

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

Date: 28.11.2024

**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**

**Copy:**

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 Nagar, Delhi-110032
3. The Member Secretary, Jharkhand State Pollution Control Board, Township  
Administration Building, HEC Complex, Dhurwa, Ranchi-834004
4. 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

**Bokaro Cement Manufacturing Works**  
(A Unit of Dalmia Cement Bharat Limited)

11/26/2024 4:55 PM Venna.Sarav...  
Plot No. 20/A-20PH, Bokaro Industrial Area, Daltong, Bokaro Steel City, Bokaro - 827014, Jharkhand, India  
Covered under New Draft Document (G.O.  
130) dated 23.3.2018. Tel. No. 2501 2520 | www.dalmiacement.com | CIN: UDS1811N1996PLC025967

Registered Office: Dalmiapuram, District Giridih, Jharkhand - 821001, India.  
A Dalmia Bharat Group company, www.dalmiabharat.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

S. No.	EC Conditions	Compliance
<b>Specific Conditions</b>		
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.	<b>Complied</b> a. The project is located in Notified Industrial area. The land is allotted byJIADA to DCBL at Plot No. IV/A-7(P)4, Notified Bokaro Industrial Area BalidihPhase-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.
<b>I. Statutory Compliance</b>		
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.	<b>Not Applicable</b> 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.	<b>Not Applicable.</b> 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 <b>Annexure I&amp;II.</b>
3.	The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife	<b>Not Applicable</b> The unit is located in notified industrial area

S. 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)	at JIADA, Bokaro. There is no record of schedule –I species within 10km radius of our unit. Hence this condition is not applicable.
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.	<b>Complied with</b> 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 <b>Annexure-III&amp;IV</b>
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.	<b>Complied.</b> 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 <b>Annexure-V.</b>
6	The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules 2016 as amended from time to time.	<b>Complied.</b> Authorization under the Hazardous and other Waste Management Rules 2016 obtained from JSPCB Ranchi copy of the same attached as per <b>Annexure: VI</b>
7	No mining/ activity shall be undertaken in the forest land or deemed forest without obtaining requisite prior forestry clearance.	<b>Not Applicable</b>
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.	<b>Noted</b>
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



S. 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 delay, which till process on their respective merits, no rights will vest in accrue to them unless all clearance are obtained.	<b>Not Applicable.</b>
<b>II. Air quality monitoring and preservation</b>		
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 9 <sup>th</sup> 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.	<b>Complied.</b> 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 9 <sup>th</sup> 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 <b>Annexure: VII</b> . 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	<b>Complied With.</b> Fugitive emission regularly monitored. Fugitive emission monitoring report from April 2024 to September 2024 attached as per <b>Annexure: VIII</b>
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 <b>Annexure: IX</b>
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	<b>Complied with.</b> 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 <b>Annexure-VII&amp;IX</b>
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.	<b>Complied with.</b> Bag House at the VRM and 31 Bag filters installed at all the material transfer and handling point to keep the emission within the standard specified by MOEF&CC/CPCB. List of APC the same is attached as <b>Annexure X</b>
6	The project shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.	<b>Complied with.</b> 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	<b>Complied with.</b> Plant is only grinding unit, Clinkerisation is not involved. Applicable Pollution control measures as per CREP guideline of CPCB implemented. <b>Attached Annexure XI</b>
8	Sufficient number of mobile or stationary vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.	<b>Complied with.</b> 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.	<b>Complied with.</b> All raw materials/products are being transferred within plant by covered conveyor belt. Inward & outward transportation of Raw materials & products done in covered tarpaulin trucks/ bulkers/ rail to control material spillage as well as fugitive dust emission.
10	Provide wind shelter fence and chemical spraying on the raw material stock piles	<b>Complied with</b> 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.	<b>Complied with.</b> 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	<b>Being complied.</b> All measures, detailed in PFR & EMP report,

S. 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.	<b>Complied with.</b> Ventilation system arrangement done at motor houses, and cement bagging plants.
<b>III. Water quality monitoring and preservation</b>		
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).	<b>Not applicable</b> 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.	<b>Not Applicable.</b> 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 <b>Annexure-XII</b>
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	<b>Not applicable.</b> 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'	<b>Being complied.</b>
5	Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.	<b>Complied with.</b> 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.	<b>Complied with.</b> 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.	<b>Complied with</b> Rain water harvesting system constructed in our plant as per technical approval RWH from GWD, Ranchi. RWH implementation report attached as per <b>Annexure: XIV</b>
8	Water meter shall be provided at the inlet to all unit processes to maximum possible extent.	<b>Complied with.</b> Water meter installed at the inlet of the unit. Photographs attached as per <b>Annexure: XV</b>
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.	<b>Complied with.</b> 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 <b>Annexure: XIII</b>
<b>IV. Noise monitoring and prevention</b>		
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.	<b>Complied with.</b> 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



S. No.	EC Conditions	Compliance
	75dB (A) during day time and 70db (A) during night time.	attached as per <b>Annexure- XVI</b>
<b>V. Energy Conservation measures:</b>		
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.	<b>Complied with.</b> Solar based LED lights installed at different location of the plant. Photographs attached as per <b>Annexure: XVII</b>
2	Provide the project proponent for LED lights in their offices and residential areas.	<b>Complied with</b> LED lights installed for lighting purpose
3	Maximize utilization of fly ash, slag and sweetener in cement blend as per BIS Standards.	<b>Complied</b> Portland Slag Cement (PSC) using waste products such as Slag (about 65 %) as per BIS norms.
<b>VI. Waste Management</b>		
1	The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & other waste (Management & Transboundary Movement) Rules 2016.	<b>Noted for compliance</b>
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).	<b>Being compliance</b> Kitchen waste composted and is being used manure in greenbelt development.
<b>VII. Green Belt</b>		
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.	<b>Compliance under progress</b> 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. <b>Green belt development report attached as per Annexure: XVIII</b>
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 <b>Annexure: XIX</b>
<b>VIII. Public Hearing and Human Health issues:</b>		
1	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall	<b>Complied with.</b> On site emergency Preparedness plan, Hazard identification and Risk Assessment

S. 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.	<p><b>Complied with.</b></p> <p>All Personal protective equipment's (PPE) Safety shoes, Nose mask, safety helmet, earplug, provided to all employees and contract workers for their safety.</p> <p>Safety training is being regularly given to the employees for the awareness of safe working culture.</p>
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.	<p><b>Complied With.</b></p> <p>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.</p> <p>Also, the amenities available in the adjacent unit are made accessible.</p>
4	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	<p><b>Being Complied</b></p> <p>Periodic medical health checkup of employees and workers is being done for every six months. Reports maintained as per Factory Act.</p>
<b>IX. Corporate Environment Responsibility:</b>		
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.	<p><b>Being Complied.</b></p> <p>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 &amp; 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. <b>CER and CSR report for the period of April 2024 to September 2024 attached as per Annexure-XX</b></p>

S. 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 / or shareholders / stakeholders. The copy of the board resolution in this regard shall be submitted to the MoEF & CC as a part of six-monthly report.	<b>Complied</b> 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 <b>Annexure XXI</b> .
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.	<b>Complied.</b> 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.	<b>Complied.</b> 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 <b>to April 2024 to September 2024 attached as per Annexure- XXII</b>
5	Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.	<b>Complied With.</b> Environment audit report attached as per <b>Annexure: XXIII</b>
6	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the cement plants shall be implemented.	<b>Complied with.</b> Applicable Pollution control measures as per CREP guideline of CPCB implemented.
<b>XI. Miscellaneous:</b>		

S. 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.	<p><b>Complied</b></p> <p>A public notice informing about grant of EC has been published in two newspapers named "The Pioneer" and "Aaj" on 02.03.2023 in English as well as in vernacular language i.e. Hindi. Copy of Advertisements are attached herewith as an <b>Annexure XXIV</b>.</p> <p>The Newspapers with advertisement along with copy of EC have been submitted to the Regional Office of MoEF &amp; CC, MS-SEIAA and MS- JSPCB. Copy of submission receipts are attached herewith as an <b>Annexure-XXV</b>.</p>
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.	<p><b>Complied.</b></p> <p>We have submitted copy of Environment Clearance to Regional Office of MoEF&amp;CC, MS-SEIAA, MS- JSPCB, local Panchayat and other Govt. bodies, district head quarter. Copy of submission receipts are attached herewith as an <b>Annexure-XXV</b>.</p>
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, SO <sub>2</sub> , NO <sub>x</sub> (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.	<b>Complied with.</b> 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.	<b>Being complied.</b>
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.	<b>Complied with.</b> 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


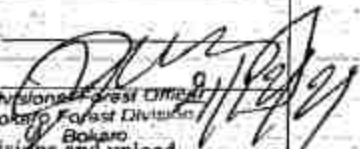


S. No.	EC Conditions	Compliance
7	The project proponent shall inform the Regional Office as well as Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.	Date of final approval: 27April '2022 Date of start of Land development work: 29.04.2022 Date of Production: 25.03.2023
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)	<b>Complied with.</b> Half yearly EC Compliance reports are being regularly submitted 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)
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	Noted & agreed

S. 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.	Noted & agreed
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.	Noted & agreed
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, Bokaroidiv  
Letter no. 3546 dated 21.12.2021

		<b>Government of Jharkhand</b>	
		<b>Department of Forest, Environment and Climate Change</b>	
<b>Permission Letter : LETTER20211220</b>			
<b>Acknowledgment No:</b> SWSFST111202131031		<b>Issue Date:</b> 21-12-2021	
<b>Name Of Applicant :</b> Dalmia Cement Bharat Limited			
<b>Email ID :</b> sinha.rajeevkumar@dalmiacement.com.		<b>Contact no.:</b> 9771478206	
<b>Report of Distance from Forest, Forest Reserve and Sanctuary</b>			
<b>SNo</b>	<b>Checkpoint</b>	<b>Divisional Forest Officer</b>	
1	Whether Distance of Project location from Reserved Forest/Protected Forest is 250 m?	Yes	
2	Whether Project location come under No Mining Zone?	No	
3	Does there any National park located within 10 km from project location?	No	
4	Does there any Wildlife sanctuary located within 10 km distance from project location?	No	
5	Does there any ESZ available within 10 km distance from project location?	No	
6	Whether Proposed project comes under prohibited category of ESZ (Yes or No)?	No	
		<b>Name :</b> _____	
<b>Note :-</b> 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.		<b>Designation :</b> _____	
		<b>Signature :</b> 	
		Divisional Forest Officer Bokaro Forest Division Bokaro	
*The certificate to be issued by the Divisional Forest Officer of the respective Divisions and upload			



## Department of Forest, Environment and Climate Change

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

Name Of Applicant: Dalmia Cement Bharat Limited  
Institution Type: Non Government

Email ID: sinha.rajeevkumar@dalmiacement.com - Contact no.: 9771478206

#### Location of Proposed Land

District: Bokaro

Battery Point: Gorabali

Thana No.: 14

Thana Name: Jaridih

Khata No.: 134,76,177,46,45,171,47,145,78,65,135,72

Khesra Name: 892 (F), 781 (P), 777 (F), 784 (P), 779 (P), 778 (P), 782 (P), 783 (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 (P), 870 (P), 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), 863 (F), 866 (F), 873 (F), 864 (F), 868 (P), 861 (F), 867 (P), 865 (F)

#	Checkpoint	Range Forest Officer	Divisional Forest Officer
1	Whether Distance of Project location from Reserved Forest/Protected Forest is 250 m? *	Yes	Yes
2	Whether Project location come under No Mining Zone? *	No	No
3	Does there any National park located within 10 km from project location? *	No	No
4	Does there any Wildlife sanctuary located within 10 km distance from project location? *	No	No
5	Does there any ESZ available within 10 km distance from project location? *	No	No
6	Whether Proposed project comes under prohibited category of ESZ (Yes or No)? *	No	No

Division: DFO Bokaro

Letter No. 3546

Date of issue 21/12/2021

Signature

Name

Divisional Forest Officer  
Bokaro Forest Division  
Bokaro  
Divisional Forest Officer

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.



11/28/21, 5:06 PM

Inspection Report of Distance from Forest, Forest Reserve and Sanctuary



**Department of Forest, Environment and Climate Change**

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

Name Of Applicant: Dalmia Cement Bhagal Limited  
 Institution Type: Non Governmental

Email ID: aishu.rajeevkumar@dalmiacement.com Contact no.: 9771478296

Location of Proposed Land

District: Bokaro

Battery Point: center

Thana No.: 14

Thana Name: Jerridih

Khata No.: 134,76,177,46,45,171,47,145,78,65,135,72

Khesra Name: 892 (F),781 (P),777 (F),784 (P),779 (P),778 (P),782 (P),783 (P),897 (P),890 (P),888 (P),880 (P),852 (P),891 (F),960(P),850(P),893 (P),851 (P),858 (P),871 (F),957 (P),870 (P),958 (F),884 (F),885 (F),886 (F),776 (P),883 (F),882 (F),875 (F),862 (F),876 (F),881 (P),879 (F),878 (P),874 (F),863 (F),866 (P),873 (P),864 (F),868 (P),861 (F),867 (P),865 (F)

#	Checkpoint	Range Forest Officer	Divisional Forest Officer
1	Whether Distance of Project location from Reserved Forest/Protected Forest is 250 m? *	No	No
2	Whether Project location come under No Mining Zone? *	No	No
3	Does there any National park located within 10 km from project location? *	No	No
4	Does there any Wildlife sanctuary located within 10 km distance from project location? *	No	No
5	Does there any ESZ available within 10 km distance from project location? *	No	No
6	Whether Proposed project comes under prohibited category of ESZ (Yes or No)? *	Yes	Yes

**बिबिध-1 एवं 2-** भूमि की प्रकृति एवं वनभूमि से दूरी संबंधित जांचित सूचना वन प्रबंधन पर्यावरण, बोकारो वन प्रमण्डल के कार्यालय से प्राप्त करें।

**बिबिध-3 से 6-** जो संदर्भ में प्रतिबंधित करना है कि प्रस्तावित परियोजना हेतु आवेदित स्थल Battery Point (23.6961985N 86.0644832E) से निकटतम संरक्षित क्षेत्र (Protected Area) कोयलाखेदी वन्यप्राणी आश्रयणी अवस्थित है, तथा वन पर्यावरण एवं जलवायु परिवर्तन मंत्रालय भारत सरकार द्वारा भारतवर्ष एवं कोयलाखेदी वन्यप्राणी आश्रयणी के अधिस्थित ESZ के सीमा से बाहर अवस्थित है।

**Note-** उपरोक्त सूचना आवेदक द्वारा सम्पन्न अजिलेख एवं GPS Point भारत सरकार द्वारा प्रस्तावित ESZ के अतिरिक्त तथा आवेदित स्थल से निकटतम संरक्षित क्षेत्र (Protected Area) के अकार पर भी गयी है।

Division: BFO Wildlife Hazaribagh  
 Letter No. 2058  
 Date of issue 29/11/2021  
 Signature: [Signature]  
 Name: [Name]  
 Divisional Forest Officer  
 Wildlife Division, Hazaribagh

[Signature]  
 वन प्रबंधन पर्यावरण, बोकारो  
 वन प्रबंधन पर्यावरण, बोकारो

## Annexure-III

**CTE obtained from JSPCB, 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 Pollution) Act, 1974 and under section 21 of the Air (Prevention & Control of Pollution) Act, 1981**

1. Reference: Application (s) No.- 15399804 / dated : 31/01/2023 of Bokaro Cement Manufacturing Works (A Unit of DCHL ), 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/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 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.

(e) The content of certificate of DFO, vide ref. no. 2058, dated 28.11.2021.

(f) The content of undertaking regarding procurement of raw material from valid sources.

(g) The content of investment figure certified by CA.

3. 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 Muuza- Gorabali, P.S.-Bokaro, District-BOKARO as follows:

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

**(A) Specific Conditions:**

1. That, the occupier shall make Work area and transport roads and approach road off the main road concrete/ black top.
2. That, the occupier shall install fixed type water sprinklers to cover all dusty places in the premises to impart water spraying intermittently.
3. 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.
4. 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).
5. 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.
6. 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.
8. 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.
11. That, the occupier shall dispose the hazardous waste as per applicable norms and shall obtain authorization under HoWM Rules' 2016.
12. That, the occupier shall adhere to ZLD.
13. That, the occupier shall develop 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.

4. 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.
5. 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.



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

This is issued with the approval of the competent authority

Yatindra  
Kumar Das

Digitally signed by  
Yatindra Kumar  
Das  
Date: 2023.02.23  
10:31:56 +05'30'

**(Yatindra Kumar Das)**  
**Member Secretary**

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

Dated : 2023-02-23

**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.

Yatindra  
Kumar  
Das

Digitally signed  
by Yatindra  
Kumar Das  
Date: 2023.02.23  
10:31:57 +05'30'

**(Yatindra Kumar Das)**  
**Member Secretary**

## Annexure-IV

**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. JSPCB/HO/RNC/CTO-17957569/2024/283

Dated : 2024-02-24

**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**

1. 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:**

(a) 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, valid 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 lease 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.

3. 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 -Gorabali , P S -Bokaro , District -BOKARO , as follows:

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

Before Expansion	As per EC	As per EC	576.04 Lacs [as per investment figure certified by CA]	Cement- 3.1 MTPA, DG set - 2x500=1000 KVA (as per CTO)	31/03/2029
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**(A) Specific Conditions:**

1. That, the occupier shall make Work area and transport roads and approach road off the main road concrete/ black top.
2. That, the occupier shall install fixed type water sprinklers to cover all dusty places in the premises to impart water spraying intermittently.
3. 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.
4. 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).
5. 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.
6. 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.
10. 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.

13. 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.

21. 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.

23. 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:



S N	Pollutant	Time Weighted Average	Concentration in Ambient Air	
			Industrial, Residential, Rural and Other Area	Ecologically Sensitive Area (notified by Central Govt.)
(1)	(2)	(3)	(4)	(5)
1.	Sulphur Dioxide (SO <sub>2</sub> ), µg/m <sup>3</sup>	Annual 24 hours	50 80	20 80
2.	Nitrogen Dioxide (NO <sub>2</sub> ), µg/m <sup>3</sup>	Annual 24 hours	40 80	30 80
3.	Particulate Matter (size less than 10 µm) or PM <sub>10</sub> , µg/m <sup>3</sup>	Annual 24 hours	60 100	60 100
4.	Particulate Matter (size less than 2.5 µm) or PM <sub>2.5</sub> , µg/m <sup>3</sup>	Annual 24 hours	40 60	40 60
5.	Ozone(O <sub>3</sub> ), µg/m <sup>3</sup>	8 hours 1 hour	100 180	100 180
6.	Lead (Pb) µg/m <sup>3</sup>	Annual 24 hours	0.50 1.0	0.50 1.0
7.	Carbon Monoxide (CO) mg/m <sup>3</sup>	8 hours 1 hour	02 04	02 04
8.	Ammonia (NH <sub>3</sub> ) µg/m <sup>3</sup>	Annual 24 hours	100 400	100 400
9.	Benzene (C <sub>6</sub> H <sub>6</sub> ) µg/m <sup>3</sup>	Annual	05	05
10.	Benzo(a) Pyrene(BaP) Particulate Phase only ng/m <sup>3</sup>	Annual	01	01
11.	Arsenic (As) ng/m <sup>3</sup>	Annual	06	06
12.	Nickel (Ni) ng/m <sup>3</sup>	Annual	20	20
<p><b>Note :</b> Serial no. 1 to 4 – Mandatory Serial no. 5 to 12 As applicable for specific type of industry.</p>				

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

S N	Parameter	Standard
1	Particulate Matter	150 mg/Nm <sup>3</sup>

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

S N	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:

S N	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(s) 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.

- (10) That, this CTO 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.
- (11) That, this CTO 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.
- (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.
4. 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.
5. 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.
6. 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.

This is issued with the approval of the Competent authority

**Yatindra Kumar Das**  
Digitally signed by  
Yatindra Kumar  
Das  
Date: 2024.02.24  
18:36:43 +05'30'  
(Yatindra Kumar Das)  
Member Secretary

Memo No. : JSPCB/HO/RNC/CTO-  
17957569/2024/283

Dated : 2024-02-24

**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.

**Yatindra Kumar Das**  
Digitally signed  
by Yatindra Kumar Das  
Kumar Das Member Secretary  
Date: 2024.02.24  
18:36:59 +05'30'

Water permission letter from JIADA

झारखण्ड औद्योगिक क्षेत्र विकास प्राधिकरण  
बोकारो प्रखेत्र, बियाडा भवन, बालीडीह, बीएसएसटी-14.  
email - mdbiadabokaro@gmail.com

पत्रांक : \_\_\_\_\_ दिनांक : \_\_\_\_\_  
सेवा में \_\_\_\_\_

अवर प्रमण्डल पदाधिकारी,  
पेय जल एवं स्वच्छता अवर प्रमण्डल  
चास,  
बोकारो स्टील सिटी ।

विषय- इकाई के जलापूर्ति के संबंध में।


महशय,

उपर्युक्त विषय	आपका	दिनांक
आलोक में इकाई सर्वश्री डालमिया सीमेंट (भारत) क्षेत्र, बीएसएसटी-14 के 1.50 (एक लाख पचास हजार) लीटर प्रति दिन जल की ।	संख्या-	आपूर्ति

विश्वासभाजन,  
क्षेत्रीय निदेशक  
जियाडा, बोकारो प्र

ज्ञापक : \_\_\_\_\_ संख्या- \_\_\_\_\_  
प्रतिलिपि : सर्वश्री डालमिया सीमेंट (भारत)  
औद्योगिक क्षेत्र, बीएसएसटी-14 को सूचनार्थ प्रेषित ।

क्षेत्रीय निदेशक  
जियाडा, बोकारो प्र



**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, Bokaro

Sub: Regarding Water Connection for M/S Dalmia cement (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 1<sup>st</sup> unit, out of which approx 2.0 – 2.5 lakhs litre water per day is being taken by Dalmia cement to meet the requirement of their 1<sup>st</sup> unit. M/S Dalmia cement (Bharat) Ltd already have approx 3.0 lakhs litre water allocated as surplus (extra). M/S Dalmia cement (Bharat) Ltd can meet the another 1.50 Lakhs litre water per day for their 2<sup>nd</sup> unit from the existing water agreement. This is for your information and necessary action.

Thanking You

*P. Mohan*  
13/4/22  
Sub-Divisional Officer  
DWS Sub-Division, Bokaro  
Sub-Division, Bokaro

Bokaro/Date 13/4/22

Memo No. 36

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

*P. Mohan*  
13/4/22  
Sub-Divisional Officer  
DWS Sub-Division, Bokaro  
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**

1. No. of authorization and date of issue: JSPCB/HO/RNC/HWM-16948442/2024/14 04/03/2024
2. Reference of application(No. and date): 16948442 19/10/2023
3. Bokaro Cement Manufacturing Works (A Unit of DCEI, ) 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/annum)
1	Cat-I; 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:**

1. The authorised person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.
2. The authorisation or its renewal shall be produced for inspection at the request of an officer authorised by the State Pollution Control Board.
3. 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.
6. 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"
7. It is the duty of the authorised person to take prior permission of the State Pollution Control Board to close down the facility.
8. 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.
11. 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 ending 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 CPCB.
4. That, the occupier shall comply with all the conditions laid down in this authorization.
5. 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 wise utilization 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.

Yatindra  
Kumar Das

Digitally signed  
by Yatindra  
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.**

Yatindra  
Kumar Das

Digitally signed by  
Yatindra Kumar  
Das  
Date: 2024.03.04  
10:25:39 +05'30'

Y. K. Das  
Member Secretary

## Bokaro Cement Manufacturing Works (Unit of DCBL)

### Stack emission monitoring report

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

<b>Manual Stack emission monitoring report VRM Bag House Stack</b>			
<b>Month</b>	<b>Min.</b>	<b>Max.</b>	<b>Avg.</b>
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
<b>Min.</b>	<b>3.3</b>	<b>5.9</b>	<b>4.6</b>
<b>Max.</b>	<b>6.8</b>	<b>14.6</b>	<b>10.1</b>
<b>Avg.</b>	<b>4.7</b>	<b>9.5</b>	<b>7.1</b>

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

<b>On Line CEMS monitoring report of VRM Bag House Stack</b>			
<b>Month</b>	<b>Min.</b>	<b>Max.</b>	<b>Avg.</b>
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
<b>Min.</b>	<b>2.9</b>	<b>5.2</b>	<b>4.2</b>
<b>Max.</b>	<b>6.4</b>	<b>13.4</b>	<b>8.1</b>
<b>Avg.</b>	<b>4.0</b>	<b>7.8</b>	<b>5.9</b>

<b>JSPCB Norms</b>	<b>30 mg/Nm<sup>3</sup></b>
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# Institute for Environmental Management



## Test Report

ULR No.:	T	C	1	1	5	1	5	2	4	0	0	0	0	1	4	6	8
Discipline: Chemical			Group: Atmospheric Pollution						Sub-Group: Stack Emission								
Report Issue Date: 27-09-2024									Test Report No.: RN-23091600151								
Sample ID: 240924AP07001									Sample Description: Stack Emission								
Challan No./P.O. No.: 4548032900/237									Challan No./ P.No. Date: 23-09-2023								
Issued to: Bokaro Cement Manufacturing Works, Unit of Dalmia Cement (Bharat) Limited Plot No IV/A-7(P/4), Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India																	
Type of Industry: Cement									Customer Representative: Sanjeev Verma								
Sample Drawn by: IEM Team									Sampling Date: 24-09-2024								
Protocol: CPCB Guideline (LATS/80/2013-14) & IS Method 11255 Series																	
Field Meteorological Information			A. Temp. (°C): 28			R.H. (%): 69			W.C.: Partly Sunny			W.D.: SE to NW					
Sample Receiving date: 24-09-2024						Testing Started: 24-09-2024						Testing Ended: 27-09-2024					

### General Physical Information

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 (Nm <sup>3</sup> /hr): 488770.1	

### Test Result

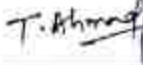

Sl. NO.	Parameters	Test Methods	Unit	Result	Limits
1.	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm <sup>3</sup>	11.4	30.0
Dust			Kg/hr	5.57	

### —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 156:1966(1C).
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: Rajiv Kumar Singh & Team

Specific Contractual Notes:- 1. The laboratory accepts responsibility for content of this report. 2. This report shall not be reproduced except in full, without written approval of the MD. 3. This report is intended for only guidance and not for legal purpose or for advertisement. 4. Any complaint about this report should be communicated in writing within 7 days of its issue. 5. Total liability of Institute for Environmental Management will be limited to invoiced amount only. 6. In case of feedback/complaints, please send an email at <a href="mailto:em.rajiv@gmail.com">em.rajiv@gmail.com</a>	Reviewed by	Authorized Signatory
	 (Tauqeer Ahmad) Technical Manager	 (Dr. S. C. Jain) Director
On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.		

Page 1 of 1

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

Laboratory Site - ILNo. - A-13, Saket Vihar, Near Seheai Bhawan, Harmu Housing Colony, Ranchi-834002, Jharkhand, India

Ph - 8407804253, 8407804251, Email - [iem2012@rediffmail.com](mailto:iem2012@rediffmail.com)



## 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 $\mu\text{g}/\text{m}^3$	Near Cement Silo $\mu\text{g}/\text{m}^3$	Near Packing plant $\mu\text{g}/\text{m}^3$	Near Clinker Silo $\mu\text{g}/\text{m}^3$
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
	<b>Min.</b>	<b>518.7</b>	<b>598.5</b>	<b>557.6</b>	<b>447.5</b>
	<b>Max.</b>	<b>827.5</b>	<b>904.7</b>	<b>839.5</b>	<b>713.3</b>
	<b>Avg.</b>	<b>696.3</b>	<b>750.8</b>	<b>680.6</b>	<b>591.8</b>

# Fugitive Emission monitoring report



## Institute for Environmental Management

Accredited by: Jharkhand State Pollution Control Board, JSPCB & MoEFCC



### Test Report

<b>Discipline:</b> Chemical		<b>Group:</b> Atmospheric Pollution		<b>Sub-Group:</b> Work Environment & Indoor Air	
<b>Report Issue Date:</b> 27-09-2024			<b>Test Report No.:</b> RN-230916001FED1		
<b>Sample ID:</b> 240924AP08001			<b>Sample Description:</b> Fugitive Emission		
<b>Challan No./P.O. No.:</b> 4548032900/237			<b>Challan No./P.No. Date:</b> 23-09-2023		
<b>Issued to:</b> Bokaro Cement Manufacturing Works, Unit of Dalmia Cement (Bharat) Limited Plot No IV/A-7(P/4), Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India					
<b>Type of Industry:</b> Cement			<b>Customer Representative:</b> Sanjeev Verma		
<b>Sample Drawn by:</b> IEM Team			<b>Sampling Date:</b> 24-09-2024		
<b>Protocol:</b> CPCB Guideline(NAAQMS/36/2012-13) & IS Method 5182 Series					
<b>Sampling Location:</b> Packing Plant					
<b>Field Meteorological Information</b>		<b>A. Temp. (°C):</b> 28	<b>R.H. (%):</b> 69	<b>W.C.:</b> Partly Sunny	<b>W.D.:</b> SE to NW
<b>Sample Receiving date:</b> 24-09-2024		<b>Testing Started:</b> 24-09-2024		<b>Testing Ended:</b> 27-09-2024	

---Test Results---

Sl. No.	Parameters	Test Method No.	Unit	Limit	Results
1.	Suspended Particulate Matter (SPM)	IS 5182 Part - 04	µg/m <sup>3</sup>	2000	698.7

---End of Report---

<b>Env. Condition of Lab.</b>	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 195:1966(C).
<b>Abbreviation</b>	MDL: Minimum Detection Limit, BDL: Below Detection Limit
<b>Limit is Specified</b>	As Per Factories Act, 1948 (8 hrs. Basis)
<b>Remark</b>	Sample Comply With the Prescribed Specification.

**Tested By:** Akanksha Sourabh

**Sample Drawn By:** Rajiv Kumar Singh & Team

<b>Specific Contractual Notes:-</b> 1. The laboratory accepts responsibility for content of this report. 2. This report shall not be reproduced except in full, without written approval of the IEM. 3. This report is intended for only guidance and not for legal purpose or for advertisement. 4. Any complaint about this report should be communicated in writing within 7 days of its issue. 5. Total liability of institute for Environmental Management will be limited to two cost amount only. 6. In case of feedback/complaints, please send an email at <a href="mailto:info@iem.org">info@iem.org</a> .	Reviewed by: _____ Authorized Signatory
	(Tauqeer Ahmad)
	(Dr. S. C. Jain)
On the basis of Quality Checked and Technical data verified by the Authorized signatory, this report is issued by the Director of the Organization.	Technical Manager                      Director

Page 1 of 1

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

Laboratory Site - H.No. - A-13, Saket Vihar, Near Sohrai Bhowan, Harnu Housing Colony,  
Ranchi-834002, Jharkhand, India

Ph - 8407804254, 8407804251, Email - [iem2012@rediffmail.com](mailto:iem2012@rediffmail.com)



# Institute for Environmental Management

Accredited by Jharkhand State Pollution Control Board, JSPCB & MoEFCC



## Test Report

<b>Discipline:</b> Chemical	<b>Group:</b> Atmospheric Pollution	<b>Sub-Group:</b> Work Environment & Indoor Air	
<b>Report Issue Date:</b> 27-09-2024	<b>Test Report No.:</b> RN-230916001FE02		
<b>Sample ID:</b> 240924AP08002	<b>Sample Description:</b> Fugitive Emission		
<b>Challan No./P.O. No.:</b> 4548032900/237	<b>Challan No./ P.No. Date:</b> 23-09-2023		
<b>Issued to:</b> Bokaro Cement Manufacturing Works, Unit of Dalmia Cement (Bharat) Limited Plot No IV/A-7(P/4), Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India			
<b>Type of Industry:</b> Cement		<b>Customer Representative:</b> Sanjeev Verma	
<b>Sample Drawn by:</b> IEM Team		<b>Sampling Date:</b> 24-09-2024	
<b>Protocol:</b> CPCB Guideline(NAAQMS/36/2012-13) & IS Method 5182 Series			
<b>Sampling Location:</b> Raw Material Yard			
<b>Field Meteorological Information</b>	<b>A. Temp. (°C):</b> 28	<b>R.H. (%):</b> 69	<b>W.C.:</b> Partly Sunny
			<b>W.D.:</b> SE to NW
<b>Sample Receiving date:</b> 24-09-2024	<b>Testing Started:</b> 24-09-2024	<b>Testing Ended:</b> 27-09-2024	

### ---Test Results---

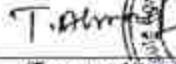

Sl. No.	Parameters	Test Method No.	Unit	Limit	Results
1	Suspended Particulate Matter (SPM)	IS 5182 Part - 04	µg/m <sup>3</sup>	2000	760.7

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

<b>Env. Condition of Lab.</b>	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1966(C).
<b>Abbreviation</b>	MDL- Minimum Detection Limit, BOL- Below Detection Limit
<b>Limit is Specified</b>	As Per Factories Act, 1948.(8 hrs. Basis)
<b>Remark</b>	Sample Comply With the Prescribed Specification.

Tested By: Akanksha Sourabh

Sample Drawn By: Rajiv Kumar Singh & Team

<b>Specific Contractual Notes -</b> 1. The laboratory accepts responsibility for content of this report. 2. This report shall not be reproduced except in full, without written approval of the MD. 3. This report is intended for only guidance and not for legal purpose or for advertisement. 4. Any complaint about this report should be communicated in writing within 7 days of its issue. 5. Total liability of Institute for Environmental Management will be limited to invoiced amount only. 6. In case of feedback/ complaints, please send an email at <a href="mailto:gm@iem2012@gmail.com">gm@iem2012@gmail.com</a>	Reviewed by	Authorized Signatory
	 (Tauqueer Akram) Technical Manager	 (Dr. S. C. Jain) Director
On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.		

Page 1 of 1

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

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

Ph - 8407804254, 8407804251, Email - [iem2012@rediffmail.com](mailto:iem2012@rediffmail.com)



# Institute for Environmental Management

Accredited by Jharkhand State Pollution Control Board, JSPCB & MoEFCC



## Test Report

<b>Discipline:</b> Chemical	<b>Group:</b> Atmospheric Pollution	<b>Sub-Group:</b> Work Environment & Indoor Air	
<b>Report Issue Date:</b> 27-09-2024	<b>Test Report No.:</b> RN-230916001FE03		
<b>Sample ID:</b> 240924AP08003	<b>Sample Description:</b> Fugitive Emission		
<b>Challan No./P.O. No.:</b> 4548032900/237	<b>Challan No./ P.No. Date:</b> 23-09-2023		
<b>Issued to:</b> Bokaro Cement Manufacturing Works, Unit of Dalmia Cement (Bharat) Limited Plot No IV/A-7(P/4), Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India			
<b>Type of Industry:</b> Cement		<b>Customer Representative:</b> Sanjeev Verma	
<b>Sample Drawn by:</b> IEM Team		<b>Sampling Date:</b> 24-09-2024	
<b>Protocol:</b> CPCB Guideline(NAAQMS/36/2012-13) & IS Method 5182 Series			
<b>Sampling Location:</b> Mill Area			
<b>Field Meteorological Information</b>			
<b>A. Temp. (°C):</b> 28	<b>R.H. (%):</b> 69	<b>W.C.:</b> Partly Sunny	<b>W.D.:</b> SE to NW
<b>Sample Receiving date:</b> 24-09-2024	<b>Testing Started:</b> 24-09-2024	<b>Testing Ended:</b> 27-09-2024	

### ---Test Results---

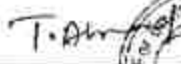

Sl. No.	Parameters	Test Method No.	Unit	Limit	Results
1.	Suspended Particulate Matter (SPM)	IS 5182 Part - 04	µg/m <sup>3</sup>	2000	612.6

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

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

Tested By: Akanksha Sourabh

Sample Drawn By: Rajiv Kumar Singh & Team

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	 (Tauqeer Ahmad) Technical Manager	 Dr. S. C. Jain Director

Page 1 of 1

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

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Ph - 8407804254, 8407804251, Email - [iem2012@rediffmail.com](mailto:iem2012@rediffmail.com)

### 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				
	SO <sub>2</sub>	NO <sub>x</sub>	PM-10	PM-2.5
	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>
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
<b>Min</b>	<b>4.30</b>	<b>8.98</b>	<b>34.60</b>	<b>18.38</b>
<b>Max</b>	<b>12.55</b>	<b>22.22</b>	<b>65.02</b>	<b>59.33</b>
<b>Avg</b>	<b>7.92</b>	<b>15.44</b>	<b>50.48</b>	<b>35.21</b>



# 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	1	5	1	5	2	4	0	0	0	0	0	1	4	6	0
Discipline: Chemical	Group: Atmospheric Pollution										Sub-Group: Ambient Air							
Report Issue Date: 27-09-2024	Test Report No.: RN-230916001A1																	
Sample ID: 240924AP05001	Sample Description: Ambient Air																	
Challan No./P.O. No.: 4548032900/237	Challan No./ P.No. Date: 23-09-2023																	
Issued to: <b>Bokaro Cement Manufacturing Works, Unit of Dalmia Cement (Bharat) Limited Plot No IV/A-7(P)4, Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India</b>																		
Type of Industry: Cement										Customer Representative: Sanjeev Verma								
Sample Drawn by: IEM Team										Sampling Date: 23-09-2024 to 24-09-2024								
Protocol: CPCB Guideline(NAAQMS/36/2012-13) & IS Method 5182 Series																		
Sampling Location: Gorabali Near Temple																		
Field Meteorological Information			A. Temp. (°C): 26			R.H. (%): 68			W.C.: Semi-Cloudy			W.D.: NE - SW						
Sample Receiving date: 24-09-2024					Testing Started: 24-09-2024					Testing Ended: 27-09-2024								

### ---Test Results---

Sl. 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/m <sup>3</sup>	100	52.0
2.	Particulate Matter (PM <sub>2.5</sub> )	IS 5182 Part 24-2019	ug/m <sup>3</sup>	60	25.7
3.	Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 Part-02	ug/m <sup>3</sup>	80	13.5
4.	Nitrogen Dioxide (NO <sub>2</sub> )	IS 5182 Part-06	ug/m <sup>3</sup>	80	26.4
5.	Ammonia (NH <sub>3</sub> )	IS 5162 Part 25	ug/m <sup>3</sup>	400	18.3
6.	Ozone (O <sub>3</sub> )	IS 5182 Part 09	ug/m <sup>3</sup>	100	20.1
7.	Arsenic (as As)	USEPA I.O. 3.2	ng/m <sup>3</sup>	---	BDL (MDL-02)
8.	Lead (as Pb)	IS 5162 Part 22	ug/m <sup>3</sup>	1.0	0.02
9.	Nickel (as Ni)	IS 5162 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: Akanksha Sourabh

Sample Drawn By: Rajiv Kumar Singh & Team

<b>Specific Contractual Notes -</b> 1. The laboratory accepts responsibility for content of this report. 2. This report shall not be reproduced except in full, without written approval of the MD. 3. This report is intended for only guidance and not for legal purpose or for advertisement. 4. Any complaint about this report should be communicated in writing within 7 days of its issue. 5. Total liability of Institute for Environmental Management will be limited to avoided amount only. 6. In case of feedback/ complaints, please send an email at <a href="mailto:icem@icemodl.com">icem@icemodl.com</a> . On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.	Reviewed by	Authorized Signatory
	(T. Ahmad) Technical Manager	(Dr. S. C. Jain) Director

Page 1 of 2

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

Laboratory Site - E.No. - A-13, Saket Vihar, Near Sohrai Bihawan, Harmu Housing Colony, Ranchi-834002, Jharkhand, India

Ph - 8407804233, 8407804251, Email - [icem2012@rediffmail.com](mailto:icem2012@rediffmail.com)



# Institute for Environmental Management



## Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Ambient Air
Report Issue Date: 27-09-2024	Test Report No.: RN-230916001A1	
Sample ID: 240924AP05001	Sample Description: Ambient Air	
Challan No./P.O. No.: 4548032900/237	Challan No./ P.No. Date: 23-09-2023	
Issued to: Bokaro Cement Manufacturing Works, Unit of Dalmia Cement (Bharat) Limited Plot No IV/A-7(P)4, Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India		
Type of Industry: Cement	Customer Representative: Sanjeev Verma	
Sample Drawn by: IEM Team	Sampling Date: 23-09-2024 to 24-09-2024	
Protocol: CPCB Guideline(NAAQMS/36/2012-13) & IS Method 5182 Series		
Sampling Location: Goraball Near Temple		
Field Meteorological Information	A. Temp. (°C): 26	R.H. (%): 68
	W.C.: Semi-Cloudy	W.D.: NE - SW
Sample Receiving date: 24-09-2024	Testing Started: 24-09-2024	Testing Ended: 27-09-2024

### ---Test Results---

Sl. 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/m <sup>3</sup>	---	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/m <sup>3</sup>	---	BDL (MDL- 0.05)

### ----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
Norms** is Specified	National Ambient Air Quality Standards (NAAQS), 2009.
Remark	Sample Comply with prescribed specification.

Tested By: Akanksha Sourabh

Sample Drawn By: Rajju Kumar Singh & Team

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- In case of feedback/complaints, please send an email at [iem@rediffmail.com](mailto:iem@rediffmail.com)

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

Reviewed by	Authorized Signatory
(Tauqeer Ahmad)	(Dr. S. C. Jain)
Technical Manager	Director

Page 2 of 2

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

Ph - 8407804253, 8407804251, Email - [iem2012@rediffmail.com](mailto:iem2012@rediffmail.com)



# Institute for Environmental Management



## Test Report

ULR No.:	T	C	1	1	5	1	5	2	4	0	0	0	0	1	4	6	1
Discipline: Chemical	Group: Atmospheric Pollution						Sub-Group: Ambient Air										
Report Issue Date: 27-09-2024	Test Report No.: RN-230916001A2																
Sample ID: 240924AP05002	Sample Description: Ambient Air																
Challan No./P.O. No.: 4548032900/237	Challan No./ P.No. Date: 23-09-2023																
Issued to: Bokaro Cement Manufacturing Works, Unit of Dalmia Cement (Bharat) Limited Plot No IV/A-7(P)4, Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India																	
Type of Industry: Cement									Customer Representative: Sanjeev Verma								
Sample Drawn by: IEM Team									Sampling Date: 23-09-2024 to 24-09-2024								
Protocol: CPCB Guideline(NAAQMS/36/2012-13) & IS Method 5182 Series																	
Sampling Location: Near Thekurtand Village																	
Field Meteorological Information			A. Temp. (°C): 26			R.H. (%): 68			W.C.: Semi-Cloudy			W.D.: NE - SW					
Sample Receiving date: 24-09-2024						Testing Started: 24-09-2024						Testing Ended: 27-09-2024					

### ---Test Results---

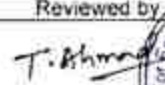
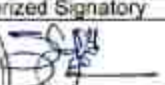

Sl. No.	Parameters	Test Method No.	Unit	Norms as per NAAQS - 2009	Results
1.	Particulate Matter (PM <sub>10</sub> )	IS 5182 Part 23:2006	µg/m <sup>3</sup>	100	51.2
2.	Particulate Matter (PM <sub>2.5</sub> )	IS 5182 Part 24:2019	µg/m <sup>3</sup>	60	24.4
3.	Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 Part-02	µg/m <sup>3</sup>	80	16.3
4.	Nitrogen Dioxide (NO <sub>2</sub> )	IS 5182 Part-06	µg/m <sup>3</sup>	80	26.0
5.	Ammonia (NH <sub>3</sub> )	IS 5182 Part 25	µg/m <sup>3</sup>	400	17.5
6.	Ozone (O <sub>3</sub> )	IS 5182 Part 09	µg/m <sup>3</sup>	100	16.4
7.	Arsenic (as As)	USEPA I.O. 3.2	ng/m <sup>3</sup>	---	BDL (MDL-2)
8.	Lead (as Pb)	IS 5182 Part 22	µg/m <sup>3</sup>	1.0	0.02
9.	Nickel (as Ni)	IS 5182 Part 26	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: Akanksha Sourabh

Sample Drawn By: Rajiv Kumar Singh & Team

<b>Specific Contractual Notes:</b> 1. The laboratory accepts responsibility for content of this report. 2. This report shall not be reproduced except in full, without written approval of the MD. 3. This report is intended for only guidance and not for legal purpose or for advertisement. 4. Any complaint about this report should be communicated in writing within 7 days of its issue. 5. Total liability of Institute for Environmental Management will be limited to invoiced amount only. 6. In case of feedback/complaints, please send an email at gm.enr@iem2012.com	Reviewed by  (Taujeer Ahnrad)	Authorized Signatory  (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 Organization.	Technical Manager 

Page 1 of 2

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

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

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





# Institute for Environmental Management



## Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Ambient Air
Report Issue Date: 27-09-2024	Test Report No.: RN-230916001A2	
Sample ID: 240924AP05002	Sample Description: Ambient Air	
Challan No./P.O. No.: 4548032900/237	Challan No./ P.No. Date: 23-09-2023	
Issued to: Bokaro Cement Manufacturing Works, Unit of Dalmia Cement (Bharat) Limited Plot No IV/A-7(P)4, Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India		
Type of Industry: Cement	Customer Representative: Sanjeev Verma	
Sample Drawn by: IEM Team	Sampling Date: 23-09-2024 to 24-09-2024	
Protocol: CPCB Guideline(NAAQMS/36/2012-13) & IS Method 5182 Series		
Sampling Location: Near Thakurtand Village		
Field Meteorological Information	A. Temp. (°C): 26	R.H. (%): 68
	W.C.: Semi-Cloudy	W.D.: NE - SW
Sample Receiving date: 24-09-2024	Testing Started: 24-09-2024	Testing Ended: 27-09-2024

### ---Test Results---

Sl. 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/m <sup>3</sup>	---	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/m <sup>3</sup>	---	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	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 Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.

Reviewed by

Authorized Signatory

T. Ahmad

(Dr. S/C Jain)

(Tauqeer Ahmad)

(Dr. S/C Jain)

Technical Manager

Director

Page 2 of 2

Laboratory Site - H.No. - A-13, Saket Vihar, Near Sohrai Bhawan, Harmu Housing Colony,  
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Ph - 8407804203, 8407804201, Email - [iem2012@rediffmail.com](mailto:iem2012@rediffmail.com)



# Institute for Environmental Management



## Test Report

ULR No.:	T	C	1	1	5	1	5	2	4	0	0	0	0	1	4	6	2
Discipline: Chemical	Group: Atmospheric Pollution						Sub-Group: Ambient Air										
Report Issue Date: 27-09-2024	Test Report No.: RN-230916001A3																
Sample ID: 240924AP05003	Sample Description: Ambient Air																
Challan No./P.O. No.: 4548032900/237	Challan No./ P.No. Date: 23-09-2023																
Issued to: Bokaro Cement Manufacturing Works, Unit of Dalmia Cement (Bharat) Limited Plot No IV/A-7(P)4, Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India																	
Type of Industry: Cement									Customer Representative: Sanjeev Verma								
Sample Drawn by: IEM Team									Sampling Date: 23-09-2024 to 24-09-2024								
Protocol: CPCB Guideline(NAAQMS/36/2012-13) & IS Method 5182 Series																	
Sampling Location: Khutri Village																	
Field Meteorological Information			A. Temp. (°C): 26			R.H. (%): 68			W.C.: Semi-Cloudy			W.D.: NE - SW					
Sample Receiving date: 24-09-2024						Testing Started: 24-09-2024						Testing Ended: 27-09-2024					

### ---Test Results---

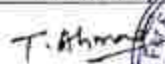

Sl. No.	Parameters	Test Method No.	Unit	Norms as per NAAQS - 2009	Results
1.	Particulate Matter (PM <sub>10</sub> )	IS 5182 Part 23 2008	µg/m <sup>3</sup>	100	57.1
2.	Particulate Matter (PM <sub>2.5</sub> )	IS 5182 Part 24 2019	µg/m <sup>3</sup>	60	31.9
3.	Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 Part-02	µg/m <sup>3</sup>	80	12.7
4.	Nitrogen Dioxide (NO <sub>2</sub> )	IS 5182 Part-06	µg/m <sup>3</sup>	80	28.8
5.	Ammonia (NH <sub>3</sub> )	IS 5182 Part 25	µg/m <sup>3</sup>	400	16.7
6.	Ozone (O <sub>3</sub> )	IS 5182 Part 09	µg/m <sup>3</sup>	100	14.3
7.	Arsenic (as As)	USEPA I.O. 3.2	ng/m <sup>3</sup>	----	BDL (MDL-2)
8.	Lead (as Pb)	IS 5182 Part 22	µg/m <sup>3</sup>	1.0	0.03
9.	Nickel (as Ni)	IS 5182 Part 26	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: Akanksha Sourabh

Sample Drawn By: Rajiv Kumar Singh & Team

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	 (T. Anand) Technical Manager	 (Dr. S. C. Jain) Director

Page 1 of 2

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

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

Ph - 8407804235, 8407804231, Email - [iem20123@rediffmail.com](mailto:iem20123@rediffmail.com)





## Test Report

<b>Discipline:</b> Chemical		<b>Group:</b> Atmospheric Pollution		<b>Sub-Group:</b> Ambient Air	
<b>Report Issue Date:</b> 27-09-2024			<b>Test Report No.:</b> RN-230916001A3		
<b>Sample ID:</b> 240924AP05003			<b>Sample Description:</b> Ambient Air		
<b>Challan No./P.O. No.:</b> 4546032900/237			<b>Challan No./ P.No. Date:</b> 23-09-2023		
<b>Issued to:</b> Bokaro Cement Manufacturing Works, Unit of Dalmia Cement (Bharat) Limited Plot No IV/A-7(P)4, Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India					
<b>Type of Industry:</b> Cement			<b>Customer Representative:</b> Sanjeev Verma		
<b>Sample Drawn by:</b> IEM Team			<b>Sampling Date:</b> 23-09-2024 to 24-09-2024		
<b>Protocol:</b> CPCB Guideline(NAAQMS/36/2012-13) & IS Method 5182 Series					
<b>Sampling Location:</b> Khutri Village					
<b>Field Meteorological Information</b>		<b>A. Temp. (°C):</b> 26	<b>R.H. (%):</b> 68	<b>W.C.:</b> Semi-Cloudy	<b>W.D.:</b> NE - SW
<b>Sample Receiving date:</b> 24-09-2024		<b>Testing Started:</b> 24-09-2024		<b>Testing Ended:</b> 27-09-2024	

---Test Results---

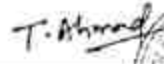

Sl. No.	Parameters	Test Method No.	Unit	Norms as per NAAQS - 2009	Results
10.	Benzo (a) Pyrene (BaP) Particulate phase only	IS 5182 Part 12	ng/m <sup>3</sup>	---	BDL (MDL-0.18)
11.	Carbon Monoxide (CO)	IEM/SOP/Air-01:2022	mg/m <sup>3</sup>	---	BDL(MDL-1.8)
12.	BENZENE (C <sub>6</sub> H <sub>6</sub> )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

---End of Report---

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

**Tested By:** Akanksha Sourabh

**Sample Drawn By:** Rajiv Kumar Singh & Team

<b>Specific Contractual Notes -</b> 1. The laboratory accepts responsibility for content of this report. 2. This report shall not be reproduced except in full, without written approval of the IEM. 3. This report is intended for only guidance and not for legal purpose or for advertisement. 4. Any complaint about this report should be communicated in writing within 7 days of its issue. 5. Total liability of Institute for Environmental Management will be limited to invoiced amount only. 6. In case of feedback/ complaints, please send an email at <a href="mailto:iem@iem2012@gmail.com">iem@iem2012@gmail.com</a> . On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.	<b>Reviewed by</b>  (Taufeer Ahmad)	<b>Authorized Signatory</b>  (Dr. S. C. Jain)
	<b>Technical Manager</b>	<b>Director</b>



# Institute for Environmental Management



## Test Report

ULR No.:	T	C	1	1	5	1	5	2	4	0	0	0	0	1	4	6	3
Discipline: Chemical	Group: Atmospheric Pollution						Sub-Group: Ambient Air										
Report Issue Date: 27-09-2024	Test Report No.: RN-230916001A4																
Sample ID: 240924AP05004	Sample Description: Ambient Air																
Challan No./P.O. No.: 4548032900/237	Challan No./ P.No. Date: 23-09-2023																
Issued to: Bokaro Cement Manufacturing Works, Unit of Dalmia Cement (Bharat) Limited Plot No IV/A-7(P)4, Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India																	
Type of Industry: Cement									Customer Representative: Sanjeev Verma								
Sample Drawn by: IEM Team									Sampling Date: 23-09-2024 to 24-09-2024								
Protocol: CPCB Guideline(NAAQMS/36/2012-13) & IS Method 5182 Series																	
Sampling Location: Near Project Office																	
Field Meteorological Information			A. Temp. (°C): 26			R.H. (%): 68			W.C.: Semi-Cloudy			W.D.: NE - SW					
Sample Receiving date: 24-09-2024				Testing Started: 24-09-2024				Testing Ended: 27-09-2024									

### ---Test Results---

Sl. 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/m <sup>3</sup>	100	56.2
2.	Particulate Matter (PM <sub>2.5</sub> )	IS 5182 Part 24:2019	µg/m <sup>3</sup>	60	24.3
3.	Sulphur Dioxide (SO <sub>2</sub> )	IS 5182 Part-02	µg/m <sup>3</sup>	80	11.6
4.	Nitrogen Dioxide (NO <sub>2</sub> )	IS 5182 Part-06	µg/m <sup>3</sup>	80	23.5
5.	Ammonia (NH <sub>3</sub> )	IS 5182 Part 25	µg/m <sup>3</sup>	400	31.7
6.	Ozone (O <sub>3</sub> )	IS 5182 Part 09	µg/m <sup>3</sup>	100	17.1
7.	Arsenic (as As)	USEPA I.O. 3.2	ng/m <sup>3</sup>	---	BDL (MDL-2)
8.	Lead (as Pb)	IS 5182 Part 22	µg/m <sup>3</sup>	1.0	0.04
9.	Nickel (as Ni)	IS 5182 Part 26	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: Akanksha Sourabh

Sample Drawn By: Rajiv Kumar Singh & Team

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	 (Tauqeer Ahmad) Technical Manager	 (Dr. S. C. Jain) Director
On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.		

Page 1 of 2

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

Laboratory Site - II.No. - A-13, Saker Vihar, Near Sohrai Bazar, Harma Housing Colony, Ranchi-834002, Jharkhand, India

Ph - 8407804253, 8407804231, Email - [iem2012@rediffmail.com](mailto:iem2012@rediffmail.com)



# Institute for Environmental Management



## Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Ambient Air
Report Issue Date: 27-09-2024	Test Report No.: RN-230916001A4	
Sample ID: 240924AP05004	Sample Description: Ambient Air	
Challan No./P.O. No.: 4548032900/237	Challan No./ P.No. Date: 23-09-2023	
Issued to: Bokaro Cement Manufacturing Works, Unit of Dalmia Cement (Bharat) Limited Plot No IV/A-7(P)4, Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India		
Type of Industry: Cement	Customer Representative: Sanjeev Verma	
Sample Drawn by: IEM Team	Sampling Date: 23-09-2024 to 24-09-2024	
Protocol: CPCB Guideline(NAAQMS/36/2012-13) & IS Method 5182 Series		
Sampling Location: Near Project Office		
Field Meteorological Information	A. Temp. (°C): 26	R.H. (%): 68
	W.C.: Semi-Cloudy	W.D.: NE - SW
Sample Receiving date: 24-09-2024	Testing Started: 24-09-2024	Testing Ended: 27-09-2024

### ---Test Results---

Sl. 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/m <sup>3</sup>	---	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/m <sup>3</sup>	---	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	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

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- In case of feedback/ complaints, please send an email at [iem@rcdoffmail.com](mailto:iem@rcdoffmail.com)

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

Reviewed by	Authorized Signatory
(T. Auqeer Ahmad)	(Dr. S. C. Jain)
Technical Manager	Director

Page 2 of 2

Laboratory Site - H.No. - A-13, Saket Vihar, Near Sobrai Bhawan, Harma Housing Colony,  
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Annexure-X**LIST OF POLLUTION CONTROL EQUIPMENTS (BAG FILTERS)**

<b>BOKARO CEMENT MANUFACTURING WORKS, (A unit of DALMIA CEMENT BHARAT LIMITED)</b>							
<b>LIST OF POLLUTION CONTROL EQUIPMENTS</b>							
<b>S. No.</b>	<b>Location</b>	<b>Description</b>	<b>Application</b>	<b>Design dust Emission (mg/Nm<sup>3</sup>)</b>	<b>Volume of bag filter (m<sup>3</sup>/h)</b>	<b>Fan Volume</b>	<b>Outlet dust Emission (mg/Nm<sup>3</sup>)</b>
<b>Bag House</b>							
1.	Cement Mill Venting	Bag House 563BF4	Cement	10	1030000	1150000	≤ 30
<b>LIST of Nuisance Dust Collectors</b>							
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	TT-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,  
(A unit of DALMIA CEMENT BHARAT LIMITED)**

**LIST OF POLLUTION CONTROL EQUIPMENTS**

S. No.	Location	Description	Application	Design dust Emission (mg/Nm <sup>3</sup> )	Volume of bag filter (m <sup>3</sup> /h)	Fan Volume	Outlet dust Emission (mg/Nm <sup>3</sup> )
		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



**BOKARO CEMENT MANUFACTURING WORKS,  
(A unit of DALMIA CEMENT BHARAT LIMITED)**

**LIST OF POLLUTION CONTROL EQUIPMENTS**

S. No.	Location	Description	Application	Design dust Emission (mg/Nm <sup>3</sup> )	Volume of bag filter (m <sup>3</sup> /h)	Fan Volume	Outlet dust Emission (mg/Nm <sup>3</sup> )
31	647BF2	Packing Plant	Cement	10	35000	40250	≤ 30



**Compliance of CREP Conditions****BOKARO CEMENT MANUFACTURING WORKS**

<b>S.No.</b>	<b>CREP Conditions</b>	<b>Compliance</b>
1	<p>Cement plants/Standalone grinding units, which are not complying* with notified standards, shall do the following to meet the standards:</p> <ul style="list-style-type: none"> <li>● Augmentation of existing air pollution control devices- by July 2003</li> <li>● Replacement of existing air pollution control devices- by July 2004</li> </ul>	<p>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.</p>
2	<p>Cement plants/Standalone grinding units located in critically polluted or urban areas (including 5 km distance outside under urban boundary) will meet 100 mg/Nm<sup>3</sup> limit of particulate matter by December 2004 and continue working to reduce the emission of particulate matter to 50 mg/Nm<sup>3</sup>. As per Gazette Notification MoEFCC G.S.R.497(E) dated 10th May, 2016, emission standards for PM have been prescribed as 30 mg/Nm<sup>3</sup>.</p>	<p>Neither the plant is located in Critically Polluted area nor in Urban areas. Plant is located in industrial area. All measures 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 de-dusting/nuisance filters will be installed in Packing Plant and all material transfer points.</p>
3	<p>The new cement kilns to be accorded NOC/ Environmental clearance w.e.f. 01.04.2003 will meet the limit of 50 mg/Nm<sup>3</sup>.</p>	<p>Unit is Stand-alone Grinding Unit only and will comply with new emission norms.</p>
4	<p>CPCB will evolve load-based standards by December 2003.</p>	<p>This is a Stand-alone grinding unit; Load based standards issued by the MoEF CC is for Kiln only for clinker isation. Hence, this condition is not applicable.</p>
5	<p>CPCB and NCBM will evolve SO<sub>2</sub> and NO<sub>x</sub> emission standards by June 2004</p>	<p>Unit is Stand-alone Grinding Unit only and there will not be SO<sub>2</sub> and NO<sub>x</sub> emission during manufacturing process; this condition is not applicable.</p>
6	<p>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</p>	<p>Unit is Stand-alone Grinding Unit only and there will not be SO<sub>2</sub> and NO<sub>x</sub> emission during manufacturing process;</p>

	<p>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.</p>	<p>this condition is not applicable. To control the fugitive emissions the following measures are adopted/proposed:</p> <ul style="list-style-type: none"> <li>● All measures to control emission from construction activities such</li> <li>● as covering of construction site, water sprinkling &amp; covering of construction material etc. are being adopted at site.</li> <li>● All the conveyors will be covered with conveyer covers and hoods to offset any trapping of material in wind stream.</li> <li>● Storage of raw material/cement in storage shed and Silos.</li> <li>● 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.</li> <li>● Thick green belt is being developed around the plant to arrests the fugitive emissions.</li> <li>● Plugging of all leakage and enclosing storage and material handling systems.</li> </ul>
7	<p>CPCB, NCBM, BIS and Oil refineries will jointly prepare the policy on use of petroleum coke as fuel in cement kiln by July 2003.</p>	<p>Not Applicable</p>
8	<p>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.</p>	<p>Continuous emission monitoring system (CEMS) will be installed at Cement Mill Stack and real time emission monitoring data will be transmitted to SPCB and CPCB website.</p>
9	<p>Tripping in kiln ESP to be minimized by July 2003 as per the recommendations of NTF.</p>	<p>Not Applicable; as the proposal is for Stand-alone Grinding Unit. However, high efficiency Bag House will be provided for Cement Mill</p>
10	<p>Industries will submit the target date to enhance the utilization of waste material by April 2003.</p>	<p>After expansion, GU will also utilize Fly ash along with Slag which are process waste generated by Thermal Power</p>

		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

Location	Coordinate of Site	Distance from Plant site (KM)	Depth from ground (feet)					
			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

ULR No.:	T	C	1	1	5	1	5	2	4	0	0	0	0	1	4	7	1
Discipline: Chemical	Group: Water								Sub-Group: Ground Water								
Report Issue Date: 27-09-2024	Test Report No.: RN-230916001GW3								Sample Description: Ground Water (Dug well)								
Sample ID: 240924WA03001	Challan No./P.O. No.: 4548032900/237								Challan No./P.No. Date: 23-09-2023								
Issued to: <b>Bokaro Cement Manufacturing Works, Unit of Dalmia Cement (Bharat) Limited Plot No IV/A-7(P)4, Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India</b>																	
Type of Industry: Cement									Customer Representative: Sanjeev Verma								
Sample Drawn by: IEM Team									Sampling Date: 24-09-2024								
Protocol: CPCB Guideline& IS Method 3025 Series																	
Sampling Location: Khutri Village																	
Field Meteorological Information			A. Temp. (°C): 28			R.H. (%): 69			W.C.: Partly Sunny			W.D.: SE to NW					
Sample Receiving date: 24-09-2024					Testing Started: 24-09-2024					Testing Ended: 27-09-2024							

---Test Result---

Sl. No.	Tested Parameter	Unit	Method No.	Limit		Results
				Acceptable	Permissible	
1	pH value at 25°C	---	IS 3025 (Part-11)	6.5 - 8.5	No Relaxation	7.1
2	Turbidity	NTU	IS 3025 (Part-10)	1	5	<1
3	Colour	Hazen	IS 3025 (Part-04)	5	15	<5
4	Odour	---	IS 3025 (Part-05)	Agreeable	Agreeable	Agreeable
5	Total Dissolved Solids (TDS)	mg/l	IS 3025 (Part-16)	500	2000	205
6	Calcium (as Ca+2)	mg/l	IS 3025 (Part-40)	75	200	55.3
7	Total Alkalinity (as CaCO3)	mg/l	IS 3025 (Part-23)	200	600	78
8	Total Hardness (as CaCO3)	mg/l	IS 3025 (Part-21)	200	600	145
9	Chloride (as Cl <sup>-</sup> )	mg/l	IS 3025 (Part-32)	250	1000	19
10	Free Residual Chlorine	mg/l	IS 3025 (Part-26)	0.2	1.0	BOL (MDL-0.07)
11	Sulphate (as SO <sub>4</sub> <sup>2-</sup> )	mg/l	IS 3025 (Part-24)	200	400	29
12	Magnesium (as Mg+2)	mg/l	IS 3025 (Part-46)	30	100	14.6

---END Report---

Env. Condition of Lab.	Laboratory is maintaining Temperature 22± 2°C and Relative humidity 65± 5 % in all testing area as per IS 1586 (C).
Abbreviation	MDL - Minimum Detection Limit, BDL - Below Detection Limit
Limit is Specified	±5-10% (±0.3)
Remarks	Sample Comply with prescribed specification

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

**Specific Contractual Notes -**

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

Reviewed by: Authorized Signatory

(Tauqeer Ahmad)
(Dr. S. C. Jain)  
 Technical Manager Director

Page 1 of 2

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Ranchi-834002, Jharkhand, India

Ph - 8407604253, 8407604251, Email - [iem2012@rediffmail.com](mailto:iem2012@rediffmail.com)



# Institute for Environmental Management



## Test Report

Discipline: Chemical	Group: Water	Sub-Group: Ground Water
Report Issue Date: 27-09-2024	Sample ID: 240924WA03001, 240924RC03001 & 240924MB03001	Test Report No.: RN-230916001GW1
Challan No./P.O. No.: 4548032900/237	Sample Description: Ground Water (Dug well)	Challan No./ P.No. Date: 23-09-2023
Issued to: <b>Bokaro Cement Manufacturing Works, Unit of Dalmia Cement (Bharat) Limited</b> Plot No IV/A-7(P)4, Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India		
Type of Industry: Cement	Customer Representative: Sanjeev Verma	
Sample Drawn by: IEM Team	Sampling Date: 24-09-2024	
Protocol: CPCB Guideline & IS Method 3025 and APHA Series		
Sampling Location: Khutri Village		
Field Meteorological Information	A. Temp. (°C): 28	R.H. (%): 69
	W.C.: Partly Sunny	W.D.: SE to NW
Sample Receiving date: 24-09-2024	Testing Started: 24-09-2024	Testing Ended: 27-09-2024

### ---Test Result---

Sl. No.	Tested Parameter	Unit	Method No.	Limit		Results
				Acceptable	Permissible	
13.	Nitrate (as NO <sup>3</sup> )	mg/l	APHA 4500 B 2023	45	No Relaxation	4.5
14.	Fluoride (as F)	mg/l	APHA 4500 D 2023	1.0	1.5	0.78
15.	Copper	mg/l	APHA 3111 B 2023	0.5	1.5	BDL (MDL - 0.02)
16.	Chromium	mg/l	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.	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 detectable in any 100 ml sample		BDL (MDL-1.8)
21.	E-Coli	MPN/100mL	IS 1622: 1981	Shall not be detectable in any 100 ml sample		BDL (MDL-1.8)

### ---END Report---

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 196:1985 (C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Limit is Specified	IS 10500:2021
Remarks	Sample Comply with prescribed specification.

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

### Specific Contractual Notes:

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- This report shall not be reproduced except in full, without written approval of the MD.
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- In case of feedback/ complaints, please send an email at [em@iemco@gmail.com](mailto:em@iemco@gmail.com)

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

Reviewed by	Authorized Signatory
 (Taqeer Ahmad)	 (Dr. S. C. Jain)
Technical Manager	Director

Page 2 of 2

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

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

Ph - 8407804253, 8407804251, Email - [iem2012@rediffmail.com](mailto:iem2012@rediffmail.com)



# Institute for Environmental Management



## Test Report

ULR No.:	T	C	1	1	5	1	5	2	4	0	0	0	0	0	1	4	7	2
Discipline: Chemical	Group: Water								Sub-Group: Ground Water									
Report Issue Date: 27-09-2024	Test Report No.: RN-230916001GW2																	
Sample ID: 240924WA03002	Sample Description: Ground Water (Dug well)																	
Challan No./P.O. No.: 4548032900/237	Challan No./P.No. Date: 23-09-2023																	
Issued to: <b>Bokaro Cement Manufacturing Works, Unit of Dalmia Cement (Bharat) Limited</b> Plot No IV/A-7(P)4, Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India																		
Type of Industry: Cement									Customer Representative: Sanjeev Verma									
Sample Drawn by: IEM Team									Sampling Date: 24-09-2024									
Protocol: CPCB Guideline & IS Method 3025 Series																		
Sampling Location: Thakurtand Village																		
Field Meteorological Information			A. Temp. (°C): 28			R.H. (%): 69			W.C.: Partly Sunny			W.D.: SE to NW						
Sample Receiving date: 24-09-2024					Testing Started: 24-09-2024					Testing Ended: 27-09-2024								

---Test Result---

Sl. No.	Tested Parameter	Unit	Method No.	Limit		Results
				Acceptable	Permissible	
1.	pH value at 25°C	---	IS 3025 (Part-11)	6.5 - 8.5	No Relaxation	7.3
2.	Turbidity	NTU	IS 3025 (Part-10)	1	5	<1
3.	Colour	Hazen	IS 3025 (Part-04)	5	15	<5
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/l	IS 3025 (Part-40)	75	200	25.7
7.	Total Alkalinity (as CaCO3)	mg/l	IS 3025 (Part-23)	200	600	82
8.	Total Hardness (as CaCO3)	mg/l	IS 3025 (Part-21)	200	600	126
9.	Chloride (as Cl <sup>-</sup> )	mg/l	IS 3025 (Part-32)	250	1000	17
10.	Free Residual Chlorine	mg/l	IS 3025 (Part-26)	0.2	1.0	BDL (MDL-0.07)
11.	Sulphate (as SO <sub>4</sub> <sup>2-</sup> )	mg/l	IS 3025 (Part-24)	200	400	22
12.	Magnesium (as Mg+2)	mg/l	IS 3025 (Part-46)	30	100	15.1

---END Report---

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % in all testing area as per IS 156:1998(IEC).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Limit is Specified	IS 10500 (2021)
Remark	Sample Comply with prescribed specification.

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

<b>Specific Contractual Notes -</b> 1. The laboratory accepts responsibility for content of this report. 2. This report shall not be reproduced except in full, without written approval of the MD. 3. This report is intended for only guidance and not for legal purpose or for advertisement. 4. Any complaint about this report should be communicated in writing within 7 days of its issue. 5. Total liability of Institute for Environmental Management will be limited to invoiced amount only. 6. In case of feedback/complaints, please send an email at <a href="mailto:gem@iemcoi@gmail.com">gem@iemcoi@gmail.com</a>	Reviewed by	Authorized Signatory
	 (Fauzeer Ahmad) Technical Manager	 (Dr. S. C. Jain) Director

Page 1 of 2

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

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

Ph : 8407804253, 8407804251, Email - [iem2012@rediffmail.com](mailto:iem2012@rediffmail.com)





# Institute for Environmental Management



## Test Report

Discipline: Chemical	Group: Water	Sub-Group: Ground Water
Report Issue Date: 27-09-2024		Test Report No.: RN-230916001GW2
Sample ID: 240924WA03002, 240924RCD3002 & 240924MB03002		Sample Description: Ground Water (Dug well)
Challan No./P.O. No.: 4548032900/237		Challan No./ P.No. Date: 23-09-2023
Issued to: <b>Bokaro Cement Manufacturing Works, Unit of Dalmia Cement (Bharat) Limited</b> Plot No (V/A-7(P)4, Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India		
Type of Industry: Cement	Customer Representative: Sanjeev Verma	
Sample Drawn by: IEM Team	Sampling Date: 24-09-2024	
Protocol: CPCB Guideline & IS Method 3025 and APHA Series		
Sampling Location: Thakurtand Village		
Field Meteorological Information	A. Temp. (°C): 28	R.H. (%): 69
	W.C.: Partly Sunny	W.D.: SE to NW
Sample Receiving date: 24-09-2024	Testing Started: 24-09-2024	Testing Ended: 27-09-2024

—Test Result—

Sl. No.	Tested Parameter	Unit	Method No.	Limit		Results
				Acceptable	Permissible	
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 (MDL - 0.02)
16.	Chromium	mg/l	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.	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 detectable in any 100 ml sample		BDL (MDL-1.8)
21.	E. Coli	MPN/100mL	IS 1622: 1981			BDL (MDL-1.8)

—END Report—

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 85± 5 % in all testing area as per IS 156:1986(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Limit is Specified	IS 10500 (2023)
Remark	Sample Comply with prescribed specification.

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

Specific Contractual Notes :- 1. The laboratory accepts responsibility for content of this report. 2. This report shall not be reproduced except in full, without written approval of the MD. 3. This report is intended for only guidance and not for legal purpose or for advertisement. 4. Any complaint about this report should be communicated in writing within 7 days of its issue. 5. Total liability of Institute for Environmental Management will be limited to invoiced amount only. 6. In case of feedback/ complaints, please send an email at <a href="mailto:gem@iemcoo@gmail.com">gem@iemcoo@gmail.com</a>	Reviewed by	Authorized Signatory
	On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.	T. Ahmad (Taqeer Ahmad)
	Technical Manager	

Page 2 of 2

Corporate office - A-5, Modi Heights, Opp-All India Radio Station, Ratu Road, Ranchi, Jharkhand - 834001

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

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**Annexure-XIII**

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

**STP Outlet water quality analysis report**

<b>STP OUTLET WATERQUALITY ANALYSISREPORT FROM APRIL 2024 TO SEPTEMBER 2024 (OUTLET)</b>						
<b>Sr. No</b>	<b>Parameter</b>	<b>PH</b>	<b>Suspended solids mg/lit</b>	<b>COD mg/lit</b>	<b>BOD mg/lit</b>	<b>Oil &amp; Grease mg/lit.</b>
	<b>Norms</b>	<b>5.5-9.0</b>	<b>100</b>	<b>250</b>	<b>30</b>	<b>10</b>
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
	<b>Min.</b>	<b>7.1</b>	<b>18</b>	<b>48</b>	<b>10.5</b>	<b>0</b>
	<b>Max.</b>	<b>7.6</b>	<b>39</b>	<b>76</b>	<b>15.0</b>	<b>0</b>
	<b>Avg.</b>	<b>7.4</b>	<b>26</b>	<b>62</b>	<b>12.6</b>	<b>0.0</b>



# 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	1	4	5	8
Discipline: Chemical	Group: Pollution & Environment										Sub-Group: Waste Water						
Report Issue Date: 27-09-2024	Test Report No.: RN-230916001WW01																
Sample ID: 240924PE04001	Sample Description: Waste Water (STP)																
Challan No./P.O. No.: 4548032900/237	Challan No./P.No. Date: 23-09-2023																
Issued to: Bokaro Cement Manufacturing Works, Unit of Dalmia Cement (Bharat) Limited Plot No IV/A-7(P)4, Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India																	
Type of Industry: Cement									Customer Representative: Sanjeev Verma								
Sample Drawn by: IEM Team									Sampling Date: 24-09-2024								
Protocol: CPCB Guideline & IS Method 3025 Part-01																	
Sampling Location: STP PLANT (INLET)																	
Sample Receiving date: 24-09-2024						Testing Started: 24-09-2024						Testing Ended: 27-09-2024					

---Test Result---					
Sl. No.	Tested Parameters	Unit	Method No.	Norms**	Results
1.	pH value at 25°C	---	IS 3025 (Part-11)	5.5 to 9.0	6.5
2.	Total Suspended Solids (TSS)	mg/l	IS 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	IS 3025 (Part-58)	250	228

---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(G).
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 & team

<b>Specific Contractual Notes -</b> 1. The laboratory accepts responsibility for content of this report. 2. This report shall not be reproduced except in full, without written approval of the IED. 3. This report is intended for only guidance and not for legal purpose or for advertisement. 4. Any complaint about this report should be communicated in writing within 7 days of its issue. 5. Total liability of Institute for Environmental Management will be limited to invoiced amount only. 6. In case of feedback/complaints, please send an email at <a href="mailto:gem@iemindia.com">gem@iemindia.com</a> .	Reviewed by	Authorized Signatory
	(Tausqeer Ahmad) Technical Manager	(Dr. S. C. Jain) Director

Page 1 of 2

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

Laboratory Site - I.I.No. - A-13, Saket Vihar, Near Sahrai Bhawan, Harma Housing Colony, Ranchi-834002, Jharkhand, India

Ph - 8407804233, 8407804251, Email - [icm2012@rediffmail.com](mailto:icm2012@rediffmail.com)



## Test Report

Discipline: Chemical		Group: Pollution & Environment		Sub-Group: Waste Water	
5Report Issue Date: 27-09-2024			Test Report No.: RN-230916001WW01		
Sample ID: 240924PE04001			Sample Description: Waste Water (STP)		
Challan No./P.O. No.: 4548032900/237			Challan No./ P.No. Date: 23-09-2023		
Issued to: <b>Bokaro Cement Manufacturing Works, Unit of Dalmia Cement (Bharat) Limited</b> Plot No IV/A-7(P)4, Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India					
Type of Industry: Cement			Customer Representative: Sanjeev Verma		
Sample Drawn by: IEM Team			Sampling Date: 24-09-2024		
Protocol: CPCB Guideline & IS Method 3025 Part-01					
Sampling Location: STP PLANT (INLET)					
Sample Receiving date: 24-09-2024		Testing Started: 24-09-2024		Testing Ended: 27-09-2024	

---Test Result---

Sl. No.	Tested Parameters	Unit	Method No.	Norms**	Results
5.	Oil & Grease	mg/l	IS 3025 (Part-39)	--	BDL(MDL 4.0)

---End of Report---

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % (n all testing area as per IS 196:1966(C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Norms** is Specified	--
Remark	--

Tested By: Mahendranath Mahto

Sample Drawn By: Shashi Singh & team

<b>Specific Contractual Notes :-</b> 1. The laboratory accepts responsibility for content of this report. 2. This report shall not be reproduced except in full, without written approval of the MD. 3. This report is intended for only guidance and not for legal purpose or for advertisement. 4. Any complaint about this report should be communicated in writing within 7 days of its issue. 5. Total liability of Institute for Environmental Management will be limited to invoiced amount only. 6. In case of feedback/complaints, please send an email at <a href="mailto:qm@iem2012@gmail.com">qm@iem2012@gmail.com</a>	Reviewed by _____ Authorized Signatory _____ 
	(Tauqueer Ahmad) (Dr. S. C. Jain) Technical Manager Director
	On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.

Page 2 of 2

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

Laboratory Site - II.No. - A-13, Saket Vihar, Near Sohrai Bhawan, Harmu Housing Colony,  
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Ph - 8407804253, 8407804251, Email - [iem2012@rediffmail.com](mailto:iem2012@rediffmail.com)

# STP Outlet water quality 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	9
Discipline: Chemical	Group: Pollution & Environment										Sub-Group: Waste Water							
Report Issue Date: 27-09-2024											Test Report No.: RN-230916001WWD2							
Sample ID: 240924PE04002											Sample Description: Waste Water (STP)							
Challan No./P.O. No.: 4548032900/237											Challan No./P.No. Date: 23-09-2023							
Issued to: Bokaro Cement Manufacturing Works, Unit of Dalmia Cement (Bharat) Limited Plot No IV/A-7(P)4, Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India																		
Type of Industry: Cement										Customer Representative: Sanjeev Verma								
Sample Drawn by: IEM Team										Sampling Date: 24-09-2024								
Protocol: CPCB Guideline & IS Method 3025 Part-01																		
Sampling Location: STP PLANT (OUTLET)																		
Sample Receiving date: 24-09-2024						Testing Started: 24-09-2024						Testing Ended: 27-09-2024						

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

---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 19619:2006(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 & team

<p><b>Specific Contractual Notes:</b></p> <ol style="list-style-type: none"> <li>1. The laboratory accepts responsibility for content of this report.</li> <li>2. This report shall not be reproduced except in full, without written approval of the IEM.</li> <li>3. This report is intended for only guidance and not for legal purpose or for advertisement.</li> <li>4. Any complaint about this report should be communicated in writing within 7 days of its issue.</li> <li>5. Total liability of Institute for Environmental Management will be limited to invoice amount only.</li> <li>6. In case of feedback/complaints, please send an email at <a href="mailto:info@iem2012.com">info@iem2012.com</a></li> </ol> <p>On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.</p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Reviewed by</td> <td style="width: 50%; text-align: center;">Authorized Signatory</td> </tr> <tr> <td style="text-align: center;">                       (Tauqeer Ahmad)                 </td> <td style="text-align: center;">                       (Dr. S. C. Jain)                 </td> </tr> <tr> <td style="text-align: center;">Technical Manager</td> <td style="text-align: center;">Director</td> </tr> </table>	Reviewed by	Authorized Signatory	 (Tauqeer Ahmad)	 (Dr. S. C. Jain)	Technical Manager	Director
Reviewed by	Authorized Signatory						
 (Tauqeer Ahmad)	 (Dr. S. C. Jain)						
Technical Manager	Director						

Page 1 of 2

Corporate office - A-N, Modi Heights, Opps-All India Radio Station, Ratu Road, Ranchi, Jharkhand - 834001

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

Ph - 8407604233, 8407604251, Email - [iem2012@rediffmail.com](mailto:iem2012@rediffmail.com)





# Institute for Environmental Management



## Test Report

<b>Discipline:</b> Chemical	<b>Group:</b> Pollution & Environment	<b>Sub-Group:</b> Waste Water
<b>Report Issue Date:</b> 27-09-2024	<b>Test Report No.:</b> RN-230916001WW02	
<b>Sample ID:</b> 240924PE04002	<b>Sample Description:</b> Waste Water (STP)	
<b>Challan No./P.O. No.:</b> 4548032900/237	<b>Challan No./ P.No. Date:</b> 23-09-2023	
<b>Issued to:</b> Bokaro Cement Manufacturing Works, Unit of Dalmia Cement (Bharat) Limited Plot No IV/A-7(P)4, Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India		
<b>Type of Industry:</b> Cement	<b>Customer Representative:</b> Sanjeev Verma	
<b>Sample Drawn by:</b> IEM Team	<b>Sampling Date:</b> 24-09-2024	
<b>Protocol:</b> CPCB Guideline & IS Method 3025 Part-01		
<b>Sampling Location:</b> STP PLANT (OUTLET)		
<b>Sample Receiving date:</b> 24-09-2024	<b>Testing Started:</b> 24-09-2024	<b>Testing Ended:</b> 27-09-2024

### ---Test Result---

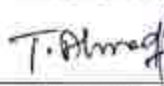

Sl. No.	Tested Parameters	Unit	Method No.	Norms**	Results
5.	Oil & Grease	mg/l	IS 3025 (Part-39)	10	BDL(MDL 4.0)

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

<b>Env. Condition of Lab.</b>	Laboratory is maintaining Temperature $27 \pm 2^{\circ}\text{C}$ and Relative Humidity $65 \pm 5\%$ in all testing area as per IS 196:1966(C).
<b>Abbreviation</b>	MDL: Minimum Detection Limit, BDL: Below Detection Limit
<b>Norms** is Specified</b>	As per the Environmental (Protection) Rule – 1986
<b>Remark</b>	Sample Comply with prescribed specification.

Tested By: Mahendranath Mahto

Sample Drawn By: Shashi Singh & team

<b>Specific Contractual Notes:-</b> 1. The laboratory accepts responsibility for contents of this report. 2. This report shall not be reproduced except in full, without written approval of the MD. 3. This report is intended for only guidance and not for legal purpose or for advertisement. 4. Any complaint about this report should be communicated in writing within 7 days of its issue. 5. Total liability of Institute for Environmental Management will be limited to invoiced amount only. 6. In case of feedback/complaints, please send an email at <a href="mailto:qm.iemecol@gmail.com">qm.iemecol@gmail.com</a>	<b>Reviewed by</b>	<b>Authorized Signatory</b>
	 (Tauqeer 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 Organization.	<b>Technical Manager*</b>	<b>Director</b>

Page 2 of 2

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

Laboratory Site - H.No. - A-13, Saket Vihar, Near Sohrai Bawan, Harma Housing Colony,  
Ranchi-834002, Jharkhand, India

Ph - 8407804253, 8407804251, Email - [iem2012@rediffmail.com](mailto:iem2012@rediffmail.com)

**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 Stack 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 trenches. 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, concreted drain connected to recharge pit near Packing plant building



**Rain water harvesting recharge pit near Electrical load center**



**Rooftop Rain water collection pipe line, concreted 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 near stacker reclaimer**





Rain Water collection Pond constructed Capacity: 925 KL



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



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**

<b>Near Project office</b>							
	<b>Day Time dB(A)</b>				<b>Night Time dB(A)</b>		
	<b>Min.</b>	<b>Max.</b>	<b>Avg.</b>		<b>Min.</b>	<b>Max.</b>	<b>Avg.</b>
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

<b>Thakur Tand Village (Near Aganwadi)</b>							
	<b>Day Time dB(A)</b>				<b>Night Time dB(A)</b>		
	<b>Min.</b>	<b>Max.</b>	<b>Avg.</b>		<b>Min.</b>	<b>Max.</b>	<b>Avg.</b>
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**

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

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



# 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								Sub-Group: Ambient Noise Levels (Excluding Vibration)													
Report Issue Date: 27-09-2024										Test Report No.: RN-230916001N1												
Sample ID: 240924AP06001										Sample Description: Ambient Noise												
Challan No./P.O. No.: 4548032900/237										Challan No./ P.No. Date: 23-09-2023												
Issued to: Bokaro Cement Manufacturing Works Plot No IV/A-7(P)4, Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India																						
Type of Industry: Cement										Customer Representative: Sanjeev Verma												
Sample Drawn by: IEM Team										Sampling Date: 23-09-2024 to 24-09-2024												
Protocol: CPCB Guideline & IS Method 9989:1981																						
Sampling Location: Goraball Near Temple																						
Field Meteorological Information										A. Temp. (°C): 26		R.H. (%): 68		W.C.: Semi Cloudy				W.D.: NE - SW				
Sample Receiving date: 24-09-2024					Testing Started: 24-09-2024					Testing Ended: 27-09-2024												

—Test Result—

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

—End of Report—

### Note: -

- Day time shall mean from 6.00 a.m. to 10.00 p.m.
- 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.
- dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is reliable to human hearing.
- A "decibel" is a unit in which noise is measured. "A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.
- Leq: 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 65±5 % in all testing area as per IS 196:1966 (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

### Specific Contractual Notes -

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- In case of feedback/ complaints, please send an email at [info@iem2012.com](mailto:info@iem2012.com)

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

Reviewed by

Authorized Signatory

T. Ahmad

(Dr. S. C. Jain)

(Tauqeer Ahmad)

(Dr. S. C. Jain)

Technical Manager

Director

Page 1 of 1

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Ranchi-834002, Jharkhand, India

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# 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	5
Discipline: Chemical	Group: Atmospheric Pollution							Sub-Group: Ambient Noise Levels (Excluding Vibration)										
Report Issue Date: 27-09-2024										Test Report No.: RN-230916001N2								
Sample ID: 240924AP06002										Sample Description: Ambient Noise								
Challan No./P.O. No.: 4548032900/237										Challan No./ P.No. Date: 23-09-2023								
Issued to: Bokaro Cement Manufacturing Works, Unit of Dalmia Cement (Bharat) Limited Plot No IV/A-7(P)4, Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India																		
Type of Industry: Cement										Customer Representative: Sanjeev Verma								
Sample Drawn by: IEM Team										Sampling Date: 23-09-2024 to 24-09-2024								
Protocol: CPCB Guideline & IS Method 9989:1981																		
Sampling Location: Thakurtand Village																		
Field Meteorological Information					A. Temp. (°C): 26				R.H. (%): 68			W.C.: Semi Cloudy			W.D.: NE - SW			
Sample Receiving date: 24-09-2024					Testing Started: 24-09-2024					Testing Ended: 27-09-2024								

---Test Result---

Sl. No	Parameter	Method	Unit	Day Time	Night Time	Limits
1.	Equivalent Sound Level (Leq)	IS 9989:1981	dB(A)	52.6	43.5	D-55 N-45

---End of Reports---

### Note: -

- Day time shall mean from 6.00 a.m. to 10.00 p.m.
- 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.
- dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is referable to human hearing.
- A "decibel" is a unit in which noise is measured. "A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.
- Leq: 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 65±5 % in all testing area as per IS 196:1966(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 Scurath

Sample Drawn By: Rajiv Kumar Singh & Team

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

Reviewed by: \_\_\_\_\_ Authorized Signatory

T. Ahmad

(Tauqeer Ahmad)

Technical Manager

S. C. Jain

(Dr. S. C. Jain)

Director





# 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					Sub-Group: Ambient Noise Levels (Excluding Vibration)												
Report Issue Date: 27-09-2024									Test Report No.: RN-230916001N3									
Sample ID: 240924AP06003									Sample Description: Ambient Noise									
Challan No./P.O. No.: 4548032900/237									Challan No./ P.No. Date: 23-09-2023									
Issued to: Bokaro Cement Manufacturing Works, Unit of Dalmia Cement (Bharat) Limited Plot No IV/A-7(P)4, Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India																		
Type of Industry: Cement									Customer Representative: Sanjeev Verma									
Sample Drawn by: IEM Team									Sampling Date: 23-09-2024 to 24-09-2024									
Protocol: CPCB Guideline & IS Method 9989:1981																		
Sampling Location: Khutri village																		
Field Meteorological Information			A. Temp. (°C): 26			R.H. (%): 68			W.C.: Semi Cloudy			W.D.: NE - SW						
Sample Receiving date: 24-09-2024						Testing Started: 24-09-2024						Testing Ended: 27-09-2024						

---Test Result---

Sl. No.	Parameter	Method	Unit	Day Time	Night Time	Limits
1.	Equivalent Sound Level (Leq)	IS 9989:1981	dB(A)	50.2	43.8	D-55 N-45

---End of Reports---

### Note: -

- Day time shall mean from 0.00 a.m. to 10.00 p.m.
- Night time shall mean from 10.00 p.m. to 6.00 a.m.
- Fixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.
- dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is referable to human hearing.
- A "decibel" is a unit in which noise is measured. "A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.
- Leq: 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 65±5 % in all testing area as per IS 196:1966(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

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

Reviewed by

Authorized Signatory

T. Ahmad

(Dr. S. C. Jain)

(Tauqeer Ahmad)  
Technical Manager

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**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



## 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

Sl. 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
<b>TOTAL</b>		<b>5.2</b>	<b>5200</b>

Tree species	Common Name
<i>Shorea robusta</i>	Sal
<i>Pongamia pinnata</i>	Karanj
<i>Madhuca longifolia</i>	Mahua
<i>Butea monosperma</i>	Palash
<i>Azadirachta indica</i>	Neem
<i>Acacia catechu</i>	Katha
<i>Boswellia serrata</i>	Lobaw
<i>Casaea fistula</i>	Amaltas

Tree species	Common Name
<i>Dalbergia latifolia</i>	Eastern Rosewood
<i>Erythrina indica</i>	Coral Tree
<i>Ficus bengalensis</i>	Banyan
<i>Ficus religiosa</i>	Peepal
<i>Dendrocalamus strictus</i>	Bamboo
<i>Moringa oleifera</i>	Drumstick
<i>Terminalia arjuna</i>	Arjun
<i>Tectona grandis</i>	Teak
<i>Mangifera indica</i>	Mango
<i>Albizia lebbek</i>	Siris
<i>Artocarpus heterophyllum</i>	Jackfruit
<i>Cocos nucifera</i>	Coconut
<i>Polyalthia longifolia</i>	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.

**1. GHG Emission from fuel consumption:** Direct GHG emission occur from that are owned or controlled by the company (Scope 1).

1. Coal consumption in FBC (Indian Coal)
2. Diesel Consumption in FBC for light up
3. 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.	Kg CO2 /Tone of Cementitious material	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.

1. Electricity consumption from Grid.

**GHG Emission from power consumption**

Categories	UOM	2022-23	2023-24
Scope-2			
Emissions from Electricity consumption	Kg CO2 /Tone of Cementitious material	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:**

1. We are continually reducing clinker consumption for cement manufacturing.
2. Clinker silo constructed for the storage of clinker to reduces road transportation
3. 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 onsite 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.

**Annexure:XX****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	Manjhaladh	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	Gorabali, Bhutkuru, Tupkadih, Bishunpur	8000.00
9	Plantation	Gorabali, Bhutkuru, Tupkadih, Bishunpur	50000.00
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
<b>Total</b>			<b>2158000.00</b>



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

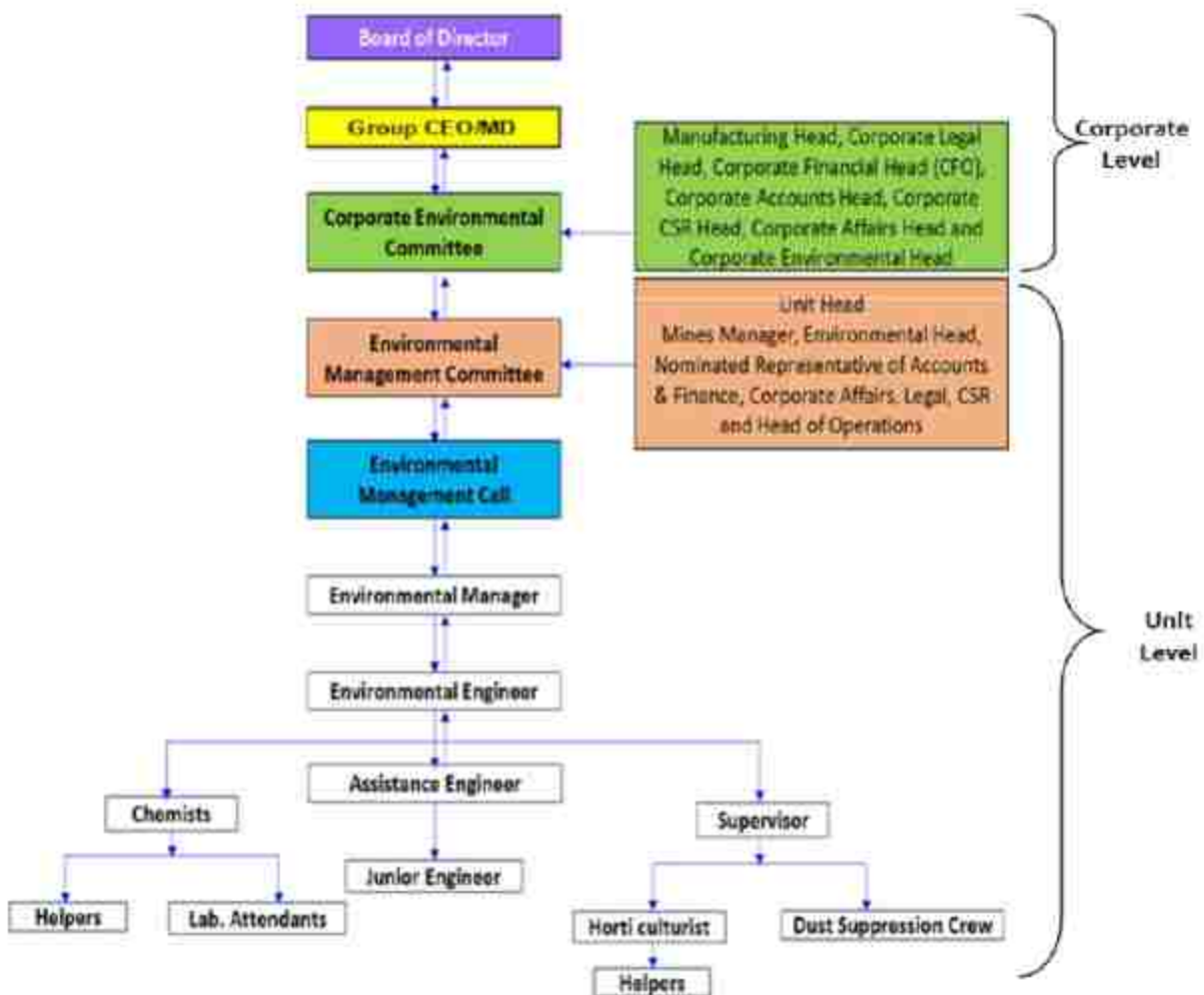


Skill training to local youths at Bokaro Diksha



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

**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
<b>Total Recurring cost investment on Environment protection April 2024 to September 2024</b>		<b>348.4</b>

**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/SELAA.	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.	Complied. Timely submitted Hazardous waste return Form-IV JSPCB Ranchi & Dhanbad.	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.	<b>Complied.</b> 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

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

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



**the pioneer**  
FRIDAY, 3 MARCH 2023

**DAIRY** (Section Header)

... (Text from the article) ...

**SPORTS** (Section Header)

**12**

**DAIRIA CEMENT (BHARAT) LIMITED**  
**BOKARO INDUSTRIAL AREA**  
**BOKARO-JHARKHAND**

**PUBLIC NOTICE**

This is to inform that BIAA has received Impact Assessment Authority (BIAAA), Jharkhand has awarded Environmental Clearance vide EC Identification No.: EC-23B005/JA-189008; File No. EC/BI/IAA/JC232-230/462023, letter no. EC/BI/IAA/2022-23/ 26462/02/0366, dated 30.01.2023 & EC issuance date: 08.02.2023, for Expansion of cement production capacity of Bokaro Cement Manufacturing Works, a standalone Grinding Unit of Dairia Cement (Bharat) Limited, from 2.0 Million TPA to 3.1 Million TPA at Plot No. BIAA-7/17A, Village-Garobani, Nalladih-Bokaro Industrial Area under JICA, Saline Phosphate, Bokaro, Jharkhand.

Copies of Environmental clearance is available with the State Level Environmental Impact Assessment Authority office and also at website of the Ministry of Environment, Forest and Climate Change (MOEF&CC) at <https://www.moef.gov.in/>.

**Authorized Signatory**



**बिहार**

**दादिया सीमेंट (भारत) लिमिटेड**  
**बोकारो औद्योगिक क्षेत्र**  
**बोकारो-झारखण्ड**

**सार्वजनिक सूचना**

... (Text from the notice) ...

**अभिषेक दादियारका**

दिनांक: 02 मार्च 2023

**9**

... (Text from the notice) ...

**फोन-9334426190,**  
**8285946193**

**974-9122004334**  
**98340388259**

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:

**Dalmia**  
**cement**  
**FUTURE TODAY**



*cement! sugar! refractories! power!*

Date: 02.03.2023

Regional Officer,  
Jharkhand State Pollution Control Board  
H.I.G.-1, Sardar Patel Nagar, Hirapur  
Dhanbad - 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, 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.

**2.** 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 Aaj" 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

**Dalmia Cement (Bharat) Limited**  
Unit - Bokaro Cement Manufacturing Works  
Plot No. IV/a-7(p)4, Bokaro Industrial Area, Balidih, Bokaro Steel City, Bokaro-827014, Jharkhand, India  
T +91 6542 253 278 / +91 6542 253 047 Toll Free 1800 2520 W www.dalmiacement.com CIN:11051917N1096PLC003889  
Registered Office : Dalmiapuram, District Dhanbad, Jharkhand - 821 051, India.  
A Dalmia Bharat Group Company, www.dalmiabharat.com

# Dalmia cement

**FUTURE TODAY**

To  
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

EJ287956N173X 19Rue7742795e17  
EP 38CLTY NS 50 35270189  
Counter Mail: 04/03/2023, 16:17  
To: THE DIRECTOR, RANCHI  
PIN: 834002, Jharkhand -84  
PRODUCTION UNIT: DALMIA CEMENT  
WISCONSIN  
Ranchi, Jharkhand  
(Track on [www.indiaonline.gov.in](http://www.indiaonline.gov.in))  
(Dist) 10892AA682EJ Near Ranchi

ement! sugar! refractories! power!

Date: 02.03.2023

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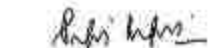
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Thanking You  
Yours Faithfully  
For M/s. Dalmia Cement (Bharat) Ltd.  
(Unit: Bokaro Cement Manufacturing Works)



Authorized Signatory  
Encl: As above

**Dalmia Cement (Bharat) Limited**

(Unit : Bokaro Cement Manufacturing Works)

Plot No. IV/A-7(PM), Bokaro Industrial Area, Balidih, Bokaro (Steel) City, Bokaro-837014, Jharkhand, India  
T: +91 6542 252 270 / +91 6542 252 347 Toll Free 1800 2020 W: [www.dalmiacement.com](http://www.dalmiacement.com) CIN: UUS1911TN1000PLC005083

Registered Office : Daltaparan, District Thacherghatli, Jharkhand - 821 651, India.

A Dalmia Bharat Group Company, [www.dalminclabharat.com](http://www.dalminclabharat.com)





**Dalmia**  
**cement**  
**FUTURE TODAY**

UJ25793AA141N 1484497435795643A  
BP BSC1TY RS 00 18276200  
Counter No: 84/02/2023, (R:1)  
To: THE SECRETARY, RANCHI  
Pir: ETANR4, Durwa 30  
From: SMOJDEV VEJINA, DALMIA CEMENT  
#to: 0095  
City: Ranchi, State: Jharkhand  
Track on www.IndiaPost.gov.in  
(Pin) 1800266666 (Atar) Postmark India State

**cement! sugar! refractories! power!**

**Date: 02.03.2023**

To  
The Secretary,  
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, Balidih Phase-4, Bokaro, Jharkhand. Reg. Submission of copy of Environmental Clearance.**

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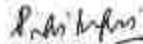
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**For M/s. Dalmia Cement (Bharat) Ltd.**  
**(Unit: Bokaro Cement Manufacturing Works)**



**Authorized Signatory**  
**Encl: As above**

**Dalmia Cement (Bharat) Limited**

Unit: Bokaro Cement Manufacturing Works

Plot No. IV/a-7(p)4, Bokaro Industrial Area, Balidih, Bokaro Steel City, Bokaro-827014, Jharkhand, India  
T +91 6542 253 278 / +91 6542 301 047 Toll Free 1800 2620 W [www.dalmiacement.com](http://www.dalmiacement.com) CIN: U06101TN1888PL2003980  
Registered Office: Dalmiapuram, District Tiruchirappalli, Tamil Nadu - 621 651, India.  
A **Dalmia Bharat Group** Company, [www.dalmiabharat.com](http://www.dalmiabharat.com)

To  
The Deputy Commissioner,  
Bokaro Steel City  
Bokaro Jharkhand

Date:02.03.2023

**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 JJADA, 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)**

*Soumitra*  
04/03/23  
*[Signature]*  
Authorized Signatory  
Encl: As above



**Dalmia  
cement**

**FUTURE TODAY**

*cement! sugar! refractories! power!*

Date:02.03.2023

Shri Ganesh Thakur Ji  
Mukhya  
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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Yours Faithfully

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

  
Authorized Signatory  
Encl: As above

  
मुरलिकान्त  
एन.एस.एल. मरुभारती डी.ओ.  
बक्सर - भारत (राज्य)

**Dalmia Cement (Bharat) Limited**

Unit - Bokaro Cement Manufacturing Works

Plot No. IV/A-7(p)4, Bokaro Industrial Area, Balidih, Bokaro Sorel Circle, Bokaro-827014, Jharkhand, India  
T +91 6542 253 270 / +91 6542 253 047 / Toll Free 1800 2020 W www.dalmiacement.com CIN U65101TN1990PLC033803  
Registered Office : Dalmiapuram, District Tiruchirappalli, Tamil Nadu - 621 051, India.  
A Dalmia Bharat Group Company, www.dalmiabharat.com



**Dalmia**  
**cement**  
**FUTURE TODAY**

53257964628 19/07/2023/0685  
SP SOCIETY RS 50 (G27018)  
Center No.1, 4/7(2)/2023, 18/17  
To THE MEMBER SECRETARY, MACHH  
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.  
Track on [www.indiapost.gov.in](http://www.indiapost.gov.in)  
Postal ID: 834004

**cement! sugar! refractories! power!**

Date: 02.03.2023

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

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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Dear Sir,

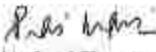
With reference to above mentioned subject and reference, we would like to submit that Environmental Clearance has been granted for expansion of cement production capacity of Bokaro Cement Manufacturing Works, a standalone Grinding Unit of Dalmia Cement (Bharat) Limited, from 2.0 Million TPA to 3.1 Million 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 Aaj 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 Original 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

**Dalmia Cement (Bharat) Limited**

Unit: Bokaro Cement Manufacturing Works

Plot No. IV/a-7(p)4, Bokaro Industrial Area, Balidih, Bokaro Steel City, Bokaro-827014, Jharkhand, India  
T: +91 6542 252 278 / +91 6542 253 047 Toll Free 1800 2020 W [www.dalmiacement.com](http://www.dalmiacement.com) CIN: U05101JN18001EC030003  
Registered Office: Palmyrauram, Tirupur District, Tamil Nadu - 621 012, India  
A Dalmia Bharat Group Company [www.dalmiabharat.com](http://www.dalmiabharat.com)