall operate and maintain the same.
- 19. That, the occupier shall provide Personal Protection Equipment (PPE) as per the norms of factory act.
- 20. That, the occupier shall upgrade the pollution control equipment as and when required.
- That, the occupier shall submit compliance of EC and CTO conditions on six monthly basis to the Board.
- 22. That, the occupier shall submit applications for renewal of consent under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981 again 120 days prior to the date of expiry of this consent with requisite fee and documents showing compliance of all of the above conditions.
- hat, this CTO supersedes the CTO granted earlier vide ref. no. JSPCB/HO/RNC/CTO-15980338/2023/1752, dated 20.10,2023.

#### (B) General Conditions:

(1) That, the occupier shall maintain the National Ambient Air Quality Standard given below:

			Concentration	in Ambient Air
SN	Pollutant	Time Weighted Average	Industrial, Residential, Rural and Other Area	Ecologically Sensitive Area (notified by Central Govt.)
(1)	(2)	(3)	(4)	(5)
1,	Sulphur Dioxide (SO2), μg/m3	Annual 24 hours	50 80	20 80
2.	Nitrogen Dioxide (NO2), µg/m3	Annual 24 hours	40 80	30 80
3,	Particulate Matter (size less than 10 µm) or PM10, µg/m3	Annual 24 hours	60 100	60 100
4.	Particulate Matter (size less than 2.5 µm) or PM2.5, µg/m3	Annual 24 hours	40 60	40 60
(5.5	Ozone(O3), µg/m3	8 hours 1 hour	100 180	100 180
6.	Lead (Pb) µg/m3	Ammal 24 hours	0.50 1.0	0.50 1.0
7.	Carbon Monoxide (CO) mg/m3	8 hours 1 hour	02 04	02 04
8.	Ammonia (NH3) µg/m3	Ammat 24 hours	100 400	100 400
9.	Benzene (C6H6) μg/m3	Annual	0.5	05
10.	Benzo(a) Pyrene(BaP) Particulate Phase only ng/m3	Annual	01	01
11.	Arsenic (As) ng/m3	Annual	06	06
12.	Nickel (Ni) ng/m3	Amusi	20	20

Note : Serial no. 1 to 4 - Mandatory Serial no. 5 to 12 As applicable for specific type of industry.

(2) That, the occupier shall maintain the emission quality within the standard and the quantity, as follows:

SN	Parameter	Standard	
1	Particulate Matter	150 mg/Nm3	

(3) That, the occupier shall keep process effluent in close-circuit and the quality of effluent from other sources in conformity with the standard (s) and the discharge quantity as below:

SN	Parameter	Standard	
1	Total Suspended Solids	100 mg/L	
2	BOD	30 mg/L	
3	COD	250 mg/L	
4	Oil & Grease	10 mg/L	

(4) That, the occupier shall dispose of solid wastes as follows:

SN	Waste Type	Mode of Disposal
1	Hazardous Carbonaceous Wastes	In co-processing in high temperature furnaces or kilns
2	Hazardous Non-Carbonaceous Wastes	In TSDF
3	Non-Carbonaceous Non- Hazardous solid wastes/ Mine Over Burden	As a substitute of Soil or Mineral

- (5) That, the occupier shall keep D G Set(s) within acoustic enclosure and shall keep the height(s) of exhaust pipe(x) as per Central Pollution Control Board norm.
- (6) That, the occupier shall install and maintain Central Ground Water Board' State Ground Water Directorate approved system of rain water harvesting-cum-ground water recharge and submit the photographic view of the structures within a month.
- (7) That, the occupier shall grow and maintain greenery of the project in the periphery and other available spaces and shall continue enhancing its plant density and biodiversity.
- (8) That, the occupier shall submit environmental statement with supporting stoichiometric calculations analyses reports, every year latest by 30th September of the next financial year.
- (9) That, the occupier shall submit report(s) duly monitored and issued by an NABL accredited / ISO 9001-2008 and OHSAS 18001-2007 certified laboratory in compliance sub-para (2), (3), (4) and (5) of paragraph 3 of this CTO yearly at required periodicity.

- That, this CTO is valid subjected to the validity of mining Lease/Mining (10)Plan/Ecofriendly/Environmental Clearance, if applicable. In case of no renewal of Mining Lease/Mining Plan, this consent shall be treated as revoked automatically.
- That, this CTO is issued from the environmental angle only and does not absolve the occupier from (11)other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility to comply with these conditions laid down in all other laws for the timebeing in force, rests with the industry/ unit/ occupier.
- (12)That, this CTO shall not in any way, adversely affect or jeopardize the legal proceeding, if any instituted in the past or that could be , instituted against you by the State Board for violation of the provisions of the Act or the Rules made there under.
- (13)That, the occupier shall comply with all applicable provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Water (Prevention & Control of Pollution) Cess Act, 1977; the Air (Prevention & Control of Pollution) Act, 1981; and the Environment (Protection) Act, 1986 and Rules made there under.
- That, this CTO shall not absolve the occupier from making compliance of other statutory prescribed under any law or direction of courts or any other instrument for the time being in force.
- That, this CTO is being issued on the basis of information/ documents/ certificate submitted by the unit. This CTO will be revoked if any of the information/documents/certificates/undertaking given by the occupier is found false/fictitious/forged in future.
- The Order shall be valid subject to compliance of all other legal requirements applicable to the unit.

7. The State Board reserve the right to revoke, withdraw or make any reasonable variation / change / alteration in conditions of this consent. Digitally signed by

Yatindra Yatındra Kumar Das

This is issued with the approval of the Competent authority Kumar Das Date: 2024.02.24

(Yatindra Kumar Das) Member Secretary Dated: 2024-02-24

Memo No.: JSPCB/HO/RNC/CTO-

17957569/2024/283

M/s Bokaro Cement Manufacturing Works (A unit of Dalmia Cement (Bharat) Limited, AtPlot No. IV/A-7(P)4, Bokaro Industrial Area, Balidih, Bokaro Steel City, Dist-Bokaro / Director of Industry, Government of Tharkhand, Ranchi/ Deputy Commissioner, Bokaro/ Director of Mines, Government of Jharkhand, Ranchi/ Chief Inspector of Factories, Ranchi/ D.F.O., Bokaro/D.M.O., Bokaro / R.O., Dhanbad for information & ensuring compliance of the above.

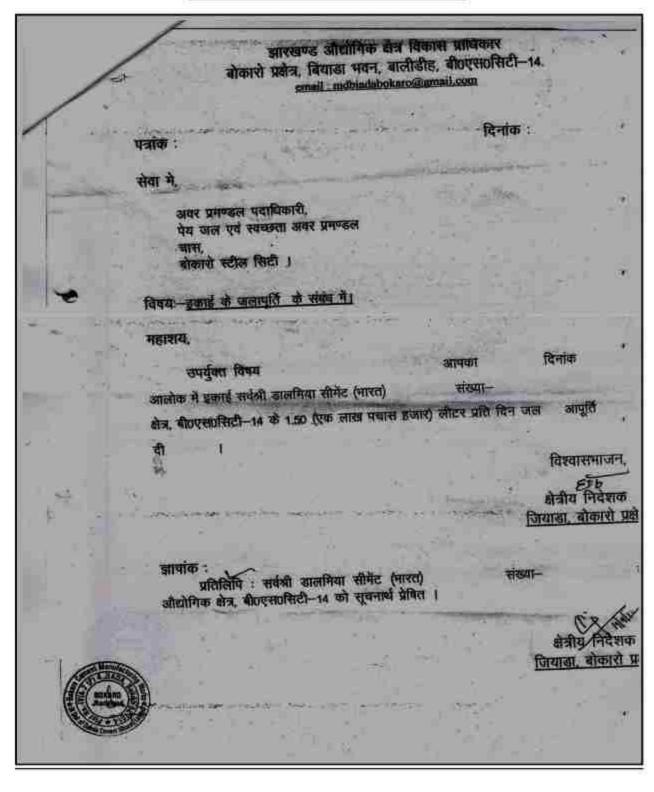
Yatindra Digitally signed

by Yatind Yatindra Kumar Das) Numar Das Member Secretary
Date: 2024.02.24 Kumar

Das 18:36:59 +05'30'

### Annexure-V

### Water permission letter from JIADA



### Office of the Sub-Divisional Officer Drinking Water and Sanitation Sub-Division, Bokaro

Letter No. 36

Chas, Dated 13/4/22

To.

Regional Director BIADA, Bokum

Sub: Regarding Water Connection for M/S Dalmia coment (Bharat) Ltd. under BIADA Reference: Your letter no. 35 dated 25.01.22, 185 dated 05.04.22, this office letter no 24 dated 24.02.22 and agreement for water supply between unit and BIADA on dated 17.3.11

Madam.

With reference to the above cited subject, M/S Dalmia cement (Bharat) Ltd is asking for another 1.50 Lakhs litre water per day for their 2<sup>nd</sup> unit. I would like to inform you that the above firm have water agreement of 5.5 lakhs litre per day with BIADA for their 1st unit. out of which approx 2.0-2.5 lakes litre water per day is being taken by Dalmia cement to meet the requirement of their 1st unit. M/S Dalmia cement (Bharat) Ltd already have approx 3.0 lakhs litre water allocated as surplus (extrn). M/S Dalmia cement (Bharat) Ltd can meet the another 1.50 Lakhs litre water per day for their 2" unit from the existing water agreement. This is for your information and necessary action.

Thanking You

DWS Sub-Division, Sub-

Bokaro

Memo No. 36

Bokaro/Date 13 4 22

Copy to: M/S Dalmia cement (Bharat) Ltd. for your information and further necessary action.

DWS Sub-Division, Sub-division

Bokaro

### Authorization of Hazardous waste obtained from JSPCB Ranchi vide letter no. JSPCB/HO/RNC/HWM-16948442/2024/14 dated 4.03.2024



#### JHARKHAND STATE POLLUTION CONTROL BOARD

T.A. DIVISION BUILDING (GROUND FLOOR), H.E.C., DHURWA, RANCHI -834004 Phone: 2400852, 2400851, Fax: 0651 - 2400850 www.jspcb.org

#### FORM 2

[See rule 6(2)]

#### FORM FOR GRANT OR RENEWAL OF AUTHORIZATION BY STATE POLLUTION CONTROL BOARD TO THE OCCUPIERS, RECYCLERS, REPROCESSORS, REUSERS, USER AND OPERATORS OF DISPOSAL FACILITIES

No. of authorization and date of issue: JSPCB/HO/RNC/HWM-16948442/2024/14 04/03/2024

Reference of appication(No. and date): 16948442 19/10/2023

Bokaro Cement Manufacturing Works (A Unit of DCBL) of Priya Ranjan is hereby granted an authorisation based on the enclosed signed inspection report for generation, collection, reception, storage, transport, reuse, recycling, recovery, pre-processing, co-processing, utilisation, treatment, disposal or any other use of hazardous or other wastes or both on the premises situated at Plot no-IV/A-7P4. Bokaro Industrial Area, Balidih

#### Details of Authorisation

Sl.No.	Category of Hazardous Waste as per the Schedules I, II and III of these rules	Authorised mode of disposal or recycling or utilisation or co-processing, etc.	Quantity(ton/anmin)
ा	Cat-l; Used/Spect Oil (5.1)	Kept in MS Drums; sold to authorized recyclers	13.TPA
2	Cat-I; Wastes/residues containing Oil (5.2)	Kept in MS Drums; Sold to authorized recyclers	15 TPA

- (1) The authorisation shall be valid for a period of Date of issue to 30.09.2028
- (2) The authorisation is subject to the following general and specific conditions (Please specify any conditions that need to be imposed over and above general conditions, if any):

#### A General conditions of authorisation:

- The authorised person shall comply with the provisions of the Environment (Protection) Act, 1986, and the
  niles made there under.
- The authorisation or its renewal shall be produced for inspection at the request of an officer authorised by the State Pollution Control Board.
- The person authorised shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorisation.
- 4 Any unauthorised change in personnel, equipment or working conditions as mentioned in the application by the person authorised shall constitute a breach of his authorisation.

- 5. The person authorised shall implement Emergency Response Procedure (ERP) for which this authorisation is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time.
- The person authorised shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty"
- It is the duty of the authorised person to take prior permission of the State Pollution Control Board to close down the facility.
- The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental
  occurrence and its clean-up operation.
- 9. The record of consumption and fate of the imported hazardous and other wastes shall be maintained.
- 10. The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilisation of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorisation.
- The importer or exporter shall bear the cost of import or export and mitigation of damages if any.
- 12. An application for the renewal of an authorisation shall be made as laid down under these Rules.
- 13. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
- 14. Annual return shall be filed by June 30th for the period ensuring 31st March of the year.
- B Specific conditions:

- 1. That, the occupier shall take prior permission of the Board to close down the plant.
- 2. That, the renewal of authorization will be subject to compliance of the conditions laid down in this authorization
- 3. That, the occupier shall comply with the conditions as per the guidelines prescribed by the MoEF for
- That, the occupier shall comply with all the conditions laid down in this authorization.
- That, the occupier shall submit quarterly report on hazardous wastes generated and consumed in its sources, products generated or resources conserved (specifying the details like type and quantity of resources conserved) to the Board.
- 6. That, the occupier shall maintain a log book containing information on quantity on generation, date wiseutilization of the same and its disposal, etc.
- 7. That, the occupier shall maintain record of Hazardous Waste utilized, Hazardous Waste generated and disposal as per form-3 and shall submit the annual returns in form-4 as per Rule 20 (1) and (2) of the Hazardous and other waste (Management & Transboundary Movement) Rules, 2016 to the Board.
- 8. That, the occupier shall comply with all the directions given by standard operating procedure.
- 9. That, the occupier shall be responsible for safe and environmentally sound management of hazardous and other wastes.
- 10. That, the hazardous and other wastes generated in the establishment of an occupier shall be sent or sold to an authorised actual user or shall be disposed of in an authorised disposal facility.
- 11. That, the hazardous and other wastes shall be transported from an occupier's establishment to an authorised actual user or to an authorised disposal facility in accordance with the provisions of these rules.
- 12. That, the occupier shall take all the steps while managing hazardous and other wastes to-
- (a) contain contaminants and prevent accidents and limit their consequences on human beings and the environment, and
- (b) provide persons working in the site with
- 13. That, the occupier shall comply with all the conditions laid down in this authorization mentioned in general and specific conditions.
- 14. That, the occupier shall install a display Board outside its plant showing details such as

(a) status of CTO; (b) Status of authorization granted;

(c) Disposal/reuse of hazardous waste generated in the plant and other relevant information as per prescribed guideline and update the same as required.

Digitally signed by Yatindra Yatindra Kurrar Das Kumar Das Date 2024.03.04 10:25:17 +05'30'

Memo No:JSPCB/HO/RNC/HWM-16948442/2024/14

Date: 04/03/2024

Y. K. Das Member Secretary

Copy To:

Regional Officer, Regional Office, JSPCB, Hazaribagh for information and necessary action.

Digitally signed by Yatindra Yatindra Kumar Das Kumar Das Date: 2024.03.04 Y. K. Das 10:25:39 Member Secretary

Annexure: VII

## **Bokaro Cement Manufacturing Works (Unit of DCBL)**

### Stack emission monitoring report

### Manual Stack emission monitoring report from April 2024 to September 2024

Manual Stac	k emission monitoring rep	ort VRM Bag House Sta	ck.
Month	Min.	Max.	Avg.
Apri-2024.	3.6	14.6	9.1
May-2024.	4.7	6.8	5.7
June-2024.	3.3	5.9	4.6
July-2024.	6.8	13.5	10.1
August-2024.	5.2	8.3	6.7
September-2024.	4.3	7.6	5.9
Min.	3.3	5.9	4.6
Max.	6.8	14.6	10.1
Avg.	4.7	9.5	7.1

### On Line CEMS report from April 2024 to September 2024

On Line CE	MS monitoring report of	VRM Bag House Stac	k
Month	Min.	Max.	Avg.
Apri-2024.	2.9	13.4	8.1
May-2024.	3.5	5.2	4.3
June-2024.	6.4	8.7	7.5
July-2024.	3.2	5.3	4.2
August-2024.	4.6	7.8	6.2
September-2024.	3.1	6.5	4.8
Min.	2.9	5.2	4.2
Max.	6.4	13.4	8.1
Avg.	4.0	7.8	5.9



## Institute for Environmental Management



### Test Report

ULR No.:	T	C	1	1	5.	1	5	2	4	0	0	0	0	0	1	14:	6	8
Discipline: Ch	emical					Grou	ıp: At	mosp	heric	Pollut	ion		Sub-G	roup:	Stack	Emiss	ion	
Report Issue	Date: 2	7-09-7	2024						Te	st Re	port h	io.: 8	N-230	91600	151			
Sample ID: 2/	0924AP	07001							Sa.	mple	Descr	iptio	n: Star	k Emi	ssion			
Challan No./	.O. No.	: 454	803290	0/23	7				CI	allan	No./	P.No.	Date:	23-09	-202	3		
	aro Ce t No IV/									Ceme	nt (B	harat	) Limi	ted				
Bol Plo Bol	t No IV/ caro Sto	A-7(P	14), Bo	karo	Indu	utrial A	Area i	Balid	ih lia	2.42.446			Marria de la constitución de la	DOT?	nicev	Verm	à	
Bo Pio	t No IV/ caro Sto try: Cer	A-7(P sel Ci ment	ty, Bol	karo	Indu	utrial A	Area i	Balid	ih lia Ci	uston	er Re	pres	entati	ve: Sa	njeev	Verm	ä	
Bol Pio Bol Type of Indu	t No IV/ caro Sto try: Cer in by: II	A-7(P sel Ci nent EM Te	ty, Bol eam	karo-	1ndu 8270	etrial A 14 Jhar	Area i rkhan	Balld id Inc	Ci Sa	uston	er Re	pres	entati	ve: Sa	njeev	Verm	a	
Bo Pio Bo Type of Indu Sample Drav	t No IV/ caro Sto try: Cer /n by: II B Guide	A-7(P sel Ci ment EM Te sline (	ty, Bol eam	karo-	13-14	etrial A 14 Jhar	Area i rkhan Metho	Balld id Inc	Ci Sa	uston implir eries	er Re	pres e: 24	entati	ve: 5a		Verm		

Stack Identification	Cement Mill Bag House Stack	Sampling Port	Available
Plat Form	Permanent	Stack Height from Ground Level (m)	50
Stack Description	Common	Port Hole Height from Ground Level (m)	30
Shape of Stack	Circular	Inner Dimension of Stack (m)	3.7
Construction Material	MS	Pollution Control Device (if any)	Bag House

Flue Gas Temperature (K): 368 Flue Gas Velocity (m/s): 16.1 Flue Gas Volumetric Flow Rate (Nm³/hr):488770.1

51, NO.	Parameters	Test Methods	Unit	Result	Limits
1.	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm³	11.4	30.0

Dust Kg/hr 5.57

-End of Report-

Env. Condition of Lab.	Legicatory is maintaining Temperature 378 3°C and Adlative Mumbility 6585 % in all testing area as per 15 196:1966(C).	
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit	
Limit is Specified	As per the Environmental (Protection) Rule - 1986	
Remark	Sample Comply with prescribed specification.	

Tested By: Akankaha Sourabh

Sample Drawn By: Rajiv Kumar Singh & Team

Specific Contractual Notes: -	Reviewed by AnniAuthorized Signatory
The laboratory accepts responsibility for content of this report.     This report what not be reproduced except in fail, without written approval of the MO.     This report is intended for only guidance and not for legal purpose or for advantisement.     Any complaint about this report should be communicated in writing within 7 days of its issue.     Total laboilty of irreflute for Environmental Management will be limited to involved amount only.	T. Married Company
6. In case of feetback/ completels, greate send at small at on amendment com	(Taugeer Ahmad) (Dr. S. C. Jain)
On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Griginitization.	Technical Manager Sunch Director

Page 1of 1

Corporate office - A-8, Modi Heights, Opp.-All India Radio Station, Ratu Road, Ranchi, Jharkhand - 834001

### Annexure-VIII

## **Bokaro Cement Manufacturing Works (Unit of DCBL)**

## Fugitive emission monitoring report

## April 2024 to September 2024

Sr. No	Date of monitoring	Near Mill area µg/m3	Near Cement Silo µg/m3	Near Packing plant µg/m3	Near Clinker Silo µg/m3
1	Apri-2024.	608.2	598.5	557.6	664.8
2	May-2024.	827.5	663,7	767.9	607.4
3	June-2024.	793.8	764.6	839.5	503.12
4	July-2024.	714.6	865.2	579.4	614.9
5	August-2024.	518.7	708.3	635.7	713.3
6	September-2024.	715.2	904.7	703.4	447.5
	Min.	518.7	598.5	557.6	447.5
	Max.	827.5	904.7	839.5	713.3
	Avg.	696.3	750.8	680.6	591.8

### **Fugitive Emission monitoring report**



# Institute for Environmental Management According by | Jharkhand State Politicion Coratol Board, JSPCH & MoEFCC



### **Test Report**

Discipline: Chemical	Grou	p: Atmospheric Poli	ution 5	ub-Group: Work Environn	nent & Indoor Air.		
Report Issue Date: 27-09	port Issue Date: 27-09-2024		Test Report No.: RN-230916001FE01				
ample ID: 240924AP08001			Sample	Description: Fugitive Em	ission		
Challan No./P.O. No.: 45	hallan No./P.O. No.: 4548032900/237			No./ P.No. Date: 23-09-2	023		
Plot No IV/A-7/	P/41. Boka	ro Industrial Area E	Balldib				
Bokaro Steel C	ity, Bokar	o-827014 Jharkhan	d India	ner Denres antative: Saci			
Bokaro Steel C Type of Industry: Cement	ity, Bokar		d India Custor	mer Representative: Sanj			
Bokaro Steel C Type of Industry: Cement Sample Drawn by: IEM 1	ity, Bokar I Team	o-827014 Jharkhan	d India Custor Sampli	ng Date: 24-09-2024			
Bokaro Steel C Type of Industry: Cement Sample Drawn by: (EM 1 Protocol: CPC8 Guideline	ity, Bokar ream (NAAQMS)	o-827014 Jharkhan	d India Custor Sampli	ng Date: 24-09-2024			
Bokaro Steel C Type of Industry: Cement Sample Drawn by: IEM 1	ity, Bokar Team (NAAQMS/ ig Plant	o-827014 Jharkhan	d India Custor Sampli ethod 5182	ng Date: 24-09-2024 Series			

#### --- Yest Results---

SI, No.	Parameters	Test Method No.	Unit	Limit	Results
1	Suspended Perticulate Matter (SPM)	IS 5182 Part - 04	µg/m³	2000	698.7

--- End of Report---

Env.Condition of Lab.	Laboratory is maintaining Temperature 27s 2+C and Relative Humidity 65:5 % in all testing area as per IS 195:1966(C).
Abbreviation	MGE Minimum Detection Limit, BDL Below Outsetlish Limit
Limit is Specified	As Per Factories Act, 1948 (B hrs. Banis)
Remark	Sample Comply With the Prescribred Spelication.

Tested Sy: Akanksha Sourabh

Sample Drawn By: Rajiv Kumar Singh & Team

Specific Contractual Notes:

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3. This report is related for only guidance and not for legal purposes on for adventuement.

4. Any compare about this report should be communicated in writing within 7 days of its lieue.

5. Total letting of installer to Environmental Management will be intied as involved amount only.

6. In case of freetings complains, present early an entail of a response of aboution and the complains.

Con the basis of Quality Chartest and Testings that wellfied by the Authorities agreedly, the report is assisted by the Diseason of the Countries on.

(Taugeer Ahmas) Technical Manager 5 C Jain)

Director

Adherized Signatory

Page 1 of 1

Corporate office - A-8, Modi Heights, Opp.-All India Radio Station, Ratu Road, Ranchi, Jhurkhand - 834001

Laboratory Site - H.No. - A-13, Salust Vihar, Neur Sohrai Bhawan, Harmu Housing Colony, Ranchi-834002, Jharkhand, India

Ph - 8407804254, 8407804251, Email - lem2012@rediffmail.com



# Institute for Environmental Management Accredited by | Jhurkhand State Pollution Control Board, JSPCB & MOEFCC



### Test Report

Discipline: Chemical	Grou	up: Atmospheric Po	noitution	Sub-Group	: Work Environm	ent & Indoor Air		
Report Issue Date: 27-09-	2024		Test Report No.: RN-230916001FE02					
Sample ID: 240924AP0800	22		Sample Description: Fugitive Emission					
Challan No./P.O. No.: 454	8032900/	237	Chall	an No./ P.N	lo. Date: 23-09-20	023		
Bokaro Steel Ci Type of Industry: Cement	ty, Bokar	aro Industrial Area ro-827014 Jharkha	and India	omer Repr	esentative: Sanje	ev Verma		
Bokaro Steel Ci	ty, Bokar		and India Cust	omer Repr	The state of the s	eev Verma.		
Bokaro Steel Ci Type of Industry: Cement Sample Drawn by: IEM To	ity, Bokar eam	ro-827014 Jharkha	and India Cust Samp	oling Date:	The state of the s	ev Verma		
Bokaro Steel Ci Type of Industry: Cement	ty, Bokar eam NAAQMS,	ro-827014 Jharkha /36/2012-13) & IS I	and India Cust Samp	oling Date:	The state of the s	ev Verma		
Bokaro Steel Ci Type of Industry: Cement Sample Drawn by: IEM To Protocol: CPCB Guideline(	eam NAAQMS, faterial Ya	ro-827014 Jharkha /36/2012-13) & IS I ard	Samp Method 518	oling Date: 3 82 Series	The state of the s	w.D.: SE to NW		

#### --- Test Results----

SI. No.	Parameters	Test Method No.	Unit	Limit	Results
4.	Suspended Perticulate Matter (SPM)	IS 5182 Part - 04	µg/m³	2000	760.7

----End of Report----

Env.Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per (\$ 196:1966(C).
Abbreviation	MDL Minimum Detection Limit, BDL Balow Detection Limit
Limit is Specified	As Per Factories Act, 1948.(8 hrs. Basis)
Remark	Sample Comply With the Prescribred Spefication.

Tested By: Akanksha Souratin

Sample Drawn By: Rajiv Kumar Singh & Team

Epecific Contractual Notes: -

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Total labelity of institute for Environmental Menagement will be limited to invoked amount only.

6. In case of feedback/ complaints, please send an email at gm lemeco@omail.com

On the basis of Quality Checked and Technical data waitfied by the Authorized signatory, the report is sound by the Director of the Organization.

ithorized Signatory (Taugeer Altmat) Technical Manager Re

(Dr. S. C. Jain)

Director

Page 1 of 1

Corporate office - A-B, Modi Heights, Opp.-All India Radio Station, Raty Road, Ranchi, Jharkhand - 634001.

Liboratory Site - H.No. - A-13, Saket Vihar, Near Sohrai Bhawan, Harmu Housing Colony, Ranchi 634002, Jharkhand, India

Ph - 8407804254, 8407804251, Email - lem2012@rediffmail.com



# Institute for Environmental Management Accredited by Jharkband State Pollumon Control Board, JSPCB & Molifice



Dr. S. C. Jain)

Director

### Test Report

Discipline: Chemical	Grou	p: Atmospheric	ollution	Sub-0	Group: Work Environm	ent & Indoor Air	
Report Issue Date: 27-09-	2024		Test Report No.: RN-230916001FE03				
Sample ID: 240924AP080		Sam	Sample Description: Fugitive Emission				
Challan No./P.O. No.: 454	48032900/	237	Cha	llan No	/ P.No. Date: 23-09-2	023	
Diet No W/A.7/	DIAL Bobs				ent (Bharat) Limited		
Bokaro Steel C	ity, Bokar	ero Industrial Ar o-827014 Jharki	ea Balldih nand India			ev Verma	
Bokaro Steel C Type of Industry: Cement	ity, Bokar	iro Industrial Ar	ea Balldih nand India Cus	tomer	Representative: Sanje late: 24-09-2024	ev Verma	
Bokaro Steel C Type of Industry: Cement Sample Drawn by: IEM T	ity, Bokar esm	ro Industrial Ar o-827014 Jharki	ea Balldih nand India Cus Sam	tomer	Representative: Sanje late: 24-09-2024	ev Verma	
Bokaro Steel C Type of Industry: Cement	eam NAAQMS	ro Industrial Ar o-827014 Jharki	ea Balldih nand India Cus Sam	tomer	Representative: Sanje late: 24-09-2024	ev Verma	
Bokaro Steel C Type of Industry: Cement Sample Drawn by: IEM T Protocol: CPCB Guideline	esm (NAAQMS) rea	ro Industrial Ar o-827014 Jharki	ea Balldih hand India Cus Sam 5 Method 51	tomer opling D 182 Seri	Representative: Sanje late: 24-09-2024	ev Verma  W.D.: 5E to NW	

#### ----Test Results----

SI. No.	Parameters	Test Method No.	Unit	Limit	Results
1.4	Suspended Perticulate Matter (SPM)	IS 5182 Part - 04	µg/m³	2000	812.6

---End of Report---

Env.Condition of Lab.	Laboratory is maintaining Temporature 27± 2°C and Relative Humidity 65=5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL Minimum Detection Limit, BDL Below Detection Limit
Limit is Specified	As Per Factories Act, 1948 (8 hrs. Basis)
Remark	Sample Comply With the Prescribred Spelication.

Tested By: Akanksha Sourabh

Sample Drawn By: Rajiv Kumar Singh & Team

Specific Contractual Notes Authorized Signatory Reviewed by The laboratory accepts responsibility for content of this report. This report shall not be reproduced except in NA, without written approvel of the NO. This import is immeded for any guitance and not for regal purpose or for advertisement. Any complaint about this report should be communicated in writing within 7 days of its issue. Total liability of institute for Environmental Management will be limited to involved amount only. (Taugeer Atmast) in case of feedback/ complaints, please send an email at on, iemeco@gmail.com On the basis of Quarity Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization. Technical Monager

Page 1 of 1

Corporate office - A-8, Modi Heights, Opp.-All India Radio Station, Ratu Road, Ranchi, Itiarkhand - #34001

Laboratory Site - H. No. - A-13, Saket Vihar, Near Sohrar Bhawan, Harmu Housing Colony, Ranchi-834002, thurkhand, India Ph - 8407804254, 8407804251, Email - lem2012@rediffmail.com

### Annexure-IX

## Bokaro Cement Manufacturing Works (Unit of DCBL)

# On line Ambient Air Quality Monitoring report from April 2024 to September 2024

On Line CAAQMS Monitoring report										
	SO2	NOx	PM-10	PM-2.5						
	µg/m3	μg/m3	μg/m3	μg/m3						
Month										
April-2024.	12.55	13.44	43.22	32.41						
May-2024.	12.07	8.98	65.02	59.33						
June-2024.	8.74	9.95	53.54	35.14						
July-2024.	4.38	15.98	34.60	25.94						
August-2024.	4,30	21.73	47.99	32.74						
September-2024.	4.44	22.22	59.84	18.38						
Min	4.30	8.98	34.60	18.38						
Max	12.55	22.22	65.02	59.33						
Avg	7.92	15.44	50.48	35.21						

### **Bokaro Cement Manufacturing Works (Unit of DCBL)**

### Ambient Air Quality Monitoring report from April 2024 to September 2024



### Institute for Environmental Management



#### **Test Report**

ULR No.:	T	C	1.2	1	5	1	.50	12	4	0	0	10	0	0	1.	4	6	0
Discipline: Ch	emicul				G	roupt A	timo	spheri	c Poll	ution		50	ub-Gr	oup: A	mbie	nt Air		
Report Issue I	ate: 27	09-20	24		115.5		1 - 1 - 1	Te	st Re	port N	Out H	N-230	91600	11A1				
Sample ID: 24	0924APC	15001						Sa	mple	Descr	intio	n: Am	blent	Air				
Challan No./P	D. No.:	45450	32900	V237				CH	allan	No./	P.No.	Date:	23-0	9-2023	3			
Plot	No IV/A	-7(P)	s, Bok	are to	ndust	rial An	ea B	alidih		omen	it (Bh	arat) l	Limite	d				
Bok Plot Bok	No IV/A	-7(P)	s, Bok	are to	ndust	rial An	ea B	alidih d Indii							Verm	a		
Bok Plot Bok	No IVIA aro Stee try: Cem	-7(P)- d City ent	, Bok	are to	ndust	rial An	ea B	alidih d Indii Ci	ston	er Ro	pres	entati	ve: Sa	injesv				
Bok Ploi Bok Type of Indus Sample Draw	No IV/A aro Stee try: Cem n by: IE/	-7(P) d City ent M Tea	, Bok Bok	aro li iro-8:	ndust 27014	rial An	ea B	alidih d Indii Ci Sa	s uston implir	er Re	presi	entati	ve: Sa					
Bok Plot Bok Type of Indus	No IV/A aro Stee try: Cem n by: IEI B Guidell	-7(P)- d City ent M Tea ine(N/	, Bok	aro li aro-8: 5/36/	27014 27012	rial An	ea B	alidih d Indii Ci Sa	s uston implir	er Re	presi	entati	ve: Sa	injesv				
Bok Plot Bok Type of Indus Sample Draw Protocol: CPC	No IV/A aro Stee try: Cern n by: IE/ B Guidel ttion: Go	-7(P)- d City ent M Tea Ine(N/ orabal	MAGM	aro li aro-8: 5/36/ Temp	27014 27012	rial And Jhark	ea B hand	Sa ethod	ston mplir 5182	ner Ro g Dat Series	presi e: 23	entati	ve: 52 24 to	injesv 24-09	-2024		SW.	

#### Test Besules

		THE TREBUILD			
SI. No.	Parameters	Test Method No.	Unit	Norms as per NAAQS - 2009	Results
1	Particulate Matter (PM <sub>18</sub> )	IS 5182 Part 23:2006	ug/m³*	100	52.0
2	Particulate Matter (PM <sub>2.8</sub> )	IS 5182 Part 24 2019	µg/m³	50	25.7
3	Sulphur Dioxide (SO <sub>2</sub> )	1S 5162 Part-02	ug/ms*	80	13.5
4.	Nitrogen Dioxide (NO <sub>2</sub> )	1S 5182 Part-06	ug/m <sup>3</sup>	80	25.4
D.	Ammonia (NH <sub>a</sub> )	IS 5162 Part 25	ug/m²	400	18.3
B	Ozone (O <sub>3</sub> )	IS 5182 Part 09	µg/m²	100	20.1
7.	Arsenic (as As)	USEPA LO. 3.2	ng/m <sup>3</sup>		BOL (MOL-02)
B.	Lead (as Pb)	IS 5162 Part 22	Lig/m <sup>®</sup>	1.0	0.02
9.	Nickel (as Ni)	IS 5182 Part 26	ng/m²		BDL (MDL-4)

#### ---End of Report----

Env. Condition of Lab.	Laboratory is maintaining Temperature 27s 2°C and Relative Humidity 65:5 % in all testing area as per 15 196:1966(C).	
Abbreviation	MDL Minimum Detection Limit, BDL: Below Detection Limit	
Limit is Spesified	As per the Environmental (Protection) Rule - 1988	
Remark	Sample Comply with prescribed specification	

Tested By: Akanksha Sourabh

Sample Orawn By: Rajiv Kumar Singh & Toam

Specific Continuous Horizo

1. This indontry accepts responsibility for content of this report.

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6. In come of tenthests Completing please condition will be instant to encount amount only.

6. In come of tenthests Completing please condition will be exceeded as a second of the condition of the

Authorized Signatory

0200 or S. C. Jain) (Taugeer Ahrhad) Technical Manager Director

Page 1 of 2

Corporate office - A.S. Medi Heights, Opp. All India Endio Station, Rata Road, Earchi, Burkhand - 854001

Laboratory Site - H.No. - A-12, Saket Vibar, Sear Schrai Bhawan, Harmit Housing Colony, Kanchi-8040002, Jourkhand, India

Ph - 8407804255, 8407804251, Email - icm20125; rediffinal.com





#### Test Report

Discipline: Chemical	Group: Atm	ospheric Pollution	Sub-Group	: Ambient Air
Report Issue Date: 27-09-2024	all-state and all all all all all all all all all al	Test Report	No.: RN-230916001A	1
Sample ID: 240924AP05001		Sample Desc	ription: Ambient Air	
Challan No./P.O. No.: 4548032900/	237	Challan No./	P.No. Date: 23-09-20	23
Plot No IV/A-7(P)4, Boka	iro industrial Area	Balloin		
Bokaro Steel City, Bokar	ro-827014 Jharkha	nd India	enresentative: Sanio	av Verma
Type of Industry: Cement	ro-827014 Jharkha	nd India Customer R	epresentative: Sanje te: 23-09-2024 to 24-	Or Street and Annual Street Street
Type of Industry: Cement Sample Drawn by: IEM Team		nd India Customer R Sampling Da	te: 23-09-2024 to 24-	Or Street and Annual Street Street
Type of Industry: Cement Sample Drawn by: IEM Team Protocol: CPCB Guideline[NAAQMS.	/36/2012-13) & IS N	nd India Customer R Sampling Da	te: 23-09-2024 to 24-	Or Street and Annual Street Street
Type of Industry: Cement Sample Drawn by: IEM Team	/36/2012-13) & IS N Temple	nd India  Customer R  Sampling Da  Method 5182 Serie	te: 23-09-2024 to 24-	Or Street and Annual Street Street

#### --- Test Results----

SI. No.	Parameters	Test Method No.	Unit	Norms as per NAAQS - 2009	Results
10	Benzo (a) Pyrene (BaP) Particulate phase only	IS 5182 Part 12	ng/m³	Yann	BDL (MDL-0.18)
11.	Carbon Monoxide (CO)	IEM/SOP/Air-01:2022	mg/m <sup>3</sup>		BDL(MDL-1.8)
12	BENZENE (C <sub>6</sub> H <sub>6</sub> )	IS 5182 Part 11	µg/m³	// <u>200</u> 2	BDL (MDL- 0.06)

#### ----End of Report----

Env.Condition of Lab.	Laboratory is maintaining Temperature 27s 24C and Relative Humidity 65s5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Balow Detection Limit
Norms** is Specified	National Ambient Air Quality Standards (NAAQS), 2009.
Romark	Sample Comply with prescribed specification.

Tested By: Akanksha Sourabh

Sample Drawn By: Rajiv Kumar Singh & Team

Specific Contractual Notes -

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Total shalling of institute for Environmental Management will be invited to involved amount only.
In case of leadstands complaints, please send an email at universectification of the communication of the communication.

The basis of Quality Checked and Technical data verified by the Authorized signalory, the report

is moved by the Querity of the Opportunity of the Opportunity Opportunity Readily Stations

Reviewed by Authorized Signatory

. (Dr. S. C. Jain) (Taugeer Ahmad)

Technical Manager Director

Page 2 of 2

Laboratory Site - H.No. - A-13, Salart Vihar, Near Sohrai Bhawan, Harmu Housing Colony, Ranchi-834002, thankhand, India

Ph - 8407804253, 8407804251, Lmail - icm2012@rediffmail.com





### Test Report

ULR No.:	T	C	1	1	.5	1	5	2	4	0	0	0	0	0	1	4	- 6	1
Discipline: Ci	emical.	110			G	roup:	Atmo	spheri	c Pall	ution		St	ıb-Gr	oup: A	mbie	nt Air		•
Report Issue	Date: 27	-09-20	24					Te	st Re	port N	o. Rt	1-2305	91600	1.42				
Sample ID: 2	0924AP	05002						Sa	mple	Desci	iption	: Ami	olent,	Air				
Challan No./	.D. No.:	45480	32900	7237				Ch	allan	No./	P.No.	Date:	23-09	-202	3			
Plo	t No IV//	4-7(P)4	, Bok	aro li	dus	trial A	rea B	alidih		emer	it (Bh	arat) l	imite	d				
Pio Bo	t No IVII	4-7(P)4 el City	, Bok	aro li	dus	trial A	rea B	alidih d Indi:					113-200		Varm	à		
Plo	t No IVII aro Ste try: Cen	A-7(P)4 el City lent	, Bok Bok	aro li	dus	trial A	rea B	alidih d Indii Cı	a uston	ner Re	prese	ntativ	ve: Sa	njeev	Verm	_		
Pio Bo Type of Indu Sample Drav	t No IVII aro Ste try: Cen in by: IE	A-7(P)4 el City lent M Tea	, Bok Boki	aro li aro-8	7014	trial A 4 Jhar	rea B khan	alidih d Indii Ci Sa	a uston mplin	ner Re	prese	ntativ	ve: Sa	njeev	Verm -2024	_		
Pio Bo Type of Indu Sample Drav Protocol: CPO	t No IV// caro Stee try: Cen in by: IE B Guide	A-7(P) el City lent M Tea line(NA	t, Bok Boki m AAQM	aro li aro-8: 5/36/	27014 27014	trial A 4 Jhar -13) &	rea B khan	alidih d Indii Ci Sa	a uston mplin	ner Re	prese	ntativ	ve: Sa	njeev		_		
Plo Bo Type of Indu	t No IV// caro Stee stry: Cen in by: IE B Guide etion: N	A-7(P) el City lent M Tea line(NA ear Th	MAQM	saro li aro-8: S/36/ and V	27014 27014 2012 liege	trial A 4 Jhar -13) &	rea B khan IS M	alidih d Indii Ci Sa ethod	a ustom implir 5182	ner Re ng Dat Series	epreso e: 23	entativ 09-20	ve: Sa 24 to	njeev 24-09	-2024	_	w	

#### --- Test Results----

SI. No.	Parameters	Test Method No.	Unit	Norms as per NAAQS - 2009	Results
1.	Particulate Matter (PM <sub>10</sub> )	IS 5182 Part 23:2006	µg/m³	100	51.2
2.	Particulate Matter (PM <sub>J 6</sub> )	IS 5182 Part 24:2019	µg/m³	60	24.4
3.	Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 Part-02	µg/m³	80	16.3
4.	Nitrogen Dioxide (NO <sub>2</sub> )	IS 5182 Part-06	µg/m³	80	26.0
5.	Ammonia (NH <sub>3</sub> )	IS 5182 Part 25	µg/m³	400	17.5
6.	Ozone (O <sub>3</sub> )	IS 5182 Part 09	µg/m³	100	16.4
7,	Arsenic (as As)	USEPA I.O. 3.2	ng/m³	****	BDL (MDL-2)
8.	Lead (as Pb)	IS 5182 Part 22	µg/m³	1.0	0.02
9.	Nickel (as Ni)	IS 5182 Part 28	ng/m <sup>3</sup>		BDL (MDL-4)

#### --- End of Report----

Env.Condition of Lab.	Laboratory is maintaining Temperature 27= 2=C and Relative Humidity 65=5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Limit is Specified	As per the Environmental (Protection) Rule - 1986
Remark	Sample Comply with prescribed specification.

Tested By: Akunksha Sourabh

Sample Drawn By: Rajiv Kumar Singh & Team

Specific Contractual Notes:	Reviewed by Authorized Signatory
The laboratory accepts responsibility for content of this report. This report is intended for only guidance and not for regal purpose of for advertisement. Any complaint about the report should be communicated in writing within 7 days of its adule. Total Rabatory of Institute for Environmental Management will be tended to invocad amount only.	T. M
6. In case of feedbacks complaints, please send an email at gm emacodigmus.com	(Taugeer Ahmad) (Dr. S. C. Jain)
On the book of Quality Checked and Technical data verified by the Authorized signatory, the report is assert by the Departure of the Organization.	Technical Manages ** , R. Director

Page 1 of 2

Corporate office - A-8, Mod. Heights, Opp.-All India Radio Station, Ratu Road, Ranchi, Jharkhand - 834001





### Test Report

Discipline: Chemical	Group: Atm	aspheric Pollutio	n Sub-Group	: Ambient Air		
Report Issue Date: 27-09-2024		Test Report No.: RN-230916001A2				
Sample ID: 240924AP05002		Sample Des	cription: Amblent Air			
Challan No./P.O. No.: 4548032900/	237	Challan No.	/ P.No. Date: 23-09-2	023		
200	the state of the state of the state of	Constitution of the second				
Plot No IV/A-7(P)4, Boka Bokaro Steel City, Boka Type of Industry: Cement		nd India	Representative: Sanio	ev Verma		
		nd India Customer I	Representative: Sanjo	****		
Bokaro Steel City, Boka Type of Industry: Cement Sample Drawn by: IEM Team	ro-827014 Jharkha	Customer I Sampling D	ate: 23-09-2024 to 24	****		
Bokaro Steel City, Boka Type of Industry: Cement Sample Drawn by: IEM Team Protocol: CPCB Guideline(NAAQMS	ro-827014 Jharkha /36/2012-13) & IS N	Customer I Sampling D	ate: 23-09-2024 to 24	****		
Bokaro Steel City, Boka Type of Industry: Cement	ro-827014 Jharkha /36/2012-13) & ISA nd Village	Customer I Sampling D Method 5182 Seri	ate: 23-09-2024 to 24	****		

#### --- Test Results----

SI. No.	Parameters	Test Method No.	Unit	Norms as per NAAQS - 2009	Results
10.	Benzo (a) Pyrene (BaP) Particulate phase only	IS 5182 Part 12	ng/m³	-	BDL (MDL-0.18)
11.	Carbon Monoxide (CO)	IEM/SOP/Air-01 2022	mg/m <sup>3</sup>		BDL(MDL-1.8)
12.	BENZENE (C <sub>e</sub> H <sub>e</sub> )	IS 5182 Part 11	µg/m³	-	BDL (MDL-0.06)

#### ----End of Report----

Env.Condition of Lab.	Laboratory is maintaining Temperature 27s 2°C and Relative Humidity 65:5 % in all testing area as per IS 196:1966[C].
Abbreviation	MDL: Minimum Betection Limit, BDL: Below Detection Limit
Norms** is Specified	National Ambient Air Quality Standards (NAAQS), 2009.
Remark	Sample Comply with prescribed specification.

Tested By: Akanksha Sourabh

Sample Drawn By: Rajiv Kumar Singh & Team

Specific Contractual Notes: -	Reviewed by	Authorized Signatory
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In case of feedback conclaints, please and an erral of on immocopyrial com	(Taugeer Ahmad)	(Dr.S/C Jain)
On the busin of Quarty Checked and Technical cata verified by the Authorized signatory, the report is asset by the Director of the Ospatication of the Authorized Signatory.	Technical Manage	Director

Page 2 of 2

Laboratory Site - H.No. - A-13, Saket Viliar, Near Sohrai Bhawan, Harmu Housing Colony, Ranchi-834002, Jisarkhand, India

Th - 8407804253, 8407804251, Email - icm2012@rediffmail.com





### **Test Report**

ULR No.:	1.7	C	1	1	5	1	5 2	4	0	0	0	0	0	1	4	6	2
Discipline: Chemical Group: Atmos								eric Poll	ution	1	Su	b-Gro	oup: A	mble	rit Air		
Report Issue	Date: 27	09-202	24		-			Test Re	port f	Va.: R	V-2309	1600	1A3				
Sample ID: 24	10924API	05003						Sample	Desc	riptio	a: Amb	ient /	Air	95			
Challan No./I	.O. No.:	45480	32900	/237				Challan	No./	P.No.	Date:	23-09	-202	3			
Pio	No IVIA	-7(P)4	, Bok	aro li	ndus	lorks, Ur trial Are:	Ballo	ih	emer	nt (Bh	arat) L	imite	d				
Pio Bol	t No IV/A	1-7(P)4 of City,	, Bok	aro li	ndus		Ballo	ih dia	194.112 941		Paris 11382-11		-4-21	Vorm	78		
Plo Bol Type of Indus	t No IV/A aro Stee try: Cem	1-7(P)4 of City, ent	, Boka Boka	aro li	ndus	trial Area	Ballo	ih dia Custon	ner Ra	epres	entativ	e: Sa	njeev				
Pio Bol Type of Indus Sample Drav	t No IV/A aro Stee try: Cem in by: IE	1.7(P)4 of City, ent M Tear	, Boka Boka	ro-8	2701	trial Are: 4 Jharkh	Ballo and in	ih dia Custon Samplii	ner Ra	epres	entativ	e: Sa	njeev			_	
Pio Bol	t No IV/A caro Stee try: Cem in by: IE B Guidel	t-7(P)4 of City, ent M Tear ine(NA	Boka Boka TI ADMS	ro-8	2701	trial Are: 4 Jharkh	Ballo and in	ih dia Custon Samplii	ner Ra	epres	entativ	e: Sa	njeev			-	
Pio Bol Type of Indus Sample Drav Protocol: CPC	t No IV/A caro Stee try: Cem in by: IE B Guidel ation: Kh	A-7(P)4 al City, ent M Tear ine(NA autri Vil	Boka Boka n AQMS	ro-8:	2701/ 2701/ 2012	trial Are: 4 Jharkh	Ballo and in	ih dia Custon Samplii d 5182	ner Ra ng Dat Series	epres te: 23	entativ	e: Sa 24 to	njeev 24-09	-2024		SW	

#### ---- Test Results----

SI. No.	Parameters	Test Method No.	Unit	Norms as per NAAQS - 2009	Results
1.	Particulate Matter (PM <sub>10</sub> )	IS 5182 Part 23 2006	µg/m³	100	57.1
2	Particulate Matter (PM <sub>2.5</sub> )	IS 5182 Part 24:2019	µg/m³	60	31.9
3.	Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 Part-02	µg/m <sup>1</sup>	80	12.7
4.	Nitrogen Dioxide (NO <sub>2</sub> )	IS 5182 Part-06	µg/m³	80	28.8
5	Ammonia (NH <sub>2</sub> )	IS 5182 Part 25	µg/m³	400	16.7
6.	Ozone (O <sub>2</sub> )	IS 5182 Part 09	µg/m³	100	14.3
7.	Arsenic (as As)	USEPA I.O. 3.2	ng/m³	****	BDL (MDL-2)
8.	Lead (as Pb)	IS 5182 Part 22	µg/m <sup>®</sup>	1.0	0.03
9	Nickel (as Ni)	IS 5182 Part 26	ng/m³	222	BDL (MDL-4)

---End of Report---

Env.Condition of Lab.	Laboratory is maintaining Temperature 27s 2°C and Relative Humidity 65:5 % in all testing area as per 15 196:1966(C).
Attoreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Limit is Specified	As per the Environmental (Protection) Rule - 1986
Remark	Sample Comply with prescribed specification.

Tested By: Akanksha Sourabh

Sample Drawn By: Rajiv Kumar Singh & Team

Specific Centractual Notes: -	Reviewed by Authorized Signatory
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fi. In case of firectacky complaints, please send an email at on ignocodiannal com	(Taugeer Ahmad) (Ør. S. C. Jain)
On the basis of Quality Checked and Technical data variled by the Authorized signatory, the report is issued by the Director of the Organization.	Technical Manager • Fund Director

Page 1 of 2

Corporate office - A-8, Modi Heights, Opp.-All India Radio Station, Ratu Road, Ranchi, Jharkhand - 834001





#### Test Report

Discipline: Chemical Group: Atmos		spheric Pollution	Sub-Group: Ambient Air		
Report Issue Date: 27-09-2024	100000000000000000000000000000000000000	Test Report No.: RN-230916001A3			
Sample ID: 240924AP05003		Sample Descri	ption: Ambient Air		
Challan No./P.O. No.: 4548032900	/237	Challan No./ F	No. Date: 23-09-2023		
Plot No IV/A-7(P)4, Boka					
Bokaro Steel City, Boka		d India	presentative: Sanjeev Verma		
		d India Customer Re	presentative: Sanjesv Verma e: 23-09-2024 to 24-09-2024		
Bokaro Steel City, Boka Type of Industry: Cement	ro-827014 Jharkhan	d India Customer Re Sampling Date	the selection of the contract of the selection of the sel		
Bokaro Steel City, Boka Type of Industry: Cement Sample Drawn by: IEM Team Protocol: CPCB Guideline(NAAQMS	ro-827014 Jharkhan	d India Customer Re Sampling Date	the selection of the contract of the selection of the sel		
Bokaro Steel City, Boka Type of Industry: Cement Sample Drawn by: IEM Team	ro-827014 Jharkhan	Customer Re Sampling Date ethod S182 Series	the selection of the contract of the selection of the sel		

#### --- Test Results---

SI. No.	Parameters	Test Method No.	Unit	Norms as per NAAQS - 2009	Results
10.	Benzo (a) Pyrene (BaP) Particulate phase only	IS 5182 Part 12	ng/m²	-	BDL (MDL-0.18)
11.	Carbon Monoxide (CO)	IEM/SOP/Air-01-2022	mg/m³		BDL(MDL-1.8)
12	BENZENE (C <sub>6</sub> H <sub>6</sub> )	IS 5182 Part 11	µg/m³	_	BDL (MDL-0.06)

#### ----End of Report----

Env.Condition of Lab.	Laboratory is maintaining Temperature 27s 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	National Ambient Air Quality Standards (NAAQS), 2009.
Remark	Sample Comply with prescribed specification.

Tested By: Akanksha Sourabh

Sample Drawn By: Rajiv Kumar Singh & Team

Specific Contractual Notes

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On the basis of Quartic Completes, cleans sept as serial at just an error objection, the report is assued by the Quartic Completes and Completes and

Page 2 of 2

Laboratory Site - H.No. - A-13, Saket Vihar, Near Sohrai Bhawan, Harmu Housing Sono-Kanetu-834002, Jharkhand, India

Th - 8407804253, 8407804251, Lmail - Jem2012@rediffmail.com





### Test Report

ULR No.:	T	C	1	1	5	1	5	2	4	0	10	0	0	0	1	4	6	3
Discipline: Cl	nemical	olee		1.50	G	roup:	Atmo	spher	c Poll	ution		5	ıb-Gr	oup: A	mble	nt Air	-	*
Report Issue	Date: 27	-09-207	24		-			Te	st Re	port !	No.: RI	4-2309	16001	A4				
Sample ID: 2	40924AP	05004						Si	mpie	Desc	ription	: Ami	bient	Air				
Challan No./	P.O. No.:	45480	32900	1/237				CH	allan	No./	P.No.	Date:	23-09	3-202	3			
Plo	t No IV/A	4-7(P)4	. Bok	aro l	ndust	rial A	rea B	alidih		emer	nt (Bh	arat) l	.imite	d				
Plo Bo	t No IV/A	4-7(P)4 ol City,	. Bok	aro l	ndust	rial A	rea B	alidih d Indi	a						Verm	3		
Plo	t No IV/A karo Stee stry: Cem	L-7(P)4 ol City, ient	Boks	aro l	ndust	rial A	rea B	alidih d Indi	a uston	ner Re	eprese	intati	ve: Sa	njeev				
Plo Bo Type of Indu Sample Drav	t No IV/A karo Ster stry: Cem vn by: IE	k-7(P)4 el City, ent M Tear	, Bok Boks	aro li ero-8	ndust 27014	rial A I Jhar	rea B khani	alidih d India Co	a uston	ner Re	eprese te: 23-	intati	ve: Sa	njeev				
Pic Bo Type of Indu Sample Drav Protocol: CP	t No IV/A karo Ster stry: Cem vn by: IE CB Guidel	k-7(P)4, al City, sent M Tear ine(NA	Boke Boke	aro li iro-8 S/36/	ndust 27014	rial A I Jhar	rea B khani	alidih d India Co	a uston	ner Re	eprese te: 23-	intati	ve: Sa	njeev				
Plo Bo Type of Indu Sample Drav	karo Stee stry: Cem vn by: IE B Guidel ation: No	k-7(P)4 ol City, ent M Tear ine(NA ear Proj	Boke Boke H AQM:	sro-8	27014 27012	rial A I Jhar 13) 8	rea B khani IS Mi	alidih d India Co	a uston implir 5182	ner Ri ng Dat Series	eprese te: 23-	intati 09-20	ve: Sa 24 to	njeev 24-09			SW	

#### --- Test Results----

SI. No.	Parameters	Test Method No.	Unit	Norms as per NAAQS - 2009	Results
1.	Particulate Matter (PM <sub>10</sub> )	IS 5182 Part 23:2006	ug/m³	100	56.2
2.	Particulate Matter (PM25)	IS 5182 Part 24:2019	m)gcj	60	24.3
3.	Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 Part-02	µg/m³	80	11.6
4.	Nitrogen Dioxide (NO <sub>2</sub> )	IS 5182 Part 06	µg/m²	80	23.5
5.	Ammonia (NH <sub>2</sub> )	IS 5162 Part 25	ug/m³	400	31.7
6.	Ozone (O <sub>3</sub> )	IS 5182 Part 09	µg/m³	100	17.1
7.	Arsenic (as As)	USEPA LO. 3.2	ng/m³		BDL (MDL-2)
8.	Lead (as Pb)	IS 5182 Part 22	µg/m³	1.0	0.04
9.	Nickel (as Ni)	IS 5162 Part 26	ng/m³	277	BDL (MDL-4)

#### ----End of Report----

Env.Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966[C].
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Limit is Specified	As per the Environmental (Protection) Rule - 1986
Remark	Sample Comply with prescribed specification.

Tested By: Akanksha Sourabh

Sample Drawn By: Rejiv Kumar Singh & Team

Specific Contractual Notes:	Reviewed by Authorized Signatory
The laboratory accepts responsibility for content of this report. This report shall not be reproduced except in full, without written approval of the MCA. This report is intended for only guidance and not for legal purpose or for advantament. Any complaint about this report should be communicated in writing within 7 days of its issue. Total liability of mathyle for Environmental Management will be limited to invoiced amount only.	T. Mhomed
in case of feedback/ compliants, please setd an email at groveneor@unist.com	(Taugeer Ahmad) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
On the basis of Quality Checked and Technical data resified by the Authorized signatory, the report is issued by the Director of the Director.	Technical Manages Base Director

Page 1 of 2

Corporate office - A-8, Modi Heights, Opp.-All India Radio Station, Ratu Road, Ranchi, Jharkhand - 854001





#### Test Report

Discipline: Chemical	Group; Atm	ospheric Pollutio	n Sub-Grou	p: Ambient Air
Report Issue Date: 27-09-2024	Test Report No.: RN-230916001A4			
Sample ID: 240924AP05004	Sample Des	cription: Ambient Air		
Challan No./P.O. No.: 4548032900/	237	Challan No.	/ P.No. Date: 23-09-2	023
Plot No IV/A-7(P)4, Boka	ro Industrial Area	t of Dalmia Cem Balidih	55/1 5	
Bokaro Steel City, Boka		Balidih nd India	33/1 /3 =	ay Varma
Bokaro Steel City, Bokar Type of Industry: Cement		Balidih nd India Customer I	Representative: Sanjo	2012001400000
Bokaro Steel City, Boka Type of Industry: Cement Sample Orawn by: IEM Team	ro-827014 Jharkha	Balidih nd India Customer I Sampling D	Representative: Sanja	2012001400000
Bokaro Steel City, Bokar Type of Industry: Cement	ro-827014 Jharkha /36/2012-13) & IS N	Balidih nd India Customer I Sampling D	Representative: Sanja	2012001400000
Bokaro Steel City, Bokar Type of Industry: Cement Sample Drawn by: IEM Team Protocol: CPCB Guideline (NAAQMS	ro-827014 Jharkha /36/2012-13) & IS N	Balidih nd India Customer I Sampling D Method 5182 Seri	Representative: Sanja	2012001400000

### ----Test Results----

SI. No.	Parameters	Test Method No.	Unit	Norms as per NAAQS - 2009	Results
10.	Benzo (a) Pyrene (BaP) Particulate phase only	IS 5182 Part 12	ng/m³	244	BDL (MDL-0.18)
11.	Carbon Monoxide (CO)	IEM/SOP/Air-01:2022	mg/m³		BDL(MDL-1,8)
12	BENZENE (CaHo)	IS 5182 Part 11	µg/m³	****	BDL (MDL- 0.06)

#### -End of Report----

Env.Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MOL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	National Ambient Air Quality Standards (NAAQS), 2009.
Remark	Sample Comply with prescribed specification.

Tested By: Akanksha Sourabh

Sample Drawn By: Rajiv Kumar Singh & Team

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6 to case of Seetbeck/ compliants, please send an email at government/deproof print
On the trass of Quartity Checked and Technical data verified by the Authorized signatury, the report (Taugeer Ahmad) Director Technical Manager is issued by the Department Spanish State of the State of

Page 2 of 2

Laboratory Site - H.No. - A-13, Saket Vihar, Near Sohrai Bhawan, Harmu Housing Colony, Ranchi-834002, Barkhand, India

Fit - 8407804253, 8407804251, Email - iem2012@rediffmail.com

### Annexure-X

# LIST OF POLLUTION CONTROL EQUIPMENTS (BAG FILTERS)

		BOKARO CEN		UFACTURIN					
			***************************************	NTROL EQUIP					
s. No.	Location	Description	Application	Design dust Emission (mg/Nm3)	Volume of bag filter (m3/h)	Fan Volume	Outlet dust Emission (mg/Nm3)		
	Bag House								
1.	Cement Mill Venting	Bag House 563BF4	Cement	10	1030000	1150000	≤ 30		
		LIST	of Nuisan	ce Dust Col	ectors				
1	TT-1 492 BF1	Belt conveyor from WT to clinker silo new & existing (492 BC1) at TT-1/Clinker	Clinker	10	10000	11500	≤ 30		
2	TT-2 492 BF2	Belt conveyor 492BC1 discharging to 492BC2 & BC4 at TT-2/Clinker	Clinker	10	10000	11500	≤ 30		
3	TT-3 492BF4	Bag filter 492 BF3 for conveyor 492BC3 discharging to 492 BC4	Clinker	10	10000	11500	≤ 30		
4	492BF5	492 BC3 discharge and clinker silo top/ Clinker	Clinker	10	15000	17250	≤ 30		
5	TT-4 512BF1	Belt conveyor 512BC1 discharge to 512BC3 at TT- 4/ Clinker	Clinker	10	12500	14375	≤30		
6	ТТ-5	Belt conveyor 512BC2 discharge to 512BC3 at TT- 5/ Clinker	Clinker	10	10000	11500	≤ 30		
7	TT-6 512 BF3	Belt conveyor 512BC3 discharge to 512BC4 at TT- 6/ Clinker	Clinker	10	7500	8625	≤ 30		
8	512 BF4	Belt conveyor 512BC4 discharge to 512BE1 at TT-3 bottom/ Clinker	Clinker	10	5000	5750	≤ 30		
9	CMH Top 533 BF1	Cement mill hopper top/ Clinker & Gypsum	Clinker & Gypsum	10	10000	11500	≤30		
10	533 BF3	CMH extraction	Clinker & Gypsum	10	15000	17250	≤ 30		
11	533 BF2	Mill feed conveyor	Clinker & Gypsum	10	10000	11500	≤ 30		
12	563 BF1	Cement Mill BE feed/ Reject	Cement	10	12500	14375	≤ 30		

### BOKARO CEMENT MANUFACTURING WORKS,

		LIST OF P	OLLUTION CO	NTROL EQUIPA	MENTS		
S. No.	Location	Description	Application	Design dust Emission (mg/Nm3)	Volume of bag filter (m3/h)	Fan Volume	Outlet dust Emission (mg/Nm3)
		Material					
13	563 BF2	Cement Mill BE Top/ Reject Material	Cement	10	10000	11500	≤30
14	563 BF3	Cement Mill reject BC/ Reject Material	Cement	10	10000	11500	≤30
15	594 BF1	Baghouse Extraction/ Cement	Cement	10	5000	5750	≤ 30
16	594 BF2	Baghouse Extraction/ Cement	Cement	10	5000	5750	≤30
17	BRU K12BF1	K12 BF1 for BRU 1 & 2 (With pneumatic dampers)	Coal	10	30000	34500	≤ 30
18	TT9 K12 BF2	K12 BF2 for TT9 (Coal Handling)	Coal	10	12500	14375	≤ 30
19	FBC Hopper K12 BF3	K12 BF3 for FBC (Coal Handling)	Coal	10	7500	8625	≤30
20	492 BF3	492 BF3 (492BC2 to 492BC3) TT14	Clinker	10	10000	11500	≤ 30
21	232BF2	Air slide venting	Fly ash	10	4000	4600	≤ 30
22	614BF1	Cement silo cone	Cement	10	4000	4600	≤ 30
23	613BF1,	Cement silo cone	Cement	10	4000	4600	≤30
24	595BF1	Cement silo top	Cement	10	7500	8625	≤ 30
25	594BF3	Cement silo top	Cement	10	7500	8625	≤ 30
26	613BF2	Airslide venting	Cement	10	5000	5750	≤ 30
27	613BF3	Airslide venting	Cement	10	6000	6900	≤ 30
28	646BF1	Packing Plant	Cement	10	15000	17250	≤ 30
29	647BF1	Packing Plant	Cement	10	15000	17250	≤ 30
30	646BF2	Packing Plant	Cement	10	35000	40250	≤ 30

		110000000000000000000000000000000000000	O CEMENT MAN				
		u	ST OF POLLUTION CO	NTROL EQUIP	MENTS		
s. No.	Location	Description	Application	Design dust Emission (mg/Nm3)	Volume of bag filter (m3/h)	Fan Volume	Outlet dust Emission (mg/Nm3)
31	647BF2	Packing Plant	Cement	10	35000	40250	≤ 30









## Annexure-XI

# Compliance of CREP Conditions

### **BOKARO CEMENT MANUFACTURING WORKS**

S.No.	CREP Conditions	Compliance
1	Cement plants/Standalone grinding units, which are not complying* with notified standards, shall do the following to meet the standards:  • Augmentation of existing air pollution control devices- by July 2003  • Replacement of existing air pollution control devices- by July 2004	M/s. Dalmia cement (Bharat) Limited will comply with all the Stipulated standards given by MoEF CC/JSPCB. Company has ensured installation of bag filter as air pollution control device (APCD) in plant to comply the notified standards. Regular monitoring of ambient air quality is also being/ will be practiced.
2	Cement plants/Standalone grinding units located in critically polluted or urban areas (including 5 km distance outside under urban boundary) will meet 100 mg/Nms limit of particulate matter by December 2004 and continue working to reduce the emission of particulate matter to 50 mg/Nms. As per Gazette Notification MoEFCC G.S.R.497(E) dated 10th May, 2016, emission standards for PM have been prescribed as 30 mg/Nm3.	Neither the plant is located in Critically Polluted area nor in Urban areas. Plant is located in industrial area. All mesures will be undertaken to keep emission level of PM below the permission limit. The major source of air pollution (i.e. Cement mill) will be provided with Bag House. Bag Filters and dedusting/nuisance filters will be installed in Packing Plant and all material transfer points.
3	The new cement kilns to be accorded NOC/ Environmental clearance w.e.f. 01.04.2003 will meet the limit of 50 mg/Nms.	Unit is Stand-alone Grinding Unit only and will comply with new emission norms.
4	CPCB will evolve load-based standards by December 2003.	This is a Stand-alone grinding unit; Load based standards issued by the MoEF CC is for Kiln only for clincker isation. Hence, this condition is not applicable.
5	CPCB and NCBM will evolve SO2 and NOx emission standards by June 2004	Unit is Stand-alone Grinding Unit only and there will not be SO2 and NOx emission during manufacturing process; this condition is not applicable.
6	The Cement industry will control fugitive emission from all the raw materials and products storage and transfer points by December 2003. However, the feasibility for	Unit is Stand-alone Grinding Unit only and there will not be SO2 and NOx emission during manufacturing process;

	the control of fugitive emission from limestone and coal storage area will be decided by the National Task Force (NTF). The NTF shall submit its recommendations within three months.	this condition is not applicable.  To control the fugitive emissions the following measures are adopted/proposed:  • All measures to control emission from construction activities such • as covering of construction site, water sprinkling & covering of construction material etc. are being adopted at site. • All the conveyors will be covered with conveyer covers and hoods to offset any trapping of material in wind stream. • Storage of raw material/cement in storage shed and Silos. • Concreted internal roads and The sprinkling of water will be done all along internal roads in the plant in order to control the dust arising due to the movement of vehicular traffic. • Thick green belt is being developed around the plant to arrests the fugitive emissions. • Plugging of all leakage and enclosing storage and material handling systems.
7	CPCB, NCBM, BIS and Oil refineries will jointly prepare the policy on use of petroleum coke as fuel in cement kiln by July 2003.	Not Applicable
8	After performance evaluation of various types of continuous monitoring equipment and feedback from the industries and equipment manufacturers, NTF will decide feasible unit operations/sections for installation of continuous monitoring equipment. The industry will install the continuous monitoring system (CMS) by December 2003.	Stack and real time emission monitoring date will be transmitted to SPCB and CPCB website.
9	Tripping in kiln ESP to be minimized by July 2003 as per the recommendations of NTF.	Not Applicable; as the proposal is for Stand-alone Grinding Unit. However, high efficiency Bag House will be provided for Cement Mill
10	Industries will submit the target date to enhance the utilization of waste material by April 2003.	After expansion, GU will also utilize Fly ash along with Slag which are process waste generated by Thermal Power

		Plant and Steel industries and help them in getting rid of waste in most sustainable manner by converting into useful product i.e. Cement.
11	NCBM will carry out a study on hazardous waste utilization in cement kiln by December 2003.	Not Applicable
12	Cement industries will carry out feasibility study and submit target dates to CPCB for co-generation of power by July 2003.	Not Applicable

Annexure-XII

GROUND WATER LEVEL REPORT OF SURROUNDING VILLAGES FROM APRIL 2024 TO SEPTEMBER 2024

	Coordinate of		Depth from ground (feet)							
Location	Site	Distance from Plant site (KM)	Apr- 24	May- 24	Jun- 24	Jul- 24	Aug- 24	Sep- 24		
Pakhriatand (Near Anganwadi)	23070'5590"N 86006'2678" E	1	23.9	25.7	24.9	23.4	12.3	7.2		
Tupkadi (Near Electric Pole)	23071'3362"N 86006'1573" E	1	21.8	23.9	22.8	21.2	11.8	7.5		
Godawali (Near Temple)	23068'7751"N 86006'0031" E	1	12.3	14.7	14.3	12,3	2.9	1.6		
Bhutkuru (Near primary School)	23070'4642"N 86005'1418" E	1	20.2	22.6	21.8	20.5	13.6	9		

### GROUND WATER QUALITY ANALYSIS REPORT NEAR VILLAGE AREA



# Institute for Environmental Management



#### Test Report

						and the state of the	and the second second									
ULR No.:	T	C 1	1	5 1	5	2	4	0	0	0	0	0	1	4	7	1
Discipline: Che	mical			Grou	pr.W	ator		Sub-Group: Ground Water Test Report No.: RN-230916001GW1 Sample Description: Ground Water (Dug well Challan No./ P.No. Date: 23-09-2023 Cement (Bharat) Limited United Uni								
Report Issue D	ate: 27-0	9-2024						Test	Repo	rt No.	RN-23	09160	OIGW	1		
Sample ID: 240	9924WAG	3001						Sam	ple De	script	tion: G	bound	Water	(Dug )	weith:	
Challan No./P.	O. No.: 4	548032900	V237					Chal	lan No	J.P.	lo. Dat	e: 23-0	9-202	3		
Type of Indust		Charles of the later of	karo-8	27014 Jhari	char	nd Indi		stom	er Re	pres	entati	ve: 5a	nieev v	(ecma		
Sample Dray																
Protocol: CPCE	Guidelin	e& IS Moths	od 3025	Series			100	-								
Sampling Loca	tion: Khut	tri Village														
Field Meteora	logical Inf	armation	Α.	Temp. ('C): 2	8	R.H.	(%): 69	- 1	N.C. P	artly!	Summy	13	N.D.; 5	E to N	w	
Sample Receiv	ine date	24-09-2024	- Interior	Testing	Star	ted: 24	-09-202	4		Tes	ting Er	ided: 1	7-09-7	2024		

			- Test Pessilt				
SI. No.	Tested Parameter	Unit	Method No.	processors, francisco de la facilita de presenta describi	Acceptable Permissible		
1	pH value at 25°C		IS 3025 (Part-11)	65-85	No Relaxation	23	
2	Turbidity	NTU	IS 3025 (Part-10)	1	5		
3.	Colour	Hazen	15 3025 (Part-04)	5	15	+5	
4	Odour	4/20	(S 3025 (Part-05)	Agreeable	Agreeable	Agreeable	
.5.	Total Dissolved Solids (TDS)	mg/l	IS 3025 (Part-16)	500	2000	205	
- 6	Calcium (ss Ca+2)	mg/l	IS 3025 (Part-40)	75	200	35,3	
7.	Total Alkalinity (as CeCO3)	mg/l	(8 3025 (Part-23)	200	000	78	
a.	Total Hardness (as CaCO3)	mg/l	15 3025 (Part-21)	200	600	145	
9.	Chloride (as Cl.)	mg/l	IS 3025 (Part-32)	250	1000	10	
10.	Free Residual Chiorine	mg/l	18 3025 (Part 26)	0.2	1.0	BOL(MOL-0.07)	
11.	Sulphate (sa SO <sub>4</sub> 2)	mg/l	IS 3025 (Part 24)	200	400	29	
	The American Control of the Control	14.1.7.19	and the state of t	40.00	400	1.1.1.	

IS 3025 (Part-46)

14.6

mg/l

Env. Condition of Lab.	Laboratory is moretaining Temperature 270 2"C and finiaring from Humidity 6543 % in all fasting area as per 15
O TO THE STATE OF	EMELENSECT.
Abbreviation	MOL: Minimum Detection Limit, #34) Before Detection Limit
Limit is Specified	05 18500 (7825
Stamara.	Sample Comply with prescribed aperaticution

Tested By: Mahendranath Mahto

12 Magnesium (as Mg+2)

Sample Drawn By: Rajiv Kumar Singh & Team

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On the basis of Quality Checked and Technical data verified by the Authorized eignatury, the report is issued by the Detumor of the Organization.	Technical Manager

Page 1 of 2

Corporate office - A.S. Modi Heights, Opp. All India Radio Station, Rath Road, Banchi, Jharkhand - 834001

Laboratory Site - H.No. - A-13, Saket Vihar, Near Sisterii Bhawan, Harma Housing Colony, Ranchi-83-1002, Jharkhand, India Ph - 8407804253, 8407804251, Email - iem2012@rediffmail.com





#### Test Report

		- A)=	PRODUCTION OF THE PROPERTY.			
Discipline: Chemical		Group: Wa	tur		Sub-Group	Ground Water
Report Issue Date: 27-09-2024			T	est Repor	t No.: RN-2305	16001GW1
Sample ID: 240924WA03001,240924	RC03001 & 240	924MB03	001 5	ample De	scription: Grou	and Water (Dug well)
Challan No./P.O. No.: 4548032900/	237		C	hallan No	/ P.No. Date:	23-09-2023
Plot No IV/A-7(P)4, Bol Bokaro Steel City, Bok Type of Industry: Cement			d India	omer Re	presentative	: Sanjeev Verma
Sample Drawn by: IEM Team				Sampling Date: 24-09-2024		
Protocol: CPCB Guideline& 15 Method	3025 and APH	A Series	1 - 5704	77.5	Service Services	
Sampling Location: Khutri Village						
Field Meteorological Information	A. Temp. (	C): 28	R.H. (%): 69	W.C.: P	artly Sunny	W.D.: 5E to NW
Sample Receiving date: 24-09-2024	Te	sting Start	ed: 24-09-2024		Testing Fode	rd: 27-09-2024

-	The second second second	 
-Test	Result-	

SI.	Walnut and Walnut and State	Unit	Marked Ma	Li	mit	Terror Constitution of the
No.	Tested Parameter	Unit	Method No.	Acceptable	Permissible	Results
13.	Nitrate (as NO*)	mg/l	APHA 4500 8 2023	45	No Relaxation	4.5
14	Fluoride (as F)	mg/l	APHA 4500 D.2023	1.0	1.5	0.78
15	Соррег	mg/l	APHA 3111 B 2023	0.6	1.5	BDL (MDL - 0.02)
16.	Chromium	mg/l	APHA 3111 B 2023	0.05	No Relaxation	BDL (MDL - 0.02)
17.	tead (Pb)	mg/l	APHA 3111 B 2023	0.01	No Relaxation	BDL (MDL - 0.02)
18.	Manganese (Mn)	mg/l	APHA 3111 B 2023	0.01	0.03	BDL (MOL - 0.02)
19.	Iron (Fe)	mg/l	APHA 3111 B 2023	1.0	No Relaxation	BDL (MDL - 0.05)
20	Total Coliform	MPN/100mL	IS 1622: 1981	Shall not be dete	ctable in any 100	BDL (MOL-1.8)
21	E Coli	MPN/100mL	IS 1622: 1981	mi sa	imple	BOL (MDL-T-B)

Env. Gondition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per 15 196-1966(2).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Limit is Specified	15 10500::2011
Ramark	Samply Comply with prescribed specification.

Tested By: Mahendranath Mahlo

Sample Drawn By: Rajiv Kumar Singh & Team

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Reviewed by

Authorized Signatory

(Taugeer Ahmad)

Technical Manager

(Dr. S. C. Jain)

Director

Page 2 of 2

Corporate office - A-8, Modi Heights, Opp.-All India Radio Station, Ratu Road, Ranchi, Jharkhand - 834001

Ph - 8407804253, 8407804251, Email - icm2012@rediffmail.com





### Test Report

ULR No.:	T C	[ 1	1	5	1	5 2	1.4	0	0	0	0	0	1	4	7	2
Discipline: Chemica	1				Group	Water				5ut	b-Group	p: Gro	und W	/ater		1
Report Issue Date:	27-09-202	4						Test F	Report I	No.: RN	-23091	60010	GW2			
Sample ID: 240924	WA0300	2						Samp	le Desc	ription	Groun	nd Wa	ter (D	ig well	ŋ	
Challan No./P.O. N	o.: 45480	32900/	237					Challe	an No./	P.No.	Date: 2	3-09-2	2023			
Bokaro	Steel Cit	W Rol	arn.8	2701	A Handet											
		y, 50.	an o-u	2101	4 Jharki	and Inc		iustoi	mer Re	nrese	otativ	et San	neev V	/erma		_
Type of Industry: C	ement			2101	4 Jnarki	and Inc	C		mer Re			e: San	ijeev V	ferma:		
Type of Industry: C Sample Drawn b	ement y: IEM Te	am				and Inc	C		mer Re			et San	njeev V	ferma:		
	ement y: IEM Te deline& iS	am Metho	d 3025			and Inc	C					et San	njeev V	/erma		
Type of Industry: C Sample Drawn b Protocol: CPCB Gui	ement y: IEM Te deline& iS Thakurtar	am Metho	d 3025	Serie			C	amplir		24-09	-2024			ferma E to N	w	
Type of Industry: C Sample Drawn b Protocol: CPCB Gui Sampling Location:	ement y: IEM Te deline& iS Thakurtar al Informa	am Metho d Villag	d 3025	Serie	4	R.H	(%): 6	amplir 19	ng Date	: 24-09 artly S	-2024	V	V.D.; 5	E to N	w	

SI.	Total December	£2-14	Mathed No.	Li	mit	Results
No.	Tested Parameter	Unit	Method No.	Acceptable	Permissible	Results
1.	pH value at 25°C		IS 3025 (Part-11)	6.5 - 8.5	No Retrodition	7.3
2	Turbidity	NTU	IS 3025 (Part-10)	1	5	<1
3.	Colour	Hazen	IS 3025 (Part-04)	5	15	45
4.	Odour		IS 3025 (Part-05)	Agreeable	Agreeable	Agreeable
5.	Total Dissolved Solids (TDS)	mg/l	IS 3025 (Part-16)	500	2000	190
6.	Calcium (as Ca+2)	mg/I	15 3025 (Part-40)	75	200	25.7
7.	Total Alkalinity (as CaCO3)	mg/l	IS 3025 (Part-23)	200	500	82
8.	Total Hardness (as CaCO3)	mg/i	IS 3025 (Part-21)	200	600	126
9.	Chloride (as Cl')	mg/l	IS 3025 (Part-32)	250	1000	17
10.	Free Residual Chlorine	mg/l	(S 3025 (Part-26)	0.2	1.0	BDL(MDL-0.07)
11.	Sulphate (as SO <sub>4</sub> <sup>2</sup> )	mg/l	15 3025 (Part-24)	200	400	22
12.	Magnesium (as Mg+2)	mg/l	IS 3025 (Part-46)	30	100	15.1

Env. Condition of Lab.	Laboratory is maintaining Temperature 27s 2°C and Relative Humidity 65s5 % in all tasting area as per IS 196:1958(C).
Abbreviation	MDL Minimum Betesting Limit, RDL Sela- Detection Limit
Limit is Specified	(5 £0500 : £021
Remark	Earnole Comply with prescribed specification.

Tested By: Mahendranath Mahto Sample Drawn By: Rajiv Kumar Singh & Team

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6. In case of feedback complaints, please send on small at grain terminal comp	(Taugeer Ahmad)**	(Dr. S. C. Jain)
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Page 1 of 2

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### Test Report

Discipline: Chemical	Group: V	Vater	Sub-Group:	Ground Water
Report Issue Date: 27-09-2024		Test	Report No.: RN-230916	001GW2
Sample ID: 240924WA03002, 240924	RC03002 & 240924MB	03002 Sam	ple Description: Ground	Water (Dug well)
Challan No./P.O. No.: 4548032900/	237	Chal	lan No./ P.No. Date: 23	-09-2023
Plot No IV/A-7/PM Pol	care industrial Area	Dalidib		
Plot No IV/A-7(P)4, Bol Bokaro Steel City, Bok Type of Industry: Cement		nd India	omer Representative	: Sanieev Verma
Bokaro Steel City, Bok Type of Industry: Cement		nd India Custo	omer Representative	: Sanjeev Verma
Bokaro Steel City, Bok Type of Industry: Cement Sample Drawn by: IEM Team	aro-827014 Jharkha	nd India Custo	omer Representative ing Date: 24-09-2024	: Sanjeev Vermu
Bokaro Steel City, Bok Type of Industry: Cement Sample Drawn by: IEM Team Protocol: CPC8 Guideline& IS Method	aro-827014 Jharkha	nd India Custo	and the second control of the last war war and the delication of the last of t	: Sanjeev Verma
Bokaro Steel City, Bok	aro-827014 Jharkha	nd India Custo	and the second control of the last war war and the delication of the last of t	: Sanjeev Vermu

St.	Tested Parameter	Unit	Method No.	Li	mit	Results
No.	I Pated Parameter	Ome	Militario No.	Acceptable	Permissible	Newtritis
13.	Nitrate (as NO <sup>3</sup> )	mg/l	APHA 4500 B 2023	45	No Relaxation	4.1
14.	Fluoride (as F)	mg/l	APHA 4500 D 2023	1.0	1.5	0.59
15.	Copper	mg/l	APHA 3111 B.2023	0.5	1.5	BDL (MOL - 0.02)
16	Chromium	mg/f	APHA 3111 B.2023	0.05	No Relaxation	BDL (MDL - 0.02)
17.	Lead (Pb)	mg/l	APHA 3111 B 2023	0.01	No Relaxation	BDL (MDL - 0.02)
18.	Manganese (Mn)	mg/l	APHA 3111 B.2023	0.01	0.03	BDL (MDL - 0.02)
19	Iran (Fe)	mg/l	APHA 3111 B 2023	1.0	No Relaxation	BDL (MDL - 0.05)
20	Total Coliform	MPN/100mL	15 1622: 1981	The second of the second of the second	ectable in any 100	BOL (MOL-1.8)
21.	E. Coli	MPN/100mL	IS 1622 1981	mi sa	ampie	BOL (MOL-1.8)

--- END Report---

Env. Condition of Lab.	Laboratory is maintaining Temperature 272 2'C and Relative Humidity 8521 K in all testing area as get it 198:1986(C).
Abbreviation	MDL: Minimum Detection Limit, 601: Below Detection Limit
Limit is Specified	16 10000 (2021
fiemark.	Sample County with prescribed epocification.

Tested By: Mahendranath Mahto Sample Orawn By: Rajiv Kumar Sirigh & Team

Specific Contractual Notes: -	Reviewed by Withorized Signatory
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in case of feedback' complaints, please send an email at gm emeco@gmail.com	(Taugeer Ahmad) (Dr./S. C. Jain)
On the basis of Quality Checked and Technical data verified by the Authorized signatury, the report is issued by the Director of the Organization.	Technical Manager • Director

Page 2 of 2

### Annexure-XIII

# BOKARO CEMENT MANUFACTURING WORKS (Unit OF DALMIA CEMENT (BHARAT) LIMITED)

### STP Outlet water quality analysis report

# STP OUTLET WATERQUALITY ANALYSISREPORT FROM APRIL 2024 TO SEPTEMBER 2024 (OUTLET)

	14.240 F. 11 R C. Commission C.	95252 No.	Suspended	COD	BOD	Oil &
Sr. No	Parameter	PH	solids mg/lit	mg/lit	mg/lit	Grease mg/lit.
	Norms	5.5-9.0	100	250	30	10
1	April-2024.	7.6	39	76	15.0	BDL
2	May-2024.	7.1	27	72	12.0	BDL
3	June-2024,	7.4	25	64	10.5	BDL
4	July-2024.	7.3	22	56	11.7	BDL
5	August-2024.	7.5	20	52	13.2	BDL
6	September-2024.	7.6	18	48	12.5	BDL
	Min.	7.1	18	48	10.5	0
	Max.	7.6	39	76	15.0	0
	Avg.	7.4	26	62	12.6	0.0

### BOKARO CEMENT MANUFACTURING WORKS

(Unit OF DALMIA CEMENT (BHARAT) LIMITED)

### STP Inlet water analysis report



### Institute for Environmental Management



#### Test Report

ULR No.:	T	C	1	1	5	1	5	2	4	0	0	0	0	0	1	4	5	8
Discipline: Ch	emical			G	roup:	Pollur	8 noit	Envir	anme	nt.		Su	b-Gro	up: V	Vaste	Water	r.	
SReport Issue	Date: 2	7-09-2	2024	-77					Tes	t Rep	ort N	a.: HN	-2309	16001	wwo	11		
Sample ID: 24	0924PE	04001	ķ						Sar	nple !	Descri	ption	Was	te Wa	ter (S	TP)		
Challan No./P	O. No.:	4546	03290	0/237					Chi	dian i	No./P	No. I	Date:	23-09	2023	177.55		
Plo	karo Ce t No IV/	A-7(P	)4, Bo	karo	Indus	trial.	Area	Balidi	h	Ceme	ent (B	harat	) Limi					
Bo Plo Bo	t No IV/	A-7(P	)4, Bo	karo	Indus	trial.	Area	Batidi nd Inc	h lia	==0117	3000 \$100	Swells	2	ted				
Bo Plo Bo Type of Indus	t No IV/ karo Ste try: Cem	A-7(P ent	)4, Bo ty, Bo	karo	Indus	trial.	Area	nd Inc	h lia Custo	mer F	Ropres	enta	tive: S	ted				
Bo Plo Bo	t No IV/ karo Str try: Cem i by: IEM	A-7(P cel Ci cent I Tea	)4, Bo ty, Bo m	karo karo-	Indus 82701	trial . 4 Jh	Area i arkha	nd Inc	h lia Custo	mer F	3000 \$100	enta	tive: S	ted				
Bo Plo Bo Type of Indus Sample Drawn	t No IV/ karo Sto try: Cem t by: IEM B Guidel	A-7(P cel Ci cent // Tea ine &	)4, Bo ty, Bo m IS Me	karo- karo- thud	Indus 82701	trial . 4 Jh	Area i arkha	nd Inc	h lia Custo	mer F	Ropres	enta	tive: S	ted				

51. No.	Tested Parameters	Unit	Method No.	Norms**	Results
1	pH value at 25°C	2.11	IS 3025 (Part-11)	5.5 to 9.0	6.5
2.	Total Suspended Solids (TSS)	mg/l	15 3025 (Part-17)	100	118
3.	Biochemical Oxygen Demand (BOD)	mg/l	IS 3025 (Part-44)	30	35
4.	Chemical Oxygen Demand (COD)	mg/l	15 3025 (Part-58)	250	228

Env. Condition of Lab.	Laboratory is maintaining Temperature 27s 2°C and Relative Hamidity 65:5 % in all testing area as per in 196.0(C).
Abbreviation	MDL: Minimum Detection Limit, 3DL Selew Datastion Limit
Norms** is Specified	As per the Environmental (Protection) Bule - 1986
Remark	Sample Comply with prescribed specification

Tested By: Mahendranath Mahto

Sample Drawn By: Sheahi Singh & team

Specific Contractual Notes -  1. The interpretary eccepts responsibility for contest of this report.	Reviewed by Authorized Signatory
The supert shall not be expectated except in fall without witner approval of the MD. This supert is intended for only guidance and not for legal purpose of for advertisement. A Any polygiant about the report should be communicated in writing within 7 steps of the same. That is lately of leading for Polymorphorus Management with the intended it involved amount only.	T.Acm-d
S. In case of feedback/ complaints, please send on email of pre temporal turned com-	(Taugeer Ahmad) \ (Cr./S. C. Jain)
On the basis of Quality Churchot and Technical data worked by the Authorized algorithm, the import in teached by the Director of the Organization.	Technical Manager · Director

Page 1 of 2





### Test Report

Discipline: Chemical	Gr	oup: Pollution &	Environment	Sub-Group: Waste Water		
5Report Issue Date: 27-09-2	e: 27-09-2024			Test Report No.: RN-230916001WW01		
Sample ID: 240924PE04001			Sample De	scription: Waste Water (STP)		
Challan No./P.O. No.: 45480	32900/237		Challan No.	/ P.No. Date: 23-09-2023		
Plot No IV/A-7(P)			of Dalmia Cement Ialidih	(Bharat) Limited		
Plot No IV/A-7(P) Bokaro Steel Cit	4, Bokaro	Industrial Area E	lalidih id India			
Plot No IV/A-7(P)	4, Bokaro I y, Bokaro-I	Industrial Area E	lalidih id India	presentative: Sanjeev Verma		
Plot No IV/A-7(P) Bokaro Steel Cit Type of Industry: Cement	4, Bokaro I y, Bokaro-I n	Industrial Area E 827014 Jharkhar	Balidih nd India   Customer Rep	presentative: Sanjeev Verma		
Plot No IV/A-7(P) Bokaro Steel Cit Type of Industry: Cement Sample Drawn by: IEM Tear	4, Bokaro I y, Bokaro I n IS Method 3	Industrial Area E 827014 Jharkhar	Balidih nd India   Customer Rep	presentative: Sanjeev Verma		

-Test Result-Norms\*\* SI. No. **Tested Parameters** Unit Method No. Results

Oll & Grease IS 3025 (Part-39) BDI.(MDL 4.0) mg/l -End of Report-

Env. Condition of Lab.	Laboratory is maintaining Temperature 27z 2°C and Relative Humidity 65z5 % in all testing area as per IS 196:1966[C].
Abbreviation	MDL: Minimum Detection Limit, 804; Below Detection Limit
Norms** Is Specified	**
Remark	96-

Tested By: Mahendranath Mahlo

Sample Drawn By: Shashi Singh & feam

	THE STATE OF THE S
Specific Contractual Notes:	Reviewed by Autobrized Signatory
The laboratory accepts responsibility for content of this report.     This report shall not be reptatuose except in full, without written approval of the MD.     This report is intended for only guidance and not for legal purpose or for advertigement.     Any complete, about this report should be communicated in writing within 7 days of its issue.     Total fability of incitate for Environmental Management will be limited to involve amount only.	Town the time
6. In case of feedback/ complainty, please send an email at on emerged from all com-	(Taugeer Ahmad) . (Or S. C. Jain)
On the begin of Quality Checked and Technical data verified by the Authorized signatory, the report is assued by the Director of the Directoration.	Technical Manager Director

Page 2 of 2

Corporate office - A-8; Modi Heights, Opp.-All India Kadio Station, Ratu Road, Ranchi, Jharkhand - 834001

### STP Outlet water quality analysis report



### Institute for Environmental Management



#### **Test Report**

ULR No.t	[ T)	C	3.	1	5	1	5	2	4	0	0	0	0	0	1	4	5	1 3
Discipline: Ch	emical			G	oup:	Pollu	tion &	Enwir	onme	nt		1	sub-Gr	oup: V	Vaste	Wate	ř	
Report Issue	Date: 27	-09-2	024					T	Tes	t Rep	ort f	Vo.1 F	N-2305	91600	WW	32		
Sample ID: 24	0924PE	0400	2						Sar	nple	Desc	riptio	n: Was	te Wa	ter (5	TP)		
Challan No./P	.O. No.	4548	032900	07237					Cha	attan	No./	P.No	. Date:	23-09	2023			
	karo St																	
Type of Indus			ty, no	Martin-	0410	14 90	arana			mar f	Zane	ec not	ative:	Sunlan	10000			
Sample Draw					_				Sampl					Same	4 461	ilia.		_
CONTRACT SALES AND ADMINISTRATION OF TAXABLE PARTY.	and the state of the	COLUMN THE REAL PROPERTY.	34 m m	and the same			11411		sampi	ing D	ate: 2	Cet-Pilit	2024					_
Protocol: CPC		e de la recome de la constante	the last particular contract	a barreer and a		Part-C	11.											
Sampling Loca	ation: 5	TP PL	ANT (C)	LITLE	T													
Sample Receive	ving dat	er 24	-09-207	24		Testin	g Star	ted: 2	4-09-2	2024		Te	sting E	nded:	27-09	-2024	D-1	

Si. No.	Tested Parameters	Unit	Method No.	Norms**	Results
1.	pH value at 25°C	244	IS 3025 (Part-11)	5.5 to 9.0	7.6
2.	Total Suspended Solids (TSS)	mg/l	15 3025 (Part-17)	100	18
3.	Biochemical Oxygen Demand (BOD)	mg/l	15 3025 (Part-44)	30	12.2
4.	Chemical Oxygen Demand (COD)	mg/l	15 3025 (Part-58)	250	48

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per 15 196:1966(C).
Abbrevistion	MDL: Minimum Detection Limit, 8DL Below Detection Limit
Norms** is Specified	As per the Environmental (Protection) Rule - 1986
Romark	Sample Comply with prescribed apecification.

Tested By: Mahendranath Mahto

Sample Drawn By: Shashi Singh & team

Specific Contractual Nature 1 1 The laboratory accepts responsibility for content of this report.	Reviewed by	Authorized Signatory
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B. In case of beidned/ completels, plainty send an invall at on invall at one offered too.	(Taugeer Anmad)	(Of S. C. Jain)
On the basis of Quality Checked and Technical data ventiled by the Authorated signatury, the report is introduced by the Director of the Organization.	Technical Manager	Director

Page 1 of 2

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### Test Report

Discipline: Chemical	Group: Pollution & Er	ivironment	Sub-Group: Waste Water		
Report Issue Date: 27-09-2024		Test Report No.: RN-230916001WW02			
Sample ID: 240924PE04002		Sample Des	cription: Waste Water (STP)		
Challan No./P.O. No.: 45480329	900/237	Challan No.	/ P.No. Date: 23-09-2023		
	nufacturing Works, Unit o		(Onarat) Limited		
Piot No IV/A-7(P)4, E Bokaro Steel City, E	Bokaro Industrial Area Ba Bokaro-827014 Jharkhand	lidih India			
Piot No IV/A-7(P)4, E Bokaro Steel City, E	Bokaro Industrial Area Ba	lidih India	resentative: Sanjeev Verma		
Plot No IV/A-7(P)4, E Bokaro Steel City, E Type of Industry: Cement Sample Drawn by: IEM Team	Bokaro Industrial Area Ba Bokaro-827014 Jharkhand	Ildih India Customer Rep	resentative: Sanjeev Verma		
Plot No IV/A-7(P)4, E Bokaro Steel City, E Type of Industry: Cement	Bokaro Industrial Area Ba Bokaro-827014 Jharkhand Method 3025 Part-01	Ildih India Customer Rep	resentative: Sanjeev Verma		

			Centrition		
SI. No.	Tested Parameters	Unit	Method No.	Norms**	Results
5.	Oil & Grease	mg/l	IS 3025 (Part-39)	10	8DL(MDL 4.0)
	HIPCON TO THE REAL PROPERTY OF THE PERSON TO THE PERSON TH	End of	Report		-11-22-4-11-2

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2+C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL Below Detection Limit
Norms** is Specified	As per the Environmental (Protection) Rule - 1986
Remark	Sample Comply with prescribed specification.

Tested By: Mahendranath Mahto

Sample Drawn By: Shashi Singh & feam

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<ol> <li>This report is imended for only guidance and not for legal purpose or for advertisement.</li> </ol>	T. Homegan State To
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6. In case of feedback/ compliants, please send an email at grownneco@email.com	(Taugeer Ahmlad) (Dr/S. C. Jain)
On the basis of Casilly Checked and Technical data verified by the Authorized signatory, the report	
in issued by the Director of the Countriction.	Technical Manager Director
The department will act a forested at the degle section.	THE CONTRACTOR OF THE PROPERTY

Page 2 of 2

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# BOKARO CEMENT MANUFACTURING WORKS (Unit OF DALMIA CEMENT (BHARAT) LIMITED)

### RAIN WATER HARVESTING SYSTEM

### Designing Details

Roof top Rain Water Harvesting System implemented in Bokaro Cement Manufacturing Works (Unit of DCBL). Rain Water Harvesting System implemented near Raw Material Handling Stacker reclaimer, Cement Mill, Project Office, Gate Complex and Packing Plant Building in our plant. Rain water collected from roof top through gutter and carrying by pipe lines in recharge tranches. 5 Nos Recharge Pits are also connected with recharge trenches. In plant area depth of ground water level is varying between 3 to 5 meter and no hard rock strata are available above ground water level. 2 Nos of water collection tank also constructed for collection of rain water and same rain water will be used in green belt development and dust suppression. Rain water easily percolated and recharges in ground water level. Rain water harvesting system structure constructed as per Technical approval from Ground Water Directorate, Water Resource Department Govt of Jharkhand vide letter no GWD/260/2023/180/Ranchi Dated 18.05.2023. All Rain Water Harvesting Structure Photographs attached for your information:



Display board at the factory main gate "This Premises has Elaborate Rain Water Harvesting Facility"



Rain water harvesting recharge pit near Packing plant



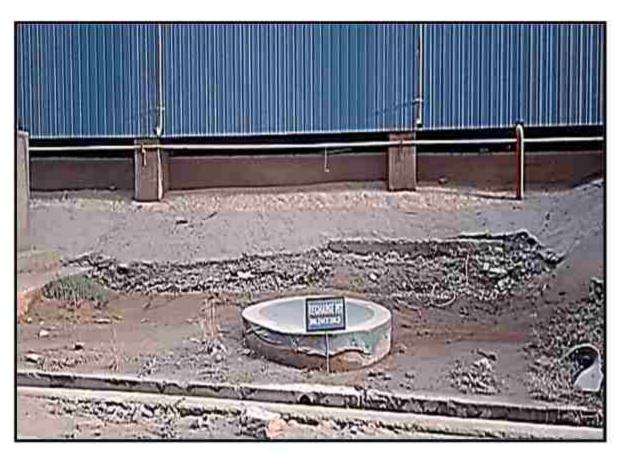
Rooftop Rain water collection pipe line, concreated drain connected to recharge pit near Packing plant building



Rain water harvesting recharge pit near Electrical load center



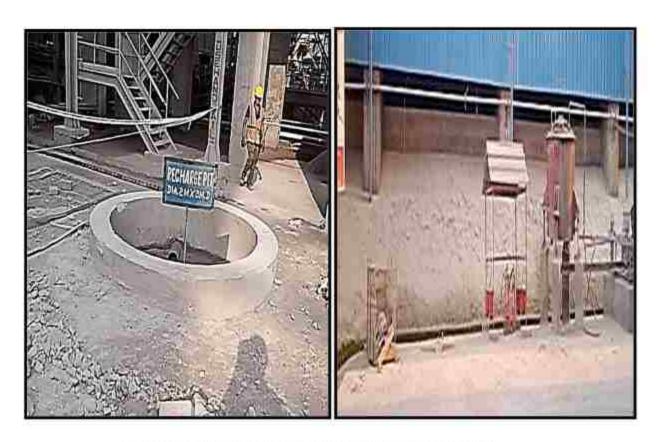
Rooftop Rain water collection pipe line, concreated drain connected to recharge pit near Electrical load center



Rain Water Recharge Pit with connecting drain near stacker reclaimer



Rain Water Recharge Pit with connecting drain near stacker reclaimer



Rain Water Recharge Pit with connecting drain near mill area



Connecting drain to Rain water Harvesting recharge pit nearstacker reclaimer



Rain Water collection Pond constructed Capacity: 925 KL

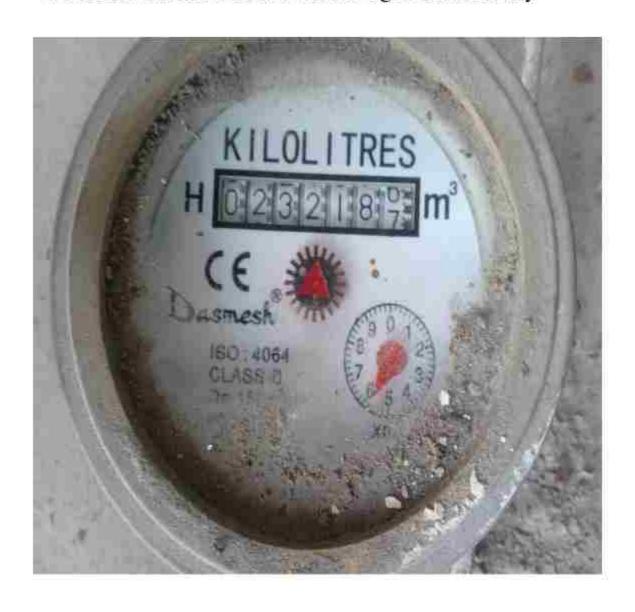


Rain water / Water collection tank constructed of capacity :400 KL

### Annerxure-XV

# BOKARO CEMENT MANUFACTURING WORKS (Unit OF DALMIA CEMENT (BHARAT) LIMITED)

Water Flow meter installed at the main gate of the factory



### Annexure-XVI

## **BOKARO CEMENT MANUFACTURING WORKS (UNIT OF DCBL)**

### Noise Level report from April 2024 to September 2024

		Near Pro	ject office			
	Day Time dB(A)			Night Time dB(A)		
	Min.	Max.	Avg.	Min.	Max.	Avg.
April-2024,	53.2	56.4	54.8	47.4	42.5	44.9
May-2024.	48.1	51,9	50.0	47.1	45.4	46.2
June-2024.	52.4	54.3	53.4	44.2	46.8	45.5
July-2024.	45.3	53.7	49.0	45.3	47.2	46.3
August-2024.	46.6	50.3	48.5	45.2	46.3	45.8
September-2024.	47.2	52.9	50.1	46.9	47.7	47.3
Min.	45.3	50.3	48.5	44.2	42.9	45.2
Max.	53.2	56.4	54.8	47.4	47.7	47.3
Avg.	48.8	53.2	51.0	46.02	46.1	46.1

	Thak	ur Tand Villag	ge (Near Aganv	vadi)		
	Day Time dB(A)			Night Time dB(A)		
	Min.	Max.	Avg.	Min.	Max.	Avg.
April-2024.	44.7	47.6	46.1	41.7	40.7	41.2
May-2024.	43.5	46.4	45.0	38.3	39.2	38.7
June-2024.	51.6	52.7	52.2	40.2	42.4	41.3
July-2024.	48.8	51.3	50.1	43.3	46.3	44.8
August-2024.	47.3	49.5	48.4	42.6	43.5	43.1
September-2024.	45.4	48.4	46.9	44.3	45.7	45.0
Min.	43.5	45.6	44.9	38.3	39.4	38.8
Max.	51.6	52.7	52.1	44.3	46.3	45,4
Avg.	46.9	49.0	47.9	41.7	43.0	42.4

### **BOKARO CEMENT MANUFACTURING WORKS (UNIT OF DCBL)**

### Noise Level report from April 2024 to September 2024

	Nea	r Gorabali vill	age (Near Temp	ole)		
	Day Time dB(A)			Night Time dB(A)		
	Min.	Max.	Avg.	Min.	Max.	Avg.
April-2024.	42.6	43.8	43.2	37.9	42.7	40.3
May-2024.	40.2	42.3	41.2	38.1	41.4	39.7
June-2024.	43.7	44.1	43.9	37.7	42.7	40.2
July-2024.	42.1	45.8	44.0	40.1	42.1	41.7
August-2024.	40.3	43.3	41.8	39.5	41.7	40.6
September-2024.	41.8	44.2	43.0	37.1	39.2	38.2
Min.	40.2	43.3	41.8	37.1	39.2	38.1
Max.	43.7	45.8	44.3	40.1	42.7	41.7
Avg.	41.8	44.4	43.1	38.4	41.6	40.0

	Nea	ar Khuturi Vill	age (Near Scho	ol)		
	1	Day Time dB(A)		Night Time dB(A)		
	Min.	Max.	Avg.	Min.	Max.	Avg.
April-2024.	37.9	39.4	38.7	37.3	38.4	37.9
May-2024.	39.8	41.9	40.9	35.4	40.4	37.5
June-2024.	36.9	37.2	37.1	38.5	39.7	39.1
July-2024.	41.2	42.8	42.0	36.2	39.6	37.4
August-2024.	40.8	41.9	41.4	34.1	35.7	34.6
September-2024.	37.1	38.9	38.0	35.7	37.8	36.3
Min.	36.9	37.2	37.1	34.8	34.7	34.7
Max.	41.2	42.8	42.0	39.2	40.4	39.4
Avg.	39.0	40.4	39.7	37.0	38.4	37.7



# Institute for Environmental Management



#### Test Report

SULR No.:	T	C 1	1	5	1	5 2	4	0	0	0	0	0	1	4	6	4
Discipline: Chemical Group: Atmospheric Pollution						rtion	Sub-Group: Ambient Noise Levels (Excluding Vibration								ian)	
Report Issue D	ate: 27-09	3-2024					Test R	eport	No.:	RN-23	09160	01N1				
Sample ID: 240	924AP060	001					Sampl	e Des	criptic	on: An	nbien	t Nois	e			
Challan No./P.	O. No.: 45	48032900	/237				Challa	n No.	P.No	, Date	: 23-	09-20	23			
Plot	ro Cemer No IV/A-7	(P)4, Bok	aro Ir	dustr	ial Area											
Boki Plot Boki	No IV/A-7	(P)4, Bok lity, Bok	aro Ir	dustr	ial Area		ia				11					
Boki Plot Boki Type of Indust	No IV/A-7 iro Steel C ry: Cemen	(P)4, Bok lity, Boka t	aro Ir	dustr	ial Area		ia Custo	NAME AND ADDRESS OF THE PARTY.	Inches in processing a	-	-	-	_			
Boki Plot Boki	No IV/A-7 ero Steel C ry: Cemen by: IEM	(P)4, Bok City, Bok t Team	aro Ir Iro-82	dustr 27014	ial Area Jharkha		ia	NAME AND ADDRESS OF THE PARTY.	Inches in processing a	-	-	-	_			
Boke Plot Boke Type of Indust Sample Drawn	No IV/A-7 pro Steel C ry: Cemen by: IEM Guideline	(P)4, Bok lity, Boka t Team & IS Met	aro Ir iro-83 hod 9	989:1	ial Area Jharkha		ia Custo	NAME AND ADDRESS OF THE PARTY.	Inches in processing a	-	-	-	_			
Boki Plot Boki Type of Indust Sample Drawi Protocol: CPCE	No IV/A-7 pro Steel C ry: Cemen by: IEM Guideline tion: Goral	(P)4, Bok lity, Boka t feam & IS Met ball Near	hod 9	989:1	ial Area Jharkha	nd Ind	ia Custo	ing Da	rte: 2	-	024 t	0 24-0	9-20		v	

-Test Result -

SI, No	Parameter	Method	Unit	Day Time	Night Time	Limits
1.	Equivalent Sound Level (Leq)	15 9989:1981	dB(A)	48.8	42.7	D-55 N-45

#### End of Reports-

- 1. Day time shall mean from £ 00 a.m. to 10,00 p.m.
- 2. Night time shall mean from 10,00 p.m. to 6,00 a.m.
- 3. Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.
- 4. dB(A) and denotes the time weighted assessed of the level of sound in decibers on scale A which is relatable to human hearing.

  5. A "deciber" is a unit in which noise is measured. "A", in dB(A) Leg, denotes the frequency weighting in the measurement of noise and corresponds to frequency. response characteristics of the human ear.

6. Leg: It is an energy mean of the noise level, over a specified period.

Env. Condition of Lab.	Laboratory is maintaining Temperature 27: 2°C and Relative Humidity 85:5 % in all testing area as per 15 196 (C).
Abbreviation	MDL: Minimum Detection Limit
Limit is Specified	As per Noise Pollution (Regulation and Control) Rules - 2000
Remark	Sample Comply with prescribed specification.

Tested By: Akanksha Sourabh

Sample Drawn By: Rajiv Kumar Singh & Team

Reviewed by Authorized Signatory
T. M. (5)
(Taugeer Ahmad) + (Or. S. C. Jain)
Technical Manager Director



# Institute for Environmental Management



#### Test Report

ULR No.:	T	C	1.	1	5	1 3	5 2	4	0	0	0.	0	0	1.3	4	6	5
Discipline: Chemical Group: Atmospheric Pollution						Sub-Group: Ambient Noise Levels (Excluding Vibration)											
Report Issue I	ate: 27-0	9-2024	4					Test	Report	No.:	RN-23	09160	01N2				
Sample ID: 24	0924AP06	002						Samp	le De	cripti	on: Ar	nbient	t Nois	e			
Challan No./P	O. No.: 4	548032	2900/	237				Chail	an No.	/ P.No	o. Date	e: 23-0	09-20	23			
Plot	No IV/A-	7(P)4, E	Boka	ro In	dustr	ial Area	Balidi	h	emen	t (Bha	rat) L	imited	1				
Plot Bok	No IV/A- aro Steel	7(P)4, E City, E	Boka	ro In	dustr	ial Area	Balidi	h lia				er e awteste			ata ta t		
Plot Bok Type of Indus	No IV/A- aro Steel try: Ceme	7(P)4, i City, E nt	Boka Bokar	ro In	dustr	ial Area	Balidi	h lia Cust	omer l	Repre	senta	tive: S	anjee	_			
Plot Bok	No IV/A- aro Steel try: Ceme n by: IEM	7(P)4, I City, E nt Team	Boka Bokar	ro In o-82	dustr 7014	ial Area Jharkha	Balidi	h lia Cust		Repre	senta	tive: S	anjee	_			
Plot Bok Type of Indus Sample Draw	No IV/A- aro Steel try: Ceme n by: IEM B Guidelin	7(P)4, i City, E nt Team e & IS I	Boka Bokar Meth	o-82	dustr 7014	ial Area Jharkha	Balidi	h lia Cust	omer l	Repre	senta	tive: S	anjee	_			
Plot Bok Type of Indus Sample Draw Protocol: CPC	No IV/A- aro Steel try: Ceme n by: IEM B Guidelin tion: Tha	7(P)4, i City, E nt Team e & iS i kurtano	Bokar Bokar Meth	od 9	dustr 7014 989:1	ial Area Jharkha	Balidi nd Inc	h lia Cust	omer I	Repre	senta 3-09-2	tive: 5	ianjee o 24-0	_	24	w	

St. No	Parameter	Method	Unit	Day Time	Night Time	Limita
1.	Equivalent Sound Level (Leq)	IS 9985:1981	dB(A)	52.6	43.5	D-55 N-45

#### -End of Reports-

#### Note: -

- 1. Day time shall mean from 6.00 a.m. to 10.00 p.m.
- 2. Night time shall mean from 10.00 p.m. to 6.00 a.m.
- 2. Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.
- 4. dB(A) Leg denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.
- 5.A "docibel" is a unit in which noise is measured. "A", in dB(A) Leg, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.
- 5. Leg: It is an energy mean of the noise level, over a specified period.

Env. Condition of Lab.	Laboratory is maintaining Temperature 27t 2°C and Relative Humidity 65t5 % in all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit
Limit is Specified	As per Noise Pollation (Regulation and Control) Rules - 2000
Remark	Sample Comply with prescribed specification.

Tested By: Akanksha Sourabh

Sample Drawn By: Rajly Kumar Singh & Team

Reviewed by Authorized Signatory
T. Athorney
(Taugeer Ahmad) - (Dr. S. C. Jain)
Technical Managers Fund Director

Page 1 of 1 Corporate office - A-8, Most Heights, Opp. All India Radio Slation, Ratu Road, Ranchi, Ital Prafia - 834001



# Institute for Environmental Management



#### Test Report

ULR No.:	T	C	1	1	5	1	5	2	4	0	0	0	0	0	1	4	6	6
Discipline: Chemical Group: Atmospheric Pollution						ution		Sub-Group: Ambient Noise Levels (Excluding Vibratio							tion)			
Report Issue Dat	e: 27-0	9-2024							Test R	port	No.:	RN-23	09160	001N3	3			
Sample ID: 2409	24AP060	003						7	Sample	e Des	criptic	n: Ar	nbien	t Noi	se			
Challan No./P.O	No.: 45	480329	300/2	37					Challa	n No.	P.No	. Dat	e: 23-	09-20	23			
Plot N	Ceme	(P)4, B	okar	o Ind	fustri	ial Area	Balli	dih		ment	(Bha	rat) L	imite	d				
Plot N Bokar	Steel	(P)4, B City, B	okar	o Ind	fustri	ial Area	Balli	dih	a		- 411311111					2002		
Plot N Bokan Type of Industry	Steel ( Cemen	(P)4, B City, B t	okar	o Ind	fustri	ial Area	Balli	dih	a Custo	mer A	tepres	senta	tive: S	Sanje			_	
Plot N Bokan Type of Industry Sample Drawn I	Steel ( Cemen by: IEM	(P)4, B City, B t Team	okaro	o Ind	fustri 7014 .	ial Area Jharkh	Balli	dih	a	mer A	tepres	senta	tive: S	Sanje				
Plot N Bokan Type of Industry Sample Drawn I Protocol: CPCS G	Steel ( : Cemen by: IEM suideline	(P)4, B City, B It Team & IS N	okaro okaro 1etho	o Ind	fustri 7014 .	ial Area Jharkh	Balli	dih	a Custo	mer A	tepres	senta	tive: S	Sanje				
Plot N Bokan Type of Industry Sample Drawn I	o IV/A-7 o Steel ( : Cemen by: IEM ouideline on: Khut	(P)4, B City, Bo t Team & IS N ri villag	okaro okaro Metho	o Ind o-827 od 99	justri 7014 . 189:19	ial Area Jharkh	Balli and I	dih	a Custo	mer R	lepre:	senta	tive: 5	Sanje	09-20		CA)	

SI, Na	Parameter	Method	Unit	Day Time	Night Time	Limits
1.	Equivalent Sound Level (Leq)	IS 9989:1981	dB(A)	50.2	43.6	D-55 N-45

- 1. Day time shall mean from 6.00 a.m. to 10.00 p.m.
- 2. Night time shall mean from 10.00 p.m. to 6.00 a.m.
- Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.
   dil(A) Log denotes the time weighted average of the level of sound in decibels on scale A which is reliable to human hearing.
- 5.A "ducibel" is a unit in which notice is measured, "A", in dB(A) Leg, denotes the frequency weighting in the measurement of notice and corresponds to frequency response characteristics of the human ear.
- 6. Leg: It is an energy mean of the noise level, over a specified period.

Env. Condition of Lab.	Laboratory is maintaining Temperature 27s 2°C and Relative Humidity 63:15 % in all testing area as per 15 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit
Limit is Specified	As per Noise Pullation (Regulation and Control) Rules - 2000
Remark	Sample Comply with prescribed specification,

Tested By: Akanksha Sourabh

Sample Drawn By: Rajiv Kumar Singh & Team

Specific Contractual Notes -	Reviewed by Authorized Signatory
The laboratory accepts responsibility for content of this report. This report shall not be reproduced except in full, without written approval of the MO. This report is intended for only guidance and not for legal purpose or for advertisement. Any compliant about this report should be communicated as writing withis 7 days of its issue. Total liability of institute for Environmental Managament will be limited to involved amount only.	T. Married Della
To case of feedback/ completing, please send an email at grt invisco@bchsil com	(Taugeer Ahmad) (Dg S. C. Jain)
On the basis of Casality Checked and Technical data verified by the Authorized aignalary, the report	Technical Manager • Director

Page 1 of 1 Corporate office - A.S. Most Heights, Opp. All hulls Radio Station, Rate Read, Ranche, Barkhand - 834001

### Annexure-XVII

# **Bokaro Cement Manufacturing Works (Unit of DCBL)**

## Solar light installed at different location of the plant

NEAR TOILT NEAR S. T. P.









**NEAR AAQMS** 

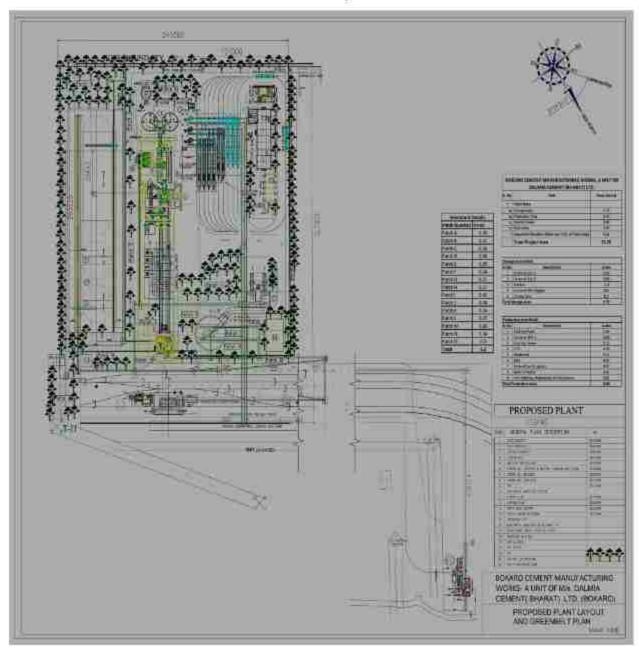
NEAR PROJECT OFFICE

### Annexure-XVIII

# **Bokaro Cement Manufacturing works**

# Unit of Dalmia Cement (Bharat) Limited

## Green belt plant



#### PROPOSED GREEN BELT DEVELOPMENT PLAN

Greenbelt/plantation will be done over 33% of the total project area i.e., about 5.2 acres (2.105 ha). The green belt will inter alia cover the entire periphery of the plant. Native fruits bearing species with large canopy will be selected for plantation.

### Green Belt development Plan for five years

SI. N	Years	Area (Acres)	No. of Trees
01.	1st Year	1.2	1200
02.	2nd Year	1.0	1000
03.	3rd Year	1.0	1000
04.	4th Year	1.0	1000
05.	5th Year	1.0	1000
TOTAL		5.2	5200

Tree species	Common Name
Shorea robusta	Sat
Pongamia pinnata	Karanj
Madhuca longifolia	Mahua
Butea monosperma	Palash
Azadirochta indica	Neem
Acacia catechu	Katha
Boswellia serrata	Lobaw
Cassea fistula	Arnaltas

Tree species	Common Name
Dalbergia latifolia	Eastern Rosewood
Erythrina indica	Coral Tree
Ficus bengalensis	Banyan
Ficus religiosa	Peepal
Dendrocalamus strictus	Bamboo
Moringa oleifera	Drumstick
Terminalia arjuna	Arjun
Tectona grandis	Teak
Mangifera indica	Mango
Albizzia lebbeck	Siris
Artocarpus heterophyllium	Jackfruit
Cocos nucifera	Coconut
Polyalthia longifolia	Ashok

# Green Belt development report



Tree plantation done at plant boundary location

### DALMIA CEMENT (BHARAT) LIMITED, BOKARO

#### Carbon emission and carbon neutrality action plan

Cement is the basic building block of the housing and infrastructure development in the country. Unlike developed countries, India is uniquely positioned to maintain the growth, provide basic infrastructure and housing to its growing population and maintain the GHG emissions.

Globally, cement industry is classified as basic heavy-industry. As a result, European Union has put the cement industry in a unique position until 2030 where carbon allowances are provided free of cost (100%) to the cement and lime industries because it is not possible to pass on the cost of making carbon neutral cement or concrete to the customers in Europe, where per capita income of the population is way higher than in India.

Hence, a public-private approach to decarbonise the basic heavy-industry in India needs to be unique while serving the reasonable developmental expectations of the country and its people.

Despite the challenge of cement decarbonisation, Dalmia cement has been taking actions to reduce the GHG emissions. Dalmia Cement (Bharat) Limited (DCBL) is a leading cement manufacturer Dalmia Cement is one of India's pioneering homegrown cement companies, operating since 1939. Dalmia is one of the lowest carbon footprint cement producers globally and one of the most profitable cement company in India which reiterates its business philosophy of Clean and Green is Profitable and Sustainable.

Dalmia has served as climate catalyst in the global heavy-industry. It is the first triple joiner company globally to RE 100; EP 100; and EV 100 (significant transition to electric vehicles). Dalmia also aims to eliminate fossil fuels in the cement kiln.

Dalmia Cement is the leading voice on zero carbon transition at platforms such as United Nations, World Economic Forum and Annual Conference of Parties (COP) serving to the United Nations Framework Convention on Climate Change (UNFCCC). Dalmia has aligned its operations to Sustainable Development Goals (SDGs) within and beyond boundary through its Corporate Responsibility arm Dalmia Bharat Foundation.

Dalmia is founding member of the Leadership Group for Industry Transition (LEADIT), Chaired by India and Sweden to drive transformation in hard-to-decarbonize and energy-intensive sectors.

Dalmia is a founding member of First Movers Coalition (FMC), an initiative endorsed by US President and aims at creating green products demand globally. In a major push to EV transition, Dalmia has procured 22 heavy-duty electric vehicles for its raw material transport. Dalmia has a target to become 50-million-ton cement group by 2025. It is already 13.3 times water positive and committed to become 20 times water positive by 2025.

The commitments and leadership of Dalmia on zero carbon transition offers a whole new set of opportunities for the global heavy industry sector to relook at the processes, technologies and techno-commercial models for decarbonization and/ or reduction of the carbon footprint.

Dalmia Cement (Bharat) Limited is a cement grinding unit which is located at Bokaro Jharkhand for the manufacturing of PSC (Portland Slag Cement) and CC (Composite Cement) with production capacity of 4.5 MTPA.

DCBL Bokaro using fuel for the moisture removing in raw materials and material transportation in vehicles. Electricity is used for plant operation.

The GHG emission is classified under two scope - Scope-1-Direct emission and Scope-2 Indirect emission from electricity consumption for cement manufacturing...

- GHG Emission from fuel consumption: Direct GHG emission occur from that are owned or controlled by the company (Scope 1).
  - Coal consumption in FBC (Indian Coal)
  - 2. Diesel Consumption in FBC for light up
  - Own vehicles and hiring equipment by the company & fuel consumed process activities.

#### GHG Emission from fuels

Categories	UOM	2022-23	2023-24
Scope-1 Emissions from Coal & Diesel consumption for the process of Cement Manufacturing.		48	47

- 2. GHG emission from power consumption: Indirect GHG Emissions (Scope 2), accounts of GHG emission from the purchased electricity consumed by the company. Emission cannot be controlled at the sources it can be only controlled by changing the type of electricity consumed.
  - Electricity consumption from Grid.

#### GHG Emission from power consumption

Categories			UON	ſ			2022-23	2023-24
Scope-2 Emissions consumption	from	Electricity	Kg Cem	CO2 entitious	/Tone material	of	42	41

#### Summary report of GHG emission last five years in below table

Categories	UoM	2022-23	2023-24
Scope-1 Emissions from Coal & Diesel consumption for the process of Cement Manufacturing.	Kg CO2 /Tone of Cementitious material	48	47
Scope-2 Emissions from Electricity consumption	Kg CO2 /Tone of Cementitious material	42	41

The emission intensity of GHG emission of our unit scope -1 and scope -2 decreases continuously from previous years on account of the actions taken.

#### Mitigation plan for reduction of GHG emission

DCBL Bokaro is working on GHG mitigation Plan to bring down the GHG emissions from fuel usage and electricity usage. One of the main mitigation opportunities, as an immediate lever, is to increase share of renewal energy for the electricity consumption.

The carbon footprint accounting has been implemented as per the international best practice and it is used for internal as well as external benchmarking.

#### 1. GHG emission mitigation:

Enhancing energy efficient of plant equipment's, use of renewal energy for electricity consumption and use of clean fuel /alternative fuel such as biodiesel in FBC.

#### (a) Reduction of GHG emission by the process optimization:

- We are continually reducing clinker consumption for cement manufacturing.
- Clinker silo constructed for the storage of clinker to reduces road transportation
- We have continually increase rail transportation for inwards and outwards materials, reduce road transportation.

#### (b) GHG emission reduction by improving energy efficiency plant equipment

We are regular working for reduction of power consumption in plant, energy efficient enhanced by working on the areas such as energy benchmarking study to identify the gaps in specific energy consumption such as process fan and other high energy consuming equipment's. To overcome the gaps, best practice could be followed to reduce the energy consumption. These measures for improving energy efficiency would proportionally result in reduce GHG emission due to increased energy efficiency and decreased energy consumption. Implementation of ISO 50001:2018

We are in process for implementation of ISO 50001:2018 specific requirements for establishing, implementing, maintaining, and improving an energy management system (EnMS). The intended outcome is to enable an organization to follow a systematic approach in achieving continual improvement of energy performance and EnMS.

#### (C).Increasing power sourcing from renewal energy

We are working to increase share of renewal energy for the electricity consumption. The percentage of emissions could be reduced by improving the percentage of renewable energy either by onside installation (solar rooftop system) or offsite renewable energy consumption through PPA or Open Access. The higher amount of renewable energy consumption would lead to lesser GHG emissions over the period. Dalmia Cement (Bharat) Limited, Bokaro unit will work on procuring 100% Renewable energy in long -term and eliminate emissions from Grid electricity.

- (d) We have installed solar light & LED light in plant and colony area for the reduction of power consumption.
- (e)Tree plantation regularly done in plant & village area and maintaining the green belt. This will also help to reduce GHG emission.

#### 2 Regular Assessment of GHG Emissions and Strengthening of Inventory

Dalmia Cement (Bharat) Limited plants including Bokaro unit carry out regular GHG assessment and a third party assured yearly inventory to ascertain as well as find reduction opportunities from the major sources of GHG emissions.

#### **GHG Reduction Targets:**

- (a) To driveinnovation resources are involved from various departments to reduce the emission. Thiswill bring buy-in from all the stockholders involved and help in driving innovation to reduce the GHG emission.
- (b) To improve cost efficiency: cost saving can be made by identifying opportunities to increase resources and energy efficiency. This may help to improve our competitive advantage
- (c) Organization will setup ambitious targets, measuring managing, reporting and reducing GHG emissions.
- (d) Organization will be conduct internal as well external energy audit reduction of GHG emission
- (e) It will help in raising awareness among consumers and employees on what role they can play in reducing impact of GHG emission
- (f) Dalmia Cement (Bharat) Limited Bokaro unit will continually analysis the GHGReduction potential opportunities identified, priorities and implement them to achieve GHG emission reduction target as well as associated cost benefit.

# BOKARO CEMENT MANUFACTURING WORKS DALMIA CEMENT (BHARAT) LIMITED

# Corporate Environment Responsibility & CSR report for the period of April 2024 to September 2024

Sl. No	Name Of Activity	Place of Activity/ Village	Expense (in Rs.)
1	Broom Making Training	Manjhaladih	45000
2	Broom Making Training	Bhutkuru	40000.00
3	Tailoring Training	Bishunpur, Gorabali south	50000.00
4	General Medicine and Gynecology Camp	Bishunpur, Gorabali south	25000.00
5	General Medicine and Gynecology Camp	Kanari	25000.00
6	Distribution of Assets to Support microenterprise activity	Gorabali, Bhutkuru	115000.00
7	Distribution of Goats	Gorabali (N), Gorabali (S), Kanari, Khuntri Panchayat	450000.00
8	Deworming and Vaccination Camp		
9	Plantation	Plantation Gorabali, Bhutkuru, Tupkadih, Bishunpur	
10	Support to District Administration	Bokaro	190000.00
11	International Yoga Day	Govind Madhyamik Vidyalaya and Bokaro DikshA	30000.00
12	Independence Day	Bokaro DikshA	25000.00
13	Skill training to local youths at Bokaro Diskha	Bokaro	1000000.00
14	Digital Literacy through WoW Bus	Jaridih, Bhutkuru	Ongoing
15	Goat Distribution	Gorabali, Khutri, Kanari, Tupkadih	150000.00
otal	2158000.00		



Renovation of Aganwadi



Tree plant distributed in village for plantation



Distribution of Goats in nearby village



Promotion of micro enterprise



Broom Making Training



Tailoring Training





Skill training to local youths at Bokaro Diksha

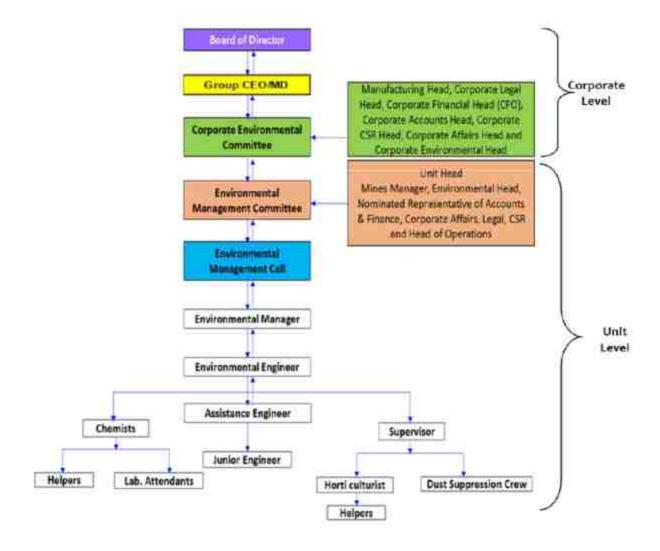




Skill training to local youths at Bokaro Diksha

#### **BUSINESS RESPONSIBILITY MATRIX**

The hierarchical system or administrative order of the Company to address the nine principles prescribed by SEBI and other compliances including regulatory approvals viz Environmental Clearance, Consent to Operate etc.



Annexure: XXII

# Investment on Environment management up to September 2024

Sn	Item	Cost (Rs. in Crores)
1	Cost of Air Pollution Control Systems	
Α	APCEs like Bag house with stack & auxiliary Bag filters cost	25.0
В	Cost of CAAQMS & Opacity Meter and Digital Display Board	1.0
С	Road Sweeping Machine	0.30
D	Water Tanker spraying	0.01
E	Concreting of internal road and drainage	8.0
	Sub Total	34.31
2	Cost of Water conservation & Pollution Control	
Α	STP of 15 KLD	0.25
В	Rain water harvesting system with drainage pipes, Flow meter for raw water, Sprinklers & drip irrigation systems for greenbelt/plantation etc.	0.35
	Sub Total	0.6
3	Cost of Solid Waste Management System-Storage with concrete flooring for Solid & Hazardous waste	0.5
4	Green belt development	0.05
5	Noise Reduction Systems-enclosures for machineries with suitable absorption material, vibration isolators for all fans, compressors etc.	0.05
	Grand Total	35.51

# Recurring cost investment on Environment protection

# April 2024 to September 2024

	Cost on Schedule maintenance	Cost in Lakhs
1	Bags replacement with new bags, Bags cleaning, De dusting line checking, cleaning and repairing work. Bag filters fan maintenance etc)	3.0
2	Power consumption in Pollution control equipment (Bag House & Bag Filter) 56,14,352KWH X 5.92	332.0
2	Third Party Environmental Monitoring & Analysis	1.34
3	AMC of CEMS Data transmission to JSPCB& CPCB	0.1
4	AMC of CAAQMS Maintenance, Servicing and Calibration,	0.45
5	AMC of CAAQMS Data transmission to JSPCB & CPCB	0.45
6	Calibration of Pollution Monitoring Equipment's (CEMS)	1.5
7	Calibration of Pollution monitoring instrument (RDS &Stack VSSI,Noise level meter)	0.15
9	Water Pollution Management (AMC of STP, R.O Plant, D.M. Plant, & Softener Plant), Cleaning of Nala,	0.25
10	STP Operation & Maintenance	0.5
11	Road Sweeping Machine Operation & Maintenance	2
12	Disposal of Bio medical waste	0.03
13	Fuel consumption in water sprinkling tanker of water on dusty area	0.12
14	Green Belt Development	6.5
	ecurring cost investment on Environment protection April 2024 to ber 2024	348.4

Annexure: XXIII

# Environment Internal audit report

## April 2024-September-2024

Date: 16.07.2024

Following below members present in Environment Audit

1. Arvind Kumar: (Head Mechanical)

2. LR Patel: (Head E&I)

3. Rajan Singh: (Head Production)

Sr. No	Environment internal audit observation points	Environmental Compliance Status	Auditor Observation
1.	Review status of Statutory compliance - Consent to Operate (CTO) & Environment Clearance (EC) compliance condition	Complied.  Timely submitted EC Compliance report to JSPCB /MOEF&CC /CPCB/SEIAA.	Complied
2.	Review status of Statutory compliance - E-Waste Management	Complied Timely submitted E-Waste return to JSPCB Ranchi and Dhanbad.	Complied
3.	Statutory compliance - Hazardous waste management	Complied. Timely submitted Hazardous waste return Form-IV JSPCB & Dhanbad	Complied
4.	Review status of Statutory compliance Condition of OHC, CTO and Authorization of Bio medical waste compliance condition under Bio- Medical Waste Management.	Hazardous waste return Form-IV	Complied
5	Checked On Line CEMS & CAAQMS data at JSPCB & CPCB Server	Complied,On line CEMS & CAAQMS Data updated in JSPCB & CPCB server	Complied
6	Checked Calibration certificate record of Pollution monitoring equipment.	Complied. On line CEMS & CAAQMS instrument calibrated with in time.	Complied

7	On Line monitoring data display at factory main gate.	Complied. Online Environment monitoring data displayed at main gate	Complied.
8	Checked Third party Environment monitoring report.	Complied, third party Environment monitoring report done on quarterly basis.	Complied.
9	Checked Drinking water quality	Complied, Drinking water quality regular checked.	Complied.
10	Checked status validity of CTO & EC	Complied, within time limit	Complied.
11	Checked fugitive dust emission records	Fugitive dust emission measures taken.	Complied
12	Status of Green belt development	Complied  Green belt maintained 33% of the plant	Complied
13	Rain water harvesting system	Rain water harvesting system constructed and maintained	Complied
14	Status of Bag filter /Bag house	All plant Bag filter and bag house is working condition	Complied
15	Submission of Environment statement to JSPCB	Environment Statement submitted with in time for the year 2023-2024	Complied
16	Statue of water spray tanker for control of fugitive dust emission	Water spray tanker regular water spray on the roads and dust prone area for the control of fugitive dust emission and record maintained	Complied
17	Status of road swapping machine	Regular cleaning of the roads and concreated area by road swapping machine and record maintained	Complied
18	Status of Solar light	Solar light installed at different location in the plant	Complied

Annexure: XXIV

#### Public notice published in "Pioneer" Newspaper & "Aaj" newspaper dated :02.03.2023

Public notice published in "Pioneer" Newspaper & "Aaj" newspaper dated :02.03.2023





Receipts of copy of Environment Clearance submitted to the Regional Office of MoEFCC, MS-SEIAA, MS- JSPCB, local Panchayat and other Govt. bodies, district head quarter:



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Date:02.03.2023

Regional Officer, Thankhand State Pollution

Jharkhand State Pollution Control Board H.I.G.-1. Sardar Patel Nagar, Hirapur Dhanbod - 826001

Sub.: Proposed Expansion of Cement Production Capacity of "Bokaro Cement Manufacturing Works", A Standalone Grinding Unit of Dalmia Cement (Bharat) Limited, from 2.0 Million TPA to 3.1 Million TPA at Plot No. IV/a-7(p)4, Village- Goraball, Notified Bokaro Industrial Area Under JIADA, Balldih Phase-4, Bokaro, Jharkhand. Reg. Submission of copy of Environmental Clearance.

Ref.: 1. Environmental Clearance granted by State Level Environment Impact Assessment Authority (SEIAA), Iharkhand vide EC Identification No.: EC23B000JH199098; File No: EC/SEIAA/2022-23/26462023; letter no EC/SEIAA/2022-23/2646/2022/366, dated 30.01.2023 & EC issuance date 08.02.2023.

 Consent to Establish granted by Jharkhand State Pollution Control Board vide Ref. No.: JSPCB/HO/RNC/CTE-15399804/2023/128 dated 23:02:2023

#### Dear Sir.

With reference to above mentioned subject and reference, we would like to submit that Environmental Clearance has been granted for expansion of cement production capacity of Bokaro Cement Manufacturing Works, a standalone Grinding Unit of Dalmia Cement (Bharat) Limited, from 2.0 Million TPA to 3.1 Million TPA as cited above, by State Level Environment Impact Assessment Authority (SEIAA), Jharkhand as mentioned above under Ref. No 1. Consent to Establish for the proposed expansion has also been granted by Jharkhand State Pollution Control Board as mentioned above under Ref. No 2.

In compliance of condition no 1 of XI. MISCELLANEOUS stipulated in granted EC, we have advertised a public notice informing about the grant of EC to proposed expansion in two newspapers named "The Pioneer and Aa) on 02.03.2023" in English as well as in vernacular language i.e. hindi.

In compliance of condition no 2, of XI. MISCELLANEOUS stipulated in granted EC, A Copy of Environmental Clearance, Consent to Establish and copy of both Newspapers are being submitted herewith for your information and record.

Thanking You Yours Faithfully For M/s. Dalmia Cement (Bharat) Ltd. (Unit: Bokaro Cement Manufacturing Works)

Authorized Signatory Encl: As above

Balmia Cement (Blurray) Limited

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Registered Office : Deliningume, District Teschingtonly, Journal Math. - 323 051, India
A Delinin Bharat Group Company, www.dolmichterot.com



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Date:02.03.2023

The Director,

Ministry of Environment, Forest and Climate Change, 2<sup>nd</sup> floor Head quarter - Jharkhand State Housing Board Harmu Chowk, Ranchi - Jharkhand Pin- 834002

Sub.: Proposed Expansion of Cement Production Capacity of "Bokaro Cement Manufacturing Works", A Standalone Grinding Unit of Daimia Cement (Bharat) Limited, from 2.0 Million TPA to 3.1 Million TPA at Plot No. IV/a-7(p)4, Village- Gorabali, Notified Bokaro Industrial Area Under JIADA, Balidih Phase-4, Bokaro, Jharkhand. Reg. Submission of copy of Environmental Clearance.

Ref.: 1. Environmental Clearance granted by State Level Environment Impact Assessment Authority (SEIAA), Jharkhand vide EC Identification No.: EC23B000JH199098; File No: EC/SEIAA/2022-23/26462023; letter no EC/SEIAA/2022-23/2646/2022/366, dated 30.01.2023 & EC issuance date 08.02.2023.

 Consent to Establish granted by Jharkhand State Pollution Control Board vide Ref. No.: JSPCB/HO/RNC/CTE-15399804/2023/128 dated 23.02.2023

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Thanking You
Yours Faithfully
For M/s. Dalmia Cement (Bharat) Ltd.
(Unit: Bokaro Cement Manufacturing Works)

Authorized Signatory Encl: As above

Dalmia Gement (Bharat) Limited

Cong : Bokura Coment Manufacturing Works

Pto: No. IVA-7(PM, Buines Industrial Arm, Buildib, Bohnro Steel City, Bohnro-887014, fluxekhand, India T +91 1942 253 270 / 491 6542 253 347 Intl. Pres 1890 2020 W www.doliniacemmi.com CIN-1943 91TN 1960 PLANSBORD Regissered Office: Dalmagazina, District Teachizandib, Bentl. Sodio - 172 651, India A Dalmia Bharat Group Company, www.dulathbborat.com



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Date:02.03.2023

FUTURE TODAY

Ranchi-834004

Member Secretory, Jharkhand State Pollution Control Board, Township Administration Building (Ground Floor) HEC Complex, Dhurwa

Sub.: Proposed Expansion of Cement Production Capacity of "Bokaro Cement Manufacturing Works", A Standalone Grinding Unit of Dalmia Cement (Bharat) Limited, from 2.0 Million TPA to 3.1 Million TPA at Plot No. IV/a-7(p)4, Village- Gorabàli, Notified Bokaro Industrial Area Under HADA, Balidih Phase-4, Bokaro, Jharkhand. Reg. Submission of copy of Environmental Clearance.

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For M/s. Dalmia Cement (Bharat) Ltd.
(Unit: Bokaro Cement Manufacturing Works)

Authorized Signatory Encl: As above

Dolmia Cement (Bharat) Limited

Unit : Bokaro Cement Manuforwring Wortz

Plot No. 1965-7(P)), Boharo Lebarrali Arco, Boharo Suel City, Boharo -257024, Backler and Judha

T - 91 6542 563 278 : \* 81 6552 223 947 Toll Free 1900 2029 W www.daintegenent.com CIR U651917N 1950FF (2021)1903

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Date:02.03.2023

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The Secretory, Industry Department Govt.of Jharkhand Ranchi (Jharkhand)

Sub.: Proposed Expansion of Cement Production Capacity of "Bokaro Cement Manufacturing Works", A Standalone Grinding Unit of Dalmia Cement (Bharat) Limited, from 2.0 Million TPA to 3.1 Million TPA at Plot No. IV/a-7(p)4, Village- Gorabali, Notified Bokaro Industrial Area Under JIADA, Balldih Phase-4, Bokaro, Jharkhand. Reg. Submission of copy of Environmental Clearance.

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For M/s. Dalmia Cement (Bharat) Ltd.
(Unit: Bokaro Cement Manufacturing Works)

Authorized Signatory Encl: As above

Dalmia Cement (Bharat) Limited

Unit: Bokara Genom Manafacturing Works
Plot No. Pyth-7(9)4, Bokara Indiam dreu, Hajbill, Bokara Steel Chy. Bokara-1127034, fluxicheaud India
T +51 6542 253 278 / -91 6542 250 074 - 100 Free 1800 2800 W www.delmioremon.com CIN-1161101/TN18865122035980
Registered Office: | Delmiqueum, Distruct Trachingoill, Timil Nadu - 521 654, India.
A Dalmia Sharat Group Computy, www.delmiobhiarac.com



#### cement! sugar! refructories! power!

To

Date:02.03.2023

The Deputy Commissioner, Bokaro Steel City Bokaro Jharkhand

Sub.: Proposed Expansion of Cement Production Capacity of "Bokaro Cement Manufacturing Works", A Standalone Grinding Unit of Dalmia Cement (Bharat) Limited, from 2.0 Million TPA to 3.1 Million TPA at Plot No. IV/a-7(p)4, Village- Goraball, Notified Bokaro Industrial Area Under JIADA, Balidih Phase-4, Bokaro, Jharkhand. Reg. Submission of copy of Environmental Clearance.

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(Unit: Bokaro Cement Manufacturing Works)

Southy 6

Authorized Signatory Encl: As above

Dalmia Cement (Bharat) Limited

Unit : Bokara Corean Manufacturing Works

Plan Na. PVA-7(P)4, Behara Industrial Area, Ballidit, Bokara Swel City, Bokara-827014, Photokhand Liella
T +91 9542-253 2007 +91 5542-253 047 Skil Pree 1800 2020 W www.dalmacement.com City/U851B1TN11006PLC035863
Registered Office: Delimaporesa, District Proceduratio, Thad Wests -621 552, India.

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Date:02.03.2023

Shri Ganesh Thakur Ji Mukhiya Village/Basti;Balidih Gorabali (South) Gram Panchayat Bokaro (Jharkhand)

Sub.: Proposed Expansion of Cement Production Capacity of "Bokaro Cement Manufacturing Works", A Standalone Grinding Unit of Dalmia Cement (Bharat) Limited, from 2.0 Million TPA to 3.1 Million TPA at Plot No. IV/a-7(p)4, Village- Gorabali, Notified Bokaro Industrial Area Under JIADA, Balidih Phase-4, Bokaro, Jharkhand. Reg. Submission of copy of Environmental Clearance.

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Authorized Signatory Encl: As above

मुस्तिकारी एक प्रमाण सरकारी थ एक्टर्स सम्बद्धा

Dahnia Cement (Bharat) Limited

Unit : Bolam Cantoni Manufacturing Works

Plot No. 1974-7(F)4, Bukora Industrial Acest, Halidia, Bolam Sarel (30), Bolam-827014 (Burshand, Indus

T +81 6542 253 278 / +91 6542 253 047 268 Fee: 1800 2620 W work daimin more cam CIN \$165439 TVF (1906PLC033903)

Registered Office: Dalmings rum, District Tenchirapulli, Tomil Nadu - 022 451, bulia.

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Date:02.03.2023

To

Member Secretory,

State Level Environment Impact Assessment Authority, Nursery Complex, Near Dhurwa Bus Stand, Dhurva Ranchi-834004

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