

Your **(Half Yearly Compliance Report)** has been **Submitted** with following details

Proposal No	SIA/JH/IND/105812/2017
Compliance ID	562085178
Compliance Number(For Tracking)	EC/M/COMPLIANCE/562085178/2025
Reporting Year	2025
Reporting Period	01 Dec(01 Apr - 30 Sep)
Submission Date	29-11-2025
RO/SRO Name:	Shri Santhil Kumar Sampath
RO/SRO Email	agmu156@ifs.nic.in
State	JHARKHAND
RO/SRO Office Address	Integrated Regional Offices, Ranchi
Note:- SMS and E-Mail has been sent to Shri Santhil Kumar Sampath, JHARKHAND with Notification to Project Proponent.	

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

Date: 28/11/2025

Subject: Half yearly Environment Clearance (EC) Compliance report of Dalmia Cement (Bharat) Limited, Bokaro for the period of April 2025 to September 2025.

Ref: EC Letter no. EC/SEIAA/2018-19/2135/2019/474, Ranchi, Dated:23.09.2019.

Dear Sir,

Please find enclosed herewith half yearly Environment Clearance compliance report of Dalmia Cement (Bharat) Limited, Bokaro, Jharkhand for the period of April 2025 to September 2025 for your kind perusal.

We have also uploaded EC Compliance report in Parivesh 2.0 Portal of MoEF and CC website and the soft copy of EC Compliance report is also being sent through email to following authorities:

msseiaa.jh@gmail.com, ro.ranchi-mef@gov.in, ranchispcb@gmail.com, ccb.spb@nic.in, dhanbajapcb@gmail.com, info@seiaa.org, ch-seiaa@seiaa.gov.in

Thanking you.

Yours Sincerely,

For Dalmia Cement (Bharat) Limited, Bokaro



Authorized Signatory

Copy:

1. The Director, Ministry of Environment, Forest and Climate Change,
2nd Floor, Headquarter-Jharkhand State Housing Board, Harnu Chowk, Ranchi,
Jharkhand - 834002
2. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan,
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, Hingpur Dhanbad-826001

Enclosed: EC Compliance Report

Dalmia Cement (Bharat) Limited

11/23/2025 12:10 PM Venna.S@seiaa.jh.gov.in
Hq. No. 11/23/2025, Seiaa, Ministry of Env. Forest and Climate Change, 2nd Floor, Headquarter-Jharkhand State Housing Board, Harnu Chowk, Ranchi, Jharkhand - 834002
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Registered Office: Dalmiagarwa, District Dhanbad, Jharkhand, India - 826001
A Dalmia Bharat Group company, www.dalmiabharat.com

DALMIA CEMENT (BHARAT) LIMITED, BOKARO

Environment Clearance compliance report of Dalmia Cement (Bharat) Limited from April 2025 to September 2025.

EC Letter No.-EC/SEIAA/2018-19/1997/2138/2019/474 Ranchi, Dated:23.09.2019.



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

DALMIA CEMENT BHARAT LIMITED.BOKARO

Plot No : IV/A-7(P), Bokaro Industrial Area, Balidih, Bokaro Steel City,
Jharkhand — 827014.

ENVIRONMENT CLEARANCE COMPLIANCE REPORT OF DALMIA CEMENT (BHARAT) LIMITED FOR THE PERIOD OF APRIL 2025 TO SEPTEMBER 2025

EC Letter No.-EC/ SEIAA / 2018-19 /2138/ 2019/ 474, Ranchi Dated:23.09.2019.

	EC Compliance Condition	EC Compliance Status
I.	Specific Condition	
	This Environmental Clearance is valid subject to the following condition below — That this project has— - Obtained all legal rights to operate at concerned place. - Complied with all existing concerned laws of the land and - Complied with the decisions of SEIAA on the issue of Environmental Clearance till date.	Complied with. - Obtained all necessary statutory clearance from concern authority to operate our cement grinding unit. - Complied all legal law of land with respect to our unit. - Complied with.
II	Statutory Compliance	
1	The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.	Not Applicable. The unit is located in notified Industrial area at BIADA, Bokaro, Jharkhand with due allocation through Govt of Jharkhand.
2	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.	Not Applicable. There is no wild life sanctuary within 10 km radius of our unit. The unit is located in notified industrial area at BIADA Bokaro
3	The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife 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 the six-monthly compliance report. (in case of the presence of schedule-I species in the study area)	Not Applicable. The unit is located in notified industrial area at BIADA Bokaro. There is no record of schedule -I species within 10 km radius of our unit. Therefore, there is no need for site specific conservation plan/ wild life management plan.

4	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.	Complied with. Our Unit has obtained CTE from JSPCB Ranchi vide letter no JSPCB/HO/RNC/CTE-11785214/2022/96 Dated: 06.03.2022. CTO obtained and renewed vide letter no JSPCB/HO/RNC/CTO-14970501/2023/503, Dated 15.03.2023 for the plant expansion from 3.7 MTPA to 4.50 MTPA from JSPCB Ranchi and CTO valid up to 31.03.2027. attached as CTE Annexure-1 & CTO Annexure-2
5	The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project	Complied with. The permission for water connection has been obtained from JIADA Bokaro vide Agreement dated 17.03.2011. The same agreement copy is attached herewith as per Annexure 3 .
6	The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time	Complied with. DCBL, Bokaro has obtained Authorization of Hazardous waste from JSPCB, Ranchi vide letter no JSPCB/HO/RNC/HWM-9675664/2021/26, Dated 09.04.2021, which is valid up to 31.12. 2026. Copy of the same attached as per Annexure 4
7	No mining /activity shall be undertaken in the forest land or deemed forest without obtaining prior forestry clearance.	Not Applicable to our unit.
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.	Agreeable
9	Environmental Clearance is subject to obtained 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 i.e core zone of elephant/tiger reserve etc. and located within 10 km of protected area.	Not applicable. The unit is located in notified Industrial area at JIADA, Bokaro, Jharkhand with due allocation through Govt of Jharkhand.
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 or accrue to them unless all clearance are	Not applicable. The unit is located in notified Industrial area at BIADA, Bokaro, Jharkhand with due allocation through Govt of Jharkhand.

	obtained.	
III	Air quality monitoring and preservation	
1	The project proponent shall install 24x7 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 th May 2016 (Cement) and connected to SPCB and CPCB online server and calibrate these system from time from time to according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories. Monitor fugitive emissions in the plant premises.	Complied with. Unit has already installed on line continuous emission monitoring system in our process stack and connected to JSPCB & CPCB server. On line stack emission monitoring data continuously transmitted to CPCB & JSPCB server. Regular maintenance and calibration are being done of stack emission monitoring equipment. CEMS Calibration done every three months. Fugitive emission is being regularly monitored in the plant premises and data is being regularly submitted to JSPCB & CPCB as a part of EC Compliance report. On line CEMS and Manual stack emission monitoring data and CEMS Calibration certificate for the period of April 2024 to September 2025 attached as per Annexure-5
2	The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognized under Environment (Protection) Act, 1986.)	Complied with. We are regularly monitoring fugitive dust emission in our plant by Inhouse and JSPCB & NABL approved laboratory. Copy of fugitive emission monitoring reports from April 2025 to September 2025 is attached as per Annexure-6
3	The project proponent shall install system to carryout to Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM-10 and PM-2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120° each), covering upwind and downwind directions. (case to case basis: small plants: Manual; Large plants: Continuous)	Complied with. We have installed 2 Nos On-line Continuous AAQM monitoring station in up wind and downwind directions with parameter of PM-10, PM-2.5, SO2 & NOx, at plant the plant boundary location of the unit. CAAQM equipment's regularly transmitting data to JSPCB, & CPCB server through wide area network. The same data is also displayed at the factory main gate. Unit have also installed manual AAQM monitoring station at 120-degree direction of a plant boundary location six monthly average AAQM report for the period of April 2025 to September 2025 attached as per Annexure-7
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 emissions to	Complied. Six monthly environmental monitoring reports from April 2025 to September 2025 is attached as per Annexure-6 & 7

	Regional office of MoEF&CC, Zonal office of CPCB and Regional of SPCB along with six monthly monitoring report	
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.	Complied. We have installed 2 nos Bag house in VRM mills for the control of air pollution. The Bag house stack emission maintained below 30 mg/Nm ³ . Apart from this 33 nos of nuisance bag filter installed in all material transfer points to control the fugitive dust emission. List of APC system installed in plant attached as per Annexure:8 All belt conveyors are fully covered for the control off fugitive dust emission. Raw materials and products are stored in covered sheds and silos. regular cleaning of roads by road sweeping machine. Good housekeeping is being maintained all around the plant.
6	The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.	Complied. Regular maintenance of bag filters, leakage checking, cleaning of bag filters is being done by dedicated mechanical maintenance team as per schedule.
7	Pollution control system in the cement plant shall be provided as per the CREP Guidelines of CPCB.	Complied. Applicable CREP compliance conditions complied. CREP compliance report attached as per Annexure: 9
8	Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.	Complied. Regular road sweeping and floor cleaning is being done by vacuum sweeping machine for the control of fugitive dust emission. Good housekeeping is being maintained in all around the plant premises area. Photographs of road sweeping machine with cleaning of roads/floor and log book of road sweeping machine (April-2025-September 2025) attached as per Annexure :10
9	Ensure covered transportation and conveying of raw material to prevent spillage and dust generation; Use closed bulkers for carrying fly ash.	Complied. All raw materials are being transported in covered belt conveyors. Raw material & products is being transported in covered tarpaulin trucks / bulkers /rail for the control of material spillage as well as control of fugitive dust emission.

10	Provide wind shelter fence and chemical spraying on the raw material stock piles.	Complied. We have constructed plant boundary walls around the plant along with thick green belt, which act as wind shelter or wind shield for contaminants. We have constructed boundary wall between plant and hostels which act as wind shields. We have also constructed walls around packing unit and raw material yard, which act as wind shelter. Raw materials stored in covered sheds and silos. Slag stored covered tarpaulin sheet. Plant boundary walls and plant inside boundary walls wind shelter photographs attached as per Annexure-11
11	Have separate truck parking area and monitor vehicular emissions at regular interval.	Complied. Separate truck parking facility provided to park trucks. Regular checking of vehicles PUC certificates which entering in plant to control of vehicular emission.
12	Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land by the use of covered conveyor belts/railways as a mode of transport.	Complied. All raw materials and products are being transported in covered trucks, bulker, covered conveyor belts/railways to reduce the fugitive dust emission. Regular water sprinkling and road sweeping is being done on the roads 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, cement bagging plants.	Complied. Air ventilation system arrangement done for adequate air change in motor houses and packing plant area.
IV	Water quality monitoring and preservation:	
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 as amended from time to time and connected to SPCB and CPCB online servers and calibrate this system 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)	Our unit is standalone cement grinding unit and does not require water for process. The water is only used for equipment cooling in closed loop. Makeup water is only added. Therefore, there is no effluents generated from our process. 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) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.	Not Applicable. No Ground water withdrawal from our plant. The permission for water connection has been obtained from BIADA. There will not be any effluent generation from the plant. Domestic waste water treated in STP, treated water is being used within plant for greenbelt development and dust suppression however, we are regularly monitoring ground water quality and depth level in surrounding village wells. Ground water quality & water depth level reports of surrounding village for the period of April 2025 to September 2025 is attached as per Annexure-12
3	The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.	Not applicable There is no effluent generation from our unit as it does not require water for its process. Our unit has STP 100 KLD for the treatment of domestic waste water. STP treated water quality analysis report from April 2025 to September 2025 attached as per Annexure-13. STP Treated water is being used in greenbelt development and dust suppression. Ground water monitoring reports are being regularly submitted to MoEF&CC regional office, Zonal office of CPCB and regional office of SPCB as a part of EC compliance report. Ground water quality analysis report attached as per Annexure-12
4	Adhere to 'Zero Liquid Discharge'	Complied with. Zero Liquid Discharge is being maintained.
5	Sewage Treatment Plant shall be provided for treatment of domestic waste water to meet the prescribed standards.	Complied with 100 KLD STP is in operation for the treatment of domestic waste water. Treated sewage quality meet the prescribed standard norms. Treated water quality analysis report from April 2025 to September 2025 attached as per Annexure-13
6	Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.	Complied with. Garland drain are existing in plant area to accumulate run off water in a settling pit. clay, sand silt barrier / collection pits are existing in the plant area to accumulate run off water during heavy rains. Annexure-14

7	The project proponent shall practice rainwater harvesting to maximum possible extent.	Complied with. Rain water harvesting system implemented in our unit to recharge the ground water and same is also approved from Ground Water Board, Ranchi. Vide letter no 320 Ranchi Dated 06.09.2013. attached as per Annexure: 15 . We have also renovation of wells and pounds near surrounding village area to conserve the rain water.
8	Water meters shall be provided at the inlet to all unit processes in the cement plant.	Complied Water meter installed at inlet of our unit. water flow meter photographs attached as per Annexure: 16
9	The project proponent shall make efforts to minimize water consumption in the cement plant complex by segregation of used water practicing cascade use and by recycling treated water.	Complied. Optimum use of water is practiced and all necessary efforts has been made to reduce water consumption in our plant.
V	Noise monitoring and prevention	
1	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six- monthly compliance report.	Complied Noise level are being regularly monitored in different locations of our unit. Noise level report is being regularly submitted to Ministry, CPCB, JSPCB as a part of six-monthly EC Compliance report. Six monthly noise level report (April 2025 to September 2025) attached as per Annexure-17
2	The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.	Being complied.
VI	Energy Conservation measures :	
1	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly.	Complied with. We have installed solar plate light in plant, colony area. Photographs of Solar light attached as per Annexure:18
2	Provide the project proponent for LED lights in their offices and residential areas.	Complied with. LED bulbs are being used in all offices and residential areas for the lighting purpose.
3	Maximize utilization of fly ash, slag and sweetener in cement blend as per BIS	Complied with. Slag and fly ash are being used as a raw material for cement.

	Standards. Waste management	manufacturing as per BIS norms.
VII	Waste management	
1	The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Trans boundary Movement) Rules, 2016.	Complied with. Hazardous waste Authorization obtained from JSPCB vide letter no JSPCB/HQ/RNC/HWM-9675664/2021/26, Dated 09.04.2021, which is valid up to 31.12. 2026. Hazardous waste such as used oil, waste oil disposed through authorized vendor from JSPCB/CPCB.
2	Kitchen waste shall be composted or converted to biogas for further use. (to be decided on case to case basis depending on type and size of plant)	Complied with. Kitchen waste are being utilized by nearby villagers to fed to the animals.
VIII	Green Belt :	
1	Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.	Complied with. We have developed greenbelt in 33% of the total land of unit. Tree plantation report attached as per Annexure-19
2	The project proponent shall prepare GHG emissions inventory for the plant and shall submit the program for reduction of the same including carbon sequestration including plantation	Dalmia Cement (Bharat) Limited Bokaro is a standalone cement grinding unit for the manufacturing of blended cement by utilizing industrial waste -such as slag, fly ash and gypsum. Only small quantity of coal is used in HAG for moisture drying in raw material slag. The GHG emission inventory and action plan for the reduction of GHG emission report attached as per Annexure-20 .
IX	Public hearing and Human health issues	
1	Emergency preparedness plan based on the Hazard Identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	Complied with. On side emergency preparedness plan, Hazard Identification and Risk Assessment (HIRA) already prepared and same is approved by Chief Factory Inspector of Jharkhand. Approval copy from Chief Inspector Factories attached as per Annexure: 21
2	The PP shall provide Personal Protection Equipment (PPE) as per the norms of factory Act.	Complied with. All Personal protective equipment's (PPE) Safety shoes, Nose mask, safety helmet, earplug, provided to all employees and contract workers for their safety. PPEs issued for the period of April

		2025 to September 2025 attached as per Annexure :22 Safety training is being regularly done among the employees for the awareness of safe working culture.
3	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Complied with. All necessary infrastructure / facility provided to construction labour during construction phase of the project and also removed temporary houses after completion of project.
4	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act	Complied Periodic medical health checkup is being regularly done to all employees and workers every year, reports are being maintained as per Factory Act. Few reports attached as per Annexure-23
X	Corporate Environment Responsibility	
1	The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.	Being Complied. we are regularly doing CER surrounding village area which is as follows: 1.Wells & Pond renovation done surrounding village area and maintaining for water conservation. 2. Street light & solar light installed in village 3.Tree plantation done surrounding village 4 Toilets constructed in schools 5. Renovation of school building, community hall and Aganwadi surrounding village area. CER report for the period April 2025 to September 2025 attached as per Annexure: 24
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	Complied with. DCBL Bokaro have Environmental Management Policy duly approved from Board of Director, copy of Environment policy attached herewith as per Annexure-25.

	the environmental/forest/wildlife norms/conditions and/or shareholders/stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six- monthly report	
3	A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of Senior Executive, who will directly to the head of the organization.	Complied 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) in our unit. Environment Management Cell organization structure attached as per Annexure :26
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 Ministry/Regional Office along with the Six-Monthly Compliance Report.	Action plan for EMP implementation and Environmental responsibility matrix 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 is being regularly submitted to Ministry and his Regional Office as a part of EC compliance report. Expenditure on Environment Protection (Capital cost & Recurring cost) from April 2025 to September 2025 is attached as per Annexure-27
5	Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.	Complied with. Self-Environment audit is being regularly done for the continual improvement of environment performance in our plant. Self-Environment audit report and Third-party Environment audit report attached as per Annexure-28
6	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Mineral Beneficiation plants shall be implemented. Miscellaneous:	Not relevant.
X	Miscellaneous	
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 newspapers 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	We have advertised our Environmental Clearance in local new papers (Hindustan Times Ranchi, Hindi News Aaj), which are widely circulated in the region and copy of the same attached herewith as per Annexure-29 .

	project proponent's website permanently.	
2	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.	Complied. We have submitted Environment Clearance copy to local Panchayat and other Govt. bodies, district head quarter, receiving copy of the same attached herewith as per Annexure-30
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. EC Compliance report uploaded in company official website copy of the same is attached as per Annexure -31
4	The project proponent shall monitor the criteria pollutants level namely, PM ₁₀ , SO ₂ , NO _x (Ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.	Complied. On-line environment monitoring data is being regularly displayed at factory main gate for the notice of public. Display board photographs attached as per Annexure-32
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.	Complied with. Six monthly EC Compliance report uploaded in website of the Ministry of Environment Forest and Climate Change at Environment Clearance portal Parivash 2.0 Portal. Acknowledgement copy from MoEF and CC attached as per Annexure :33
6	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.	Complied Environment Statement in Form V is regularly submitted to JSPCB Ranchi office & JSPCB Regional office Dhanbad. Last Environment Statement was submitted vide our letter no. DCBL/ENV-ES/24-25/01, Dated 20.09.2025 Environment Statement (Form -V) uploaded in company official website attached as per Annexure-34
7	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.	Date of final approval: 04.02.2019 for change of energy efficient motor in VRM mill (for 3.70 MTPA EC) Date of financial closure: 10.10.2019 (for 3.70 MTPA EC) Date of Land development: There is no land development as the change happen due to change in energy efficient motor replaced 10.01.2020. Date of Production date: 06.03.2020 (3.70 MTPA)

7(I)	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.	Noted & agreed.
7(II)	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	Commitments and recommendations made in EIA/EMP is being complied. DCBL located in notified industrial area (BIADA), hence, Project exempted for public hearing.
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(JSPCB) Ranchi, and Central Pollution Control Board(CPCB)	Complied with.
9	Concealing factual data or submission of false /Fabricated data and failure to comply with any of the conditions mentioned above may results in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Agreed.
10	The SEIAA, Jharkhand or any other competent Authority may alter modify the above condition or stipulated any further condition in the interest of Environment Protection.	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).	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 Environment (Protection) Act, 1986.	Agreed.
13	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions not satisfactory.	Agreed.

14	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	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.	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 Trans boundary 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.	Complied. DCBL Public Liability Insurance policy copy attached as per Annexure :35
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.	Noted and Agreed.
18	This environmental clearance is valid for seven years from the date of issue.	Noted and Agreed.

Consent to Establish (CTE) received from JSPCB Ranchi



JHARKHAND STATE POLLUTION CONTROL BOARD

TOWNSHIP ADMINISTRATION BUILDING, IEC COMPLEX, DHURWA, RANCHI - 834004

Telephone: 0651-2400850 (Fax): 2400851/2400852/2401147/2400979/2400139

Ref No.: JSPCB/HO/RNC/CTE-11785214/2022/96

Dated: 2022-03-06

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

- Reference: Application (v) No.- 11785214 / dated : 29/12/2021 of Dalmia Cement (Bharat) Limited, Venkatesh Thyagarajan 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
- Documents Relied Upon:
 - The content of Inspection Report (IR) checklist 28.12.2021 issued vide Ref. No. 1436 dated 28.12.2021 of R.O-Cum-Laboratory, J.S.P.C Board, Dhanbad.
 - The content of copy of Environmental Clearance granted vide letter No. EC/SELAA/2018-19/2136/2019-214 dated 23.09.2019 for "Upgradation of technology at existing standalone cement Grinding unit of M/s Dalmia Cement (Bharat) Ltd., at Bokaro Industrial Area, Dalidih, Bokaro, Jharkhand from 3.0 MTPA to 3.7 MTPA" with compliance report.
 - The content of Copy of CTE issued vide Ref No.: JSPCB/HO/RNC/CTE-6897145/2020/11 Dated: 07.01.2021 for production of Portland Slag Cement and Composite Cement - 3.0 MTPA to 3.7 MTPA.
 - The content of copy of CTO issued vide Ref No. JSPCB/HO/RNC/CTO-7428223/2020/560 dated 04.03.2020 for the period of 31.03.2022 for production of Portland Slag Cement and Composite Cement - 3.0 MTPA to 3.7 MTPA and its compliance report.
 - The content of Copy of the No Increase in Pollution Load Certificate issued by the Board vide letter ref. no. B-1998 dated 22.11.2021.
 - The content of Executive Summary related to No Increase in Pollution load with increase in production capacity to 4.5 MTP. Although change in Product Mix and Modernisation in Technology in Existing Standalone Grinding Unit of M/s Dalmia Cement (Bharat) Limited, at Bokaro Industrial Area (BIADA), Bokaro.
 - The content of unit has installed CAAQMS in the single stack and has assured to comply most of the conditions as mentioned in EC.
- 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 Munoo-Kamei, P. S.-Bokaro Steel City, District-BOKARO as follows:

Project	Site Area		Investment (Rs) / Year	Product & Capacity	Period of CTE
	Plot No.	Area			

In Expansion	Minza -Katari, Plot No. IV/A- 7(P), - Industrial area, BLADA, Bokaro	280002 Sq. Mtrs or 20.24 Hectare as per CTO	55.66 Cms	Portland Slag Cement, Portland Composite Cement & Portland Pozzolana Cement (PSC, PCC & PPC) - From 3.7 MTPA to 4.5 MTPA (As per EC Exp.)	date of issue to six months
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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 before commissioning of the project.
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 paves 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 install online certified PM10 analyzer with onsite display and connectivity to JSPCB server.
6. That, the occupier shall ensure that there shall be no leakage from the doors of the overns and doors must remain sealed in order to minimize the fugitive emissions.
7. That, the occupier shall collect and treat the effluent in foolproof latent system and shall recycle treated effluent to the system for reuse and shall ensure no discharge of effluent out side the premises.
8. 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.
9. That, the occupier shall use fly ash and or fly ash bricks in construction of the project.
10. That, the occupier shall implement all pollution control measures as recommended in JIA/IMP.
11. That, the occupier shall comply the recommendations of CREP.
12. That, the occupier shall comply all the conditions of Environmental Clearance issued by MOEF, Govt. of India, New Delhi.
13. That, the occupier shall use all solid wastes as resource as a raw material or a product.

In Expansion	Mauza -Kamari, Plot No. IV/A- 7(P), - Industrial area, BLADA, Bohoro	280002 Sq. Mtrs or 20.24 Hectare as per CTO	55.66 Centre	Portland Slag Cement, Portland Composite Cement & Portland Puzzolana Cement (PSC, PCC & PPC) - From 3.7 MTPA to 4.5 MTPA (As per EC Exp.)	date of issue to six months
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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 before commissioning of the project.
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 install online certified PM10 analyzer with onsite display and connectivity to JSPCB server.
6. That, the occupier shall ensure that there shall be no leakage from the doors of the ovens and doors must remain sealed in order to minimize the fugitive emissions;
7. 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.;
8. 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.
9. That, the occupier shall use fly ash and or fly ash bricks in construction of the project.
10. That, the occupier shall implement all pollution control measures as recommended in EIA/EMP.
11. That, the occupier shall comply the recommendations of CREP.
12. That, the occupier shall comply all the conditions of Environmental Clearance issued by MOEF, Govt. of India, New Delhi.
13. That, the occupier shall use all solid wastes as resource as a raw material or a product.

14. That, as a stake holder in Dhanbad Action Plan the occupier shall ensure the compliance of action to be taken to reduce the pollutants as suggested in Dhanbad Action Plan by them.

(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 fume 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 norms.

(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 norms.

(5) That, the occupier shall impart treatment as per Central Pollution Control Board norm in 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: 2022.03.06 11:24:28 +05'30'

(Yatindra Kumar Das)
Member Secretary

Memo No. : JSPCB/HO/RNC/CTE-
11785214/2022/96

Dated : 2022-03-06

Copy to : Sri. Venkatesan Thyagarajan, Director of M/s Dalmia Cement (Bharat) Limited, At-Plot No. IV/A-A-7(P), Bokaro Industrial Area Development Authority, 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: 2022.03.06 11:23:51 +05'30'

(Yatindra Kumar Das)
Member Secretary

Consent to operate (CTO) received from JSPCB Ranchi



JHARKHAND STATE POLLUTION CONTROL BOARD

TOWNSHIP ADMINISTRATION BUILDING, BEC COMPLEX, DHURWA, RANCHI - 834004

Telephone: 0651-2400850 (Fax) 2400851/2400852/2401843/2400979/2400139

Ref No. JSPCB/HO/RNC/CTO-14970501/2023/503

Dated :- 2023-01-15

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

- Application (s) dated 2022-12-15 of Dalma Cement (Bharat) Limited, Occupier Name: Venkatesan Jeyagaran 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.
- Documents Relied Upon:**
 - The content of Consent to Establish (CTE), Ref No. JSPCB/HO/RNC/CTE-117852/4/2022/96 Dated: 06.03.2022 for Portland Slag Cement, Portland Composite Cement & Portland Pozzolana Cement (PSC, PCC & PPC) - From 3.7 MTPA to 4.5 MTPA (As per EC Exp.) with compliance report.
 - The content of copy of Environmental Clearance granted vide letter No. EC/SEIAA/2018-19/2138/2019/174 dated 29.09.2019 for "Upgradation of technology at existing standalone cement Grinding unit of M/s Dalma Cement (Bharat) Ltd., at Bokaro Industrial Area, Ballia, Bokaro, Jharkhand from 3.0 MTPA to 3.7 MTPA" with compliance report.
 - The content of Copy of the No Increase in Pollution Load Certificate issued by the Board vide letter ref. no. H-1998 dated 22.11.2021.
 - The content of Executive Summary related to No Increase in Pollution load with increase in production capacity to 4.5 MTPA through change in Product Mix and Modernization in Technology in Existing Standalone Grinding Unit of M/s Dalma Cement (Bharat) Limited, at Bokaro Industrial Area (HADA), Bokaro.
 - The content of Self-declaration for procurement of Raw Material from valid source.
 - The content of Consent to Operate (CTO), vide ref. no. JSPCB/HO/RNC/CTO-13089032/2022/835, dated 12.06.2022 for the production of Portland Slag Cement, Portland Composite Cement & Portland Pozzolana Cement (PSC, PCC & PPC) - From 3.7 MTPA to 4.5 MTPA (As per EC Exp.) for the period upto 31.03.2023.
 - The content of authorization under HoWM Rule 2016 vide ref. no. JSPCB/HO/RNC/HWM-9675664/2021/26, dated 09.04.2021.
 - The content of Inspection Report (IR), Ref No. -1513 dated 31.12.2022 of R.O., JSPCB, Dhanbad.
- 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 Maaza-Kaman, P.S-Bokaro Steel City, District-BOKARO, as follows:

Project	Site/Area	Investment (Rs)	Product & Capacity	Period of CTO
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	Plot No.	Area			Date of issue To
In Expansion	Ai- Industrial area, BIADA, Bokaro, Plot No. IV/A-7(P)	200002 Sq. Mtrs or 20.24 Hectare	35.66 Crum.	Portland Slag Cement, Portland Composite Cement & Portland Pozzolana Cement (PSC, PCC & PPC) - From 3.7 MTPA to 4.5 MTPA (As per FC Exp. and previous CTO)	31/03/2027

(A) Specific Conditions:

1. That, the occupier shall install, operate and maintain dust containment cum suppression system.
2. That, the occupier shall carry out grinding and packing under covered area.
3. That, the occupier shall maintain the new emission guideline as prescribed by CPCB/MoEF for cement industry.
4. That, the occupier shall cover the truck/dumpers used for transportation of Limestone, Gypsum, Coal, Cement and other materials and shall use least habitation route for their movement.
5. That, the occupier shall install & maintain fixed type water sprinkler all along the road and the points of loading & unloading points.
6. That, the occupier shall construct proper approach road and internal roads and shall do sprinkling of water along these arms.
7. That, the occupier shall harvest rain water of the premises and recharge it to the ground by the method of Central Ground Water Board that fits most to such project.
8. That, the occupier shall keep surface run off within the premises and should construct gulland drain and settling pit for this purpose.
9. That, the occupier shall transport the product by leak proof and covered vehicles with tarpaulin sheet.
10. That, the occupier shall establish and operate well equipped environmental laboratory with facilities to monitor at least all regulatory parameters and duly accredited by NABL.
11. That, the occupier shall operate and maintain air pollution control devices to such as bag filters to control fuel dust emission.

12. That, the occupier shall submit the disposal and utilization of fly ash generated in the plant.
13. That, the occupier shall comply conditions of the CRIP and shall report to the Board regularly.
14. That, occupier shall maintain the operation of Pollution control system installed at Hall Mills and Silos. Also the power supply to production units & Silos shall be interlinked with pollution control arrangement.
15. That, the occupier shall operate and maintain the pollution control equipments such as bag filters and others.
16. That, the occupier shall operate and maintain the CAAQMS and PM 10 analyser and ensure transmission of data to JSPCB and CPCB server uninterruptedly.
17. That, the occupier shall comply all the conditions of EC and CTO and submit six monthly compliance report to Board and other relevant documents alongwith the analysis reports successively.
18. That, the occupier shall dispose the solid waste as per prescribed norms.
19. That, the occupier shall dispose the hazardous waste as per HWM Rules 2016 and shall obtain authorization under HWM Rules 2016.
20. That, the occupier shall submit online applications for renewal of consent under section 25 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 documents showing compliance of all of the above conditions.
21. That, this CTO supersedes the CTO granted earlier vide ref. no. JSPCB/HO/RNC/CTO-13089032/2022/837, dated 12.06.2022.

(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 ₂), µg/m ³	Annual 24 hours	50 80	20 80
2.	Nitrogen Dioxide (NO ₂), µg/m ³	Annual 24 hours	40 80	30 80
3.	Particulate Matter (size less than 10 µm) or PM ₁₀ , µg/m ³	Annual 24 hours	60 100	60 100
4.	Particulate Matter (size less than 2.5 µm) or PM _{2.5} , µg/m ³	Annual 24 hours	40 60	40 60
5.	Ozone(O ₃), µg/m ³	8 hours 1 hour	100 180	100 180
6.	Lead (Pb) µg/m ³	Annual 24 hours	0.50 1.0	0.50 1.0
7.	Carbon Monoxide (CO) mg/m ³	8 hours 1 hour	02 04	02 04
8.	Ammonia (NH ₃) µg/m ³	Annual 24 hours	100 400	100 400
9.	Benzene (C ₆ H ₆) µg/m ³	Annual	05	05
10.	Benzo(a) Pyrene(BaP) Particulate Phase only ng/m ³	Annual	01	01
11.	Arsenic (As) ng/m ³	Annual	06	06
12.	Nickel (Ni) ng/m ³	Annual	20	20
Note : Serial no. 1 to 4 – Mandatory Serial no. 5 to 12 As applicable for specific type of industry.				

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

S.N	Parameter	Standard
1	Particulate Matter	150 mg/Nm ³

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

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 norms.
- (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 mechanistic calculations analysis 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/Environmentally/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 safe 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 proceedings, 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) Cons. 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: 2023.03.15 21:27:17 +05'30'
(Yatindra Kumar Das)
Member Secretary

Memo No. : JSPCB/HO/925C/CTO-14970501/2023/563

Date: 2023-03-15

Copy to: M/s Dalmia Cement (Bharat) Limited, A- Plot No. IV/A-A-3(P), Bokaro Industrial Area Development Authority, 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: 2023.03.15 21:27:17 +05'30'
(Yatindra Kumar Das)
Member Secretary

Water agreement copy from BIADA, Jharkhand



झारखण्ड JHARKHAND

A 459112

AGREEMENT BOND FOR INDUSTRIAL METERED WATER SUPPLY SERVICE CONNECTION

An Agreement made this 17th day of March 2011 between the Bokaro Industrial Area Development Authority (hereinafter called the owner) on the first part and M/s Bokaro Jaypee Cement Limited, "JA House", 63 Basant Lok, Vasant Vihar, New Delhi-110057 hereinafter called "THE CONSUMER" on the second part.

The particulars of the industrial plot to which supply is to be given in the factory premises.

Description of premises	(a) Industrial Plot No.: IV/A-7(P)
	(b) Chauthadi of the industrial plot: As per Annexure 01
	(c) Industrial Plot No.: IV/K-7(P)
	(d) Revenue plot & No.: As per Annexure 02

Whereas the consumer desired to obtain supply of water for industrial purposes for his Premises as described from the distribution mains of the Authority and has made a written application to the Authority for this purpose and the Authority has decided to grant it, it is hereby covenanted and agreed as under:-

M. BOKARO JAYPEE CEMENT LTD.
(Authorized Signatory)

17/3/11
Chief Accounts Officer
BIADA

- 1) The Authority shall provide a connection and turn on the water to this premise, on the completion of the communication pipes laid by the 2nd part by the Authority at the cost of the consumer or on receipt of D.O. certificate of satisfactory completion of the communication pipes by the consumer. The sanctioned plan with details noted over it regarding no. of tap and size of water meter, Ferrule or storage tanki etc. by the Authority.
- 2) The consumer shall pay water rate/water tax to the Authority as per rates fixed by the Authority from time to time. The rates effective from 01.11.95 are as under:-

9) Rs. 14/- Per 1000 liters of water supplied.

3) a) The meter of required size shall be purchased by the consumer at his own cost which shall be approved by the Authority before its installation. Whenever meter will be found faulty or defective it will be replaced at the cost of the consumer. Every new metre shall be approved by the Authority. In case the meter is not installed, billing will be on the basis of Water requirement plus 10%.

b) The register of meter reading shall be prima-facie evidence of the quantity of water consumed and bills for water rates shall be based on the meter reading taken monthly, a copy of which will be supplied to the consumer on demand.

c) Provided that if any meter is out of order and if in the opinion of the D.O it is not registering correctly the Authority may estimate the quantity to be billed for, for the period of defective meter as certified by the DO/DDO/ADO in the manner terms and conditions laid down on the allotment of land/lease deed. The defective water meter will have to be replaced at the cost of consumer supplied by the consumer. The water meter of required size and make to be approved by the Authority shall be purchased by the consumer.

4. Bills of water rates shall be presented by the Authority monthly and shall be paid by consumer within seven days of presentation. For this purposes the date of presentation shall mean the date of issue of the bill on the address of the unit.

5. Security Deposit: Water requirement per day x 90 i.e. 5,50,000 liter x 90 x 14

1000

= Rs. 6,93,000.00 (Rupees Six Lakh Ninety Three Thousand) only will be deposited by the party in Authority fund.

6. The cost of stamping this agreement shall be borne by the unit concerned.
7. This agreement may be terminated with the cancellation of the plot allotted.

for BOKARO JAYPEE COAL LTD.

(Signature)
(Authorized Signatory)

(Signature)
17/3/11
BIAOB

8. The Authority will have right to shut off the supply temporarily for purposes of necessary repairs/maintenance of water supply pipelines etc. giving a prior notice to the concerned unit.
9. That the meter chamber shall be the property of the Authority even, if it is constructed by the consumer at his own cost but it will be got repaired by consumer or if Authority get it repaired, the cost will be received from consumer. The safety of water meter will be with consumer.
10. That the consumer shall take proper care for the safety of the meter which will be installed in the meter chamber situated within the premises of the unit and that in case of its theft he will be responsible and be liable for replacement of the meter within a week time.
11. In case of any dispute regarding this water connection, the decision of Bokaro Industrial Area Dev. Authority will be final and binding upon the party.
12. If the consumer fails to pay the water charges due under this agreement within seven days of the date on which the payment falls due, the consumer shall be liable to pay interest @ 10% simple per annum on earlier bill amount.
13. Every sum that may become due from the consumer to the Authority under or in pursuance of the provisions of this agreement shall be payable to the Authority and shall be recoverable as public demand under the Bihar & Orissa public Recovery Act, 1914.
14. In case the consumer desires to increase/decrease connected demand the Authority may require to be given 3 months notice in writing stating the required demand.
15. If the consumer uses the water supplied or deals with it in any manner so as unduly or improperly to interfere with the efficient supply of water to any person by the Authority or sells or diverts water to premises other than his/her own, the Authority may discontinue the supply with prior notice.
16. The consumer shall not cause or permit any such repairs additions or alterations to be done otherwise than by the Authority shall when any such repairs are required to be done, inform such officers of the Authority for this purpose.
17. All payment referred to above shall unless otherwise direct by the Authority to be made by the consumer by cash/draft in the office of M.D. BIADA.

or BOKARO JAYPTEE DEVELOPMENT AUTHORITY

(Authorized Signatory)

13.11.11
Chief Executive Officer
BIADA

The Authority shall be at liberty at any time to alter charges, minimum guarantee, any terms and conditions in the agreement bond etc. as set out in such hereafter and the same shall be binding on the consumer.

18. Point of supply : From Water Tank No: 02 to Plot No:IVA-7(P)
19. Connected fitting (a) Water meter with enclosure
(b) 200 H.B. Pipe with valve
20. Qty of water required per month in 1.65 Crores Liters.
21. Minimum guarantee by the consumer (25% of above connected load)
(i) Tariff Rs.14/- daily per 1,000 liters up to 1.65 Crores liters per Month. (25% of monthly demand)
(ii) Charge for additional quantity NIL per 0.00 gall./lit.(provisional and subject to revision)
22. Building plans in triplicate showing pipeline and all fixtures including index plan showing size of ferrule, meter pipeline and stop cock etc. duly signed by the licensed plumber, Asstt. Engineer.

In witness where of the said parties hereunder set & subscribed their respective hands and seals the day and year first above written.

Signed by the consumer

of BHARAT JAYEE CEMENT & CO.

In presence of

1. ANADHESH KUMAR PANDAY

2. RAJESH KUMAR SINGH

Signed for and on behalf of the BIADA.

In presence of

1. [Signature]

2. [Signature]

Signature
Designation
BIADA

Hazardous waste Authorization copy from JSPCB Ranchi



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/STWM-9675664/2021/26 09/04/2021
2. Reference of application(No. and date): 9675664 30/12/2020
3. Dalma Cement (Bharat) Limited of Venkatesan Thiyagarajan is hereby granted an authorization based on the enclosed signed inspection report for generation, collection, reception, storage, transport, reuse, recycling, recovery, pre-processing, co-processing, utilization, treatment, disposal or any other use of hazardous or other wastes or both on the premises situated at Distt: Bokaro

Details of Authorisation

S.No.	Category of Hazardous Waste as per the Schedules I, II and III of these rules	Authorized mode of disposal or recycling or utilization or co-processing, etc.	Quantity(lm/annum)
1	5.1 Used Oil/Spent oil	Sold to authorised recycler	1.5 KL/Annum
2	5.2 Used Oil Cotton	Sold to authorised recycler	1.0 KL

(1) The authorisation shall be valid for a period of date of issue to 31.12.2026 years

(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 unauthorized 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 authorized shall implement Emergency Response Procedure (ERP) for which this authorization 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 authorized shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liability for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty".
7. It is the duty of the authorized 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 construction 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 utilization of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorization.
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 authorization 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 comply the provisions of the Environment Protection Act and Rules.
- (2) That, the authorization shall be produced at the time of inspection.
- (3) That, the occupier authorized shall not rent/leas or otherwise transport the H/W without obtaining prior permission of the Board.
- (4) That, any on-authorization change shall constitute a breach the authorization.
- (5) That, it is the duty of authorized person to take prior permission of the Board to close down the facility.
- (6) That, the renewal of authorization shall be made as laid down in the rules.
- (7) That, any other condition for compliance as per the guidelines issued by the MoEF for CPCB.
- (8) That, the occupier shall submit annual return for the financial year before 30th June, every year.
- (9) That, the occupier shall comply all the conditions.
- (10) That, the occupier shall submit quarterly and annual information on hazardous wastes consumed its source, products generated or resources conserved (specifying the details like type and quantity of resources conserved) to the concerned SPCB.
- (11) That, the occupier shall complied all directions given by standard operating and procedure.

Memo No:ISPCB/HO/RNC/HWM-
9675664/2021/26
Date: 09/04/2021

**DILIP
KUMAR**
Digitally signed by DILIP KUMAR
DN: cn=DILIP KUMAR,
o=SPCB, ou=HQ,
email=dilip.kumar@spcb.gov.in,
c=IN
Dilip Kumar
Environmental Engineer

Copy To:

Sri Sunil Kumar Gupta, Executive Director (Manufacturing Head East) of M/s Dalmia Cement (Bharat) Limited, At Plot No. IV/A A-7(P), Bokaro Industrial Area Development Authority, Bokaro Steel City, Dist. Bokaro / Director of Industry, Government of Jharkhand, Ranchi/ Deputy Commissioner, Bokaro/ Chief Inspector of Factories, Ranchi/ R.O., Dhanbad for information & ensuring compliance of the above.

DILIP
Digitally signed
by DILIP KUMAR
KUMAR
Date: 2021.04.29
12:05:58 +05'30'

Dilip Kumar
Environmental Engineer

DALMIA CEMENT BHARAT LIMITED, BOKARO**Manual Stack emission monitoring report from April 2025 to September 2025**

Month	Min.	Max.	Avg.
April-2025,	10.7	19.0	14.0
May-2025,	7.5	15.6	8.9
June-2024,	10.3	16.9	13.4
July-2025,	8.4	14.0	11.1
August-2025,	9.3	22.0	15.4
September-2025,	11.4	20.2	16.3
Min.	7.5	14.0	8.9
Max.	11.4	22.0	16.3
Avg.	9.6	17.9	13.1

On Line CEMS report from April 2025 to September 2025

Month	Min.	Max.	Avg.
April-2025	7.1	27.8	20.9
May-2025	4.1	23.7	11.8
June-2024	5.2	10.9	7.4
July-2025	4.9	12.1	8.6
August-2025	3.0	14.5	10.13
September-2025	3.5	20.6	13.8
Min.	3.0	10.9	7.4
Max.	7.1	27.8	20.9
Avg.	4.7	18.5	12.6

JSPCB Norms**30 mg/Nm³**



INSTITUTE FOR ENVIRONMENTAL MANAGEMENT

Corporate office - A-8, Modi Heights, Opp. All India Radio Station, Ratu Road, Ranchi, Jharkhand - 834002
Laboratory Site - H No. - A-13, Saket Vihar, Near Sohrai Bhawan, Harmu Housing Colony,
Ranchi-834002, Jharkhand, India
Ph - 8407804253, 8407804251, Email - jem2012@rediffmail.com



TEST REPORT

U/LR No.:	T C I A L S S 2 5 0 0 0 0 0 0 0 0 0 0														
Discipline: Chemical	Group: Atmospheric Pollution										Sub-Group: Stack Emission				
Report Issue Date: 09-09-2023	Test Report No.: RN-2411050085														
Sample ID: 250908AP04001	Sample Description: Stack Emission														
Challan No./P.O. No.: 454804344237	Challan No./P.No. Date: 05-11-2024														
Name and Contact Details of Customer: Sanjiv Verma, (9364447743) Email id - verma.sanjiv2@gmail.com Dalsia Cement Bhawan Limited, Plot No IV/A-7(P), Bokaro Industrial Area Bafalik, Bokaro Steel City, Bokaro-827014 Jharkhand India															
Type of Industry: Cement										Condition of Sample: Fit for Test					
Sampling Principle: IS: 11255, 2009										Sampling Date: 05-09-2023					
Protocol: CPCB Guideline (LAFS/80/2013-14) & IS Method 11255 Series															
Sampling Location: Cement Mill Bag House Stack															
Field Meteorological Information: A. Temp. (°C): 30 R.H. (%): 65 W.C.: Partly Sunny W.D.: SW to NE															
Location of performance of the Laboratory Activity: IEM Laboratory, Ranchi															
Sample Receiving Date: 08-09-2023										Testing Started: 08-09-2023			Testing Ended: 09-09-2023		

Information obtained from Customer

Stack Identification	Cement Mill Bag House Stack	Sampling Port	Available
Plot Form	Permanent	Stack Height from Ground Level (m)	50
Stack Description	Common for cement mill-1 & 2	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): 365	Flue Gas Velocity (m/s): 13.8	Flue Gas Volumetric Flow Rate (Nm ³ /hr): 422237.1
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- Test Result -

Sl. No.	Parameters	Test Methods	Unit	Result	Limits
1.	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm ³	11.1	30.0

Dust	Kg/hr	4.69
------	-------	------

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65± 5 % as per testing area as per IS 150-1566(C)
Abbreviation	MDL: Minimum Detectable Limit, BDL: Below Detecting Limit
Norms as Specified	As per the IS Method 11255 Series
Remark	Sample Comply with prescribed specification.
Opinion & Interpretation	Not Fractured
Tested by	Arunkumar Soudh
Sample Drawn by	Ankita Mishra & Team
Disclaimer	- The results relate only to the sample tested, analyzed or sampled. - Additions to, deviations to, or exclusions from the method is not permitted if not implemented. - Results from external providers are not used if not specified.

Specific Confidential Notes:

- The laboratory accepts responsibility for content of this report.
- This report shall not be reproduced except in full, without approval of the MD.
- This report is intended for use by customers and not for any purpose or for advertisement.
- Any complaint about this report should be communicated in writing within 7 days of its issue.
- Total liability of Institute for Environmental Management will be limited to amount paid only.
- In case of feedback/Complaints, please send an email at jem2012@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

T. Ahmad

(Taqeer Ahmad)

Technical Manager

Authorized Signatory

S. C. Jain

(Dr. S. C. Jain)

Director

---End of Report---

CEMS Calibration certificate

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DALMIA CEMENT BHARAT LIMITED, BOKARO

Fugitive dust emission monitoring report from April 2025 to September 2025

Sr. No	Date of monitoring	Near Mill area $\mu\text{g}/\text{m}^3$	Near Coal yard $\mu\text{g}/\text{m}^3$	Near Packing plant $\mu\text{g}/\text{m}^3$	Near raw material yard $\mu\text{g}/\text{m}^3$	Truck parking area $\mu\text{g}/\text{m}^3$
1	12.04.2025	865.3	627.3	587.6	664.8	464.8
2	21.05.2025	914.1	541.7	681.9	737.4	582.1
3	27.06.2025	693.5	576.6	539.5	554.1	504.2
4	15.07.2025	519.3	416.2	579.4	409.7	419.8
5	21.08.2025	627.6	459.7	635.7	605.3	485.3
6	26.09.2025	734.2	679.3	763.4	751.8	627.5
	Min.	519.3	416.2	539.5	409.7	419.8
	Max.	914.1	679.3	763.4	751.8	627.5
	Avg.	723.4	549.5	636.3	610.6	516.4

JSPCB Norms	2000 $\mu\text{g}/\text{m}^3$
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Fugitive dust emission monitoring report month of September 2025 from NABL/JSPCB approved lab



INSTITUTE FOR ENVIRONMENTAL MANAGEMENT

100, Jalan 51/1, 50450 Kuala Lumpur, Malaysia
 Tel: 03-2619 5500, Fax: 03-2619 5501
 Email: info@iem.edu.my



TEST REPORT

Client Name: [Redacted] Project Name: [Redacted] Location: [Redacted] Site Address: [Redacted]	Project Description: [Redacted] Client Contact: [Redacted] Client Address: [Redacted]	Report No.: [Redacted] Issue Date: [Redacted] Valid Until: [Redacted]
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Test Method: [Redacted]

Test Result: [Redacted]

Remarks: [Redacted]

Signature: [Redacted]

Date: [Redacted]

Tested By: [Redacted]

Checked By: [Redacted]

Reviewed By: [Redacted]

Approved By: [Redacted]

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DALMIA CEMENT BHARAT LIMITED, BOKARO

Continuous Ambient air quality monitoring report from April 2025 to September 2025

DALMIA CEMENT (BHARAT) LIMITED CAAQMS-1 REPORT						
Date	PM10_Sr01	PM25_Sr01	SO2_Dalmia1	NO_Dalmia1	NO2_Dalmia1	NOX_Dalmia1
	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
4/1/2025	44.2	29.4	9.8	2.48	24.5	26.8
4/2/2025	40.3	21.6	10.1	2.6	24.13	24.4
4/3/2025	38.9	21.6	10.7	2.47	23.88	22.4
4/4/2025	38.8	18.6	9.5	2.37	24.98	27.6
4/5/2025	38.7	23.2	10.3	2.52	24.11	12.9
4/6/2025	41.9	16.8	10.8	2.48	22.95	16.4
4/7/2025	55.6	27.7	10.01	2.42	15.44	16.6
4/8/2025	50.5	22.3	9.5	2.45	12.29	21.8
4/9/2025	38.9	18.9	10.9	2.5	12.28	16.5
4/10/2025	32.4	13.3	10	2.52	12	16.8
4/11/2025	32.7	16	8.99	2.56	12.18	16.3
4/12/2025	49.4	26.7	10.01	2.5	11.98	16.6
4/13/2025	37.5	22.4	9.97	2.51	12.12	16.8
4/14/2025	52.4	25.1	10.8	2.72	12.16	16.3
4/15/2025	31.3	16.2	9.6	2.52	12	16.9
4/16/2025	47.1	22.8	10	2.73	11.93	17.7
4/17/2025	50.7	20.4	10.3	2.83	13.3	15.4
4/18/2025	41.9	19.7	9.7	2.33	13.99	16.3
4/19/2025	35.9	16.9	10.3	2.86	14.76	15.3
4/20/2025	31.8	13.9	7.48	2.84	15.3	16
4/21/2025	43.9	20.4	4.5	2.56	14.05	16.3
4/22/2025	41.8	24.6	4.9	2.45	15.01	16.3
4/23/2025	34.9	19.8	5.1	2.62	14.91	16.1
4/24/2025	37.4	16.8	4.5	2.38	15	16.1
4/25/2025	49	29.6	5.3	2.45	14.67	16.7
4/26/2025	64.1	39.9	4.5	2.54	15.09	16.4
4/27/2025	49.7	30.1	5.1	2.45	15.09	16.3
4/28/2025	50.6	35.1	4.8	2.41	15.04	16.9
4/29/2025	55.7	35.9	5.5	2.59	15.35	16.6
4/30/2025	50.9	30.4	4.8	2.51	15.14	17.8
Min	31.3	13.3	4.5	2.33	11.93	12.9
Max	64.1	39.9	10.9	2.86	24.98	27.6
Avg	43.88	23.67	8.22	2.54	16.02	17.90

DALMIA CEMENT (BHARAT) LIMITED CAAQMS-1 REPORT

Date	PM10_S01	PM25_S01	SO2_Dalmia1	NO_Dalmia1	NO2_Dalmia1	NOX_Dalmia1
	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
5/1/2025	45.1	23.9	4.5	2.6	15.1	17.7
5/2/2025	44.8	16.9	4.7	2.44	15	17.4
5/3/2025	50	22.9	4.8	2.54	15.3	17.8
5/4/2025	40.5	20	5.3	2.45	15.4	17.8
5/5/2025	42.4	28.7	3.9	2.47	19.1	21.6
5/6/2025	45	26.9	5.3	2.49	21.4	23.9
5/7/2025	53.4	23.3	4.5	2.48	21	23.4
5/8/2025	51.9	37.7	8.4	2.6	21.5	24.1
5/9/2025	30.8	27.2	9.3	1.56	21.4	23
5/10/2025	42.5	21.3	4.8	2.34	20.8	23.1
5/11/2025	46.7	25.3	3.9	2.42	20.9	23.4
5/12/2025	57.7	25.6	5.4	2.4	21.4	23.8
5/13/2025	51.2	22.7	6.2	2.41	21.4	23.8
5/14/2025	59	9.7	7.5	2.45	20.5	22.9
5/15/2025	53.5	8.6	8.4	1.72	21.3	23
5/16/2025	25.9	11.3	6.3	2.43	20.5	22.9
5/17/2025	70.7	16.7	5.1	2.45	21.5	24
5/18/2025	47.5	9.9	4.7	2.66	21	23.6
5/19/2025	45.8	13	6.8	2.6	22.3	24.9
5/20/2025	39.3	10	7.3	1.59	21.3	22.9
5/21/2025	36.9	10.6	6.5	2.66	21.1	23.8
5/22/2025	28.9	17	4.3	2.56	21	23.5
5/23/2025	35.8	12.1	5.3	2.46	21.2	23.7
5/24/2025	44	9.4	5.8	2.47	21.1	23.6
5/25/2025	50.4	8.2	6.9	2.52	21.2	23.8
5/26/2025	38.3	9.9	4.5	2.48	21.4	23.9
5/27/2025	49.3	19.7	5.3	2.54	20.9	23.4
5/28/2025	47.4	22.8	7.4	3.16	22.3	25.5
5/29/2025	19.4	15.5	6.1	2.62	21.2	23.8
5/30/2025	40.3	16.2	4.4	2.5	22	24.5
5/31/2025	72	17	4.7	2.59	19.9	22.5
Min	19.4	6.6	3.8	1.56	15	17.4
Max	72	37.7	9.3	3.16	22.3	25.5
Avg	45.39	18.25	5.74	2.44	20.26	22.72

DALMIA CEMENT (BHARAT) LIMITED CAAQMS-1 REPORT

Date	PM10_St01	PM25_St01	SO2_Dalmia1	NO_Dalmia1	NO2_Dalmia1	NOX_Dalmia1
	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
6/1/2025	45.3	17	3.8	2.49	21.4	22.01
6/2/2025	47.8	18.3	4.5	2.35	21.05	21.17
6/3/2025	45.8	16.7	6.2	2.66	22.08	23.69
6/4/2025	32.3	14.8	4.3	2.3	21.15	22.11
6/5/2025	45.7	20.3	3.7	2.43	21.33	22.04
6/6/2025	53.1	19.4	4.9	2.43	21.11	21.8
6/7/2025	45.8	17.6	4	2.58	21.18	22.37
6/8/2025	69.5	15.5	3.7	2.49	21.36	22.1
6/9/2025	80.1	18.3	6.3	2.57	21.27	22.27
6/10/2025	57.7	24	7.8	2.31	21.81	22.2
6/11/2025	48.8	22.9	6.9	2.55	21.69	22.6
6/12/2025	44.1	23.3	7.1	2.48	21.18	21.98
6/13/2025	53.5	15.6	4.7	2.42	21.57	22.14
6/14/2025	85.3	22.3	5.3	3.13	19.74	21.9
6/15/2025	74.6	25.6	4.7	1.98	16.56	18.74
6/16/2025	26.4	19.4	8.01	1.55	10.65	12.27
6/17/2025	17.7	14	3.51	2.6	20.56	20.69
6/18/2025	11.4	8	4.25	2.67	19.64	20.47
6/19/2025	10.9	6.9	2.29	2.18	23.27	21.94
6/20/2025	18.5	6.5	5.6	2.37	21.85	21.28
6/21/2025	48	18.6	2.25	2.62	30.72	22.23
6/22/2025	45.9	19.9	3.7	2.56	21.17	22.09
6/23/2025	49.6	25.5	5.25	2.64	20.93	22.72
6/24/2025	44.8	9.8	4.27	2.17	22.56	21.46
6/25/2025	53.8	9.4	6.4	2.71	14.89	16.22
6/26/2025	56.9	19.8	2.5	2.5	3.13	5.43
6/27/2025	64.7	17.2	5.83	2.72	3.01	5.7
6/28/2025	48.5	14.2	5.7	1.91	2.89	4.65
6/29/2025	14.9	9.5	6.8	2.4	3.05	5.33
6/30/2025	15.1	9	5.6	2.33	3.07	5.32
Min	10.9	6.5	2.25	1.55	2.89	4.65
Max	85.3	25.6	8.01	3.13	23.27	23.69
Avg	45.33	16.61	4.94	2.44	17.25	18.28

DALMIA CEMENT (BHARAT) LIMITED CAAQMS-1 REPORT

Date	PM10_S01	PM25_S01	SO2_Dalmia1	NO_Dalmia1	NO2_Dalmia1	NOX_Dalmia1
	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
7/1/2025	24.8	10.8	5	2.8	3.06	5.8
7/2/2025	41.7	12.1	4.9	3.25	4.34	7.5
7/3/2025	24.1	10.1	6.56	4.61	7.95	12.5
7/4/2025	36.9	23.1	7.3	4.13	8.19	12
7/5/2025	22.6	11.3	7.28	4.32	8.13	12.4
7/6/2025	27.6	12.1	7.05	4.26	8	12.2
7/7/2025	18.7	8.9	7.5	5.03	8.37	13.1
7/8/2025	17.6	6.7	6.73	4.69	8.1	12.9
7/9/2025	18.6	8.3	6.74	3.95	8.08	11.9
7/10/2025	21.3	12.8	6.48	4.26	7.9	12
7/11/2025	29.7	13.4	7.55	5.33	8.15	13.4
7/12/2025	29.8	16.4	7.92	4.5	8.05	12.5
7/13/2025	41	14.2	6.57	4.5	8.08	12.5
7/14/2025	20.4	19.5	7.07	4.32	7.83	12
7/15/2025	13.2	11.8	6.8	4.71	7.98	12.7
7/16/2025	32	14.3	6.4	4.72	8.1	12.7
7/17/2025	33.5	13.3	7.3	4.12	8.15	12.1
7/18/2025	29.9	14.2	7.69	4.82	7.91	12.7
7/19/2025	23.5	14.1	8.45	4.72	7.89	12.5
7/20/2025	26.1	12.1	9.11	4.49	7.8	12.3
7/21/2025	40.3	13.2	9.5	4.53	7.75	12.3
7/22/2025	34.1	14.8	8.62	4.49	7.98	12.4
7/23/2025	31.1	14.4	6.71	4.54	8.16	12.4
7/24/2025	22.8	13.7	7.99	4.93	7.83	12.5
7/25/2025	27.8	12.5	7.78	4.8	8.44	12.9
7/26/2025	21.6	12.3	6.5	4.17	7.61	11.3
7/27/2025	39.2	14.1	6.8	4.63	7.59	11.9
7/28/2025	16.3	11.6	6.5	4.33	8.13	12.1
7/29/2025	22.4	12.6	7.63	4.75	8.94	13.5
7/30/2025	42.3	14.1	7.72	5.79	7.44	13.1
7/31/2025	24.6	12.4	7	4.76	8.11	12.8
Min	13.2	6.7	4.9	2.8	3.06	5.8
Max	42.3	23.1	9.5	5.79	8.94	13.5
Avg	27.61	13.18	7.21	4.48	7.64	11.95

DALMIA CEMENT (BHARAT) LIMITED CAAQMS-1 REPORT

Dated	PM10_St01	PM25_St01	SO2_Dalmia1	NO_Dalmia1	NO2_Dalmia1	NOX_Dalmia1
	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
8/1/2025	12.1	3.3	7.4	4.39	8.22	12.6
8/2/2025	26.5	3.6	8	4.52	7.94	12.4
8/3/2025	35.4	3.5	6.8	4.43	8.26	12.7
8/4/2025	19.7	4.5	6.9	4.28	7.68	12
8/5/2025	30.6	22.9	6.7	5.07	8.12	13.1
8/6/2025	24.9	19.5	5.5	4.13	8.34	12.4
8/7/2025	20.2	14.7	6.3	4.14	8.21	12.1
8/8/2025	20.4	9.7	7.7	4.51	8.08	12.6
8/9/2025	26.6	13.8	7.5	4.72	8.38	13
8/10/2025	21.3	7.5	7.5	6.45	7.25	12.5
8/11/2025	24.4	7.4	7.5	7.39	8.45	14.8
8/12/2025	45.6	13.2	7.5	5.58	9.34	14
8/13/2025	49.7	12.7	6.9	4.46	8.33	12.6
8/14/2025	34	9.4	6.8	4.05	8.74	12.2
8/15/2025	36.7	8.5	7	4.42	7.32	11.7
8/16/2025	30.5	11.5	6.9	4.73	8.11	12.4
8/17/2025	31.5	14.5	7.1	4.37	9.42	12.8
8/18/2025	30.3	9.4	7.5	3.69	8.11	10.9
8/19/2025	25.5	7.5	6.4	5.16	9.4	12.9
8/20/2025	19.9	8.8	6.4	6.16	9.52	14.6
8/21/2025	33.7	17.7	6.6	5.13	8.25	12.5
8/22/2025	21	6.8	8.8	4.14	9.02	12.7
8/23/2025	13.5	5.9	8.9	3.88	9.7	12.8
8/24/2025	42.5	37	4.1	6.7	9.25	14.8
8/25/2025	49.2	21	2.8	4.85	8.61	12.6
8/26/2025	45.2	14.8	3	4.97	7.92	12.5
8/27/2025	41.9	15	2	4.38	7.63	11.6
8/28/2025	20.5	10.5	3.2	4.37	8.18	12.4
8/29/2025	29.9	11.7	5	4.64	8.32	12.5
8/30/2025	30.7	10.8	5	6.97	8.68	16
8/31/2025	24.2	19.2	6	5.04	8.67	15.9
Min	12.1	3.3	2	3.69	7.25	10.9
Max	49.7	37	8.9	7.39	9.7	16
Avg	29.6	12.6	6.3	4.9	8.4	13.0

DALMIA CEMENT (BHARAT) LIMITED CAAQMS-1 REPORT

Date	PM10_St01	PM25_St01	SO2_Dalmia1	NO_Dalmia1	NO2_Dalmia1	NOX_Dalmia1
	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
9/1/2025	13.2	29.4	6.97	5.64	8.52	17.1
9/2/2025	33.5	22.8	9.24	4.69	8.06	16.56
9/3/2025	32.8	23.8	8.79	4.55	8.02	16.95
9/4/2025	26.1	13.5	7.88	4.58	8.06	17.69
9/5/2025	36.5	24.7	7.86	4.33	8.03	17.27
9/6/2025	31	17	7.58	4.48	8.12	17.63
9/7/2025	33.6	17.3	9.09	4.89	8.11	18.18
9/8/2025	33.3	14.7	8.66	4.74	8.07	17.91
9/9/2025	33.4	13.9	8.19	4.8	8.33	18.34
9/10/2025	27	11.4	8.02	4.54	8.04	17.56
9/11/2025	26.1	11.1	7	4.58	8.02	17.65
9/12/2025	39.4	19.2	8.27	4.71	7.98	17.74
9/13/2025	33.3	13	10.06	4.59	8.1	17.76
9/14/2025	30.6	13.3	7.88	4.55	8	17.56
9/15/2025	19.6	14	4.52	4.45	8.04	17.48
9/16/2025	37.2	17.8	6.37	4.2	8.12	17.15
9/17/2025	26.4	8.8	7.52	4.47	7.92	17.27
9/18/2025	24.9	10.9	7.25	4.49	8.03	17.48
9/19/2025	34	16.8	7.55	4.36	7.95	17.2
9/20/2025	34.4	14.6	7.72	4.42	7.97	17.31
9/21/2025	27.5	10.5	9.25	4.31	8.19	17.49
9/22/2025	25.3	13.1	9.34	4.55	8.02	17.58
9/23/2025	30.1	15.2	8.64	4.42	7.93	17.25
9/24/2025	41.7	21.5	8.49	4.6	8	17.6
9/25/2025	42.3	17.5	7.25	4.69	7.87	17.47
9/26/2025	25.5	9.8	7.3	4.34	8.07	17.34
9/27/2025	29.8	13.2	10.29	4.51	7.99	17.45
9/28/2025	30.1	16.3	10.59	4.43	7.83	17.08
9/29/2025	37.7	15.2	8.47	4.28	8.04	17.19
9/30/2025	29	13.3	7.59	4.57	7.97	17.52
Min	13.2	8.8	4.52	4.2	7.83	16.56
Max	42.3	29.4	10.59	5.64	8.52	18.34
Avg	30.65	15.99	8.09	4.58	8.05	17.46

Calibration certificates of CAAQMS



Calibration Certificate of CAAQMS-1 & CAAQMS-2 at Dalmia Cement Bharat Ltd (Bokaro)

Name of Client: Dalmia Cement Bharat Ltd

W.O. No.: 454809232 Date: 21.06.2024

Calibration Date: 25.06.2025

ANALYZER & SPAN GAS DETAILS			
ANALYZERS	MODEL & SL NO	CAL. CLV.	SPAN GAS SL.NO.
PM10	MP101M-3483	Ref. Gauge	844 $\mu\text{g}/\text{m}^3$
PM2.5	MP101M-3685	Ref. Gauge	845 $\mu\text{g}/\text{m}^3$
SO ₂	AF22M-2339	SO ₂	
NOX	AC32M-04-2489	CO	
PM10	MP101M-3483	Ref. Gauge	847 $\mu\text{g}/\text{m}^3$
PM2.5	MP101M-3685	Ref. Gauge	838 $\mu\text{g}/\text{m}^3$

ANALYZER CALIBRATION DETAILS									
Date	Parameter	Units	Slut.	25Dec.	25Dec.	Days	Factor	SDRPN	Status
25.06.2025	PM10CAAQMS1	$\mu\text{g}/\text{m}^3$	844	NA	857.94	0	0.8712	1.55	Valid
25.06.2025	PM2.5CAAQMS1	$\mu\text{g}/\text{m}^3$	845	NA	848.45	0	0.872	0.41	Valid
25.06.2025	SO ₂ CAAQMS1	ppb	200	0.06	202	0	4.9404	0.55	Valid
25.06.2025	NOX CAAQMS1	ppb	200	0.13	200.9	0	4.3203	0.45	Valid
25.06.2025	PM10 CAAQMS2	$\mu\text{g}/\text{m}^3$	829	NA	809.0	0	0.818	-2.47	Valid
25.06.2025	PM2.5 CAAQMS2	$\mu\text{g}/\text{m}^3$	832	NA	842.67	0	0.8115	-1.10	Valid

Room temperature while doing calibration was 26°C.

Calibration Date: - 25th June, 25.

Next Due Date: - 25th Sept, 25.

Calibrated by: Kishan Prasad Mahala

Kishan Prasad Mahala
Sr. Engineer
Envea India Pvt. Ltd.

Envea is a leading provider of quality assurance services for environmental monitoring and control. We provide a wide range of services including calibration, maintenance, and repair of air quality monitoring equipment. Our services are performed in accordance with the latest standards and regulations. For more information, please contact us at 011-26100000 or visit our website at www.envea.com. info@envea.com



Calibration certificates of CAAQMS



Calibration certificate of CAAQMS1 & CAAQMS2 at Dalmia cement Bharat LTD (Bokaro, Jh.)

Name of Client : Dalmia cement Bharat LTD
 WO No : 4546049733 Date: 20.08.2025
 Calibration Date : 22.08.2025

ANALYZER&SPAN GAS DETAILS			
ANALYZERS	MODEL&SL NO.	CAL CLY.	SPAN GAS CONC
PM10(CAAQMS1)	MP101M	Ref. Gauge	820ug/cm ³
PM2.5(CAAQMS1)	MP201M	Ref. Gauge	870ug/cm ³
NO(CAAQMS1)	AC32M	NO	15PPM
SO2(CAAQMS1)	AF22M	SO2	10 PPM
PM10(CAAQMS2)	MP101M	Ref. Gauge	810ug/cm ³
PM2.5(CAAQMS2)	MP201M	Ref. Gauge	840ug/cm ³

ANALYZER CALIBRATION DETAILS									
Date	Parameter	Unit	Slab	2Mes	5Mes	Zero	Factor	100PPM	Status
22.08.2025	PM10(CAAQMS1)	ug/m ³	829	NA	835	0	-0.76	-1.60	Valid
22.08.2025	PM2.5(CAAQMS1)	ug/m ³	870	NA	868	0	0.72	-1.86	Valid
22.08.2025	NO(CAAQMS1)	ppm	60	0.011	61.10	0	1.41	1.83	Valid
22.08.2025	SO2(CAAQMS1)	ppm	300	0.74	305.2	0	2.07	1.73	Valid
22.08.2025	PM10(CAAQMS2)	ug/m ³	859	NA	842	0	0.79	-2.09	Valid
22.08.2025	PM2.5(CAAQMS2)	ug/m ³	840	NA	858	0	0.83	2.14	Valid

Room temperature & Humidity as per calibration chamber 24°C.

Calibration date: 22nd Aug 2025.

Next Due date: 22nd Nov, 2025.

Calibrated by: Sonu Kumar Jha



Sr. Executive CIO

100% Accuracy & Reliability as per ISO 9001:2015 & ISO 17025:2017



At Jharkhand, Dalmia Cement Bharat Ltd, Bokaro, Jharkhand
 100% Accuracy & Reliability as per ISO 9001:2015 & ISO 17025:2017

8/3/2025 5:55 PM Veerika Sanjeev Dalmia - calibration report Aug 23.pdf

DALMIA CEMENT BHARAT LIMITED, BOKARO

Manual Ambient air quality monitoring report from April 2025 to September 2025

Near Time Office				
Month	SO ₂	NO _x	PM-10	PM-2.5
	µg/m ³	µg/m ³	µg/m ³	µg/m ³
Apr-2025	18.0	20.1	56.6	26.4
May-2025	12.1	13.6	42.2	18.9
Jun-2025	9.5	10.6	48.7	19.0
Jul-2025	7.7	12.8	42.6	20.1
Aug-2025	4.9	14.0	39.1	17.7
Sep-2025	6.7	13.7	53.2	18.6
Min	4.9	10.6	39.1	17.7
Max	18.0	20.1	56.6	26.4
Avg	10.2	14.5	47.3	20.6

Near FH-2 Building				
Month	SO ₂	NO _x	PM-10	PM-2.5
	µg/m ³	µg/m ³	µg/m ³	µg/m ³
Apr-2025	12.3	17.0	52.1	23.4
May-2025	8.4	9.8	34.7	17.1
Jun-2025	8.1	12.7	46.8	16.0
Jul-2025	6.5	11.2	41.2	15.8
Aug-2025	6.7	12.0	42.9	16.2
Sep-2025	7.3	15.1	50.5	19.1
Min	6.5	9.8	34.7	15.8
Max	12.3	17.0	52.1	23.4
Avg	8.5	13.1	44.4	18.4

JSPCB Norms

SO ₂	NO _x	PM ₁₀	PM _{2.5}
(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)
80	80	100	60

DALMIA CEMENT BHARAT LIMITED, BOKARO

Manual Ambient air quality monitoring report from April 2025 to September 2025

Near Wagon Tripler				
Month	SO ₂	NO _x	PM-10	PM-2.5
	µg/m ³	µg/m ³	µg/m ³	µg/m ³
Apr-25	17.1	19.7	55.2	25.1
May-25	9.3	11.4	41.6	20.1
Jun-25	13.6	13.8	51.7	20.3
Jul-25	11.7	12.5	52.5	18.9
Aug-25	9.6	17.3	53.6	21.5
Sep-25	10.4	17.0	56.4	21.7
Min	9.3	11.4	41.6	18.9
Max	17.1	19.7	56.4	25.1
Avg	12.2	15.3	51.1	21.5

Near Fabrication Yard				
Month	SO ₂	NO _x	PM-10	PM-2.5
	µg/m ³	µg/m ³	µg/m ³	µg/m ³
Apr-25	13.6	16.5	57.1	28.7
May-25	10.0	12.2	43.4	20.1
Jun-25	8.4	9.8	47.0	21.1
Jul-25	7.2	10.2	44.3	22.7
Aug-25	8.2	16.2	49.2	18.9
Sep-25	8.5	16.0	51.2	22.5
Min	7.2	9.8	43.4	18.9
Max	13.6	16.5	57.1	28.7
Avg	9.6	13.4	49.1	22.7

JSPCB Norms

SO ₂	NO _x	PM ₁₀	PM _{2.5}
(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)
80	80	100	60

[illegible]

Ambient air quality monitoring report from JSPCB /NABL approved lab with in the norm's month of September 2025

INSTITUTE FOR ENVIRONMENTAL MANAGEMENT
 10/1, 10/2, 10/3, 10/4, 10/5, 10/6, 10/7, 10/8, 10/9, 10/10, 10/11, 10/12, 10/13, 10/14, 10/15, 10/16, 10/17, 10/18, 10/19, 10/20, 10/21, 10/22, 10/23, 10/24, 10/25, 10/26, 10/27, 10/28, 10/29, 10/30, 10/31, 11/1, 11/2, 11/3, 11/4, 11/5, 11/6, 11/7, 11/8, 11/9, 11/10, 11/11, 11/12, 11/13, 11/14, 11/15, 11/16, 11/17, 11/18, 11/19, 11/20, 11/21, 11/22, 11/23, 11/24, 11/25, 11/26, 11/27, 11/28, 11/29, 11/30, 12/1, 12/2, 12/3, 12/4, 12/5, 12/6, 12/7, 12/8, 12/9, 12/10, 12/11, 12/12, 12/13, 12/14, 12/15, 12/16, 12/17, 12/18, 12/19, 12/20, 12/21, 12/22, 12/23, 12/24, 12/25, 12/26, 12/27, 12/28, 12/29, 12/30, 12/31

TEST REPORT

Client: **XXXXXX**
 Address: **XXXXXX**
 Contact: **XXXXXX**
 Date: **XXXXXX**

Tested by: **XXXXXX**
 Date: **XXXXXX**

Tested for: **XXXXXX**

Sl. No.	Parameter	Unit	Value	Limit	Remarks
1	PM10	µg/m³	XXXXXX	XXXXXX	
2	PM2.5	µg/m³	XXXXXX	XXXXXX	
3	SO2	ppm	XXXXXX	XXXXXX	
4	NO2	ppm	XXXXXX	XXXXXX	
5	O3	ppm	XXXXXX	XXXXXX	
6	CO	ppm	XXXXXX	XXXXXX	
7	HC	ppm	XXXXXX	XXXXXX	

Signature: **XXXXXX**
 Date: **XXXXXX**

INSTITUTE FOR ENVIRONMENTAL MANAGEMENT
 10/1, 10/2, 10/3, 10/4, 10/5, 10/6, 10/7, 10/8, 10/9, 10/10, 10/11, 10/12, 10/13, 10/14, 10/15, 10/16, 10/17, 10/18, 10/19, 10/20, 10/21, 10/22, 10/23, 10/24, 10/25, 10/26, 10/27, 10/28, 10/29, 10/30, 10/31, 11/1, 11/2, 11/3, 11/4, 11/5, 11/6, 11/7, 11/8, 11/9, 11/10, 11/11, 11/12, 11/13, 11/14, 11/15, 11/16, 11/17, 11/18, 11/19, 11/20, 11/21, 11/22, 11/23, 11/24, 11/25, 11/26, 11/27, 11/28, 11/29, 11/30, 12/1, 12/2, 12/3, 12/4, 12/5, 12/6, 12/7, 12/8, 12/9, 12/10, 12/11, 12/12, 12/13, 12/14, 12/15, 12/16, 12/17, 12/18, 12/19, 12/20, 12/21, 12/22, 12/23, 12/24, 12/25, 12/26, 12/27, 12/28, 12/29, 12/30, 12/31

TEST REPORT

Client: **XXXXXX**
 Address: **XXXXXX**
 Contact: **XXXXXX**
 Date: **XXXXXX**

Tested by: **XXXXXX**
 Date: **XXXXXX**

Tested for: **XXXXXX**

Sl. No.	Parameter	Unit	Value	Limit	Remarks
1	PM10	µg/m³	XXXXXX	XXXXXX	
2	PM2.5	µg/m³	XXXXXX	XXXXXX	
3	SO2	ppm	XXXXXX	XXXXXX	
4	NO2	ppm	XXXXXX	XXXXXX	
5	O3	ppm	XXXXXX	XXXXXX	
6	CO	ppm	XXXXXX	XXXXXX	
7	HC	ppm	XXXXXX	XXXXXX	

Signature: **XXXXXX**
 Date: **XXXXXX**

INSTITUTE FOR ENVIRONMENTAL MANAGEMENT
 10/1, 10/2, 10/3, 10/4, 10/5, 10/6, 10/7, 10/8, 10/9, 10/10, 10/11, 10/12, 10/13, 10/14, 10/15, 10/16, 10/17, 10/18, 10/19, 10/20, 10/21, 10/22, 10/23, 10/24, 10/25, 10/26, 10/27, 10/28, 10/29, 10/30, 10/31, 11/1, 11/2, 11/3, 11/4, 11/5, 11/6, 11/7, 11/8, 11/9, 11/10, 11/11, 11/12, 11/13, 11/14, 11/15, 11/16, 11/17, 11/18, 11/19, 11/20, 11/21, 11/22, 11/23, 11/24, 11/25, 11/26, 11/27, 11/28, 11/29, 11/30, 12/1, 12/2, 12/3, 12/4, 12/5, 12/6, 12/7, 12/8, 12/9, 12/10, 12/11, 12/12, 12/13, 12/14, 12/15, 12/16, 12/17, 12/18, 12/19, 12/20, 12/21, 12/22, 12/23, 12/24, 12/25, 12/26, 12/27, 12/28, 12/29, 12/30, 12/31

TEST REPORT

Client: **XXXXXX**
 Address: **XXXXXX**
 Contact: **XXXXXX**
 Date: **XXXXXX**

Tested by: **XXXXXX**
 Date: **XXXXXX**

Tested for: **XXXXXX**

Sl. No.	Parameter	Unit	Value	Limit	Remarks
1	PM10	µg/m³	XXXXXX	XXXXXX	
2	PM2.5	µg/m³	XXXXXX	XXXXXX	
3	SO2	ppm	XXXXXX	XXXXXX	
4	NO2	ppm	XXXXXX	XXXXXX	
5	O3	ppm	XXXXXX	XXXXXX	
6	CO	ppm	XXXXXX	XXXXXX	
7	HC	ppm	XXXXXX	XXXXXX	

Signature: **XXXXXX**
 Date: **XXXXXX**

INSTITUTE FOR ENVIRONMENTAL MANAGEMENT
 10/1, 10/2, 10/3, 10/4, 10/5, 10/6, 10/7, 10/8, 10/9, 10/10, 10/11, 10/12, 10/13, 10/14, 10/15, 10/16, 10/17, 10/18, 10/19, 10/20, 10/21, 10/22, 10/23, 10/24, 10/25, 10/26, 10/27, 10/28, 10/29, 10/30, 10/31, 11/1, 11/2, 11/3, 11/4, 11/5, 11/6, 11/7, 11/8, 11/9, 11/10, 11/11, 11/12, 11/13, 11/14, 11/15, 11/16, 11/17, 11/18, 11/19, 11/20, 11/21, 11/22, 11/23, 11/24, 11/25, 11/26, 11/27, 11/28, 11/29, 11/30, 12/1, 12/2, 12/3, 12/4, 12/5, 12/6, 12/7, 12/8, 12/9, 12/10, 12/11, 12/12, 12/13, 12/14, 12/15, 12/16, 12/17, 12/18, 12/19, 12/20, 12/21, 12/22, 12/23, 12/24, 12/25, 12/26, 12/27, 12/28, 12/29, 12/30, 12/31

TEST REPORT

Client: **XXXXXX**
 Address: **XXXXXX**
 Contact: **XXXXXX**
 Date: **XXXXXX**

Tested by: **XXXXXX**
 Date: **XXXXXX**

Tested for: **XXXXXX**

Sl. No.	Parameter	Unit	Value	Limit	Remarks
1	PM10	µg/m³	XXXXXX	XXXXXX	
2	PM2.5	µg/m³	XXXXXX	XXXXXX	
3	SO2	ppm	XXXXXX	XXXXXX	
4	NO2	ppm	XXXXXX	XXXXXX	
5	O3	ppm	XXXXXX	XXXXXX	
6	CO	ppm	XXXXXX	XXXXXX	
7	HC	ppm	XXXXXX	XXXXXX	

Signature: **XXXXXX**
 Date: **XXXXXX**

Ambient air quality monitoring report from JSPCB /NABL approved lab with in the norm's month of September 2025

INSTITUTE FOR ENVIRONMENTAL MANAGEMENT
 (Formerly JSPCB, Jharkhand) (Formerly JSPCB, Jharkhand) (Formerly JSPCB, Jharkhand)
 (Formerly JSPCB, Jharkhand) (Formerly JSPCB, Jharkhand) (Formerly JSPCB, Jharkhand)

TEST REPORT

Client: **State of Jharkhand**
 Project: **Ambient Air Quality Monitoring**
 Location: **Patna, Bihar**
 Date: **15/09/2025**

TEST RESULTS

Sl. No.	Parameter	Unit	Observed Value	Limit Value	Remarks
1	PM ₁₀	µg/m ³	120	400	Within Limit
2	PM _{2.5}	µg/m ³	80	150	Within Limit
3	SO ₂	ppb	10	100	Within Limit
4	NO ₂	ppb	15	100	Within Limit
5	O ₃	ppb	20	100	Within Limit
6	CO	ppm	1.0	1.0	Within Limit

TEST METHOD

Method: **Gravimetric Method**
 Instrument: **Gravimetric Analyser**
 Reagent: **None**
 Standard: **None**

TEST RESULT

Result: **Pass**
 Remarks: **All parameters are within the limit.**

TEST REPORT

Client: **State of Jharkhand**
 Project: **Ambient Air Quality Monitoring**
 Location: **Patna, Bihar**
 Date: **15/09/2025**

TEST RESULTS

Sl. No.	Parameter	Unit	Observed Value	Limit Value	Remarks
1	PM ₁₀	µg/m ³	120	400	Within Limit
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3	SO ₂	ppb	10	100	Within Limit
4	NO ₂	ppb	15	100	Within Limit
5	O ₃	ppb	20	100	Within Limit
6	CO	ppm	1.0	1.0	Within Limit

TEST METHOD

Method: **Gravimetric Method**
 Instrument: **Gravimetric Analyser**
 Reagent: **None**
 Standard: **None**

TEST RESULT

Result: **Pass**
 Remarks: **All parameters are within the limit.**

INSTITUTE FOR ENVIRONMENTAL MANAGEMENT
 (Formerly JSPCB, Jharkhand) (Formerly JSPCB, Jharkhand) (Formerly JSPCB, Jharkhand)
 (Formerly JSPCB, Jharkhand) (Formerly JSPCB, Jharkhand) (Formerly JSPCB, Jharkhand)

TEST REPORT

Client: **State of Jharkhand**
 Project: **Ambient Air Quality Monitoring**
 Location: **Patna, Bihar**
 Date: **15/09/2025**

TEST RESULTS

Sl. No.	Parameter	Unit	Observed Value	Limit Value	Remarks
1	PM ₁₀	µg/m ³	120	400	Within Limit
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4	NO ₂	ppb	15	100	Within Limit
5	O ₃	ppb	20	100	Within Limit
6	CO	ppm	1.0	1.0	Within Limit

TEST METHOD

Method: **Gravimetric Method**
 Instrument: **Gravimetric Analyser**
 Reagent: **None**
 Standard: **None**

TEST RESULT

Result: **Pass**
 Remarks: **All parameters are within the limit.**

TEST REPORT

Client: **State of Jharkhand**
 Project: **Ambient Air Quality Monitoring**
 Location: **Patna, Bihar**
 Date: **15/09/2025**

TEST RESULTS

Sl. No.	Parameter	Unit	Observed Value	Limit Value	Remarks
1	PM ₁₀	µg/m ³	120	400	Within Limit
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5	O ₃	ppb	20	100	Within Limit
6	CO	ppm	1.0	1.0	Within Limit

TEST METHOD

Method: **Gravimetric Method**
 Instrument: **Gravimetric Analyser**
 Reagent: **None**
 Standard: **None**

TEST RESULT

Result: **Pass**
 Remarks: **All parameters are within the limit.**

INSTITUTE FOR ENVIRONMENTAL MANAGEMENT
 (Formerly JSPCB, Jharkhand) (Formerly JSPCB, Jharkhand) (Formerly JSPCB, Jharkhand)
 (Formerly JSPCB, Jharkhand) (Formerly JSPCB, Jharkhand) (Formerly JSPCB, Jharkhand)

TEST REPORT

Client: **State of Jharkhand**
 Project: **Ambient Air Quality Monitoring**
 Location: **Patna, Bihar**
 Date: **15/09/2025**

TEST RESULTS

Sl. No.	Parameter	Unit	Observed Value	Limit Value	Remarks
1	PM ₁₀	µg/m ³	120	400	Within Limit
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4	NO ₂	ppb	15	100	Within Limit
5	O ₃	ppb	20	100	Within Limit
6	CO	ppm	1.0	1.0	Within Limit

TEST METHOD

Method: **Gravimetric Method**
 Instrument: **Gravimetric Analyser**
 Reagent: **None**
 Standard: **None**

TEST RESULT

Result: **Pass**
 Remarks: **All parameters are within the limit.**

TEST REPORT

Client: **State of Jharkhand**
 Project: **Ambient Air Quality Monitoring**
 Location: **Patna, Bihar**
 Date: **15/09/2025**

TEST RESULTS

Sl. No.	Parameter	Unit	Observed Value	Limit Value	Remarks
1	PM ₁₀	µg/m ³	120	400	Within Limit
2	PM _{2.5}	µg/m ³	80	150	Within Limit
3	SO ₂	ppb	10	100	Within Limit
4	NO ₂	ppb	15	100	Within Limit
5	O ₃	ppb	20	100	Within Limit
6	CO	ppm	1.0	1.0	Within Limit

TEST METHOD

Method: **Gravimetric Method**
 Instrument: **Gravimetric Analyser**
 Reagent: **None**
 Standard: **None**

TEST RESULT

Result: **Pass**
 Remarks: **All parameters are within the limit.**

INSTITUTE FOR ENVIRONMENTAL MANAGEMENT
 (Formerly JSPCB, Jharkhand) (Formerly JSPCB, Jharkhand) (Formerly JSPCB, Jharkhand)
 (Formerly JSPCB, Jharkhand) (Formerly JSPCB, Jharkhand) (Formerly JSPCB, Jharkhand)

TEST REPORT

Client: **State of Jharkhand**
 Project: **Ambient Air Quality Monitoring**
 Location: **Patna, Bihar**
 Date: **15/09/2025**

TEST RESULTS

Sl. No.	Parameter	Unit	Observed Value	Limit Value	Remarks
1	PM ₁₀	µg/m ³	120	400	Within Limit
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3	SO ₂	ppb	10	100	Within Limit
4	NO ₂	ppb	15	100	Within Limit
5	O ₃	ppb	20	100	Within Limit
6	CO	ppm	1.0	1.0	Within Limit

TEST METHOD

Method: **Gravimetric Method**
 Instrument: **Gravimetric Analyser**
 Reagent: **None**
 Standard: **None**

TEST RESULT

Result: **Pass**
 Remarks: **All parameters are within the limit.**

TEST REPORT

Client: **State of Jharkhand**
 Project: **Ambient Air Quality Monitoring**
 Location: **Patna, Bihar**
 Date: **15/09/2025**

TEST RESULTS

Sl. No.	Parameter	Unit	Observed Value	Limit Value	Remarks
1	PM ₁₀	µg/m ³	120	400	Within Limit
2	PM _{2.5}	µg/m ³	80	150	Within Limit
3	SO ₂	ppb	10	100	Within Limit
4	NO ₂	ppb	15	100	Within Limit
5	O ₃	ppb	20	100	Within Limit
6	CO	ppm	1.0	1.0	Within Limit

TEST METHOD

Method: **Gravimetric Method**
 Instrument: **Gravimetric Analyser**
 Reagent: **None**
 Standard: **None**

TEST RESULT

Result: **Pass**
 Remarks: **All parameters are within the limit.**

Annexure-8

List of air pollution control device installed in plant

Dalmia Cement (Bharat) Limited, Bokaro					
Sl. No.	Location	Equipment No.	Capacity in m ³ /hr	No. of Bags	Standard
1	Cement Silo Top	591 BF1	7500	64	30 mg/Nm ³ (New CPCB norms for Stack emission)
2	Cement Silo Top	591 BF2	7500	64	
3	Cement Silo Top	591 BF3	7500	64	
4	C.S.Bin Dedusting	611BF1	3664	25	
5	C.S.Bin Dedusting	611BF2	3664	25	
6	C.S.Bin Dedusting	611BF3	3664	25	
7	Nuisance Dedusting	611BF4	18000	144	
8	Packing Plant	641BF1	34000	256	
9	Packing Plant	641BF2	16000	121	
10	Packing Plant	642BF1	34000	256	
11	Packing Plant	642BF2	16000	121	
12	Reclaiming Tunnel For Slag & Gypsum Conv.	K91 BF1	12500	100	
13	Clinker Silo Bottom	511BF2	9000	72	
14	Clinker Silo Bottom	511 BF1	9000	72	
15	Cement Mill Hopper	K91 BF2	12500	100	
16	Coal Crusher	L31 BF1	5000	60	
17	FBC	L32 BF1	5000	60	
18	Bag House-1	521BF7	16000	121	
19	Bag House-2	522 BF7	3664	25	
20	Bag House - 1	521 BF6	714240	5632	
21	Bag House - 2	522 BF6	714240	5632	
22	C. Mill Hopper Top	511 BF3	9000	72	
23	C. Mill Hopper Bottom	521 BF1	14880	100	
24	C. Mill Hopper Bottom	521 BF2	13680	100	
25	Cement Mill - 1	521 BF4	15540	121	
26	Reject Building	521 BF5	7500	64	
27	Cement Mill - 2	522 BF4	15540	121	
28	Reject Building	522 BF5	7500	64	
29	Transfer Point Dedusting In Hopper Building	522 BF1	14880	100	
30	Transfer Point Dedusting In Hopper Building	522 BF2	13680	100	
31	Transfer Tower-1	491 BF1	9000	72	
32	Clinker Silo Top	491 BF2	9000	72	
33	Packing Plant	643 BF-1	40000	308	
34	Packing Plant	643 BF-2	20000	154	
35	Outside Cement Silo	643 BF-3	7500	57	

Compliance of CREP Conditions

DALMIA CEMENT BHARAT LIMITED, BOKARO		
COMPLIANCE STATUS OF C.R.E.P. ACTION POINTS		
SN.	CREP CONDITION	CREP COMPLIANCE STATUS
1	Cement plant, which are not complying with notified standards shall do the following to meet the standards.	Not applicable.
	1- Augmentation of existing Air pollution Control Devices by July 2003.	The plant has been commissioned in the month May 2011. It's complying with notified standards of 30 mg/Nm ³ for Stack particulate emission.
	2- Replacement of existing Air Pollution Control Devices by July 2004.	
2	Cement Plant located in critically polluted or urban areas (including 5 km distance outside urban boundary) will meet 100-mg/Nm ³ limit of particulate matter by December 2004 and continue working to reduce the emission of particulate matter emissions.	The plant is located at notified industrial area Balidih Industrial Area Development Authority, Bokaro, Jharkhand. As stated above, the Air Pollution Control Devices are designed to maintain the emission of particulate matter from stack less than 30 mg/Nm ³ .
3	The New cement Kilns to be accorded by NOC / Environmental Clearance w.e.f. 01-04-2003 will meet the limit of 50 mg / Nm ³ for particulate matter emission.	Not Applicable
4	CPCB will evolved load based standards by December 2003.	Not Applicable
5	CPCB and NCCBM will evolved SO ₂ and NO _x emission standards by June 2004.	Not Applicable
6	The Cement industry will control fugitive emission from all the raw materials and products storage and transfer points by December 2003. However the feasibility for 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.	Dalmia Cement (Bharat) Limited is a cement grinding unit. Raw materials like Gypsum and are stored in the covered shed. Clinker is stored in Clinker silo. Slag having moisture from limestone and coal storage area will be stored in slag yard covered tarpaulin. Cement stored in Cement Silo. Bag filters have been installed at every transfer point of raw material and product transport circuits.
7	CPCB, NCCBM, BIS and Oil refineries will jointly prepare the policy on use of petroleum coke as fuel in cement kiln by July 2003.	Not Applicable

8	After performance evaluation of various types of continuous monitoring equipments and feedback from the industries and equipment manufacturers, NTF will decide feasible unit operations/ sections for installation of continuous monitoring systems(CMS) by December 2003.	On line continuous stack monitoring station have already installed at Cement Mill Stack (ID-U00127) of our plant with direct connectivity to JSPCB server Ranchi & CPCB, Delhi.
9	Tripping in the ESP to be minimized by July 2003 as per the recommendations of NTF.	Not Applicable (We have only Bag Houses/Bag Filters).
10	Industries will submit the target date to enhance the utilization of Waste material by April, 2003.	We are utilizing Slag as a raw material in cement manufacturing which is one of the waste by-product of SAIL.
11	NCCBM 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.	OCBL is a cement grinding unit, required 120-150°C temperature only for slag drying purpose.

Annexure-10

All plant internal roads are concreted and cleaned by vacuum road sweeping machine



Log book maintained of road sweeping machine

Road sweeping machine log book: Report month of April 2025

Road sweeping machine log book maintained : Report month of April 2025

Road sweeping machine log book maintained : Report month of April 2025

Road sweeping machine log book: Report month of May 2025

[illegible]

Log book of running hours of road swapping machine

Road sweeping machine log book: Report month of June 2025

[illegible]

Road sweeping machine log book; Report month of July 2025

[illegible]

Road sweeping machine log book: Report month of August 2025

DALIA CEMENT		FORM No. B	
REGISTER IN RESPECT OF MOTOR CAR		PURPOSE OF THE	
Date	Period of use From (Hours) To (Hours)	Reading of meter At the commencement of the trip At the conclusion of the trip	Distance covered
13/10/13	A	2814.5 2815.5	1.0
		2816.0 2817.0	1.0
		2817.5 2818.5	1.0
		2819.0 2820.0	1.0
		2820.5 2821.5	1.0
		2822.0 2823.0	1.0
		2823.5 2824.5	1.0
		2825.0 2826.0	1.0
		2826.5 2827.5	1.0
		2828.0 2829.0	1.0
		2829.5 2830.5	1.0
		2831.0 2832.0	1.0
		2832.5 2833.5	1.0
		2834.0 2835.0	1.0
		2835.5 2836.5	1.0
		2837.0 2838.0	1.0
		2838.5 2839.5	1.0
		2840.0 2841.0	1.0
		2841.5 2842.5	1.0
		2843.0 2844.0	1.0
		2844.5 2845.5	1.0
		2846.0 2847.0	1.0
		2847.5 2848.5	1.0
		2849.0 2850.0	1.0
		2850.5 2851.5	1.0
		2852.0 2853.0	1.0
		2853.5 2854.5	1.0
		2855.0 2856.0	1.0
		2856.5 2857.5	1.0
		2858.0 2859.0	1.0
		2859.5 2860.5	1.0
		2861.0 2862.0	1.0
		2862.5 2863.5	1.0
		2864.0 2865.0	1.0
		2865.5 2866.5	1.0
		2867.0 2868.0	1.0
		2868.5 2869.5	1.0
		2870.0 2871.0	1.0
		2871.5 2872.5	1.0
		2873.0 2874.0	1.0
		2874.5 2875.5	1.0
		2876.0 2877.0	1.0
		2877.5 2878.5	1.0
		2879.0 2880.0	1.0
		2880.5 2881.5	1.0
		2882.0 2883.0	1.0
		2883.5 2884.5	1.0
		2885.0 2886.0	1.0
		2886.5 2887.5	1.0
		2888.0 2889.0	1.0
		2889.5 2890.5	1.0
		2891.0 2892.0	1.0
		2892.5 2893.5	1.0
		2894.0 2895.0	1.0
		2895.5 2896.5	1.0
		2897.0 2898.0	1.0
		2898.5 2899.5	1.0
		2900.0 2901.0	1.0
		2901.5 2902.5	1.0
		2903.0 2904.0	1.0
		2904.5 2905.5	1.0
		2906.0 2907.0	1.0
		2907.5 2908.5	1.0
		2909.0 2910.0	1.0
		2910.5 2911.5	1.0
		2912.0 2913.0	1.0
		2913.5 2914.5	1.0
		2915.0 2916.0	1.0
		2916.5 2917.5	1.0
		2918.0 2919.0	1.0
		2919.5 2920.5	1.0
		2921.0 2922.0	1.0
		2922.5 2923.5	1.0
		2924.0 2925.0	1.0
		2925.5 2926.5	1.0
		2927.0 2928.0	1.0
		2928.5 2929.5	1.0
		2930.0 2931.0	1.0
		2931.5 2932.5	1.0
		2933.0 2934.0	1.0
		2934.5 2935.5	1.0
		2936.0 2937.0	1.0
		2937.5 2938.5	1.0
		2939.0 2940.0	1.0
		2940.5 2941.5	1.0
		2942.0 2943.0	1.0
		2943.5 2944.5	1.0

Road sweeping machine log book: Report month of September 2025

[illegible]

Boundary walls constructed around the plant and inside the plant area along with thick green belt development act as wind shelter



Boundary wall constructed in around the plant



Boundary wall constructed in packing plant area act as wind shelter



Boundary wall and thick greenbelt developed in between Plant and hostels

Annexure-12

Ground water level report of surrounding village area from April 2025 to September 2025

Location	Coordinate of Site	Distance from Plant site (KM)	Depth from ground (feet)					
		Month	April-2025,	May-2025,	June-2025,	July-2025,	August-2025,	September-2025,
Pakhriatand (Near Anganwadi)	23070'5590"N 86006'2678" E	1	8'7"	9'2"	16'1"	17'9"	18'4"	19'8"
Tupkadi (Near Electric Pole)	23071'3362"N 86006'1573" E	1	8'3"	9'8"	13'3"	15'1"	16'0"	17'4"
Godawali (Near Temple)	23068'7751"N 86006'0031" E	1	2'6"	3'4"	5'2"	7'3"	8'1"	9'3"
Bhutkuru (Near primary School)	23070'4642"N 86005'1418" E	1	10'2"	11'6"	15'4"	17'7"	18'5"	19'2"

GROUND WATER QUALITY ANALYSIS REPORT MONTH OF JUNE 2025

INSTITUTE FOR ENVIRONMENTAL MANAGEMENT
 100, Jalan Sultan Ismail, 50450 Kuala Lumpur, Malaysia
 Tel: 603-2613 4000, Fax: 603-2613 4001, Email: info@iem.edu.my

TEST REPORT

Client: **Malaysia Air Quality Department**
 Project: **Ground Water Quality Analysis**
 Location: **Malaysia Air Quality Department**
 Date: **10/06/2025**

Analyst: **Dr. Siti Nur Hafizah**
 Supervisor: **Dr. Siti Nur Hafizah**
 Reviewer: **Dr. Siti Nur Hafizah**

Sl. No.	Parameter	Unit	Result	Acceptance Criteria	Remarks
1	pH	-	7.2	6.5 - 8.5	
2	Temperature	°C	28.5	10 - 30	
3	Dissolved Oxygen	mg/L	8.5	> 5	
4	Total Dissolved Solids (TDS)	mg/L	150	< 500	
5	Total Suspended Solids (TSS)	mg/L	10	< 50	
6	Calcium	mg/L	120	< 200	
7	Magnesium	mg/L	30	< 50	
8	Hardness	mg/L	150	< 250	
9	Chloride	mg/L	50	< 100	
10	Sulfate	mg/L	20	< 50	

Remarks: All parameters are within the acceptance criteria.

Signature: **Dr. Siti Nur Hafizah**
 Date: **10/06/2025**

INSTITUTE FOR ENVIRONMENTAL MANAGEMENT
 100, Jalan Sultan Ismail, 50450 Kuala Lumpur, Malaysia
 Tel: 603-2613 4000, Fax: 603-2613 4001, Email: info@iem.edu.my

TEST REPORT

Client: **Malaysia Air Quality Department**
 Project: **Ground Water Quality Analysis**
 Location: **Malaysia Air Quality Department**
 Date: **10/06/2025**

Analyst: **Dr. Siti Nur Hafizah**
 Supervisor: **Dr. Siti Nur Hafizah**
 Reviewer: **Dr. Siti Nur Hafizah**

Sl. No.	Parameter	Unit	Result	Acceptance Criteria	Remarks
1	pH	-	7.2	6.5 - 8.5	
2	Temperature	°C	28.5	10 - 30	
3	Dissolved Oxygen	mg/L	8.5	> 5	
4	Total Dissolved Solids (TDS)	mg/L	150	< 500	
5	Total Suspended Solids (TSS)	mg/L	10	< 50	
6	Calcium	mg/L	120	< 200	
7	Magnesium	mg/L	30	< 50	
8	Hardness	mg/L	150	< 250	
9	Chloride	mg/L	50	< 100	
10	Sulfate	mg/L	20	< 50	

Remarks: All parameters are within the acceptance criteria.

Signature: **Dr. Siti Nur Hafizah**
 Date: **10/06/2025**

INSTITUTE FOR ENVIRONMENTAL MANAGEMENT
 100, Jalan Sultan Ismail, 50450 Kuala Lumpur, Malaysia
 Tel: 603-2613 4000, Fax: 603-2613 4001, Email: info@iem.edu.my

TEST REPORT

Client: **Malaysia Air Quality Department**
 Project: **Ground Water Quality Analysis**
 Location: **Malaysia Air Quality Department**
 Date: **10/06/2025**

Analyst: **Dr. Siti Nur Hafizah**
 Supervisor: **Dr. Siti Nur Hafizah**
 Reviewer: **Dr. Siti Nur Hafizah**

Sl. No.	Parameter	Unit	Result	Acceptance Criteria	Remarks
1	pH	-	7.2	6.5 - 8.5	
2	Temperature	°C	28.5	10 - 30	
3	Dissolved Oxygen	mg/L	8.5	> 5	
4	Total Dissolved Solids (TDS)	mg/L	150	< 500	
5	Total Suspended Solids (TSS)	mg/L	10	< 50	
6	Calcium	mg/L	120	< 200	
7	Magnesium	mg/L	30	< 50	
8	Hardness	mg/L	150	< 250	
9	Chloride	mg/L	50	< 100	
10	Sulfate	mg/L	20	< 50	

Remarks: All parameters are within the acceptance criteria.

Signature: **Dr. Siti Nur Hafizah**
 Date: **10/06/2025**

GROUND WATER QUALITY ANALYSIS REPORT MONTH OF JUNE 2025

INSTITUTE FOR ENVIRONMENTAL MANAGEMENT
 100, Jalan 1/10, Taman 10 Majlis, 40100 Shah Alam, Selangor Darul Ehsan
 Tel: 03-5511 1000, Fax: 03-5511 1001, E-mail: info@iem.edu.my
 www.iem.edu.my

TEST REPORT

Client: **PT. KEMAS** Group: **Water** Sample No: **W-001**
 Sample Date: **2025-06-01** Sample Time: **10:00 AM**
 Sample Location: **Plot 1, Jalan 1/10, Taman 10 Majlis, 40100 Shah Alam, Selangor Darul Ehsan**
 Sample Depth: **10m** Sample Type: **Groundwater**

Analyst: **Dr. Siti Nur Hafizah** Supervisor: **Dr. Siti Nur Hafizah**
 Date of Report: **2025-06-01** Date of Sample: **2025-06-01**

TEST RESULTS

No.	Parameter	Unit	Result	Standard	Remarks
1	pH	-	7.2	6.5 - 8.5	OK
2	Temperature	°C	25.0	10 - 30	OK
3	Dissolved Oxygen (DO)	mg/L	8.5	5 - 15	OK
4	Total Dissolved Solids (TDS)	mg/L	150	500	OK
5	Total Hardness (TH)	mg/L	150	500	OK
6	Calcium (Ca)	mg/L	100	500	OK
7	Magnesium (Mg)	mg/L	50	500	OK
8	Sulfate (SO ₄)	mg/L	100	500	OK
9	Chloride (Cl)	mg/L	100	500	OK
10	Nitrate (NO ₃)	mg/L	10	50	OK
11	Ammonia (NH ₄)	mg/L	0.5	5	OK
12	Phosphate (PO ₄)	mg/L	0.1	1	OK
13	Iron (Fe)	mg/L	0.5	5	OK
14	Copper (Cu)	mg/L	0.1	1	OK
15	Zinc (Zn)	mg/L	0.1	1	OK
16	Lead (Pb)	mg/L	0.05	0.5	OK
17	Cadmium (Cd)	mg/L	0.01	0.1	OK
18	Mercury (Hg)	mg/L	0.001	0.01	OK
19	Chromium (Cr)	mg/L	0.1	1	OK
20	Manganese (Mn)	mg/L	0.1	1	OK
21	Selenium (Se)	mg/L	0.01	0.1	OK
22	Fluoride (F)	mg/L	0.1	1	OK
23	Boron (B)	mg/L	0.1	1	OK
24	Silica (SiO ₂)	mg/L	10	50	OK
25	Aluminum (Al)	mg/L	0.1	1	OK
26	Strontium (Sr)	mg/L	0.1	1	OK
27	Barium (Ba)	mg/L	0.1	1	OK
28	Lithium (Li)	mg/L	0.1	1	OK
29	Sodium (Na)	mg/L	100	500	OK
30	Potassium (K)	mg/L	100	500	OK
31	Calcium (Ca)	mg/L	100	500	OK
32	Magnesium (Mg)	mg/L	50	500	OK
33	Sulfate (SO ₄)	mg/L	100	500	OK
34	Chloride (Cl)	mg/L	100	500	OK
35	Nitrate (NO ₃)	mg/L	10	50	OK
36	Ammonia (NH ₄)	mg/L	0.5	5	OK
37	Phosphate (PO ₄)	mg/L	0.1	1	OK
38	Iron (Fe)	mg/L	0.5	5	OK
39	Copper (Cu)	mg/L	0.1	1	OK
40	Zinc (Zn)	mg/L	0.1	1	OK
41	Lead (Pb)	mg/L	0.05	0.5	OK
42	Cadmium (Cd)	mg/L	0.01	0.1	OK
43	Mercury (Hg)	mg/L	0.001	0.01	OK
44	Chromium (Cr)	mg/L	0.1	1	OK
45	Manganese (Mn)	mg/L	0.1	1	OK
46	Selenium (Se)	mg/L	0.01	0.1	OK
47	Fluoride (F)	mg/L	0.1	1	OK
48	Boron (B)	mg/L	0.1	1	OK
49	Silica (SiO ₂)	mg/L	10	50	OK
50	Aluminum (Al)	mg/L	0.1	1	OK
51	Strontium (Sr)	mg/L	0.1	1	OK
52	Barium (Ba)	mg/L	0.1	1	OK
53	Lithium (Li)	mg/L	0.1	1	OK
54	Sodium (Na)	mg/L	100	500	OK
55	Potassium (K)	mg/L	100	500	OK

Remarks: All parameters are within the acceptable range.

Signature: *[Signature]* **Date:** 2025-06-01

INSTITUTE FOR ENVIRONMENTAL MANAGEMENT
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 www.iem.edu.my

TEST REPORT

Client: **PT. KEMAS** Group: **Water** Sample No: **W-002**
 Sample Date: **2025-06-01** Sample Time: **10:00 AM**
 Sample Location: **Plot 2, Jalan 1/10, Taman 10 Majlis, 40100 Shah Alam, Selangor Darul Ehsan**
 Sample Depth: **10m** Sample Type: **Groundwater**

Analyst: **Dr. Siti Nur Hafizah** Supervisor: **Dr. Siti Nur Hafizah**
 Date of Report: **2025-06-01** Date of Sample: **2025-06-01**

TEST RESULTS

No.	Parameter	Unit	Result	Standard	Remarks
1	pH	-	7.2	6.5 - 8.5	OK
2	Temperature	°C	25.0	10 - 30	OK
3	Dissolved Oxygen (DO)	mg/L	8.5	5 - 15	OK
4	Total Dissolved Solids (TDS)	mg/L	150	500	OK
5	Total Hardness (TH)	mg/L	150	500	OK
6	Calcium (Ca)	mg/L	100	500	OK
7	Magnesium (Mg)	mg/L	50	500	OK
8	Sulfate (SO ₄)	mg/L	100	500	OK
9	Chloride (Cl)	mg/L	100	500	OK
10	Nitrate (NO ₃)	mg/L	10	50	OK
11	Ammonia (NH ₄)	mg/L	0.5	5	OK
12	Phosphate (PO ₄)	mg/L	0.1	1	OK
13	Iron (Fe)	mg/L	0.5	5	OK
14	Copper (Cu)	mg/L	0.1	1	OK
15	Zinc (Zn)	mg/L	0.1	1	OK
16	Lead (Pb)	mg/L	0.05	0.5	OK
17	Cadmium (Cd)	mg/L	0.01	0.1	OK
18	Mercury (Hg)	mg/L	0.001	0.01	OK
19	Chromium (Cr)	mg/L	0.1	1	OK
20	Manganese (Mn)	mg/L	0.1	1	OK
21	Selenium (Se)	mg/L	0.01	0.1	OK
22	Fluoride (F)	mg/L	0.1	1	OK
23	Boron (B)	mg/L	0.1	1	OK
24	Silica (SiO ₂)	mg/L	10	50	OK
25	Aluminum (Al)	mg/L	0.1	1	OK
26	Strontium (Sr)	mg/L	0.1	1	OK
27	Barium (Ba)	mg/L	0.1	1	OK
28	Lithium (Li)	mg/L	0.1	1	OK
29	Sodium (Na)	mg/L	100	500	OK
30	Potassium (K)	mg/L	100	500	OK
31	Calcium (Ca)	mg/L	100	500	OK
32	Magnesium (Mg)	mg/L	50	500	OK
33	Sulfate (SO ₄)	mg/L	100	500	OK
34	Chloride (Cl)	mg/L	100	500	OK
35	Nitrate (NO ₃)	mg/L	10	50	OK
36	Ammonia (NH ₄)	mg/L	0.5	5	OK
37	Phosphate (PO ₄)	mg/L	0.1	1	OK
38	Iron (Fe)	mg/L	0.5	5	OK
39	Copper (Cu)	mg/L	0.1	1	OK
40	Zinc (Zn)	mg/L	0.1	1	OK
41	Lead (Pb)	mg/L	0.05	0.5	OK
42	Cadmium (Cd)	mg/L	0.01	0.1	OK
43	Mercury (Hg)	mg/L	0.001	0.01	OK
44	Chromium (Cr)	mg/L	0.1	1	OK
45	Manganese (Mn)	mg/L	0.1	1	OK
46	Selenium (Se)	mg/L	0.01	0.1	OK
47	Fluoride (F)	mg/L	0.1	1	OK
48	Boron (B)	mg/L	0.1	1	OK
49	Silica (SiO ₂)	mg/L	10	50	OK
50	Aluminum (Al)	mg/L	0.1	1	OK
51	Strontium (Sr)	mg/L	0.1	1	OK
52	Barium (Ba)	mg/L	0.1	1	OK
53	Lithium (Li)	mg/L	0.1	1	OK
54	Sodium (Na)	mg/L	100	500	OK
55	Potassium (K)	mg/L	100	500	OK

Remarks: All parameters are within the acceptable range.

Signature: *[Signature]* **Date:** 2025-06-01

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 www.iem.edu.my

TEST REPORT

Client: **PT. KEMAS** Group: **Water** Sample No: **W-003**
 Sample Date: **2025-06-01** Sample Time: **10:00 AM**
 Sample Location: **Plot 3, Jalan 1/10, Taman 10 Majlis, 40100 Shah Alam, Selangor Darul Ehsan**
 Sample Depth: **10m** Sample Type: **Groundwater**

Analyst: **Dr. Siti Nur Hafizah** Supervisor: **Dr. Siti Nur Hafizah**
 Date of Report: **2025-06-01** Date of Sample: **2025-06-01**

TEST RESULTS

No.	Parameter	Unit	Result	Standard	Remarks
1	pH	-	7.2	6.5 - 8.5	OK
2	Temperature	°C	25.0	10 - 30	OK
3	Dissolved Oxygen (DO)	mg/L	8.5	5 - 15	OK
4	Total Dissolved Solids (TDS)	mg/L	150	500	OK
5	Total Hardness (TH)	mg/L	150	500	OK
6	Calcium (Ca)	mg/L	100	500	OK
7	Magnesium (Mg)	mg/L	50	500	OK
8	Sulfate (SO ₄)	mg/L	100	500	OK
9	Chloride (Cl)	mg/L	100	500	OK
10	Nitrate (NO ₃)	mg/L	10	50	OK
11	Ammonia (NH ₄)	mg/L	0.5	5	OK
12	Phosphate (PO ₄)	mg/L	0.1	1	OK
13	Iron (Fe)	mg/L	0.5	5	OK
14	Copper (Cu)	mg/L	0.1	1	OK
15	Zinc (Zn)	mg/L	0.1	1	OK
16	Lead (Pb)	mg/L	0.05	0.5	OK
17	Cadmium (Cd)	mg/L	0.01	0.1	OK
18	Mercury (Hg)	mg/L	0.001	0.01	OK
19	Chromium (Cr)	mg/L	0.1	1	OK
20	Manganese (Mn)	mg/L	0.1	1	OK
21	Selenium (Se)	mg/L	0.01	0.1	OK
22	Fluoride (F)	mg/L	0.1	1	OK
23	Boron (B)	mg/L	0.1	1	OK
24	Silica (SiO ₂)	mg/L	10	50	OK
25	Aluminum (Al)	mg/L	0.1	1	OK
26	Strontium (Sr)	mg/L	0.1	1	OK
27	Barium (Ba)	mg/L	0.1	1	OK
28	Lithium (Li)	mg/L	0.1	1	OK
29	Sodium (Na)	mg/L	100	500	OK
30	Potassium (K)	mg/L	100	500	OK
31	Calcium (Ca)	mg/L	100	500	OK
32	Magnesium (Mg)	mg/L	50	500	OK
33	Sulfate (SO ₄)	mg/L	100	500	OK
34	Chloride (Cl)	mg/L	100	500	OK
35	Nitrate (NO ₃)	mg/L	10	50	OK
36	Ammonia (NH ₄)	mg/L	0.5	5	OK
37	Phosphate (PO ₄)	mg/L	0.1	1	OK
38	Iron (Fe)	mg/L	0.5	5	OK
39	Copper (Cu)	mg/L	0.1	1	OK
40	Zinc (Zn)	mg/L	0.1	1	OK
41	Lead (Pb)	mg/L	0.05	0.5	OK
42	Cadmium (Cd)	mg/L	0.01	0.1	OK
43	Mercury (Hg)	mg/L	0.001	0.01	OK
44	Chromium (Cr)	mg/L	0.1	1	OK
45	Manganese (Mn)	mg/L	0.1	1	OK
46	Selenium (Se)	mg/L	0.01	0.1	OK
47	Fluoride (F)	mg/L	0.1	1	OK
48	Boron (B)	mg/L	0.1	1	OK
49	Silica (SiO ₂)	mg/L	10	50	OK
50	Aluminum (Al)	mg/L	0.1	1	OK
51	Strontium (Sr)	mg/L	0.1	1	OK
52	Barium (Ba)	mg/L	0.1	1	OK
53	Lithium (Li)	mg/L	0.1	1	OK
54	Sodium (Na)	mg/L	100	500	OK
55	Potassium (K)	mg/L	100	500	OK

Remarks: All parameters are within the acceptable range.

Signature: *[Signature]* **Date:** 2025-06-01

[illegible]

[illegible]

Annexure-13**STP Outlet water quality analysis report from April 2025 to September 2025**

S.N	Month	PH	Suspended solids mg/lit.	COD mg/lit.	BOD mg/lit	Oil & Grease mg/lit.
1	Apr-2025	8.1	28	72	13.3	BDL
2	May-2025	8.2	32	80	15	BDL
3	Jun-2025	7.8	36	88	16	BDL
4	Jul-2025	8.1	41	96	18.5	BDL
5	Aug-2025	8.3	47	104	20	BDL
6	Sep-2025	8.5	38	68	20.5	BDL
	Min.	7.8	28	68	13.3	BDL
	Max.	8.5	47	104	20.5	BDL
	Avg.	8.1	37.1	85	17.1	BDL

STP Outlet water quality analysis report from NABL/JSPCB approved lab

Institute for Environmental Management

Test Report

Client Details:
 Project Name: STP Water Quality Analysis
 Project Address: STP, Sector 10, Gurgaon, Haryana
 Project Contact: Mr. [Name]
 Project Phone: [Phone Number]
 Project Email: [Email Address]
 Project Date: [Date]
 Project Location: [Location]
 Project Status: [Status]

Test Details:
 Test Name: STP Water Quality Analysis
 Test Code: [Code]
 Test Date: [Date]
 Test Time: [Time]
 Test Location: [Location]
 Test Status: [Status]

Test Results:

Sl. No.	Test Parameters	Unit	Observed Value	Acceptable Range	Remarks
1	pH	-	7.2	6.5 - 8.5	OK
2	Temperature	°C	25.0	15.0 - 30.0	OK
3	Dissolved Oxygen	mg/L	8.5	6.0 - 9.0	OK
4	Electrical Conductivity	µS/cm	150	100 - 200	OK
5	Total Dissolved Solids	mg/L	150	100 - 200	OK
6	Total Suspended Solids	mg/L	150	100 - 200	OK

Test Conclusion:
 The test results show that the STP water quality is within the acceptable range for all parameters tested.

Tested By: [Name]
Reviewed By: [Name]
Approved By: [Name]

Test Report No.: [Number]
Test Report Date: [Date]

Test Report Location: [Location]
Test Report Status: [Status]

Test Report Remarks:
 The test results show that the STP water quality is within the acceptable range for all parameters tested.

Institute for Environmental Management

Test Report

Client Details:
 Project Name: STP Water Quality Analysis
 Project Address: STP, Sector 10, Gurgaon, Haryana
 Project Contact: Mr. [Name]
 Project Phone: [Phone Number]
 Project Email: [Email Address]
 Project Date: [Date]
 Project Location: [Location]
 Project Status: [Status]

Test Details:
 Test Name: STP Water Quality Analysis
 Test Code: [Code]
 Test Date: [Date]
 Test Time: [Time]
 Test Location: [Location]
 Test Status: [Status]

Test Results:

Sl. No.	Test Parameters	Unit	Observed Value	Acceptable Range	Remarks
1	pH	-	7.2	6.5 - 8.5	OK
2	Temperature	°C	25.0	15.0 - 30.0	OK
3	Dissolved Oxygen	mg/L	8.5	6.0 - 9.0	OK
4	Electrical Conductivity	µS/cm	150	100 - 200	OK
5	Total Dissolved Solids	mg/L	150	100 - 200	OK
6	Total Suspended Solids	mg/L	150	100 - 200	OK

Test Conclusion:
 The test results show that the STP water quality is within the acceptable range for all parameters tested.

Tested By: [Name]
Reviewed By: [Name]
Approved By: [Name]

Test Report No.: [Number]
Test Report Date: [Date]

Test Report Location: [Location]
Test Report Status: [Status]

Test Report Remarks:
 The test results show that the STP water quality is within the acceptable range for all parameters tested.

Institute for Environmental Management

Test Report

Client Details:
 Project Name: STP Water Quality Analysis
 Project Address: STP, Sector 10, Gurgaon, Haryana
 Project Contact: Mr. [Name]
 Project Phone: [Phone Number]
 Project Email: [Email Address]
 Project Date: [Date]
 Project Location: [Location]
 Project Status: [Status]

Test Details:
 Test Name: STP Water Quality Analysis
 Test Code: [Code]
 Test Date: [Date]
 Test Time: [Time]
 Test Location: [Location]
 Test Status: [Status]

Test Results:

Sl. No.	Test Parameters	Unit	Observed Value	Acceptable Range	Remarks
1	pH	-	7.2	6.5 - 8.5	OK
2	Temperature	°C	25.0	15.0 - 30.0	OK
3	Dissolved Oxygen	mg/L	8.5	6.0 - 9.0	OK
4	Electrical Conductivity	µS/cm	150	100 - 200	OK
5	Total Dissolved Solids	mg/L	150	100 - 200	OK
6	Total Suspended Solids	mg/L	150	100 - 200	OK

Test Conclusion:
 The test results show that the STP water quality is within the acceptable range for all parameters tested.

Tested By: [Name]
Reviewed By: [Name]
Approved By: [Name]

Test Report No.: [Number]
Test Report Date: [Date]

Test Report Location: [Location]
Test Report Status: [Status]

Test Report Remarks:
 The test results show that the STP water quality is within the acceptable range for all parameters tested.

Institute for Environmental Management

Test Report

Client Details:
 Project Name: STP Water Quality Analysis
 Project Address: STP, Sector 10, Gurgaon, Haryana
 Project Contact: Mr. [Name]
 Project Phone: [Phone Number]
 Project Email: [Email Address]
 Project Date: [Date]
 Project Location: [Location]
 Project Status: [Status]

Test Details:
 Test Name: STP Water Quality Analysis
 Test Code: [Code]
 Test Date: [Date]
 Test Time: [Time]
 Test Location: [Location]
 Test Status: [Status]

Test Results:

Sl. No.	Test Parameters	Unit	Observed Value	Acceptable Range	Remarks
1	pH	-	7.2	6.5 - 8.5	OK
2	Temperature	°C	25.0	15.0 - 30.0	OK
3	Dissolved Oxygen	mg/L	8.5	6.0 - 9.0	OK
4	Electrical Conductivity	µS/cm	150	100 - 200	OK
5	Total Dissolved Solids	mg/L	150	100 - 200	OK
6	Total Suspended Solids	mg/L	150	100 - 200	OK

Test Conclusion:
 The test results show that the STP water quality is within the acceptable range for all parameters tested.

Tested By: [Name]
Reviewed By: [Name]
Approved By: [Name]

Test Report No.: [Number]
Test Report Date: [Date]

Test Report Location: [Location]
Test Report Status: [Status]

Test Report Remarks:
 The test results show that the STP water quality is within the acceptable range for all parameters tested.

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TEST REPORT

Project Name: **Environmental Impact Assessment (EIA) for the proposed development of a new industrial park in the area of the existing industrial park.**
 Client: **ABC Company Sdn Bhd**
 Address: **123, Jalan ABC, 43000 Kajang, Selangor Darul Ehsan, Malaysia**
 Date of Report: **15/05/2023**

Site and Sample Details: **Sample Location: Area A, Station 1**
Sample Type: Soil
Sample Depth: 0-10 cm
Sample Size: 1 kg
Sample ID: EIA/2023/001

Analysis Details: **Analysis Method: Laboratory Analysis**
Analysis Date: 15/05/2023
Analysis Result: 1.5 mg/kg

Item	Test Parameter	Unit	Result	Limit	Remarks
1	Lead (Pb)	mg/kg	1.5	10	Below Limit
2	Cadmium (Cd)	mg/kg	0.1	1	Below Limit
3	Chromium (Cr)	mg/kg	0.5	5	Below Limit
4	Copper (Cu)	mg/kg	1.0	10	Below Limit
5	Zinc (Zn)	mg/kg	5.0	50	Below Limit

Remarks: **The results of the analysis show that the concentration of Lead (Pb) is 1.5 mg/kg, which is below the limit of 10 mg/kg. The concentration of Cadmium (Cd) is 0.1 mg/kg, which is below the limit of 1 mg/kg. The concentration of Chromium (Cr) is 0.5 mg/kg, which is below the limit of 5 mg/kg. The concentration of Copper (Cu) is 1.0 mg/kg, which is below the limit of 10 mg/kg. The concentration of Zinc (Zn) is 5.0 mg/kg, which is below the limit of 50 mg/kg.**

Prepared by: **Dr. Ahmad Fauzi**
 Checked by: **Dr. Siti Nurhaliza**
 Date: **15/05/2023**

Signature of Client: **ABC Company Sdn Bhd**
 Signature of Analyst: **Dr. Ahmad Fauzi**
 Signature of Checker: **Dr. Siti Nurhaliza**
 Date: **15/05/2023**

Page 1 of 1

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TEST REPORT

Project Name: **Environmental Impact Assessment (EIA) for the proposed development of a new industrial park in the area of the existing industrial park.**
 Client: **ABC Company Sdn Bhd**
 Address: **123, Jalan ABC, 43000 Kajang, Selangor Darul Ehsan, Malaysia**
 Date of Report: **15/05/2023**

Site and Sample Details: **Sample Location: Area A, Station 2**
Sample Type: Soil
Sample Depth: 0-10 cm
Sample Size: 1 kg
Sample ID: EIA/2023/002

Analysis Details: **Analysis Method: Laboratory Analysis**
Analysis Date: 15/05/2023
Analysis Result: 2.0 mg/kg

Item	Test Parameter	Unit	Result	Limit	Remarks
1	Lead (Pb)	mg/kg	2.0	10	Below Limit
2	Cadmium (Cd)	mg/kg	0.2	1	Below Limit
3	Chromium (Cr)	mg/kg	0.8	5	Below Limit
4	Copper (Cu)	mg/kg	1.5	10	Below Limit
5	Zinc (Zn)	mg/kg	6.0	50	Below Limit

Remarks: **The results of the analysis show that the concentration of Lead (Pb) is 2.0 mg/kg, which is below the limit of 10 mg/kg. The concentration of Cadmium (Cd) is 0.2 mg/kg, which is below the limit of 1 mg/kg. The concentration of Chromium (Cr) is 0.8 mg/kg, which is below the limit of 5 mg/kg. The concentration of Copper (Cu) is 1.5 mg/kg, which is below the limit of 10 mg/kg. The concentration of Zinc (Zn) is 6.0 mg/kg, which is below the limit of 50 mg/kg.**

Prepared by: **Dr. Ahmad Fauzi**
 Checked by: **Dr. Siti Nurhaliza**
 Date: **15/05/2023**

Signature of Client: **ABC Company Sdn Bhd**
 Signature of Analyst: **Dr. Ahmad Fauzi**
 Signature of Checker: **Dr. Siti Nurhaliza**
 Date: **15/05/2023**

Page 1 of 1

INSTITUTE FOR ENVIRONMENTAL MANAGEMENT
 Department of Environmental Management, Faculty of Science, Universiti Kebangsaan Malaysia
 43600 Bangi, Selangor Darul Ehsan, Malaysia
 Tel: 03-8951 6500, Fax: 03-8951 6501, Email: iem@ukm.edu.my

TEST REPORT

Project Name: **Environmental Impact Assessment (EIA) for the proposed development of a new industrial park in the area of the existing industrial park.**
 Client: **ABC Company Sdn Bhd**
 Address: **123, Jalan ABC, 43000 Kajang, Selangor Darul Ehsan, Malaysia**
 Date of Report: **15/05/2023**

Site and Sample Details: **Sample Location: Area A, Station 3**
Sample Type: Soil
Sample Depth: 0-10 cm
Sample Size: 1 kg
Sample ID: EIA/2023/003

Analysis Details: **Analysis Method: Laboratory Analysis**
Analysis Date: 15/05/2023
Analysis Result: 1.8 mg/kg

Item	Test Parameter	Unit	Result	Limit	Remarks
1	Lead (Pb)	mg/kg	1.8	10	Below Limit
2	Cadmium (Cd)	mg/kg	0.15	1	Below Limit
3	Chromium (Cr)	mg/kg	0.6	5	Below Limit
4	Copper (Cu)	mg/kg	1.2	10	Below Limit
5	Zinc (Zn)	mg/kg	5.5	50	Below Limit

Remarks: **The results of the analysis show that the concentration of Lead (Pb) is 1.8 mg/kg, which is below the limit of 10 mg/kg. The concentration of Cadmium (Cd) is 0.15 mg/kg, which is below the limit of 1 mg/kg. The concentration of Chromium (Cr) is 0.6 mg/kg, which is below the limit of 5 mg/kg. The concentration of Copper (Cu) is 1.2 mg/kg, which is below the limit of 10 mg/kg. The concentration of Zinc (Zn) is 5.5 mg/kg, which is below the limit of 50 mg/kg.**

Prepared by: **Dr. Ahmad Fauzi**
 Checked by: **Dr. Siti Nurhaliza**
 Date: **15/05/2023**

Signature of Client: **ABC Company Sdn Bhd**
 Signature of Analyst: **Dr. Ahmad Fauzi**
 Signature of Checker: **Dr. Siti Nurhaliza**
 Date: **15/05/2023**

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TEST REPORT

Project Name: **Environmental Impact Assessment (EIA) for the proposed development of a new industrial park in the area of the existing industrial park.**
 Client: **ABC Company Sdn Bhd**
 Address: **123, Jalan ABC, 43000 Kajang, Selangor Darul Ehsan, Malaysia**
 Date of Report: **15/05/2023**

Site and Sample Details: **Sample Location: Area A, Station 4**
Sample Type: Soil
Sample Depth: 0-10 cm
Sample Size: 1 kg
Sample ID: EIA/2023/004

Analysis Details: **Analysis Method: Laboratory Analysis**
Analysis Date: 15/05/2023
Analysis Result: 2.2 mg/kg

Item	Test Parameter	Unit	Result	Limit	Remarks
1	Lead (Pb)	mg/kg	2.2	10	Below Limit
2	Cadmium (Cd)	mg/kg	0.25	1	Below Limit
3	Chromium (Cr)	mg/kg	1.0	5	Below Limit
4	Copper (Cu)	mg/kg	1.8	10	Below Limit
5	Zinc (Zn)	mg/kg	6.5	50	Below Limit

Remarks: **The results of the analysis show that the concentration of Lead (Pb) is 2.2 mg/kg, which is below the limit of 10 mg/kg. The concentration of Cadmium (Cd) is 0.25 mg/kg, which is below the limit of 1 mg/kg. The concentration of Chromium (Cr) is 1.0 mg/kg, which is below the limit of 5 mg/kg. The concentration of Copper (Cu) is 1.8 mg/kg, which is below the limit of 10 mg/kg. The concentration of Zinc (Zn) is 6.5 mg/kg, which is below the limit of 50 mg/kg.**

Prepared by: **Dr. Ahmad Fauzi**
 Checked by: **Dr. Siti Nurhaliza**
 Date: **15/05/2023**

Signature of Client: **ABC Company Sdn Bhd**
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Page 1 of 1

DALMIA CEMENT (BHARAT) LIMITED

Garland drainage constructed all around the plant for the collection of surface run of water.
Pit constructed



Settling pit

DALMIA CEMENT BHARAT LIMITED, BOKARO

RAIN WATER HARVESTING SYSTEM

Roof top Rain Water Harvesting System have installed in CCR, Raw Material Hopper Building, Cement Mill, Bag House & Packing Plant Building in our plant area. Rain water collected from roof top through gutter and carrying by pipe lines in recharge trenches. Recharge Pits are also connected with recharge trench. 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. Rain water easily percolated and recharges ground water level. Inspection of Rain water Harvesting System has done by Regional Officer, JSPCB, and Ranchi on 30.05.2013 and approved from Ground Water Board, Ranchi vide latter no. GWD 320/ Ranchi Dated:06.09.2013



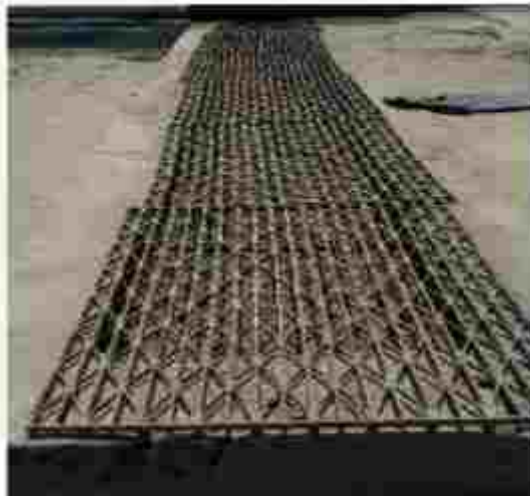
RAINWATER HARVESTING SYSTEM DISPLAY INSIDE THE PLANT



Rain water harvesting recharge pit constructed in railway siding & Cement mill area



Rain water harvesting recharge pit near FH3 Hostel & Rain water recharge trench In-front of CCR main building



Rainwater harvesting recharge trench near bag house and near cement mill 2 area



Rainwater harvesting recharge trench near CCR building & near E type quarter

Wells renovation done by Dalmia Cement (Bharat) Limited near surrounding village area



Pond renovation near surrounding village area by DCBL Bokaro to conserve the rain water

DALMIA CEMENT BHARAT LIMITED, BOKARO

Water Flow meter installed at the main gate of the factory



DALMIA CEMENT BHARAT LIMITED, BOKARO

Noise level report from April 2025 to September 2025

Near Main Gate						
	Day Time			Night Time		
	Min.	Max.	Avg.	Min.	Max.	Avg.
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Apr-2025	58.8	64.7	61.6	49.7	53.9	47.9
May-2025	59.4	65.9	62.3	45.3	57.4	52.1
Jun-2025	54.8	60.8	57.4	45.6	52.6	48.6
Jul-2025	53.4	59.7	56.5	46.9	53.6	50.2
Aug-2025	56.9	63.7	62.1	47.2	55.7	51.7
Sep-2025	57.3	66.4	61.5	46.3	54.3	50.9

FH-3 Building						
	Day Time			Night Time		
	Min.	Max.	Avg.	Min.	Max.	Avg.
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Apr-2025	42.3	45.0	43.8	30.2	43.4	37.1
May-2025	40.3	44.1	42.9	31.8	40.2	35.7
Jun-2025	35.9	45.8	41.3	36.6	38.1	37.5
Jul-2025	40.5	43.6	42.4	39.3	41.7	40.4
Aug-2025	41.2	44.5	43.6	38.4	42.5	39.9
Sep-2025	38.9	43.9	41.2	31.8	39.1	35.7

Near Fabrication Yard						
	Day Time			Night Time		
	Min	Max	Avg	Min	Max	Avg
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Apr-2025	56.8	62.9	59.3	41.3	54.2	46.7
May-2025	57.6	64.2	61.2	42.1	55.6	49.3
Jun-2025	50.8	57.7	53.7	41.8	48.5	44.8
Jul-2025	51.6	54.5	53.4	46.7	50.6	48.6
Aug-2025	53.9	58.9	55.9	47.3	49.7	49.1
Sep-2025	56.1	61.3	59.1	48.7	55.1	51.9

Near Wagon Tippler						
	Day Time			Night Time		
	Min	Max	Avg	Min	Max	Avg
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Apr-25	54.7	61.1	58.39	38.4	50.1	44.13
May-25	56.7	62.4	60.00	43.3	52.9	48.51
Jun-25	50.1	59.9	55.24	40.4	52.5	46.3
Jul-25	52.9	58.4	56.04	40.4	51.8	46.79
Aug-25	52.9	60.8	56.96	43.4	51.8	47.64
Sep-25	58.4	65.9	62.23	50.7	56.6	53.51

Noise level monitoring report month of June 2025 from NABL/JSPCB approved lab

[illegible][illegible][illegible][illegible]

Noise level monitoring report month of September 2025 from NABL/JSPCB approved lab

INSTITUTE FOR ENVIRONMENTAL MANAGEMENT
 Environmental Management System (EMS) Certification Body
 Accredited by NABL (No. 12345) and JSPCB (No. 67890)
 Address: 123 Main Road, Mumbai, Maharashtra 400001
 Contact: 022-12345678, Email: info@iemumbai.com

TEST REPORT

Client: ABC Company Ltd.
 Sample Name: Noise Level at Site
 Requested by: Mr. X
 Requested on: 15/09/2025
 Issued on: 18/09/2025
 Issued by: Mr. Y

Tested at: 123 Main Road, Mumbai, Maharashtra 400001
 Test Method: ISO 9859-1:2012
 Test Result: 65 dB(A) L_{eq} (1h)

Remarks: The noise level is within the permissible limit of 70 dB(A) L_{eq} (1h) as per the Indian Standard IS 1629:1982.

Signature of Client: _____
 Signature of Institute: _____
 Date: 18/09/2025

Page 1 of 1

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Signature of Client: _____
 Signature of Institute: _____
 Date: 18/09/2025

Page 1 of 1

DALMIA CEMENT BHARAT LIMITED, BOKARO

Solar lights installed at different location of the plant



CCR BUILDING



ADMIN BUILDING



CIVIL OFFICE



ENVIRONMENT OFFICE



NEAR TOILET

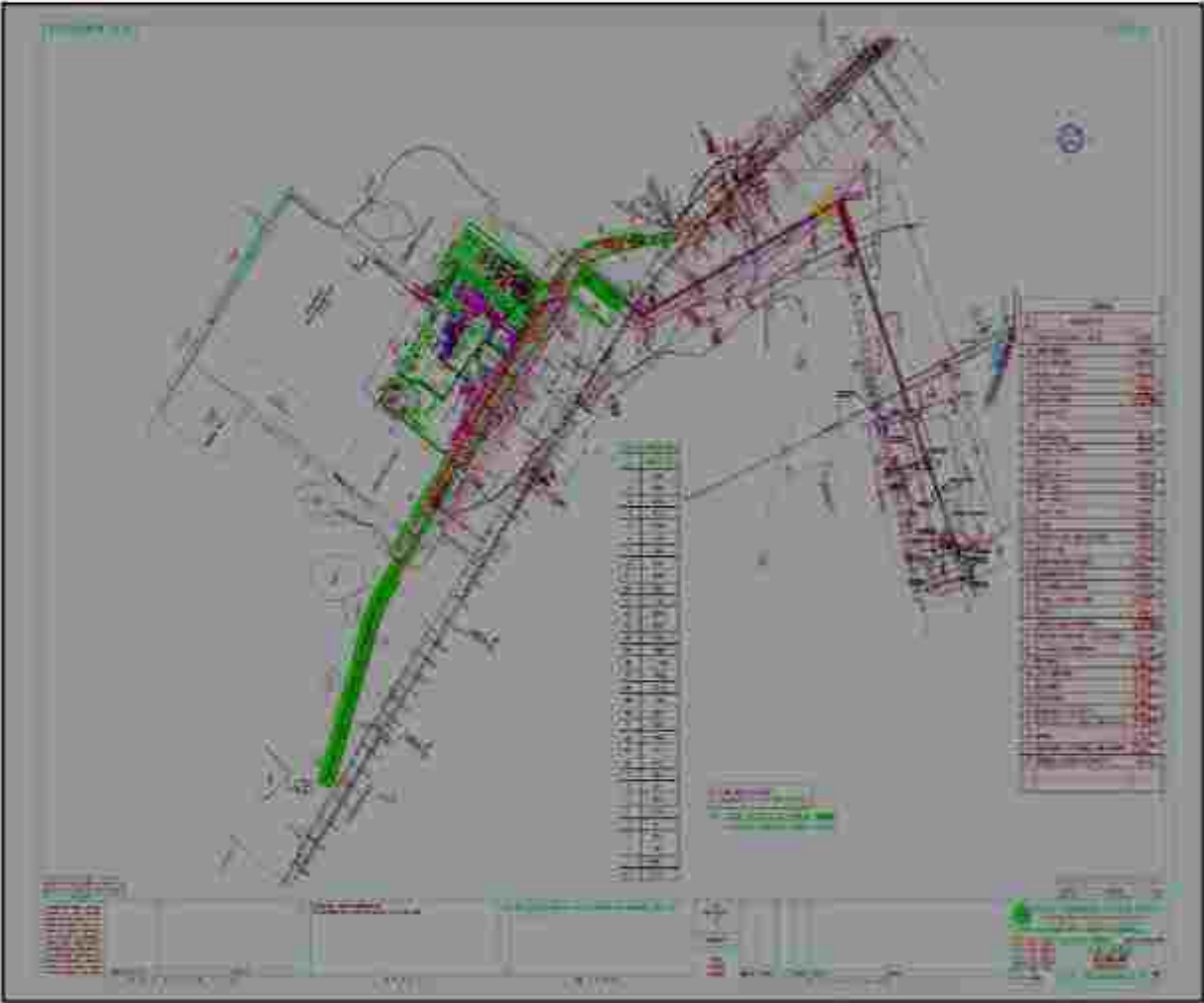
DALMIA CEMENT (BHARAT) LIMITED, BOKARO**TREE PLANTATION DETAILS**

Total greenbelt development area is 23.25 acres (more than 33 %) of total land 69.19 Acres to improve the aesthetic value and to arrest dust and also to mitigate noise pollution.

YEAR WISE TREE PLANTATION DETAILS GIVEN AS FOLLOWS

SL. No	Year	Number of plants	Area (in Acres)
1	1st (2011-2012)	5000	5
2	2nd (2012-2013)	2030	4
3	3rd (2013-2014)	2820	3
4	4th (2014-2015)	7620	5
5	5th (2015-2016)	5100	4
6	6th (2016-2017)	1500	1
7	7th (2017-2018)	500	0.55
8	8th (2018-2019)	69	0.3
9	9th (2019-2020)	100	0.4
10	10th (2020-2021)	150	Plantation done in the place of dead tree
11	11 th (2021-2022)	500	
12	12 th (2022-2023)	350	
13	12 th (2023-2024)	400	
14	13 th (2024-2025)	225	
15	13 th (2025-2026) (April-September)	150	
	Total	26514	23.25

S.N	Year	Name of Species tree planted
1	2011-2012	Gulmohar,Amaltash,Neem,Mihigini,shisham,Ashoka,Teak, Mango,Amala, Shiv Babool, Chatni
2	2012-2013	Gulmohar,Amaltash,Neem,Mihigini,shisham,Ashoka,Teak,Mango, Amala
3	2013-2014	Ashoka,Chatni,Gulmohar,Amaltash,Neem,Mihigini, Shisham
4	2014-2015	Ashoka,Chatni,Gulmohar,Amaltash,Neem,Mihigini, Shisham
5	2015-2016	Chatni,Gulmohar,Neem,Mehegan,Shisham,Pipal,Teak,
6	2016-2017	Gulmohar,Chatni,Neem,Guava,Shiv Baboo,Mango,Jamun
7	2017-2018	Chatni,Gulmoha,Amaltash,Neem,shisham,Guava,Pipal
8	2018-2019	Chatni,Gulmohar,Neem,Mihigini,Guava,Mango,Amala,Neem
9	2019-2020	Chatni,Mihigini,Botal Pam,Mango,Amala,Lemon,Jamu
10	2020-2021	Chatni,Mihigini,,Mango,Kaaju.
11	2021-2022	Chatni,Mihigini,,Mango,Kaaju,Amala, Neem, Gulmohar
12	2022-2023	Chatni,Mihigini,,Mango, Neem, Gulmohar
13	2023-2024	Chatni,Mihigini,,Mango, Neem, Gulmohar
14	2024-2025	Chatni,Gulmohar,Neem,Mihigini,Guava,Mango,Amala,Neem
15	2025-2026	Chatni, Mihigini, Neem, Gulmohar, Mango



Greenbelt pics at DCBL Bokaro







Tree plantation done railway siding



DALMIA CEMENT (BHARAT) LIMITED, BOKARO**Carbon Emission Reduction program**

The MoEFCC Gazette Notification dated 08th October 2025 has set carbon-emission reduction targets for 186 cement plants, including Dalmia Cement (Bharat) Limited, Bokaro. Our baseline GHG intensity for FY 2023–24 is 0.0217 tCO₂e/tonne of major equivalent product, with compliance targets of 0.0215 for FY 2025–26 and 0.0210 for FY 2026–27. We have accordingly initiated multiple process-level interventions to reduce emissions.

DCBL Bokaro is a 4.5 MTPA (Unit-1) cement grinding unit in Bokaro, Jharkhand. The plant consumes a small quantity of coal in the HAG for slag drying and electricity for plant operations and material movement.

Sources of GHG Emissions**Scope 1 (Direct Emissions):**

- Coal consumption in FBC
- Company-owned vehicles and hired equipment

Scope 2 (Indirect Emissions):

Purchased grid electricity

GHG Reduction Targets (as per MoEFCC Gazette letter vide dated 08.10.2025)

Categories	UOM	Baseline (2023-24)	Target (2025-26)	Target (2026-27)
Scope-1 + 2	tCO ₂ e/Tonne of major equivalent product	0.0217	0.0215	0.0210

Mitigation Plan for GHG Reduction**1. Process Optimization and Energy Efficiency**

Key measures include reducing coal usage in the FBC, lowering clinker consumption, increasing rail transport, minimizing vehicle movement, and optimizing operating hours of major equipment.

Examples of completed improvements:

- Coal consumption reduced 46,451 MT (2023–24) to 42,505 MT (2024–25)
- Increased clinker silo storage to reduce road transport
- Optimized slag circuit, packing plant compressors, pneumatic systems, and blower usage
- Reduced mill start-stops through better silo-level management

2. Future Process Optimization Initiatives

Planned technical measures includes:

- Baghouse DP reduction in CVRM units
- Wagon loading system optimization
- Feed chute modifications to avoid stoppages
- Energy-efficient impeller replacements
- Installation of VFDs, pneumatic valves, and compressed-air optimization
- Replacement of old fans, lighting optimization, and reduction of pressure drops

3. Energy-Efficiency Improvements

We are implementing targeted energy-efficiency programs, including benchmarking studies for high-consuming equipment, fan optimization, and compressor efficiency improvements. These actions directly reduce GHG emissions by lowering overall energy demand.

ISO 50001:2018 Implementation

DCBL Bokaro has implemented ISO 50001 to systematically manage and improve energy performance across the plant.

4. Increasing Renewable Energy Sourcing

The plant is working to significantly increase the share of renewable electricity through rooftop solar, off-site RE procurement, and long-term renewable PPAs. The long-term goal is to transition toward 100% renewable electricity, eliminating grid-related emissions.

Additional initiatives include:

- Installation of solar and LED lighting in the plant and colony
- Regular tree plantation and green-belt development.

5. Regular GHG Assessment and Inventory Strengthening

We conduct annual, third-party-assured GHG inventories to identify reduction opportunities from major emission sources and continuously track performance.

6. Objectives of GHG Reduction Program

- Drive innovation through cross-functional involvement
- Improve cost efficiency through energy and resource savings
- Set ambitious reduction targets and track progress
- Conduct internal and external energy audits
- Enhance awareness among employees and stakeholders
 - Regularly evaluate, prioritize, and implement GHG-reduction opportunities

On Site Emergency plan approved from Chief Inspector of Factories Jharkhand

Letter No. J.F.P. (M.C. 182) sub-section 5(1)(2)
OFFICE OF THE CHIEF INSPECTOR OF FACTORIES, JHARKHAND, RAURKI
 (FABRIC BUILDING, DEHRADUN, RAURKI-21002)
 (Jharkhand Government's Letter No. J.F.P. (M.C. 182) sub-section 5(1)(2))

From: Chief Inspector of Factories, Jharkhand, Raurki.

To: The Occupier,
 M/s. Datta Cement (Bihar) Limited,
 Plot No. 15/4-775, Bokaro Industrial Area, Bokaro, Bokaro-Sard
 City-827014.

Raurki, Jharkhand 15-07-2021

Subject: Recommendation of On Site Emergency Plan M/s. Datta Cement (Bihar) Limited, Plot No. 15/4-775, Bokaro Industrial Area, Bokaro, Bokaro-Sard City-827014.

Reference: Your letter dated 01.03.2021.

Sir,

This has reference to the submitted on Site Emergency Plan, being 15 pages long with letter dated 01/03/2021. The submitted emergency response plan has been reviewed and examined. The above on site emergency plan is recommended subject to the following conditions:-

1. Regular Mock drill shall be carried out in the factory at least once in every year and the report shall be made available to the area inspectors of Factories and Chief Inspector of Factories.
2. The safety audit shall be conducted by registered competent person Agency Institution. The audit and report health & safety policy, hazard major report & fire load calculation report shall be submitted.
3. The Emergency Plan will be updated and its use as per modification in the plant.
4. Adequate arrangement of medical relief facilities (first aid equipment etc.) shall be provided and maintained in the emergency conditions.
5. Telephone number of key person to be acted and disposed in the control control room.
6. The Independent person, such as safety for Emergency Control Room shall be provided.

Encl: A copy of the recommended plan is enclosed herewith.

Yours faithfully,

 Chief Inspector of Factories, Jharkhand,
 Raurki.

Annexure-22**Dalmia Cement (Bharat) Limited, Bokaro****PPEs Issues for the period of April 2025- September-2025**

Description of PPEs	PPEs Issued
Heat Resistant suit	6
safety Helmet	600
Reflective jacket	2665
Load carrying Helmet	50
Earplug	500
Safety shoes	263
Dust Mask	10000
Hand Gloves	18361
Clear Glass	1300

Annexure-23

MEDICAL HEALTH CHECKUP REPORT FY 2025-2026

DALMIA CEMENT (BHARAT) LIMITED, BOKARO						
MEDICAL HEALTH CHECKUP REPORT FY 2025-2026						
Sl NO.	Name (Shri)	Designation	Deptt.	Testing Date	Due Date	Blood Group
1	Dinesh Kumar Ram S/O Late Ramashankar Ram	Welder	Mechanical	4/23/2025	4/23/2026	O+ve
2	Isamail Khan S/O Md. Asgar Khan	Welder	Mechanical	4/22/2025	4/22/2026	B+ve
3	Chaman Kumar Gope S/O Sri Lakman Gope	Junior Rigger	Mechanical	4/24/2025	4/24/2026	B+ve
4	Dhano Manjhi S/O Late Saraban Manjhi	LABOUR	INFRA & FACILITY	4/23/2025	4/23/2026	B+ve
5	Basudev Singh S/O Late Adhanu Singh	LABOUR	MECHANICAL	4/24/2025	4/24/2026	B+ve
6	Diwakar Manjhi S/O Lakhari Manjhi	LABOUR	MECHANICAL	4/23/2025	4/23/2026	A+ve
7	Shatrughan Dom S/O Late Sanatan Dom	SWEEPER	INFRA & FACILITY	4/24/2025	4/24/2026	O+ve
8	Gobind Kalindi S/O Sri Mantu Kalindi	SWEEPER	INFRA & FACILITY	4/23/2025	4/23/2026	B+ve
9	Sarju Kumar Mahali S/O Late Dhanu Mahli	MESS HELPER	INFRA & FACILITY	4/23/2025	4/23/2026	AB+ve
10	Vishal Kalindi S/O Mutuk Lal Kalindi	Sweeper	Infra & Facilities (Plant Cleaning)	4/22/2025	4/22/2026	AB+ve
11	Jawala Singh S/O Manbharan Singh	Labour	Mechanical, Wagon Tippler	4/23/2025	4/23/2026	O+ve
12	Vishal Kumar Ravidas S/O Ganesh Ravidas	Labour	Mechanical, Wagon Tippler	4/24/2025	4/24/2026	AB+ve

Annexure-24

Corporate Environment Responsibility & CSR report for the period of April 2025 to September 2025

Dalmia Cement (Bharat) Limited, Bokaro

Sl. No	Name of Activity	Place of Activity/ Village	Expense (in Rs.)
1	Tailoring Training	Parsadih and Kanari	50000.0
2	Beautician Training	Bishumpur, Gorabali South	40000.0
3	Distribution of Paddy Seeds	Gorabali South	55000.0
4	Distribution of Chairs for Old age homes	Gorabali South	51000.0
5	General Medicine and Gynecology Camp	Gorabali South and Marafari	24500.0
6	Digital Literacy through WoW Bus	Tantri, Jainamore	325000.0
7	EDP Training	Gorabali South	300000.0
8	Vaccination of Livestock's (Goat)	Gorabali North, South, Khuntri, Kanari, Marafari	12000.0
9	Plantation and Distribution of Disposable Carry Bags	Gorabali North, South, Khuntri, Kanari, Marafari	57000.0
10	Well Renovation	Kanari	387000.0
11	Independence Day	Bokaro Diksha	25000.0
12	Yoga Day	Bokaro Diksha	37000.0
13	Skill training to local youths at Bokaro Diskha	Bokaro	1200000.0
14	Dental Camp	Bokaro Diksha	15000
15	Sewa Diswas	Gorabali North, Marafari	75000.0
	Total Expense (in Rs.)		2653500.0

CSR details for the period of April 2025 to September 2025

Tailoring Training



Beautician Training



Distribution of Paddy Seeds



Distribution of Chairs for Old age homes



General Medicine and Gynecology Camp



Digital Literacy through WoW Bus



EDP Training



Vaccination of Livestock's (Goat)



Dental Camp



Plantation and distribution of disposable carry bags



Celebration of Yoga Day at Bokaro Diksha



Well Renovation



Skill Training to local youths and Independence Day Celebration at Bokaro Diksha



Celebration of Sewa Diswas



CORPORATE ENVIRONMENT POLICY

DALMIA BHARAT LIMITED

Regd. Office: Dalmiapuram – 621651, Dist: Tiruchirappalli, Tamil Nadu

[CIN: L40109TN2006PLC0958818]

Tel. No.: (04329) 235132 Website: www.dalmiahl.com, E-mail: mhelp1@dalmiabharat.com

BUSINESS RESPONSIBILITY POLICY*(Adopted by the Board of Directors at its meeting held on 17-8-2016)***Preface**

Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015, vide its clause 34(2)(f), mandates that the Annual Report of top five hundred listed entities based on market capitalization (calculated as on March 31 of each financial year) shall contain a Business Responsibility Report describing the initiatives taken by the Company from an environmental, social and governance perspective, in the format as specified by the SEBI from time to time.

SEBI vide Circular No. CIR/CFD/CMD/10/2015 dated November 04, 2015 has prescribed nine key principles to assess the fulfilment of listed entities and a description of the main elements under these principles. This Policy is accordingly framed to address the nine principles prescribed by SEBI in the said circular.

Stakeholders

The relevant stakeholders are Shareholders, Security Holders, Subsidiary Companies, Joint Venture Companies, Employees, Suppliers, Distributors, Public, Customers and Society at large.

Principle 1 - Ethics, Transparency and Accountability

Dalmia Bharat Limited (the "Company") is committed to ensure adherence, while conducting in all its sphere of activities and while dealing with both the internal and external stakeholders, to the following:

- Promote values as well as demonstrate commitment to uphold its ethics principles wherever operate in conjunction with business partners.
- Not do or give or receive, directly or indirectly for business or financial gain, any financial inducement or improper advantage, or engage in any form of unethical conduct or exercise undue influence over any other third party.
- Not indulge in giving extravagant, lavish or uncustomary gifts to Authorities which may obligate or inappropriately influence the recipient.
- Ensure vouch for completeness, validity and accuracy of the records, financial or otherwise and the validity of all information. Systematically identify and engage in an effective and transparent manner with all the stakeholders to create sustainable long term value for our stakeholders.
- Take the contractual obligations seriously and ensure to pay suppliers, employees and other entitled to receive money according to agreed contracts/terms.
- Not to engage in or promote practices which are corrupt and anti-competitive and comply with the competition laws.



- Encourage all associated parties to comply with these principles and avoid complicity with anyone that violates above principles.
- Comply with all the laws and regulations as applicable.

Principle 2 - Sustainability

The Company is committed to offer goods which are safe and have a positive contribution on environment and society. To achieve this objective, we are committed to:

- Adopt most energy efficient technologies in manufacturing process, improve the energy efficiency of equipment.
- Make continuous effort to increase the use of renewable energy and fuels, co-processing wastes to reduce our greenhouse gases.
- Invest in research and development.
- Make continuous efforts to reduce water intensity and fresh water usage by increased use of harvested and recycled water in our operations.
- Assess biodiversity quality in all our extraction sites and strive to create positive impact.
- Continuously strive to improve the quality of products, processes and services.
- Encourage recognition and respect for rights of owners of intellectual property.
- Promote free competition and freedom of choice to consumers.
- Identify stakeholders to understand their concerns.
- Implement suitable grievance handling mechanism, wherever required.

Principle 3 - Wellbeing of Employees

The Company being a strong value driven, people oriented and accountable organization is committed to offer the best working environment to all its employees. To achieve this objective, we are committed to:

- Maintain good working conditions promote a harmonious and productive atmosphere in the workplace and provide fair and equal employment opportunity for all employees to maximize their career growth with enhanced skills and to create a favourable environment to work as an effective team.
- Ensure no harm anywhere to any one in our entire operations as part of our commitment towards health and safety of all people involved.
- We shall provide Safe and secure workplace free from harassment, discrimination or other intimidating behaviors of all kinds and shall follow the procedures, principles and rules prescribed by the Government under Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 and rules made thereunder.
- We shall ensure equal opportunities and fair treatment to all employees including eligible applicants for employment in the Company irrespective of their caste, creed, religion, gender, marital status, age starting from the process of employee's acquisition till grant of all terminal benefits and will not tolerate discrimination of any kind. We shall recruit, retain and develop people based on suitability of role and the opportunity for personal and professional growth.
- We shall promote well being and work life balance of people to let them live a happy life and honour individuality of every employee.
- We shall not engage any person to work who is unwilling or below the age of 18 years.
- We shall respect the right of freedom of association, participation and collective bargaining.



Independent Audit / Evaluation of working of the Policy

Independent Audit / evaluation of working of the Policy shall be done by the Internal Auditor atleast once a year and report the same to the Chief Financial Officer and Whole Time Director, being designated by the Board of Directors as responsible Director for the preparation and implementation of the Business Responsibility Policy.

Conclusion

This Policy will be reviewed as and when deemed necessary in view of the revision/amendment in the Regulations notified from time to time or otherwise.

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.



DALMIA CEMENT (BHARAT) LIMITED, BOKARO

Plot No. IV/A-7(P), Bokaro Industrial Area, Balidih,
Bokaro Steel City, Jharkhand- 827014

Dalmia Cement (Bharat) Limited, Bokaro having Environmental Management Cell both at the Plant and Company Head Quarter level which is controlled by Sr. Executive Director. Unit Head by adequate team of technically qualified personnel apart from the operative staff of skilled, semi-skilled, unskilled and other categories for fulfil the following objectives. Environment Management Cell Responsibility as follows:

1. Preparation & submission of fresh consent application, Hazardous waste authorization application, and renewal of all consent.
2. Timely submission of Statutory reports (Monthly, half-yearly and annually to JSPCB, CPCB, MoEF).
3. Ambient air quality monitoring (PM₁₀, PM_{2.5}, and fugitive emission in Cement Plant).
4. Measurement of both work place & ambient noise level in various locations in plant.
5. Assessments of water consumption Industrial and Domestic.
6. Keeping Plant clean through Housekeeping initiatives.
7. Performance evaluation of air pollution control system.

The Environment management cell is responsible for pollution monitoring activities in DCBL Bokaro. Ambient air quality monitoring, Stack monitoring, water and effluent quality checking, and checking of noise level in plant, following pollution monitoring equipment are available in Environment cell.

DCBL Environment Monitoring Equipment's Details

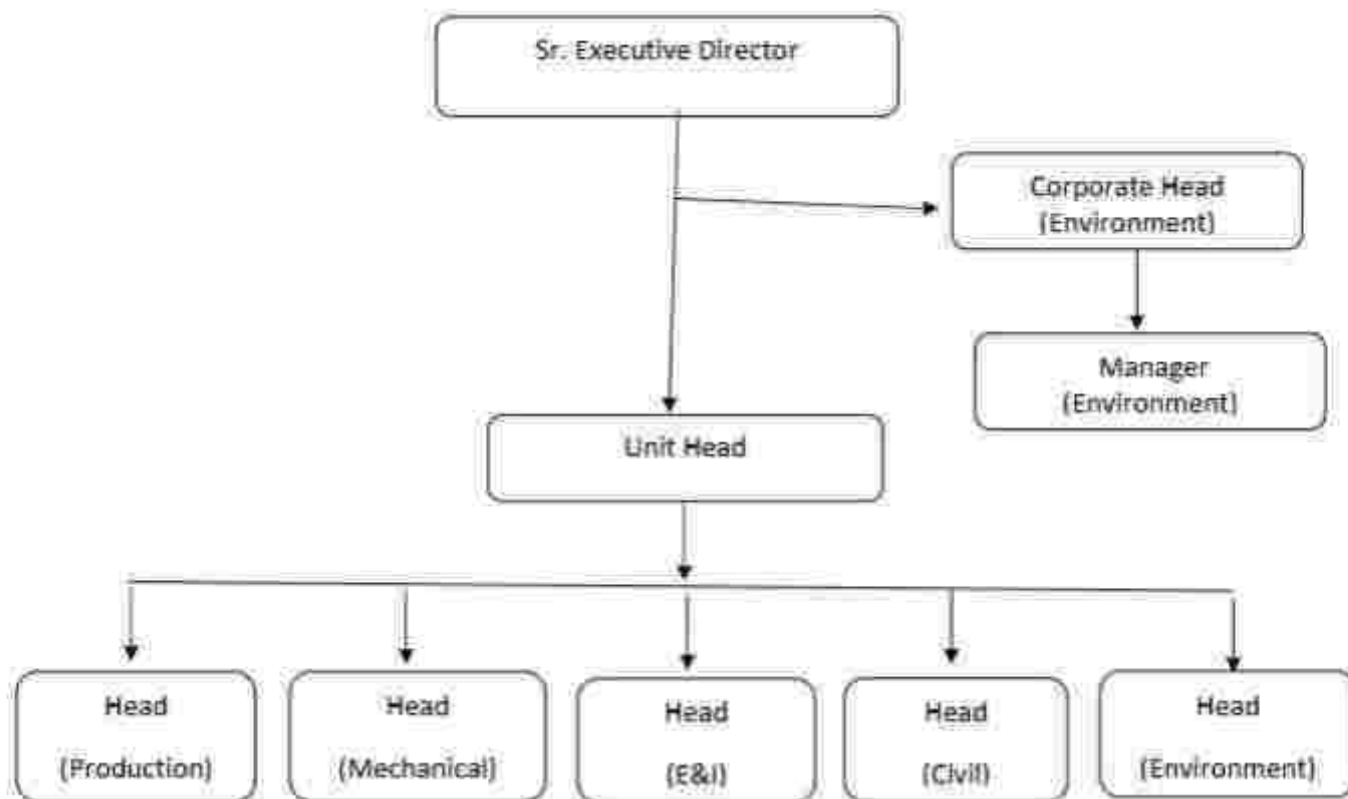
S. N.	Name of Equipment's	No. of Equipment's
A. Ambient Air Quality Monitoring		
1.	Respirable Dust Sampler (RDS) PM-10	04
2.	Respirable Dust Sampler PM10-2.5	04
3.	Portable DG Sets	01
4.	Continuous Ambient Air Monitoring System (CAAQMS)	02
B. Stack Monitoring		
5.	Stack Monitoring Kit	01
6.	Continuous Stack Emission System (CEMS)	01
C. Workplace Monitoring		
8.	Sound Level Meter	01
9.	Personal Sampler APM 800	01
D. Water Quality Monitoring		
10.	Spectrophotometer-Model DR 2700 (Hach-USA)	01
11.	Turbidity Meter	01

E.	Others	
12.	Hot Air Oven	01

In case the monitoring result of environment pollution found to exceed the allowable limits, the Environmental cell will suggest remedial action and get these suggestions implemented through the concerned authorities.

The Environmental Management cell will also co-ordinate all the related activities such as checking of performance of pollution control equipment installed in plant, Sewage treatment plant, and green belt development in DCBL Bokaro.

ENVIRONMENT MANAGMENT CELL ORGANIZATION CHART



Dalmia Cement (Bharat) Limited, Bokaro

Capital cost investment on Environment protection up to September 2025

M/S DALMIA CEMENT (BHARAT) LIMITED, BOKARO				
Plot No. IV/A-7(P), Bokaro Industrial Area, Balidih, Bokaro Steel City, Jharkhand -827014				
CAPITAL COST INVESTMENT ON ENVIRONMENT PROTECTION AT DCBL BOKARO UP TO March 2025				
S.N	PARTICULARS	Asset no	Investment in Rs.	Investment in Crores
1	INVESTMENT ON AIR POLLUTION CONTROL MEASURES			29.05
a	Bag House cement mill	5500000007	193983042.2	
b	Bag house fan	5500000014	13972406.4	
c	Bag house for cement mill	5500000037	9901023.02	
d	Bag house fan	5500000046	185484.52	
e	Sprgs Bag house fan -mill -1	5500000016	6300867.1	
f	Sprgs Bag house fan -mill -2	5500000017	6300867.53	
g	Bag filter from silo to packing plant EEL India limited		21000000	
h	Bag filter clair Packing plant area		4800000	
i	Bag filter at Wagon Tippler		28150000	
j	Bag filter Dry fly ash silo Top storage bin		900000	
h	Bag filter Dry fly ash silo Top storage bin Sep-		1300000	
i	Packer-4 Bag filter		3700000	
			290493690.8	
2	INVESTMENT ON FUGITIVE DUST EMISSION CONTROL			8.64
a	Construction of Tarpaulin shed near packing plant	5200000052	1741749.73	
f	Road Swapping machine	5900000085	128981	
g	Water spray tanker	5060000016	100000	
h	Delexo Road Swapping Machine	5500000172	2452009.2	
i	Steel Silo for storage of PCC	5500000185	28115894.14	
j	Plant Roads construction	5200000010	53848342.83	
			86386976.9	
3	INVESTMENT IN WATER POLLUTION CONTROL MEASURES			0.78
a	Rain water Harvesting system implemented	5200000034	56547.38	
b	Sewer line connected to plant toilet to STP	5200000054	958795.98	
c	Bio Toilet at Wagon Tippler & Railway penal Yard	5200000055	99308.58	
d	Construction of Sewage treatment Plant	5200000067	4772895.03	
e	Water treatment plant	5040000011	133559.51	
f	Toilets & Bathroom for Labour Camp	5200000056	1074911.5	
g	Water treatment plant	5040000013	682090.06	
			7778108.04	

4	ENVIRONMENT POLLUTION MONITORING EQUIPMENT			
1	CAAQM-SO2 & NOx Analyzer	5500000068	1308596	0.61
2	Laboratory balance	5500000074	19244	
3	Opacity meter From Chemtrols industries LTD	5900000033	88889.55	
4	Opacity meter From Chemtrols industries LTD	5900000034	88889.55	
5	Data connectivity to CPC8 Server	5800000003	188100	
6	Stack monitoring kit from form forebes marshal	5010000067	10596.16	
7	Incubator	5500000029	13000.32	
8	On line CAAQM station Environment SA	5500000066	2522852.76	
9	Up gradation Software of CAAQMS	5800000003	490800	
10	Construction of 2 no CAAQMS Room	5200000035	454879	
11	Respirable Dust Sampler 460 BL PM -10 ,4no	Environment Lab	280000	
12	Respirable Dust Sampler 460 BL PM- 2.5 ,4no	Environment Lab	300000	
13	Vayubodhan Stack monitoring Kit V551	Environment Lab	75000	
14	Spectrophotometer	Environment Lab	280000	
			6120847.34	
	Capital cost Investment from April 2025 to September 2025			Nil
	Total Capital Cost Investment on Environment measures up to September 2025			39.08

Recurring cost expenditure on Environment protection activities from April 2025 to September 2025

S.N	Description	Rs.Lakhs
1	Cost on Schedule maintenance of Air Pollution control equipments Bags replacement with new bags, Bags cleaning, De dusting line checking, cleaning and repairing work. Bag filters fan maintenance etc)	65.2
2	Power consumption in Pollution control equipment (Bag House & Bag Filter) 9973612 KWH X Rs 6.04	602.4
2	Third Party Environmental Monitoring & Analysis	0.6
3	AMC of CEMS Data transmission to JSPCB & CPCB	0.17
4	AMC of CAAQMS Maintenance, Servicing and Calibration,	0.64
5	AMC of CAAQMS Data transmission to JSPCB & CPCB	0.5
6	Calibration of Pollution Monitoring Equipment's (CEMS)	1.5
7	Calibration of Pollution monitoring instrument (RDS & Stack VSSI, Noise level meter)	0.15
8	Air Pollution Monitoring Accessories Pump maintenance kit & PM-10 & 2.5 Filter paper	1.1
10	STP Operation & Maintenance	3.8
11	Road Sweeping Machine Operation & Maintenance	4.36
12	Disposal of Bio medical waste	0.09
13	Fuel consumption and manpower cost of water sprinkling tanker	2.48
14	Green Belt Development	0.68
TOTAL RECURRING COST EXPENDITURE FROM APRIL 2025 TO SEPTEMBER 2025 in (Rs) Lakhs		683.67

Dalmia Cement (Bharat) Limited, Bokaro

Half Yearly Environment Internal audit report for the period of April 2025- September-2025

Date: 28.08.2025 (2.30 PM -5.30 PM)

Following below members present in Environment Audit:

1. Sunil Kumar Bhusari (Unit Head)
2. Debi Prasad Das (Technical Head)
3. Arvind Kumar (Head Mechanical)
4. LR Patel: (Head E&I)
5. Drigpal Singh: (Asst. Manager Quality)
7. Sagar Sharma: Head (Safety)
8. Sohan Lal (Head Civil)
9. Shubham (Unit Head Office)
10. Sanjeev Verma (Head Environment)

Following below point discussed and reviewed of Environment performance of Dalmia Cement (Bharat) Limited, Bokaro

Sr. No	Environment internal audit observation points	Compliance Status of observation points	Auditor Observation
1.	Review status of Statutory compliance - Consent to Operate (CTO) & Environment Clearance (EC) compliance condition	Complied. Timely submitted EC Compliance report to MOEF&CC, JSPCB /CPCB/SEIAA.	Complied
2.	Review status of Statutory compliance - E-Waste Management	Complied. Timely submitted E-Waste return to JSPCB Ranchi and Dhanbad.	Complied
3.	Statutory compliance - Hazardous waste management	Complied. Timely submitted Hazardous waste return Form-IV JSPCB Ranchi & Regional Office Dhanbad.	Complied
4.	Review status of Statutory compliance Condition of OHC, CTO and Authorization of Bio medical waste compliance condition under	Complied. Timely submitted Hazardous waste return Form-IV JSPCB Ranchi & Dhanbad.	Complied

	Bio- Medical Waste Management		
5	Checked On Line CEMS & CAAQMS data at JSPCB & CPCB Server	Complied, On line CEMS & CAAQMS Data continuous transmitted to JSPCB & CPCB server and emission data maintained within the norms.	Complied
6	Checked Calibration certificate record of Pollution monitoring equipment.	Complied. On line CEMS & CAAQMS instrument calibrated with in time.	Complied
7	On Line monitoring data display at factory main gate.	Complied. Online Environment monitoring data displayed at main gate.	Complied.
8	Checked Third party Environment monitoring report.	Complied, third party Environment monitoring report done on quarterly basis and all Environment monitoring data available in Environment Department	Complied.
9	Checked Drinking water quality	Complied, drinking water quality regularly checked on monthly basis all parameter with in the norms.	Complied.
10	Checked status validity of CTO and HWA.	Complied, within time limit	Complied.
11	Checked fugitive dust emission records	Fugitive dust emission monitoring done by NABL/JSPCB approved lab record available at Environment Department and fugitive emission control measures taken.	Complied
12	Status of Green belt development	Complied Green belt maintained 33% of the plant. Also instructed to horticulture department for regular sprinkling of water on trees during dry season.	Complied
13	Rain water harvesting system	Complied Rain water harvesting system constructed and maintained.also instructed to Civil department for cleaning of all drainage of RWH System	Complied
14	Status of Bag filter /Bag house	Complied All plant Bag filter and bag house is running condition and also instructed to Maintenance team for preventive maintenance with in time	Complied

		period	
15	Submission of Environment statement to JSPCB	Complied Environment Statement submitted with in time for the year 2024-2025	Complied
16	Statue of water spray tanker for control of fugitive dust emission	Complied Water spray tanker regular water spray on the outside roads and dust prone area for the control of fugitive dust emission and record maintained	Complied
17	Status of road sweeping machine	Complied Regular cleaning of the roads and concreted area by road swapping machine and record maintained. also discussed preventive maintenance of road sweeping machine to control of breakdown of road sweeping machine	Complied
18	Status of Solar light	Complied Solar light installed at different location in the plant instruct Electrical Department for preventive maintenance of Solar light.	Complied
19	Status of Water sprinkler	Water sprinklers and water fog system working condition in plant gate main road	Complied
20	Status of Raw material covering	Raw material are covered with tarpaulin sheet for control of fugitive dust emission	Complied
21	Maintenance of plant main inertance road	Regular plant outside road maintenance done as when required	Being done
22	PPEs provide to all workers and employee's	It is observed that all workers employees are wearing PPEs in plant area. PPEs are regularly provided to all employee's .	Complied
23	Awareness done on Safety and Environment protection.	Daily discussion done on GRT (Grass Root Team) meeting to awareness for safety and Environment for all employees.	Complied
24	Few places belt conveyers open	Covering of conveyers belt work is under progress and will completed one week.	Work is under progress
25	Water leakage near FBC area	Damage pipe line change with new pipe line. Presently no water leakage	Complied.

26	Tree plantation required in plant vacant place area	Instructed to Horticulture team for native tree plantation in Monsoon season	Complied 150 no's trees planted in monsoon season
27	Ground water level and ground water quality report	Ground water level checked and Ground water quality analysis regularly done and reports are available in Environment Department of surrounding village area	Complied
28	Medical health checkup record	Medical health checkup regularly done and Medical Health checkup report available at Plant OHC	Complied
29	Disposal of Bio Medical Waste	Bio Medical Waste dispose off through authorized vendor from JSPCB /CPCB M/s Bio Genetic PVT Limited Dhanbad	Complied
30	Disposal of Used Oil /Waste oil	Used oil /Waste oil dispose of through authorized vendor from SPCB/CPCB M/s M/s Plus Lubricants Gul Authorization No.MPCB RO(HQ)HSMD/ Autho/19/H&OW-26	Complied
31	Checking of Vehicle PUC Certificate	Regular PUC certificate checked by Security team of PUC of all vehicle interring in plant area	Complied
32	Disposal of Kitchen Waste	Bachler hostel kitchen waste collected and dispose of by nearby villagers to fed there animals	Complied
33	Status of Water meter	All water meter working condition	Complied

Third Party Environment Audit Report

Final Report – March, 2025

ENVIRONMENTAL COMPLIANCE AUDIT REPORT

FOR



**DALMIA CEMENT (BIHARAT) LIMITED
(JHARKHAND CEMENT WORKS)**

AT

**PLOT: IV/A -7(P), BOKARO INDUSTRIAL AREA
PO – BALIDIH, BOKARO JHARKHAND-827014**



Prepared By:



INSTITUTE FOR ENVIRONMENTAL MANAGEMENT

**A-13, Saket Vihar, Harmu Housing Colony
Ranchi, Jharkhand, India**

NABET certificate no.: QCI/NABET/ENV/ACO/24/3193

Valid up to: February 7, 2027

Declaration by experts contributing to the Environmental Compliance Audit report for Dalmia Cement Bharat Limited, located at Plot No. IV/A-7(P) Bokaro Industrial Area, Bahadur, Bokaro Steel City (827014), Jharkhand.

We, hereby, certify that we were the part of the Environment Compliance Audit team in the following capacity that developed the above Report, submitted to client.

Endorsed by:

Name: Dr. S. C. Jain

(Director)

Signature:



Project Coordinator:

Name: Ms. Shreya Sonai

(Assistant General Manager)

Signature:



Period of Involvement: March 2025 to till date

Contribution of Experts Team:

S. No.	Name of the expert/s	Involvement (Task & Period)		Signature
		Task	Period	
1.	Dr. S.C. Jain	Finalization of the report.	March 2025 to till date	
2.	Ms. Shreya Sonai	Development of Audit Findings and Compliance Report. Preparation of Compliance Summary for Audit Requirements	March 2025 to till date	
3.	Mr. Abhigyan Rohan	Evidence gathering through documents and photographs at site	March 2025 to till date	
4.	Mr. Rajiv Kumar Singh	Evidence gathering through documents and photographs at site	March 2025 to till date	

5.	Mrs. Akanksha Sourabh	Coordination and Assistance in Report Preparation.	March 2025 to till date	<i>Akanksha</i>
6.	Mrs. Meher Fatmi	Coordination and Assistance in Report Preparation.	March 2025 to till date	<i>Meher</i>

Declaration by the Head of the accredited consultant organization/ authorized person

I, Mrs Seema Jain, hereby, confirm that the above-mentioned experts were involved in the, Environmental compliance Audit report preparation for Dalmia Cement Bharat Limited, located at Plot No. IV/A-7(P) Bokaro Industrial Area, Balidih, Bokaro Steel City (827014), Jharkhand. I also confirm that the consultant organization shall be fully accountable for any mis-leading information mentioned in this statement.

The report has been prepared on the basis of the maps, documents, details provided by the Dalmia Cement Bharat Limited, Bokaro.

Signature:

Seema Jain



Name: Mrs Seema Jain

Designation: Managing Director

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CHAPTER 1 – INTRODUCTION

1.1 BACKGROUND

This Environmental Audit Report has been prepared to assess the environmental performance of Dalmia Cement Bharat Limited, located at Plot No. IV/A-7(P) Bokaro Industrial Area, Balidih, Bokaro Steel City (827014), Jharkhand. The audit aims to evaluate the project's compliance with applicable environmental regulations, standards, and best practices, as well as identify areas for improvement in environmental management.

The cement project has the potential to impact the environment in various ways. This audit was conducted to ensure that the project is being implemented in an environmentally responsible manner and to identify opportunities for minimizing its environmental footprint.

The audit was conducted on **21 March 25** by IEM Team and involved a thorough review of documents, observations, and interviews with key personnel. This report presents the findings, observations, and recommendations arising from the audit, with the objective of promoting environmental sustainability and minimizing the project's adverse environmental impacts.

1.2 SCOPE OF WORK

The scope of environmental auditing, as per Dalmia's mandate, includes:

- To review the conditions stipulated in the Environmental Clearance (EC) granted to the cement plant and its associated units, specifically focusing on measures for controlling air pollution, fugitive emissions, noise levels, and wastewater/solid waste management.
- To assess compliance with the EC conditions, Consent to Establish/Operate (CTE/CTO) conditions, and other statutory approvals relevant to cement manufacturing processes such as raw material handling, cement grinding.
- To conduct detailed site inspections and verify on-ground environmental performance, including stack emissions from grinding units, fugitive dust concentrations at transfer points. This also includes reviewing on-site documentation, monitoring reports, and the adequacy of sampling and analytical procedures.

- To engage in discussions with concerned plant personnel regarding statutory compliance, operational practices, environmental infrastructure (bag filters, bag houses, dust extraction systems), and effectiveness of systems installed to meet EC and regulatory requirements.
- To evaluate the overall environmental performance of the cement plant in relation to EC stipulations, Consent conditions, Hazardous and Other Waste Rules, Solid Waste Management Rules, and guidelines.
- To assess compliance and adequacy of environmental management practices, including dust management in material handling areas, clinker and fly ash storage, greenbelt development, storm water management, and occupational health and safety provisions.

To provide recommendations for improving environmental performance, including upgrades in pollution control systems, dust suppression measures, energy efficiency improvements, and strengthening of environmental monitoring and management systems.

To prepare a detailed Environmental Audit Report outlining compliance against each EC and Consent condition, along with corrective actions, recommendations, and improvements required for strengthening environmental management and monitoring at the cement plant.

1.3 OBJECTIVES

The key objectives of the audit were:

1. To assess compliance:

Evaluate adherence to Environmental Clearance (EC) conditions, Consent to Operate/Establish (CTO/CTE), and other statutory requirements applicable to cement manufacturing operations.

2. To evaluate environmental performance:

Assess the effectiveness of the plant's environmental management systems—covering air emissions, fugitive dust control, solid and hazardous waste handling, noise control, and greenbelt development—and identify areas needing improvement.

3. To ensure environmental protection:

Verify that adequate mitigation measures are implemented to minimize environmental impacts such as particulate emissions, dust dispersion, noise, and impacts on local water resources, biodiversity, and the surrounding community.

4. To promote sustainable development:

Encourage sustainable cement manufacturing practices by assessing energy efficiency, alternative fuel and raw material utilization, resource conservation, and overall carbon footprint reduction strategies.

5. To identify areas for improvement:

Provide actionable recommendations to improve plant operations, environmental monitoring systems, pollution control equipment efficiency and ensure best environmental practices across all units.

6. To support informed decision-making:

Offer a comprehensive evaluation of the plant's environmental performance to help management make data-driven decisions, improve sustainability outcomes, and ensure continuous compliance and environmental stewardship.

1.4 CONDUCT OF ENVIRONMENTAL AUDIT WORK & REPORTING

The environmental audit involved a document review, site inspection, and stakeholder consultation. A draft report was prepared and submitted to Dalmia for comments, followed by incorporation of responses and preparation of this final audit report.

1.5 STRUCTURE OF THE REPORT

The final environmental audit report is structured into the following five chapters:

Chapter 1- Introduction and Background information on Dalmia Cement Bharat Limited

Chapter 2- Audit Methodology: A detailed description of the audit process and scope of the audit.

Chapter 3- Environmental Compliance Audit: An overview of the findings of the audit, including descriptions of compliance and findings from the site inspection in compliance to the EC conditions.

Chapter 4- Audit Findings: The draft report of audit finding was submitted to Dalmia for useful and comments. The comments of the PP on IEM observation were recorded, which were discussed and finalized.

Chapter 5- Post Audit comments and clarifications.

CHAPTER 2 – AUDIT METHODOLOGY

2.1 METHODOLOGY

The methodology for the environmental audit involves a comprehensive approach to assess compliance and environmental performance. It begins with a thorough document review, examining relevant documents such as Environmental Clearance approvals, other statutory clearances, and environmental monitoring reports. A site visit is then conducted to observe environmental management practices, inspect facilities, and gather data on environmental parameters. Interviews and discussions with key personnel, including plant management and environmental staff, provide valuable insights into environmental management practices and procedures. Data collection and analysis are also crucial, involving the examination of environmental data such as air and water quality monitoring data and waste management records. The audit culminates in a comprehensive report detailing findings, recommendations, and conclusions, highlighting areas of compliance and non-compliance, and providing opportunities for environmental performance enhancement.

2.2 OPENING MEETING

The audit process commenced with an opening meeting on **21st March 2025** with the Dalmia Team which includes other concerned officials to introduce the audit scope and their responsibility in facilitating the process. The purpose, depth and the scope of the audit were outlined and the methods were explained. Further, requirement of documents to review such as various management plans, project report, and periodical reports submitted to various regulatory agencies to address specific compliance requirement particularly those relevant to address the scope of the study were discussed and deliberated.

2.2.1 CONSULTATION

Interaction meetings were conducted with the concerned officials and staff dealing with the project to understand the regulatory and statutory process followed for the plant.

2.2.2 DESK REVIEW

The available documents were exhaustively desk reviewed for generation of information and the gaps in compliance to environmental clearance conditions, relevant information generated was

used for detailed discussion with the concerned officials.

2.3 DATA COLLECTION AND VERIFICATION

The audit team reviewed the following statutory and project-related documents, as listed in **Table 2.1**, to assess environmental compliance.

This review enabled the team to evaluate the project's adherence to relevant environmental regulations and standards.

Table 2.1: Document reviewed by HEM

Sl. No.	Documents	Letter no. & Dated
1	NPL 1.70 MTPA to 4.5 MTPA	SPCB Reference no B-1099, Dated 22.11.2021
2	Environment Clearance (EC) 3.7 MTPA	EC SEIAA/2016/2019/21/18/2019-474, Dated-21.03.2019
3	Environment Clearance (EC) 3.0 MTPA	EC EC-SEIAA/2016/2017/1967/2017-595, Dated-08-12-2018
4	Environment Clearance (EC) Cancellation	SEIAA Letter no. 45 Dated 14.07.2019
5	Transfer of EC from Dalmia Cement East Limited to Dalmia Cement (Bharat) Limited 2.1 MTPA to 3.0 MTPA	SEIAA Letter no. 273, Ranchi dated 17.06.2019
6	Environment Clearance 2.1 MTPA	PN No F-11011/023/2006-IA II (I) MoEF (IA, Division) New Delhi Dated 1 st January 2009
7	Environment Clearance 2.1 MTPA	P. No F-11011/023/2006-IA II (I) MoEF (IA, Division) New Delhi Dated 13 th July 2009
8	Amendment of Environment Clearance 2.1 MTPA	P. No F-11011/023/2006-IA II (I) MoEF (IA, Division) New Delhi Dated 18 April 2012

Sl. No.	Documents	Letter no. & Dated	Validity
1	Consent for Establishment for 3.7 MTPA to 4.5 MTPA	SPCB BHO/356/C.TE-1170521/2022/96, Dated 06-05-2022	Six months from issue date
2	Consent for Establishment for 3.0 MTPA to 3.70 MTPA	SPCB BHO/356/C.TE-08071/05/2020/11, Dated 07.01.2020	Six months from issue date
3	Consent for Establishment for 2.10 MTPA to 3.0 MTPA	SPCB BHO/356/C.TE-2200102/2018/32, Dated 13-01-2019	Six months from issue date
4	Consent for Establishment for 2.10 MTPA	134-93 Ranchi, Dated 19.10.2009	Six months from issue date
5	Renewal of Consent to operate 3.70 to 4.50 MTPA (PSC/PC/PPC) under Air & Water Act	SPCB BHO/356/C.TE-14070/01/2021/501, Dated 15.03.2021	11.03.2023

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6	Consent to operate 3.70 to 4.50 MTPA (PSC/PCC/PPC) under Air & Water Act	JSPCB/HO/RNC/CTO-13089012/2022/817, Dated 12.08.2022	31.03.2023
7	Renewal of Consent to operate 3.70 MTPA (PSC/PCC/PPC) under Air & Water Act	JSPCB/HO/RNC/CTO-11629180/2022/241, Dated 06.03.2022	31.03.2023
8	Consent to operate 3.0 MTPA to 3.70 MTPA (PSC/PCC/PPC) under Air & Water Act	JSPCB/HO/RNC/CTO-7428224/2020/580, Dated 04.03.2020	31.03.2023
9	Consent to operate 2.10 MTPA to 3.0 MTPA (PSC/PCC) under Air & Water Act	JSPCB/HO/RNC/CTO-6116472/2019/2407, Dated 14.11.2019	31.03.2023
10	Consent to operate 2.10 MTPA to 3.0 MTPA (PSC/PCU) under Air & Water Act	JSPCB/HO/RNC/CTO-4441970/2019/400, Dated 25.02.2019	31.03.2023
11	First CTO (Consent to Operate) 2.10 MTPA	JSPCB Memo no. 1205 Dated-18.09.2011	17.03.2012
12	Authorization of Hazardous Waste	JSPCB/HO/RNC/BWM-9679644/2021/262, Dated 09.04.2021	31.12.2026
13	CTO of OBC under Air & Water Act	JSPCB/HO/RNC/CTO-12371005/2012/036, Dated 20-05-2022	30.06.2027
14	Authorization of Bio-Medical Waste	JSPCB/HO/RNC/BMW-15141326/2023/10, 11.05.2023	25.03.2027

2.4 SITE INSPECTIONS

The areas that were inspected during the comprehensive site visit to Dalmia site on 20th March 2025 are mentioned below. The inspection aimed to evaluate environmental management practices, identify potential risks, and ensure compliance with regulatory requirements.

- Raw material handling & storage
- Cement grinding mill (VRM)
- Fly ash / Slag handling & storage
- Coal
- Cement storage silos
- Packing plant & dispatch area (Truck/Bag/Bulk Loading)
- Central Control Room (CCR)

- Water management systems (process water, dust suppression, domestic water)
- Sewage Treatment Plant (STP)
- Garbage drains & storm water management system
- Solid waste management (dust, process rejects, sludge)
- Hazardous waste management (used oil, grease, contaminated materials)
- Greenbelt development & plantation
- Ambient air quality & noise monitoring stations
- Occupational Health Centre (OHC)
- Employee protection & safety systems (PPE, safety signage, emergency response)
- Energy management systems (VFDs, energy audits)
- Renewable energy integration (Solar rooftop, LED lighting)
- Corporate Social Responsibility (CSR) activities
- Environmental laboratory / monitoring corner

2.5 CONSULTATIONS WITH PROJECT OFFICIALS

The audit team conducted comprehensive consultations with project officials, including:

- **Plant Manager:** Discussing overall plant operations and process efficiency
- **Environmental Officer:** Reviewing statutory compliance, monitoring data, and environmental management systems
- **Safety Officer:** Understanding safety practices, PPE implementation, and emergency preparedness
- **CSR Coordinator:** Evaluating corporate social responsibility activities
- **Operational Staff:** Gathering insights on daily operations and practical implementation of environmental measures

The purpose of these consultations was to evaluate the implementation of environmental management initiatives, identify operational challenges, and understand future planning related to:

- **Air Pollution Control Systems:** Performance of bag filter) and bag house, and stack emission compliance
- **Greenbelt Development:** Progress, maintenance, and future plantation targets

- **Energy Efficiency:** Plans for energy conservation.
- **Raw Materials:** Current usage and future enhancement strategies.
- **Water Management Systems:** Reuse, recycling, and reduction initiatives in process and domestic water consumption.
- **Environmental Laboratory Strengthening:** Enhancing in-house environmental monitoring capabilities.
- **Zero Liquid Discharge:** Plant strictly follows Zero Liquid Discharge (ZLD).

2.6 MONITORING & VERIFICATION

Cross-verification of compliance status was done using:

- **NABL-Accredited Laboratory Data:** Ensuring accuracy and reliability of monitoring data.
- **Internal Records:** Reviewing air, water, and noise quality monitoring records.
- **CSR Activity Reports and Fund Utilization Statements:** Evaluating CSR initiatives and fund utilization.

2.7 REVIEW OF STATUTORY COMPLIANCE

The audit team evaluated compliance with relevant statutes and regulations, including:

- **Environmental Acts:**
 - Air (Prevention & Control of Pollution) Act, 1986
 - Water (Prevention & Control of Pollution) Act, 1974
 - Environment (Protection) Act, 1986
 - Forest (Conservation) Act, 1980
- **Environmental Standards:**
 - Air Quality Standards (GSR-742(E), NAAQS)
 - Noise Quality Standards (GSR-742(E))
 - Water Quality Standards (GSR-S01(E), IS10500:2012, IS2296:1982)

The team cross-checked statutory consents and approvals with field-level implementation and operational records to ensure compliance.³

2.8 WORKING GROUP MEETING & REPORTING

After the completion of interview, document verification and site visit, the observation and suggestions by the audit team were compiled into a consent checklist and audit notes were prepared. This report has been prepared highlighting areas where action or improvement is required keeping in view the scope of the study.

CHAPTER 3 – COMPLIANCE STATUS

The Environmental Audit was carried out in accordance with the conditions stipulated in the Environmental Clearance (EC), Consent to Establish (CTE), Consent to Operate (CTO), Forest Clearance (FC), Environmental Management Plan (EMP), and other applicable statutory approvals. The audit team developed and implemented systematic procedures to obtain sufficient, relevant, and reliable evidence for assessing the degree of compliance. The appropriateness of each activity was evaluated based on the quality of evidence – its relevance, validity, and reliability – which served as the basis for professional judgment in determining the nature, timing, and extent of the audit procedures.

The audit for Dalmia Cement Bharat Limited, Bokaro, was conducted through a comprehensive review of documents, site inspections, stakeholder interaction, and verification of records to establish evidence of compliance.

3.1 DEFINITIONS OF TERMINOLOGY USED FOR ASSESSMENT OF COMPLIANCE STATUS

For assessment of compliance status against each stipulated environmental clearance and statutory condition, the terminology described in Table 3.1 has been adopted.

Table 3.1: Expression of compliance with conditions of approval

Status	Description
Complied	Where the environmental condition is implemented in accordance with the stipulated conditions.
Being Complied	The condition is dynamic, where continuous compliance is ensured with passage of time.
Will be Complied / Agreed	Requirement of compliance is at a later date and will be complied at appropriate time.
Partially Complied	Compliance of condition is not fully met and is inadequate.
Not Complied	Non-conformance / lack of implementation of needed action.
Not Applicable / Review Required	Condition is not applicable for the project. Requires review and initiative by project proponent (PP) to bring it to the notice of MoEF&CC for needful action.

3.2 COMPLIANCE STATUS OF DALMIA CEMENT BHARAT LIMITED

Based on the audit, the compliance status of major EC conditions is presented in Table 3.2.

Table E2 – Audit non compliance status of Environmental Clearance conditions and Audit Observations (Recommendations by ERM)

EC Conditions – EC Letter No.-EC/SEJAA/2018-19/2326-2018-474, Receipt Date: 22.09.2018			
Point No.	Specific Condition of EC	Compliance Status	Observation
I. Specific Condition			
(1)	This Environmental Clearance is valid subject to the following conditions insofar as: That this project has: a. Obtained all legal rights to occupy its intended place; b. Complied with all existing government laws of the land and Complied with the decisions of SEJAA on the issue of Environmental Clearance till date	Complied	Complied with: a. Obtained all necessary statutory documents from competent authorities to occupy its intended operating area b. Complied all legal law of land with respect to acquisition c. Complied with
II. Statutory Compliance			
1	The project proponent shall obtain land clearance under the provisions of Forest Conservation Act, 1996, in case of the diversion of forest land for non-forest purpose specified in the project.	Not Applicable	The land is located in protected forest area in BADA, Bukuru, Burundi with the clearance through Govt of Burundi.
2	The project proponent shall obtain clearance from the National Board for Wildlife, if	Not Applicable	There is no wildlife sanctuary within its jurisdiction of operation.

3	The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife 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 submitted along with the compliance compliance report, in case of the presence of schedule I species in the study area.	Not Applicable	The land is located in protected forest area in BADA, Bukuru. There is no report of schedule I species within 40 km radius of site and. Therefore, there is no need for site specific conservation plan/wild life management plan.
4	The project proponent shall obtain Consent to Establish/ Operate under the provisions of the Environment & Forest Act, 1991 and the Water Pollution & Control Act, 1977 from the concerned State Pollution Control Board/Committee.	Complied	One Consent to Establish (CTE) from HPCB Burundi with license no. HPCB/1105/BS/2017/1574023/0002299, dated: 06.03.2017, CTE (1) obtained and consent valid, license no. HPCB/1105/BS/2017/1447056/0002299, Dated: 15.04.2023, and the plant expansion from 3.7 MTPA to 11.6 MTPA, from HPCB Burundi and CTE valid up to 31.03.2027 attached to CTE Application I & CTE Application II.
5	The project proponent shall obtain the necessary permission from the Central Board Water Authority, in regard to withdrawal water from the aquifer and/or surface water resources in case of draw of surface water required for the project.	Complied	The project has the water connection line from obtained from HPCB Burundi with agreement dated: 17.05.2017. The same agreement copy is attached herewith as per Annexure E .
6	The project proponent shall obtain authorization under the Burundian and other Waste Management Rules, 2016 as amended from time to time.	Complied	WCO, Burundi has obtained Authorization of Hazardous waste from HPCB Burundi with license no. HPCB/WCO/BS/2017/9019004/0002299, Dated: 09.04.2023, which is valid up to 31.03.2028. Copy of the same attached as per Annexure F .
7	No mining activity shall be undertaken in the forest land or deemed forest without obtaining prior Bureau Clearance.	Not Applicable	Not Applicable to the site.

			per Annexure-B. All bulk containers are fully equipped for the removal of leakage during unloading. Raw materials and products are stored in covered sheds and silos. Regular cleaning of roads by 2 nos. road sweeping machine. Good housekeeping is being maintained at around the plant.
4	The project proponent shall provide leakage detection and monitoring bag cleaning facilities for better maintenance of bags.	Complied	Regular maintenance of bag filter, leakage checking, cleaning of bag filter is being done by dedicated mechanical maintenance team as per schedule.
5	Polycarbonate cover at the cement plant shall be provided as per the CEEI Guidelines of CPCI.	Complied	Applicable CEEI compliance condition complied. CEEI compliance report attached as per Annexure-D.
8	Sufficient number of mobile or stationary vacuum cleaners shall be provided to clean dust roads along floors, yards, equipment.	Complied	Regular road sweeping and floor cleaning is being done by 2 nos. of vacuum sweeping machine. For the removal of fugitive dust emission. Good housekeeping is being maintained in all around plant premises area. Photographs on road sweeping machine with cleaning of roads from spot by look of road sweeping machine attached as per Annexure-E.
9	Crushed material transportation and covering of raw material to prevent spillage and dust generation. Use covered belt for material to ash.	Complied	All raw materials are being transported in covered belt conveyors. Raw material & products are being transported in covered hopper trucks. Silos and on the surface of material spillage is well in control of fugitive dust emission.
10	Provision of dust barrier (chemical spraying) on the raw material stock pile.	Complied	We have constructed plant boundary walls around the plant sheds with dust ponds built which act as wind shield to avoid spread the contaminants. We have boundary wall covered between plant and nearby roads act as wind shield. We have also constructed walls around parking yard and raw material yard which act as wind shield. Raw materials stored in covered sheds and silos.
11	Have separate truck parking area and monitor vehicle emissions at regular interval.	Complied	Separate truck parking facility provided to park trucks. Regular checking of vehicle PVC certificate which entering in plant in control of vehicle emission.

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12	Efforts shall be made to reduce impact of the transport of the raw materials and end product on the surrounding environment including agricultural land by the use of covered conveyors belt conveyors as a mode of transport.	Complied	All raw materials and products are being transported in covered trucks, belt conveyor conveyors belt conveyors to reduce the fugitive dust emission. Regular water sprinkling and road sweeping is being done on the roads during winter (once) in control of fugitive dust emission.
13	Vibration control shall be adopted in adoption of changes as per AFDM Document for all tracks, motor lanes, and control logging plans.	Complied	No vibration control commitment done for adoption of changes in motor lanes and parking plant area.
IV. Water quality monitoring and preservation			
1	The project proponent shall install effluent treatment system with capacity as stipulated provided in consent order (Provision) under 1985 (the G.R. No. 61) as attached item two to two and attached in CPCB and CPCI water system and address this system (this type is that according to consent order specifications through the concerned state Environmental Protection Act, 1986 or S&R, attached information, case from have small plant, Medium, Large plant, Continuously.	Complied	Our unit is manufacturing cement kiln exhausts and does not require water for process. The water is only used for operational cooling in dust bag. During monsoon is only added. Therefore, there is no effluent generated from our process. As per the discharge monitoring system is not relevant for our unit.
2	The project proponent shall ensure regularity ground water quality at least once a year (as per consent) at sufficient number of parameters/sampling with in the plant and adjacent areas through the concerned water Environment (Provision) Act, 1986 and S&R, attached information.	Not Applicable	No ground water withdrawal is from our plant. The provision for water extraction has been obtained from B&D. There will not be any effluent generation from the plant. Domestic waste water treated in ETP, treated water is being used within plant for general development and fire suppression. However, we are regularly monitoring ground water quality and depth level in surrounding village wells. Ground water quality & water depth level report in surrounding village is attached as per Annexure-F3.

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3.	The project proponent shall submit quarterly monitoring report of treatment effluent discharging and levels of treated effluent being not treated monitoring of ground water quality to Regional Office of M&F&CC, Jharkhand Office of CPW and Regional Office of SPSC along with six-monthly monitoring report.	Complied	There is an effluent treatment being run up to 40 days per regime water for treatment, this water is being used for the treatment of domestic waste water. STP treated water quality monitoring report attached as per Annexure 12. STP treated water is being used for ground development and also vegetation. Ground water monitoring reports are being regularly submitted to M&F&CC regional office, Jharkhand Office of CPW and regional office of SPSC as a part of 60 compliance report. Ground water quality analysis report attached as per Annexure 13.
4.	Adhere to Zero Liquid Discharge	Complied	Zero Liquid Discharge is being maintained.
5.	Storage Treatment Plant shall be provided for treatment of domestic waste water to meet the prescribed standards.	Complied	One KLD 500 is in operation for the treatment of domestic waste water. Treated sewage quality meet the prescribed standards. Treated water quality analysis report attached as per Annexure 15.
6.	Michael stream and collection pit shall be provided for each work pit to meet the demand in the event of heavy rain and to discharge water pollution during rain off.	Complied	Canal drain are existing in the site around pit to accumulate rain off water in a silt trap pit. An entrance to collect water from pit by water tank and use it for water sprinkling in the ground beds in dry season.
7.	The project proponent shall practice rainwater harvesting to maximum possible extent.	Complied	Water saving measures, namely implemented in our unit to encourage for ground water and also to save improved from Ground Water Board, Ranchi. Vide letter no 320 Ranchi dated 28.06.2015 attached as per Annexure 16. We have also installation of water and power saving measuring device and awareness of the unit.
8.	Water audits shall be provided in the order to all sub-processes in the cement plant.	Complied	Water meter installed in order to see water waste flow some photographs attached as per Annexure 14.
9.	The project proponent shall make efforts to minimize water consumption in the cement plant through the adoption of water saving practices.	Complied	Continuous effort taken to promote and all necessary efforts has been made to reduce water consumption in our plant.

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Process one and two involving treated water			
V. Noise monitoring and prevention			
1.	Noise level during shall be carried as per the prescribed guidelines and report to this regard shall be submitted to Regional Office of the Ministry as a part of six monthly compliance report.	Complied	Noise level are being regularly monitored in different location of our unit. Noise level report is being regularly submitted to Director, CPW, Jharkhand as a part of six monthly 60 Compliance report. Six monthly noise level report attached as per Annexure 17.
2.	The relevant noise levels should compare to the standards prescribed under CPCV (India, 1982) and TN (B&C) (noise day time) and TN (B&C) (noise night time).	Being complied	Being complied
VI. Energy Conservation measures			
1.	Provide solar power provisions in roof tops of buildings, for solar light system for all common areas, street lights, parking area and project area and maximize the same regularly.	Complied	No solar installed with plans filed in place, solar panel photographs of solar light attached as per Annexure 18.
2.	Provide for proper equipment for LED tubes in their offices and residential area.	Complied	LED tubes are being used in all offices and residential areas for the lighting purpose.
3.	Minimize utilization of the air, cool and prevent wastage of steam as per all factories' waste management.	Complied	High and dry are being used as a new material for steam manufacturing as per ISI norms.
VII. Waste management			
1.	The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous Waste Management & Handling Manual (Ministry of Environment, India, 2016).	Complied	Hazardous waste: Antifreeze, oil, used from SPN, only store in BPCB/UD/206/27314-06/2664-2021/06. Dated 27.03.2021, which is valid up to 31.03.2026. Hazardous waste such as used oil, waste oil, disposed through authorized agency.

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2.	Kitchen waste shall be segregated or converted to biogas for further use. (to be decided on case to case basis depending on type and rate of plant)	Complied	Kitchen waste segregated and used as per usual developed
VIII. Green Belt:			
1.	Green belt shall be developed to an area equal to 27% of Co plant area with a nature tree species in accordance with CPCB guidelines. The proposal shall also cover the entire periphery of the plant	Complied	It's area developed - provided is 37% of the total land of unit Tree plantation report attached as per Annexure-17
2.	The project proponent shall prepare GRII assessment statement for the plant and shall submit the proposal for preparation of the same including carbon sequestration including plantation	Complied	Plant's recent (March) Limited Review is available annual planting list for the manufacturing of blended cement by reducing industrial waste - such as slag, fly ash and bottom. Only small quantity of ash is used in GRII, for instance drying in dry open air dip. The GRII statement prepared and attached for the submission of GRII statement report attached as per Annexure-18
IX. Public Hearing and Human Health Issues			
1.	Environmental impact assessment plan based on the impact identification and risk assessment (IIRA) and Human Management Plan shall be implemented.	Complied	On-site monitoring mechanism plan, Human Management and their Assessment (HMA) already prepared and same is approved by Chief & Senior Engineer of Jharkhand.
2.	The PP shall provide Personal Protective Equipment (PPE) to all the workers of factory site.	Complied	All Personal protective equipment's (PPE) facility done. Non-slip, safety helmet, clothing, provided to all employees and workers working on the site. Safety training is being regularly done among the employees for the maintenance of safe working culture.
3.	Provision shall be made for the housing of construction labour within Co site with all necessary infrastructure and facilities such as fire	Complied	All necessary infrastructure facility provided to construction labour living construction phase of the project and also provided employees' houses after completion of project.

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1.	On existing mobile crane, mobile CTP with tracking wheel, medical health unit, etc. The lifting area is as per limit of temporary structure to be maintained for completion of the project.		
2.	Occupational health assessment of the workers shall be done on a regular basis and records maintained as per the Factory Act.	Complied	Periodic medical health checking is being regularly done to all employees and workers every six months. Reports are being maintained as per Factory Act.
X. Corporate Environment Responsibility			
1.	The project proponent shall ensure that no previous violation is the Ministry's (M) vide G.O. 22-05-2017 (A.II) dated 17.05.2018, regarding Corporate Environment Responsibility.	Being Complied	As per Ministry's G.O. 22-05-2017 (A.II) dated 17.05.2018, the following are the compliance status: 1. Water & Power consumption data: compliance village was hit with compliance. 2. water light & water light installed in village. 3. Two government doctors in the village. 4. Water connected to schools. 5. Awareness of school teachers, community, etc. and awareness compliance village was TER report for the year 2018 attached as per Annexure-19
2.	The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should provide for needed spending, provision for necessary checks and balances and to ensure that the company is in compliance with the provisions of the environmental laws and regulations. The company shall have a well laid down system of reporting and compliance with the provisions of the environmental laws and regulations. The company shall have a well laid down system of reporting and compliance with the provisions of the environmental laws and regulations.	Complied	TER Report for Environmental Management Policy this report of firm based in District: copy of Environment policy report attached as per Annexure-20

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	the Board resolution in this regard shall be submitted to the MinCECC as a part of semi-annual report.		
3	A separate Environmental Cell/Duties for project and company level (quarterly) work with qualified personnel shall be set up under the control of Senior Executive, who will directly be linked to the organization.	Complied	Environmental Management Cell has been established. It is also linked to company level work on the management of environmental activities and established project. Environmental management cell is headed by Executive Director (Plant Head) as per rule.
4	Action plan for implementing EIA and environmental conditions along with responsibilities matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise work schedule for environmental protection measures shall be kept in separate matrix and not to be divided in any other project. The progress of implementation of action plan shall be checked by the Ministry Regional Office once in 6 months. See the Monthly Compliance Report.	Complied	Action plan for EIA implementation is in place. Separate budget allocated for Environment Protection. It is noted that budget shall not be diverted for other allocations. Implementation of environmental protection is being regularly submitted to Ministry via the Regional Office as a part of EC compliance report. Implementation of Environment Protection is checked as per Annexure 23.
5	All environmental audit shall be conducted annually. Every three years final joint environmental audit shall be carried out.	Complied	Self Environmental audit is being conducted once in 3 years. External audit of environmental quality is also done. Self Environmental audit report attached as per Annexure 23. Final joint Environmental audit report submitted as separate compliance report.
6	All the environmental audit is in the Charter of Corporate Responsibility. See Environmental Protection (CRIP) for the Haverd Dhankhond plant shall be implemented. Attachment.	Not Applicable	Not relevant.
XI.3 Effectiveness			

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1	The project proposal shall make public the environmental concerns created by the project along with the environmental conditions and safeguards to be used by promoters affecting it at least in two local newspapers of the District or State, if available shall be in the vernacular language within seven days and in addition that shall also be displayed in the project (at least) a website permanently.	Complied	We have advertised the Environmental Clearance in local newspapers (Bhadrachal Times, Bhadrachal, Ghadi, Vardh, etc.) which are visible displayed in the project and copy of the same attached herewith as per Annexure 24.
2	The copies of the environmental clearance shall be submitted by the project promoters to the Ministry of local bodies, Panchayat and Municipal Districts in addition to the regional offices of the Government, who in turn will display the same for 30 days from the date of receipt.	Complied	We have submitted Environmental Clearance copy to local Panchayat and other local bodies, District level, project monitoring copy of the same attached herewith as per Annexure 24.
3	The project promoter shall upload the name of compliance of the stipulated environmental clearance conditions, including copies of monitoring data on their website and update the same on half yearly basis.	Complied	Complied.
4	The project promoter shall involve the citizen participation level namely PRA, HD, SV, Chartered levels as well as work associated to related activities, processes, outlined for the project and display the same at a prominent location for residents to the public and put on the website of the company.	Complied	Online environment monitoring data is being regularly displayed at factory gate and also for the public to public.
5	The project promoter 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 or prominent displays.	Complied	Complied.

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	Control Details (PCB)		
9	Concerning factual data or submission of false/fabricated data and failure to comply with any of the conditions stipulated there may result in withdrawal of this clearance and strict action under the provisions of Environmental Protection Act, 1985.	Will be Completed / Agreed	Noted & agreed
10	The EUSA, Barkhad or any other competent authority may alter modify the above condition or stipulated any further condition in the interest of Environmental Protection.	Will be Completed / Agreed	Noted & agreed
11	No further expansion or modification in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC).	Will be Completed / Agreed	Noted & agreed
12	Concerning factual data or submission of false/fabricated data may result in revocation of this environmental clearance and strict action under the provisions of Environmental Protection Act, 1985.	Will be Completed / Agreed	Noted & agreed
13	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions not satisfactory.	Will be Completed / Agreed	Noted & agreed

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14	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company is a firm bound, cannot shall implement that condition.	Will be Completed / Agreed	Noted & agreed
15	The Regional Office of the Ministry shall monitor compliance of the stipulated condition. The regional authorities should ensure full cooperation to the effect(s) of the Regional Office, by ensuring the accurate data submission in monitoring reports.	Will be Completed / Agreed	Noted & agreed
20	The above conditions shall be observed under the provisions of the Water Department in Control of Pollution Act, 1974; Air, Soil, Wastewater & Control of Pollution Act, 2001; the Environment Protection Act, 2004; Hazardous and Other Waste Management and Waste Handling Amendment Act, 2016 and the Public Health Proclamation No. 1985 along with their amendments and their and any other act(s) passed by the Ethiopian legislative body of House of Representatives and other Court(s) Law (statute or the related action).	Will be Completed / Agreed	Noted & agreed
17	Any report against this EC shall be sent to the National Green Tribunal, if perceived within a period of 30 days (thirty days) after issuance of this National Green Tribunal Act.	Will be Completed / Agreed	Noted & agreed
18	This environmental clearance is valid for seven years from the date of issue.	Will be Completed / Agreed	Noted & Agreed

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CHAPTER 4 – AUDIT FINDINGS

The team collected Environmental Clearance (EC) conditions stipulated by MoEF&CC, Govt. issued vide **EC letter no. EC/SEIAA / 2018-19 /2138/ 2019/ 474, Ranchi dated: 23.09.2019** for Dalmia Cement Bharat Limited, Bokaro (Unit I). The detailed observations are presented in this chapter. It provides the compliance status of EC conditions and specific as well as general recommendations for improvement.

4.1 COMPLIANCE STATUS OF AUDIT

The stipulated environmental compliance conditions were audited separately for the specific and general conditions. The compliance status is summarized below:

4.1.1 COMPONENT WISE COMPLIANCE STATUS OF SPECIFIC CONDITIONS

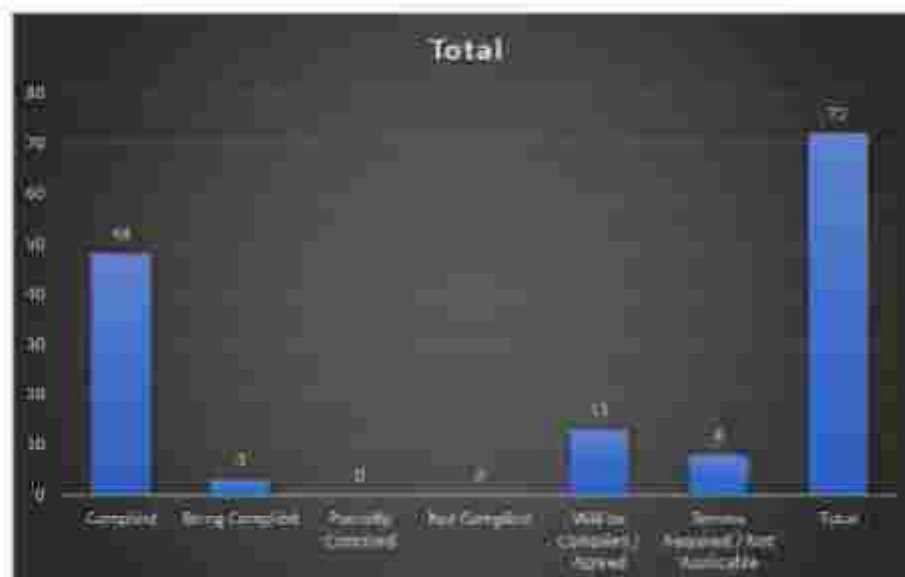
Out of the total 72 (inserted from compiled EC conditions) specific conditions, the compliance status was categorized as *Complied, Being Complied, Will be Complied/Agreed, Partially Complied, Not Complied, and Not Applicable/Review Required*.

Table 4.1: Compliance status of component wise specific conditions

Components	Complied	Being Complied	Partially Complied	Not Complied	Will be Complied / Agreed	Review Required / Not Applicable	Total
Specific Condition	1	0	0	0	0	0	1
Statutory Condition	3	0	0	0	1	6	10
Air Quality Monitoring & Preservation	13	0	0	0	0	0	13
Water Quality Monitoring & Preservation	6	0	0	0	0	1	8
Noise Monitoring And Prevention	1	1	0	0	0	0	2
Energy Conservation Measures	3	0	0	0	0	0	3
Waste Management	2	0	0	0	0	0	2
Green Belt	2	0	0	0	0	0	2
Public Hearing & Human Health Issues	4	0	0	0	0	0	4
Corporate Environment Responsibility	4	1	0	0	0	1	6

Miscellaneous	7	1	0	0	12	0	20
Total	48	3	0	0	13	8	72

Figure 4.1: Detailed compliance status of component wise specific conditions



4.2 SPECIFIC OBSERVATIONS AND RECOMMENDATIONS

1. RAW MATERIAL HANDLING & STORAGE

Observation: Clinker, gypsum, fly ash, and slag are stored in covered sheds; material transfer points are equipped with bag filters.

Recommendation: Strengthen housekeeping around unloading areas and ensure timely replacement of filter bags.

2. CEMENT GRINDING UNIT (VRM)

Observation: The VRM is fitted with high-efficiency bag filters; stack emissions monitored and found within limits.

Recommendation: Increase frequency of localized cleaning to avoid dust generation.

3. FLY ASH / SLAG HANDLING & STORAGE

Observation: Material stored in silos; pneumatic conveying minimizes dust.

Recommendation: ensure immediate cleanup

4. COAL /

Observation: Coal yard was covered properly.

Recommendation: coverage and ensure regular water sprinkling in dry months.

5. CEMENT STORAGE SILOS

Observation: Silos are equipped with pressure relief valves and bag filters working efficiently. No visible dust during silo aeration.

Recommendation: Continue preventive maintenance of bag filters to maintain efficiency.

6. PACKING PLANT & DISPATCH AREA

Observation: Packing machines operate with dust extraction, minor fugitive emissions noticed near truck loading chutes.

Recommendation: Continue preventive maintenance of bag filters and cleaning of area by vacuum sweeping machine to control of fugitive dust

7. CENTRAL CONTROL ROOM (CCR)

Observation: Online monitoring systems functional, emissions and process parameters displayed in real time.

Recommendation: Enable automated data backup and maintain monthly compliance trend reports.

8. WATER MANAGEMENT SYSTEMS

Observation: Process water is mostly reused; no discharge observed. Water meters installed.

Recommendation: Maintain water meter logs to ensure water consumption

9. SEWAGE TREATMENT PLANT (STP)

Observation: STP capacity adequate; treated water reused in horticulture and dust suppression.

Recommendation: Improve sludge drying practices and maintain regular sludge disposal records.

10. GARLAND DRAINS & STORM WATER MANAGEMENT

Observation: Drains are mostly clean; minor silt accumulation seen near the raw material yard.

Recommendation: Increase frequency of desilting before monsoon

11. SOLID WASTE MANAGEMENT

Observation: Dust collected from bag filters is fully reused. Housekeeping waste stored separately.

Recommendation: Introduce color-coded bins uniformly across plant areas.

12. HAZARDOUS WASTE MANAGEMENT

Observation: Used oil stored in designated containers inside an impervious, covered area; labels partially faded.

Recommendation: Replace labels and maintain spill-response kits at storage locations.

13. GREENBELT DEVELOPMENT

Observation: Greenbelt density satisfactory along the boundary, colony, plant area.

Recommendation: Add dust-tolerant species.

14. AMBIENT AIR QUALITY & NOISE MONITORING STATIONS

Observation: Monitoring conducted as per schedule; all parameters within prescribed limits.

Recommendation: Provide acoustic enclosures/insulation for noisy equipment and implement if any place. Periodic awareness for workers.

15. OCCUPATIONAL HEALTH CENTRE (OHC)

Observation: OHC well-equipped; health records maintained. Periodic medical checkups conducted but ergonomic assessment missing.

Recommendation: Include ergonomic risk assessments and training sessions for high-risk workers.

16. EMPLOYEE PROTECTION & SAFETY MEASURES

Observation: PPE usage is generally good. No non-compliance observed in plant area.

Recommendation: Strengthen supervision and conduct refresher training on mandatory PPE use.

17. ENERGY MANAGEMENT SYSTEMS

Observation: VFDs installed at major motors; energy meters functional. Energy audit conducted.

Recommendation: Prioritize implementation of identified low-cost energy-saving measures.

18. RENEWABLE ENERGY INTEGRATION

Observation: Solar rooftop system operational; contributes part of auxiliary power.

Recommendation: Install more solar light in plant area and awareness.

19. CORPORATE SOCIAL RESPONSIBILITY (CSR)

Observation: CSR activities aligned to local needs; documentation available.

Recommendation: Develop measurable impact indicators and maintain year-wise CSR outcome reports.

4.3 GENERAL OBSERVATIONS AND RECOMMENDATIONS

1. GENERAL SITE MANAGEMENT

Observation: Fugitive dust control measures such as water sprinkling, belt conveyors with enclosures, and bag filters are operational. However, high-dust zones like raw material unloading, VRM feed points, packing plant, and material transfer areas exhibit occasional dust accumulation due to high material movement. Housekeeping is satisfactory. **Recommendations:**

- Enhance mechanical sweeping frequency on main internal roads and high-traffic areas.
- Strengthen dust extraction systems and rubber skirtings at high-emission points such as packing plant and fly ash unloading.
- Improve housekeeping schedules around VRM platforms and silo aeration areas.

2. ENVIRONMENTAL DOCUMENTATION & COMPLIANCE

Observation:

The unit maintains statutory documents including monitoring reports, calibration certificates, manifests, stack emissions data, and CEMS/OCEMS records. Although documentation is complete, some logbooks and monitoring sheets are still maintained manually, leading to inconsistency in data referencing. Calibration of ambient monitoring equipment done as per schedule.

Recommendations:

- Introduce digital compliance dashboards for monitoring, reporting, and record-keeping.
- maintain synchronized digital logs.
- Implement six monthly internal audits for environmental documentation accuracy.

3. GREENBELT & ECOLOGICAL MANAGEMENT

Observation:

Greenbelt is developed along the plant boundary and internal roads, providing adequate dust filtration. However, density variations and lower survival rates are observed in certain peripheral patches and near the packing/dispatch area.

Recommendations:

- Increase plantation density using native, broad-leaf and shade-tolerant species suitable for dusty environments.
- Conduct annual survival-rate audits and replace gaps systematically.
- Extend greenbelt coverage around raw material storage areas to minimize fugitive dispersion.

4. WATER & STORMWATER MANAGEMENT

Observation:

The grinding unit operates on a low-water-demand process. Water reuse is practiced for dust suppression and domestic purposes. Existing stormwater drains are functional but show silt accumulation near material handling areas.

Recommendations:

- Desilt stormwater drains and sumps prior to monsoon, with periodic checks in high-silt zones.
- Develop additional rainwater recharge structures to improve groundwater percolation.
- Install drain screens or sediment traps in drain to minimize silt carryover.

5. SAFETY & HEALTH MANAGEMENT

Observation:

The Occupational Health Centre (OHC) is functional and periodic health check-ups are carried out. PPE usage among plant employees is satisfactory.

Recommendations:

- Enforce stricter PPE compliance among contract and transient workforce through supervision and periodic tool-box training.
- Install or improve acoustic enclosures and noise barriers in VRM and high-noise mechanical zones.

CHAPTER – 5

POST AUDIT CLARIFICATIONS AND FINAL CONCLUSIONS

After incorporating the clarifications and supporting documents provided by the Project Proponent (DCBL) during and after the audit process, the Environmental Audit Report has been finalized and is hereby submitted for onward submission to the competent authority for consideration and clearance of Environmental Clearance (EC) conditions.

The post-audit review involved detailed evaluation of the compliance records, environmental monitoring data, on-site inspections, and clarifications received from project officials. It was observed that the DCBL has implemented a systematic and responsible approach toward environmental management and regulatory compliance at the Dalmia Cement Bharat Limited, Bokaro (Unit 1). The majority of the EC conditions have been satisfactorily complied with, and actions for the remaining long-term commitments are in progress as per stipulated timelines.

5.1 SUMMARY OF AUDIT FINDINGS AND CLARIFICATIONS

The audit established that:

- **Most environmental clearance (EC) and statutory conditions have been complied with**, as reflected by the high number of fully complied components (48 out of 72), particularly those related to air quality preservation, water management, energy conservation, waste management, greenbelt development, and public health obligations.
- **Several compliance activities are being progressively implemented**, including noise monitoring enhancements and certain Corporate Environment Responsibility (CER) commitments, which fall under the “Being Complied” category.
- **A number of commitments are categorized as “Will be Complied/Agreed”**, primarily associated with long-term or phased actions that remain under implementation and are expected to be completed within stipulated or agreed timelines.
- **No cases of partial or non-compliance were identified**, and no deviations were observed that could pose significant environmental or regulatory risks.
- **Some conditions (8 components) require review or are not applicable** due to operational or regulatory reasons, and these have been appropriately documented in the audit.

5.2 ENVIRONMENTAL PERFORMANCE OVERVIEW

The cement plant maintains a zero-liquid discharge (ZLD) status, Sewage Treatment Plant (STP), and subsequently reused for cement mill, dust suppression, cooling operations, and greenbelt development. Regular desilting of storm water drains and maintenance of peripheral inland drains have effectively minimized off-site runoff and siltation.

Ambient air quality monitoring results indicate that PM_{10} , $PM_{2.5}$, SO_2 , and NO_2 values remain within the CPCB-prescribed limits across all monitoring stations. Effective dust suppression systems—including bag filters, hoppers, water sprinklers, and fugitive dust barriers—are operational and being systematically enhanced.

Noise levels during both day and night remain within acceptable limits, supported by the use of acoustic enclosures on compressors, fans, and blowers, along with regular maintenance of heavy equipment.

Clinker and raw material storage yards are largely stabilized, with adequate water spraying arrangements, and covered conveyors to minimize fugitive dust. Greenbelt development around plant boundaries, internal roads, and process units has shown substantial progress, with more than 23,000 saplings planted, including native drought-resistant species and dense plantations in high-activity zones.

5.3 CSR, CER, AND COMMUNITY ENGAGEMENT

The cement plant has implemented multiple Corporate Social Responsibility (CSR) and Corporate Environment Responsibility (CER) initiatives, including:

- Skill development and livelihood training programs for local youth.
- Installation of solar-powered streetlights in peripheral villages.
- Periodic medical camps delivering healthcare support to over 6,000 beneficiaries.
- Infrastructure development for government schools and drinking-water facilities.

The plant has operationalized a community grievance redressal system, including a designated CSR officer. Future CSR planning focuses on long-term, theme-based interventions such as education, water access, women empowerment, and renewable energy support for villages.

5.4 CORRECTIVE AND PREVENTIVE ACTION (CAPA) RECOMMENDATIONS

The following corrective and preventive actions are recommended to further enhance environmental performance:

- Accelerate the upgradation of air pollution control systems, especially for Cement mill and packing plant, to ensure consistent compliance during peak-load operations.
- Enhance greenbelt and plantation density along the plant boundary, material handling zones, and transportation corridors using native tree species.
- Strengthen water conservation initiatives by increasing rainwater harvesting capacity and improving storm water management across the plant premises.
- Conduct periodic third-party audits of ambient air, stack emissions, and groundwater to ensure data reliability and strengthen compliance assurance.
- Continue regular health surveillance programs, workplace safety training, and PPE compliance monitoring to maintain high occupational health and safety standards.

5.5 FINAL CONCLUSION

Based on the overall assessment, site verification, and clarifications provided by plant authorities:

- The cement plant demonstrates substantial compliance with Environmental Clearance conditions and statutory environmental obligations.
- Pollution control systems, environmental safeguards, and monitoring mechanisms are adequately installed and effectively functioning.
- Ongoing efforts in greenbelt development, CSR implementation, energy conservation, and emission reduction reflect a proactive commitment to sustainable industrial operations.
- No major non-compliances or environmental violations were identified that warrant regulatory action.

With continued diligence, timely implementation of pending improvement measures, and strict adherence to the Environmental Management Plan (EMP), the cement plant is well-positioned to maintain compliance with MoEF&CC norms and national environmental standards.

Final Recommendation:

This report, after due incorporation of all clarifications and field verifications, is hereby **submitted for consideration and clearance of Environmental Clearance conditions** for the Dalmia Cement Bharat Limited, located at Plot No. IV/A-7(P) Bokaro Industrial Area, Bokaro, Bokaro Steel City (827014), Jharkhand.



State Level Environment Impact Assessment Authority, Jharkhand
Narmada Complex, Near Bhawanipur, Ranchi, Jharkhand-834 001
E-mail: seiaa.jh@seiaa.org / seiaa@seiaa.org
Website: www.seiaa.org

Letter No./EC/SEIAA/2018-19/2138/2019/474

Ranchi, Date: 23.09.2019.

To: Mr. Mukesh Kumar Garg,
M/s Dalmia Cement (Bharat) Limited,
Plot No. - IV/A/7(P), Bokaro Industrial Area (BIADA)
Baldih, Bokaro Steel City,
Jharkhand - 827014.

Sub: Environmental Clearance for the project "Upgradation of technology at existing standalone Cement Grinding Unit of M/s Dalmia Cement (Bharat) Ltd. at Bokaro Industrial Area, Baldih, Bokaro, Jharkhand from 3.0 MTPA to 3.7 MTPA" (Proposal No. : SIAGJEND/185812/2017).

Ref: Your application no. Nil dated 03.07.2019.

Sr,

It is in reference to the project "Upgradation of technology at existing standalone Cement Grinding Unit of M/s Dalmia Cement (Bharat) Ltd. at Bokaro Industrial Area, Baldih, Bokaro, Jharkhand", Jharkhand submitted by you for seeking prior Environmental Clearances (EC).

The EC was issued by SEIAA on the basis of recommendation of SEAC in the favour of M/s Dalmia Cement (Bharat) Ltd vide Letter no-EC/SEIAA/2016-17/1997/2017/295 Ranchi dated-18.01.2018.

The standalone grinding unit remains engaged in converting solid waste from steel plant and power plant i.e. slag & fly ash to usable product cement. The Existing capacity is 3.0 MTPA PSC/PPC/PCC. About 60 to 65% of the raw material is solid waste of other industries located in nearby such as BF slag from Bokaro Steel Limited, fly ash from nearby power plant etc. The existing grinding unit (VRM) having older electrical motor (5500kW) and has lived its useful life and needs replacement. DCE management has decided to replace the old motor with new energy efficient electrical motor (6500kW) available in the market. The change in electrical energy efficient motor will allow us to optimize the production of our standalone grinding unit upto 3.7 MTPA from existing 3.0 MTPA without changing any structure or facilities as per the earlier EC.

The existing plant site is located at Plot No. IV/A/7(P), Bokaro Industrial Area, P.O. Baldih, District Bokaro in Jharkhand. Its geographical co-ordinates are Latitude 23°42'1.24"N and Longitude 86° 14'46.07"E, with mean sea level (MSL) of 231.6 m (760 ft). The existing plant, occupying total area of 28.0 ha (69.19 acres). There is no change land area from earlier EC issued by SEIAA dated 08.12.2018. Total project cost for enhancement from 3.0 MTPA to 3.7 MTPA cement grinding unit is Rs. 10 Crores.

M/s Dalmia Cement (Bharat) Limited (DCBL), formerly known as Bokaro Jaypee Cement Ltd., is operating a 3.0 MTPA standalone cement grinding unit. This grinding unit is converting waste

material from other industries such as BF slag (from adjoining steel plant) and fly ash from power plants into useful products cement. The unit is in operation and as existing at the location of Balakrishna Industrial area of Bokaro (Jharkhand).

The grinding unit mainly comprise of two no of VRM Mills produce 3.0 MTPA cement annually and having matching packaging unit. The existing VRM units driven by old outdated energy consuming electrical motors (5500kW) and lived its useful life and need replacement. Therefore, DCBL management decided to seek permission from SEIA&NEAC under Environmental clearance(EC) under para 7(i) of Notification S.O. 5518 (E) dated 25th November 2016 as this replacement of old electrical motors with new age innovative energy efficient electrical motors(6500kW) will simultaneously help us to produce more cement and will optimize upto 1.70 MTPA through this upgradation in technology. DCBL management is also committed to reduce the existing level of air emission (key Pollutant PM) by about 50% from existing level (28mg/Nm³) to about 23-22mg/Nm³ by using new innovative solutions in bag filter technology attached with VRM Mills. Management is also committed to zero liquid discharge principle along with reduction in water consumption by about 5% of existing consumption (325 KLD) used both in domestic and industrial cooling. The present status of solid waste management practices is 100% recycling as cement dust is the product of grinding unit and hence cannot afford to waste. Therefore this change certainly will bring net positive impact on over all surrounding and shall humbly request for according permission for replacing motors in existing VRM Mills.

The plant site is located in the industrial area of the Bokaro city under the district of Bokaro. The most important river in the area is River Damodar which is at a distance of around 5.0 in northern side with respect to the project site. Ganga Dam is situated at a nearest distance of 7.0 Km towards the south from the project site. Bokaro Steel city is located about 9.0 Km distance in the south-west direction w.r.t. the project site.

Executive Summary of the Proposal

Sl. No	Unit configuration as per EC Accorded	Proposed changes Requested	Final Status
1.	Existing available land	No change	No change
2.	Existing Plant Location	No Change	No Change
3.	Existing 2 no VRM	No change in structure	No change
	VRM: Equipped with Old electrical motors of 5500kW with existing gear box	The old motors will be replaced by energy efficient electrical motors of 6500kW with slight setting in float piston setting	The new motors will be new age innovative technology-based energy efficient electrical motors of 6500kW with gearbox internal setting
4.	Existing Cement Silo for storage of cement	No change	No change
5.	Existing raw material handling facilities	No change	No change
6.	Raw material as per existing requirement	Throughput quantity shall change	Throughput quantity shall change
7.	Storage facilities for raw material and product	No change envisaged	No change Envisaged

1.	Air Pollution Control for dust emissions (28 mg/Nm ³)	Air Pollution Control for dust emissions (40% reduction due to refurbishing of bag filters)	There will be 30% over all reduction in air emissions from current level of 28 mg/Nm ³ due to increase in NO of bags and new generation bag materials.
	Water Consumption at 4215 KLD at present level	Water consumption shall be reduced to 3% from existing level by stoppage of leakage etc.	3% reduction in water consumption expected
	Water Pollution Control in existing plant as and follows zero liquid discharge	Water is used in close circuit for indirect cooling and there is no contamination expected. Zero liquid discharge shall continue	Return water get recycled through cooling tower. Zero liquid discharge.
	Solid waste management in existing plant through 100% recycle of dust captured through bag filter	The existing practice shall continue	The existing practice shall continue

PROJECT SCENARIO

Unit	Capacity (in MTPA)	Product
Existing Project:		
Cement Grinding Unit (Vertical Roller Mill)	1.0	PSC / PPC / PCC
Production Optimization due to change in energy efficient electrical motors.		
Capacity optimization/increase in the existing cement grinding unit	0.7	PSC / PPC / PCC
Total Capacity	1.7	PSC / PPC / PCC
➤ There shall be no change in product mix or any other physical infrastructure as was allowed by EC issued earlier. Where, ➤ PSC - Portland Slag Cement ➤ PPC - Portland Pozzolana Cement ➤ PCC - Portland Composite Cement		

RAW MATERIAL REQUIREMENT (For 37,80,000 TPA Portland Slag Cement (PSC))				
S. No.	Raw Material	% of raw material	Raw material requirement for 1 MTPA for 3.78 MTPA	Raw material requirement for 3.78 MTPA
i	Clinker	36.5	1095000.00	1136100.00
ii	Slag	60.0	1800000.00	2270000.00
iii	Gypsum	3.5	105000.00	126000.00
iv	Fuel	2.2	66000.00	81400.00

RAW MATERIAL REQUIREMENT (For 37,80,000 TPA Portland Pozzolana Cement (PPC))				
S. No.	Raw Material	% of raw material	Raw material requirement TPA for 3.8 MTPA	Raw material requirement TPA for 3.78 MTPA
i	Clinker	62.5	1875000.00	2112500.00
ii	Fly Ash	25.0	750000.00	795000.00
iii	Gypsum	2.5	75000.00	92500.00
iv	Fuel	2.0	60000.00	74000.00

RAW MATERIAL REQUIREMENT (For 37,80,000 TPA Portland Composite Cement (PCC))				
S. No.	Raw Material	% of raw material	Raw material requirement TPA for 3.8 MTPA	Raw material requirement TPA for 3.78 MTPA
i	Clinker	32.5	975000.00	1282500.00
ii	Fly Ash	25.0	750000.00	925000.00
iii	Slag	40.0	1200000.00	1480000.00
iv	Gypsum	2.5	75000.00	92500.00

iv	Cost	2.2	6000.00	13000
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Water Pollution Control

The plant management practices zero liquid discharge and also practice water economy in operations. The sewage sludge, which is an excellent fertilizer, is being utilized as fertilizer.

The plant management has further committed to reduce water consumption by 5% from existing level of 315 KLD.

Solid Waste Management

- The solid waste, which is generated in the form of dust from all the air pollution control equipment of cement plant will be 100% recycled in the process.
- Used oil & waste oil generated due to maintenance will be sold to authorized dealers of CPCB.

Noise Pollution Control

Noisy equipment has been placed on vibration isolators or housed in a separate enclosure or surrounded by baffles covered with noise absorbing material. As the operator is stationed in the control room, there is minimum chance of exposure to high noise levels. However, personnel working in high noise zones are provided with personal noise protection equipment (e.g. earmuffs, earplugs) and their duty hours are regulated to control noise exposure levels. We have been provided acoustic enclosure to D.O. Sec.

Green Belt Development Plan

A well planned designed green belt has been developed which covers an area of more than 23% of the project site. Best management practices are being followed for maintaining this green belt. Out of the total plant area of 28 hectares (69.19 acres), around 6-24 hectares (72.83 acres) shall be reserved under green belt to maintain 23% greenbelt in the project area.

Environmental Monitoring

Routine monitoring of stack emission, ambient air quality, work zone air quality, noise level, wastewater and surface water stream are being carried out. The monitored data are being recorded and are reviewed periodically to ensure compliance of statutory Regulations. The same practice shall continue.

Water Requirement

Daily Water Requirement :

315 cu.m/day (Total) -- no change expected. Further plant management is committed to reduce it by 5% from current level by leakage detection and economy of water shall be pursued.

Source:

Gurga Dam (Permission from the Concerned Authority is available. Agreement made with SIADA for draw of maximum 550 Cu.m/day water).

Power Requirement

21 MVA (Existing) no change in power requirement due to energy efficient electrical motor consume less energy for higher input material = 21 MVA (Total).

Source: Dantiwala Valley Corporation (DVC)

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Marginal Requirement

Existing manpower, to the tune of 824 persons including executives & non-executives are utilized during operational phase of project.

The proposal was appraised by State Level Expert Appraisal Committee (SEAC) and recommended for grant of Environmental Clearance in its meeting held on 10th, 11th & 12th July, 2019.

State Level Environment Impact Assessment Authority (SLEIAA), Bharkhad in its meeting held on 19th September, 2019 discussed the project proposal along with recommendations made by SEAC and decided to grant EC to the project.

Following the decision of SLEIAA, as mentioned above, Environmental Clearance is hereby issued to the "Upgradation of Technology at existing standalone Cement Grinding Unit of M/s Devasa Cement (Bharat) Ltd. at Bokaro Industrial Area, Bokaro, Jharkhand" alongwith the following conditions as recommended by SEAC.

I. Specific Conditions :

1. 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 SLEIAA on the issue of Environmental Clearance till date.

II. Statutory Compliance :

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.
2. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
3. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife 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 the six-monthly compliance report. (in case of the presence of schedule-I species in the study area)
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.
5. The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
6. The project proponent shall obtain authorisation under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.
7. No mining activity shall be undertaken in the forest land or reserved forest without obtaining requisite prior forestry clearance.

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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.
9. Environmental clearance is subject to obtaining prior clearance from Forests and Wildlife (which including clearance from standing committee of NWFL, as may be applicable to this project (in case any forest reserve / is found in the Project area or if the area involves forest land or Wildlife habitat i.e. even zone of elephant/tiger reserve etc. and is located with in 10 km. of protected area).
10. The project proponent may apply simultaneously for forest and NWFL clearance, in order to complete the formalities without undue delay, which till process on their respective merits, no rights will vest in or accrue to them unless all clearance are obtained.

III. Air quality monitoring and preservation :

1. The project proponent shall install 24/7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.O.R. no. 812 (E) dated 22 August, 2014 (Currents and subsequent amendment dated 09 May, 2016 (Currents) and connected to SPCL and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through lab recognised under Environment (Protection) Act, 1986 or NABL recognised laboratories.
2. The project proponent shall monitor fugitive emissions at the plant premises at least once in every quarter through lab recognised under Environment (Protection) Act, 1986.
3. The project proponent shall install system connected to Ambient Air Quality monitoring for common : (Emission parameters relevant to the main pollutants emitted i.e. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area at least at four locations (two within and three outside) the plant area at an angle of 135° north, covering upwind and downwind directions, used as : one back small plant Manual, Large plant Continuous.
4. The project proponent shall submit monthly statutory report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality / fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCL along with the monthly monitoring report.
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 methods.
6. The project proponent shall provide leakage detection and mechanical bag cleaning facilities for better maintenance of bags.
7. Pollution control system in the cement plant shall be provided as per the CRP Guidelines of CPCB.

8. Sufficient number of mobile or stationary vacuum cleaners shall be provided to clean plant roads, shop floors, tracks regularly.
9. Ensure covered transportation and conveying of raw material to prevent spillage and dust generation. Use closed buckets for carrying by ash.
10. Provide wind shelter fence and chemical spraying on the raw material stock piles, and
11. Have separate truck parking area and monitor vehicular emissions at regular intervals.
12. Efforts shall be made to reduce impact of the transport of the raw materials and coal products on the surrounding environment including agricultural land by the use of covered conveyor belt/roadways as a mode of transport.
13. Ventilation system shall be designed for adequate air changes as per ACGIH Document for all tunnels, motor houses, cement bagging plants.

IV. Water quality monitoring and preservation :

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 (3) dated 25th August, 2014 (Consent) and subsequent amendment dated 9th May, 2016 (Consent) 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 (one to cover both small plants, Manual, Large plant, Continuous).
2. The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometer/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.
3. The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six monthly monitoring report.
4. Adhere to 'Zero Liquid Discharge'.
5. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
6. Gullies drains and collection pits shall be provided for each stock pile to arrest the runoff 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.
8. Water meters shall be provided at the inlet to all unit processes in the cement plant.
9. The project proponent shall make efforts to minimize water consumption in the cement plant complex by vegetation, if used water, practicing conscious use and by recycling treated water.

V. Noise monitoring and prevention :

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1. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Office of the Ministry as a part of compliance report.
2. The ambient noise levels should conform to the standards prescribed under EPA, India, (1986 viz. 75 dB(A) during day time and 55 dB(A) during night time.

VI. Energy Conservation measures:

1. Provide solar power generation on rooftops of buildings, for solar light system for all common areas, street lights, parking around project area and regulate the same regularly.
2. Provide the project proponent for LED lights in their offices and residential areas.
3. Maximize utilization of fly ash, slag and overtones to cement blend as per BIS standards.

VII. Waste Management:

1. The waste oil, grease and other hazardous shall be disposed of as per the Hazardous & other waste (Management & Trans boundary Movement) Rules, 2016.
2. Kitchen waste shall be composted or converted to biogas for further use, as to decided on case to case basis depending on type and size of plants.

VIII. Green Belt:

1. Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall cover the entire periphery of the plant.
2. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the program for reduction of the same including carbon sequestration including plantation.

IX. Public Hearing and Human Health issues:

1. Emergency preparedness plan based on the Hazard Identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
2. The PP shall provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
3. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as food for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, canteen etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
4. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

X. Corporate Environment Responsibility:

1. The project proponent shall comply with the provisions contained in the Ministry's OM vide E.No. 22-65/2017(A.II) dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
2. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe the standard operating procedures to have proper checks and balances and to bring into focus any infringement / deviation / violation of the environmental / forest / wildlife norms / regulation. The company shall have

defined system of reporting infringement / deviation / violation of the environmental / forest / wildlife norms / conditions and/or shareholders/stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of its monthly report.

3. A separate Environmental Cell both at the project and company head quarter level with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.
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 Ministry Regional Office along with the Six Monthly Compliance Report.
5. Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.
6. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (C'REP) for the cement plants shall be implemented.

XI. Miscellaneous:

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 newspapers 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.
2. The copies of the environmental clearance shall be submitted by the project proponent 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.
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.
4. The project proponent shall monitor the criteria pollutants level namely, PM₁₀, SO₂, NO_x (ambient levels) as well as stack emissions or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
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.
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.

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

i. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

ii. 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.

3. It shall be mandatory for the project management to submit six (6) monthly compliance report in respect of the stipulated pre 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).

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.

10. The SEIAA, Jharkhand or any other competent Authority may alter/modify the above conditions or stipulate any further condition, in the interest of Environment Protection.

11. No further expansion or modification in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).

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 Environment (Protection) Act, 1986.

13. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

14. The Ministry reserves the right to stipulate additional conditions if deemed necessary. The Company in a time bound manner shall implement these conditions.

15. The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.

16. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1987, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

17. Any appeal against this EC shall be with the National Green Tribunal, if preferred, within a period of 90 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

18. This environmental clearance is valid for seven years from the date of issue.

[Signature]
Member Secretary
State Level Environment Impact
Assessment Authority, Bhubaneswar.



झारखण्ड राज्य प्रदूषण नियंत्रण पर्वद

JHARKHAND STATE POLLUTION CONTROL BOARD

T.A. DIVISION BUILDING (GROUND FLOOR), H.E.C., CHURUWA, RANCHI - 834004
Phone: 0651-2608942/2609911/2609933 Fax: 0651-2609933 Email: jspcb@rediffmail.com

Ref. No. **B-1978**

Ranchi, Dated: **22/11/2021**

To,

The Dy. Executive Director
M/s. DALMIA CEMENT BHARAT LIMITED
Kamari Village, Bokaro Industrial Area,
P.O. Balidih, Tehsil-Chas,
District Bokaro, Jharkhand.

Sub:- Expansion of Production Capacity of 4.5 MTPA from existing 3.7 MTPA due to change in Product Mix and Modernisation of Technology in existing Standalone Grinding Unit located at Balidih Industrial Area (BIADA), P.O. Balidih, Tehsil-Chas Bokaro Steel City (Jharkhand).

Ref:- Your application along with requisite documents with "No Increase in Pollution Load Certificate" dated 30/06/2021.

Sir,

Your attention is invited to the reference cited above, wherein you have applied for issue of "No Increase in Pollution Load Certificate" for expansion of Production Capacity to 4.5 MTPA from existing 3.7 MTPA due to change in Product Mix and Modernisation of Technology in existing Standalone Grinding Unit to manufacture cement (PSC & CC) located at Balidih Industrial Area (BIADA), P.O. Balidih, Tehsil-Chas Bokaro Steel City (Jharkhand).

Existing Product Mix (3.7 MTPA) with Raw material Requirement submitted is :-

Product Mix	Production (MT)	Clinker (MT)	Slag (MT)	Fly ash (MT)	Gypsum (MT)	Coal for Hot Air (MT)
PSC	31,37,744	10,66,795	20,08,085	-	62,753	65,525
CC	6,10,227	2,31,875	3,76,784	1,17,136	12,204	11,094
Total	37,47,971	12,98,671	23,84,870	1,17,136	74,957	80,125

Since the Product mix is changing which dominated by higher fly ash proportion upto 35% in raw material mix, which require less grinding energy, the requirement and raw material mix shall also change which is indicated below as submitted :-

Proposed Operation - 4.5 MTPA (Upgradation & Product mix Change) with Raw Material Requirement :-

Product	Production (MT)	Clinker (MT)	Slag (MT)	Fly ash (MT)	Gypsum (MT)	Coal for Hot Air (MT)
PSC	8,21,522	3,11,310	3,97,790	-	12,430	12,430
CC	39,06,172	14,52,345	14,62,545	8,77,001	78,018	82,227
Total	48,27,694	18,93,655	18,61,306	8,77,001	90,448	74,657

It is also submitted that :-

1. There will not be any additional increase in pollution load from the existing scenario and consented norms of JSPCB due to production enhancement upto 4.5 MTPA with 85% PCC and 15% PSC product mix as stated above.
2. There will be no increase in water requirement as stated in your assessment.
3. No additional waste water generation.
4. There will not be any additional increase in any Hazardous waste generation from existing scenario due to enhanced product mix.
5. Thus, 'Zero Effluent Discharge' shall be practiced at the Complex. There is no change in existing quantity of Trade effluent generation and its utilisation after proposed Modernisation.
6. The unit shall install bag filter as Air Pollution Control Measures during the modernization to control the air emission in VRM-I & VRM-II with new Specifications.

After critical assessment of the project proposal submitted by the proponent and NABET approved consultant, and a site visit by Regional Officer, Dhanbad to take stock of existing environmental control measures, the Board has come to the conclusion that there will not be any increase in pollution load due to the above said proposed change in product mix and Expansion through modernization as per Environmental Clearance already issued. The unit has submitted application for no increase in pollution load certificate alongwith required documents after considering the fact and verification report by Regional Officer, Dhanbad, Board has agreed to issue no increase in pollution load certificate subject to the following conditions:-

1. The unit shall comply with the conditions imposed in the Environmental Clearance issued by SEIAA, Jharkhand vide letter no EC/SEIAA/2018-19/2138/2019/474 dated 23/09/2019.
2. The unit shall comply with all existing norms of discharge and emission as well as changes if any made by Authorities like MoEF&CC, SEIAA, CPCB and JSPCB from time to time.

3. The unit shall comply with all the conditions imposed by the Board in the consent order when granted.
4. The unit shall periodically analyse the discharges and emissions levels and report to JSPCB, so as to monitor the unit and confirm the real time pollution load after operation to expanded capacity.
5. The unit shall not go for any expansion or installation of new machineries without prior consent of the Board.
6. Ambient Air Quality and stack emission to be monitored by external agency approved by NABL & JSPCB as per CPCB Norms and the reports to be submitted to JSPCB on regular basis.
7. The unit shall furnish Environmental Management Plan and 3rd party Audit after modernization of standalone grinding unit.
8. The unit shall install the emission control device in the DG sets for reduction of emission of Particulate matter.
9. The unit shall ensure that there shall not be any increase in pollution load due to proposed product mix/modernization/ increase in product quantity up to 4.5 MTPA.
10. The unit shall provide online monitors for effluent, ambient air quality and stack emission parameters and shall make proper connectivity to CPCB & JSPCB for continuous monitoring of water and Air Quality.
11. The unit shall comply with the consent order conditions, various directions issued by JSPCB/CPCB/NGT etc., from time to time.
12. An action plan for reduction in CO₂ emission shall be furnished.
13. The unit shall enhance the Green Belt development in the premises in consultation with the DFO for native species.
14. The unit shall enhance the rain water harvesting capacity.
15. The unit shall submit the adequacy and efficiency report for Air Pollution Control Equipment after implementation of product mix and modernization.
16. The occupier shall obtain CTE before expansion of the existing plant.

Based on the above decision, the unit shall apply for consent through online consent Management and Monitoring System (OCMMS) for its proposed expansion through No increase in pollution Load of unit for the production of Cement 4.5 MTPA by the unit.

Yours faithfully,

(Yatindra Kumar Das)
Member Secretary



ANNEXURE-1

JHARKHAND STATE POLLUTION CONTROL BOARD

TOWNSHIP ADMINISTRATION BUILDING, HEC COMPLEX, DHURWA, RANCHI - 834004
Telephone: 0651-2400850 (Fax) 2400851/2400852/2401847/2400970/2400139

Ref No.: JSPCB/HO/RNC/CTE-11785214/2022-96

Date: 2022-03-06

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.- 11785214 / dated: 25/12/2021 of Dalmia Cement (Bharat) Limited, Venkatesan Thyagarajan 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 Inspection Report (IR) checklist 28.12.2021 issued vide Ref. No. 1436 dated 28.12.2021 of R O-C (in-Laboratory, E.S.P.C. House, Dhanbad.

(b) The content of copy of Environmental Clearance granted vide letter No. EC/SF/IAA/2018-19/2138/2019/474 dated 23.09.2019 for "Upgradation of technology at existing standalone cement grinding unit of M/s Dalmia Cement (Bharat) Ltd., at Bokaro Industrial Area, Bahibhi, Bokaro, Jharkhand from 3.0 MTPA to 3.7 MTPA" with compliance report.

(c) The content of Copy of CTE issued vide Ref No.: JSPCB/HO/RNC/CTE-6897145/2020/11 Dated: 07.01.2021 for production of Portland Slag Cement and Composite Cement - 3.0 MTPA to 3.7 MTPA.

(d) The content of copy of CTE issued vide Ref No. JSPCB/HO/RNC/CTE-7128225/2020/560 dated 04.03.2020 for the period of 31.03.2022 for production of Portland Slag Cement and Composite Cement -3.0 MTPA to 3.7 MTPA and its compliance report.

(e) The content of Copy of the No Increase in Pollution Load Certificate issued by the Board vide letter ref. no. B-1998 dated 22.11.2021.

(f) The content of Executive Summary related to No Increase in Pollution load with increase in production capacity to 3.5 MTP. Although change in Product Mix and Modernisation in Technology in Existing Standalone Grinding Unit of M/s Dalmia Cement (Bharat) Limited, at Bokaro Industrial Area(BIADA), Bokaro.

(g) The content of unit has installed CAAQMS in the single stack and has assured to comply with the conditions as mentioned in EC.

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 Minusa-Karari, P N-Bokaro Steel City, District-BOKARO as follows:

Project	Site/Area		Investment (Rs) / Year	Product & Capacity	Period of CTE
	Plot No.	Area			

In Espiracion	Marzo-Kanai, Plot No. IV/A- 7(P) - Industrial area, BLADA, Bakato	280062 Sq. Mtrs or 20.24 Hectare as per CTO	55.66 Cms	Portland Slag Cement, Portland Composite Cement & Portland Pozzolana Cement (PSC, PCC & PPC) - From 3.7 MTPA to 4.5 MTPA (As per E.C. Esp.)	date of issue to six months
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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 before commissioning of the project.
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 install online certified PM10 analyser with onsite display and connectivity to ISPCB server.
6. That, the occupier shall ensure that there shall be no leakage from the doors of the ovens and doors must remain sealed in order to minimize the fugitive emissions.
7. 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.
8. 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.
9. That, the occupier shall use fly ash and or fly ash bricks in construction of the project.
10. That, the occupier shall implement all pollution control measures as recommended in EIA/TMP.
11. That, the occupier shall comply the recommendations of CREP.
12. That, the occupier shall comply all the conditions of Environmental Clearance issued by MOEF, Govt. of India, New Delhi.
13. That, the occupier shall use all solid wastes as residue as a raw material or a product.

14. That, as a stake holder in Dhanbad Action Plan the occupier shall ensure the compliance of action to be taken to reduce the pollutants as suggested in Dhanbad Action Plan by them.

(B) General Conditions :

(1) That, the occupier shall construct place (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 introduction of raw materials, the equipments of their processing & manufacturing, the places of loading of products, by products and wastes for prevention of fugitive emission and shall install such automatic infault 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 scrubber system(s) that process the gases / process gas(es) and undergoes cleaning and clean air goes out through the chimney(s) having height(s) as per Central Pollution Control Board norms.

(4) That, the occupier shall have D G 50(s) of the standard as laid in the Environmental (protection) Rules, 1986 and shall install it (them) within acoustic enclosure (s) and shall keep the height(s) of column pipe(s) as per Central Pollution Control Board norms.

(5) That, the occupier shall impart treatment as per Central Pollution Control Board sent to wastewater and shall keep process effluent to 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/ preserve in the periphery and other available spaces and shall continue enhance its plant density and biodiversity.

(9) That, this CTE is valid subjected to the validity of Mining Lease/ Mining Plan / Ecologically / 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 proceedings, 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, 1987, 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/fraudulent/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: 2022.03.06
15:24:28+05'30'

(Yatindra Kumar Das)
Member Secretary

Memo No. : BSPCH/HR/RCNC/0713/-
11785214/2022-96

Dated : 2022-03-06

Copy to : Sri Vankatesan Thyagarajan, Director of M/s Dalmia Cement (Bihar) Limited, A5- Plot No. IV/A-A-7(P), Bokaro Industrial Area Development Authority, 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.I. O., Bokaro/D.M. (I), Bokaro / R.O., Dhanbad for information & ensuring compliance of the above.

**Yatindra Kumar
Das** Digitally signed
by Yatindra
Kumar Das
Date:
2022.03.06
15:24:57
+05'30' **(Yatindra Kumar Das)**
Member Secretary



JHARKHAND STATE POLLUTION CONTROL BOARD

TOWNSHIP ADMINISTRATION BUILDING, HEC COMPLEX, DHURWA, RANCHI - 834004
Telephone: 0651-2400850 (Fax): 2400851/2400852/2401817/2400670/2400130

ANNEXURE-2

Ref No. JSPCB/HO/RNC/CTO-14970501/2023/503

Dated: 2023-03-15

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 (a) dated 2022-12-15 of Dolmin Cement (Bharat) Limited, Occupant Name: Venkatesan Thiruganjan 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 Consent to Establish (CTE), Ref No.-JSPCB/HO/RNC/CTE-11785210/2022/96 Dated: 06.05.2022 for Portland Slag Cement, Portland Composite Cement & Portland Pozzolana Cement (PSC, PCC & PPC) - From 3.7 MTPA to 4.5 MTPA (As per EC Exp) with compliance report.
 - (b) The content of copy of Environmental Clearance granted vide letter No. EC/SR/EA/2018-19/2135/2019/474 dated 23.09.2019 for "Upgradation of technology at existing manufacturing Grinding unit of M/s Dolmin Cement (Bharat) Ltd., at Bokaro Industrial Area, Haldighi, Bokaro, Jharkhand from 3.0 MTPA to 3.7 MTPA" with compliance report.
 - (c) The content of Copy of the No Increase in Pollution Load Certificate issued by the Board vide letter ref. no. B-1998 dated 22.11.2021.
 - (d) The content of Executive Summary related to No Increase in Pollution load with increase in production capacity to 4.5 MTPA through change in Product Mix and Modernization in Technology in Existing Standalone Grinding Unit of M/s Dolmin Cement (Bharat) Limited, at Bokaro Industrial Area (BIAA), Bokaro.
 - (e) The content of Self-declaration for procurement of Raw Material from valid source.
 - (f) The content of Consent to Operate (CTO), vide ref. no. JSPCB/HO/RNC/CTO-13009032/2022/337, dated 12.06.2022 for the production of Portland Slag Cement, Portland Composite Cement & Portland Pozzolana Cement (PSC, PCC & PPC) - From 3.7 MTPA to 4.5 MTPA (As per EC Exp) for the period upto 31.03.2023.
 - (g) The content of authorization under HoWM Rule-2016 vide ref. no. JSPCB/HO/RNC/HWM-9675664/2021/26, dated 09.04.2021.
 - (h) The content of Inspection Report (IR), Ref No.-1513 dated 31.12.2022 of R.O., JSPCB, Dhanbad.
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 Minera -Kauri, P.S.-Bokaro Steel City, District -BOKEARO, as follows.

Project	Site/Area	Investment (Rs.)	Product & Capacity	Period of CTO
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	Plot Nos.	Area			Date of issue To
In Expansion	A- Industrial area, BIADA, Bokaro, Plot No. IV/A-3(P)	280002 Sq. Mtrs or 20.28 Hectare	55.66 Crore	Portland Slag Cement, Portland Composite Cement & Portland Porzelaire Cement (PSC, PPC & PPC) - From 3.7 MTPA to 4.5 MTPA (As per EC Exp. and previous CDO)	31/03/2027

(A) Specific Conditions:

1. That, the occupier shall install, operate and maintain dust continuous run suppression system.
2. That, the occupier shall carry out grinding and packing under covered area.
3. That, the occupier shall maintain the new emission guideline as prescribed by CPCB/MoEF for cement industry.
4. That, the occupier shall cover the truck/dumpers used for transportation of Limestone, Gypsum, Coal, Cement and other materials and shall use least habitation route for their movement.
5. That, the occupier shall install & maintain fixed type water sprinkler all along the road and the points of loading & unloading points.
6. That, the occupier shall construct pucca approach road and internal roads and shall do sprinkling of water along these area.
7. That, the occupier shall harvest rain water of the premises and recharge it to the ground by the method of Central Ground Water Board that fits most to such project.
8. That, the occupier shall keep surface run off within the premises and should construct gulland drain and settling pit for this purpose.
9. That, the occupier shall transport the product by leak proof and covered vehicles with tarpaulin sheet.
10. That, the occupier shall establish and operate well equipped environmental laboratory with facilities to monitor at least all regulatory parameters and duly accredited by NABL.
11. That, the occupier shall operate and maintain air pollution control devices to such as bag filters to control fine dust emission.

12. That, the occupier shall submit the disposal and utilization of fly ash generated in the plant.
13. That, the occupier shall comply conditions of the CRP and shall report to the Board regularly.
14. That, occupier shall maintain the operation of Pollution control system installed at-Ball Mills and Silos. Also the power supply to production units & Silos shall be interlinked with pollution control arrangement.
15. That, the occupier shall operate and maintain the pollution control equipments such as bag filters and others.
16. That, the occupier shall operate and maintain the CAAQMS and PM 10 analyzer and ensure transmission of data to JSPCB and CPCB server uninterruptedly.
17. That, the occupier shall comply all the conditions of EC and CTO and submit six monthly compliance report to Board and other relevant documents alongwith the analysis reports successively.
18. that, the occupier shall dispose the solid waste as per prescribed norms.
19. That, the occupier shall dispose the hazardous waste as per HoWM Rules' 2016 and shall obtain authorization under HoWM Rules' 2016.
20. That, the occupier shall submit online applications for renewal of consent under section 25 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 documents showing compliance of all of the above conditions.
21. That, this CTO supersedes the CTO granted earlier vide ref. no. JSPCB/HO/RNC/CTO-13089032/2022/837, dated 12.06.2022.

(B) General Conditions :

- (i) 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 Areas	Ecologically Sensitive Area (as notified by Central Govt.)
(1)	(2)	(3)	(4)	(5)
1.	Sulphur Dioxide (SO ₂) (ppm)	Annual 24 hours	50 60	20 40
2.	Nitrogen Dioxide (NO ₂) (ppm)	Annual 24 hours	40 60	30 50
3.	Particulate Matter (size less than 10 µm) or PM ₁₀ (µg/m ³)	Annual 24 hours	50 100	40 100
4.	Particulate Matter (size less than 2.5 µm) or PM _{2.5} (µg/m ³)	Annual 24 hours	40 60	30 60
5.	Ozone (O ₃) (ppm)	8 hours 1 hour	100 180	100 180
6.	Lead (Pb) (ppm)	Annual 24 hours	0.50 1.0	0.50 1.0
7.	Carbon Monoxide (CO) (ppm)	8 hours 1 hour	02 04	02 06
8.	Arsenic (As) (ppm)	Annual 24 hours	100 200	100 100
9.	Benzene (C ₆ H ₆) (ppm)	Annual	05	05
10.	Benzo(a) Pyrene (BaP) - Particulate Phase only (ppm)	Annual	01	01
11.	Arsenic (As) (ppm)	Annual	06	06
12.	Nickel (Ni) (ppm)	Annual	20	20
Note : Serial no. 1 to 4 - Mandatory Serial no. 5 to 12 As applicable for specific type of industry.				

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

S.N	Parameter	Standard
1	Particulate Matter	150 mg/Nm ³

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

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 norms.
- (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/ analysis 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 law's 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/certificate/s 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: 2023.03.13 21:27:17 +05'30'
(Yatindra Kumar Das)
Member Secretary

Memo No. : JSPCB/HO/ENC-CTO-11970501/2023/503

Dated: 2023-03-13

Copy to: M/s Dalmia Cement (Bihar) Limited, A/- Plot No. IV/A-A-7(P), Bokaro Industrial Area Development Authority, 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: 2023.03.13 21:27:17 +05'30'
(Yatindra Kumar Das)
Member Secretary

Water agreement copy from BIADA, Jharkhand

	
भारतीय गैर न्यायिक	
पचास रुपये	FIFTY RUPEES
रु. 50	Rs. 50
INDIA NON JUDICIAL	
झारखण्ड JHARKHAND	4 459112
AGREEMENT BOND FOR INDUSTRIAL METERED WATER SUPPLY SERVICE CONNECTION	
An Agreement made this 17th day of March 2011 between the Bokaro Industrial Area Development Authority (Hereinafter called the owner) on the first part and M/s Bokaro Hypos Cement Limited, "A House", 43 Basant Lok, Vasant Vihar, New Delhi-110057 hereinafter called "THE CONSUMER" on the second part.	
The particulars of the industrial plot to which supply is to be given is the factory premises:	
Description of premises	(a) Industrial Plot No.: 192A-1/1/1 (b) Character of the industrial plot: As per Annexure 01 (c) Industrial Plot No.: 192A-1/1/1 (d) Revenue plot & No.: As per Annexure 02
Whereas the consumer desires to obtain supply of water for industrial purposes for his premises as described from the distribution mains of the Authority and has made a written application to the Authority for this purpose and the Authority has decided to grant it, it is hereby consented and agreed as under:-	
 M. BHADRA MOHAN CHANDRA (Authorized Signature)	 General Manager BIADA

3) The Authority shall provide a connection and turn-on the water to this premises, on the completion of the communication plan laid by the 2nd part by the Authority at the cost of the consumer or at receipt of D.O. certificate of satisfactory completion of the communication pipes by the consumer. The connection plan will detail noted with a particulars of laid and size of water meter, service or sewer line etc. by the Authority.

2) The Applicant shall pay water collection charges (for activities as per rates fixed by the Authority from time to time, the rates effective from-01.11.20 are as under:-)

Fig. 214. Age 10820 days of water supplied.

31. If the meter of request also shall be sustained by the purchaser at its own cost and which shall be approved by the Authority before its installation. Otherwise meter will be found proper is, defendant it will be replaced at the cost of the consumer. Every new meter shall be approved by the Authority, in case the meter is not installed, billing will be on the basis of stated requirements plus 10%.

(d) The register of meter reading shall be prima facie evidence of the quantity of water consumed and bills for water rates shall be based on the meter reading taken monthly, a copy of which will be supplied to the consumer on demand.

11. Provided that if any matter is out of order and if it is the opinion of the DLS it is not registering correctly the Authority may estimate the quantity to be added but for the purpose of relief in water as certified to the D000000000 in the manner terms and conditions laid down on the statement of beneficial load. The defective water matter will have to be replaced at the cost of the owner, subject to the disclaimer. The water meter if required size and make to be approved by the Authority shall be purchased by the consumer.

4. All of water users shall be presented by the authority monthly and shall be paid by consumer within ninety days of presentation. For this purpose, the date of presentation shall mean the day of issue of the bill on the authority of the user.

Security Dependent Water Management on April 1994 to 1.522018 (see 1.522018)

¹ For a detailed description of the LAR, please refer to the Thailand; you will be required by the entry in Authority form.

b. The cost of stamping this agreement shall be borne by the last columned.

2. The agreement may be concluded with the consideration of the price offered

• **SCALING AND PIPES CLEANING LINE**

Journal of
Management Education
30(10) 1033-1047

8. The Authority will have right to shut off the supply temporarily for purposes of necessary repairs/maintenance of water supply pipelines etc. giving a prior notice to the concerned unit.
9. That the meter chamber shall be the property of the Authority even, if it is constructed by the consumer at his own cost but it will be got repaired by consumer or if Authority get it repaired, the cost will be recovered from consumer. The safety of water meter will be with consumer.
10. That the consumer shall take proper care for the safety of the meter which will be installed in the meter chamber situated within the premises of the unit and that in case of its theft he will be responsible and be liable for replacement of the meter within a week time.
11. In case of any dispute regarding this water connection, the decision of Broken Industrial Area Dev. Authority will be final and binding upon the parts.
12. If the consumer fails to pay the water charges due under this agreement within seven days of the date on which the payment falls due, the consumer shall be liable to pay interest @ 10% simple per annum on arrear bill amount.
13. Every sum that may become due from the consumer to the Authority under or in pursuance of the provisions of this agreement shall be payable to the Authority and shall be enforceable as public demand under the Bihar & Orissa public Recovery Act, 1914.
14. In case the consumer desires to increase/decrease connected demand the Authority may require to be given 3 months notice in writing stating the required demand.
15. If the consumer uses the water supplied or deals with it in any manner so as unduly or improperly to interfere with the efficient supply of water to any person by the Authority or sells or diverts water to premises other than his/her own, the Authority may discontinue the supply with prior notice.
16. The consumer shall not cause or permit any such repairs additions or alterations to be done otherwise than by the Authority and when any such repairs are required to be done, within such officers of the Authority for this purpose.
17. All payment referred to above shall unless otherwise direct by the Authority to be made by the consumer by cash/draft in the office of M. D. SADA.

for SDAAD JALPAIGURI DISTRICT

 (Authorized Signatory)


 SDAAD

The Authority shall be at liberty at any time to alter charges, minimum guarantee, any terms and conditions in the agreement and etc. as set out in such hereafter and the same shall be binding on the contractor.

18. Kind of supply: / Installation: 1000 N.P. to 1000 N.P. (1000)
19. Connected fitting: (a) Water meter with enclosure
(b) 200 N.P. Pipe with valve.
20. Qty of water required per month is 1.55 Crores Liters.
21. Minimum guarantee by the contractor (10% of above connected load)
(a) 1000 N.P. only per 1.55 Crores Liters (10% of above connected load)
(b) Charge for additional quantity: Nil per 1000 gal./day (subject to the above and subject to the above)
22. Building plans in duplicate showing pipeline and all fixtures including water meter, water meter, water meter and other work etc. shall be signed by the Engineer-in-Charge.

In witness whereof the said parties hereunder set & subscribed their respective hands and seals this day and year first above written.

Signed by the contractor

In presence of: 1. ANANDPRAKASH KUMAR PANDIT
2. RAJESH KUMAR SINGH

Signed for and on behalf of the Authority

In presence of: 1. [Signature]
2. [Signature]

[Signature]
General Manager
G.A.D.2



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/9675664/2021/26-09/04/2021
2. Reference of application (No. and date): 9675664-30/12/2020
3. **Deliver Certificate (Bharatiya) issued of Verification:** This application is hereby granted an authorization based on the enclosed signed inspection report for generation, collection, reception, storage, transport, reuse, recycling, recovery, pre-processing, co-processing, utilization, treatment, disposal or any other use of hazardous or other wastes or both on the premises situated at Distt. Bokaro.

Details of Authorization

Sl.No.	Category of Hazardous Waste as per the Schedules I, II and III of these rules	Authorized mode of disposal or recycling or utilization or co-processing, etc.	Quantity (ton/annum)
1	5.1 Used Oil/Spent oil	Sold to authorised recycler	1.5 KL/Annum
2	5.2 Used Oil Cotton	Sold to authorised recycler	1.0 KL

(1) The authorization shall be valid for a period of date of issue to 31.12.2026 years

(2) The authorization 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 authorization:

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

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 consignment 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 and 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 comply the provisions of the Environment Protection Act and Rules.
- (2) That, the authorisation shall be produced at the time of inspection.
- (3) That, the occupier authorised shall not re-sell or otherwise transport the H/W without obtaining prior permission of the Board.
- (4) That, any re-authorisation change shall constitute a breach the authorisation.
- (5) That, it is the duty of authorised person to take prior permission of the Board to close down the facility.
- (6) That, the renewal of authorisation shall be made as laid down in the rules.
- (7) That, any other condition for compliance as per the guidelines issued by the MoEF for CPCB.
- (8) That, the occupier shall submit annual return for the financial year before 30th June, every year.
- (9) That, the occupier shall comply all the conditions.
- (10) That, the occupier shall submit quarterly and annual information on hazardous wastes consumed its source, products generated or resources conserved (specifying the details like type and quantity of resources conserved) to the concerned SPCB.
- (11) That, the occupier shall complied all directions given by standard operating and procedure.

Memo No./SPCB/HO/RNC/HWM-
9675664/2021/26
Date: 09/04/2021

DILIP KUMAR
Digitally signed by Dilip Kumar
Date: 09.04.2021 12:04:28 +05'30'
Dilip Kumar
Environmental Engineer

Copy To:

Sri Smit Kumar Gupta, Executive Director (Manufacturing Head East) of M/s Balmeta Cement (Bharat) Limited, At- Plot No. IV/A-A-7(P), Bokaro Industrial Area Development Authority, Bokaro Steel City, Dist- Bokaro / Director of Industry, Government of Jharkhand, Ranchi/ Deputy Commissioner, Bokaro/ Chief Inspector of Factories, Ranchi/ R.O., Bhambad for Information & ensuring compliance of the above.

DILIP
Digitally signed
by DILIP KUMAR
Date: 2023.04.09
12:25:34 +05'30'

Dilip Kumar
Environmental Engineer



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 III (See Rule 10) AUTHORISATION

(AUTHORISATION FOR OPERATING A FACILITY FOR COLLECTION, RECEPTION, TREATMENT, STORAGE, TRANSPORT AND DISPOSAL OF BIOMEDICAL WASTES)

1. File no. of authorisation and date of issue: JSPCB/HO/RNC/BMW/15141326/2023/10 31/05/2023
2. M/s Occupational Health Center (Dispensary)-Dalmia Cement (Bharat) Limited, Bokaro, Priya Ranjan an occupier or operator of the facility located at Dalmia Cement (Bharat) Limited, is hereby granted an authorisation for:

Generation, segregation	✓	Collection	✓
Storage	✓	Transportation	
Reception		Use	
Recycling		Offering for sale	✓
Packaging		Transfer	✓
Treatment or Processing or Conversion		Disposal or destruction	✓
Any other form of handling			
3. M/s Occupational Health Center (Dispensary)-Dalmia Cement (Bharat) Limited, Bokaro is hereby authorized for handling of biomedical waste as per the capacity given below:
 - (i) Number of beds of HCF: 02
 - (ii) Number of health care facilities covered by CBMWTF: NA
 - (iii) Installed treatment and disposal capacity: NA
 - (iv) Area or distance covered by CBMWTF: NA
 - (v) Quantity of Biomedical waste handled, treated or disposed: NA
4. This authorisation shall be in force for a period of Date of issue to 30.06.2027 Years from the date of issue.
5. This authorisation is subject to the conditions stated below and to such other conditions as may be specified in the rules for the time being in force under the Environment (Protection) Act, 1986.

Date: 31/05/2023

Place: Jharkhand State Pollution Control Board

Rajiva

Kumar Sinha

Rajiva Kumar Sinha

Section Head, Dhanbad

Digitally signed by
Rajiva Kumar Sinha
Date: 2023.05.31

Terms and Conditions of Authorisation

1. The authorisation shall comply with the provisions of the Environment (Protection) Act, 1986 and the rules made there under.

2. The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the prescribed authority.
3. The person authorized shall not rent, lend, sell, transfer or otherwise transport the biomedical wastes without obtaining prior permission of the prescribed authority.
4. Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorization.
5. It is the duty of the authorized person to take prior permission of the prescribed authority to close down the facility and such other terms and conditions may be stipulated by the prescribed authority.

Specific Conditions:

1. That the occupier shall not mix bio-medical waste with general waste and shall under no circumstances, hand over untreated wastes to the municipality for disposal or land fill use.
2. That, the occupier shall segregate bio-medical wastes and collect in colored containers/bags at the point of generation as per the Rules and shall transport them in covered containers labeled with the symbols of biohazard & cytotoxicity.
3. That, the occupier shall treat the segregated bio-medical wastes in the manner prescribed under the Rules and shall ensure requisite treatment of segregated wastes at the individual or common facility, duly authorized by State Pollution Control Board, Haryana.
4. That, the authorized person shall treat the biomedical waste containing more than or equal to 50 PPM of mercury and shall dispose of it (them) as per the provisions of the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2016.
5. The occupier of health care unit shall submit the statement related to spillage and collection of mercury during the period from January to December of previous year, along with the annual report latest by 30th June of every year.
6. The authorized person of the unit shall maintain records related to the generation, collection, receipt, storage, transportation, treatment, disposal and/or any form of handling of Bio-medical Waste and all records shall be subject to inspection and verification by the State Pollution Control Board, Haryana at any time.
7. That, the occupier shall upload online application for renewal of authorization 30 days prior to the date of expiry of this authorization under Rule 19 of the Bio-Medical Waste Rules, 2016 with CTO copy issued under the Air (Prevention and Control of Pollution) Act, 1987 and the Water (Prevention and Control of Pollution) Act, 1974 along with compliance of all the above conditions.
8. That, the occupier shall Pre-treat the laboratory waste, microbiological waste, blood samples and blood bags through disinfection or sterilization on-site the manner as prescribed by the World Health Organization (WHO) or National AIDS Control Organization (NACO) guidelines and then send to the common biomedical waste treatment facility for final disposal.
9. That, the occupier shall ensure segregation of liquid chemical waste at source and ensure pre-treatment or neutralization prior to mixing with other effluents generated from health care facilities.
10. That, the occupier shall ensure every occupier or operator of Common bio-medical waste treatment facility shall submit an annual report to the prescribed authority as Form-IV, on or before the 30th June of every year.
11. That, the occupier shall submit the compliance of this authorization alongwith the compliance of this CTO on yearly basis.
12. That, this authorization is being issued to synchronization of CTO granted.

Memo No.: JSPCB HD/RNC/BMW-15141326/2023/10

Dated: 31/05/2023

Copy To:

Deputy Commissioner, Bokaro/ Director in Chief, Health Services, Department of Health, Ranchi/
Civil Surgeon, Bokaro/ Regional Officer, Regional Office, Dhanbad for information and necessary
action.

Rajiva Kumar Sinha
Section Head

Rajiva Kumar Sinha
Section Head, Dhanbad



Test Report

UHR No.:	7	C	1	1	5	1	5	2	4	0	0	0	0	0	2	1	2	6	
Discipline: Chemical	Group: Atmospheric Pollution										Sub-Group: Ambient Air								
Report Issue Date: 27-12-2024	Test Report No.: RN-241205004A01																		
Sample ID: 241224MPD1001	Sample Description: Ambient Air																		
Challan No./P.O. No.: 4580343344/237	Challan No./P.No. Date: 05-11-2024																		
Issued to:																			
Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No IV/A-7(P), Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India																			
Type of Industry: Cement										Customer Representative: Samir Kumar									
Sample Drawn by: JEM Team										Sampling Date: 23-12-2024 to 24-12-2024									
Protocol: CPCB Guideline (NAAQS/36/2012-13) & IS Method 5182 Series																			
Sampling Location: Near Main Gate																			
Field Meteorological Information: A. Temp. (°C): 18 R.H. (%): 66 W.C.: Partly Sunny W.D.: SW to NE																			
Sample Receiving date: 26-12-2024										Testing Started: 24-12-2024					Testing Ended: 27-12-2024				

—Test Results—

Sl. No.	Parameters	Test Method No.	Unit	Norms as per NAAQS - 2009	Results
1.	Particulate Matter (PM ₁₀)	IS 5182 Part 23:2006	µg/m ³	100	64.3
2.	Particulate Matter (PM _{2.5})	IS 5182 Part 24:2018	µg/m ³	60	27.1
3.	Sulphur Dioxide (SO ₂)	IS 5182 Part 02	µg/m ³	80	15.1
4.	Nitrogen Dioxide (NO ₂)	IS 5182 Part 06	µg/m ³	80	29.2
5.	Ammonia (NH ₃)	IS 5182 Part 25	µg/m ³	400	38.5
6.	Ozone (O ₃)	IS 5182 Part 09	µg/m ³	100	15.6
7.	Arsenic (as As)	USEPA IO 3.2	ng/m ³	—	BDL (MDL-7)
8.	Lead (as Pb)	IS 5182 Part 22	µg/m ³	1.0	0.03
9.	Nickel (as Ni)	IS 5182 Part 28	ng/m ³	—	BDL (MDL-8)

—End of Report—

Env. Condition at Lab:	Laboratory is maintaining Temperature 23 ± 2°C and Relative Humidity 45 ± 5 % up to testing area as per IS 144-1:2002.
Abbreviation:	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Limit as Specified:	As per the Environmental (Protection) Act - 1986
Remark:	Sample Comply with prescribed specification.

Tested By: Akanksha Sanyal

Sample Drawn By: Siddhant Kumar & Team

Specific Instructional Notes:	Reviewed By:	Authorized Signatory
1. The laboratory accepts responsibility for content of this report.	T. Ahmad	
2. This report shall not be reproduced except in full, without written approval of the IME.		
3. This report is intended for only guidance and not for legal purpose or its enforcement.		
4. Any complaint about the report should be communicated in writing within 7 days of its issue.		
5. Total liability of Institute for Environmental Management will be limited to receding amount only.		
6. In case of feedback/complaints, please send an email at info@iem.gov.in		
On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.	(Taqeer Ahmad)	(Dr. S. C. Jain)
	Technical Manager	Director

Page 1 of 2

Corporate Office: A-9, X-Block, 10th Floor, Opp. K.D. Sengupta Park, Station Road, Dwarka, New Delhi - 110021

Laboratory: H-1, H-1A, A-13, Sector V, Vardaan, Sector V, Haryana Building, Gurgaon

Branch: 604002, Sector 14, Gurgaon

Tel: 9927944232, 9927944233, 9927944234, 9927944235, 9927944236, 9927944237



Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Ambient Air
Report Issue Date: 27-12-2024	Test Report No.: IM-241125054A11	
Sample ID: JA1224AP01001	Sample Description: Ambient Air	
Challan No./P.O. No.: 454841344/237	Challan No./P.No. Date: 05-11-2024	
Issued to: Dajmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No (VIA-71P), Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India		
Type of Industry: Cement	Customer Representative: Sanjaya Verma	
Sample Drawn by: IEM Team	Sampling Date: 23-12-2024 to 24-12-2024	
Protocol: CPCB Guideline (NAAQS)/MS/35/2012-13) & IS Method 5182 Series		
Sampling Location: Near Main Gate		
Field Meteorological Information		
A. Temp. (°C): 18	R.H. (m): 66	W.C.: Partly Sunny
W.D.: Sky to NE		
Sample Receiving date: 24-12-2024	Testing Started: 24-12-2024	Testing Ended: 27-12-2024

—Test Results—

Sl. No.	Parameters	Test Method No.	Unit	Norms as per NAAQS - 2009	Results
1.	Benzo (a) Pyrene (BaP) Particulate phase only	IS 5182 Part 12	ng/m ³	—	BDL (MDL: 0.18)
2.	Carbon Monoxide (CO)	ISMSOP/Air-01 2022	mg/m ³	—	BDL (MDL: 1.8)
3.	Benzene (C ₆ H ₆)	IS 5182 Part 11	µg/m ³	—	BDL (MDL: 0.06)

—End of Report—

Site Condition of Lab:	Laboratory is maintaining Temperature 27±2°C and Relative Humidity 45±5 % in all testing area as per IS 5182 (Part 1).
Abbreviation:	NDL: Maximum Detection Limit; RDL: Below Detection Limit
Norms as Specified:	National Ambient Air Quality Standards (NAAQS), 2009
Remark:	Sample Comply with prescribed specification.

Tested By: Animesha Soudain

Sample Drawn By: Siddharth Kumar & Team

Specific Contractual Notes:	Reviewed by	Authorized Signatory
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On the basis of Quality Check and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.	(Tajinder Arora)	(Dr. S. C. Jain)
	Technical Manager	Director

Page 2 of 2

Corporate office - 11-B, Block H, Sector, Opposite to the Bhojpur, New Road, Anand, Gandhinagar - 384003

Laboratory No. - 21/102 - 3-17, 5th Floor, Near to the, Gandhinagar, Gandhinagar, Gandhinagar, Gandhinagar

Branch - 21/102, Gandhinagar, Gandhinagar

Ph - 9427040250, 9427040251, Email - info@iemindia.com



Test Report

ULR No.:	T	C	1	1	5	1	5	2	4	0	0	0	0	2	1	2	7	
Discipline: Chemical	Group: Atmospheric Pollution					Sub-Group: Ambient Air												
Report Issue Date: 27-12-2024	Test Report No.: EN-241225004403																	
Sample ID: 241224P01002	Sample Description: Ambient Air																	
Challan No./P.O. No.: 454804/0146/027	Challan No./P.No. Date: 05-11-2024																	
Issued to: Dalmia Cement (Bharat) Limited, (Bharat Cement Works) Plot No N/A-7(F), Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India																		
Type of Industry: Cement										Customer Representation: Sanjeev Verma								
Sample Drawn by: IEM Team										Sampling Date: 23-12-2024 to 24-12-2024								
Protocol: CPCB Guideline (NAAQS/MS/36/2012-13) & IS Method 5182 Series																		
Sampling Location: Near Fabrication Yard																		
Field Meteorological Information: A. Temp. (°C): 18 R.H. (%): 88 W.C.: Partly Sunny W.D.: SW to NE																		
Sample Receiving date: 24-12-2024 Testing Started: 24-12-2024 Testing Ended: 27-12-2024																		

---Test Results---

Sl. No.	Parameters	Test Method No.	Unit	Norms as per NAAQS - 2009	Results
1	Particulate Matter (PM ₁₀)	IS 5182 Part 21:2009	µg/m ³	100	63.0
2	Particulate Matter (PM _{2.5})	IS 5182 Part 24:2019	µg/m ³	60	30.3
3	Sulphur Dioxide (SO ₂)	IS 5182 Part 02	µg/m ³	80	17.0
4	Nitrogen Dioxide (NO ₂)	IS 5182 Part 06	µg/m ³	80	31.4
5	Ammonia (NH ₃)	IS 5182 Part 25	µg/m ³	400	34.1
6	Ozone (O ₃)	IS 5182 Part 09	µg/m ³	100	18.4
7	Arsenic (as As)	USEPA 1631.2	ng/m ³	—	BDL (MDL: 2)
8	Lead (as Pb)	IS 5182 Part 22	µg/m ³	1.0	0.03
9	Nickel (as Ni)	IS 5182 Part 26	ng/m ³	—	BDL (MDL: 4)

---End of Report---

Etc. Condition of Lab:	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % as per IS 15619:2004.
Abbreviation:	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Limit is Applied:	As per the Environmental (Pollution) Act - 1986
Remark:	Sample Comply with prescribed specification

Tested By: Anandika Sanyal

Sample Drawn By: Siddhant Kumar & Team

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	<i>T. Ahmad</i>	<i>S. C. Jais</i>
	(Tajinder Arora)	(S. C. Jais)
	Technical Manager	Director

Page 2 of 2

Corporate Office: 11, K. Hall, Bhubaneswar, Odisha | All India Radio House, Nitya Road, New B.C. Road Bhubaneswar - 751001

Laboratory Site: 11001 - A, 12, Sahas Nagar, Near, Nitya Road, Bhubaneswar, Odisha | Bhubaneswar's Office

Kanika-Kanika, Bhubaneswar, Odisha

Ph: 9876697225, 9467064211, Email: info@iemindia.com



Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Ambient Air
Report Issue Date: 27-12-2024	Test Report No.: RM/241205/00A02	
Sample ID: 241224A/P01002	Sample Description: Ambient Air	
Challan No./P.O. No.: 4548043344007	Challan No./P.No. Date: 05-11-2024	
Issued to: Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No IV/A-7(P), 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: 23-12-2024 to 24-12-2024	
Protocol: CFCB Guideline (NAAQMS/36/2012-13) & IS Method 5182 Series		
Sampling Location: Near Fabrication Yard		
Field Meteorological Information	A. Temp. (°C): 18	R.H. (%): 66
	W.C.: Partly Sunny	W.D.: SW to NE
Sample Receiving date: 24-12-2024	Testline Started: 24-12-2024	Testline Ended: 27-12-2024

—Test Results—

Sl. No.	Parameters	Test Method No.	Unit	Norms as per NAAQS - 2009	Results
1.	Berco (a) Pyrene (BaP) Particulate phase only	IS 5182 Part 12	ngm ³	—	BDL (MDL-0.18)
2.	Carbon Monoxide (CO)	IEMSCOP-A-01 2022	mgm ³	—	BDL (MDL-1.8)
3.	Benzene (C ₆ H ₆)	IS 5182 Part 11	ugm ³	—	BDL (MDL-0.06)

—End of Report—

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65± 5 % to all testing area as per IS 1596:1996(C)
Abbreviation	MDL: Minimum Detection Limit, RQL: Below Detection Limit
Norms as Specified	National Ambient Air Quality Standards (NAAQS) 2009
Remark	Sample Comply with prescribed specification.

Tested By: Anushka Saurabh

Sample Drawn By: Siddharth Kumar & Team

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

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Corporate Office : A-10, Staff House, Opp. - 88 India Park Station, Con. Road, Ranchi, Jharkhand - 834001

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Ranchi - 834002, Jharkhand, India

Ph : 8427804255, 8427804256, Email : info@iemindia.com



Test Report

UEN No.:	T	C	I	1	5	1	5	2	4	0	0	0	0	2	1	2	8	
Discipline:	Chemical			Group: Atmospheric Pollution						Sub-Group: Ambient Air								
Report Issue Date:	27-12-2024									Test Report No.: RN/241105004601								
Sample ID:	241224AP01003									Sample Description: Ambient Air								
Challan No./P.O. No.:	4546043546/237									Challan No./P.No. Date: 05-11-2024								
Issued to:																		
Galmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No (V/A-7(P), Bokaro Industrial Area Ballidh Bokaro Steel City, Bokaro-827014 Jharkhand India																		
Type of Industry: Cement									Customer Representative: Sangeeta Verma									
Sample Drawn by: IEM Team									Sampling Date: 23-12-2024 to 24-12-2024									
Protocol: CPCB Guideline/IAAQMS/36/2012-13 & IS Method 5182 Series																		
Sampling Location: Near Colony																		
Field Meteorological Information																		
A. Temp. (°C): 18						R.H. (m): 66			W.C.: Partly Sunny			W.D.: SW to NE						
Sample Receiving date: 24-12-2024						Testing Started: 24-12-2024						Testing Ended: 27-12-2024						

Test Results

Sl. No.	Parameters	Test Method No.	Unit	Norms as per NAAQS - 2009	Results
1.	Particulate Matter (PM ₁₀)	IS 5182 Part 23:2006	µg/m ³	100	52.1
2.	Particulate Matter (PM _{2.5})	IS 5182 Part 24:2019	µg/m ³	03	25.2
3.	Sulphur Dioxide (SO ₂)	IS 5182 Part 02	µg/m ³	80	10.8
4.	Nitrogen Dioxide (NO ₂)	IS 5182 Part 06	µg/m ³	80	25.3
5.	Ammonia (NH ₃)	IS 5182 Part 26	µg/m ³	400	41.4
6.	Ozone (O ₃)	IS 5182 Part 09	µg/m ³	100	14.0
7.	Arsenic (as As)	USEPA 10.3.2	ng/m ³	—	BDL (MDL-2)
8.	Lead (as Pb)	IS 5182 Part 22	µg/m ³	1.0	0.04
9.	Nickel (as Ni)	IS 5182 Part 28	ng/m ³	—	BDL (MDL-4)

End of Report

Env. Condition of Lab.	LABORATORY IS MAINTAINING TEMPERATURE 2To 25°C and Relative Humidity 65% to 75% in all working area by gas air conditioning (AC).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Limit is Specified	As per the Environmental (Pollution) Rule - 1986
Remark	Sample Comply with prescribed specifications.

Tested By: Anamika Sanyal

Sample Drawn By: Siddhant Kumar & Team

Specific Comments:	Reviewed by:
1. The laboratory is not responsible for correct of the result. 2. This report shall not be reproduced except in full, without written approval of the lab. 3. This report is intended for only guidance and not for legal purpose or for advertisement. 4. Any complaint about the result should be communicated in writing within 7 days of the issue. 5. The liability of institution for Environmental Management will be limited to the extent amount and 6. in case of technical complaints, please visit to visit info@iemindia.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.	Authorized Signatory
	(Tajinder Ahnood)
	Technical Manager
	(Dr. S. C. Jha)
	Director

Page 1 of 2

Corporate Office: A-11, Mall Road, Opp. Ashoka Hotel, Sector-14, Gurgaon, Haryana, India-122001

Secretary Office: A-11, Gurgaon, Opp. Ashoka Hotel, Sector-14, Gurgaon, Haryana, India-122001

Branch Office: A-11, Gurgaon, Opp. Ashoka Hotel, Sector-14, Gurgaon, Haryana, India-122001

Ph: +91 7804251, +91 7804251, Email: info@iemindia.com



Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Ambient Air
Report Issue Date: 27-12-2024	Test Report No.: IM-241205008A03	
Sample ID: 241224ND003	Sample Description: Ambient Air	
Challan No./P.O. No.: 4548043344/237	Challan No./ P.No. Date: 01-12-2024	
Issued to: Dakshin Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No IVA-7(P), Bokaro Industrial Area Badli Bokaro Steel City, Bokaro-827014 Jharkhand India		
Type of Industry: Cement	Customer Representative: Sonam Verma	
Sample Drawn by: IEM Team	Sampling Date: 23-12-2024 to 24-12-2024	
Protocol: CPCB Guideline (NAAQS/36/2012-13) & IS Method 5182 Series		
Sampling Location: Near Colony		
Field Meteorological Information	A. Temp. (°C): 18	R.H. (%): 66
	W.C.: Partly Sunny	W.D.: SW to NE
Sample Receiving date: 24-12-2024	Testing Started: 24-12-2024	Testing Ended: 27-12-2024

Test Results

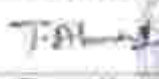
Sl. No.	Parameters	Test Method No.	Unit	Norms as per NAAQS - 2008	Results
1.	Benzene (a) Pyrene (BaP) Particulate phase only.	IS 5182 Part 12	µg/m ³	---	BDL (MDL-0.18)
2.	Carbon Monoxide (CO)	IS 5182 Part 11	mg/m ³	---	BDL (MDL-1.8)
3.	Benzo(a) Pyrene (BaP)	IS 5182 Part 11	µg/m ³	---	BDL (MDL-0.06)

End of Report

Env. Condition of Lab.	Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 45 ± 5 % in all working area as per IS 1946-1986 (T).
Abbreviation	MDL: Minimum Detection Limit; BDL: Below Detection Limit
Norms** is Specified	National Ambient Air Quality Standards (NAAQS) 2008.
Remarks	Sample comply with provided specification.

Tested By: Akanksha Gaurish

Sample Drawn By: Sudharbi Kumar & Team

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Page 2 of 2

Corporate Office: C-10, Main Highway, 1st Floor, All India Institute of Management, Bafra Road, Kirti Nagar, New Delhi - 110028

Laboratory Site: C-10, Main Highway, 1st Floor, All India Institute of Management, Bafra Road, Kirti Nagar, New Delhi - 110028

Branch: 5A/200, Bafra Road, India

Ph: 8860821233, 8860821234, 8860821235, Email: info@iemindia.com, www@iemindia.com



Forest Ecology

UIN No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Discipline: Chemical	Group: Atmospheric Pollutants																Sub-Group: Ambient Air																																																																																			
Report Issue Date: 27-12-2024																	Test Report No.: TR-2410500424																																																																																			
Sample ID: 24-244P0034																	Sample Description: Ambient Air																																																																																			
Chiller No./P.O. No.: 4540043/544237																	Chiller No./P.No. Date: 25-11-2024																																																																																			
Issued to:																																																																																																				
Dalmia Cement (Bihar) Limited, (Jharkhand Cement Works)																																																																																																				
Plot No W/A-7(P), Bokaro Industrial Area Baidigh																																																																																																				
Bokaro Steel City, Bokaro-827014, Jharkhand India																																																																																																				
Type of Industry: Cement																																								Customer Representative: Sanjiv Verma																																																												
Sample Drawn by: IEM Team																																								Sampling Date: 23-12-2024 to 24-12-2024																																																												
Protocol: CPCB Guideline (NABTMC/W/2022-11) & IS Method 5182 Series																																																																																																				
Sampling Location: Near Wagon Toppler																																																																																																				
Field Meteorological Information																				A. Temp. (°C): 18																				R.H. %: 56																				W.C.: Partly Sunny																				W.D.: SW to NE																				
Sample Receiving date: 24-12-2024																				Testing Started: 24-12-2024																				Testing Ended: 27-12-2024																																																												

Test Results

Sl. No.	Parameters	Test Method No.	Unit	Norms as per NIAQS - 2008	Results
1.	Particulate Matter (PM ₁₀)	IS 5182 Part 23:2006	µg/m ³	100	63.5
2.	Particulate Matter (PM _{2.5})	IS 5182 Part 24:2014	µg/m ³	60	26.9
3.	Sulphur Dioxide (SO ₂)	IS 5182 Part 32	µg/m ³	80	13.7
4.	Nitrogen Dioxide (NO ₂)	IS 5182 Part 36	µg/m ³	80	27.6
5.	Ammonia (NH ₃)	IS 5182 Part 25	µg/m ³	400	31.6
6.	Ozone (O ₃)	IS 5182 Part 35	µg/m ³	100	27.5
7.	Arsenic (as As)	USEPA 133.5.2	mg/l	—	BDL (MDL-2)
8.	Lead (as Pb)	IS 5182 Part 22	µg/l	1.0	0.02
9.	Nickel (as Ni)	IS 5182 Part 26	mg/l	—	BDL (MDL-3)

End of Report

Env. Condition of Cab	Exhaustory in Maintaining Temperature & In D/C and Synthetic Humidity After 10 is on loading data as per IS 9000:2000
Abbrication	Wt. Maximum Friction Load, 0.04; Noise Distance Limit
Limit is Specified	As per the Environmental Protection Rule - 2000
Remark	Sample comply with specified specification

Tested By: *Alison G. Boudreau*

¹ Sample Chain 04: Software Vendor A Tests

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Keywords: child sexual abuse; disclosure; social support

19. <http://www.miltonerickson.com>



Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Ambient Air
Report Issue Date: 27-12-2024	Test Report No.: RN-24120504A04	
Sample ID: 241224AP01004	Sample Description: Ambient Air	
Challan No./P.O. No.: 45450413544/237	Challan No./P.No. Date: 05/12-2024	
Issued to: Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No W/A-7(P), Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-837014 Jharkhand India		
Type of Industry: Cement	Customer Representative: Sandeep Verma	
Sample Drawn by: IEM Team	Sampling Date: 23-12-2024 to 24-12-2024	
Protocol: CPCB Guideline(NAAQS/36/2012-13) & IS Method 5182 Series		
Sampling Location: Near Wagon Tippler		
Field Meteorological Information	A. Temp. (°C): 18	R.H. (%): 66
	W.C.: Partly Sunny	W.D.: SW to NE
Sample Receiving date: 24-12-2024	Testing Started: 24-12-2024	Testing Ended: 27-12-2024

—Test Results—

Sl. No.	Parameters	Test Method No.	Unit	Norms as per NAAQS - 2009	Results
1.	Benzene (a) Pyrene (BaP) Particulate phase only	IS 5182 Part 12	ng/m ³	—	NDL (MDL-0.18)
2.	Carbon Monoxide (CO)	IS 5182 Part 11	mg/m ³	—	NDL (MDL-1.8)
2.	Benzene (C ₆ H ₆)	IS 5182 Part 11	µg/m ³	—	NDL (MDL-0.06)

—End of Report—

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 1°C and Relative Humidity 45± 5 % as per testing area as per IS 15919 (2014) (C).
Abbreviation	NDL - Not Detectable Limit, RDL - Refuse Detection Limit
Norms** (a) Specified	National Ambient Air Quality Standards (NAAQS, 2009)
Remark	Sample Comply with prescribed specifications.

Tested By: Anuragha Sourabh

Sample Drawn By: Siddharth Kumar & Team

Specific Comments/Notes:	Reviewed by	Authorized Signatory
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4. Any complaint about the report should be communicated in writing within 7 days of its issue.	(Tajinder Ahir)	(Dr. S. C. Jami)
5. The liability of mistake for Environmental Management will be limited to extent amounting.	Technical Manager	Director
6. In case of ambiguity/complexity, please send an email at info@iemindia.com		
On 04/12/2024 (PQ2405) The test 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-15, Phase II, IEM, Opp. XII to XIV, Gurgaon Road, Gurgaon, Haryana, India-122001

Laboratory Site: H.N.2, A-15, Sector 14, Gurgaon, Haryana, India-122001

Bokaro: 837012, Jharkhand, India

Ph: +91(0)122621733, 8427042453, Email: info@iemindia.com



Test Report

ULR No.:	T	I	C	S	S	S	2	4	0	0	0	0	7	1	3	*
Discipline: Chemical	Group: Atmospheric Pollution								Sub-Group: Stack Emission							
Report Issue Date: 27-12-2024									Test Report No.: RN-24110500451							
Sample ID: 241221AP06001									Sample Description: Stack Emission							
Challan No./P.O. No.: 45480453440237									Challan No./ P.No. Date: 05-11-2024							
Issued to: Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No (W/A-7(P), Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-II7014 Jharkhand India																
Type of Industry: Cement									Customer Representative: Sanjeev Verma							
Sample Drawn by: IEM Team									Sampling Date: 23-12-2024							
Protocol: CPCB Guideline (LAFS/80/2013-14) & IS Method 11255 Series.																
Field Meteorological Information									A. Temp. (°C): 30	R.H. (%): 64	W.C: Semi-Cloudy			W.D.: SW to NE		
Sample Receiving date: 24-12-2024									Testing Started: 24-12-2024				Testing Ended: 27-12-2024			

Stack Identification	Cement Mill Bag House Stack	Sampling Port	Available
Plat Form	Permanent	Stack Height from Ground Level (m)	50
Stack Description	Common for cement mill 1 & 2	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): 370	Flue Gas Velocity (m/s): 17.3	Flue Gas Volumetric Flow Rate (Nm ³ /hr): 516865.3	

Test Results

Sl. No.	Parameter	Test Methods	Unit	Result	Limit
1	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm ³	13.9	30.0

Quest	Kapitel	7.1
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—*Journal of Management*

Env. Condition of Lab.	Laboratory is maintaining Temperature: 21°C (70°F) and Relative Humidity: 45% N/A or 30-60% (20-60°C)
Abbreviation	MPN - Minimum Detection Limit, BGL - Bacteriological Growth Limit
Limit is Specified	As per the Environmental Protection Agency - EPA
Remark	Sample Collected with aseptic technique

Tawfiek Bey, AkarWala Soundbites

Sample Drawn By: Siddhant Kumar & Team

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Reviewed by	Authorized Signatory								
									
(Tasneem Ahmad)	(S. C. Jais)								
Technical Manager	Director								

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[illegible]

Keywords: *childhood, family, gender, social class, social capital, social networks, social support, social well-being, social work, social workers, social workers' networks, social workers' social capital, social workers' social networks, social workers' social support, social workers' social well-being, social workers' social capital, social workers' social networks, social workers' social support, social workers' social well-being*

78. www.4mat.com/4mat/4mat.htm. Last accessed 2011-09-05.



Test Report

URL No.:	T	C	I	I	S	I	S	2	4	0	0	0	0	2	1	3	5																							
Discipline:	Chemical				Group:				Atmospheric Pollution				Sub-Group:				Stack Emission																							
Report Issue Date:	27-12-2024								Test Report No.:								EM-24110500432																							
Sample ID:	241221AP05002								Sample Description:								Stack Emission																							
Challan No./P.O. No.:	4568043344/237								Challan No./P.No. Date:								25-11-2024																							
Issued to:	Oaimia Cement (Bharat) Limited, (Barkhad Cement Works) Plot No FWA-7(P), Bokaro Industrial Area Badlihi Bokaro Steel City, Bokaro-827014 Jharkhand India																																							
Type of Industry:	Cement								Customer Representative:								Sampat Verma																							
Sample Drawn by:	IEM Team								Sampling Date:								25-12-2024																							
Protocol:	CPCB Guideline (IAT/IGI/2013-34) & IS Method 31255 Series																																							
Field Meteorological Information	A. Temp. (°C):				20				R.H. (%):				64				W.C.: Semi Cloudy				W.D.: 55 to 776																			
Sample Receiving date:	24-12-2024								Testing Started:								24-12-2024								Testing Ended:								27-12-2024							

Stack Identification	Packing Plant Stack - 4	Sampling Port	Available
Plot Form	Permanant	Stack Height from Ground Level (m)	45
Stack Description	Single	Port Hole Height from Ground Level (m)	43
Shape of Stack	Circular	Inner Dimension of Stack (m)	0.55
Construction Material	MS	Pollution Control Device (If any)	Bag Filter

Flue Gas Temperature (K):	326	Flue Gas Velocity (m/s):	22.5	Flue Gas Volumetric Flow Rate (Nm ³ /hr):	17009.4
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Test Result					
Sl. No.	Parameters	Test Methods	Unit	Result	Limits
1.	Particulates Matter (PM)	IS 31255 (Part-3)	mg/Nm ³	29.1	30.0
Dust			kg/hr	0.1	

— End of Report —	
Env. Condition of Lab.	Laboratory is maintaining Temperature 25°C and Relative Humidity 45% to 55% which is as per ISO 14001.
Addressation	MSL - Maximum Detectable Limit, AQL - Above Detection Limit
Limit is Specified	As per the Environmental Protection Act - 1986
Remarks	Sample comply with prescribed specification.

Tested By: Akanksha Saini

Sample Drawn By: Siddharth Kumar & Team

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---	--	--

Page 1 of 1

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Customer Office : 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

Branch: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

Phone: 012-26111111, 012-2611112, 012-2611113, 012-2611114, 012-2611115, 012-2611116, 012-2611117, 012-2611118, 012-2611119, 012-2611120, 012-2611121, 012-2611122, 012-2611123, 012-2611124, 012-2611125, 012-2611126, 012-2611127, 012-2611128, 012-2611129, 012-2611130, 012-2611131, 012-2611132, 012-2611133, 012-2611134, 012-2611135, 012-2611136, 012-2611137, 012-2611138, 012-2611139, 012-2611140, 012-2611141, 012-2611142, 012-2611143, 012-2611144, 012-2611145, 012-2611146, 012-2611147, 012-2611148, 012-2611149, 012-2611150, 012-2611151, 012-2611152, 012-2611153, 012-2611154, 012-2611155, 012-2611156, 012-2611157, 012-2611158, 012-2611159, 012-2611160, 012-2611161, 012-2611162, 012-2611163, 012-2611164, 012-2611165, 012-2611166, 012-2611167, 012-2611168, 012-2611169, 012-2611170, 012-2611171, 012-2611172, 012-2611173, 012-2611174, 012-2611175, 012-2611176, 012-2611177, 012-2611178, 012-2611179, 012-2611180, 012-2611181, 012-2611182, 012-2611183, 012-2611184, 012-2611185, 012-2611186, 012-2611187, 012-2611188, 012-2611189, 012-2611190, 012-2611191, 012-2611192, 012-2611193, 012-2611194, 012-2611195, 012-2611196, 012-2611197, 012-2611198, 012-2611199, 012-2611200

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Test Report

ULR No.:	1	4	1	1	5	3	5	2	4	0	0	0	0	0	2	1	8	6		
Discipline: Chemical	Group: Atmospheric Pollution					Sub-Group: Stack Emission														
Report Issue Date: 27-12-2024	Test Report No.: IEM-JA120500453																			
Sample ID: 241221AP04003	Sample Description: Stack Emission																			
Challan No./P.O. No.: 4548043344/237	Challan No./P.No. Date: 05-11-2024																			
Issued to:																				
Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No IV(A-7/P), Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India																				
Type of Industry: Cement										Customer Representative: Sanjeev Vishnu										
Sample Drawn by: IEM Team										Sampling Date: 23-12-2024										
Protocol: CPCB Guideline (LATS/80/2013-14) & IS Method 11255 Series																				
Field Meteorological Information										A. Temp. (°C): 20		R.H. (%): 54		W.C.: Semi-Cloudy		W.D./SE to NW				
Sample Receiving date: 24-12-2024										Testing Started: 24-12-2024					Testing Ended: 27-12-2024					
General Physical Information																				
Stack Identification					Packing Plant Stack - 3					Sampling Port					Available					
Flat Form					Permanent					Stack Height from Ground Level (m)					45					
Stack Description					Single					Port Hole Height from Ground Level (m)					41					
Shape of Stack					Circular					Inner Dimension of Stack (m)					0.55					
Construction Material					MS					Pollution Control Device (if any)					Bag Filter					
Flue Gas Temperature (K): 323					Flue Gas Velocity (m/s): 18.9					Flue Gas Volumetric Flow Rate (Nm ³ /hr): 14475.0										
Test Result																				
Sl. NO.	Parameters				Test Methods				Unit				Result				Limits			
1.	Particulates Matter (PM)				IS 11255 (Part-1)				mg/Nm ³				23.7				10.0			
Dust					kg/hr										0.3					
—End of Report—																				
Env. Condition of Lab:					Labroom is maintaining temperature 20°C and Relative Humidity 50% & no air flowing area is present.															
Abbreviation:					N/A; Minimum Sample Limit: 500; Below Detection Limit															
Unit is Specified:					As per the Environmental (Protection) Act - 1986															
Remarks:					Sample Comply with prescribed specification.															

Tested By: Anuradha Doulabh

Sample Drawn By: Siddharth Kumar & Team

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	<i>T. Ahmad</i>	<i>[Signature]</i>
	(Tajinder Ahmad) Technical Manager	(Dr. S.C. Jais) Director

Page 3 of 3

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Institute for Environmental Management



Test Report

U/R No.:	7	C	1	1	5	1	5	2	4	0	0	0	0	2	1	1	7		
Discipline:	Chemical					Group: Atmospheric Pollution					Sub-Group: Stack Emission								
Report Issue Date:	27-12-2024										Test Report No.: RM-24120300454								
Sample ID:	241221AP04004										Sample Description: Stack Emission								
Challan No./P.O. No.:	4548043344/237										Challan No./P.No. Date: 05-11-2024								
Issued to:	Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No IV/A-7(P), Bokaro Industrial Area Baidih Bokaro Steel City, Bokaro-827014 Jharkhand India																		
Type of Industry:	Cement										Customer Representative: Sanjeev Verma								
Sample Drawn by:	IEM Team										Sampling Date: 23-12-2024								
Protocol:	CPCB Guideline (GATS/80/2011-14) & IS Method 13255 Series																		
Field Meteorological Information	A. Temp. (°C): 20 R.H. (%): 64 W.C.: Semi-Cloudy W.D.: SE to NW																		
Sample Receiving date:	24-12-2024					Testing Started:					24-12-2024					Testing Ended:		27-12-2024	

General Physical Information			
Stack Identification	Packing Plant Stack - 2	Sampling Port	Available
Plot Form	Permanent	Stack Height from Ground Level (m)	45
Stack Description	Single	Port Hule Height from Ground Level (m)	41
Shape of Stack	Circular	Inner Dimension of Stack (m)	0.55
Construction Material	MS	Pollution Control Device (if any)	Bag Filter

Flue Gas Temperature (K):	328	Flue Gas Velocity (m/s):	21.5	Flue Gas Volumetric Flow Rate (Nm ³ /hr):	16201.5
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Sl. NO.	Parameters	Test Methods	Unit	Result	Units
1.	Particulates Matter (PM)	IS 13255 (Part-1)	mg/Nm ³	24.7	30.0

Dust	Xg/hr	0.4
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End of Report	
Env. Condition of Lab.	Substrate is maintaining temperature 23°C ± 2 and Relative Humidity shall be in all testing area as per IS 13255 (Part-1).
Abbreviation	g/Nm ³ : Maximum Dispersion Limit, g/Nm ³ : Baghouse Collection Limit
Limit is Specified	As per the Environmental (Pollution) Regs - 1986
Remark	Sample Comply with prescribed specification.

Tested By: Akashtha Ghoshal

Sample Drawn By: Siddharth Kumar & Team

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	 (Tauseef Ahmad) Technical Manager	 Dr. S.C. Jha Director

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Test Report

U/LR No.:	7	2	1	1	5	3	5	2	4	0	0	0	0	2	1	1	8
Discipline: Chemical	Group: Atmospheric Pollution								Sub-Group: Stack Emission								
Report Issue Date: 27-12-2024									Test Report No.: RY 24110500475								
Sample ID: 241221AP04005									Sample Description: Stack Emission								
Challan No./P.O. No.: 4538043544237									Challan No./P.No. Date: 05-11-2024								
Issued to:	Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No M/A-7(P), Bokaro Industrial Area Baidin Bokaro Steel City, Bokaro-827014, Jharkhand India																
Type of Industry: Cement									Customer Representative: Sanjaya Verma								
Sample Drawn by: IEM Team									Sampling Date: 23-12-2024								
Protocol: CPCB Guideline (LA11/80/2013-14) & IS Method 11255 Series																	
Field Meteorological Information						A. Temp. (°C): 20			R.H. (%): 64			W.C.: Semi-Cloudy			W.D.: SE to NW		
Sample Receiving date: 24-12-2024						Testing Started: 24-12-2024						Testing Ended: 27-12-2024					

General Physical Information			
Stack Identification	Packing Plant Stack - 1	Sampling Port	Available
Plat Form	Permanent	Stack Height from Ground Level (m)	45
Stack Description	Single	Port Hole Height from Ground Level (m)	41
Shape of Stack	Circular	Inner Dimension of Stack (m)	0.55
Construction Material	MS	Pollution Control Device (If any)	Soot Filter

Flue Gas Temperature (K): 326	Flue Gas Velocity (m/s): 19.1	Flue Gas Volumetric Flow Rate (Nm ³ /hr): 14330.0
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Value

Sl. NO	Parameters	Test Methods	Unit	Result	Units
1.	Fluoride Ion Selective (FIM)	IS 11255 (Part-1)	mg/litre	10.2	mg/l

Dust	kg/hr:	0.3
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Test of Significance

[illegible]

Tested By: Alexander Savelov

Sample Drawn By: Hishard Kumar & Team

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--	---	---



Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Work Environment & Indoor Air			
Report Issue Date: 27-12-2024	Test Report No.: RM/24105004/001				
Sample ID: 241224AP0003	Sample Description: Fugitive Emission				
Challan No./P.O. No.: 4548043/44/227	Challan No./P.No. Date: 05-12-2024				
Issued to: Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No IV/A-7(P), Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India					
Type of Industry: Cement	Customer Representative: Sanjeev Yennir				
Sample Drawn by: IEM Team	Sampling Date: 23-12-2024				
Protocol: CPCB Guideline (NARQMS/36/2012-13) & IS Method 5182 Series					
Sampling Location: Truck Parking Area					
Field Meteorological Information	A. Temp. (°C): 29	R.H. (%): 64			
	W.C.: Semi-Cloudy	W.D.: SW to NE			
Sample Receiving date: 24-12-2024	Testing Started: 24-12-2024	Testing Ended: 27-12-2024			
---Test Results---					
Sl. No.	Parameters	Test Method No.	Unit	Limit	Results
1.	Suspended Particulate Matter (SPM)	IS 5182 Part - 04	µg/m ³	2000	1235.3
---End of Report---					
Env. Condition at Lab:	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 40±5 % in all testing area as per ISO 15629:2006 (C).				
Abbreviation	MDC: Minimum Detection Limit, BDL: Below Detection Limit				
Limit is Specified	As Per G.S.R. 414 (S) dated 30-06-2006				
Remark	Sample comply with the prescribed specification.				

Tested By: Akanksha Saurabh

Sample Drawn By: Siddhant Kumar & Team

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	<i>T. Ahmad</i>	<i>[Signature]</i>
	(Tajudeen Ahmad)	(Tajudeen Ahmad)
	Technical Manager	Director

Page 1 of 1

Corporate office : A-8, Main Building, Opp- Ad India Radio Station, Kankar Road, Ranchi, Jharkhand - 834002

Laboratory NM : H.No. - A/1A, Saket, Patna, Bihar - 800016, Bihar, India
Kankar Road, Ranchi, Jharkhand, India

Ph : 9419024000, 9407841111, Email : info@iemindia.com



Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Work Environment & Indoor Air
Report Issue Date: 27-12-2024	Test Report No.: RM-241050041E02	
Sample ID: M122442P03002	Sample Description: Fugitive Emission	
Challan No./P.O. No.: 4548043344/237	Challan No./P.No. Date: 05-11-2024	
Issued to: Dalsia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No (V/A-7(P), 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: 23-12-2024	
Protocol: CPCB Guideline (NAAQMS/36/2012-13) & IS Method 5182 Series		
Sampling Location: Near Clinker Silo/Road material yard		
Field Meteorological Information	A. Temp. (°C): 28	R.H. (%): 54
	W.C.: Semi-Cloudy	W.D.: SW to NE
Sample Receiving date: 24-12-2024	Testing Started: 24-12-2024	Testing Ended: 27-12-2024

Test Results

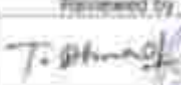
Sl. No.	Parameters	Test Method No.	Unit	Limit	Results
1	Suspended Particulate Matter (SPM)	IS 5182 Part - 04	µg/m ³	2000	981.2

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 1001:2005 (C)
Abbreviation	W.C.: Weather Condition, R.H.: Relative Humidity, W.D.: Wind Direction
Limit is Specified	As per IS 5182-04 (C), dated 30th May 2002.
Remark	Sample comply with the prescribed specification.

Tested By: Akansha Soudh

Sample Drawn By: Gidharvi Kumar & Team

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---	--	--

Page 1 of 1

Corporate office : A-16, Main Building, Opp. All India Radio Station, Kirti Road, Ranchi, Jharkhand - 834001

Laboratory Site : A-22, Subot Plaza, Near Indian Museum, Science Building, Kolkata

Ranchi (B&B) Jharkhand, India

Ph : 06594442023, 96070042029, Email : info@iemindia.com



Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Work Environment & Indoor Air
Report Issue Date: 27-12-2024	Test Report No.: RE-241205/24FL02	
Sample ID: 241224AF000001	Sample Description: Fugitive Emission	
Challan No./P.O. No.: 4548043344/237	Challan No./P.No. Date: 05-11-2024	
Issued to: Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No IV1A-7(P), 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: 23-12-2024	
Protocol: (PCB Guideline) (NAAQMS/36/2012-13) & IS Method 5182 Series		
Sampling Location: Near Mill Area		
Field Meteorological Information		
A. Temp. °C: 26	B.H. m/s: 5.4	W.C.: Semi-Clearly
W.D.: SW to NE		
Sample Receiving date: 24-12-2024	Testing Started: 24-12-2024	Testing Ended: 27-12-2024

Test Results

Sl. No.	Parameters	Test Method No.	Unit	Limit	Results
1	Suspended Particulate Matter (SPM)	IS 5182 Part - 04	µg/m ³	2000	1122.7

End of Report

Env. Condition at Lab	Laboratory is maintaining Temperature 27±2°C and Relative Humidity 63±5 % RH at testing area as per IS: 156-1966(C)
Abbreviation	NAQ, Minimum Detection Limit, BQL: Below Detection Limit
Limit is Specified	As Per IS: 5182 (IS: Issued Apr May 2006)
Remark	Sample comply with the prescribed specification.

Tested By: Akanksha Singhani

Sample Drawn By: Siddharth Kumar & Team

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	 (Tausheen Akhter) Technical Manager	 (Dr. A. C. Jain) Director

Page 1 of 1

Corporate Office: C-1, Model Building, Opp. old India Radio Station, Kirti Road, Ranchi, Jharkhand - 834003

Laboratory Site: JEM, A-15, Saket Village, Near National Highway, Hazrat Nizamuddin, Delhi

Ranchi: 834002, Hazrat Nizamuddin, Delhi

Ph: 8407854273, 8407804274, Email: info@iemindia.com



Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Work Environment & Indoor Air
Report Issue Date: 27-12-2024	Test Report No.: IEM-241075004F104	
Sample ID: 241022AFC0004	Sample Description: Fugitive Emission	
Challan No./P.O. No.: 4548063344/237	Challan No./P.No. Date: 05-11-2024	
Issued to: Dalmia Cement (Bharat) Limited. (Jharkhand Cement Works) Plot No IV/A-7(F), 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: 23-12-2024	
Protocol: CPCB Guideline (NAAC/MS/36/2012-13) & IS Method 5182 Series		
Sampling Location: Near Packing Plant		
Field Meteorological Information:	A. Temp: 10.35	R.H. 70.64
	W.C.: Semi-Cloudy	W.D.: SW to NE
Sample Receiving date: 24-12-2024	Testing Started: 24-12-2024	Testing Ended: 27-12-2024

Test Results

Sl. No.	Parameters	Test Method No.	Unit	Limit	Results
1	Suspended Particulate Matter (SPM)	IS 5182 Part - 04	$\mu\text{g}/\text{m}^3$	2000	958.8

End of Report

Env. Condition at Lab	Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5 % in all testing zone as per IS 15613:2014 (7).
Abbreviation	W.C.: Minimum Detection Limit, S.D.: Drive Detection Limit.
Limit is Specified	As Per G.S.E-414 (X), Dated 30 th May 2008
Remark	Sample comply with the prescribed specifications

Tested By: Akanksha Sengupta

Sample Drawn By: Siddharth Barua & Team

Specific Comments/Notes -	Reviewed by	Authorized Signatory
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On the basis of Quality Checked and Technical data verified by the authorized signatory, this report is issued by the Director of the Organization.	(Signature of T. Bhavad)	(Signature of Dr. S. C. Jena)
	Technical Manager	Director

Page 1 of 1

Corporate Office - A-10, New Heights, Opp. All India Kalyan Forum, Kalyan Road, New Delhi, India - 110001

Examination Unit - I Unit - A/10, New Heights, Opp. All India Kalyan Forum, Kalyan Road, New Delhi, India - 110001

Branch - H-3A-002, Bhadrabad, Andhra Pradesh

Ph. - 9470646293, 9470646295, Email - info@iemindia.com



Test Report

LIR No.: Y E 1 5 3 6 2 3 1 0 0 0 5 0 3 Discipline: Chemical Report Issue Date: 10-03-2025 Sample ID: 200307AF03001 Chain No. / P.O. No.: 4548041344/217 Issued to:	Group: Atmospheric Pollution Sub-Group: Ambient Air Test Report No.: RM-241310004401 Sample Description: Ambient Air Chain No. / P.O. No.: 4548041344/217 Customer Representative: Sangeeta Verma Sampling Dates: 05-03-2025 to 07-03-2025 Protocol: CPCB Guidelines/MSQM/196/2012, IS 1502 Method 5192 Series Sampling Location: Near Akash Gate Field Meteorological Information: A. Temp. (°C): 22, R.H. (%): 47, W.C. Sunny, W.D.: NW to SE Sample Receiving date: 07-03-2025 Testing Started: 07-03-2025 Testing Ended: 08-03-2025
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Test Results					
Sl. No.	Parameters	Test Method No.	Unit	Norms as per NAAQS - 2009	Results
1.	Particulate Matter (PM ₁₀)	IS 5182 Part 24: 2016	µg/m ³	100	44.8
2.	Particulate Matter (PM _{2.5})	IS 5182 Part 24: 2016	µg/m ³	50	28.2
3.	Sulphur Dioxide (SO ₂)	IS 5182 Part 02	µg/m ³	80	17.4
4.	Nitrogen Dioxide (NO ₂)	IS 5182 Part 02	µg/m ³	80	22.6
5.	Ammonia (NH ₃)	IS 5182 Part 25	µg/m ³	400	35.8
6.	Ozone (O ₃)	IS 5182 Part 03	µg/m ³	100	22.3
7.	Acid rain (As Acid)	USEPA 10.1.2	mg/l	---	87% (55% - 21)
8.	Lead (As Pb)	IS 5182 Part 22	µg/m ³	1.0	0.05
9.	Nickel (As Ni)	IS 5182 Part 25	µg/m ³	---	87% (MSD: 4)

End of Report Env. Conditions of Lab: Laboratory of Atmospheric Pollution, 27° N and 84° 10' E, Bangalore Accreditation: ISO 15189:2013 (C-145) (NABL) Client is Specified: Yes per the Government of Karnataka (G.O. 1986) Release: Sampled, analyzed and reported as per the test results.
--

Tested By: Akashika Shinde
 Sample Given By: Sangeeta Verma & Team

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--	---	--

Page 1 of 2

Corporate Office: A-10, Akash Bhavan, 10th Floor, 10th Main Road, Bangalore, Karnataka - 560002
 Laboratory Office: Plot No. 11, Sakshi Yashwanth, 10th Main Road, Sakshi Yashwanth, Bangalore - 560002
 Phone: 8867804155, 8867804156, Email: info@iemindia.com



Test Report

Discipline: Chemical		Group: Atmospheric Pollution		Sub-Group: Ambient Air	
Report Issue Date: 10-03-2025		Test Report No.: IEM-241103/IAQ3			
Sample ID: 250307AP0003		Sample Description: Ambient Air			
Challan No./P.O. No.: 4548043344/237		Challan No./P.No. Date: 05-11-2024			
Issued to:					
Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works)					
Plot No IV/A-7(P), 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: 06-03-2025 to 07-03-2025			
Protocol: (PCB Guideline) (NAAQS/36/2012-17) & IS Method 5182 Series					
Sampling Location: Near Main Gate					
Field Meteorological Information		A. Temp. (°C): 22	R.H. %: 47	W.C.: Sunny	W.D.: NW to SE
Sample Receiving date: 07-03-2025		Testing Started: 07-03-2025		Testing Ended: 10-03-2025	

—Test Results—

Sl. No.	Parameters	Test Method No.	Unit	Norms as per NAAQS - 2008	Results
1.	Benzo (a) Pyrene (BaP) Particulate phase only	IS 5182 Part 13	ng/m ³	—	NDL (MDL 0.18)
2.	Carbon Monoxide (CO)	IS 5182 Part 11	mg/m ³	—	NDL (MDL 1.8)
3.	Benzene (C ₆ H ₆)	IS 5182 Part 11	ug/m ³	—	NDL (MDL 0.06)

—End of Report—

Eqs. Condition of Lab	Laboratory (containing) Temperature 27± 0.4°C and Relative Humidity 61± 0.1%
Abbreviation	MPL: Maximum Permissible Limit; RLL: Reasonable Expectation Limit
Norms** as Specified	National Ambient Air Quality Standards (NAAQS), 2008
Remark	Sample Corrupt with pre-specified specifications

Tested By: Anurag Sourabh

Sample Drawn By: Siddharth Kumar & Team

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Corporate office : C-6, Post Bag, Opp. All India Radio Station, Salt Lake, Howrah, Jharkhand - 724001

Laboratory Plot : D-5A, Opp. 17, Salt Lake, Near Salt Lake Station, Howrah, Jharkhand

Pincode : 724001, Jharkhand, India

Ph: 0672969235, 9427969231, Email: info@iemindia.com



Institute for Environmental Management



Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Ambient Air
Report Issue Date: 10-03-2025	Test Report No.: EIM-241105004403	
Sample ID: 250302AP00002	Sample Description: Ambient Air	
Challan No./P.O. No.: 4548040344/237	Challan No./P.No. Date: 05-11-2024	
Issued to: Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No IV(A-7)(P), Bokaro Industrial Area Baidih, Bokaro Steel City, Bokaro-825014, Jharkhand India		
Type of Industry: Cement	Customer Representative: Sanjeev Verma	
Sample Drawn by: IEM Team	Sampling Date: 05-09-2025 to 07-09-2025	
Protocol: CPCB Guideline (CAAQMS/86/2012-11) & IS Method 5182 Series		
Sampling Location: Near Fabrication Yard		
Field Meteorological Information		
A. Temp. (°C): 22	R.H. (%): 47	W.C.: Sunny
W.D.: NW to SE		
Sample Receiving date: 07-03-2025	Testing Started: 07-03-2025	Testing Ended: 10-03-2025

Test Results

Sl. No.	Parameters	Test Method No.	Unit	Norms as per NAAQS - 2009	Results
1.	Benzene (B), Pyrene (P) Particulate phase only	IS 5182 Part 12	ng/m ³	—	BOL (MDL: 0.18)
2.	Carbon Monoxide (CO)	IS 5182 Part 11	mg/m ³	—	BOL (MDL: 1.8)
3.	Benzene (C ₆ H ₆)	IS 5182 Part 11	ug/m ³	—	BOL (MDL: 0.06)

End of Report

Env. Condition of Lab.	Laboratory at Maintaining Temperature 27± 2°C and Relative Humidity 65± 5 % to 80% testing area as per IS 198:1966(C)
Abbreviation	NDL: N/A, Below Detection Limit, B/L: Below Detection Limit
Norms as Specified	National Ambient Air Quality Standards (NAAQS), 2009
Remarks	Sample Complies with prescribed specifications.

Tested By: Animesha Sourabh

Sample Drawn By: Siddhant Kumar & Team

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	T. Abir	[Signature]
	(Tajinder Ahnra)	(Dr. B. C. Jain)
	Technical Manager	Director

Page 2 of 2

Corporate Office - A-6, Block No. 10, Opp. All India Radio Station, Gurgaon, Haryana - 122002

Subsidiary Office - 11/10, A-15, Sector 13, Near Sector 14, Gurgaon, Haryana - 122002

Phone: 0122-2610000, 0122-2610001, Email: info@iemindia.com



Test Report

ULR No.:	1	0	1	5	3	9	3	2	5	0	0	0	0	0	5	0	4	
Discipline:	Chemical					Gross Atmospheric Pollution					Sub-Group: Ambient Air							
Report Issue Date:	30-03-2025										Test Report No.: RH/243105004403							
Sample ID:	250307AP03003										Sample Description: Ambient Air							
Challan No./P.D. No.:	4548043244/237										Challan No./ P.No. Date: 05-11-2024							
Issued to:	Daimie Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No I/A-7(P), Bokaro Industrial Area Ballikh Bokaro Steel City, Bokaro-827014 Jharkhand India																	
Type of Industry:	Cement										Customer Representative: Sanyam Verma							
Sample Drawn by:	IEM Team										Sampling Date: 06-03-2025 to 07-03-2025							
Protocol:	CPCB Guideline(NAAQMS/3672012-13) & IS Method 5182 Series																	
Sampling Location:	Near Colony																	
Field Meteorological Information	A. Temp. (°C): 22					R.H. (rh): 47					W.C.: Sunny					W.D.: NW to SE		
Sample Receiving date:	07-03-2025					Testing Started: 07-03-2025					Testing Ended: 10-03-2025							

Test Results

Sl. No.	Parameters	Test Method No.	Unit	Norms as per NAAQS - 2009	Results
1	Particulate Matter (PM ₁₀)	IS 5182 Part 23:2008	µg/m ³	100	89.3
2	Particulate Matter (PM _{2.5})	IS 5182 Part 24:2015	µg/m ³	60	27.8
3	Sulphur Dioxide (SO ₂)	IS 5182 Part-02	µg/m ³	80	13.1
4	Nitrogen Dioxide (NO ₂)	IS 5182 Part-08	µg/m ³	80	30.0
5	Ammonia (NH ₃)	IS 5182 Part-25	µg/m ³	400	38.7
6	Ozone (O ₃)	IS 5182 Part-09	µg/m ³	100	16.5
7	Arsenic (as As)	USEPA I.O. 3.2	µg/m ³	—	BDL (MDL-2)
8	Lead (as Pb)	IS 5182 Part-22	µg/m ³	1.0	0.06
9	Nickel (as Ni)	IS 5182 Part-20	µg/m ³	—	BDL (MDL-4)

End of Report

Eve. Condition of Lab.	Laboratory is maintaining Temperature 27.4 ± 0.5 and Relative Humidity 65.15 % in all testing area as per IS 15619:2015
Abbreviation	NDL: Nil/Not Detectable Limit, BDL: Below Detection Limit
Limit is Specified	As per the Environmental (Provision) Rule - 1986
Remarks	Sample Comply with prescribed specification.

Tested By: Akanksha Ghoshal

Sample Drawn By: Siddharth Kumar & Team

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	 T. Alwaj Technical Manager	 Dr. S. C. Jais Director

Page 1 of 2

Corporate Office : A-10, Phase II, Kharagpur, Dist. - 751 005 India (Post Station: Peta Road, Ranchi, Jharkhand - 834001)

Laboratory Unit : N/A, 1 to 11, 5th Floor, VPM, Near (Jail) Block, Harrow Housing Colony, Ranchi - 834001, Jharkhand, India

Ph: 9407804253, 9407804253, Email: info@iem.org

Test Report

Discipline: Chemical		Group: Atmospheric Pollution		Sub-Group: Ambient Air	
Report Issue Date: 10-03-2025		Test Report No.: RP-24337004403			
Sample ID: 250307AP03003		Sample Description: Ambient Air			
Challan No./P.O. No.: 4348043344237		Challan No./P.No. Date: 05-11-2024			
Issued to: Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No (VIA-71P), 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: 06-03-2025 to 07-03-2025			
Protocol: CNEB Guideline (NAAQMS/35/2012: 2.3) & IS Method 5182 Series					
Sampling Location: Near Colony					
Field Meteorological Information		A. Temp. [°C]: 27		R.H. (%): 47	W.C.: Sunny
Sample Receiving date: 07-03-2025		Testing Started: 07-03-2025		Testing Ended: 10-03-2025	

Test Results

Sl. No.	Parameters	Test Method No.	Unit	Norms as per NAAQS - 2009	Results
1	Benzo (a) Pyrene (BaP) Particulate phase only	IS 5182 Part 12	ng/m ³	—	NOL (MDL-0.18)
2	Carbon Monoxide (CO)	IS 5182 Part 11	mg/m ³	—	NOL (MDL-3.3)
3	Benzene (C ₆ H ₆)	IS 5182 Part 11	ug/m ³	—	NOL (MDL-0.06)

—End of Report—

Env. Condition of Lab.	Laboratory is maintaining Temperature: 17: 2°C and Relative Humidity 55±5 % in all testing area as per IS 1564:1994 (C).
Abbreviation	MDL: Minimum Detection Limit, RDL: Below Detection Limit
Normative is Specified	National Approval for Quality Standards (NAQS), 2004
Remark	Sample Collected with appropriate specification

Tested By: Aamir Waqar

Sample Drawn By: Richard K. Wynn & Team

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--	---	---



Test Report

GLR No.:	T	C	1	5	2	9	2	2	5	0	0	0	0	0	0	0	0	0	0					
Discipline: Chemical	Group: Atmospheric Pollution										Sub-Group: Ambient Air													
Report Issue Date: 10-03-2025											Test Report No.: RH-241105004A04													
Sample ID: 250307AP00004											Sample Description: Ambient Air													
Challan No./P.O. No.: 4548043346207											Challan No./P.No. Date: 05-11-2024													
Issued to:																								
Daltia Cement (Bharat) Limited, (Jharkhand Cement Works)																								
Plot No (V/A-7(P), 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: 05-05-2025 to 07-05-2025														
Protocol: CPCB Guideline/NAAQM/36/2012-13) & IS Method 5182 Series																								
Sampling Location: Near Wagon Tippler																								
Field Meteorological Information:					A. Temp. (°C): 22					R.H. (rh): 47					W.C.: Sunny					W.D.: NW to SE				
Sample Receiving date: 07-03-2025					Testing Started: 07-03-2025					Testing Ended: 10-03-2025														

—Test Results—

Sl. No.	Parameters	Test Method No.	Unit	Norms as per NAAQS - 2009	Results
1	Particulate Matter (PM ₁₀)	IS 5182 Part 23:2006	µg/m ³	100	67.6
2	Particulate Matter (PM _{2.5})	IS 5182 Part 24:2018	µg/m ³	60	26.2
3	Sulphur Dioxide (SO ₂)	IS 5182 Part 02	µg/m ³	80	18.0
4	Nitrogen Dioxide (NO ₂)	IS 5182 Part 06	µg/m ³	80	34.3
5	Ammonia (NH ₃)	IS 5182 Part 26	µg/m ³	400	29.9
6	Ozone (O ₃)	IS 5182 Part 09	µg/m ³	100	30.0
7	Arsenic (as As)	USEPA I.O. 3.2	ng/m ³	—	BDL (MDL-2)
8	Lead (as Pb)	IS 5182 Part 22	µg/m ³	1.0	0.04
9	Nickel (as Ni)	IS 5182 Part 28	ng/m ³	—	BDL (MDL-4)

—End of Report—

Env. Condition of Lab:	Laboratory in air-conditioning Temperature 22 to 24°C and Relative Humidity 45 to 55% RH all testing standards per IS 15619:2014/CL
Abbreviation:	BDL: Minimum Detectable Limit; BQL: Below Detection Limit
Limit is Specified:	As per the Environmental (Protection) Act - 1986
Remark:	Sample Comply with prescribed specification.

Tested By: Anant Kumar Saurabh

Sample Drawn By: Sudhakar Kumar & Team

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	 (Tajinder Ahnadi) Technical Manager	 (Dr. S. C. Jha) Director

Page 1 of 2

Corporate Office: A-6, Multi-Height, Opp. all India Radio Station, Raza Road, Anand, Jharkhand-834005

Laboratory Site: A-11, Saket Office, Near Saket Warehouse, Hazratganj, Patna-800005

Anand-834005, Jharkhand, India

Ph: 9427804255, 9427804256, Email: info@iemindia.com



Test Report

Discipline: Chemical	Group: Atmosphere Pollution	Sub-Group: Ambient Air
Report Issue Date: 10-03-2025	Test Report No.: HN-24110500/AM04	
Sample ID: 260307/AP03004	Sample Description: Ambient Air	
Challan No./P.O. No.: 4548043344/237	Challan No./ P.No. Date: 05-11-2024	
Issued to: Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No W/A-7(P), Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India		
Type of Industry: Cement	Customer Representative: Sushree Vemba	
Sample Drawn by: IEM Team	Sampling Date: 26-03-2025 to 07-03-2025	
Protocol: CPCB Guideline (NAAGM/36/2022-13) & IS Method 5182 Series		
Sampling Location: Near Wagon Tipler		
Field Meteorological Information		
A. Temp. (°C): 22	R.H. (%): 47	W.E.: Sunny
		W.D.: NW to SE
Sample Receiving date: 07-03-2025	Testing Started: 07-03-2025	Testing Ended: 10-03-2025

Test Results

Sl. No.	Parameters	Test Method No.	Unit	Norms as per NAAGS - 2009	Results
1.	Benzo (a) Pyrene (BaP) Particulate phase only	IS 5182 Part 12	ng/m ³	—	BDL (MDL-0.18)
2.	Carbon Monoxide (CO)	IS 5182 Part 11	mg/m ³	—	BDL (MDL-1.35)
3.	Benzene (C ₆ H ₆)	IS 5182 Part 11	µg/m ³	—	BDL (MDL-0.08)

End of Report

Env. Condition of Lab.	Laboratory or monitoring Temperature 25 ± 2°C and Relative Humidity 65 ± 5% (in air testing area as per IS 18019:2016)
Abbreviation	MDL: Minimum Detection Limit, BPL: Below Detection Limit
Norms** as Specified	National Ambient Air Quality Standards (NAAGS), 2009
Remark	Sample Consistently with prescribed specification.

Tested By: Avaraksha Sornath

Sample Drawn By: Siddham Kumar & Team

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	 (Tauseef Ahmad) Technical Manager	 (Dr. B. C. Jain) Director

Page 2 of 2

Corporate Office: A-15, Block 10/10th, Near AT India Rafi Station, Buz Ghat, Kanchi, Tamil Nadu - 605001

Laboratory Site (BPL): A-15, Block 10/10th, Near AT India Rafi Station, Buz Ghat, Kanchi, Tamil Nadu - 605001

Ph: 9447040470, 9447040471, Email: info@iemindia.com

Test Report

Lab No.	T	C	S	Z	A	J	T	D	O	S	G	S	I	B
Diagnosis: Chemical	Group: Atmospheric Pollution							Sub-Group: Stack Emission						
Report Issue Date: 10-03-2025	Test Report No.: RV-24182-09451													
Sample ID: ZSD07AF06X(1)	Sample Description: Stack Emission													
Client No./P.O. No.: +548043344237	Client No./ P.No. Date: 05-12-2024													
Issued to:														
Delania Cement (Bihar) Limited, Jharkhand Cement Works, Plot No N/A-7(P), Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India														
Type of Industry: Cement	Customer Representative: Sangeeta Verma													
Sample Drawn by: IEM Team	Sampling Date: 05-03-2025													
Protocol: CPCB Guideline (LATS/PO/2013-14) & IS Method 11255 Series														
Field Meteorological Information					A. Temp. (°C): 24		R.H. (%): 42		W.C. (mm)		W.D. / NW to SE			
Sample Receiving date: 07-03-2025					Testing Started: 07-03-2025					Testing Ended: 10-03-2025				

General Physical Information			
Stack Identification	Cement Mill Bag House Stack	Sampling Port	Available
Plant Form	Remanufact	Stack Height from Ground Level (m)	50
Stack Description	Cement Mill Bag House Stack	Port Hole Height from Ground Level (m)	20
Shape of Stack	Circular	Inner Diameter of Stack (m)	2.7
Construction Material	MS	Pollution Control Device (If any)	Bag House
Flue Gas Temperature (K): 373	Flue Gas Velocity (m/s): 11.0	Flue Gas Volumetric Flow Rate (Nm ³ /hr): 34195	

Test Result					
Sl. NO	Parameters	Test Methods	Unit	Result	Limit
1.	Particulate Matter (PM)	IS 1235 (Part-1)	mg/m ³	14.9	30.0
Date		By/By		T.3	

—End of Report—	
See Conditions of L23	Advisory: A preliminary inspection of the proposed material, L23, is at the time of writing was done by the following:
Approval	Mr. Anthony D'Amico, L23, and Mr. D'Amico, L23
Limit is Specified	As per the Environmental Protection Act, L23
Remarks	Search Costs with associated specification

Tested by Academic Success

Sample Drawn By: Battisutti, Laura & Team

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Test Report

UIE No.:	1	6	1	5	2	5	2	2	5	0	0	0	0	0	5	2	0
Discipline: Chemical	Gaseous Atmospheric Pollution								Sub-Group: Stack Emission								
Report Issue Date: 20-03-2025									Test Report No.: RM/24110505452								
Sample ID: JIC/307/AP04002									Sample Description: Stack Emission								
Challan No./P.O. No.: 4545H3344/237									Challan No./P.No. Date: 20-11-2024								
Issued to: Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No N/A-7(P), Bokaro Industrial Area Baidih Bokaro Steel City, Bokaro-827014 Jharkhand India																	
Type of Industry: Cement								Customer Representative: Sanjay Verma									
Sample Organ by: IEM Team								Sampling Date: 06-03-2025									
Protocol: CPCR Guideline (IAT/90/2023-24) & IS Method 11255 Series																	
Field Meteorological Information - A. Temp. [°C]: 24 R.H. [%]: 47 W.C.: Sunny W.D.: NW to SE																	
Sample Receiving date: 07-03-2025								Testing Started: 07-03-2025				Testing Ended: 10-03-2025					

General Physical Information

Stack Identification	Facing Plant Stack - 4	Sampling Port	Available
Plot Form	Permanent	Stack Height from Ground Level (m)	42
Stack Description	Single	Port Hole Height from Ground Level (m)	41
Shape of Stack	Circular	Inner Dimension of Stack (m)	0.50
Construction Material	MS	Pollution Control Device (if any)	Bag Filter

Flue Gas Temperature (K): 311	Flue Gas Velocity (m/s): 21.1	Flue Gas Volumetric Flow Rate (Nm ³ /hr): 17415.2
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Test Result

S. NO.	Parameters	Test Methods	Unit	Result	Limit
1	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm ³	21.7	30.0

Dust	kg/hr	0.4
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End of Report

For Completion of Lab	As per the requirement of the client and the test method specified in the report.
Addressation	ISO 9001:2015 Certified, ISO 14001:2015 Certified, ISO 45001:2018 Certified
Limit as Specified	As per the Government of India (Pollution Control) Act, 1986
Remarks	Sample comply with prescribed specification

Tested By: Anant Kumar

Sample Drawn By: Siddharth Kumar & Team

Specific Contract Note	Reviewed by	Authorized Signatory
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On the basis of Quality Check and Technical checks, the report is issued by the Director of the Organization.	Technical Manager	Director

Page 1 of 1

Corporate Office: - 8, Main Heights, Opp. All India Radio Station, Pusa Road, Ranchi, Jharkhand - 834002

Laboratory Site: - 15, Sakinaka Road, Near Solima Bazaar, Varanasi, Uttar Pradesh - 221002, India

Ph: 9829042423, 9807054242, Email: info@iemvsnl.com



Test Report

U/LR No.:	T	C	I	S	2	9	2	2	3	0	0	0	0	0	0	0	0	0	0					
Discipline: Chemical	Group: Atmospheric Pollution										Sub-Group: Stack Emission													
Report Issue Date: 10-03-2025										Test Report No.: RM-24110500453														
Sample ID: 250107AP06003										Sample Description: Stack Emission														
Challan No./P.O. No.: 4548543344/237										Challan No./P.No. Date: 05-11-2024														
Issued for: Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No IV/A-7(P), 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: 06-03-2025														
Protocol: CPCB Guideline (LATS/80/2013-14) & IS Method 11255 Series																								
Field Meteorological Information										A. Temp. (°C): 24					R.H. (%): 47					W.C.: Sunny				
Sample Receiving date: 07-03-2025										Testing Started: 07-03-2025					Testing Ended: 10-03-2025									

Stack Identification	Packing Plant Stack - 3	Sampling Port	Available
Plat Form	Permanent	Stack Height from Ground Level (m)	45
Stack Description	Single	Port Hole Height from Ground Level (m)	41
Shape of Stack	Circular	Inner Dimension of Stack (m)	0.55
Construction Material	MS	Pollution Control Device (If any)	Bag Filter

Flue Gas Temperature (K): 326	Flue Gas Velocity (m/s): 13.7	Flue Gas Volumetric Flow Rate (Nm ³ /hr): 14938.9
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Test Result

Sl. No.	Parameters	Test Methods	Unit	Result	Limits
1.	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm ³	28.8	30.0
Dust		Kg/hr		0.4	

End of Report

Env. Condition of Lab.	Laboratory is maintaining Temperature 25°C and Relative Humidity 45% to 55% during test.
Abbreviation	MS: Minimum Detection Limit; BCL: Blank Detection Limit
Limit is Specified	As per (by Environmental Protection) Rule - 1986
Remark	Sample Comply with prescribed specification.

Tested By: Anuragha Sourabh

Sample Drawn By: Sudhanti Kumar & Team

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	 (Tajinder Ahmad) Technical Manager	 J. C. Jain Director

Page 1 of 1

Corporate Office: A-8, Main Heights, Opp. All India Radio Station, Bata Road, Kharola, Jalandhar-141001 (INDIA)

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Andhra Pradesh: 43-4301, Jyoti Nagar, India

Ph: 04117904252, 9402780425, Email: info@iemindia.org



Test Report

ULR No.:	T	C	1	S	2	S	2	2	S	0	0	0	0	0	5	2	1		
Discipline: Chemical	Group: Atmospheric Pollution						Sub-Group: Stack Emission												
Report Issue Date: 10-03-2025	Test Report No.: RN-2410500454																		
Sample ID: Z50307AP06004	Sample Description: Stack Emission																		
Challan No./P.O. No.: 4568043344/237	Challan No./P.No. Date: 05-11-2024																		
Issued to: Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No IV/A-7(P), 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: 06-03-2025									
Protocol: CPCB Guideline (LATS/80/2023-14) & IS Method: 11255 Series																			
Field Meteorological Information										A. Temp. (°C): 24		R.H. (%): 47		W.C.: Sunny		W.D.: NW to SE			
Sample Receiving date: 07-03-2025										Testing Started: 07-03-2025				Testing Ended: 10-03-2025					

General Physical Information			
Stack Identification	Packing Plant Stack - 2	Sampling Port	Available
Plat Form	Permanently	Stack Height from Ground Level (m)	45
Stack Description	Single	Port Hole Height from Ground Level (m)	43
Shape of Stack	Circular	Inner Diameter of Stack (m)	0.53
Construction Material	MS	Pollution Control Device (if any)	Bag Filter

Flue Gas Temperature (X): 333	Flue Gas Velocity (m/s): 22.3	Flue Gas Volumetric Flow Rate (Nm ³ /hr): 16546.2
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Test Result

Sl. NO.	Parameters	Test Methods	Unit	Result	Limit
1.	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm ³	23.1	30.0

Dust		Kg/hr	0.4
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—End of Report—

Env. Condition of Lab.	Laboratory is maintaining Temperature 25 ± 2°C and Relative Humidity 45% to 55% in all sampling area as per IS: 1455 (2012).
Abbreviation	MSL: Minimum Detection Limit, MDL: Range Detection Limit
Limit is Specified	As per the Environmental (Protection) Rule - 1986
Remark	Sample Comply with prescribed specification.

Tested By: Akanksha Saurabh

Sample Drawn By: Siddharth Kumar & Team

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Page 1 of 1

Corporate Office: A-8, Main Highway, Opp. All India Radio Station, Paty-Awad, Raigarh, Jharkhand - 834001

Laboratory Site: A-12, Sakas Vihar, Royal Sahara Bhawan, Namal Housing Colony,

Bachni-834002, Jharkhand, India

Ph: 8407804253, 8407804261, Email: iem@iemindia.com



Test Report

U/LR No.:	T	E	1	5	2	9	2	2	5	0	0	0	0	0	5	2	2
Discipline: Chemical						Group: Atmospheric Pollution						Sub-Group: Stack Emission					
Report Issue Date: 10-03-2025									Test Report No.: R/I-24110500455								
Sample ID: 250307AP06005									Sample Description: Stack Emission								
Challan No./P.O. No.: A548043344/237									Challan No./P.No. Date: 05-11-2024								
Issued to:																	
Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works)																	
Plot No IV/A-7(P), Bokaro Industrial Area Salidih																	
Bokaro Steel City, Bokaro-827014 Jharkhand India																	
Type of Industry: Cement									Customer Representative: Sanjeev Virmia								
Sample Drawn by: IEM Team									Sampling Date: 06-03-2025								
Protocol: CPCB Guideline (ATS/80/2013-14) & IS Method 11255 Series																	
Field Meteorological Information						A. Temp. (°C): 24			B.H. (%): 47			W.C.: Sunny			W.D.: NW to SE		
Sample Receiving date: 07-03-2025						Testing Started: 07-03-2025						Testing Ended: 10-03-2025					

General Physical Information			
Stack Identification	Packing Plant Stack - 1	Sampling Port	Available
Plat Form	Permanent	Stack Height from Ground Level (m)	43
Stack Description	Single	Port Hole Height from Ground Level (m)	41
Shape of Stack	Circular	Inner Dimension of Stack (m)	0.55
Construction Material	MS	Pollution Control Device (if any)	Bag Filter

Flue Gas Temperature (K): 329	Flue Gas Velocity (m/s): 10.9	Flue Gas Volumetric Flow Rate (Nm ³ /hr): 14968.2
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Test Result					
Sl. NO.	Parameters	Test Methods	Unit	Result	Limit
1.	Particulates Matter (PM)	IS 11255 (Part-1)	mg/Nm ³	22.4	30.0
Dust			g/hr	0.3	

End of Report	
Env. Condition of Lab.	Lab. is working Temperature 27°C and Relative Humidity 60% working pressure 0.1 MPa
Addressation	M21, Microton Extension, JICA, B.O., Sector Extension, JICA
Limit is Specified	As per the Environmental (Protection) Rule - 1986
Remark	Sample Sample with pre-specified specification

Tested By: Akanksha Sourabh

Sample Drawn By: Siddharth Kumar & Team

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Page 1 of 1

Corporate Office: A-2, Indus Heights, DDA, All India Institute of Medical Sciences, New Delhi, Karol, Jharkhand - 834001

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Phone: 8467804253, 8467804253, Email: info@iemindia.com



Institute for Environmental Management



Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Work Environment & Indoor Air
Report Issue Date: 10-03-2025	Test Report No.: IEM/24/1050047/01	
Sample ID: 250307AF00001	Sample Description: Fugitive Emission	
Challan No./P.O. No.: 4548043344/237	Challan No./P.No./Date: 05-11-2024	
Issued to: Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No IV/A-7(P), 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: 06-03-2025	
Protocol: CPCB Guideline (MAADMS/96/2012-13) & IS Method 5182 Series		
Sampling Location: Truck Parking Area		
Field Meteorological Information	A. Temp. (°C): 24	B. H. (%): 47
	W.C.: Sunny	W.D.: NW to SE
Sample Receiving date: 07-03-2025	Testing Started: 07-03-2025	Testing Ended: 10-03-2025

Test Results

Sl. No.	Parameters	Test Method No.	Unit	Limit	Results
1	Suspended Particulate Matter (SPM)	IS 5182 Part - 04	µg/m ³	2000	712.2

End of Report

Env. Condition of Lab:	Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5 % in all testing done as per IS 196/1964 (C).
Accreditation:	ISO/ Minimum Standard Limit: 90% Below Target 90% Limit
Limit is Specified:	As Per G.S.R. 414 (F), dated 01 st Mar 2008
Remarks:	Sample comply with the prescribed specification.

Tested By: Anuksha Saurabh

Sample Drawn By: Siddharth Kumar & Team

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	<i>T. Almadhi</i>	<i>[Signature]</i>
	(Touqeer Almadhi)	(Dr. S/C. Jaisu)
	Technical Manager	Director

Page 1 of 1

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Laboratory Mail - H.No. - 6-110, Ashok Vihar, Near Ashok Bhawan, Gurgaon Haryana - 122001

Branch - 40-4000, Gandhinagar, India

Ph - 9422882203, 9427647111, Email - info@iemindia.com



Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Work Environment & Indoor Air
Report Issue Date: 10-03-2025	Test Report No.: IEM-2451050045102	
Sample ID: 250307XP06002	Sample Description: Fugitive Emission	
Challen No./P.O. No.: 4548043344/277	Challen No./P.No. Date: 05-11-2024	
Issued to: Dalinia Cement (Bharat) Limited: (Jharkhand Cement Works) Plot No W/A-7(P), Bokaro Industrial Area Saligrih Bokaro Steel City, Bokaro-827014 Jharkhand India		
Type of Industry: Cement	Customer Representative: Sanjeev Verma	
Sample Drawn by: IEM Team	Sampling Date: 05-03-2025	
Protocol: CPCB Guideline (NAAQM/36/2012-13) & IS Method 5182 Series		
Sampling Location: Near Clinker Silo (Raw material yard)		
Field Meteorological Information		
A. Temp. (°C): 24	B.H. (N): 47	W.C.: Sunny
W.D.: NW to SE		
Sample Receiving date: 07-03-2025	Testing Started: 07-03-2025	Testing Ended: 10-03-2025

Test Results

Sl. No.	Parameters	Test Method No.	Unit	Limit	Results
1	Suspended Particulate Matter (SPM)	IS 5182 Part - 04	µg/m ³	2000	1088.6

End of Report

Env. Condition of Lab:	Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5 % at all testing area as per IS 1946: (2005)
Abbreviation:	MDL - Minimum Detection Limit, BDL - Below Detection Limit
Limit as Specified:	As Per IS: 5182-04 (IS: 5182-04: May 2008)
Remarks:	Sample comply with the prescribed specification.

Tested By: Anantika Soudam

Sample Drawn By: Siddharth Kumar & Team

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	(T. Anand) Technical Manager	(Dr. R. C. Jais) Director

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Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Work Environment & Indoor Air
Report Issue Date: 10-08-2025	Test Report No.: R/ 2411/2024/ECB	
Sample ID: 250301AP00003	Sample Description: Fugitive Emission	
Challan No./P.O. No.: 4548043344/237	Challan No./P.No. Date: 05-11-2024	
Issued to: Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No IV/A-7(F), Bokaro Industrial Area Baildih Bokaro Steel City, Bokaro-827014 Jharkhand India		
Type of Industry: Cement	Customer Representative: Sonjeev Verma	
Sample Drawn by: IEM Team	Sampling Date(s): 03-2025	
Protocol: CPEC Guideline/NAACMS/36/2012-131 & IS Method 5182 Series		
Sampling Location: Near Mill Area		
Field Meteorological Information		
A. Temp. (°C): 24	R.H. (%): 47	W.C.: Sunny
		W.D.: NW to SE
Sample Receiving date: 07-03-2025	Testing Started: 07-03-2025	Testing Ended: 10-08-2025

Test Results

Sl. No.	Parameters	Test Method No.	Unit	Limit	Results
1	Suspended Particulate Matter (SPM)	IS 5182 Part - 04	µgm ³	2000	1207.1

End of Report

Env. Condition of Lab	Laboratory is maintaining Temperature 27±2°C and Relative Humidity 65±5 % RH at existing area as per IS 1586:19A6(C)
Appreciation	ISO: Minimum Compliance Limit: 80% Above Detection Limit
Limit is Specified	As per ISIRI 414 (IS) Issued 20 th May 2006
Remark	Sample comply with the prescribed specification.

Tested By: Anandika Soudh

Sample Drawn By: Sudhanti Kumar & Team

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	(Tausseer Ahmad)	(Dr. B. C. Jain)
	Technical Manager	Director

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Corporate office: A-2, 45/46, Vardhola, Opp. All India Radio Station, New Road, Park St, Bhopal-462001

Laboratory office: H.No. 41/1, Sector 5, Indira Nagar, Bhopal-462016, Madhya Pradesh, India

Branch: 454102, Bhopal-462016

Ph: 9407009093, 9407009293, Email: info@iemindia.com



Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Work Environment & Indoor Air
Report Issue Date: 10-03-2025	Test Report No.: IN-241105004104	
Sample ID: 250007AP06004	Sample Description: Fugitive Emission	
Challan No./P.O. No.: 4548043344/237	Challan No./P.No. Date: 05-11-2024	
Issued to: Dalmia Cement (Bharat) Limited (Jharkhand Cement Works) Plot No WIA-7(P), 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: 06-03-2025	
Protocol: CPCB Guidelines (NAAQM/5/96/2012-13) & IS Method 5182 Series		
Sampling Location: Near Packing Plant		
Field Meteorological Information:	A. Temp. (°C): 24	R.H. (%): 47
	W.C.: Sunny	W.D.: NW to SE
Sample Receiving date: 07-03-2025	Testing Started: 07-03-2025	Testing Ended: 10-03-2025

Test Results

Sl. No.	Parameters	Test Method No.	Unit	Limit	Results
1.	Suspended Particulate Matter (SPM)	IS 5182 Part - 04	µg/m ³	2000	1053.0

End of Report

Env. Generation of Lab:	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65± 5 % in all testing area as per IS 15911 (C).
Abbreviation:	W.C.: Minimum Detection Limit, B.C.: Below Detection Limit
Limit is Specified:	As Per ISIR 414/II, dated 18 th May 2006.
Remark:	Sample comply with the prescribed specification.

Tested By: Anuksha Sengupta

Sample Drawn By: Siddharth Kumar & Team

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	(Tajinder Ahnishi) Technical Manager	(Dr. S. C. Jain) Director

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Corporate Office: A-1, ANS Building, Opp. All India Radio Station, Patna Road, Ranchi, Jharkhand - 834007

Laboratory Site: H.No.: 8, P.A. Sankar Choudhary Street, Office of Bhawan Prakash, Housing Colony,
Ranchi-834007, Jharkhand, India

Ph: 9407804225, 9407804255, Email: info@iemindia.org



Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub Group: Work Environment & Indoor Air
Report Issue Date: 27-12-2024	Test Report No.: IEM-241109004-1001	
Sample ID: 241224A000000	Sample Description: Fugitive Emissions	
Client No./P.O. No.: 4548/043344/227	Client No./P.No. Date: 05-12-2024	
Issued to: Dalmia Cement (Bihar) Limited, (Jharkhand Cement Works) Plot No P6A-75P1, Bokaro Industrial Area Ballish Bokaro Steel City, Bokaro-827014 Jharkhand India		
Type of Industry: Cement	Customer Representative: Sangeeta Verma	
Sample Drawn by: IEM Team	Sampling Date: 23-12-2024	
Protocol: CPCB Guideline (NMV/36/2012, 33) & IS Method 5182 Series		
Sampling Location: Truck Parking Area		
Field Meteorological Information:	A. Temp. 17°C	B. H. Humid 64
	W. S. : Sunny	Cloudy
Sample Receiving date: 24-12-2024	Testing Started: 24-12-2024	Testing Ended: 27-12-2024

--- End Results ---

Sl. No.	Parameters	Test Method No.	Unit	Limit	Results
1	Suspended Particulate Matter (SPM)	IS 5182 Part - 04	µg/m ³	2000	1295.3

--- End of Report ---

Env. Condition of Lab:	Laboratory is maintaining Temperature 23±2°C and Relative Humidity 65±5% as per testing standard as per IS 15544:2013
Attestation:	Attestation is given by the IEM Team, Jharkhand Cement Works, Bokaro Steel City
Limit is Specified:	As per CPCB, IS 5182, Part 04, 2013
Remarks:	Sample comply with the permissible limit.

Tested By: Anamika Saurabh

Sample Drawn By: Siddhant Kumar & Team

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6. The report is valid only for the purpose of the test.		
7. The report is valid only for the purpose of the test.	T. Prasad	T. Prasad
8. The report is valid only for the purpose of the test.		
9. The report is valid only for the purpose of the test.	T. Prasad	T. Prasad
10. The report is valid only for the purpose of the test.		

Page 4 of 5

Corporate Office: A-10, Block D, Sector 10, Gurgaon, Haryana, India. Phone: 012-611-1111

Bokaro Office: A-10, Block D, Sector 10, Bokaro Steel City, Jharkhand, India. Phone: 033-2611-1111

Bokaro Office: A-10, Block D, Sector 10, Bokaro Steel City, Jharkhand, India

E-mail: info@iemindia.com, sales@iemindia.com, enquiry@iemindia.com



Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Work Environment & Indoor Air
Report Issue Date: 27-12-2024	Test Report No.: RM-241102004/102	
Sample ID: 24/2244/01002	Sample Description: Fugitive Emission	
Challan No./P.O. No.: 4546040344/237	Challan No./P.No. Date: 05-11-2024	
Issued to:		
Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No IV/A-7(P), Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India		
Type of Industry: Cement	Customer Representative: Sanjaya Verma	
Sample Drawn by: IEM Team	Sampling Date: 23-12-2024	
Protocol: CPCB Guideline (NAAQM/36/2012-13) & IS Method 5182 Series		
Sampling Location: Near Clinker Silo (Raw material yard)		
Field Meteorological Information		
A. Temp.: 28	B.H. 64	W.C.: Semi-Cloudy
W.D.: SW to NE		
Sample Receiving date: 24-12-2024	Testing Started: 24-12-2024	Testing Ended: 27-12-2024

Test Results

Sl. No.	Parameters	Test Method No.	Unit	Limit	Result
1	Suspended Particulate Matter (SPM)	IS-5182 Part - 04	$\mu\text{g}/\text{m}^3$	2000	981.2

End of Report

Env. Condition of Lab:	Laboratory (4) maintaining Temperature $27 \pm 2^\circ\text{C}$ and Relative Humidity 45-55 % is all working area as per IS 15517:2014 (C).				
Observation:	Nil. Minimum Detection Limit: 500. Below Detection Limit.				
Limit is Specified:	As per C.S.R. 924/21 Dated 30 th May 2020.				
Remark:	Sample comply with the prescribed regulations.				

Tested By: Anandhika Sourabh

Sample Drawn By: Siddhanti Kumar & Team

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	(T. Anandhika)	(Dr. S. G. Janti)
	Technical Manager	Director

Page 1 of 1

Corporate office: B-8, Block Himgiri, Opp. old Janta Radio Market, Kirti Road, Sector-4, Ranchi - 834001

Regional office: B-8A, A-1, Sector 17/18, Near Sectoral Hospital, Planning, Housing Colony,

Kanpur-208002, Uttar Pradesh, India

CE: 8401678700, 8401678721; Email: info@iemindia.com



Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Work Environment & Indoor Air
Report Issue Date: 27-12-2024	Test Report No.: IEM/24130509/RI03	
Sample ID: 241224AP03003	Sample Description: Fugitive Emission	
Challan No./P.O. No.: 4546043344/237	Challan No./P.No. Date: 05-11-2024	
Issued to: Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No (V/A-7(P), Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India		
Type of Industry: Cement	Customer Representative: Sanjeev Mishra	
Sample Drawn by: IEM Team	Sampling Date: 23-12-2024	
Protocol: CPCB Guideline (NAAQM/36/2012-13) & IS Method 5162 Series		
Sampling Location: Near Mill Area		
Field Meteorological Information		
A. Temp. (°C): 20	R.H. %: 64	W.C.: Semi-Cloudy
W.D.: SW to NE		
Sample Receiving date: 24-12-2024	Testing Started: 24-12-2024	Testing Ended: 27-12-2024

Test Results

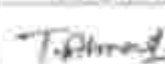
Sl. No.	Parameters	Test Method No.	Unit	Limit	Results
1	Suspended Particulate Matter (SPM)	IS-5162 Part - 04	µg/m ³	2000	1122.7

End of Report

Env. Condition of Lab.	Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5 % in all testing area as per IS:1591:2006 (CL)
Abbreviation	MDL: Minimum Detection Limit, BDL: Blank Detection Limit
Limit is Specified	As Per G.S.R. 414 (E), dated 19th May 2008
Remark	Sample comply with the prescribed specification.

Tested By: Akanksha Soodrath

Sample Drawn By: Siddharth Kumar & Team

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Page 1 of 1

Corporate office: A-16, Moha Bhagwati, Opp. G.A. India Radio Station, Kirti Road, Ranchi, Jharkhand - 834001

Lab/Office No: 11/A-11, A-13, Sahel Vihar, Near Rajpur, Ranchi, Jharkhand, Ranchi-834001, Odisha

Ranchi-834001, Jharkhand, India

Ph: 9427084275, 8442044231, Email: info@iem.in



Institute for Environmental Management



Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Work Environment & Indoor Air
Report Issue Date: 27-12-2024	Test Report No.: RI/381305004F504	
Sample ID: 241224AP03004	Sample Description: Fugitive Emission	
Challan No./P.O. No.: 4548943344/237	Challan No./P.No. Date: 05-11-2024	
Issued to: Dalmia Cement (Bihar) Limited, Jharkhand Cement Works Plot No. BIA-7(P), Bokaro Industrial Area Balaksh Bokaro Steel City, Bokaro-827014 Jharkhand India		
Type of Industry: Cement	Customer Representative: Sanjeev Verma	
Sample Drawn by: IEM Team	Sampling Date: 23-12-2024	
Protocol: CPCB Guideline/BAAQMS/16/2012-13 & IS Method 5182 Series		
Sampling Location: Near Packing Plant		
Field Meteorological Information	A. Temp.: 23.26	R.H.: 64.64
	W.C.: Some Cloudy	W.D.: SW to NE
Sample Receiving date: 24-12-2024	Testing Started: 24-12-2024	Testing Ended: 27-12-2024

Test Results

Sl. No.	Parameters	Test Method No.	Unit	Limit	Results
1.	Suspended Particulate Matter (SPM)	IS: 6182 Part - 04	µg/m ³	2500	566.6

End of Report

Env. Condition of Lab.	Laboratory is maintaining Temperature 27°C ± 2°C and Relative Humidity 65±5 % in all testing area as per IS 158-1986 (C).
Abbreviation:	NA: Minimum Detection Limit, ND: Below Detection Limit
Limit is Specified	As per IS: 414 (E) dated 01 May 2006.
Remark	Sample comply with the prescribed specification.

Tested By: Akanksha Sengupta

Sample Drawn By: Siddhant Kumar & Team

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	<i>T. Ahmad</i>	<i>[Signature]</i>
	(Taqeer Ahmad)	(Dr) S. C. Jain
	Technical Manager	Director

Page 1 of 1

Corporate Office: A-5, Model Heights, Opp. Jai India Radio Station, Kirti Road, Faridkot, Jalandhar - 141007

Laboratory Reg: ILRI - 8/13, Sakshi Plaza, Near Sathya Bhawan, Harimay Khanda, Ludhiana

Reg No: 454274, Jalandhar, India

Ph: 9473674233, 9872626211, Email: info@iemindia.com



Institute for Environmental Management



Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Work Environment & Indoor Air
Report Issue Date: 27-12-2024	Test Report No.: RM-241205004/E05	
Sample ID: 241224AP00005	Sample Description: Fugitive Emission	
Challan No./P.O. No.: 4549043344/207	Challan No./ P.No. Date: 05-11-2024	
Issued to: Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No IV(A-7)(P), 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: 23-12-2024	
Protocol: CPCB Guideline (NAAQM/36/2012-13) & IS Method 5182 Series		
Sampling Location: Packing Floor Area		
Field Meteorological Information		
A. Temp: 10°C	R.H: 65%	W.C: Semi-Cloudy
W.D.: SW to NE		
Sample Receiving date: 24-12-2024	Testing Started: 24-12-2024	Testing Ended: 27-12-2024

Test Results

Sl. No.	Parameters	Test Method No.	Unit	Limit	Results
1	Suspended Particulate Matter (SPM)	IS 5182 Part - 04	mg/m ³	10	8.9

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 194-1994(C).
Abbreviation	MDL: Minimum Detection Limit; BD: Blank Detection Limit
Limit is Specified	As Per Factories Act, 1946 (4 km. Radius)
Remark	Sample Comply With the Prescribed Specification.

Tested By: Ankusha Sourabh

Sample Drawn By: Sudhanshu Kumar & Team

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	 (Taqeer Ahmad) Technical Manager	 Dr. J. C. Jais Director

Page 1 of 1

Corporate office - 4-B, Mark Dey Road, Opp. of Tinku Tinku Station, Bata Road, Gucha, Jharkhand - 834007

Secretary Office - JIPSO - A-13, Bapat Vihar, Near Central Park, Barwa Ghosia, Kolkata

Phone-884022, Ranchi, India

Ph-8407794211, 8407854211, Email - info@iemindia.com



Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Work Environment & Indoor Air
Report Issue Date: 27-12-2024	Test Report No.: IM-241205004F05	
Sample ID: 241224AP02005	Sample Description: Fugitive Emission	
Challan No./P.O. No.: 4946043344/237	Challan No./P.No. Date: 05-11-2024	
Issued to: Daimia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No (N/A-7(P), Bokaro Industrial Area Bolidih Bokaro Steel City, Bokaro-827014, Jharkhand India		
Type of Industry: Cement	Customer Representative: Sandeep Verma	
Sample Drawn by: IEM Team	Sampling Date: 23-12-2024	
Protocol: CPCB Guideline (NAADMS/36/2012-13) & IS Method 5382 Series		
Sampling Location: Mill Area		
Field Meteorological Information		
A. Temp. (°C): 26	R.H. (%): 54	W.C.: Semi-Cloudy
W.D.: SW to NE		
Sample Receiving date: 24-12-2024	Testing Started: 24-12-2024	Testing Ended: 27-12-2024

Test Results

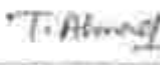
Sl. No.	Parameters	Test Method No.	Unit	Limit	Results
1	Suspended Particulate Matter (SPM)	IS 5162 Part - 04	mg/m ³	10	8.4

End of Report

Env. Condition at Lab:	Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 65 ± 5 % (a-4)
Abbreviation:	ND: Minimum Detectable Limit; BD: Below Detectable Limit
Limit is Specified:	As Per Factories Act, 1946 (If hrs. Run)
Remark:	Sample Sample With the Prescribed Classification.

Tested By: Akansha Soodati

Sample Drawn By: Siddharth Kumar & Tejas

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	 (Tausseer Ahmed) Technical Manager	 (B. C. Jain) Director

Page 2 of 2

Corporate Office: A-8, Akash Bhagyan, Opp. All India Radio Station, Bang Road, Ranchi, Jharkhand - 834001

Laboratory Unit: H-50a, A-13, Sukh Vihar, Near Judicial Bungalow, Patna, Bihar - 800001

Phone: 9431804213, 9431924731, Email: info@iemindia.com

Web: www.IEMindia.com



Institute for Environmental Management



Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Work Environment & Indoor Air
Report Issue Date: 27-12-2024	Test Report No.: I/IE-241105004F1U1	
Sample ID: 241234AP0300T	Sample Description: Fugitive Emission	
Challan No./P.O. No.: 4548043344/237	Challan No./ P.No. Date: 05-11-2024	
Issued to: Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No IV/A-7(P), 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: 23-12-2024	
Protocol: CPCB Guideline (NAAQS/36/2012-13) & IS Method 5182 Series		
Sampling Location: Wagon Loading Area		
Field Meteorological Information	A. Temp. (°C): 21	R.H. (%): 64
	W.C.: Semi-Cloudy	W.D.: SW to NE
Sample Receiving date: 24-12-2024	Testing Started: 24-12-2024	Testing Ended: 27-12-2024

Test Results

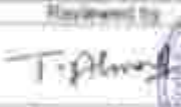
Sl. No.	Parameters	Test Method No.	Unit	Limit	Results
1	Suspended Particulate Matter (SPM)	IS-5182 Part-54	mg/m ³	U	5.4

End of Report

Env. Conditions of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65± 5% in all testing areas as per IS 159-1996 (C)
Accreditation	ISO: Minimum Detection Limit: 80% Range Detection Limit
Limit is Specified	As Per Factories Act, 1946 (Other State)
Remark	Sample Complies With the Prescribed Specification

Tested By: Anushka Soudan

Sample Drawn By: Siddhant Kumar & Team

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Page 1 of 1

Corporate office: A-6, Main Market, Opp. of India Railway Station, Fate Road, Ranchi, Jharkhand - 834001

Administrative office: A-15, Jharkhand State, New Scheme, Ranchi, Jharkhand - 834001

Contact: 0659322, 0659310, 0659311

Tel: 9426824259, 9427500259, Email: info@iemindia.com



Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Work Environment & Indoor Air
Report Issue Date: 27-12-2024	Test Report No.: IEM-241105004F238	
Sample ID: 241224/PP0008	Sample Description: Fugitive Emission	
Challan No./P.O. No.: 4548543344/237	Challan No./P.No. Date: 05-11-2024	
Issued to: Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No N/A-7(P), Bokaro Industrial Area Saluikh Bokaro Steel City, Bokaro-827014 Jharkhand India		
Type of Industry: Cement	Customer Representative: Sanjiv Kumar	
Sample Drawn by: IEM Team	Sampling Date: 24-12-2024	
Protocol: CPER Guideline (NADQM5/16/2012-13) & IS Method 5182 Series		
Sampling Location: Truck Loading Area		
Field Meteorological Information		
A. Temp. (°C): 38	B.H. (No): 4	W.C.: Semi Cloudy
W.D.: SW to NE		
Sample Receiving date: 24-12-2024	Testing Started: 24-12-2024	Testing Ended: 27-12-2024

Test Results

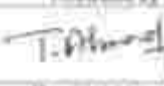
Sl. No.	Parameters	Test Method No.	Unit	Limit	Results
1	Suspended Particulate Matter (SPM)	IS 5182 Part - 04	mg/m ³	10	6.8

End of Report

Env. Condition of Lab	Laboratory is maintaining Temperature 27±2°C and Relative Humidity 55±5 % in all testing area as per IS 15919 (C).
Atmosphere	MO: Minimum Detection Limit: 0.01; Below Detection Limit
Limit is Specified	As Per Factories Act, 1946 (Part II) (a)
Remark	Sample Comply With the Prescribed Regulatory Limit

Tested By: Akanksha Gauraha

Sample Drawn By: Subhanshu Kumar & Team

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--	---	---

Page 1 of 1

Corporate office : A-9, 1st & 2nd Floors, Opp. old India Trade Mart, Kankar Road, Ranchi, Jharkhand - 834002

Laboratory No.: IEM/A-1, 1st & 2nd Floors, Opp. old India Trade Mart, Kankar Road, Ranchi, Jharkhand - 834002

Ph : 9435647514, 9435647511, 9435647512 | info@iemindia.com



Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Work Environment & Indoor Air
Report Issue Date: 10-03-2025	Test Report No.: IEM-241105004F101	
Sample ID: 250307AF00001	Sample Description: Fugitive Emission	
Challan No./P.O. No.: 4548043344/231	Challan No./P.No. Date: 05-11-2024	
Issued to: Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No (N/A-7(P), Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827014 Jharkhand India		
Type of Industry: Cement	Customer Representative: Sangeeta Verma	
Sample Drawn by: IEM Team	Sampling Date: 06-03-2025	
Protocol: CPCB Guideline (NAAQMS/36/2012-13) & IS Method 5182 Series		
Sampling Location: Truck Parking Area		
Field Meteorological Information:	A. Temp. (°C): 24	R.H. (%): 47
	W.C.: Sunny	W.D.: NW to SE
Sample Receiving date: 07-03-2025	Testing Start/End: 07-03-2025	Testing Ended: 10-03-2025

Test Results

Sl. No.	Parameters	Test Method No.	Unit	Limit	Results
1.	Suspended Particulate Matter (SPM)	IS 5182 Part - 04	µg/m ³	2000	712.2

End of Report

Env. Condition at Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % as all testing done as per IS 11904/13.
Abbreviation:	W.D.: Minimum Detection Limit (MDL), Below Detection Limit
Limit as Specified:	As per GSK 914 (E), issued Jan May 2008
Remark:	Sample comply with the prescribed regulation.

Tested By: Anarksha Soudhi

Sample Drawn By: Siddhant Kumar & Team

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---	---	--

Page 3 of 3

Corporate office : A-8, Main Highway, Opp:- HUDA Bunker Station, East Ghosh Bazar, Jharkhand - 834001

Laboratory: 302 - 115th, A-15, Sector V/2nd, New Scheme, Bokaro Steel City, Jharkhand - 834001

Phone: 9427047038, 9427047039, 9427047040, Email: info@iemindia.com



Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Work Environment & Indoor Air
Report Issue Date: 10-03-2025	Test Report No.: RM-241105004F02	
Sample ID: 250307AP05002	Sample Description: Fugitive Emission	
Challan No./P.O. No.: 4548043344/237	Challan No./ P.No. Date: 05-11-2024	
Issued to: Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No IV/A-7(P), Bokaro Industrial Area Baidigh Bokaro Steel City, Bokaro-827014 Jharkhand India		
Type of Industry: Cement	Customer Representative: Sanjay Verma	
Sample Drawn by: IEM Team	Sampling Date: 06-03-2025	
Protocol: CPCB Guideline (NAAQMS/36/(2012-13) & IS Method 5182 Series		
Sampling Location: Near Clinker Silo (Raw material yard)		
Field Meteorological Information	A. Temp. (°C): 24	R.H. (%): 47
	W.C.: Sunny	W.D./NW to SE
Sample Receiving date: 07-03-2025	Testing Started: 07-03-2025	Testing Ended: 10-03-2025

—Test Results—

Sl. No.	Parameters	Test Method No.	Unit	Limit	Results
1	Suspended Particulate Matter (SPM)	IS 5182 Part - 04	µg/m ³	2000	1065.8

—End of Report—

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±5 % rh (40) testing area as per IS 15414:1995 (C1)
Abbreviation	W.C.: Minimum Detection Limit: 80% Below Detection Limit
Limit is Specified	As Per IS: 5182 (IS: 5182) Dated 20 th May 2018
Remark	Sample comply with the prescribed specification.

Tested By: Akanksha Sourabh

Sample Drawn By: Siddharth Kumar & 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.	(Tajinder Ahmad)	(Dr. S. C. Jain)
	Technical Manager	Director

Page 1 of 1

Corporate Office - A-1, Main Wing, 1st Floor, 4th India Road, Sector-10, Gurgaon, Haryana (India) - 122001

Laboratory - 10/1, P.O. - A-13, Sector-10/1A, Near Sector-10, Gurgaon, Haryana (India)

Gurgaon - 122001, India

Ph - 8420462124, 8420462125, Email - info@iemindia.com



Institute for Environmental Management



Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Work Environment & Indoor Air
Report Issue Date: 10-03-2025	Test Report No.: IN-2412050049111	
Sample ID: 200307AP00003	Sample Description: Fugitive Emission	
Challan No./P.O. No.: 4548043344/237	Challan No./P.No. Date: 05-11-2024	
Issued to:		
Dalmia Cement (Bharat) Limited, Jharkhand Cement Works Plot No IV/A-7(P), Bokaro Industrial Area Baidih Bokaro Steel City, Bokaro-827014 Jharkhand India		
Type of Industry: Cement	Customer Representative: Sanjeev Verma	
Sample Drawn by: IEM Team	Sampling Date: 06-03-2025	
Protocol: CPCB Guideline (NAAQM/35/2012-13) & IS Method 5182 Series		
Sampling Location: Near Mill Area		
Field Meteorological Information		
A. Temp. (°C): 24 R.H. (%): 47 W.C.: Sunny W.D.: 900 pm SE		
Sample Receiving date: 07-03-2025	Testing Started: 07-03-2025	Testing Ended: 10-03-2025

Test Results

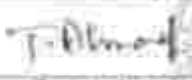
Sl. No.	Parameters	Test Method No.	Unit	Limit	Results
1.	Suspended Particulate Matter (SPM)	IS 5182 Part - 04	µg/m ³	2000	1207.1

End of Report

Free Condition of Lab	Laboratory is maintaining Temperature 27±2°C and Relative Humidity 60±5 % (in all) testing area as per IS 15619:2015
Abbreviation	NDL: Minimum Detection Limit; ND: Below Detection Limit
Limit as Specified	As Per IS: 414 (X) (last 10 th May 2008)
Remark	Sample comply with the prescribed application.

Tested By: Anushka Soudh

Sample Drawn By: Siddhant Kumar & Team

Specific Comments/Notes 1. The laboratory accepts responsibility for content of this report. 2. This report shall not be retransmitted or used in any other way without written approval of the IEM. 3. This report is intended for only guidance and reference purpose only for client/owner. 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 financial services only. 6. In case of feedback/ complaint, please send an email to info@iemindia.com . (In the event of Quality Complaint and Technical issue verified by the Authorized signatory, the report is issued by the Director of the Organization)	Reviewed by	Authorized Signatory
	 (Tajper Ahmed) Technical Manager	 (Dr. S. C. Jain) Director

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Laboratory: 106 - 17/1st - A-13, Saket Urban Area, Saket, Bhubaneswar, Odisha - 751001, Odisha

Branch: Bhubaneswar, Jharkhand, India

Tel : 9427928003, 9427928001, Email : info@iemindia.com



Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Work Environment & Indoor Air
Report Issue Date: 10-03-2025	Test Report No.: IN-2432050041115	
Sample ID: 230324000006	Sample Description: Fugitive Emission	
Challan No./P.O. No.: 4548043044/237	Challan No./P.No. Date: 05-11-2024	
Issued to: Oslima Cement (Bharat) Limited - (Jharkhand Cement Works) Plot No (WA-7(P), Bokaro Industrial Area Baidia Bokaro Steel City, Bokaro-827014 Jharkhand India		
Type of Industry: Cement	Customer Representative: Sampurn Verma	
Sample Drawn by: ISM Team	Sampling Date: 06-03-2025	
Protocol: CPCB Guideline (AAQ/2005/36/2012-11 & IS Method 5162 Series)		
Sampling Location: Packing Floor Area		
Field Meteorological Information: A. Temp. (°C): 24, R.H. (%): 47, W.E.: Sunny, W.B.: NW to SE		
Sample Receiving date: 07-03-2025, Testing Started: 07-03-2025, Testing Ended: 10-03-2025		

Test Results

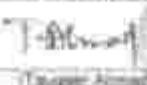
Sl. No.	Parameters	Test Method No.	Unit	Limit	Results
1	Suspended Particulate Matter (SPM)	IS 5162 Part - 06	mg/m ³	10	7.3

End of Report

Env. Goodwill at Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 55± 5% as per testing 4224 as per IS 15653
Accreditation:	ISO: Minimum Duration 1000, ISO: 9001 Duration 1000
Limit as specified:	As per Pollution Act 1946 (8 km. Range)
Remark:	Sample Comply With the Standard Specification.

Tested By: Anurupa Sauran

Sample Drawn By: Siddhant Kumar & Team

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Branch: 62/4/02, Ghaziabad, India

By: info@iemindia.com, contact@iemindia.com, Email: info@iemindia.com, contact@iemindia.com



Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Work Environment & Indoor Air
Report Issue Date: 10-03-2025	Test Report No.: RN-241108004FE06	
Sample ID: 250307AP05006	Sample Description: Fugitive Emission	
Challan No./P.O. No.: 4548043344/237	Challan No./P.No. Date: 05-11-2024	
Issued to: Dalmia Cement (Bihar) Limited, (Jharkhand Cement Works) Plot No (V/A-7(P), Bokaro Industrial Area Bahidin Bokaro Steel City, Bokaro-827014, Jharkhand India		
Type of Industry: Cement	Customer Representative: Sanjeev Varma	
Sample Drawn by: IEM Team	Sampling Date: 06-03-2025	
Protocol: CPCB Guideline (NAAQMS/36/2012-13) & IS Method 5182 Series		
Sampling Location: Mill Area		
Field Meteorological Information	A. Temp. (°C): 24	R.H. (%): 47
	W.C.: Sunny	W.D.: NW to SE
Sample Receiving date: 07-03-2025	Testing Started: 07-03-2025	Testing Ended: 10-03-2025

Test Results

Sl. No.	Parameters	Test Method No.	Unit	Limit	Results
1.	Suspended Particulate Matter (SPM)	IS 5182 Part - 04	mg/m ³	10	6.8

End of Report

Pre-Condition of Lab.	Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 45 ± 5% in all testing area as per IS 1596:1966(°C).
Abbreviation	MDL - Minimum Detection Limit, RDL - Below Detection Limit
Limit is Specified	As Per Factories Act 1946 (Bihar, India)
Remark	Sample Comply With the Prescribed Notification

Tested By: **ANUSHKA SORATHI**

Sample Drawn By: **Siddhanti Kumar & Team**

Specific Commercial Notes	Reviewed by	Authorized Signatory
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On the basis of Quality Check and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.	Technical Manager	Director

Page 1 of 1

Corporate Office : I-10, Main Market, Type: All India Radio Station, Kirti Road, Ranchi, Jharkhand - 834001

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Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Work Environment & Indoor Air
Report Issue Date: 10-03-2025	Test Report No.: IM-341202046327	
Sample ID: 202007AP05007	Sample Description: Fugitive Emission	
Challan No./P.O. No.: 4548043344/237	Challan No./P.O. No. Date: 05-11-2024	
Issued to: Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No (WA-7/P), Bokaro Industrial Area Baidih, Bokaro Steel City, Bokaro-827014, Jharkhand India		
Type of Industry: Cement	Customer Representative: Sangam Verma	
Sample Drawn by: IEM Team	Sampling Date: 06-02-2025	
Protocol: (PCB-Guidelines/446/245/96/2012-13) & IS Method 5182 Series		
Sampling Location: Wagon Loading Area		
Field Meteorological Information	A. Temp: 29 °C	B.H. (RH): 47 %
	W.C.: Sunny	W.D.: NW to SE
Sample Receiving date: 07-03-2025	Testing Started: 07-03-2025	Testing Ended: 09-03-2025

Test Results

Sl. No.	Parameters	Test Method No.	Unit	Limit	Results
1	Suspended Particulate Matter (SPM)	IS 5182 Part - 04	mg/m ³	10	6.8

End of Report

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 1°C and Relative Humidity 55± 5% in all testing area as per (IS 46: 1986) (C).
Accreditation	ISO: 9001:2015, ISO: 14001:2015, ISO: 45001:2018
Limit is Specified	As Per Indian Std, (IS 46: 1986) (C)
Remark	Sample Correlate With the Field Observation

Tested By: Anurag Goudh

Sample Drawn By: Dipankar Kumar & Team

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	 (Tajinder Alamy) Technical Manager	 (Dr. S. C. Jena) Director

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26102009, 26102010, 26102011, 26102012, 26102013, 26102014, 26102015, 26102016, 26102017, 26102018, 26102019, 26102020, 26102021, 26102022, 26102023, 26102024, 26102025, 26102026, 26102027, 26102028, 26102029, 26102030, 26102031, 26102032, 26102033, 26102034, 26102035, 26102036, 26102037, 26102038, 26102039, 26102040, 26102041, 26102042, 26102043, 26102044, 26102045, 26102046, 26102047, 26102048, 26102049, 26102050, 26102051, 26102052, 26102053, 26102054, 26102055, 26102056, 26102057, 26102058, 26102059, 26102060, 26102061, 26102062, 26102063, 26102064, 26102065, 26102066, 26102067, 26102068, 26102069, 26102070, 26102071, 26102072, 26102073, 26102074, 26102075, 26102076, 26102077, 26102078, 26102079, 26102080, 26102081, 26102082, 26102083, 26102084, 26102085, 26102086, 26102087, 26102088, 26102089, 26102090, 26102091, 26102092, 26102093, 26102094, 26102095, 26102096, 26102097, 26102098, 26102099, 26102100, 26102101, 26102102, 26102103, 26102104, 26102105, 26102106, 26102107, 26102108, 26102109, 26102110, 26102111, 26102112, 26102113, 26102114, 26102115, 26102116, 26102117, 26102118, 26102119, 26102120, 26102121, 26102122, 26102123, 26102124, 26102125, 26102126, 26102127, 26102128, 26102129, 26102130, 26102131, 26102132, 26102133, 26102134, 26102135, 26102136, 26102137, 26



Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Work Environment & Indoor Air			
Report Issue Date: 10-03-2025	Test Report No.: IEM-241156004FE08				
Sample ID: 280307AP09008	Sample Description: Fugitive Emission				
Challan No./P.O. No.: 4548043344/2017	Challan No./ P.No. Date: 05-11-2024				
Issued to: Dalmia Cement (Bharat) Limited. (Jharkhand Cement Works) Plot No IV/A-7(P), 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: 06-03-2025				
Protocol: CPCB Guideline (NAQM/5/36/2012-13) & IS Method 5182 Series					
Sampling Location: Truck Loading Area					
Field Meteorological Information	A. Temp. (°C): 24	R.H. (%): 87			
	W.C.: Sunny	W.D.: NW to SE			
Sample Receiving date: 07-03-2025	Testing Started: 07-03-2025	Testing Ended: 10-03-2025			
—Test Results—					
Sl. No.	Parameters	Test Method No.	Unit	Limit	Results
1	Suspended Particulate Matter (SPM)	IS 5182 Part - 04	mg/m ³	10	7.2
—End of Report—					
Env. Condition of Lab:	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65±1 % to 40% Testing area as per IS 146:1964(C3)				
Abbreviation:	NDL: Minimum Detection Limit, BDL: Below Detection Limit				
Limit is Specified:	As Per Factory Act 1986 (4 km. Radius)				
Remarks:	Sample Comply With the Prescribed Specification.				

Tested By: Anushka Sourabh

Sample Drawn By: Siddhant kumar & Team

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	 (Tauseef Almas) Technical Manager	 (Dr. S. C. Jena) Director

Page 2 of 2

Corporate Office - A-16, Model Township, Opp. Ash India Gully Station, Ram Mohan Nagar, Ranchi - 834001

Laboratory Site - 41/2a - A-13, Sector 1, Phase 2, City Industrial Estate, Haryana Housing Colony,

Ranchi - 834002, Jharkhand, India

Ph: 0657960000, 9477960001, Email: info@iemindia.com

Fixed type water sprinkler provided in plant for the control of fugitive dust emission



Water sprinkler near clinker yard



Water sprinkler provided near coal yard

Regular water sprinkling done on plant entrance road and dusty place area by 2 nos water spray tankers



Log book of water spray tanker

Date		Time		Location		Remarks	
10/01/2019		08:00		1000		1000	
10/01/2019	08:05	1000	1000				
10/01/2019	08:10	1000	1000				
10/01/2019	08:15	1000	1000				
10/01/2019	08:20	1000	1000				
10/01/2019	08:25	1000	1000				
10/01/2019	08:30	1000	1000				
10/01/2019	08:35	1000	1000				
10/01/2019	08:40	1000	1000				
10/01/2019	08:45	1000	1000				
10/01/2019	08:50	1000	1000				
10/01/2019	08:55	1000	1000				
10/01/2019	09:00	1000	1000				
10/01/2019	09:05	1000	1000				
10/01/2019	09:10	1000	1000				
10/01/2019	09:15	1000	1000				
10/01/2019	09:20	1000	1000				
10/01/2019	09:25	1000	1000				
10/01/2019	09:30	1000	1000				
10/01/2019	09:35	1000	1000				
10/01/2019	09:40	1000	1000				
10/01/2019	09:45	1000	1000				
10/01/2019	09:50	1000	1000				
10/01/2019	09:55	1000	1000				
10/01/2019	10:00	1000	1000				
10/01/2019	10:05	1000	1000				
10/01/2019	10:10	1000	1000				
10/01/2019	10:15	1000	1000				
10/01/2019	10:20	1000	1000				
10/01/2019	10:25	1000	1000				
10/01/2019	10:30	1000	1000				
10/01/2019	10:35	1000	1000				
10/01/2019	10:40	1000	1000				
10/01/2019	10:45	1000	1000				
10/01/2019	10:50	1000	1000				
10/01/2019	10:55	1000	1000				
10/01/2019	11:00	1000	1000				
10/01/2019	11:05	1000	1000				
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10/01/2019	11:25	1000	1000				
10/01/2019	11:30	1000	1000				
10/01/2019	11:35	1000	1000				
10/01/2019	11:40	1000	1000				
10/01/2019	11:45	1000	1000				
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10/01/2019	13:00	1000	1000				
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10/01/2019	14:00	1000	1000				
10/01/2019	14:05	1000	1000				
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10/01/2019	14:15	1000	1000				
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10/01/2019	14:25	1000	1000				
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10/01/2019	14:35	1000	1000				
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10/01/2019	15:25	1000	1000				
10/01/2019	15:30	1000	1000				
10/01/2019	15:35	1000	1000				
10/01/2019	15:40	1000	1000				
10/01/2019	15:45	1000	1000				
10/01/2019	15:50	1000	1000				
10/01/2019	15:55	1000	1000				
10/01/2019	16:00	1000	1000				
10/01/2019	16:05	1000	1000				
10/01/2019	16:10	1000	1000				
10/01/2019	16:15	1000	1000				
10/01/2019	16:20	1000	1000				

DALMIA CEMENT BHARAT LIMITED, BOKARO**Manual Stack emission monitoring report from October 2024 to March 2025**

Month	Min.	Max.	Avg.
October-2024,	5.6	11.9	8.7
November-2024,	5.3	10.1	7.9
December-2024,	7.6	13.8	10.7
January-2025,	8.2	19.4	13.2
February-2025,	9.6	16.1	12.3
March-2025,	6.0	12.2	9.4
Min.	5.3	10.1	7.9
Max.	9.6	19.4	13.2
Avg.	7.1	14.1	10.4

On Line CEMS report from October 2024 to March 2025

Month	Min.	Max.	Avg.
October-2024,	5.6	15.9	14.1
November-2024,	6.8	12.6	11.9
December-2024,	7.6	18.5	15.3
January-2025,	6.1	17.4	14.7
February-2025,	13.8	24.7	19.8
March-2025,	11.4	23.8	20.6
Min.	5.6	12.9	11.9
Max.	13.8	24.7	20.6
Avg.	8.8	18.9	16.1

JSPCB Norms	30 mg/Nm ³
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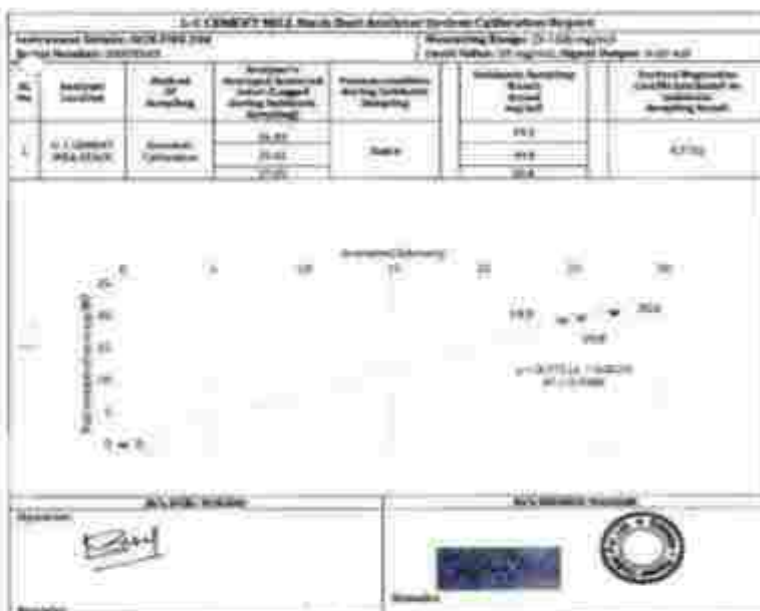
CEMS CALIBRATION



Endress+Hauser GmbH, 63069 Krefeld, Germany
 Endress+Hauser (USA) Inc., 2700 Lakeview Avenue, Suite 100
 Lakeview, CO 80026, USA
 Endress+Hauser (UK) Ltd., 10000, 10000, 10000, 10000
 Endress+Hauser (India) Pvt. Ltd., 10000, 10000, 10000, 10000

Customer Name: Cement Control Plant Ltd (CCPL)
 Work Order Number: 454463719 / 521
 Plant Unit Name: C-1 (CEMENT MILL)

Calibration Report No: 00094, 00094-01/01
 Calibration Date: 12.05.2025
 Next Calibration Due on: 12.05.2026



SHARED AND NOT FOR CALIBRATION PURPOSES ONLY. C-1 (CEMENT MILL) Calibration Report



Institute for Environmental Management



Test Report Stack Emission (ISO KINETIC SAMPLING) Grinding Mill Unit 1

Client Name & Address: M/s. Dakshin Cement (Bharat) Limited Plot No. 70/A - 70/P, Bokaro Industrial Area, PO - BokaroDist - Bokaro Jharkhand-827014	Remarks/Details: Type of Industry: Cement Manufacturer Sample Description: Stack Emission Sampling Date: 12/03/2025 Sampling Location: Grinding Mill Unit Ladder/Platform: Yes Weather Condition: Sunny Customer Rep.: Mr. Sanjeev Verma Sample Drawn by: Rajiv Kumar Singh & Team
Test Report No: IEM-OCSE/STACK-1-KS-2007/2024 Report Issue Date: 13/03/2025 Protocol: as Method & CPCB Guideline	

General Physical Information

1. Type of Plant	Cement Grinding Unit
2. Plant Running Condition	Yes
3. Emission Unit No.	Grinding of Raw Material
4. Stack Height from Ground Level (m)	20
5. Port Hole Height from Ground Level (m)	20
6. Shape of Stack	Circular
7. Inner Diameter of Stack (m)	2.75
8. Stack Connected to	Bag Filter
9. Type of Fuel Used	Coal/CLD
10. Consumption of Fuel	Nil
11. Pollution Control Device (Any)	Bag Filter
12. Is Fan Connected	8 Layer Graber gas House

Flue Gas Emission Analysis

Sl. No.	Parameter	Protocol	Result		
			1 st Sampling 12/03/2025 09:55 PM to 10:05 PM	2 nd Sampling 12/03/2025 12:04 PM to 12:14 PM	3 rd Sampling 12/03/2025 08:30 PM to 08:40 PM
1.	Flue Gas Temperature (°C)	IS 11228 (Part-3)	98	98	98
2.	Moisture in Flue Gas (%)	CPCB Guideline	41	41	41
3.	Absolute Stack Gas Pressure (mm Hg)	CPCB Guideline	745.7	745.9	745.8
4.	Flue Gas Velocity (m/s)	IS 11228 (Part-3)	8.3	8.1	8.3
5.	Stack Gas Volumetric Flow Rate (m³/s)	IS 11228 (Part-3)	291526.9	294000.8	293079.8
6.	Particulates Matter (mg/m³)	IS 11228 (Part-3)	18.3	18.8	18.8
7.	Particulates Matter (mg/m³)	IS 11228 (Part-3)	18.4	18.1	18.4
Emission Rate					
Dust (kg/hr.)			5.44	5.38	5.81

—End of Report—

Specific Undertaken Work:

- The witness accepted responsibility to conduct this test.
- The report shall not be reproduced except in full, without written approval of the IEM.
- The report is subject to any guidelines and/or legal notices to be implemented.
- Any tampering with the report shall be considered a criminal offence under the law.
- The validity of results for Environmental Management purposes is limited to the test only.
- System of Methodology, equipment used and its serial number is as follows.

On the basis of Study, Observation and Services rendered by the Institute, the report is issued by the Director of the Institute.

Reviewed by:

T. Anand
T. Anand
Technical Manager

Signature:

K. C. Jetti
K. C. Jetti
Director

Corporate office: A-8, Anand Bhawan, Opp. 101, Sakinaka Station, Sakinaka, Sakinaka, Sakinaka - 827014

Laboratory Office: A-11, Sakinaka, Opp. Sakinaka Station, Sakinaka, Sakinaka - 827014

Kerala: 827014, Sakinaka, India

Ph: 827014221, 827014221, Email: info@iemindia.com

DALMIA CEMENT BHARAT LIMITED, BOKARO

Manual Stack emission monitoring report from April 2024 to September 2024

Month	Min.	Max.	Avg.
April-2024	10.6	20.6	15.3
May-2024	9.7	16.9	12.7
June-2024	6.8	13.5	10.6
July-2024	7.9	21.4	13.2
August-2024	9.5	19.2	11.5
September-2024	8.9	18.5	15.2
Min.	6.8	13.5	10.6
Max.	10.6	21.4	15.3
Avg.	8.9	18.1	13.1

On Line CEMS report from April 2024 to September 2024

Month	Min.	Max.	Avg.
April-2024	6.4	22.1	15.7
May-2024	9.3	24.3	17.4
June-2024	7.8	15.3	12.1
July-2024	6.8	21.6	16.2
August-2024	8.0	17.5	14.3
September-2024	6.2	20.8	16.2
Min.	6.2	15.3	12.1
Max.	9.3	24.3	17.4
Avg.	7.5	20.2	15.2

JSPCB Norms	30 mg/Nm3
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Test Report

Lab No:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20																																																																							
Discipline:	Chemical					Group: Atmospheric Pollution					Sub-Group: Stack Emissions																																																																																
Report Issue Date:	27-09-2024										Test Report No.: IM/2024000122																																																																																
Sample ID:	20240000000										Sample Description: Stack Emission																																																																																
Location No./P.O. No.:	454600010001										Check No./P.O. No. Date: 26-09-2024																																																																																
Source: Dymos Cement (Bharat) Limited, (Shaktiward Cement Works) Plot No. N/A-1/F, Sakam Industrial Area Bharat Sakam Road City, Sakam-427514, Jayashankar-Nagar																																																																																											
Type of Industry/Process:										Customer Representative: Shri. Suresh Kumar																																																																																	
Sample Drawn by: RKM Team										Sampling Date: 14-09-2024																																																																																	
Protocol: CPCS Sub-line (CPCS/2019-14) & 12 Method 21209 Series																																																																																											
Point Meteorological Information: A. Temp: 27°C, RH: 40%, W.S.: 0.5 mm, Wind: 10 to 15 km/h																																																																																											
Sample Receiving Date: 14-09-2024										Testing Started: 14-09-2024					Testing Ended: 27-09-2024																																																																												
<table border="1"> <thead> <tr> <th colspan="4">Stack Identification</th> <th colspan="4">Sampling Port</th> <th colspan="4">Auxiliary</th> </tr> </thead> <tbody> <tr> <td colspan="4">Content: 100 kg. Bag House Stack</td> <td colspan="4">Sampling Port</td> <td colspan="4">Auxiliary</td> </tr> <tr> <td colspan="4">Plot Name</td> <td colspan="4">Stack Height from Ground Level (m)</td> <td colspan="4">10</td> </tr> <tr> <td colspan="4">Stack Description</td> <td colspan="4">Port Side-Height from Ground Level (m)</td> <td colspan="4">10</td> </tr> <tr> <td colspan="4">Shape of Stack</td> <td colspan="4">Inner Diameter of Stack (m)</td> <td colspan="4">1.5</td> </tr> <tr> <td colspan="4">Construction Material</td> <td colspan="4">Pollution Control Device (if any)</td> <td colspan="4">Bag House</td> </tr> </tbody> </table>																				Stack Identification				Sampling Port				Auxiliary				Content: 100 kg. Bag House Stack				Sampling Port				Auxiliary				Plot Name				Stack Height from Ground Level (m)				10				Stack Description				Port Side-Height from Ground Level (m)				10				Shape of Stack				Inner Diameter of Stack (m)				1.5				Construction Material				Pollution Control Device (if any)				Bag House			
Stack Identification				Sampling Port				Auxiliary																																																																																			
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Shape of Stack				Inner Diameter of Stack (m)				1.5																																																																																			
Construction Material				Pollution Control Device (if any)				Bag House																																																																																			
Flue Gas Temperature (°C): 170										Flue Gas Velocity (m/s): 14.0					Flue Gas Volumetric Flow Rate (Nm³/hr): 44321.2																																																																												
Test Result:																																																																																											
Sl. No.		Parameter		Test Method		Unit		Result		Limit																																																																																	
1.		Particulate Matter (PM)		IS 12277 (Part II)		mg/Nm³		13.4		50.0																																																																																	
Obs:										Night																																																																																	
Date:										14-09-2024																																																																																	
For: Certificate of Lab: Issued by: RKM Team Date: 27-09-2024 Validity: 12 Months Remarks: Sample tested with documented specifications.																																																																																											

Tested By: RKM Team

Sample Drawn By: RKM Team

Test Method Used:

- The sample is taken from the stack emission point.
- The sample is collected in a glass jar and sealed immediately.
- The sample is analyzed in a laboratory setting using a gravimetric method.
- The results of the analysis are compared with the standard limit.
- The results of the analysis are compared with the standard limit.
- The results of the analysis are compared with the standard limit.
- The results of the analysis are compared with the standard limit.

Page 1 of 1

Reviewed By:

Signature: [Signature]
 Designation: [Designation]
 Date: [Date]

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For more information, please visit our website: www.ime.in

Or call us at: 044-24444444. Email: info@ime.in

Annexure-7

DALMIA CEMENT BHARAT LIMITED, BOKARO

Ambient air quality monitoring report from October 2024 to March 2025

Ambient air quality monitoring report -Near Time office				
	SO ₂	NO _x	PM-10	PM-2.5
	µg/m ³	µg/m ³	µg/m ³	µg/m ³
October-2024	5.1	13.7	44.0	23.7
November-2024	7.3	11.5	46.8	26.1
December-2024	8.11	15.20	48.6	28.6
January-2025	12.7	13.5	55.5	29.7
February-2025	7.5	17.4	51.3	26.8
March-2025	9.1	15.0	55.2	27.7
Min.	5.1	11.5	44.0	23.7
Max.	12.7	17.4	55.5	29.7
Avg.	8.5	14.4	50.2	27.1

Ambient air quality monitoring report FH-3 Building				
	SO ₂	NO _x	PM-10	PM-2.5
	µg/m ³	µg/m ³	µg/m ³	µg/m ³
October-2024	7.0	11.6	47.1	21.7
November-2024	5.1	15.7	45.5	26.0
December-2024	8.4	13.3	44.8	24.5
January-2025	11.8	12.7	52.1	26.9
February-2025	12.2	16.2	50.9	24.5
March-2025	8.2	11.5	51.2	25.5
Min	7.0	11.5	44.8	21.7
Max.	12.2	16.2	52.1	26.9
Avg.	9.3	13.6	48.6	24.7

JSPCB Norms

SO ₂	NO _x	PM ₁₀	PM _{2.5}
(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)
50	80	100	60

DALMIA CEMENT BHARAT LIMITED, BOKARO

Ambient air quality monitoring report from October 2024 to March 2025

Ambient air quality monitoring report: Near Wagon Tippler				
	SO ₂	NO _x	PM-10	PM-2.5
	µg/m ³	µg/m ³	µg/m ³	µg/m ³
October-2024	10.8	14.6	50.7	25.7
November-2024	8.6	12.3	48.8	23.8
December-2024	12.7	16.4	53.3	27.4
January-2025	10.6	15.3	57.0	30.1
February-2025	14.8	18.2	53.1	25.9
March-2025	15.2	13.8	52.8	24.3
Min	8.6	12.3	48.8	23.8
Max	15.2	18.2	57.0	30.1
Average	12.1	15.1	52.6	26.2

Ambient air quality monitoring report: Fabrication yard				
	SO ₂	NO _x	PM-10	PM-2.5
	µg/m ³	µg/m ³	µg/m ³	µg/m ³
October-2024	8.0	10.1	48.0	22.3
November-2024	13.5	15.1	57.9	27.6
December-2024	10.0	12.2	54.7	26.3
January-2025	8.7	14.7	58.1	28.9
February-2025	11.6	11.6	52.3	33.2
March-2025	12.5	13.2	54.1	26.1
Min	8.0	10.1	48.0	22.3
Max	13.5	15.1	58.1	28.9
Average	10.7	12.6	54.2	25.7

JSPCB Norms

SO ₂	NO _x	PM ₁₀	PM _{2.5}
(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)
80	80	100	60

Ms. GEORGE 1752, 1802004212, from: ms1752@georgebrown.ca



Institute for Environmental Management



Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Ambient Air
Report Issue Date: 15-03-2025	Test Report No.: IEM/ATP/2025/001	
Sample ID: 200301/ATP001	Sample Description: Ambient Air	
Client No./P.D. No.: 454804/5544/227	Client No./P.D. Date: 05-11-2024	
Issued to:		
Dakshin Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No N/A-7(P), Bokaro Industrial Area Bafidh Bokaro Steel City, Bokaro-827114, Jharkhand India		
Type of Industry: Cement	Customer Representative: Surjesh Verma	
Sample Drawn by: IEM Team	Sampling Date: 06-03-2025 to 07-03-2025	
Protocol: CPCB Guideline/MAADH/54/2012-13 & IS standard 1082 Series		
Sampling Location: Near Main Gate		
Field Meteorological Information:	A. Temp: 22.22	R.H. No: 47
	W.E.: Sunny	W.D.: NW to SE
Sample Receiving date: 07-03-2025	Testing Started: 07-03-2025	Testing Ended: 07-03-2025

Test Results

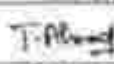
S. No.	Parameters	Test Method No.	Unit	Result as per NAAQS - 2008	Result
1.	Soot (a) Pyrene (BdP) Particulate phase only	IS 5182 Part 12	ngm ³	---	NDL (NDL-0.08)
2.	Carbon Monoxide (CO)	IS 5182 Part 11	mgm ³	---	NDL (NDL-1.6)
3.	Benzene (C ₆ H ₆)	IS 5182 Part 11	ugm ³	---	NDL (NDL-0.00)

End of Report

Site Condition of LAB:	Laboratory is Monitoring Temperature 27°C RH and Relative Humidity 60% to 65% during test as per IS 1502/1996/2
Addressation:	PM ₁₀ , Nitrate Detection Limit, ETC. Below Detection Limit
Reference is Specified:	National Ambient Air Quality Standards (NAAQS) 2008.
Remarks:	Sample Conforms with prescribed specifications.

Tested By: Ashwini Boudh

Sample Drawn By: Sudhanshu Kumar & Team

Specific Instruction Notes:	Reviewed by:
1. The laboratory accepts responsibility for accuracy of this report.	  T. Almond Technical Manager
2. This report shall be valid only when used in its original unaltered form.	
3. The report is intended for the guidance of the client and is not to be used for legal purposes.	
4. Any complaint about this report should be acknowledged in writing within 7 days of its issue.	
5. The report is valid only if the sample is received within the specified time and in the specified condition.	Director
6. In the event of any dispute, the client shall refer to the original report and the sample for resolution.	

Page 2 of 2

Corporate office : A-10, W-5, Durgam, Opp- Old Sakinaka Station, Sakinaka Road, New Delhi, India - 110029

Laboratory Site : B-10, W-5, Durgam, Opp- Old Sakinaka Station, Sakinaka Road, New Delhi, India - 110029

Ph : 9417704270, 9417704271, 9417704272 | Email : info@iemdelhi.com

Test Report

Supplier: Chemical	Group: Atmospheric Pollutant	Sub-Group: Ambient Air
Report Issue Date: 10-03-2025	Test Report No.: IN-241203000A25	
Sample ID: 202503A00003	Sample Description: Ambient Air	
Client No./P.D. No.: 4348241344007	Client No./P.D. No.: 05-11-2024	
Issued to:		
Sahara Cement (Bharat) Limited, Jharkhand Cement Works		
Plot No. 7/A-7P, Sahara Industrial Area Baidia		
Bokaro Steel City, Bokaro-829114, Jharkhand India		
Type of Industry: Cement	Customer Representative: Sangeeta Sinha	
Sample Drawn by: I&E Team	Sampling Date: 06-03-2025 to 07-03-2025	
Product: CHC-Gubiliro/SAACMO/ML0012-XX & R-Method 1082 Series		
Sampling Location: Near Entry		
Field Meteorological Information:	A. Temp: 22.20	R.H. No: 47
	W.C. : Sunny	W.S. : 85% to 95
Sample Receiving date: 07-03-2025	Testing Started: 07-03-2025	Testing Ended: 10-03-2025

Test Results				
Sl. No.	Parameters	Test Method No.	Unit	Result
1	Benzene (g) Per litre (B/L)	IS 3102 Part 12	mg/L	ND (MCL 0.10)
2	Perchloro ethene only			
3	Carbon Monoxide (CO)	IS 3102 Part 12	mg/L	ND (MCL 1.0)
4	Carbon Dioxide (CO ₂)	IS 3102 Part 12	mg/L	ND (MCL 0.05)

---End of Report---	
Key Conditions of Lab	Laboratory is maintaining Temperature 77°K and Relative Humidity 50% to all testing area as per IS 15026:2004[2]
Addressation	WPL, Main Road, Durgam Chalo, WPL, Below Durgam Chalo
Norms/ is Specific	National Ambient Air Quality Standards (NAAQS), 1986
Remark	Sample Conforms with prescribed specification.

Trained by Alexander S. Kurganov

Sample Order By: Supplier Name & Year

[illegible]



Institute for Environmental Management



Test Report

Discipline: Chemical	Group: Atmospheric Pollution	Sub-Group: Ambient Air
Report Issue Date: 20-09-2023	Test Report No.: EIM/2023/044202	
Sample ID: 210001000000	Sample Description: Ambient Air	
Client No./P.No. No.: 4580001044202	Client No./P.No. Date: 05-11-2024	
Served to: Delta Cement (Bikaner) Limited, Lihankhand Cement Works Plot No 1/14-7575, Bikaner Industrial Area Baidoli Bikaner, West City, Bikaner-422014 Jharkhand India		
Type of Industry: Cement	Customer Representative: Sanjay Kumar	
Sample Taken by: EIM Team	Sampling Date: 06-09-2023 to 07-09-2023	
Protocol: CPCB Guidelines/MAADQS/IM/2013-112 & 11 Method 1182 Series		
Sampling Location: Near Fabrication Yard		
Field Meteorological Information:	A. Temp. (°C): 27	R.H. (g): 47
	W.D.: Sunny	W.D.: 100 to 25
Sample Receiving date: 07-09-2023	Testing Started: 07-09-2023	Testing Ended: 07-09-2023

Test Results

Sl. No.	Parameters	Test Method No.	Unit	Norms as per MAADQS - 2018	Results
1	Benzene (as Pyrene) (BzP) Particulate phase (mg)	IS 5182 Part 12	mg/m ³	---	0.13 (MCL-4.18)
2	Carbon Monoxide (CO)	Standard Method 2020	mg/m ³	---	0.13 (MCL-1.4)
3	Benzene (C ₆ H ₆)	IS 5182 Part 11	ug/m ³	---	0.13 (MCL-0.70)

End of Report

Site Evaluation of Lab:	Subsidiary of Main working Corporation 274 CPC and Reference Standard 4542 is in 47
Method/Method:	Testing done as per IS 5182-1182/2020
Norms as Specified:	IS 5182-1182/2020, IS 5182-1182/2020, IS 5182-1182/2020
Remarks:	Tested Sample with prescribed specifications

Tested by: Anshu Soudh

Sample Taken by: Anshu Kumar & Team

Quality Control Note: 1. The test results are not to be used for any purpose other than the one for which they were issued. 2. The test results are not to be used for any purpose other than the one for which they were issued. 3. The test results are not to be used for any purpose other than the one for which they were issued. 4. The test results are not to be used for any purpose other than the one for which they were issued. 5. The test results are not to be used for any purpose other than the one for which they were issued. 6. The test results are not to be used for any purpose other than the one for which they were issued. 7. The test results are not to be used for any purpose other than the one for which they were issued. 8. The test results are not to be used for any purpose other than the one for which they were issued. 9. The test results are not to be used for any purpose other than the one for which they were issued. 10. The test results are not to be used for any purpose other than the one for which they were issued.	Reviewed by: T. N. Singh Technical Manager	Authorized Signatory: P. K. Jais Director
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Page 2 of 2

Corporate Office: G-1, Subh Vigraha, Opp. ICICI Bank, Bikaner, Bikaner, Bikaner - 334001

Subsidiary Office: (COE) - In U.S. Subh Vigraha, Near Subh Vigraha, Bikaner, Bikaner - 334001

Bikaner-334001, Bikaner, India

Ph: 9425042001, 9425042011, Email: info@iemindia.com



Institute for Environmental Management



Test Report

Designated Chemical	Group: Atmospheric Pollution	Sub-Group: Ambient Air
Report Issue Date: 01-01-2025	Test Report No.: IN-24 (2024)124	
Sample ID: 202401010004	Sample Description: Ambient Air	
Client No./P.O. No.: 614001244227	Client No./P.O. No. Date: 01-11-2024	
Issued to:		
Dalmia Cement (Bharat) Limited (Jharkhand Cement Works) Plot No N/A TPI, Bokaro Industrial Area Baidih Bokaro Steel City, Bokaro-827014 Jharkhand India		
Type of Industry: Cement	Customer Representative: Sanjay Verma	
Sample Drawn by: IEM Team	Sampling Date: 06-05-2025 to 07-05-2025	
Protocol: CPCR Guidelines (NAAQS)/IS 15023-130 & IS Method 1182 Series		
Sampling Location: Near Wagon Taper		
Field Meteorological Information: A. Temp: 32°C R.H. 47% W.C.: Sunny W.D.: 90 to 50		
Sample Receiving date: 07-05-2025	Testing Started: 07-05-2025	Testing Ended: 07-05-2025

Test Results

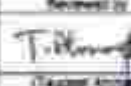
Sl. No.	Parameters	Test Method No.	Unit	Norms as per NAAQS - 2008	Results
1	Sulfur (as Pyrene) (SO ₂)	IS 1502 Part 12	µg/m ³	—	60.1 (AQI: 0.08)
2	Carbon Monoxide (CO)	IS 1502 Part 11	µg/m ³	—	50.1 (AQI: 1.8)
3	Hexachloro (C ₆ H ₆)	IS 1502 Part 11	µg/m ³	—	30.1 (AQI: 0.08)

End of Report

Env. Condition of Lab:	Laboratory is maintaining Temperature (15-25°C) and Relative Humidity (50-65% w/w) during work as per IS 15023-130.
Accreditation:	NABL, Maharashtra Statewide License, ISO 15023-130
Norms** is Specified:	As per NAAQS for Quality Standards (NAAQS) 2008
Remark:	Multiple Copies will be provided upon request.

Tested By: IEM Team

Sample Drawn By: IEM Team & Test

Notes: 1. The laboratory is not responsible for any errors in the report. 2. The report is valid only if the sample is received within the specified time. 3. The report is valid only if the sample is received within the specified time. 4. The report is valid only if the sample is received within the specified time. 5. The report is valid only if the sample is received within the specified time. 6. The report is valid only if the sample is received within the specified time. 7. The report is valid only if the sample is received within the specified time. 8. The report is valid only if the sample is received within the specified time. 9. The report is valid only if the sample is received within the specified time. 10. The report is valid only if the sample is received within the specified time.	Received By:  T. Kumar Technical Manager Date: 01-01-2025
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Page 2 of 2

Corporate Office: A-8, 1st Floor, TPO, 1st Floor, Baidih, Bokaro Steel City, Jharkhand - 827014

Laboratory No.: IEM/24-11-11, Plot No. 11, Bokaro Steel City, Jharkhand - 827014

Ph: 8444444444, 8444444444, Email: info@iemindia.com

List of air pollution control device installed in plant

Dalmia Cement (Bharat) Limited, Bokaro					
Sl. No.	Location	Equipment No.	Capacity in m³/hr	No. of Bags	Standard
1	Cement Silo Top	591 BF1	7500	64	30 mg/Nm ³ (New CPCB norms for Stack emission)
2	Cement Silo Top	591 BF2	7500	64	
3	Cement Silo Top	591 BF3	7500	64	
4	C.S.Bm Deducing	611BF1	3664	25	
5	C.S.Bm Deducing	611BF2	3664	25	
6	C.S.Bm Deducing	611BF3	3664	25	
7	Nuisance Deducing	611BF4	18000	144	
8	Packing Plant	641BF1	34000	256	
9	Packing Plant	641BF2	16000	121	
10	Packing Plant	642BF1	34000	256	
11	Packing Plant	642BF2	18000	121	
12	Reclaiming Tunnel For Slag & Gypsum Cave	K91 BF1	12500	100	
13	Clinker Silo Bottom	511BF2	9000	72	
14	Clinker Silo Bottom	511 BF1	9000	72	
15	Cement Mill Hopper	K91 BF2	12500	100	
16	Coal Crusher	L31 SF1	5000	80	
17	FDC	L32 BF1	5000	80	
18	Bag House-1	521BF1	16000	121	
19	Bag House-2	522 BF1	3664	25	
20	Bag House - 1	521 BF6	714240	5632	
21	Bag House - 2	522 BF6	714240	5632	
22	C. Mill Hopper Top	511 BF3	9000	72	
23	C. Mill Hopper Bottom	521 BF1	14880	100	
24	C. Mill Hopper Bottom	521 BF2	13680	100	
25	Cement Mill - 1	521 BF4	15540	121	
26	Repect Building	521 BF5	7500	64	
27	Cement Mill - 2	522 BF4	15540	121	
28	Repect Building	522 BF5	7500	64	
29	Transfer Point Deducing in Hopper Building	522 BF1	14880	100	
30	Transfer Point Deducing in Hopper Building	522 BF2	13680	100	
31	Transfer Tower-1	491 BF1	9000	72	
32	Clinker Silo Top	491 BF2	9000	72	
33	Packing Plant	643 BF-1	40000	808	
34	Packing Plant	643 BF-2	20000	154	
35	Outside Cement Silo	643 BF-3	7500	97	

Compliance of CREP Conditions

BOXARO CEMENT MANUFACTURING WORKS

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

	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.	To control the fugitive emissions the following measures are adopted/proposed: • All measures to control emission from construction activities such • as covering of construction site, water sprinkling & covering of construction material etc are being adopted at site. • All the conveyors will be covered with conveyor covers and bands to offset any trapping of material in wind stream. • Storage of raw material/cement in storage shed and Silos. • Concrete internal roads and The sprinkling of water will be done all along internal roads in the plant in order to control the dust arising due to the movement of vehicular traffic. • Thick green belt is being developed around the plant to arrests the fugitive emissions. • Plugging of all leakage and enclosing storage and material handling system.
7	CPCB, NGOM, BIS and Oil refineries will jointly prepare the policy on use of petroleum coke as fuel in cement kiln by July 2003.	Not Applicable
8	After performance evaluation of various types of continuous monitoring equipment and feedback from the industries and equipment manufacturers, NTF will decide feasible unit regulations/sections for installation of continuous monitoring equipment. The industry will install the continuous monitoring system (CMS) by December 2003.	Continuous emission monitoring system (CEMS) installed at Cement Mill Stack and real time emission monitoring data are being regularly transmitted to SPCL and CPCB website.
9	Tripping in kiln ESP to be minimized by July 2003 as per the recommendations of NTF.	Not Applicable; Stand-alone Grinding Unit, high efficiency Bag House provided in Cement Mill.
10	Industries will submit the target date to enhance the utilization of waste material by April 2003.	After expansion, our CO utilize Fly ash along with Slag which are process waste generated by Thermal Power Plant and Steel industries and help them in getting rid of waste in most sustainable manner by converting into useful product i.e. Cement.

11	NCHM will carry out a study on hazardous waste utilization in cement kilns 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-11

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

Location	Coordinate of Site	Depth from ground (feet)						
		Month	April-2024	May-2024	June-2024	July-2024	August-2024	
Pakhriatand (Nitar Angariwadi)	23070'5590"N 86006'2678" E	1	23.9	25.7	24.9	23.4	12.3	7.2
Tupkadi (Near Electric Pole)	23071'3352"N 86006'1573" E	1	12.8	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	9.0



Test Report

UOI No.:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Discipline:	Chemical	Group: Water										Sub-Group: Ground Water																																																																																								
Report Issue Date:	27-09-2024										Test Report No.: RA-20240927002																																																																																									
Sample ID:	JHNS/MS/000001										Sample Description: Ground Water [Lit. wt.]																																																																																									
Client No./P.O. No.:	404800007102P										Client No./P.O. Date: 20-09-2019																																																																																									
Issued to:	Bajaj's Cement (Bihar) Limited, Lohardih Cement Works, Plot No.6/2A/2/B, Deoria Industrial Area Station, Bokaro Steel City, Bokaro-822114, Jharkhand India																																																																																																			
Type of Industry:	Cement																														Customer Representative: Soumya Vinnu																																																																					
Sample Quantity:	1CM Tare																														Sampling Date: 24-09-2024																																																																					
Reference:	CIRC Guidelines & IS Method 3224 Series																																																																																																			
Sampling Location:	Ground																																																																																																			
Field Meteorological Information:	A. Temp.: 25.19 °C, R.H.: 63 %, W.C.: 76%, Sunny, W.W.: 32 to 39°C																																																																																																			
Security Breaching date:	24-09-2024																																																																																																			
	1. Fugate Water: 24-09-2024																				1. Second Subst.: 27-09-2024																																																																															

--- Test Result ---						
No.	Tested Parameter	Unit	Method No.	Limit	Acceptable	Result
No.	Tested Parameter	Unit	Method No.	Limit	Acceptable	Result
1	pH value at 25°C	---	IS 3025 (Part 1)	6.5 - 8.5	6.5 - 8.5	7.1
2	Acidity	mg/l	IS 3025 (Part 1)	5	5	47
3	Alkalinity	mg/l	IS 3025 (Part 1)	25	25	15
4	Chloride	mg/l	IS 3025 (Part 1)	Agreeable	Agreeable	Agreeable
5	Total Dissolved Solids (TDS)	mg/l	IS 3025 (Part 1)	500	500	166
6	Sulphate (as CaSO ₄)	mg/l	IS 3025 (Part 1)	400	400	77
7	Total Hardness (as CaCO ₃)	mg/l	IS 3025 (Part 1)	200	200	177
8	Total Hardness (as CaCO ₃)	mg/l	IS 3025 (Part 1)	210	210	144
9	Chloride (as Cl ⁻)	mg/l	IS 3025 (Part 1)	250	250	71
10	Free Residual Chlorine	mg/l	IS 3025 (Part 1)	0.2	0.2	20.3 (0.2 - 0.7)
11	Sulphate (as SO ₄)	mg/l	IS 3025 (Part 1)	400	400	77
12	Maximum (as MnCl ₂)	mg/l	IS 3025 (Part 1)	30	30	11

[illegible]

Received 20 July 2004; accepted 12 October 2004

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Institute for Environmental Management



Test Report

Discipline: Chemical	Group: Water	Sub-Group: Ground Water
Report Issue Date: 27-09-2024	Test Report No.: IEM-23080001041	
Sample ID: 240324NC0001 & 240324SG0001	Sample Description: Ground Water (Dug well)	
Client No./P.O. No.: 454000071237	Client No./P.O. Date: 26-09-2023	
Issued to: Dalmia Cement (Bihar) Limited, (Jharkhand Cement Works) Plot No TMA-7(P), Bokaro Industrial Area Bistirth Bokaro Steel City, Bokaro-827014, Jharkhand India		
Type of Industry: Cement	Customer Representative: Sanjay Verma	
Sample Drawn by: IEM Team	Sampling Date: 14-09-2024	
Protocol: CPCB Guidelines & IS Method 5025 Series		
Sampling Location: Bhokura		
Field Meteorological Information: A. Temp. (°C): 28 B. H. (m): 59 W.C.: Partly Sunny W.B.: SC to NW		
Sample Receiving date: 24-09-2024	Testing Started: 24-09-2024	Testing Ended: 27-09-2024

---Test Results---					
Sl. No.	Tested Parameter	Unit	Method No.	Limit	Results
1.	Copper	mg/l	APHA 3111 B 2017	0.5-1.0	NDL (MDL - 0.02)
2.	Chromium	mg/l	APHA 3111 B 2017	0.05 - No Regulation	NDL (MDL - 0.02)
3.	Lead (Pb)	mg/l	APHA 3111 B 2017	0.01 - No Regulation	NDL (MDL - 0.02)
4.	Manganese (Mn)	mg/l	APHA 3111 B 2017	0.1 - 0.3	NDL (MDL - 0.02)
5.	Total Coliform	MPN/100 ml	IS 1022: 1981	Shall not be detectable in any 100 ml sample	NDL (MDL - 1.8)
6.	E. Coli	MPN/100 ml	IS 1022: 1981	Shall not be detectable in any 100 ml sample	NDL (MDL - 1.8)

---End Report---	
Env. Condition of Lab:	Laboratory is maintaining Temperature 25 ± 2°C and Relative Humidity 65% in effluent area as per IS 15021(C).
Accreditation:	NABL / Maharashtra Government License, ISO: 9001:2015 (Quality Management)
Client to be satisfied:	IS 5500-2012
Remark:	Sample comply with prescribed specifications.

Tested By: Anandharan Muru

Sample Drawn By: Raju Kumar Singh & Team

Specific Contract Notes: 1. The laboratory accepts responsibility for content of this report. 2. This report shall not be reproduced except by letter without express written consent. 3. This report is intended for use by the client and for no other purpose or for any other use. 4. Any complaint about this report should be communicated in writing within 7 days of receipt. 5. Test results of individual samples are not valid if the sample is not properly stored or handled. 6. In case of analytical results, please refer to the report for details.	Prepared By:  Technical Manager	Checked By:  Director
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Page 2 of 2

Corporate office: A-9, Block Durgam, Opp- RD India Radio Station, Kank Road, Bhubaneswar, Odisha - 751001

Laboratory Site: A-13, Sector 10, Near Sakshi Mahal, Harma Housing Colony,

Bhubaneswar-751002, Odisha, India

Ph: +9178404255, 8427644251, Email: iem2011@gmail.com



Institute for Environmental Management



Test Report

Discipline: Chemical	Group: Water	Sub-Group: Ground Water
Report Issue Date: 27-09-2024	Test Report No.: IEM-230000003-0002	
Sample ID: 2409240000002 & 2409240000003	Sample Description: Ground Water (Dig well)	
Client No./P.O. No.: 4540700015-007	Client No./P.O. No.: 25-08-2023	
Issued to: Dunlop Cement (Bharat) Limited, (Bharat Cement Works) Plot No 10/1A-TIP, Bokaro Industrial Area (Bokaro) Bokaro Steel City, Bokaro-827014, Jharkhand India		
Type of Industry: Cement	Customer Representation: Suraj Kumar	
Sample Drawn by: J.M. Tahir	Sampling Date: 24-09-2024	
Method: CPCB Guideline, IS Method 3025 Series		
Sampling Location: Patharia Test		
Field Meteorological Information: A. Temp. (°C): 28 R.H. (%): 57 W.C. (Partly Sunny) W.D. (5) to 10		
Sample Receiving date: 24-09-2024 Testing started: 24-09-2024 Testing ended: 27-09-2024		

---Test Results---				
Sl. No.	Tested Parameter	Unit	Method No.	Limit
1.	Copper	mg/l	APHA 3111 B-2017	0.5-1.5
2.	Chromium	mg/l	APHA 3111 B-2017	0.05 - No Residuum
3.	Lead (Pb)	mg/l	APHA 3111 B-2017	0.01 - No Residuum
4.	Manganese (Mn)	mg/l	APHA 3111 B-2017	0.1-0.3
5.	Total Cadmium	mg/l	IS 1022: 1997	Should not be detectable in any 100 ml sample
6.	E. Coli	mg/l	IS 1022: 1997	Should not be detectable in any 100 ml sample

Env. Condition of Lab:		Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 55± 5% as per IS 159-1995
Abbreviation:		ND: Not Detectable Limit, BDL: Below Detection Limit
Unit or Symbol:		mg/l (Pb, Mn)
Remark:		Result comply with prescribed specification.

Tested By: Maheshwar Shetty

Sample Drawn By: Raju Kumar Singh & Tahir

Specific Technical Scope 1. The laboratory is not responsible for samples of this report. 2. The report is valid only for the purpose for which it was prepared. 3. Any alteration to the report should be communicated to the client. 4. The report is valid only for the purpose for which it was prepared. 5. It is not the responsibility of the laboratory to ensure the safety of the samples. 6. The report is valid only for the purpose for which it was prepared.	Reviewed By: Technical Manager: Director:
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Page 2 of 2

Corporate Office: A-8, 3rd Floor, C-10, All India Radio Station, Kalyan, Dist. Thane, Maharashtra - 404001

Subsidiary Office: 25/01, A-10, 1st Floor, Kalyan, Dist. Thane, Maharashtra - 404001

Kalyan-404001, Maharashtra, India

Ph: 9427824233, 9427824234, Email: iem@iemindia.com



Test Report

ULR No.:	7	2	1	1	5	1	5	2	4	0	0	0	0	0	2	2	3	9
Discipline: Chemical	Group: Water					Sub-Group: Ground Water												
Report Issue Date: 27-12-2024	Test Report No.: RN-2413050046001																	
Sample ID: 241224WA01001	Sample Description: Ground Water (Dug well)																	
Challan No./P.O. No.: 4548043344/237	Challan No./P.No. Date: 05-11-2024																	
Issued to: Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No (V/A-7(P), Bokaro Industrial Area Baridih Bokaro Steel City, Bokaro-827014 Jharkhand India																		
Type of Industry: Cement										Customer Representative: Sanjeev Verma								
Sample Drawn by: IEM Team										Sampling Date: 24-12-2024								
Protocol: CPCB Guideline & IS Method 3025 Series																		
Sampling Location: Bhutkuru																		
Sample Receiving date: 24-12-2024						Testing Started: 24-12-2024						Testing Ended: 27-12-2024						

—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	7.4
2.	Turbidity	NTU	IS 3025 (Part-15)	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	224
6.	Calcium (as Ca+2)	mg/l	IS 3025 (Part-40)	75	200	30.5
7.	Total Alkalinity (as CaCO ₃)	mg/l	IS 3025 (Part-23)	200	600	88
8.	Total Hardness (as CaCO ₃)	mg/l	IS 3025 (Part-21)	200	600	156
9.	Chloride (as Cl ⁻)	mg/l	IS 3025 (Part-32)	250	1000	29
10.	Free Residual Chlorine	mg/l	IS 3025 (Part-26)	0.2	1.0	NCL (MDL-0.07)
11.	Sulphate (as SO ₄ ⁻²)	mg/l	IS 3025 (Part-24)	200	400	32
12.	Magnesium (as Mg+2)	mg/l	IS 3025 (Part-48)	30	100	18.1

—END Report—

Env. Condition at Lab:	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 60± 5% in all testing area as per IS 196/1998(E).
Abbreviation:	MDL - Minimum Detection Limit, SDL - Below Detection Limit
Limit (as Specified)	IS 10100, 2022
Remark:	Sample comply with prescribed specification.

Tested By: Mahendranath Mohar

Sample Drawn By: Siddharth Kumar & Team

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--	--	--

Page 1 of 2

Corporate Office - A-8, 3rd Floor, Heights City, 68 Indira Park Station, Khar, Mumbai, 400 052, India (M)

Laboratory Office - 127A - A-55, Balaji Vihar, Sector-3, Gurgaon, Haryana, 122 002, India

Bokaro Office - 827014, Jharkhand, India

Ph - 8440962415, 8447764151, Email - iem2012@rediffmail.com



Institute for Environmental Management



Test Report

Discipline: Chemical	Group: Water	Sub-Group: Ground Water
Report Issue Date: 27-12-2024	Test Report No.: IM-241205004GWH	
Sample ID: 241224RC010016241224M802003	Sample Description: Ground Water (Dug well)	
Challan No./P.O. No.: 4548043344/237	Challan No./P.No. Date: 05-11-2024	
Issued to: Daimia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No W/A-7(P), 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: 24-12-2024	
Protocol: CPCB Guideline & IS Method 8025 Series		
Sampling Location: Bhurkura		
Sample Receiving date: 24-12-2024	Testing Started: 24-12-2024	Testing Ended: 27-12-2024

Test Result

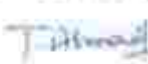
Sl. No.	Tested Parameter	Unit	Method No.	Limit	Results
13.	Copper	mg/l	APHA 3111 B.2017	0.5-1.5	BDL (MDL - 0.2)
14.	Chromium	mg/l	APHA 3111 B.2017	0.05 - No Relaxation	BDL (MDL - 0.2)
15.	Lead (Pb)	mg/l	APHA 3111 B.2017	0.01 - No Relaxation	BDL (MDL - 0.2)
16.	Manganese (Mn)	mg/l	APHA 3111 B.2017	0.1 - 0.3	BDL (MDL - 0.2)
17.	Total Coliform	NPTN/100 mL	IS 1822:1981	Shall not be detectable in any 100 ml sample	BDL (MDL 3.8)
18.	E. Coli	NPTN/100 mL	IS 1822:1981		BDL (MDL 3.8)

End Report

Env. Condition of Lab.	Laboratory is maintaining Temperature 21 to 27°C and Relative Humidity 55% to 65% in all testing area as per IS 15924:2004 (C1)
Abbreviation	MDL: Minimum Detection Limit; BDL: Below Detection Limit
Limit is Specified	IS 10500:2022
Remark	Sample Comply with prescribed specification.

Tested By: Manojkumar Mahor

Sample Drawn By: Siddharth Kumar & Team

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--	---	---

Page 2 of 2

Overseas Office - A-9, Akash Bhagya, 3rd Floor, All India Radio Station, East Road, Ranchi, Jharkhand - 834001

Laboratory Site - (C-24) - A/10, Sahas Nigam Near Indian Station, Daimia Housing Colony,
Ranchi-834002, Jharkhand, India

Ph - 9607604255, 9402964254, Email - info@iemindia.com



Test Report

ULB No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Discipline: Chemical	Group: Water							Sub-Group: Ground Water							
Report Issue Date: 27-12-2024	Test Report No.: RN-241505040W2														
Sample ID: 241224W01003	Sample Description: Ground Water (Dug well)														
Challan No./P.O. No.: 454804344/217	Challan No./P.O. Date: 05-12-2024														
Issued to: Daima Cement (Bharat) Limited, (Bharat Cement Works) Plot No IV(A-7/P), Bokaro Industrial Area Bahadur, Bokaro Steel City, Bokaro-827014, Jharkhand India															
Type of Industry: Cement							Customer Representative: Satyendra Verma								
Sample Drawn by: IEM Team							Sampling Date: 24-12-2024								
Protocol: CPCB Guidelines & IS Method 5025 Series															
Sampling Location: Pashurua land															
Sample Receiving date: 24-12-2024					Testing Started: 24-12-2024					Testing Ended: 27-12-2024					

Test Result						
Sl. No.	Tested Parameter	Unit	Method No.	Limit		Results
				Acceptable	Permissible	
1	pH value at 25°C	—	IS 5025 (Part-1):	6.5 - 8.5	No Detection	7.2
2	Turbidity	NTU	IS 5025 (Part-1):	1	5	<1
3	Colour	Hazen	IS 5025 (Part-1):	5	15	<5
4	Odour	—	IS 5025 (Part-1):	Agreeable	Agreeable	Agreeable
5	Total Dissolving Solids (TDS)	mg/l	IS 5025 (Part-1):	500	2000	198
6	Calcium (as Ca ²⁺)	mg/l	IS 5025 (Part-1):	75	200	24.0
7	Total Alkalinity (as CaCO ₃)	mg/l	IS 5025 (Part-1):	300	500	94
8	Total Hardness (as CaCO ₃)	mg/l	IS 5025 (Part-1):	200	300	112
9	Chloride (as Cl ⁻)	mg/l	IS 5025 (Part-1):	250	1000	21
10	Free Residual Chlorine	mg/l	IS 5025 (Part-1):	0.2	1.0	BEH/MDL 0.5%
11	Sulphate (as SO ₄ ²⁻)	mg/l	IS 5025 (Part-1):	200	400	23
12	Magnesium (as Mg ²⁺)	mg/l	IS 5025 (Part-1):	30	100	12.6

Env. Condition of Lab:		Lab is maintained at temperature 27±2°C and Relative Humidity 55±5 % in all testing area as per IS 1591:1995(1).
Abbreviations:		MDL - Minimum Detection Limit, BDL - Below Detection Limit
Limit as Specified:		IS 10500:2021
Remark:		Sample Comply with permissible limit/standard.

Tested By: Mahendranath Maitra

Sample Drawn By: Siddhanta Kumar & Team

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---	---	--

Page 1 of 2

Lab (office) : A-8, Phase II, Sector-14, Gurgaon, Haryana, India. Phone: 012-26111111, 012-26111112

Laboratory : A-8, Phase II, Sector-14, Gurgaon, Haryana, India. Phone: 012-26111111, 012-26111112

Website: www.iemindia.com

FE: 647750425A, AA20N0011, 00001 | 647750425A



Test Report

Discipline: Chemical	Group: Water	Sub-Group: Ground Water
Report Issue Date: 27-12-2024	Test Report No.: RN-241105004BW2	
Sample ID: 241224RC01002 & 241224MB01002	Sample Description: Ground Water (Dig well)	
Challan No./P.O. No.: 4548043344/237	Challan No./P.No. Date: 09-11-2024	
Issued to: Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No R/A-7(P), Bokaro Industrial Area Bahadur Bokaro Steel City, Bokaro-827014 Jharkhand India		
Type of Industry: Cement	Customer Representative: Sampen Verma	
Sample Drawn by: IEM Team	Sampling Date: 24-12-2024	
Protocol: CPCB Guideline & IS Method 3025 Series		
Sampling Location: Pakhwasia Maid		
Sample Receiving date: 24-12-2024	Testing Started: 24-12-2024	Testing Ended: 27-12-2024

Test Result

Sl. No.	Tested Parameter	Unit	Method No.	Limits	Results
13.	Copper	mg/l	APHA 3111 B 2017	0.5-1.5	NDL (MDL - 0.2)
14.	Chromium	mg/l	APHA 3111 B 2017	0.05 - No Relaxation	NDL (MDL - 0.2)
15.	Lead (Pb)	mg/l	APHA 3111 B 2017	0.01 - No Relaxation	NDL (MDL - 0.2)
16.	Manganese (Mn)	mg/l	APHA 3111 B 2017	0.1 - 0.3	NDL (MDL - 0.2)
17.	Total Coliform	MPN/100 mL	IS 1622-1981	Small not be detectable in any 100 ml sample	NDL (MDL - 1.8)
18.	E. Coli	MPN/100 mL	IS 1622-1981		NDL (MDL - 1.8)

End Report

Env. Condition of Lab.	Laboratory is maintaining Temperature 27 ± 2°C and Relative Humidity 45% N in all testing area as per IS 156-1984/IT.
Abbreviation	NDL: Minimum Detectable Limit, BDL: Below Detection Limit
Limit is Specified	IS 15505-2022
Remark	Sample Comply with prescribed specifications.

Tested By: Mahendranath Nair

Sample Drawn By: Siddhant Kumar & Team

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---	--	---

Page 2 of 2

Corporate Office : A-4, Model Town, Opp. Jai India Hotel Station, Kirti Road, Ranchi, Jharkhand - 834001

Laboratory Site / IEM : A-13, Saket Vihar, Near Saket Bypass, Varanasi, Kashi District, Uttar Pradesh

Branch: K-4002, (Jharkhand) India

Ph: 9426504270, 9426504271, Email: info@iemindia.com



Test Report

ILR No.:	7	2	1	5	7	9	2	2	3	8	8	8	8	8	5	2	9																																				
Discipline:	Chemical					Group:					Water								Sub-Group:					Ground Water																													
Report Issue Date:										10-03-2025								Test Report No.:										R/ 2411050046W1																									
Sample ID:										250307WAO1001								Sample Description:										Ground Water (dug well)																									
Challan No./P.O. No.:										4540043344/237								Challan No./ P.No. Date:										05-31-2024																									
Issued to:																		Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No IV/A-7(P), Bokaro Industrial Area Sahibp Bokaro Steel City, Bokaro-827014 Jharkhand India																																			
Type of Industry:										Cement								Customer Representative:										Sonney Sonnet																									
Sample Drawn by:										IEM Team								Sampling Date:										07-03-2025																									
Protocol:																		CPCB Guidelines (S Method 3025 Series)																																			
Sampling Location:																		Bhuykura																																			
Sample Receiving date:										07-03-2025								Testing Started:										07-03-2025								Testing Ended:										10-03-2025							

---Test Result---

Sl. No.	Tested Parameter	Unit	Method No.	Limit		Results
				Acceptable	Permissible	
1.	pH value at 25°C	---	IS 3025 (Part-1)	6.5 - 8.5	No Relaxation	7.5
2.	Turbidity	NTU	IS 3025 (Part-10)	1	5	41
3.	Colour	Hazen	IS 3025 (Part-04)	5	15	<5
4.	Odour	---	IS 3025 (Part-06)	Agreeable	Agreeable	Agreeable
5.	Total Dissolved Solids (TDS)	mg/l	IS 3025 (Part-18)	500	2000	196
6.	Calcium (as Ca+2)	mg/l	IS 3025 (Part-45)	75	200	33.7
7.	Total Alkalinity (as CaCO ₃)	mg/l	IS 3025 (Part-27)	200	600	67
8.	Total Hardness (as CaCO ₃)	mg/l	IS 3025 (Part-21)	200	600	142
9.	Chloride (as Cl ⁻)	mg/l	IS 3025 (Part-32)	250	1000	28
10.	Free Residual Chlorine	mg/l	IS 3025 (Part-28)	0.2	1.0	BOL(MDL-0.07)
11.	Sulphate (as SO ₄ ²⁻)	mg/l	IS 3025 (Part-24)	200	400	34
12.	Magnesium (as Mg+2)	mg/l	IS 3025 (Part-48)	30	100	14.1

---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 159 (1984°C)
Abbreviation	MDL - Minimum Detectable Limit, BOL - Below Detection Limit
Limit as Specified	IS 3025-2021
Remarks	Sample Complies with prescribed specifications

Tested By: Yashwanth Kumar

Sample Drawn By: Siddharth Kumar & Team

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	 (Tauseef Ahmad) Technical Manager	 (Dr. B. C. Jain) Director

Page 1 of 2

Corporate Office - A-2, Main Building, Gate-42 Indira Park, Durgam, New Road, Ranchi, Jharkhand - 834001

Laboratory Site - H.No. - 3, 13, Saket Vihar, Near Sushma Museum, Gurgaon Housing Colony,
Sector-33A002, Faridkot, India

Ph- 947704256, 947704255, Email - info@iemindia.com



Test Report

Discipline: Chemical	Group: Water	Sub-Group: Ground Water
Report Issue Date: 10-03-2025	Test Report No.: RM/2412050040/W1	
Sample ID: 250307RC01001 & 250307MB01001	Sample Description: Ground Water (Dug well)	
Challan No./P.O. No.: 4548043344/237	Challan No./P.No. Date: 05-11-2024	
Issued to: Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No IVA-7(P), 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: 07-03-2025	
Protocol: CPCB Guidelines & IS Method 3025 Series		
Sampling Location: Bhutkuru		
Sample Receiving date: 07-03-2025	Testing Started: 07-03-2025	Testing Ended: 10-03-2025

---Test Result---

Sl. No.	Tested Parameter	Unit	Method No.	Limits	Results
13.	Copper	mg/l	APHA 3111 B 2017	0.5-1.5	BDL (MDL - 0.2)
14.	Chromium	mg/l	APHA 3111 B 2017	0.05 - No Relaxation	BDL (MDL - 0.2)
15.	Lead (Pb)	mg/l	APHA 3111 B 2017	0.01 - No Relaxation	BDL (MDL - 0.2)
16.	Manganese (Mn)	mg/l	APHA 3111 B 2017	0.1 - 0.3	BDL (MDL - 0.2)
17.	Total Coliform	MPN/100 mL	IS 1622: 1981	Shall not be detectable in any 100 ml sample	BDL (MDL - 1.8)
18.	E. Coli	MPN/100 mL	IS 1622: 1981		BDL (MDL - 1.8)

---End Report---

Env. Condition of Lab.	Laboratory is maintaining Temperature $27 \pm 2^\circ\text{C}$ and Relative Humidity 55% N in all testing area as per IS 166: 1966 (C).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Limit as Specified	IS: 10500: 2022
Remarks	Sample comply with prescribed specification.

Tested By: Sanjay Kumar & Shweta Jain

Sample Drawn By: Siddhant Kumar & 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.	Technical Manager	Director

Page 2 of 2

Corporate office - A-4, Block (Housing) Opp- 42 Joka Road Station, Boka Road, Boka Ro, Jharkhand - 834001

Laboratory Site - 15, 7th - A-13, Sakin Vihar, Near National Highway, Jharkhand, Jharkhand

Kolkata - 700002, Jharkhand, India

(T) : 9671674233, 9427804252, Email : info@iemindia.com



Test Report

ULR No.:	T	C	1	S	2	9	2	2	5	0	0	0	0	0	5	3	0	
Discipline: Chemical	Group: Water					Sub-Group: Ground Water												
Report Issue Date: 10-03-2025									Test Report No.: RN-241105004GW2									
Sample ID: 250307WA01002									Sample Description: Ground Water (Dug well)									
Challan No./P.O. No.: 4544043344/237									Challan No./P.No. Date: 05-11-2024									
Issued to: Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No IV/A-7(P), 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: 07-03-2025									
Protocol: CPCB Guideline 8 IS Method 3025 Series																		
Sampling Location: PakharigaTand																		
Sample Receiving date: 07-03-2025						Testing Started: 07-03-2025						Testing Ended: 10-03-2025						

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	7.4
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-18)	500	2000	180
6.	Calcium (as Ca+2)	mg/l	IS 3025 (Part-40)	75	200	24.8
7.	Total Alkalinity (as CaCO ₃)	mg/l	IS 3025 (Part-23)	200	500	98
8.	Total Hardness (as CaCO ₃)	mg/l	IS 3025 (Part-21)	200	500	110
9.	Chloride (as Cl ⁻)	mg/l	IS 3025 (Part-32)	250	1000	16
10.	Free Residual Chlorine	mg/l	IS 3025 (Part-28)	0.2	1.0	BDL(MDL 0.07)
11.	Sulphate (as SO ₄ ²⁻)	mg/l	IS 3025 (Part-24)	200	400	25
12.	Magnesium (as Mg+2)	mg/l	IS 3025 (Part-46)	30	100	13.1

END Report

Env. Condition of Lab.	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 65± 5 % in all testing area as per (S. 335-1886)C.
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit.
Limit is Specified	IS (IS 3025-2021)
Remark	Sample Comply with prescribed specification.

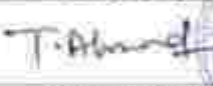
Tested By: Rashmi Kurnik

Sample Given By: Siddharth Kurnik & Team

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Page 1 of 2

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

Corporate office : A-16, Modi Heights, Opp. All India Radio Station, Raju Road, Ranchi, Jharkhand - 834001

Laboratory Site : H.No. - A-15, Saket Vihar, Near Sahel Narayan, Hazrat Nizamiy Chitra,

Ranchi-834001, Jharkhand, India

Cell : 9407054153, 9407064151, E-mail : iem2013@gmail.com



Test Report

Discipline: (Chemical)	Group: Water	Sub-Group: Ground Water
Report Issue Date: 10-03-2025	Test Report No.: RN/2411050040/W2	
Sample ID: 250307RC01002 & 250307MB01002	Sample Description: Ground Water (Dug well)	
Challan No./P.O. No.: 4548043344/237	Challan No./ P.No. Date: 05-11-2024	
Issued to: Dalmia Cement (Bihar) Limited, (Jharkhand Cement Works) Plot No IV/A-7(P), 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: 07-03-2025	
Protocol: CPCB Guideline & IS Method 3025 Series		
Sampling Location: Pashurkya Land		
Sample Receiving date: 07-03-2025	Testing Started: 07-03-2025	Testing Ended: 10-03-2025

---Test Result---

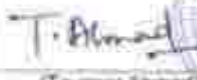
Sl. No.	Tested Parameter	Unit	Method No.	Limits	Results
13.	Copper	mg/l	APHA 3111 B 2017	0.5-1.5	BDL (MDL - 0.2)
14.	Chromium	mg/l	APHA 3111 B 2017	0.05 - No Relaxation	BDL (MDL - 0.2)
15.	Lead (Pb)	mg/l	APHA 3111 B 2017	0.01 - No Relaxation	BDL (MDL - 0.2)
16.	Manganese (Mn)	mg/l	APHA 3111 B 2017	0.1 - 0.3	BDL (MDL - 0.2)
17.	Total Coliform	MPN/100 mL	IS 1622: 1981	Shall not be detectable in any 100 ml sample	BDL (MDL - 1.8)
18.	E. Coli	MPN/100 mL	IS 1622: 1981		BDL (MDL - 1.8)

---End Report---

Env. Condition of Lab:	Laboratory is maintaining Temperature 27±2°C and Relative Humidity (RH) 50% all testing area as per IS 15616:2004(E).
Abbreviation	MDL: Minimum Detection Limit, BDL: Below Detection Limit
Limit is Specified	IS 15600:2003
Remark	Sample Comply with prescribed specification

Tested By: Sanjay Kumar & Master Faria

Sample Drawn By: Siddharth Kumar & Tejas

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	(Tayyeb Ahmad) Technical Manager	(S. C. Jain) Director

Page 2 of 2

Corporate office - A-8, Veda Bhagwati Opp. KJ India Kalya Indraw, Kalya Ward, Baramulla, Jammu & Kashmir - 191007

Laboratory Unit: (1) No. - A-12, Ganga Park, Near Ashoka, Himachal Pradesh, Haridwar, Uttarakhand, India
Rajya No. A-12052, Jharkhand, India

(Ph) - 9407904133, 9407904134, Email - info@iemindia.com

STP Outlet water quality analysis report from October 2024 to March 2025

STP Outlet water quality analysis report from October 2024 to March 2025						
Sr. No	Parameter	PH	Suspended solids mg/lit	COD mg/lit	BOD mg/lit	Oil & Grease mg/lit.
	Norms	5.5-9.0	100	250	30	10
1	October-2024	7.8	31	52	12.0	BDL
2	November-2024	7.7	25	44	12.4	BDL
3	December-2024	7.9	30	64	16.5	BDL
4	January-2025	8.1	28	60	15.7	BDL
5	February-2025	7.8	21	64	10.5	BDL
6	March-2025	8.0	23	68	11.1	BDL
	Min.	7.7	21	44	10.5	0
	Max.	8.1	31	68	16.5	0
	Avg.	7.9	26	58	13.2	0.0

STP Outlet water quality analysis report from NABI/JSPCB approved lab



Institute for Environmental Management



Test Report

UR No:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Discipline:	Chemical										Group: Pollution & Environment										Sub-Group: Waste Water																																																																															
Report Issue Date:	10-05-2025										Test Report No.: 65-2413050040602																																																																																									
Sample ID:	1000019032002										Sample Description: Waste Water (STP)																																																																																									
Client No./P.O. No.:	4546043344/237										Charter No./P.No. Date: 01-11-2024																																																																																									
Issued to: Dharma Cement Bharat Limited, Plot No. 10A-77, Bokaro Industrial Area Station Bokaro Steel City, Bokaro-827014 Jharkhand India																																																																																																				
Type of Industry: Cement																														Customer Representative: Sanjay Kumar																																																																						
Sample Drawn by/EM Team:																														Sampling Date: 07-03-2025																																																																						
Protocol: CPCB Guideline & IS Method 9020 Series																																																																																																				
Sampling Location: NEAR STP PLANT (OUTLET)																																																																																																				
Sample Receiving date: 07-03-2025																				Testing Started: 07-03-2025																				Testing Ended: 10-03-2025																																																												

Test Result					
Sl. No.	Tested Parameters	Unit	Method No.	Range**	Results
1.	pH value at 25°C	—	IS 3015 (Part-11)	5.5 to 9.0	8.0
2.	Total Suspended Solids (TSS)	mg/l	IS 3025 (Part-17)	100	23
3.	Biochemical Oxygen Demand (BOD)	mg/l	IS 3025 (Part-44)	80	11.1
4.	Chemical Oxygen Demand (COD)	mg/l	IS 3025 (Part-54)	250	68

One Condition of Lab: Laboratory is maintaining Temperature 27± 1°C and Relative Humidity 63± 5% as per ISO 9001:2015 and ISO 17025:2017.	
Accreditation: NABL, Ministry of Environment, Govt. of India, New Delhi.	
Range** as Specified: As per the Environmental Protection, Govt. of India.	
Remarks: Sample comply with prescribed specification.	

Tested By: Tanushree Kumar

Sample Given By: Tanushree Kumar & team

Specific Instruction Notes

- The laboratory is not responsible for samples of the origin.
- This report shall not be used for any other purpose than for which it was issued.
- The report is intended for use as a guide and not for legal purposes or for enforcement.
- Any complaint about the test result shall be accompanied by a copy of the report.
- The results of analysis by Environmental Management will be subject to internal review only.
- In case of any dispute, contact the laboratory at 0652-2413050 or 0652-2413051.
- On the basis of quality checked and technical data verified by the authorized agency, the test is issued by the laboratory of the organization.

Page 2 of 2

Reviewed By:	Authorized Signatory
T. Kumar	
(Signature)	(Signature)
Technical Manager	Director

Corporate office - A-8, Multi Heights, Opp- All India Radio Station, Sector-14, Gurgaon, Haryana (India) - 122001

Laboratory Site - A-8, Multi Heights, Opp- All India Radio Station, Sector-14, Gurgaon, Haryana (India) - 122001

Branch - 814001, Park Road, Gurgaon

Ph- 9467904251, 8437804251, Email- iem2012@gmail.com



Institute for Environmental Management



Test Report

Discipline: Chemical	Group: Pollution & Environment	Sub-Group: Waste Water			
Report Issue Date: 01-09-2023	Test Report No.: IEM-241223049WCO				
Sample ID: 202327P000002	Sample Description: Waste Water (STP)				
Challan No./P.O. No.: 4548043344/227	Challan No./P.O. Date: 01-11-2024				
Issued to: Dalmia Cement Bharat Limited, Plot No. 6/1A-1(P), Bokaro Industrial Area Nalanda Bokaro Steel City, Bokaro-833014, Jharkhand India					
Type of Industry: Cement	Customer Representation: Sarvesh Verma				
Sample Drawn by: IEM Team	Sampling Date: 07-03-2025				
Protocol: CPCR Guidelines & IS Method 2025 Series					
Sampling Location: NCAR STP PLANT (2025) XT					
Sample Receipting Date: 07-03-2025	Testing Started: 07-03-2025	Testing Ended: 10-03-2025			
--- Test Results ---					
Sl. No.	Tested Parameters	Unit	Method No.	Norms**	Results
5.	OT & Grade	mg/l	IS 2025 (Part 30)	15	95.0 (95.0, 4.0)
--- End of Report ---					
Key Condition at Lab:	Laboratory is maintaining Temperature 27±2°C and Relative Humidity 40±5% to all testing when we get 28 (28) (28) (28)				
Abbreviation:	N/A, Minimum Detection Limit, etc. before detection limit				
Norms** as Specified:	As per the Governmental (Environmental) Rule - 1986				
Remarks:	Sample integrity with prescribed specifications				

Tested By: Trishank Kumar

Sample Drawn By: Subhash Kumar & team

Specific Contained Notes: - The laboratory accepts responsibility for what is in the report. - The report shall not be used as evidence in a court of law without written approval of the IEM. - The report is intended for the customer and not for legal action in the court of law. - Any complaint about the report should be forwarded to the IEM within 7 days of the date. - The IEM is not responsible for the consequences of any action taken by the customer based on the report. - In case of feedback, complaints, please send an email to info@iemindia.com On the basis of quality checked and technical data verified by the authorized agency, the report is issued by the Director of the Organization. Page 2 of 2	Reviewed By: Technical Manager Approved By: Director
---	--

Corporate Office: A-8, Huda Heights, Opp. - 42 Huda Kiosk Station, Kirti Road, Varanasi, Jharkhand - 834001

Laboratory Site: A-15, Nitya Vikas, Near Sanyal Bypass, Varanasi, Jharkhand, India

Ph: 9471824218, 9471824219, Email: info@iemindia.com

Office of the Director, Ground Water Directorate, Jharkhand, Ranchi,

"Atishayantaran Bhawan", Kutchery Chowk, Ranchi-834001

Phone-0651-2217141-Fax-0651-2214830

E-Mail:dirgwdran-wind-jhr@nic.in

Letter No.G.W.D.320/Ranchi, dated... 06/09/2013

From,

Director,
Ground Water Directorate, Jharkhand
Water Resources Department,
Govt. of Jharkhand.

To,

Brig (Retd) S.K. Hajela,
Bokaro Jaypee Cement Plant,
Plot No.-IV/A-7(P),
Bokaro Industrial Area, Balidih,
Bokaro Steel City, Jharkhand-827014.

Sub:-

Technical Approval of your Design and Plan of "Rain Water Harvesting" for Ground Water Recharging to be provided at Plot No.-IV/A-7(P), Bokaro Industrial Area, Balidih, Bokaro Steel City.

Ref:-

Your Design and Plan of "Rain Water Harvesting" submitted to this office on 24.08.2013 vide your Letter No.-Nil dated-24.08.2013.

Sir,

Kindly refer to your Design & Plan of "Rain Water Harvesting" for Ground Water Recharging, along with associated Geophysical & Hydrological report of the area, submitted to this office on 24.08.2013, vide your letter no.-Nil dated-24.08.2013. Your "Rain Water Harvesting" for Ground Water Recharging Plan envisages to harvest 50,607.11M³ of rainfall run-off per annum, resulting in Groundwater Recharge of the order of 30,364.27M³ annually.

The Plan Comprises of 3 nos. of Recharge Pits of dimension (3Mx3Mx3M) with one no. of boring of 8"6" dia and 45 meter depth at the center of each pit. 2 nos. of Recharge Pits are provided in colony and plant area and one no. in Northern part of the plant. The plan also provides for two nos. of Injection Wells, having 8"6" dia and 45M depth in the colony and plant area. One no. Storage Cum Percolation Pond (SCPP) of dimension (10Mx08Mx03M) with one no. recharge shaft of 2M diameter and 1.5M depth in the Northern Area. Proper drainage system with required gradient will be developed by the plant to collect optimum rainfall run-off from rooftop as well as open area, as mentioned in the report. According to the plan, water requirement of 550M³ per day is met through BIADA water supply from Garga Dam.

For further recharge to ground water, it is advised to provide atleast one no. Additional Recharge pit of proposed dimension and boring near the point P₂ of fig. 4.2, at suitable place.

P.T.O.-2

The plan submitted by you for 'Rain Water Harvesting' is technically approved subject to the following conditions: -

1. That the Rainfall run-off in the premises should get **primary treatment** to make the run-off free from suspended impurities by passing through fine mesh screen, grid chambers for removal of grit/sand etc. and passing through settling chamber. Necessary chemical treatment should also be undertaken, if required.
2. Your entire 'Rain Water Harvesting' Project for Ground Water Recharging must be completed within 60 days of the approval of the plan.
3. The Proposed Rain Water Harvesting Recharge Pits must be constructed as per standard design of filter materials and boring in the pits, annexed with this letter.
4. The water required for industrial purpose during the non-monsoon period be met through surface water storage, adopting Rain Water Harvesting practices, as far as possible.
5. The Ground Water Level in at least 3-4 dug wells in and around your plant, must be monitored in the first week of every month and the data be necessarily made available to this office.
6. The quality of Ground Water in and around the plant area must be monitored periodically (every 6 months) and the data be necessarily made available to this office as well as to Jharkhand State Pollution Control Board, Dhuwa, Ranchi.
7. The Recharge Pits to be constructed by you must be maintained properly, for all times to come. The top-coarse sand-layer in the pit, must be changed every alternate year, before the onset of monsoon.
8. The Completion Report of the entire project within the stipulated period (60 days), must be communicated to this office as well as to Jharkhand State Pollution Control Board, immediately after completion of the project.
9. **"This premises has elaborate Rain Water Harvesting Facility"**, must also be displayed prominently at the entrance and other places of your Plant, in order to sensitize more people about Rain Water Harvesting.

Enclosures: - (1) Technically Approved Rain Water Harvesting Plan.
(2) Standard Design and Plan of Recharge Pit.

Yours sincerely,

Ground Water Directorate,
Jharkhand, Ranchi.

AMH
6/7/13

1-2000P
6.7.13

DALMIA CEMENT BHARAT LIMITED, BOKARO

RAIN WATER HARVESTING SYSTEM

Roof top Rain Water Harvesting System have installed in CCR, Raw Material Hopper Building, Cement Mill, Bag House & Packing Plant Building in our plant area. Rain water collected from roof top through gutter and carrying by pipe lines in recharge trenches. Recharge Pits are also connected with recharge trench. 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. Rain water easily percolated and recharges ground water level. Inspection of Rain water Harvesting System has done by Regional Officer, JSPCB, and Ranchi on 30.05.2013 and approved from Ground Water Board, Ranchi vide letter no. GWD/320/ Ranchi Dated 06.09.2013



RAINWATER HARVESTING SYSTEM DISPLAY INSIDE THE PLANT



Rain water harvesting/recharge pit constructed in railway siding & Cement mill area



Rain water harvesting recharge pit near FHG Hostel & Rain water recharge trench in-front of CCR main building



Rainwater harvesting/recharge trench near bag house and near cement mill 2 area



Rainwater harvesting recharge trench near CCR building 3 near E type quarter

Rainwater harvesting recharge trench near E & F type quarter

Wells renovation by Dalmia Cement East Limited near surrounding village area



Wells renovation by Dalmia Cement East Limited near surrounding village area



Pond renovation near surrounding village area by DCEL Bokaro to conserve the rain water



Annexure-14

DALMIA CEMENT BHARAT LIMITED, BOKARO

Water Flow meter installed at the main gate of the factory





Test Report

ULR No.:	1	2	3	4	5	6	7	8	9	0	0	0	0	0	0	0	0	0				
Discipline: Chemical	Group: Atmospheric Pollution								Sub-Group: Ambient Noise Levels (Excluding Vibration)													
Report Issue Date: 27-12-2024	Test Report No.: RM-241105004601																					
Sample ID: 241224AP02001	Sample Description: Ambient Noise																					
Challan No./P.O. No.: 4548043244/237	Challan No./P.O. Date: 05-11-2024																					
Issued to:																						
Dalmia Cement (Bharat) Limited. (Jharkhand Cement Works) Plot No (VIA-7iP), 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: 23-12-2024 to 24-12-2024												
Protocol: CPCB Guideline & IS Method 9999-1991																						
Sampling Location: Near Main Gate																						
Field Meteorological Information										A. Temp. (°C): 18				R.H. (%): 65				W.C.: Partly Sunny				W.D.: SW to NE
Sample Receiving date: 24-12-2024										Testing Started: 24-12-2024				Testing Ended: 27-12-2024								

—Test Result—

Sl. No	Parameter	Method	Unit	Day Time	Night Time	Limits
1.	Equivalent Sound Level (Leq)	IS 9999:1991	dB(A)	64.9	54.5	D-75 N-70

—End of Report—

Note:-

1. Day time shall mean from 6:00 a.m. to 6:00 p.m.
2. Night time shall mean from 6:00 p.m. to 6:00 a.m.
3. Mixed categories of noise may be reported as one of the four above mentioned categories by the competent authority.
4. dBA (eq) denotes the time weighted average of the level of sound in decibels on scale A which is suitable for human hearing.
5. A 'decibel' is a unit in which noise is measured. 'dA', or dBA (eq), denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.
6. Leq: If H 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 done as per IS 156/1999(AC).
Accreditation	NABL Minimum Detecting Limit.
Limit as Specified	As per Noise Pollution (Regulation and Control) Rules - 2000
Remark	Sample Comply with prescribed specification.

Tested By: Akanksha Gounath

Sample Drawn By: Siddharth Kumar & Team

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	T. Ahmad (Touqeer Ahmad) Technical Manager	 (Dr. S. C. Jain) Director

Page 1 of 1

Corporate Office - A-25, Math Bhagwati, Opp. All India Radio Station, Baha Road, Ranchi, Jharkhand - 834001

Laboratory Sec - IEM, - A-15, Sakin, Vikas, Near Sakin, Vikas, Vikas Housing Colony,
Ranchi, 834001, Jharkhand, India.

Ph - 9437804205, 9437804201, Email - info@iemindia.com



Test Report

ULR No.:	F	C	1	1	5	1	5	2	4	0	0	0	0	0	2	1	3	1
Discipline:	Chemical	Group:	Atmospheric Pollution	Sub-Group:	Ambient Noise Levels (Excluding Vibration)													
Report Issue Date:	24-12-2024	Test Report No.:	RN-241105084N2															
Sample ID:	241224AP02002	Sample Description:	Ambient Noise															
Challan No./P.O. No.:	4548043344/237	Challan No./P.No. Date:	05-11-2024															
Issued to:	Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No IV/A-7(P), Bokaro Industrial Area Baludih Bokaro Steel City, Bokaro-827014 Jharkhand India																	
Type of Industry:	Cement	Customer Representative:	Sanjeev Verma															
Sample Drawn by:	IEM Team	Sampling Date:	23-12-2024 to 24-12-2024															
Protocol:	CPCB Guideline & IS Method 9889:1981																	
Sampling Location:	Near Fabrication Yard																	
Field Meteorological Information	A. Temp. (°C): 18	R.H. (s): 66	W.C.: Partly Sunny	W.D.: SW to NE														
Sample Receiving date:	24-12-2024	Testing Started:	24-12-2024	Testing Ended:	27-12-2024													

—Test Result—

Sl. No	Parameter	Method	Unit	Day Time	Night Time	L100H
1.	Equivalent Sound Level (Leq)	IS 9889:1981	dB(A)	66.8	52.4	D-76 N-70

—End of Report—

Note: -

- Day time shall mean from 5.00 a.m. to 5.00 p.m.
- Night time shall mean from 5.00 p.m. to 5.00 a.m.
- All test equipment used may be declared as one of the four classes mentioned in the certificate by the competent authority.
- dB(A) indicates the time-weighted average of the level of sound in decibels per second A which is relative to human hearing.
- S.A. "factor" is a unit in which noise is measured. "A", in dB(A), denotes the frequency weighting in the measurement of noise and corresponds to frequency 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 23±2°C and Relative Humidity 65±5% in all testing area as per IS 15189:2013.
Abbreviation	MSD: Microphone Detection Limit
Limit as Specified	As per Noise Pollution (Regulation and Control) Act, 2000
Remark	Sample Complies with prescribed specification.

Tested By: Akanksha Saurabh

Sample Drawn By: Siddharth Kumar & Team

Specific Contracted Work:	Reviewed By	Authorized Signatory
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. The report is issued for advisory guidance and not for legal purpose or for advertisement. 4. Any comments about this report should be communicated to issuing within 7 days of its issue. 5. For quality of inspection for Environmental Management will be limited to visual inspection only. 6. In case of feedback/complaints, please send an email at info@iemindia.com	T. Ahmad	(Signature)
On the basis of Quality Checked and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.	(Taqeer Ahmad)	(Dr. S. C. Jain)
	Technical Manager	Director

Page 1 of 1

Corporate Office: A-10, 55/8, Bhagwati, Opp. All India Radio Station, Kirti Road, Ranchi, Jharkhand - 834001

Laboratory Office: B-10, A-13, Saket Vihar, Near National Highway 24, Hazratganj, Patna

Patna-800002, Jharkhand, India

Ph: 8420404100, 8420404101, Email: info@iemindia.com



Test Report

ULN No.:	1	C	1	1	5	1	5	2	4	0	0	0	0	0	2	1	1	2		
Discipline: Chemical	Group: Atmospheric Pollution								Sub-Group: Ambient Noise Levels (Excluding vibration)											
Report Issue Date: 24-12-2024									Test Report No.: R/R-241125004703											
Sample ID: 241125AAPO2003									Sample Description: Ambient Noise											
Challan No./P.O. No.: 454804344/237									Challan No./ P.No. Date: 05-11-2024											
Issued to:																				
Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No IV/A-7(P), Bokaro Industrial Area Bahadur Bokaro Steel City, Bokaro-827014 Jharkhand India																				
Type of Industry: Cement									Customer Representative: Sanjeev Vattika											
Sample Drawn by: IEM Team									Sampling Date: 23-12-2024 to 24-12-2024											
Protocol: CPCB Guideline & IS Method 9889:1991																				
Sampling Location: Near Colony																				
Field Meteorological Information									A. Temp. (°C): 18			R.H. (%): 66			W.C.: Partly Sunny			W.D.: SW to NE		
Sample Receiving date: 24-12-2024									Testing Started: 24-12-2024					Testing Ended: 27-12-2024						

--- Test Result ---

Sl. No.	Parameter	Method	Unit	Day Time	Night Time	Limits
1.	Equivalent Sound Level (Leq)	IS 9889:1991	dB(A)	50.5	41.2	0-45 N-45

--- End of Report ---

Note:

1. Day time shall mean from 6.00 am to 6.00 pm.
2. Night time shall mean from 6.00 pm to 6.00 am.
3. Mixed categories of areas may be declared as one of the four above mentioned categories by the competent authority.
4. dBA (Leq) denotes the time weighted average of the level of sound in decibels on scale A which is suitable for human hearing.
5. A "decibel" is a unit in which noise is measured. "dBA" or dBA (Leq) denotes the frequency weighting of the measurement of sound and is correlated to frequency response characteristics of the human ear.
6. Leq: It is an energy mean of the noise level, over a specified period.

Env. Condition at Lab:	Laboratory is maintaining Temperature 27± 2°C and Relative Humidity 45± 5 % in all testing area as per IS 1599:1999(C).
Appreciation:	None. Minimum Detection Limit
Limit is specified:	Air gas Noise Pollution (Regulation and Control) Rules - 2008
Remark:	Sample comply with prescribed specification.

Tested By: Akarsha Soudh

Sample Drawn By: Siddharth Kumar & Team

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	 (Taqeer Ahmad) Technical Manager	 (P. S. C. Jha) Director

Page 1 of 1

Depository office : A-3, Main Highway, Opp. Old Jharkhand Sahitya Akademi, Khatu Road, Ranchi, Jharkhand - 834001

Laboratory Site : B.No. - 3-17, Anand Villa, Near Sahasra Bhawan, Harma Housing Colony,

Ranchi-834001, Jharkhand, India

Ph : 9477624173, 9427624174, Email : info@iemindia.com



Test Report

U/R No.:	T E 3 3 5 3 5 2 4 0 0 0 0 0 2 2 3 3																	
Disciplines: Chemical	Group: Atmospheric Pollution										Sub-Group: Ambient Noise Levels (Packaging, Vibration)							
Report Issue Date: 24-12-2024	Test Report No.: IE/24110500404																	
Sample Id: 241224APU0004	Sample Description: Ambient Noise																	
Challan No./P.O. No.: 454063344/337	Challan No./P.No. Date: 01-11-2024																	
Issued to:																		
Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No. R/A-7(P), 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: 23-12-2024 to 24-12-2024								
Protocol: CPCB Guideline & IS Method 5989:2003																		
Sampling Location: Near Wagon Tippler																		
Field Meteorological Information										A. Temp. (°C): 18		R.H. (%): 66		W.C.: Partly Sunny		W.D.: SW to NE		
Sample Receiving date: 24-12-2024										Testing Started: 24-12-2024				Testing Ended: 27-12-2024				

Test Result

Sl. No	Parameter	Method	Unit	Day Time	Night Time	Limit
1	Equivalent Sound Level (Leq)	IS 9829:1981	dBA	82.5	58.3	Day: 75 Night: 70

End of Report

Note:

- Day time shall mean from 07:00 a.m. to 07:00 p.m.
- Night time shall mean from 07:00 p.m. to 07:00 a.m.
- At least 10 samples of noise may be declared as one of the test above mentioned category by the concerned authority.
- dBA Leq denotes the time weighted average of the root of sound in dB(A) in which it is equal to number of human hearing.
- A "Leq" is a unit in which noise is measured "dB" in dBA Leq denotes the frequency weighting in the measurement of noise and is responsible for frequency response characteristics of the human ear.
- Leq is the average level of the noise level over a specified period.

Env. Condition of Lab.	Calibrated to measuring Temperature (T) °C and Relative Humidity (RH) % in air testing area as per IS 156:1984(1).
Abbreviation:	IEC, Minimum Detection Limit
Limit as Specified:	As per Noise Pollution (Regulation and Control) Rules, 2000
Remark:	Sample comply with general limit specification.

Tested By: Anvisha Jaiswal

Sample Drawn By: Gaurav Kumar & Team

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--	---	--



Test Report

ULR No.:	T C I S 2 9 2 3 5 0 5 0 0 0 5 1 2														
Discipline: Chemical	Group: Atmosphere Pollution					Sub-Group: Ambient Noise Levels (Excluding Vibration)									
Report Issue Date: 07-03-2025					Test Report No.: IIE-24117/00463										
Sample ID: 250307AP04003					Sample Description: Ambient Noise										
Challan No./P.O. No.: 4548043344/237					Challan No./P.No. Date: 05-11-2024										
Issued to: Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No IV/A-7(P), Bokaro Industrial Area Balidih Bokaro Steel City, Bokaro-827054 Jharkhand India															
Type of Industry: Cement					Customer Representative: Sanjeev Verma										
Sample Drawn by: IEM Team					Sampling Date: 06-03-2025 to 07-03-2025										
Protocol: CPCB Guideline & IS Method 9989:1981															
Sampling Location: Near Colony															
Field Meteorological Information:					A. Temp. (°C): 22		R.H. no: 47		W.C.: Sunny		W.D.: NW to SE				
Sample Receiving date: 07-03-2025					Testing Started: 07-03-2025					Testing Ended: 10-03-2025					

— Test Result —

Sl. No.	Parameter	Method	Unit	Day Time	Night Time	Limit
1.	Equivalent Sound Level (Leq)	IS 9989:1981	dB(A)	40.4	40.1	D-55 N-45

— End of Report —

Note:-

1. Day time shall mean from 06:00 a.m. to 10:00 p.m.
2. Night time shall mean from 10:00 p.m. to 06:00 a.m.
3. Measured categories of areas shall be declared as one of the four above mentioned categories by the competent authority.
4. dB(A) Leq denotes the time weighted average of the level of sound in decibels on a scale which is audible to human hearing. Leq (dBA) is a unit in which noise is measured. "A" is dB(A) Leq, denotes the frequency weighting in the measurement of sound level in which is frequency response characteristic of the human ear.
5. Leq is an average value of the noise level over a specified period.

Env. Conditions of Lab.	Laboratory is maintaining Temperature 23± 2°C and Relative Humidity 55± 5% in all testing area as per IS 4743:1981(1).
Abbreviation	ISO: International Standards Organization
Limit as Prescribed	As per Noise Pollution (Regulation and Control) Rules, 2000
Remark	Sample Comply with prescribed specification.

Tested By: Akanksha Sourabh

Sample Drawn By: Siddhant Kumar & Team

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	T. Ahmad	[Signature]
	[Taufiq Ahmad]	[Dr. S. C. Jha]
On the basis of Quality Checker and Technical data verified by the Authorized signatory, the report is issued by the Director of the Organization.	Technical Manager	Director

Page 1 of 1

Corporate Office: A-8, Multi Heights, DDA, 3rd India Road, Sector-10, Connaught Place, New Delhi-110028

Laboratory Site: Plot No. - A-11, Sector-10, Near Tihar Hospital, Naraina Housing Colony, New Delhi-110028, Jharkhand, India

Ph: 8407804251, 8407804251, Email: info@iemindia.com



Test Report

ULR No.:	T	C	1	5	2	9	2	2	5	0	0	0	0	0	0	0	0	0	0												
Discipline: Chemical	Group: Atmospheric Pollution								Sub-Group: Ambient Noise Levels (Excluding Vibration)																						
Report Issue Date: 07-03-2025	Test Report No.: RN-28110500494																														
Sample ID: 250307AP04004	Sample Description: Ambient Noise																														
Challan No./P.O. No.: 4548043244/217	Challan No./P.No. Date: 05-11-2024																														
Issued to: Dalmia Cement (Bharat) Limited, (Jharkhand Cement Works) Plot No IV/A-7(P), 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: 06-03-2025 to 07-03-2025																					
Protocol: CPCB Guideline & IS Method 9889:1983																															
Sampling Location: Near Waghri Tippler																															
Field Meteorological Information: A. Temp. (°C): 22 R.H. (%): 47 W.C.: Sunny W.D.: NW to SE																															
Sample Receiving date: 07-03-2025					Testing Started: 07-03-2025					Testing Ended: 10-03-2025																					

—Test Result—

Sl. No	Parameter	Method	Unit	Day Time	Night Time	Limits
1.	Equivalent Sound Level (Leq)	IS 9889:1983	dB(A)	50.4	55.2	D-75 N-75

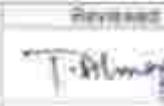
—End of Report—

Note:-						
1. Day time shall mean from 6.00 a.m. to 6.00 p.m.						
2. Night time shall mean from 10.00 p.m. to 6.00 a.m.						
3. Mixed categories of areas may be declared as one of the four above mentioned categories by the concerned authority.						
4. dB(A) Leq denotes the time weighted average of the level of sound is declared on scale A which is suitable to human hearing.						
5. 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.						
6. Leq is an energy mean of the noise level over a specified period.						

Env. Condition of Lab:	Laboratory at equating temperature 25±2°C and Relative Humidity 45±5 % to all testing, when as per IS 2381:1983(C).
Accreditation:	NABL - Measurement, Detection System
Limit, as Specified:	Ambient Noise Pollution (Regulation and Control) Rules - 2000
Remarks:	Sample Comply with prescribed specification.

Tested By: Akanksha Soudahi

Sample Drawn By: Siddhanta Kumar & Team

Specific Contractual Notes:-	Reviewed by	Authorized Signatory
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.		
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5. Total liability of institute for environmental management will be limited to amount paid only.		
6. In case of feedback, complaint, dispute and all other of this institute.	(T. Almas)	(S. C. Jais)
On the basis of Quality Check and Technical data verified by the authorized signatory, the report is issued by the Director of the Organization.	Technical Manager	Director

Page 1 of 1

Corporate Office - A-8, Med Heights, Ober - 40, 40th Road Station, Huda Road, Wazirpur, New Delhi - 110005.

Laboratory Site - H.No - A-11, Saket Vihar, Near Saket Bhawan, Huda Road, Wazirpur, New Delhi - 110005.

Kanchi - 600002, Jharkhand, India

Ph - 9401054255, 9401054151, Email - iem2022@gmail.com

Annexure-16

DALMIA CEMENT BHARAT LIMITED, BOKARO

Solar lights installed at different location of the plant



CCR BUILDING



ADMIN BUILDING



CIVIL OFFICE



ENVIRONMENT OFFICE



NEAR TOILET

DALMIA CEMENT (BHARAT) LIMITED, BOKARO**TREE PLANTATION DETAILS**

Total greenbelt development area is 23.25 acres (more than 33 %) of total land 69.19 Acres to improve the aesthetic value and to arrest dust and also to mitigate noise pollution.

YEAR WISE TREE PLANTATION DETAILS GIVEN AS FOLLOWS

Sl. No	Year	Number of plants	Area (in Acres)
1	1st (2011-2012)	5000	5
2	2nd (2012-2013)	2030	4
3	3rd (2013-2014)	2820	3
4	4th (2014-2015)	7620	5
5	5th (2015-2016)	5100	4
6	6th (2016-2017)	1500	1
7	7th (2017-2018)	500	0.55
8	8th (2018-2019)	69	0.3
9	9th (2019-2020)	100	0.4
10	10th (2020-2021)	130	Plantation done in the place of dead tree
11	11th (2021-2022)	500	
12	12th (2022-2023)	350	
13	12th (2023-2024)	400	
14	13th (2024-2025)	225	
	Total	26364	23.25

S.N	Year	Name of Species tree planted
1	2011-2012	Gulmohar, Amaltash, Neem, Mihigini, Shisham, Ashoka, Teak, Mangi, Amala, Shiv Babool, Chatni
2	2012-2013	Gulmohar, Amaltash, Neem, Mihigini, Shisham, Ashoka, Teak, Mango, Amala
3	2013-2014	Ashoka, Chatni, Gulmohar, Amaltash, Neem, Mihigini, Shisham
4	2014-2015	Ashoka, Chatni, Gulmohar, Amaltash, Neem, Mihigini, Shisham
5	2015-2016	Chatni, Gulmohar, Neem, Mehegani, Shisham, Pipal, Teak
6	2016-2017	Gulmohar, Chatni, Neem, Guava, Shiv Babool, Mango, Jaman
7	2017-2018	Chatni, Gulmohar, Amaltash, Neem, Shisham, Guava, Pipal
8	2018-2019	Chatni, Gulmohar, Neem, Mihigini, Guava, Mango, Amala, Neem
9	2019-2020	Chatni, Mihigini, Botai Pam, Mango, Amala, Lemon, Jamu
10	2020-2021	Chatni, Mihigini, Mango, Kasu
11	2021-2022	Chatni, Mihigini, Mango, Kasu, Amala, Neem, Gulmohar
12	2022-2023	Chatni, Mihigini, Mango, Neem, Gulmohar
13	2023-2024	Chatni, Mihigini, Mango, Neem, Gulmohar
14	2024-2025	Chatni, Gulmohar, Neem, Mihigini, Guava, Mango, Amala, Neem



Greenbelt pics at DCBL Bokaro







Tree plantation done railway siding



Annexure18

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, whose 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 challenges 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 zero 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	2020-21	2021-22	2022-23	2023-24
Scope-1					
Emissions from Coal & Diesel consumption for the process of Cement Manufacturing	Kg CO2 /Tone of Cementitious material	41	43	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	2020-21	2021-22	2022-23	2023-24
Scope-2					
Emissions from Electricity consumption	Kg CO2 /Tone of Cementitious material	44	46	82	41

Summary report of GHG emission last five years in below table

Categories	UoM	2017 -18	2018 -19	2019 -20	2020 -21	2021 -22	2022 -23	2023 -24
Scope-1 Emissions from Coal & Diesel consumption for the process of Cement Manufacturing.	Kg CO2 /Tone of Cementitious material	53	50	52	41	43	40	47
Scope-2 Emissions from Electricity consumption	Kg CO2 /Tone of Cementitious material	39	31	42	44	45	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

OCBL 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 renewable 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 renewable 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 renewable energy

We are working to increase share of renewable energy for the electricity consumption. The percentage of emissions could be reduced by improving the percentage of renewable energy either by on-site installation (solar rooftop system) or off-site 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 drive innovation – resources are involved from various departments to reduce the emission. This will 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 continuously analyse the GHG Reduction potential opportunities identified, priorities and implement them to achieve GHG emission reduction target as well as associated cost benefit.

Annexure-19

Corporate Environment Responsibility & CSR report for the period of October 2024 to March 2025

Sl. No	Name of Activity	Place of Activity/ Village	Expense (in Rs.)
1	Tailoring Training	Babampur, Gorabali south	25000.00
2	Soft toys making training	Gorabali North	40000.00
3	Distribution of Coats	Gorabali (N), Gorabali (S), Kasari, Khunti Panchayat	293835.00
4	Distribution of Poultry Chicks	Kasari	51000.00
5	General Medicine and Gynecology Camp	Gorabali North	15000.00
6	Gram Pariwartan Projects	Gorabali (N), Gorabali (S), Kasari, Khunti Panchayat	200000.00
7	Distribution of Coats	Gorabali (N), Gorabali (S), Kasari, Khunti Panchayat	450000.00
8	Support to District Administration	Gorabali North	7500.00
9	Plantation	Gorabali	35000.00
10	Aangawadi and Community Centre Renovation, Puttaland	Khunti	512156.00
11	Republic Day	Bokaro District	25000.00
12	Blanket Distribution	Gorabali (N), Gorabali (S), Kasari, Khunti and Narkata Panchayat	348951.00
13	Skill training to local youths at Bokaro District	Bokaro	1000000.00
14	Digital Literacy through WWW Bus	Jamshi, Bhudkuru	857000.00
15	International Women's day celebration	DCBL	35000.00
15	Well Renovation	Gorabali North	247123.00
	Total		8951686.00



Renovation of Aganwadi



Tree plant distributed in village for plantation



Distribution of Goats in nearby village



Promotion of micro enterprise



Broom Making Training



Tailoring Training



Skill training to local youths at Bokaro Diksha



Skill training to local youths at Bokaro Diksha

CORPORATE ENVIRONMENT POLICY

DALMIA BHARAT LIMITED

Regd. Office: Dalmiapuram – 621001, Dist: Tiruchirappalli, Tamil Nadu
 [CIN: L48100TN0000PLC008918]
 Tel. No.: 04320-226132 Website: www.dalmia.com E-mail: corporate@dalmiabharat.co

BUSINESS RESPONSIBILITY POLICY

(Adopted by the Board of Directors at its meeting held on 17th June 2016)

Preface

Securities and Exchange Board of India (Listing Obligations and Disclosure Requirements) Regulations, 2015, vide its clause 36(2)(g), mandates that the Annual Report (AR) of top 1000 listed entities based on market capitalization (introduced on 1st March 2016) of a financial year shall contain a Business Responsibility Report describing the initiatives taken by the Company from an environmental, social and governance perspective, in the format as specified by the SEBI from time to time.

SEBI vide Circular No. DOPD/CMD/HR/2015 dated November 24, 2015 has prescribed nine key principles to assess the fulfillment of listed entities and a description of the same, amongst others, under these principles. This Policy is accordingly framed to address the key principles prescribed by SEBI in the said circular.

Stakeholders

The relevant stakeholders are Shareholders, Security Holders, Subsidiary Companies, Joint Venture Companies, Employees, Suppliers, Distributors, Public, Customers and Society at large.

Principle 1: Ethics, Transparency and Accountability

Dalmia Bharat Limited (the 'Company') is committed to ensure adherence, while conducting in all its spheres of activities and while dealing with both the internal and external stakeholders, to the following:

- Promote values as well as demonstrate commitment to uphold its service principles wherever operates in conjunction with business partners.
- Not do or give or receive, directly or indirectly for business or financial gain, any financial statement or improper advantage, or engage in any form of unethical conduct or exercise undue influence over any other third party.
- Not indulge in giving undue gifts, loans or unaccountable gifts to authorized officers, staff, directors or inappropriate influence the company.
- Ensure sound and completeness, validity and accuracy of the records, financial statements and the reliability of all information. Systematically identify and engage in an effective and transparent manner with all the stakeholders to ensure accountability, long term value for our stakeholders.
- Take the contractual obligations seriously and ensure to pay suppliers, creditors and other entities to receive money according to agreed contracts/terms.
- Not to engage in or promote practices which are corrupt and anti-competitive and comply with the competition laws.



- Encourage all associated parties to comply with these principles and avoid complicity with anyone that violates above principles.
- Comply with all the laws and regulations as applicable.

Principle 2:- Sustainability

The Company is committed to offer goods which are safe and have a positive contribution on environment and society. To achieve this objective, we are committed to:

- Adopt most energy efficient technologies in manufacturing process, improve the energy efficiency of equipment.
- Make continuous effort to minimise the use of renewable energy and fuels, re-processing wastes to reduce our greenhouse gases.
- Invest in research and development.
- Make continuous efforts to reduce water intensity and fresh water usage by increased use of harvested and recycled water in our operations.
- Assess biodiversity quality in all our extraction sites and strive to create positive impact.
- Continuously drive to improve the quality of products, processes and services.
- Encourage recognition and respect for rights of owners of intellectual property.
- Promote free competition and freedom of choice to consumers.
- Identify stakeholders to understand their concerns.
- Implement suitable grievance handling mechanism, where required.

Principle 3:- Wellbeing of Employees

The Company being a strong value driven, people oriented and accountable organization is committed to offer the best working environment to all its employees. To achieve this objective, we are committed to:

- Maintain good working conditions promote a harmonious and productive atmosphere in the work place and provide fair and equal employment opportunity for all employees to maximize their career growth with enhanced skills and to create a favourable environment to work as an effective team.
- Ensure no harm anywhere to any one in our entire operations as part of our commitment towards health and safety of all people involved.
- We shall provide Safe and secure workplace free from harassment, discrimination or other intimidating behaviors of all kinds and shall follow the procedures, principles and rules prescribed by the Government under Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 and rules made thereunder.
- We shall ensure equal opportunities and fair treatment to all employees including eligible applicants for employment in the Company irrespective of their caste, creed, religion, gender, marital status, age, starting from the grounds of employee's accusation till grant of all terminal benefits and will not tolerate discrimination of any sort. We shall recruit, retain and develop people based on suitability of role and the opportunity for personal and professional growth.
- We shall promote well being and work life balance of people so that they live a healthy life and honour individuality of every employee.
- We shall not engage any person to work who is (pregnant or below the age of 18 years).
- We shall respect the right of freedom of association, participation and collective bargaining.



Independent Audit / Evaluation of working of this Policy

Independent Audit / evaluation of working of the Policy shall be done by the Internal Auditor atleast once a year and report the same to the Chief Financial Officer and Director, the Director, being designated by the Board of Directors as responsible Director for the preparation and implementation of the Business Responsibility Policy.

Conclusion

This Policy will be reviewed as and when / deemed necessary in view of the recommitment in the Regulations notified from time to time as otherwise.

BUSINESS RESPONSIBILITY MATRIX

The following 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:21

Capital cost investment on Environment protection up to March 2025

M/S DALMIA CEMENT (BHARAT) LIMITED, BOKARO				
Plot No. IV/A-T/3, Bokaro Industrial Area, Balidih, Bokaro Steel City (Jharkhand) - 837014				
CAPITAL COST INVESTMENT ON ENVIRONMENT PROTECTION AT DCBL BOKARO UP TO March 2025				
S.N	PARTICULARS	Asset no	Investment in Rs.	Investment in Crores
1.	INVESTMENT ON AIR POLLUTION CONTROL MEASURES			29.05
a.	Bag House cement mill	5500000007	181983042.2	
b.	Bag house fan	5500000014	13972498.8	
c.	Bag house for cement mill	5500000017	9901073.02	
d.	Bag house fan	5500000046	185484.52	
e.	Sprk Bag house fan -mill -1	5500000016	630067.1	
f.	Sprk Bag house fan -mill -2	5500000017	630067.52	
g.	Bag filter from silo to packing plant EEL India limited		21000000	
h.	Bag filter clmr Packing plant area		4800000	
i.	Bag filter at Wagon Tippler		28150000	
j.	Bag filter Dry fly ash silo Top storage bin		900000	
k.	Bag filter Dry fly ash silo Top storage bin Sep-		1300000	
l.	Packer 4 Bag filter		3700000	
			290493890.8	
2.	INVESTMENT ON FUGITIVE DUST EMISSION CONTROL			8.64
a.	Construction of Tarpaulin shed near packing plant	5200000052	1741749.28	
f.	Road Sweeping machine	5800000093	129982	
g.	Water spray tanker	5000000016	100000	
h.	Drum Road Sweeping Machine	5500000072	2452008.2	
i.	Steel Silo for storage of PCC	5500000085	28113894.54	
j.	Plant Roads construction	5200000010	53948342.83	
			86386976.8	
3.	INVESTMENT IN WATER POLLUTION CONTROL MEASURES			0.78
a.	Rain water Harvesting system implemented	5200000034	50547.38	
b.	Sewer line connected to plant toilet to STP	5200000054	953795.88	
c.	Bio Toilet at Wagon Tippler & Railway parcel Yard	5200000055	89308.58	
d.	Construction of Sewage treatment Plant	5200000067	4772895.03	
e.	Water treatment plant	5040000011	133559.52	

f	Toilets & Bathroom for Labour Camp	5200000056	1074911.5	
g	Water treatment plant	5040000057	983090.06	
			7778188.04	
4	ENVIRONMENT POLLUTION MONITORING EQUIPMENT			
1	CANQM -SO ₂ & NO _x analyser	5500000068	1308136	0.61
2	Laboratory balance	5500000074	10341	
3	Opacity meter From Chemtrich industries LTD	5000000081	88889.55	
4	Opacity meter From Chemtrich industries LTD	5000000084	88889.55	
5	Data connectivity to CPCB Server	5800000093	188100	
6	Static monitoring kit from form timber marshal	5010000097	32596.16	
7	Incubator	5500000129	25000.12	
8	On line CANQM station Environment 6 SA	5500000068	252751.76	
9	Up gradation software of CANQMS	5800000001	49068	
10	Construction of 2 no CANQMS Room	5200000033	454879	
11	Respirable Dust Sampler 450 BL PM -10 /4m	Environment Lab	280000	
12	Respirable Dust Sampler 450 BL PM-2.5 /4m	Environment Lab	800000	
13	Veghathasan Stack monitoring 6A VSS1	Environment Lab	75000	
14	Spectrophotometer	Environment Lab	290000	
			6320847.34	
	Capital cost Investment from October 2024 to March 2025			Nil
	Total Capital Cost Investment on Environment measures up to March 2025			39.08

DALMIA CEMENT (BHARAT) LIMITED, BOKARO

Recurring cost expenditure on Environment protection activities from October 2024 to March 2025

	Cost on Schedule maintenance	
1	Bags replacement with new bags, Bags cleaning, Do dusting line checking, cleaning and repairing work, Bag filters fan maintenance etc)	71.84
2	Power consumption in Pollution control equipment (Bag House & Bag Filter) 8361613 KWH x 5.83	487.48
2	Third Party Environmental Monitoring & Analysis	0.6
3	AMC of CEMS Data transmission to JSPCB & CPCB	0.17
4	AMC of CAQMS Maintenance, Servicing and Calibration,	0.64
5	AMC of CAQMS Data transmission to JSPCB & CPCB	0.5
6	Calibration of Pollution Monitoring Equipment's (CEMS)	1.5
7	Calibration of Pollution monitoring instrument (RDS & Stack VSS Noise level meter)	0.15
8	Air Pollution Monitoring Accessories* Pump maintenance kit & PM-10 & 2.5 Filter paper	1.00
9	Water Pollution Management (AMC of STP, R.O Plant, D.M. Plant, & Softener Plant), Cleaning of Nala,	0.25
10	STP Operation & Maintenance	2.89
11	Road Sweeping Machine Operation & Maintenance	1.2
12	Disposal of Bio medical waste	0.09
13	Fuel consumption in water sprinkling tanker of water on dirty area	0.17
14	Green Belt Development	7.3
TOTAL RECURRING COST EXPENDITURE FROM OCTOBER 2024 TO MARCH 2025 (Rs)		575.78

Environment Internal audit report**October 2024-March-2025**

Date: 16.01.2025

Following below members present in Environment Audit:

1. Arvind Kumar: (Head Mechanical)
2. I.R.Patel: (Head E&I)
3. Draggal Singh : (Dy./Quality Head)

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.	Complied. Online Environment monitoring data displayed at main gate.	Complied

8	Checked Third party Environment monitoring report.	Complied, third party Environment monitoring report done on quarterly basis.	Complied
9	Checked Drinking water quality	Complied, Drinking water quality regular checked.	Complied
10	Checked status validity of CTO & EC	Complied, within time limit	Complied
11	Checked fugitive dust emission records	Fugitive dust emission measures taken.	Complied
12	Status of Green belt development	Complied Green belt maintained 33% of the plant	Complied
13	Rain water harvesting system	Rain water harvesting system constructed and maintained	Complied
14	Status of Bag filter /Bag house	All plant Bag filter and bag house is working condition.	Complied
15	Submission of Environment statement to JSPCB	Environment Statement submitted with in time for the year 2023-2024	Complied
16	Status 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 sweeping machine	Regular cleaning of the roads and concreted area by road sweeping machine and record maintained	Complied
18	Status of Solar light	Solar light installed at different location in the plant	Complied
19	Status of Water sprinkler	Water sprinkler and water fog system working plant gate main road	Complied
20	Status of Raw material covering	Raw material are covered with tarpaulin control of fugitive dust emission	Complied

Advertisement in newspaper for receiving of EC from SEIAA



[illegible]

11

0000-0001-9398-0000

Michigan Director
Michigan Industrial Area Development Authority
81 Adams Industrial Loop
Livonia, MI 48150
Michigan - 817034

Key: Environmental Challenge for "Adaptation of Technology at existing Woodrow Wilson Learning Center from 1.0 MTPA to 1.75 MTPA of MSW Sorting (Current Effort) (1A, or 102 vs. 103-105) (Baker Industrial Area Refuse)"

David W. Sims

[illegible]

This is submitted for your information & record only

Methods

Team Strength

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 www.blackwell-synergy.com

Wibisono Kusniel Gung
 Senior Lecturer, Department of Mechanical Engineering

000000

[illegible]

Advertisement in newspaper for receiving of EC from SEIAA



EC Copy submitted to local authority and other Govt. Department

[illegible]

To

Date: 03.10.2019

Shri Ganesh Thakur @
Mushiya
Village/Post : Baidhi
Carpool (Scout) Gram Panchayat
Baidhi

Sub: Environment Clearance for "Upgradation of Technology at existing standalone Cement Grinding unit from 1.0 MT/PA to 1.70 MT/PA of M/s Eximia Cement (Bharat) Ltd. at Plot no. IV/A-7/1P, Bokaro Industrial Area Bokaro"

Keywords: child sexual abuse; disclosure; social support

At the outset we extend our sincere thanks for the cooperation extended to us by the Government of Gujarat for seamless operation of our cement plant at Bokaro. We had applied for grant of Environment Clearance for enhancement of production capacity from 3.2 MTPA to 5.7 MTPA for which finally EC has been granted by State Level Environment Assessment Authority (SLEAA) vide letter no. EC/SLEAA/2019/29/239/2019/474 dated 23rd September 2019 (copy of EC enclosed).

This is submitted for your kind information & record please

Thanks & Remarks

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For Galmu Cement (Ethiopia) Limited

Mukesh K. Garg
Mukesh Kumar Garg
(Unit Head & Assistant Executive Director)

Test 2


ಕರ್ನಾಟಕ ಸರ್ಕಾರ
ಜಲ-ವಿದ್ಯುತ್, ಕೃಷಿ ಮತ್ತು
ಪ್ರಾದೇಶಿಕ ಅರಣ್ಯ ಇಲಾಖೆ
ಬೆಂಗಳೂರು

Pullman Graduate School of Leadership
 Pullman Graduate School of Leadership
 1000 University Avenue, Suite 1000, Pullman, WA 99164-5000
 Tel: (509) 835-7272 Fax: (509) 835-7273
 Email: pullman@psl.wednet.edu
www.psl.wednet.edu

To,

Date: 03.10.2019

Regional Director

Jharkhand Industrial Area Development Authority (JIADA)

Bokaro Industrial Area

Bokaro Steel City

Bokaro - 827014

Sub: Environment Clearance for "Upgradation of Technology at existing standalone Cement Grinding unit from 3.0 MTPA to 3.70 MTPA of M/s Dalmia Cement (Bharat) Ltd. at Plot no. IV/A-7(P), Bokaro Industrial Area Bokaro"

Dear Sir,

At the outset, we extend our sincere thanks for the cooperation extended to us by the JIADA for seamless operation of our cement plant at Bokaro. We had applied for grant of Environment Clearance for enhancement of production capacity from 3.0 MTPA to 3.7 MTPA for which finally EC has been granted by State Level Environment Assessment Authority (SLEAA) vide letter no. EC/SLEAA/2018-19/1538/1016/4/4 dated 23rd September 2019 (Copy of EC enclosed)

This is submitted for your kind information & record please

Thanks & Regards

Yours Sincerely

For Dalmia Cement (Bharat) Limited

Mukesh Garg

Mukesh Kumar Garg

(Unit Head & Assistant Executive Director)

Encl A/s

Dalmia Cement (Bharat) Limited

Head Office: 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

CIN: 1400003296

Registered Office: Dalmia Cement (Bharat) Limited, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

www.dalmiabharat.com

EC Compliance report uploaded in Dalmia Cement official website

Q:\dalmia cement plant\report - 1\X Environmental Sustainability\O\X

https://www.dalmiacement.com/ecg/overview.html

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PRODUCTS & SERVICES + CORPORATE + ABOUT US +

Environmental Clearances And Compliances

Plants

Sr.	Locations	Environmental Clearances	Environmental Compliances
1	Operating Units		
a	DALMIAPURAM Truchy, Tamil Nadu		
b	KADAPUR Chinnakottai, Jammalamadugu, Kodaikanal District, Jodhpur Pradesh		  
c	ARIPALUR Thuvankulam, Arripur District - 620025, Tamil Nadu		  
d	Cement Plant at Redwood, Taluk Sivakasi, District Belgaum, Karnataka	 	   
e	Half Yearly Environmental Clearance Compliance Report, Bokaro, Jharkhand		  
f	Village Kharai, Taluk, Chit, District Bokaro, Jharkhand	  	

Display board of real time ambient air quality installed at factory main gate



EC Compliance report uploaded Parivesh 2.0 portal of MoEF and CC website

Your (Half Yearly Compliance Report) has been Submitted with following details	
Proposal No	SIA/JH/IND/105812/2017
Compliance ID	126405802
Compliance Number(For Tracking)	EC/M/COMPLIANCE/126405802/2025
Reporting Year	2025
Reporting Period	01 Jun(01 Oct - 31 Mar)
Submission Date	08-05-2025
RO/SRO Name	Shri Senthil Kumar Sampath
RO/SRO Email	agmu155@ifs.nic.in
State	JHARKHAND
RO/SRO Office Address	Integrated Regional Offices, Ranchi
Note:- SMS and E-Mail has been sent to Shri Senthil Kumar Sampath, JHARKHAND with Notification to Project Proponent.	

Environment Statement Form (V) Uploaded in Company official website

The screenshot shows the Dalmia Cement website's 'Environment Statement Form (V)' upload page. The page features a navigation bar with the Dalmia Cement logo and links for Home, About Us, Products & Services, and Contact Us. Below the navigation bar, there is a table listing various facilities and documents, each with a corresponding icon indicating the type of statement or report.

Sl. No.	Facility/Document	Icon
1	CSE: Kodagu, Andhra Pradesh DCM, CHD - Kodagu, Andhra Pradesh Public Liability Insurance Policy	📄
2	Integrated Cement Plant and Captive Power Plant, Channarayana, Maharashtra	📄
3	Kapoor Cement Works (Bawal, Haryana, PS/Tangri, Outcaste-750002)	📄
4	Integrated Cement Plant and Captive Power Plant at Jalka Hills, Meghalaya	📄
5	Bokaro Cement Manufacturing works at Bokaro, Jharkhand	📄
6	Dalmia Cement Bharat Limited Bokaro Cement work, Bihar	📄
7	Disposal of Waste Management Annual and Monthly Reports	📄
8	Annual Environment Statement Form IV - DCMB Andhra and Environment Statement Form IV 2022-23, DCMB	📄
9	Annual Environment Statement Form IV - Dalmia Cement CHD and Environment Statement Form IV 2022-23, Dalmia Cement CHD	📄
10	Environment Statement Form IV 2022-23, DCM Bokaro	📄
11	Proposed Units	📄

DCBL Public Liability Insurance policy copy



The Oriental Insurance Company Limited

Fig. 2. Average $\delta^{13}\text{C}$ values of the sediments.

Submit your comments to: Comments@mc.manuscriptcentral.com
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LIABILITY INSURANCE UNDER PUBLIC LIABILITY INSURANCE ACT, 1991: POLICY SCHEDULE

Policy No.	31210044929267288	Prod. Policy No.	40819130773705088
Cover Note No.		Cover Note Date	
Insured's Code	200000000	Issue Office Code	312130
Insured's Name	M/S Trishra Cement (Private) Ltd (GST No. 28AAAC2481AAC-28)	Issue Office Name	KBO KOLKATA (GST No. 19AAAGT28070201)
Address	Chandrapur, Tirtha Tandrapur, Trichingpoli - 821661	Address	7 FRED CHOSE PLACE KOLKATA WEST BENGAL 70001
	TRICHRAPALI TAMBALADI 821661		
Tel/Fax/Email	C/S/NA	Tel/Fax/Email	C/S/Parash Sharma@orientalinsurance.co

Agent's Source Details

Dev. Off. Code	
Agent/Broker	LC06N0000605 EXTRA COVER INSURANCE BROKERS PVT LTD
Address	21 HEMANT BASU SARANI, DALHOGBE, KOLKATTA 700001 WEST BENGAL INDIA
Tel/Fax/Email	8330724384, 9830813173, CALCUTTA, WEST BENGAL, 700001 E33.N018205@136724384

Period of Insurance	FROM 00:00 ON 05/10/2025 TO MIDNIGHT OF 07/10/2025				
Collection No. & D.	EC_1_NO 058200348	07/10/2025	GET INVOICE NO 1024105678	OWN	0
Gross Premium	400.000	GST	720.00	Stamp Duty	0
Co-insurance Details	NIL				
					Total: 872.000

Name of Business	MANUFACTURING		
Category of Industry	GREEN	Policy Purchase Category	Small

Indemnity Limit	Rs. 2,500,000,000 To the Account
	Aggregate during the Policy Period (Not exceeding Three times of any one accident of Indemnity Limit.)
	Rs. 5,000,000,000

Retrieval Date: 08/10/2025

Contribution to the	4 (0.2000)	Included in the Total Return
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TERRITORY/JURISDICTION: INDIA/TINDIA

The Insurance under this policy is subject to conditions, clauses, exclusions and amounts which are available on Company's website www.ameritaliansurance.org or on demand from the policy issuing office.

Place	ROJALATA
Date	07/11/2008





The Oriental Insurance Company Limited

This Document is Digitally Signed

Digitally signed by The Oriental Insurance Company Limited
DN: cn=The Oriental Insurance Company Limited, o=The Oriental Insurance Company Limited, ou=The Oriental Insurance Company Limited, email=The Oriental Insurance Company Limited, c=IN

Attached to and forming part of policy number 312108462026/258

This Agreement excludes any loss or claims arising from:

- 1. Financial Guarantee and Insolvency
- 1. Sanction, limitation and exclusion clause
- 1. Communicable disease exclusion clause
- 1. Cyber liability exclusion clause
- 1. No Cover for products manufactured, assembled, formulated in USA, Canada
- 1. Pictorial liability unless where incidental to operations
- 1. Ocean marine liability including shipowner's liability
- 1. Any liability arising out of Mining processing manufacturing, distributing, storage and/or removal of pure asbestos and/or products made entirely or mainly of asbestos
- 1. Use of product made entirely or mainly of asbestos
- 1. Ownership, operation or use of
- 1. Aircraft and air cushioned vehicles including construction, repair or installation work on aircraft
- 1. Vessels including their navigation
- 1. Motor insurance as per Motor Vehicles Act 1988 in India or equivalent in any other jurisdiction with the exception of Motor Excess Insurance
- 1. Manufacture and/or production of
- 1. Fireworks, (bombs), cartridges, ammunition, powder, nitroglycerine or any explosives
- 1. Mining risks other than 1. Drift and 1. Open cast (applicable to General Public Liability only)
- 1. Offshore platform

This Agreement excludes any loss or claims arising from:

- 1. Underground and underwater mines and galleries and all underground services in connection therewith
- 1. Product Liability and product completed operations
- 1. Absolute professional liability exclusion
- 1. Contractual Liability assumed by the Insured and which would not have attached in the absence of such contract
- 1. Perfluorinated compounds, perfluoralkyl and polyfluoroalkyl substances (PFAS) Exclusion
- 1. Product Liability, recall, warranty, guarantee and inefficiency
- 1. Professional indemnity, D&O liability, Clinical Trials, Medical Negligence
- 1. Pure & Consequential financial loss
- 1. Political Riots, Vandalism and Sabotage, Terrorism Liability NMA 2018
- 1. Workmen Compensation, Employer's Liability
- 1. Auto Liability
- 1. Aviation Liability, Airside Liability, Damage to aircraft, Drone Liability
- 1. Marine Liability, Harbor Liability, Damage to Watercraft, Vessel
- 1. Asbestos, Sick, lead
- 1. GMD, TSE, Toxic Mold, EMP
- 1. T&D lines
- 1. PFAS, PFGL
- 1. Fluctuation/Failure to Supply

Place: KOLKATA

Date: 07/10/2025



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The Oriental Insurance Company Limited

This Document is Digitally Signed

Super Oriental Insurance
Company Limited
Date: Tue Oct 10 11:43:52 IST
Reason: Signed by the User

Attached to and forming part of policy number 51210046/20/6208

Entered By : MR SANJOY BHATTACHARYA

Examined By : R.K.DAS

Policy Printed By : 339887

IP :

Digitally Signed
By

Policy Printed On : 07-OCT-25 11:43:52

MAC :

Authorized Signatory

This is an electronically generated document (Policy Schedule). The Policy document duly stamped will be sent by post.

In case of any query regarding the Policy please call Toll Free No. 1800 11 8485 and 011 33208485.

CIR: UB00100, 1947001007158. All the Amounts mentioned in this policy are in Indian Rupees.

IRDA Regn. No. 066 - Now you can buy and renew selected policies online at www.orientalinsurance.org.in and through other digital platforms including Whatsapp (Send "H" to [919580711200](https://wa.me/919580711200))

Place : KOLKATA

Date : 07/10/2025



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