



Ref: DCNEL/LCW/02/30th Nov'23

Date: 30.11.2023

To,

The Regional Officer,
Ministry of Environment Forest & Climate Change,
Integrated Regional Office – Guwahati,
4th Floor, HOUSEFED Building, GS Road,
Rukminigaon, Guwahati - 781022

Subject: Submission of six-monthly compliance report against condition of environment Clarence letter of Standalone Cement Grinding Unit (Expansion in Cement Production Capacity of Existing Unit from 1.72 Million TPA to 5.9 Million TPA) of M/S Dalmia Cement (North East) Limited formerly Known as M/S Calcom Cement India Limited at Pipalpukhuri, Lanka, District-Nagaon, Assam-782446.

Ref:

- (i) EC Identification No. EC22B009AS121520, File No. SEIAA. 2046/2022 Dated 19/05/2022, Proposal No. SIA/AS/IND/253482/2022 dated 03 Mar 2022.
- (ii) SEIAA. 2046/2022/1643 Dated 22/07/2022 (Amendment)
- (iii) SEIAA. 2046/2022/1674 Dated 02/09/2022 (Amendment)
- (iv) MOEF, New Delhi Environment Clearance F. No. J-11011/312/2006-IA-II (I) Dated 26th July 2007.

Dear Sir,

With reference to stipulation of Environment Clearance, please find enclosed herewith the compliance report period from 1st April 2023 to 30st September 2023 for Calcom Cement India Limited, Lanka. and enclosing herewith soft copy of same for your records, the compliance report will be uploaded in our website www.dalmiabharat.com within 15 days.

Kindly acknowledge the receipt of same.

Thanking you,

Yours faithfully,

For Dalmia Cement (North East) Limited

(Formerly known as Calcom Cement India Limited)

Authorized signatory Lanka unit.

Enclose: A copy of Six-Monthly Environment compliance report & Annexures.

CC to: 1) The Regional Executive Engineer, RO, Pollution control Board, Nagaon, Assam.

The In-Charge, CPCB) North Eastern, Zonal Office, Shillong, Meghalaya 793014.

Dalmia Cement (North East) Limited

Formerly Known as Calcom Cement India Limited (Subsidiary of DALMIA CEMENT BHARAT LIMITED)

2 No. Pipalpukhuri, Lanka, Dist. - Hojai, Assam - 782446

Ref: (i) EC Identification No. - EC22B009AS121520, File No. - SEIAA. 2046/2022 Dated - 19/05/2022, Proposal No. SIA/AS/IND/253482/2022 dated 03 Mar 2022.

- (ii) SEIAA. 2046/2022/1643 Dated 22/07/2022 (Amendment)
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- (iv) MOEF, New Delhi Environment Clearance F. No. J-11011/312/2006-IA-II (I) Dated 26th July 2007.

Period of Compliance – 1st April 2023 to 30st September 2023 – EC to Standalone Cement Grinding Unit (Expansion in Cement Production Capacity of Existing Unit from 1.72 Million TPA to 5.9 Million TPA) of M/S Calcom Cement India Limited at Pipalpukhuri, Lanka, District-Nagaon, Assam-782446.

The Grinding Unit of 1.72 Million TPA is under operation. Expansion was proposed in two phases, Phase-1 from 1.72 Million TPA to 3.69 Million TPA establishment is in progress and new line of 2.21 Million TPA will be establish after completion of phase-1.

SN	Environmental Stipulations	Compliance Status			
A. S	A. Specific condition				
 equipment in order to control and keep em within the prescribed emission standards. Existing Cement Mill-1 and Cement Mill-2 fully equipped with the efficient bag house fully equipped with the efficient bag house standards. Existing Cement Mill-1 and Cement Mill-2 fully equipped with the efficient bag house fully equipped with the efficient bag house standards. Bag filter shall be provided in coal crusher, coal drying and grinding unit, hopper cement silo top, packing plant and at other places including transfer points, venting auxiliaries etc. to reduce particulate matter. Performance study of pollution control devices shall be conducted yearly to ensure their efficiency. 		 Existing Cement Mill-1 and Cement Mill-2and RP are fully equipped with the efficient bag houses. Bag filters have also been /will be installed at all material handling and transfer points such as coal crusher, coal drying and grinding unit, hopper, cement 			
2.	Continuous monitoring system to monitor gaseous emission shall be provided and limit shall be conforming to the prescribed standards framed by MoEF/CPCB by installing adequate air pollution control system. Data on ambient air quality stack emissions and fugitive emissions shall be displayed in public domain and also regularly submitted online to SEIAA, Assam & regional office of IRO-MoEF & CC, Guwahati and Central Pollution Control Board (CPCB) as well	 Being Complied Adequate air pollution control systems have been installed to control the emission level within the prescribed standards MoEFCC/CPCB. The monitoring is being done to conform the same. Opacity meters have been installed on the stack of Cement Mill-1 & Cement Mill-2 for monitoring the PM and the Continuous Stack Emissions Monitoring Systems have been connected to CPCB & PCB, Assam server. The same will also be installed in new mill To continuously monitor the Ambient Air Quality, 			

	as hard copy once in six months.	 Continuous Ambient Air Monitoring Systems has been already installed in plant premises. The Continuous Ambient Air Monitoring System has been connected to PCB, Assam and the monitoring data are being transmitted regularly to PCB, Assam Servers. Data of ambient air quality monitoring are being displayed on display board installed at main gate. Ambient Air Quality is being monitored at four locations (Packing Plant, Frontof General Store, Near 2No. Gate and Main Gate)in consultation with PCB, Assam. The stack Monitoring report is attached as Annexure-I. The details of Ambient Air Quality Monitoring are
3.	The company shall install adequate dust collection and extraction system to control fugitive dust emissions at various transfer points, raw material handling (unloading, conveying, transporting, stacking), vehicular movement, bagging and packing areas etc. Coal crushers shall be operated with high efficiency bag filters. All conveyors shall be covered with GI sheets. Covered sheds for storage of raw materials and fully covered conveyors for transporting of raw materials shall be provided.	 areattached in Annexure-II. Pollution control equipments have been installed at various emission source /stack as specified, to control and keep emission levels within the prescribed emission standards. Cement dust collected from Pollution control devices being recycled backinto the process. All the raw materials and product are being / will be stored in covered storage yard / silos. The materials are transferred internally with fully covered conveyor belt. Coal crusher will be installed and operated with high officioncy has filters.
4.	Dust suppression by regular water sprinkling shall be carried out in plant areas prone to air pollution and having high SPM and RPM such as haul road, loading and unloading points, transfer points and other vulnerable area to control fugitive emissions. Fugitive emissions shall also be controlled by dust suppression and water sprinkling system. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central pollution control board in this regard.	 high efficiency bag filters. Environment control Measures are being undertaken to control the fugitive emission within the standard prescribed by the Central pollution control board Vacuum sweeping machine is being used for cleaning of paved roads and proper house-keepingis being maintained to control fugitive dust emissions. All roads have been concreted (Plant Internal & External roads). 03 No of water tankers are engaged for dust suppression purposes Used covered vehicle for raw material and finished goods transportation. All conveyor belts are fully covered. Efficient Bag filters (29 Nos) are/will be installed at allloading, unloading and all transfer points. All the raw materials and product are being / will be stored in covered storage yard / silos.

5.	Effort Shall be made to reduce impact of the transport of raw materials and end products on the surrounding environment including agricultural land. All the raw materials including fly ash shall be transported in closed containers only and should not be overloaded. Vehicular emissions shall be regularly monitored.	 Used covered vehicle for raw material and finished goods transportation. All conveyor belts are fully covered. Overloading is avoided by the weighment system. Vehicular emissions are being monitored regularly and PUC certified vehicles are used.
6.	Secondary fugitive emission from all the sources shall be controlled within the least permissible limits issued by the Ministry and regularly monitored. Guidelines/Code of Practice issued by the CPCB shall be followed.	 Being complied All the pollution control measures are being undertaken to control fugitive dust emission as per guidelines/Code of Practice issued by the CPCB to keep emission level within the least permissible limits issued by the Ministry. Secondary fugitive emission is being monitored regularly
7.	Efforts shall be made to reduce impact of transport of the raw materials and end products on the surrounding environment including agricultural land/Tea garden etc. All the raw materials including the fly ash shall be transported in the closed containers only and should not be overloaded. Vehicular emissions shall be regularly monitored. Measures shall be taken for maintenance of vehicle used in mining operations and in transportation of mineral.	 This is the Cement grinding unit, there is no mine. Used covered vehicle for raw material and finished goods transportation. All conveyor belts are fully covered. Overloading is avoided by the weighment system. Vehicular emissions are being monitored regularly and PUC certified vehicles are used.
8.	Asphalting/Concreting of road and water spray all around the critical areas prone to air pollution and having high levels of SPM and RPM shall be ensured.	 All roads within plant have been concreted. Vacuum sweeping machine is being used for cleaning of paved roads and proper house-keepingis being maintained to control fugitive dust emissions. O3 No of water tankers are engaged for dust suppression purposes.
9.	Total water requirement from surface/ground water source shall not exceed 1100 KLD . Water efficient technology shall be provided to conserve water treated water shall be used in dust suppression and green belt development etc. 'ZERO' discharge shall be strictly adopted and no effluent shall be discharged.	 Total water requirement will not exceed 1100 m3/day. Company is working on Zero liquid discharge concept and no waste water is discharged outside the plant premises. No waste water is generated from the process. Domestic waste water generated is disposed of into Sewage Treatment Plant. Sewage Treatment plant with installed capacity 65 m3/day is under operation and the treated water is being utilized for the Dust suppression and green Belt development. Drip irrigation has been installed to use the

		treated water for greenbelt/plantation.
10.	Sewage treatment plant (STP) in proposed colony and in septic pits followed by soak pits in cement plant. All the treated water shall be used for gardening/agricultural purposes and dust suppression. Domestic waste from colony and solid waste (MSW) from industrial area shall be segregated into bio degradable and non-biodegradable. Bio-degradable waste shall be composted and non-biodegradable waste shall be disposed off in environment friendly manner or filled at identified sites only after proper treatment.	 No waste water from the process is being discharged outside the premises. Domestic waste water generated is being/will be diverted into Sewage Treatment Plants and septic tanks followed by soak pits. STPs (3 Nos.) are installed at different location in plant area and guest house having capacities of 5, 10 and 50 KLD and all are under operation. The existing STPs are sufficient enough to cater the extra load after expansion. The Treated water is being / will be used green belt development and plantation STP sludge isbeing used as manure. The domestic waste from colony and plant are being disposed off in environment friendly manner, Bio degradable waste is being/will be disposed off in deep burial method and later it is being/will be used as manure. Non-biodegradable waste is being / will be disposed off / sold to authorized recycler Cement dust collected from air pollution control equipment is being/will be recycled into the process. Grinding Unit is being/will be utilizing process waste generated by other industries i.e., fly ash from Thermal Power plant & Slag from Steel plants and help them in getting rid of voluminous waste in most sustainable manner by converting into useful product i.e.,
11.	The Project proponent shall ensure that no natural water course shall be obstructed due to any operations.	Being complied.
		Being complied.Waste water is being treated and used for green belt
12.	Suitable conservation measures to Augment ground water resources in the area shall be planned and implemented in consultation with concerned authority.	 Waste water is being treated and used for green beit development. Drip irrigation has also been/will be installed to use thetreated water for greenbelt/plantation. We have developed 18 Nos. of rain water harvesting pond and the collected water is being used within the plant for various activities. Rainwater from Roof top

13.	The project proponent shall take appropriate mitigation measures to prevent pollution of nearby River and other surface water body, if any.	 are connected to the storm water drains and are connected to the harvesting ponds. Use of rain water will reduce dependency on ground water. Being complied. Zero discharge Domestic waste water is being/will be treatedin Sewage Treatment plant and treated water is being/will be used for green belt. STPs (3 Nos.) are installed at different location in plant area having capacities of 5, 10 and 50 KL/D and
14.	All the bag filter dust, coal dust and cement dust from pollution control devices shall be recycled and reused in the process and used for cement manufacturing. Treated sewage shall be used as manure for green belt development. Waste oil, grease and scraped automobile batteries shall be provided to the authorized recyclers/reprocessors.	 The dust collected from the various pollution control equipment is being recycled back into the process. Treated STP sludge isbeing used as manure. Oil, oil emulsion, used batteries are being sold to the authorized dealers.
16.	As proposed, green belt shall be developed in (33%) of the total land in the cement plant as per the CPCB guidelines in consultation with local DFO to mitigate the impact of fugitive emissions. A long-term plan for the plantation/ afforestation/ green belt development etc. shall be prepared and submitted to the SEIAA, Assam and IRO-MoEF & CC, Guwahati.	 Greenbelt/plantation is being developed in and around the plant boundary in consultation with local DFO to cover 33% of plant area i.e. 37.62 ha. Green belt/plantation has already been developed over an area of 31.35 Ha (27.5 %) and rest 6.27 ha of area is being/will be developed in line of the DFO approved green belt development plan and CPCB guidelines in a phased manner. The DFO approved Green belt Development plan has been submitted in previous EC compliance report. (March - September 2022)
18	'Consent to Operate' shall be obtained from State Pollution Control Board, Assam.	 'Consent to Operate' has been obtained for line-1 and will be obtained for the expansion. Consent to Operate is attached as an annexure-III
19	Acoustic enclosures shall be provided to control	 Noise control measures such as Acoustic hoods, silencers, enclosures etc. have been/will be provided on all sources of noise generation to ensure the noise level within the prescribed standards. Regular noise level monitoring is being conducted at plant site at 6 locations viz., Administrative building, Main gate, Parking Area, Load Centre 1, Mechanical Workshop & Store and monitored data are well within the permissible limit. The noise monitoring report is attached as Annexure—IV

20	All the recommendation made in the charter on		
	corporate responsibility for environment (CREP)	•	Being/will be complied
	for the cement plant shall be implemented.		
	The company shall comply with the commitment		
21	made during public consultation for the expansion	•	Being complied
	project.		

В. С	General Conditions.	
1.	The project authority must adhere to the stipulation made by State Pollution Control Board, Assam and State Government.	We are committed to follow the stipulations madeby Assam Pollution Control Board & State Government.
2.	No further expansion or modification of the plant shall be carried out without prior approval of SEIAA, Assam.	• Noted
3.	At least four ambient air quality monitoring	 We have installed one Online Ambient Air Quality Monitoring Stations at plant premises and Online data is being transmitted to PCB, Assam server. Monitoring of Ambient Air Quality is being done
	stations shall be established in the downward direction as well as where maximum ground level concentration of PM ¹⁰ , PM ^{2.5} , SO ² and NO _X are anticipated in consultation with State Pollution Control Board, Assam. Data or ambient air quality and stack emissions shall Submitted to the SEIAA, Assam including Regional office Shillong and State Pollution Control Board, Assam once in six months.	regularly through third party recognized laboratory of PCBA at additional four Ambient Air Quality monitoring locations viz., Main Gate, Parking Area, Store Area and Near OHC
		 Monitored data of ambient air quality and stack emissions are being regularly submitted at IRO-MoEF & CC and PCBA Nagoan office with half yearly compliance report. The stack Monitoring report is attached as Annexure-I. The details of Ambient Air Quality Monitoring are
		attached as Annexure-II.
4.	Industrial waste water shall be properly collected and treated so as to confirm to the standards prescribed under GSR 422 (E) dated 19 th May, 1993 and 31 st December 1993 or as amended from time to time. Thetreated waste water shall be utilized to plantation purpose.	No effluent waste water is generated from the grinding unit as it is based on dry process technology.
5.	The overall noise levels in and around the plant area shall be kept well within the standard (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environmental (Protection) Act, 1986 Rules, 1989 viz. 75 dBA	 Noise control measures such as Acoustic hoods, silencers, enclosures etc. have been provided onall sources of noise generation to ensure the noise level within the prescribed standards. Regular noise level monitoring is being conducted at plant site at 6 locations viz., Administrative building, Main gate, Parking Area, Load Centre 1, Mechanical Workshop & Store and monitored dataare well within

	(daytime) and 70 dBA (Night time). the permissible limit.			
		The noise monitoring report is attached as		
6.	Proper housekeeping and adequate occupational health programs must be taken up. Occupational health Surveillance Program shallbe done on a regular basis and maintained records. The program must include function and sputum analysis tests once in sixth month.	 Annexure—IV Being complied. Proper house-keeping is being maintained regularly. Personal Protective Equipments (PPEs) are mandatory to all the workers. Occupational Health Surveillance Program is being conducted annually and records are being maintained. Lung function test and sputum analysis are also carried out. Reports are being submitted along with the Sixmonthly Compliance report. The health checkup report has been attached as Annexure—V 		
7.	The company shall harvest the rainwater from the roof tops and storm water drains for utilizing in the lean season besides recharging the ground water table.	 Being complied. We have developed 18 Nos. of rain water harvesting pond and the collected water is being used within the plant for various activities. Rainwater from Roof top are connected to the storm water drains and are connected to the harvesting ponds. Use of rain water will reduce dependency on ground water. 		
8.	The company shall under take ecodevelopment measures including community welfare measures in the project area.	 ECO-development measures and community welfare measures are being undertaken by company in phased manner in the project area We have prepared 360-degree program. It is being implemented in the project area. Company has undertaken socio-economic development activities under CSR activity in nearby Villages. 5-year CSR plan of R. 2.54 crore prepared for proposed expansion will be implemented after start of operation of expansion within stipulated time for betterment of nearby villagers. 		
9.	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP.	We are complying & will comply all the environmental protection measures and safeguards recommended in the EIA/EMP.		
10.	A separate environmental management cell with full fledged laboratory facilities to carry out various management and monitoring functions shall be set up under the control of Senior Executive.	A separate environmental management cell has been established and an Environmental officer has also been deputed to execute and implement the entire environmental management plan for the plant.		

		 Only Grinding unit has been established so the full fledge Environmental Laboratory has not been established and Environmental Monitoring is being carried out by third party laboratory approved with PCB, Assam.
11.	Rs 15.61 Crores spent towards capital cost and as proposed Rs. 2.97 Crores earmarked towards recurring cost/annum for the environmental protection measures and Rs 2.54 Crores for CSR activities for five years to implement the conditions stipulated by the SEIAA, Assam as well as the Ministry & State Govt. and submit implementation schedule for all the conditions stipulated herein SEIAA, Assam. The funds so provided shall not be diverted for any other purposes.	 Efficient Pollution Control Equipments and monitoring equipment have been installed. Efficient pollution control equipment and monitoring devices shall be ensured for expansion project. 5-year CSR plan of R. 2.54 crore prepared for proposed expansion will be implemented after start of operation of expansion within stipulated time for betterment of nearby villagers. The CSR activities is being implemented as per submitted 5-year CSR plan, however the allotted amount will be spent for CSR purpose only.
12.	The project proponent shall inform the public that the project has been accorded environmental clearance by the SEIAA, Assam. This should be advertised within seven days from the date of issue of the clearance letter at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to SEIAA, Assam & Regional office, MoEF at Shillong.	 Public notice has been published in Assamiya Khabor (Assamese) & The Assam Tribune (English) on 25th May 2022. The copy of the published advertisement was submitted along with previous EC compliance report (March-September 2022).
13.	A copy of Clearance letter shall be sent by the proponent to concerned DC, Urban Local Body and the local NGO if any from whom suggestions/ representation if any were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.	 A copy of Environment Clearance letter has been sent to the DC and Urban Local Body. The copy of acknowledgement has been submitted along with previous EC compliance report (March-September 2022).
14.	The project proponent shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the SEIAA, Assam, Regional office of the IRO-MoEF & CC, Guwahati, and PCB, Assam. The criteria pollutant levels namely: PM (Stack), PM ₁₀ , PM _{2.5} , SO ₂ , NO _x (ambient levels as well as stack emissions) or critical sectoral parameters indicated for the projects shall be monitored and	 Being Complied Half yearly compliance report of EC is being/will be submitted to concern body and also uploaded on website. Ambient Air Quality is being monitored at four locations (Packing Plant, Front of General Store, Near 2No. Gate and Main Gate) in consultation with PCB, Assam. To continuously monitor the Ambient Air Quality,

	displayed at a convenient location near the main gate of the company in the public domain.	 Continuous Ambient Air Monitoring Systems has been already installed in plant premises. The Continuous Ambient Air Monitoring System has been connected to PCB, Assam and the monitoring data are being transmitted regularly to PCB, Assam Servers. Data of ambient air quality monitoring are being displayed on display board installed at main gate. The details of Ambient Air Quality Monitoring are attached in Annexure-II.
15.	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the SEIAA, Assam, & Regional office of MoEF, the respective Zonal Office of CPCB and the SPCB. The SEIAA, Assam/Regional Office of IRO-MoEF & CC, Guwahati, shall monitor the stipulated conditions.	Being Complied.
16.	The environmental statement for each financial year ending 31 st March in form-V as is mandated to be submitted by the project proponent to the concerned SEIAA, Assam and PCB, Assam as prescribed under the environment (protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall be sent to SEIAA, Assam and regional office of IRO-MoEF & CC, Guwahati.	Being Complied
17.	The SEIAA, Assam may revoke or suspend the clearance if implementation of any of the above conditions is not found satisfactory.	Noted.
18.	Any other conditions or alterations in the above conditions will have to be implemented by the project proponent in a time bound manner.	• Noted
19.	The above conditions will be enforced, inter-alia under the provisions of the water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 the Environment Protection Act, 1986 and the public Liability Insurance Act, 1991 along with their amendments and rules.	• Noted



ISO 9001:2015 Certified ISO 45001:2018 Certified

Report No.: ENV/CCIL/NGN/23-24 /DG-06/01

Date : 14/06/2023

Order No.: 4557000844/311 Date : 30/12/2022

Report Issued To: CALCOM CEMENT INDIA LIMITED

(Unit of Dalmia Cement (Bharat) Ltd.) Pipalpukhuri, Dist.- Nagaon, Assam-782446

D. G. SET EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	CAL/2023/DG-06/01		
02	Date of Sampling	03.06.2023		
03	Material of Construction		M. S.	
04	Stack Attached To		Set 125 KVA/100 kson Ltd., Sl. No.: (
05	Stack Height From Ground Level (Meter)		11.8	
05	Stack Diameter (Inch)	4.0 (approx)		
06	Flue Gas Temperature (°C)	128		
07	Exit Velocity of Gas (m/sec)	19.3		
08	Flow Rate (Nm³/hr)	419		
09	Type of Fuel Used	H. S. D		
	Analysis Results o	f Flue Gas		
S. No.	Parameter(s)	Result(s) Unit(s) Limit(s)		
i.	PM- Particulate Matter	0.063 g/kW-hr 0.3		0.3
ii.	NO _x + HC	0.62 g/kW-hr 4.0		
		0.58 g/kW-hr 3.5		

 NO_x : Oxides of Nitrogen HC: Hydrocarbon



Checked By: Mr. Pankaj Baroi, ENVIROCON

NOTE: 1. Results reported are valid at the time of and under the prevailing conditions of measurement.

 ${\bf 2. \, Results \, refer \, only \, to \, the \, particular \, parameters \, tested.}$

ISO 9001:2015 Certified ISO 45001:2018 Certified

Report No.: ENV/CCIL/NGN/23-24 /DG-06/02

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(Unit of Dalmia Cement (Bharat) Ltd.) Pipalpukhuri, Dist.- Nagaon, Assam-782446

D. G. SET EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	CAL/2023/DG-06/02		
02	Date of Sampling	03.06.2023		
03	Material of Construction		M. S.	
04	Stack Attached To		Set 380 KVA/304 Ltd., Sl. No.: CJX-S	
05	Stack Height From Ground Level (Meter)		14.5	
05	Stack Diameter (Inch)	6.0 (approx)		
06	Flue Gas Temperature (°C)	139		
07	Exit Velocity of Gas (m/sec)	22.1		
08	Flow Rate (Nm³/hr)	1026		
09	Type of Fuel Used	H. S. D		
	Analysis Results o	f Flue Gas		
S. No.	Parameter(s)	Result(s) Unit(s) Limit(s)		
i.	PM- Particulate Matter	0.064 g/kW-hr 0.3		0.3
ii.	NO _x + HC	0.93 g/kW-hr 4.0		
iii.	Carbon Monoxide, (as CO)	0.74 g/kW-hr 3.5		

NO_x: Oxides of Nitrogen HC: Hydrocarbon



Checked By: Mr. Pankaj Baroi, ENVIROCON

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ISO 9001:2015 Certified ISO 45001:2018 Certified

Report No.: ENV/CCIL/NGN/23-24 /SE-06/01

Date : 14/06/2023

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Report Issued To: CALCOM CEMENT INDIA LIMITED

(Unit of Dalmia Cement (Bharat) Ltd.) Pipalpukhuri, Dist.- Nagaon, Assam- 782446

STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	CAL/SE/2023/06-01			
02	Date of Sampling	02.06.2023			
03	Material of Construction	M. S.			
04	Stack Attached To	Cement Mill – 1			
05	Stack Height From Ground Level (Meter)	50			
05	Stack Diameter (Meter)	1.5			
06	Flue Gas Temperature (°C)	50			
07	Exit Velocity of Gas (m/sec)	6.9			
08	Flow Rate (Nm³/hr)	37702			
09	Type of Fuel Used	NA*			
	Analysis Results o	f Flue Gas			
S. No.	Parameter(s)	Result(s) Unit(s) Limit(s			
i.	PM- Particulate Matter	14.6	mg/Nm³	30	
ii.	Sulphur Dioxide (as SO ₂)	BDL**	mg/Nm³	1000	
iii.	Oxides of Nitrogen (as NO _x)	BDL**	mg/Nm³	800	

^{*}NA: Not Applicable

^{**}BDL: Below Detectable Limit



Checked By: Mr. Pankaj Baroi, ENVIROCON

NOTE: 1. Results reported are valid at the time of and under the prevailing conditions of measurement.

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Date : 14/06/2023

Order No.: 4557000844/311 Date : 30/12/2022

Report Issued To: CALCOM CEMENT INDIA LIMITED

(Unit of Dalmia Cement (Bharat) Ltd.) Pipalpukhuri, Dist.- Nagaon, Assam- 782446

STACK EMISSION TEST RESULTS

01	Stack Emission Test Ref. No.	CAL/SE/2023/06-02				
02	Date of Sampling	02.06.2023				
	Dute of bumping	02.00.2023				
03	Material of Construction	M. S.				
04	Stack Attached To	Cement Mill – 2				
05	Stack Height From Ground Level (Meter)	50				
05	Stack Diameter (Meter)	1.5				
06	Flue Gas Temperature (°C)	71				
07	Exit Velocity of Gas (m/sec)	5.7				
08	Flow Rate (Nm³/hr)	31417				
09	Type of Fuel Used	NA*				
	Analysis Results o	f Flue Gas				
S. No.	Parameter(s)	Result(s) Unit(s) Limit(
i.	PM- Particulate Matter	12.7	mg/Nm³	30		
ii.	Sulphur Dioxide (as SO ₂)	BDL**	mg/Nm³	1000		
iii.	Oxides of Nitrogen (as NO _x)	BDL**	mg/Nm³	800		

^{*}NA: Not Applicable



Checked By: Mr. Pankaj Baroi, ENVIROCON

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^{**}BDL: Below Detectable Limit

ISO 9001:2015 Certified ISO 45001:2018 Certified

Format No.: ENV/R/TR/19/SE-01

STACK EMISSION TEST REPORT

Rev. No.: 00

ULR No.	NA CONTRACTOR OF THE PARTY OF T	A SHAPER	I CHIMITOCCHI
Report No.	ENV/TR/DCNEL/NGN/23-24/SE-01	Issue Date	20/09/2023
Order No.	4557001170/311	Order Date	14/07/2023
Report Issued To	DALMIA CEMENT (NORTH EAST) LIMITED Pipalpukhuri, Dist Nagaon, Assam - 782446	on enviroco	n envirocon

Sample Ref. No.:	DCNEL/2023/DG- 0909/01	Sample Source:	DG Set 125 KVA/100 KW Make: Jakson Ltd., Sl. No.: 09040083	Material of Construction:	M. S.
Shape of Stack:	Circular	Height of Stack:	11.8 Meter	Fuel Used:	H. S. D
Sampling Date:	09.09.2023	Sample Receipt Date:	11.09.2023	Instrument Used:	Stack Kit &Flue Gas Analyser
Analysis Start Date:	12.09.2023	Analysis End Date:	14.09.2023	Sampled By:	Bidyut Kalita, Envirocon

TEST RESULTS

Sl. No.	Parameters Parameters	Test Method	Results	Units	Limits*
100	Stack Gas Temperature	IS 11255 (Part 3)	125	ос	MROCOL
2.	Stack Gas Velocity	IS 11255 (Part 3)	21.6	m/s	VROCO
3.	Stack Gas Flow Rate	IS 11255 (Part 3)	472	Nm³/hr	MROÇOI
4.	Particulate Matter	IS 11255 (Part 1)	0.076	g/kW-hr	0.3
5.	NO _x + HC	Electrochemical Sensor	1.15	g/kW-hr	4.0
6.	Carbon Monoxide	Electrochemical Sensor	1.92	g/kW-hr	3.5

NA: Not Applicable, NOx: Oxides of Nitrogen, HC: Hydrocarbon

********End of Report*****



Authorised Signatory: Mr. Pankaj Baroi (Director)

NOTE: 1. Results reported are valid at the time of and under the prevailing conditions of measurement.

2. Results refer only to the particular parameters tested.

^{*} Limits as per CPCB norms.

ISO 9001:2015 Certified ISO 45001:2018 Certified

Format No.: ENV/R/TR/19/SE-01

STACK EMISSION TEST REPORT

Rev. No.: 00

ULR No.	NA.		
Report No.	ENV/TR/DCNEL/NGN/23-24/SE-02	Issue Date	20/09/2023
Order No.	4557001170/311	Order Date	14/07/2023
Report Issued To	DALMIA CEMENT (NORTH EAST) LIMITED Pipalpukhuri, Dist Nagaon, Assam - 782446	on enviroco	n envirocoi

Sample Ref. No.:	DCNEL/2023/DG- 0909/02	Sample Source:	DG Set 380 KVA/304 KW Make: Jakson Ltd., Sl. No.: CJX-SDG-07080197	Material of Construction:	M. S.
Shape of Stack:	Circular	Height of Stack:	14.5 Meter	Fuel Used:	H. S. D
Sampling Date:	09.09.2023	Sample Receipt Date:	11.09.2023	Instrument Used:	Stack Kit &Flue Gas Analyser
Analysis Start Date:	12.09.2023	Analysis End Date:	14.09.2023	Sampled By:	Bidyut Kalita, Envirocon

TEST RESULTS

Sl. No.	Parameters	Test Method	Results	Units	Limits*
1.)(Stack Gas Temperature	IS 11255 (Part 3)	146	°C	WROCO
2.	Stack Gas Velocity	IS 11255 (Part 3)	24.8	m/s	WROCO
3.	Stack Gas Flow Rate	IS 11255 (Part 3)	1158	Nm³/hr	WROCOL
4.	Particulate Matter	IS 11255 (Part 1)	0.095	g/kW-hr	0.3
5.	NO _x + HC	Electrochemical Sensor	1.01	g/kW-hr	4.0
6.	Carbon Monoxide	Electrochemical Sensor	1.72	g/kW-hr	3.5

NA: Not Applicable, NOx: Oxides of Nitrogen, HC: Hydrocarbon

********End of Report*****



Authorised Signatory: Mr. Pankaj Baroi (Director)

NOTE: 1. Results reported are valid at the time of and under the prevailing conditions of measurement.

2. Results refer only to the particular parameters tested.

^{*} Limits as per CPCB norms.

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Format No.: ENV/R/TR/19/SE-01

STACK EMISSION TEST REPORT

Rev. No.: 00

Report No.	ENV/TR/DCNEL/NGN/23-24/SE-03	Issue Date	20/09/2023
Order No.	4557001170/311	Order Date	14/07/2023
Report Issued To	DALMIA CEMENT (NORTH EAST) LIMITED Pipalpukhuri, Dist Nagaon, Assam - 782446	on enviroco	n enviroco

Sample Ref. No.:	DCNEL/2023/SE- 0909/01	Sample Source:	Cement Mill No 1	Material of Construction:	M. S. WHOCONE
Shape of Stack:	Circular	Height of Stack:	50 Meter	Fuel Used:	NA .
Sampling Date:	09.09.2023	Sample Receipt Date:	11.09.2023	Instrument Used:	Stack Kit & Flue Gas Analyser
Analysis Start Date:	12.09.2023	Analysis End Date:	15.09.2023	Sampled By:	Bidyut Kalita, Envirocon

TEST RESULTS

Sl. No.	Parameters	Test Method	Results	Units	Limits*
1.	Stack Gas Temperature	IS 11255 (Part 3)	52	°C	MIDOCC
2.	Stack Gas Velocity	IS 11255 (Part 3)	6.9	m/s	VBOCC
3.	Stack Gas Flow Rate	IS 11255 (Part 3)	40254	Nm³/hr	VBOCC
4.	Particulate Matter	IS 11255 (Part 1)	12.9	mg/Nm³	30
5.	Oxides of Sulphur (as SO ₂)	IS 11255 (Part 2)	BDL [MDL: 5.0]	mg/Nm³	1000
6.	Oxides of Nitrogen (as NO _x)	IS 11255 (Part 7)	BDL [MDL: 5.0]	mg/Nm³	800
7.	Oxygen	Electrochemical Sensor	12.1	%V/V	WHOCC

NA: Not Applicable, BDL: Below Detectable Limit, MDL: Minimum Detection Limit

*******End of Report*****



Authorised Signatory: Mr. Pankaj Baroi (Director)

NOTE: 1. Results reported are valid at the time of and under the prevailing conditions of measurement.

2. Results refer only to the particular parameters tested.

^{*} Limits as per CPCB norms.

ISO 9001:2015 Certified ISO 45001:2018 Certified

Format No.: ENV/R/TR/19/SE-01

STACK EMISSION TEST REPORT

Rev. No.: 00

ULR No.	NA TOTAL TOTAL CONTROL OF THE PARTY OF THE P		
Report No.	ENV/TR/DCNEL/NGN/23-24/SE-04	Issue Date	20/09/2023
Order No.	4557001170/311	Order Date	14/07/2023
Report Issued To	DALMIA CEMENT (NORTH EAST) LIMITED Pipalpukhuri, Dist. Nagaon, Assam - 782446	on enviroco	n envirocon

Sample Ref. No.:	DCNEL/2023/SE- 0909/02	Sample Source:	Cement Mill No 2	Material of Construction:	M. S. WEOCONE
Shape of Stack:	Circular	Height of Stack:	50 Meter	Fuel Used:	NA .
Sampling Date:	09.09.2023	Sample Receipt Date:	11.09.2023	Instrument Used:	Stack Kit & Flue Gas Analyser
Analysis Start Date:	12.09.2023	Analysis End Date:	15.09.2023	Sampled By:	Bidyut Kalita, Envirocon

TEST RESULTS

Sl. No.	Parameters	Test Method	Results	Units	Limits*
1.	Stack Gas Temperature	IS 11255 (Part 3)	49	оС	
2.	Stack Gas Velocity	IS 11255 (Part 3)	6.1	m/s	VBOTO
3.	Stack Gas Flow Rate	IS 11255 (Part 3)	35918	Nm³/hr	VIBOCO
4.	Particulate Matter	IS 11255 (Part 1)	11.3	mg/Nm³	30
5.	Oxides of Sulphur (as SO ₂)	IS 11255 (Part 2)	BDL [MDL: 5.0]	mg/Nm³	1000
6.	Oxides of Nitrogen (as NO _x)	IS 11255 (Part 7)	BDL [MDL: 5.0]	mg/Nm³	800
7.	Oxygen	Electrochemical Sensor	12.8	%V/V	WHOCO

NA: Not Applicable, BDL: Below Detectable Limit, MDL: Minimum Detection Limit

*******End of Report*****



Authorised Signatory: Mr. Pankaj Baroi (Director)

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^{*} Limits as per CPCB norms.



Envirocon Building, I.O.C.L (AOD) New Market P.O.: Digboi, Dist.: Tinsukia, Assam – 786 171

Ph: 03751-264414, 9435008657, 8876028672

E-mail: envirocon@rediffmail.com

ISO 9001:2015 Certified ISO 45001:2018 Certified

Report No.: ENV/CCIL/NGN/23-24/AA-06/01

Date : 14/06/2023

Report Issued To: CALCOM CEMENT INDIA LIMITED

(Unit of Dalmia Cement (Bharat) Ltd.) Pipalpukhuri, Dist.- Nagaon, Assam- 782446 Order No. : 4557000844/311 Date : 30/12/2022

AMBIENT AIR QUALITY TEST RESULTS

LOCATION	Date of Sampling	PM 2.5 (μg/m³)	PM 10 (μg/m³)	SO ₂ (μg/m³)	NO ₂ (μg/m³)	NH ₃ (μg/m³)	CO (mg/m³)	O ₃ (μg/m³)	Benzene (µg/m³)	Benzopyrene (ng/m³)	Nickel (ng/m³)	Arsenic (ng/m³)	Lead (μg/m³)
LIMITS ->		60	100	80	80	400	4.0 (1 hr. limit)	180 (1 hr. limit)	5.0 (Annual Average)	1.0 (Annual Average)	20 (Annual Average)	6.0 (Annual Average)	1.0 (24 hrs. Average)
Packing Area N 25°53'26.55438" E 92°58'27.96946"	02.06.2023	28.7	59.2	6.1	7.5	<5.0	<0.01	<1.0	<0.1	<0.01	<0.01	<0.01	<0.01
Central Store Area N 25°53'32.42494" E 92°58'35.85436"	02.06.2023	23.6	55.8	5.5	6.3	<5.0	<0.01	<1.0	<0.1	<0.01	<0.01	<0.01	<0.01
Security Gate 2 N 25º53'26.55809" E 92º58'41.14114"	03.06.2023	32.7	62.4	7.8	10.5	<5.0	<0.01	<1.0	<0.1	<0.01	<0.01	<0.01	<0.01
Security Gate 1 N 25°53'31.43782" E 92°58'50.4736"	03.06.2023	35.2	66.6	9.6	13.2	<5.0	<0.01	<1.0	<0.1	<0.01	<0.01	<0.01	<0.01

Analysis Protocol: IS 5182



Checked By: Pankaj Baroi, ENVIROCON

NOTE: 1. Results reported are valid at the time of and under the prevailing conditions of measurement.

- 2. Results refer only to the particular parameters tested.
- 3. This test report shall not be reproduced except in full without the written permission of ENVIROCON, I.O.C.L (AOD) New Market, Digboi 786171, Assam.

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Format No.: ENV/R/TR/19/AA-01

AMBIENT AIR QUALITY TEST REPORT

Rev. No.: 00

ULR No.	NA STATE OF THE ST						
Report No.	ENV/TR/DCNEL/NGN/23-24/A-01	Issue Date	20/09/2023				
Order No.	4557001170/311	Order Date	14/07/2023				
Report Issued To	DALMIA CEMENT (NORTH EAST) LIMITED	7 ENVROCOR	nenvrocon e				
Report Issued 10	Pipalpukhuri, Dist Nagaon, Assam - 782446	T CONTINUE TO					

Sample Ref. No.:	DCNEL/2023/A-0909/01	Sample Source:	Packing Area	Weather Condition:	Clear & Calm
Date of Sampling:	09.09.2023	Sample Receipt Date:	11.09.2023	Instrument Used:	FPS, RDS & Gaseous Attachment
Analysis Start Date:	12.09.2023	Analysis End Date:	16.09.2023	Sampled By:	Bidyut Kalita, Envirocon

TEST RESULTS

Sl. No.	Parameters	Test Method	Results	Units	Limits*
1.	Particulate Matter (size less than 2.5 μm) or PM _{2.5}	IS 5182 (Part 24)	23.6	μg/m³	60 (24 Hours Average)
2.	Particulate Matter (size less than 10 μm) or PM ₁₀	IS 5182 (Part 23)	53.1	μg/m³	100 (24 Hours Average)
3.	Sulphur Dioxide (as SO ₂)	IS 5182 (Part 2)	7.5	μg/m³	80 (24 Hours Average)
4.	Nitrogen Dioxide (as NO ₂)	IS 5182 (Part 6)	9.2	μg/m³	80 (24 Hours Average)
5.	Ozone (as O ₃)	CPCB Guidelines	BDL [MDL: 1.0]	μg/m³	180 (1 Hour Average)
6.	Lead (as Pb)	IS 5182 (Part 22)	BDL [MDL: 0.01]	μg/m³	1.0 (24 Hours Average)
7.	Carbon Monoxide (as CO)	IS 5182 (Part 10)	BDL [MDL: 0.01]	mg/m³	4.0 (1 Hour Average)
8,	Ammonia (as NH ₃)	CPCB Guidelines	BDL [MDL: 5.0]	μg/m³	400 (24 Hours Average)
9.	Benzene (as C ₆ H ₆)	CPCB Guidelines	BDL [MDL: 0.01]	μg/m³	5.0 (Annual Average)
10.	Benzo(a)Pyrene (as BaP) - Particulate Phase Only	CPCB Guidelines	BDL [MDL: 0.1]	ng/m³	1.0 (Annual Average)
11.	Arsenic (as As)	CPCB Guidelines	BDL [MDL: 0.01]	ng/m³	6.0 (Annual Average)
12.	Nickel (as Ni)	CPCB Guidelines	BDL [MDL: 0.01]	ng/m³	20 (Annual Average)

NA: Not Applicable, BDL: Below Detectable Limit, MDL: Minimum

********End of Report*****



Authorised Signatory: Mr. Pankaj Baroi (Director)

NOTE: 1. Results reported are valid at the time of and under the prevailing conditions of measurement.

2. Results refer only to the particular parameters tested.

^{*} Limits as per G.S.R. 826(E), 16.11.2009

ISO 9001:2015 Certified ISO 45001:2018 Certified

Format No.: ENV/R/TR/19/AA-01

AMBIENT AIR QUALITY TEST REPORT

Rev. No.: 00

ULR No.	NA CONTRACTOR OF THE CONTRACTO						
Report No.	ENV/TR/DCNEL/NGN/23-24/A-02	Issue Date	20/09/2023				
Order No.	4557001170/311	Order Date	14/07/2023				
Report Issued To	DALMIA CEMENT (NORTH EAST) LIMITED	n ent/Rocor	n€nvRocon €				
Report Issueu 10	Pipalpukhuri, Dist Nagaon, Assam - 782446	n any riporon					

Sample Ref. No.:	DCNEL/2023/A-0909/02	Sample Source:	Central Store Area	Weather Condition:	Clear & Calm
Date of Sampling:	09.09.2023	Sample Receipt Date:	11.09.2023	Instrument Used:	FPS, RDS & Gaseous Attachment
Analysis Start Date:	12.09.2023	Analysis End Date:	16.09.2023	Sampled By:	Bidyut Kalita, Envirocon

TEST RESULTS

Sl. No.	Parameters Parameters	Test Method	Results	Units	Limits*
1.	Particulate Matter (size less than 2.5 μm) or PM _{2.5}	IS 5182 (Part 24)	20.9	μg/m³	60 (24 Hours Average)
2.	Particulate Matter (size less than 10 μm) or PM ₁₀	IS 5182 (Part 23)	53.1	μg/m³	100 (24 Hours Average)
3.	Sulphur Dioxide (as SO ₂)	IS 5182 (Part 2)	7.1	μg/m³	80 (24 Hours Average)
4.	Nitrogen Dioxide (as NO ₂)	IS 5182 (Part 6)	8.5	μg/m³	80 (24 Hours Average)
5.	Ozone (as O ₃)	CPCB Guidelines	BDL [MDL: 1.0]	μg/m³	180 (1 Hour Average)
6.	Lead (as Pb)	IS 5182 (Part 22)	BDL [MDL: 0.01]	μg/m³	1.0 (24 Hours Average)
7.	Carbon Monoxide (as CO)	IS 5182 (Part 10)	BDL [MDL: 0.01]	mg/m³	4.0 (1 Hour Average)
8.	Ammonia (as NH ₃)	CPCB Guidelines	BDL [MDL: 5.0]	μg/m³	400 (24 Hours Average)
9.	Benzene (as C ₆ H ₆)	CPCB Guidelines	BDL [MDL: 0.01]	μg/m³	5.0 (Annual Average)
10.	Benzo(a)Pyrene (as BaP) - Particulate Phase Only	CPCB Guidelines	BDL [MDL: 0.1]	ng/m³	1.0 (Annual Average)
11.	Arsenic (as As)	CPCB Guidelines	BDL [MDL: 0.01]	ng/m³	6.0 (Annual Average)
12.	Nickel (as Ni)	CPCB Guidelines	BDL [MDL: 0.01]	ng/m³	20 (Annual Average)

NA: Not Applicable, BDL: Below Detectable Limit, MDL: Minimum

********End of Report*****



Authorised Signatory: Mr. Pankaj Baroi (Director)

NOTE: 1. Results reported are valid at the time of and under the prevailing conditions of measurement.

2. Results refer only to the particular parameters tested.

^{*} Limits as per G.S.R. 826(E), 16.11.2009

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Format No.: ENV/R/TR/19/AA-01

AMBIENT AIR QUALITY TEST REPORT

Rev. No.: 00

ULR No.	NA STATE OF THE PROPERTY OF TH						
Report No.	ENV/TR/DCNEL/NGN/23-24/A-03	Issue Date	20/09/2023				
Order No.	4557001170/311	Order Date	14/07/2023				
Report Issued To	DALMIA CEMENT (NORTH EAST) LIMITED	1 ENVROCOR	nenvrocon e				
Report Issued 10	Pipalpukhuri, Dist Nagaon, Assam - 782446	TO VIDO COLO					

Sample Ref. No.:	DCNEL/2023/A-1009/01	Sample Source:	Security Gate - 2 (Dispensary)	Weather Condition:	Clear & Calm
Date of Sampling:	10.09.2023	Sample Receipt Date:	11.09.2023	Instrument Used:	FPS, RDS & Gaseous Attachment
Analysis Start Date:	12.09.2023	Analysis End Date:	16.09.2023	Sampled By:	Bidyut Kalita, Envirocon

TEST RESULTS

Sl. No.	Parameters	Test Method	Results	Units	Limits*
1.	Particulate Matter (size less than 2.5 μm) or PM _{2.5}	IS 5182 (Part 24)	29.5	μg/m³	60 (24 Hours Average)
2.	Particulate Matter (size less than 10 μm) or PM ₁₀	IS 5182 (Part 23)	64.7	μg/m³	100 (24 Hours Average)
3.	Sulphur Dioxide (as SO ₂)	IS 5182 (Part 2)	10.6	μg/m³	80 (24 Hours Average)
4.	Nitrogen Dioxide (as NO ₂)	IS 5182 (Part 6)	16.4	μg/m³	80 (24 Hours Average)
5.	Ozone (as O ₃)	CPCB Guidelines	BDL [MDL: 1.0]	μg/m³	180 (1 Hour Average)
6.	Lead (as Pb)	IS 5182 (Part 22)	BDL [MDL: 0.01]	μg/m³	1.0 (24 Hours Average)
7.	Carbon Monoxide (as CO)	IS 5182 (Part 10)	BDL [MDL: 0.01]	mg/m³	4.0 (1 Hour Average)
8.	Ammonia (as NH ₃)	CPCB Guidelines	BDL [MDL: 5.0]	μg/m³	400 (24 Hours Average)
9.	Benzene (as C ₆ H ₆)	CPCB Guidelines	BDL [MDL: 0.01]	μg/m³	5.0 (Annual Average)
10.	Benzo(a)Pyrene (as BaP) - Particulate Phase Only	CPCB Guidelines	BDL [MDL: 0.1]	ng/m³	1.0 (Annual Average)
11.	Arsenic (as As)	CPCB Guidelines	BDL [MDL: 0.01]	ng/m³	6.0 (Annual Average)
12.	Nickel (as Ni)	CPCB Guidelines	BDL [MDL: 0.01]	ng/m³	20 (Annual Average)

NA: Not Applicable, BDL: Below Detectable Limit, MDL: Minimum

*******End of Report*****



Authorised Signatory: Mr. Pankaj Baroi (Director)

NOTE: 1. Results reported are valid at the time of and under the prevailing conditions of measurement.

2. Results refer only to the particular parameters tested.

^{*} Limits as per G.S.R. 826(E), 16.11.2009

ISO 9001:2015 Certified ISO 45001:2018 Certified

Format No.: ENV/R/TR/19/AA-01

AMBIENT AIR QUALITY TEST REPORT

Rev. No.: 00

ULR No.	NA NA		TO INTOCOLIC
Report No.	ENV/TR/DCNEL/NGN/23-24/A-04	Issue Date	20/09/2023
Order No.	4557001170/311	Order Date	14/07/2023
Report Issued To	DALMIA CEMENT (NORTH EAST) LIMITED	7 ENVROCOR	nenvrocon e
Report Issueu 10	Pipalpukhuri, Dist Nagaon, Assam - 782446	T CONTINUE TO	

Sample Ref. No.:	DCNEL/2023/A-1009/02	Sample Source:	Security Gate - 1	Weather Condition:	Clear & Calm
Date of Sampling:	10.09.2023	Sample Receipt Date:	11.09.2023	Instrument Used:	FPS, RDS & Gaseous Attachment
Analysis Start Date:	12.09.2023	Analysis End Date:	16.09.2023	Sampled By:	Bidyut Kalita, Envirocon

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Sl. No.	Parameters Parameters	Test Method	Results	Units	Limits*
1.	Particulate Matter (size less than 2.5 μm) or PM _{2.5}	IS 5182 (Part 24)	32.8	μg/m³	60 (24 Hours Average)
2.	Particulate Matter (size less than 10 μm) or PM ₁₀	IS 5182 (Part 23)	67.3	μg/m³	100 (24 Hours Average)
3.	Sulphur Dioxide (as SO ₂)	IS 5182 (Part 2)	12.1	μg/m³	80 (24 Hours Average)
4.	Nitrogen Dioxide (as NO ₂)	IS 5182 (Part 6)	18.3	μg/m³	80 (24 Hours Average)
5.	Ozone (as O ₃)	CPCB Guidelines	BDL [MDL: 1.0]	μg/m³	180 (1 Hour Average)
6.	Lead (as Pb)	IS 5182 (Part 22)	BDL [MDL: 0.01]	μg/m³	1.0 (24 Hours Average)
7.	Carbon Monoxide (as CO)	IS 5182 (Part 10)	BDL [MDL: 0.01]	mg/m³	4.0 (1 Hour Average)
8.	Ammonia (as NH ₃)	CPCB Guidelines	BDL [MDL: 5.0]	μg/m³	400 (24 Hours Average)
9.	Benzene (as C ₆ H ₆)	CPCB Guidelines	BDL [MDL: 0.01]	μg/m³	5.0 (Annual Average)
10.	Benzo(a)Pyrene (as BaP) - Particulate Phase Only	CPCB Guidelines	BDL [MDL: 0.1]	ng/m³	1.0 (Annual Average)
11.	Arsenic (as As)	CPCB Guidelines	BDL [MDL: 0.01]	ng/m³	6.0 (Annual Average)
12.	Nickel (as Ni)	CPCB Guidelines	BDL [MDL: 0.01]	ng/m³	20 (Annual Average)

NA: Not Applicable, BDL: Below Detectable Limit, MDL: Minimum

*******End of Report*****



Authorised Signatory: Mr. Pankaj Baroi (Director)

NOTE: 1. Results reported are valid at the time of and under the prevailing conditions of measurement.

2. Results refer only to the particular parameters tested.

^{*} Limits as per G.S.R. 826(E), 16.11.2009



Pollution Control Board::Assam Bamunimaidam; Guwahati-21

(Department of Environment & Forests :: Government of Assam) Phone: 0361-2652774 & 2550258; Fax: 0361-2550259

Website: www.pcbassam.org

No. WB/RONG/T-771/22-23/29

Dated Guwahati, the 14th March, 2023

CONSENT TO OPERATE

'CONSENT TO OPERATE' (CTO) under Section 25 of Water (Prevention & Control of Pollution) Act, 1974 and Section 21 of Air (Prevention & Control of Pollution) Act, 1981 as amended and Rules Framed thereunder, is granted to:

Name of unit

: M/s. Calcom Cement India Ltd.

Name of the Occupier / ii)

: Uday Singh Rajput

Applicant and Designation

Unit Head

Address of unit iii)

: 2 No. Pipulpukhuri, Lanka, Hojai, Assam-

782446

Cost of the project iv)

: 54551.0 Lakhs

Type and category of the V)

: Cement Grinding Unit

Project

(Red Category)

vi) Details of the Project

Sl.No.	Unit	Capacity
1.	Cement Mill-1	335 TPH
2.	Cement Mill-2	130 TPH

Details of Raw materials

SI. No.	Raw materials	Quantity
1	Clinker	2.10 MMTPA
2	Fly ash	1.20 MMTPA
3	Gypsum	0.17 MMTPA
4	Slag	0.96 MMTPA
5	Coal	0.14 MMTPA

viii) Details of Products

Sl. No.	Products	Brand Name	Capacity
1.	OPC, PPC, PSC and PCC	Dalmia Cement	3.42 MMTPA

Details of D.G. Sets ix)

: 1x 125 KVA+1x380 KVA

TERMS AND CONDITIONS:

- 1. The Consent to Operate (CTO) has been accorded based on the particulars furnished by the applicant vide Application ID: 1540997 and subject to addition of further or more conditions if so warranted by subsequent developments. The CTO will automatically become invalid if there is any changes, modification, alteration, expansion or deviation is made in actual practice.
- 2. The CTO is valid for a period up to 31.03.2025.
- 3. This CTO may be modified, suspended in whole or in part or withdrawn by the Board during its term for cause including, but not limited to the following:
 - a) Violation of any Terms and Conditions of this Consent to Operate.
 - b) Obtaining the Consent by misrepresentation or failure to disclose fully all relevant facts;
 - c) If any genuine complaint received;
- 4. The unit shall obtain prior 'Consent to Establish' from the Board for any further expansion, alteration, modification, modernization of the project.
- 5. Proper housekeeping shall be maintained. The unit shall not burn any waste inside the premises.

Contd...P/2



The general and Specific conditions of Environmental Clearance accorded by the MoEF & CC, GOI Vide ÉC No.- EC22B009AS121520 File No..- SEIAA.2046/2022 dtd.19.05.2022 shall be complied

The project Authority shall install a display Board as per the Board's Notification No. PCBA/AGI-

95/20-21/Notification/01 dtd.11.11.2021. (Appendix-A).

8. The project proponent shall develop a greenbelt/plantation area with native trees covering at least 33%

of the total plot area.

9. Domestic Wastewater generated from the factory and colony shall have to be treated in a Sewage Treatment Plant. This treated water shall be utilized in greenbelt development/spraying around the plant and colony.

10. Environmental Statement in prescribed Form-V should be submitted on or before the 30th September

every year.

11. As per the provisions of the Water (Prevention and Control of Pollution) Act, 1974 as amended and the Air (Prevention and Control of Pollution) Act, 1981, as amended, any Officer empowered by the Board on its behalf shall have without interruption, the right at any time to enter the hospital for inspection, collection of sample for analysis and may call for any information as deemed necessary. Denial of this right will cause withdrawal of the CTO.

12. The unit shall apply for renewal of CTO atleast ninety (90) days before expiry.

Specific Conditions:

A) Air Aspects:

1. Source of Air Pollution:

SI No.	Unit	APC Device	Capacity	Stack Height
1	Cement Mill-1	Bag House	62000 Nm ³ /hr	H-50 m
2	Cement Mill-2	Bag House	62000 Nm ³ /hr	H-50 m
3	Roller Press with HAG	Bag House	490000 M ³ /hr	H-52.5 m

2. The unit shall comply with the standards and guidelines for control of noise pollution from stationary Diesel Generator (DG) set, notified by the MoEF& CC, Govt. of India vide, GSR 7, dated Dec.22, 1998 (Appendix-B)

3. Location of sampling port shall be provided as specified in CPCB guidelines for Emission Regulations (December 1985), Part-III (Appendix-C)

4. The unit shall comply with the specific emission standards, notified by the MoEF& CC, Govt. of India, vide GSR.612(E) dated 25th August, 2014, as applicable for all its chimney emission (Part-A of Appendix-D)

5. The unit shall comply with noise level standard, notified by the MoEF& CC, Govt. of India vide, GSR 7, dated Dec.22, 1998, as mentioned herein under-

Limit in dB (A) Leq	
Day Time (6:00am-9:00pm)	Night Time (9:00pm-6:00am)
75	70

6. The unit shall comply to the National Ambient Air Quality Standards, notified by the MoEF& CC, GOI, vide GSR 826(E) dtd.16.11.2009, especially with respect to SO2, NO2, PM2.5 and PM10, as mentioned herein under-

SI. No.	Pollutants	Time Weighted average	Concentration in Ambient Air (Industrial, Residential, Rural Areas) µg/m3
1.	SO2 (µg/m3)	Annual	50
	870.2% B	24 hours	80
2.	NO2 (μg/m3)	Annual	40
	3 NATE: 5	24 hours	80
3.	PM10 (μg/m3)	Annual	60
	200-200 0	24 hours	100
4.	PM 2.5 (μg/m3)	Annual	40
		24 hours	60

- 7. On-line Continuous Emission Monitoring System (OCEMS) for Particulate Matter (PM), emission shall be properly maintained and OCMMS RT-DAS data should be regularly transmitted to Pollution Control Board, Assam and Central Pollution Control Board.
- 8. The unit shall install the following measures for control of source and fugitive emission.
 - a) Dust containment cum suppression system at Raw Material Feed Hoppers, all the material transfer & dropping points.
 - b) Construction of the metallic roads within the premises.
 - c) Regular cleaning and water sprinkling at the ground and in the haul roads.
- 9. Vehicle wheel washing system shall be installed at entry and exit gate of the factory.

B) Water Aspects:

- 1. Source of Water(Ground/Surface): Ground Water
- 2. i) Water Consumption

: 571 KL/day

ii) Effluent generation

: 41 KLD (No effluent, only domestic Waste Water)

iii) Effluent recycled

: 35 KLD(No effluent, only domestic Waste Water)

- iv) Permission from CGWA: Obtained
- v) Capacity of ETP/STP : 65 KLD
- 3. The treated water of the unit shall meet with specific standards, notified by the MoEF & CC, Govt. of India, vide GSR. 612(E) dated 25th August, 2014 (Part-B of Appendix-D)
- 4. The unit shall maintain 'Zero Liquid Discharge' condition.
- 5. i) Storm water shall not be allowed to mix with effluent and/or floor washing.
 - ii) Storm water within the battery limits shall be channelized through separate drain/pipe passing through an Oil and Grease Trap cum Sedimentation tan
 - iii) Storm water discharge from the unit shall meet with general discharge standards, notified by the MoEF & CC, GOI, vide GSR.422 (E) dated.19.05.1993 (Appendix-E)
- Rain water harvesting facility shall be maintained. A rain water harvesting pond shall be maintained within the premises. For water sprinkling of haul roads, water from the harvesting pond shall be used.
- 7. Adequate covered storage sheds for fly-ash shall have to be provided to prevent leachate and runoff from the storage yard.

C) Solid Waste Aspects:

- 1. Adequate facility shall be created for collection, storage, transportation, treatment & disposal of non-hazardous industrial solid waste generated from the unit.
- 2. Adequate system shall be adopted on reduction of waste generation and enhancement of reutilization & recycling of waste material.
- Solid waste generated in the unit shall be disposed of as per the provisions of Solid Waste Management Rules 2016.

D) Plastic Waste Aspects:

- The unit shall apply for 'Registration' through the online centralized portal developed by CPCB (https://www.cpcbeprplastic.in) immediately.
- 2. The Unit shall implement EPR (Extended Producers Responsibility) and fulfill the EPR target as per the guidelines.
- 3. Plastic Waste generated in the unit shall be quantified and disposed of in accordance of the provisions under the Plastic Waste Management Rules, 2016.
- The unit shall submit the Annual return under the Plastic Waste Management Rules, 2016 within 30th June every year.

Contd...P/4



E) E-Waste Aspects:

The unit shall comply with the provisions of E-Waste Management Rules, 2016.

F) Hazardous Waste Aspects:

- The unit shall obtain Authorization from the Board under Hazardous & Other waste (Management & Trans-boundary Movement) Rules, 2016.
- 2. The project authority shall comply with the provisions of the said Rules.
- 3. Adequate facilities shall be provided for collection and storage of used oil, which shall be sent to registered recyclers for recycling.
- 4. The unit shall dispose of any other Hazardous Waste generated by the unit as per provisions of the Rules.
- 5. The unit shall identify and quantify all streams of Hazardous Waste generation as per Schedule-I and maintain proper record in Form-III of the Rules.
- 6. The unit shall submit the annual return in Form-IV on or before 30th June every year.

The unit shall submit compliance report of the mandated conditions by April, 15, every year to Member Secretary, PCBA as well as to the concerned Regional Office of the Board. The Board will have the liberty to withdraw the CTO if adequate pollution control and safety measures are not implemented.

Memo No. WB/RONG/T-771/22-23/29-A / 3155
Copy to:

(Shantanu Kr. Dutta)

<u>Member Secretary</u>

Dated Guwahati, the 14th March, 2023

M/s. Calcom Cement India Ltd., 2 No. Pipulpukhuri, Lanka, Hojai, Assam-782446- for information and compliance of conditions.

(Shantanu Kr. Dutta)

Member Secretary



Pollution Control Board, Assam Bamunimaidam, Guwahati-21



NOTIFICATION

No. PCBA/LGL-95/2021/Notification/01

Dated Guwahati, the 11th Nov, 2021

In exercise of the powers conferred under Section-5 of the Environment (Protection) Act, 1986 as amended till date and keeping in view the need of public interest towards dissemination of vital information regarding Consent/Authorization of this Board, all industries are hereby directed to install a Display Board of minimum size 5'x4', near the main entrance gate.

The format of the display board is given below:

Description of Consent/Authorization	Details
Consent to Establish (CTE)	No.: Date of Issue:
Consent to Operate (CTO)	No.: Date of validity:
Authorization under Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016 (if applicable)	No.: Date of Issue: Date of validity:

Member Secretary

Memo No. PCBA/LGL-95/2021/Notification/01-A Copy to:

Dated Guwahati, the 11th Nov, 2021

I. The Commissioner & Secretary to the Govt. of Assam, Department of Environment & Forest, Dispur for kind information.

2. P.A. to the Chairman, PCBA for kind appraisal of the Hon'ble Chairman.

The All Regional Heads, PCBA for information & necessary action.

4. M/S APS Advertising Pvt. Ltd, Guwahati-1. They are requested to publish the "NOTICE" in "the Assam Tribune" and "Dainandin Barta" on 12.11.2021.

5. Notice Board, Head Office / Website (www.pcbassam.org), PCBA.

lember Secretary

1.6 6.0 STANDARDS AND GUIDELINES FOR CONTROL OF NOISE POLLUTION FROM STATIONARY DIESEL GENERATOR (DG) SETS.

(A) Notes standards for DG sets (15-500KVA)

The total sound power level LW of DG set should less than 94 + 10 log 10KVA, dB (A), at the manufacturing stage, whether; KVA is the nominal power rating of a DG set.

This level should fall by 5dB (A) every five years, till 2007, i.e. in 2002 and then in 2007.

(B) Mandatory Acoustic enclosure/Acoustic treatment of room for stationary DG sets (5KVA and above):

Noise from the DG set should be controlled by providing an acoustic enclosure on by treating the room acoustically.

The acoustic enclosure/acoustic treatment of the room should be designed for minimum 25 dB (A) insertion Loss or for meeting the ambient noise standards, which ever is on the higher side (if the actual ambient noise is on the higher side, it may not be possible to check the performance of the acoustic enclosure/acoustic treatment. Under circumstances the performance may be checked for noise reduction up to actual ambient noise level, preferably, in the night time). The measurement for insertion Loss may be done at different points at 0.5 from the acoustic enclosure/room, and then averaged. (See the Schematic Diagram).

The DG set should also be provided with proper exhaust muffler with Insertion Loss of minimum 25 dB (A).

Guidelines for the manufacturers Users of DG sets 5KVA and above:

- The manufacture should offer to the user a standard acoustic enclosure of 25dB (A). Insertion Loss and also a suitable exhaust muffler with Insertion Loss of 25dB (A).
- The user should make efforts to bring down the noise levels due to the DG set, outside his premises, within the ambient noise requirements by proper sitting and control measures.
- The manufacturer should furnish noise power levels of the unsalaried DG sets as per standards prescribed under (A).
- The total sound power level of a DG set, at the user's and, shall be within 2dB(A) of the total sound power level of the DG set, at the manufacturing stage, as prescribed under (A).
- Installation of DG set must be strictly in compliance with the recommendation of the DG set manufacture.
- A proper routines and preventive maintenance procedure for the DG set manufacturer which would help prevent noise levels of the DG set from deteriorating with use.

2.44.0 NOISE (AMBIENT STANDARDS)

Avea Code	Catamanu of Avan	Limit in dB (A) Leq.	
Area Code	Category of Area	Day time	Night time
Α.	Industrial area	75	70
B.	Commercial area	65	55
C.	Residential area	55	45
D.	Silence Zone	50	40

Note - 1 : Day time is reckoned in between 6.00 A.M. and 9.00 P.M.

Note - 2 : Night time is reckoned in between 9.00P.M. and 6.00 A.M.

Note – 3 : Silence zone is defined as areas up to 100 meters around such premises as hospitals, educational institutions and courts. The silence zones are to be declared by the competent Authority.

Note – 4 : Mixed categories of areas should be declared as one of the four above mentioned categories by the competent Authority and the corresponding standard shall apply.

Source: EPA, 1986 [GSR 7, dated Dec.22, 1998]

Source: EPA, Notification [GSR 1063 (E), dated Dec., 26, 1998]

3.22.0 DIESEL GENERATOR SETS: STACK HEIGHT

1. The minimum stack height to be provided with each generator set shall be worked out as per the following formula: $-H = h + 0.2 \sqrt{KVA}$, where H = Total height of stack in meter.

h = Height of the building in meters where generator set is installed.

KVA = Total generator capacity.

Adequate fire fighting measures have to be provided by the occupier of the premises. Based on the above formula the minimum stack height to be provided with different range of generator sets may be categories as follows:

Range of Generator sets	Minimum Stack Height
50 KVA	Ht. of the building + 1.5 metre.
50 – 100 KVA	Ht. of the building + 2.0 metre.
100 -150 KVA	Ht. of the building + 2.5 metre.
150 - 200 KVA	Ht. of the building + 3.0 metre.
200 - 250 KVA	Ht. of the building + 3.5 metre.
250 - 300 KVA	Ht. of the building + 3.5 metre.

Similarly for higher KVA rating a stack height can be worked out using the above formula.

Source: Evolved by CPCB

[Emission Regulations Part-IV: COINDS/26 1986-87]

4. A .32.0 Part - C

SI. No. 1

Stack Gas: PM - 150 µg/Nm3

B. Ambient Air Standards:

Residential Area	Industrial Area	Sensitive Area
SO ₂ · 80* µg/m ³	120* : µg/m ³	30* : μg/m ³
NO ₂ : 80* µg/m ³	120* : µg/m ³	30* : µg/m ³
CO : 2.0** µg/m3	5.0** : µg/m ³	1.0** : µg/m ³

5. SCHEMATIC DIAGRAM OF D.G. SET IN AN ACOUSTIC ENCLOSURE No. Process/71/1998-99.

This, highly perforated G.I. or Aluminium sheet

Fig. 4 Schematic Diagram of the DG set in an Acoustic Enclosure

Air required for the ventilation and breathing of the engine will have to be provided by means of intake louvers and exhaust louvers (called parallel baffie mufflers) projecting out of the enclosure.

(Shantanu Kr. Dutta)
Member Secretary
Pollution Control Board, Assam

Location of sampling port as per CPCB's emission regulation guideline part-III

-18-

2.5.0 Location of Sampling Port

To ensure laminar flow the sampling ports shall be located at atleast 8 times chimney diameter down stream and 2 times up stream from any flow disturbance. For a rectangular cross section the equivalent diameter (De) shall be calculated from the following equation to determine up stream, down stream distances.

$$De = \frac{2LW}{L+W}$$

Where L = Length in m, W = width in m.

Sometimes it may so happen for existing chimneys that sufficient physical chimney height is not available for desired sampling location in such cases additional traverse points shall be taken as given under 2.4.0.

The sampling port should be preferably provided on the delivery side of duct or chimney and not on the suction side.



d x

MINISTRY OF ENVIRONMENT, FORESTS AND CLIMATE CHANGE NOTIFICATION

New Delhi, the 25th August, 2014

G.S.R. 612(E).— In exercise of the powers conferred by sections 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby makes the following rules further to amend the Environment (Protection) Rules, 1986, namely:—

- 1. (1) These rules may be called the Environment (Protection) (Fifth Amendment) Rules, 2014.
 - √2) They shall come into force on the date of their publication in the Official Gazette.
- 2. In the Environment (Protection) Rules, 1986,-
- (a) in Schedule I, for serial number 10 and entries relating thereto, the following serial number and entries shall be substituted, namely:—

S. No.	Industry	Parameter	Standards			
(1)	(2)	(3)	(4)			
"10	Cement Plant	A Emission Standards				
	(without		(i) Rotary Kiln -	without coprocessing		
	, Standalone Clinker		Date of Commissioning	Location	Concentration not to exceed, in mg/ Nm ³	
	Grinding Plant or, Blending Plant		(a)	(b)	(c)	
		Particulate Matter	on or after the date of notification	anywhere in the country	30 (with effect from 01.01.2016)	

भाग II—खण्ड 3(i)]		भारत का राजपत्र : असाधारण		
			critically poliuted area or urban centres	50 (with effect from 01.01.2015)
		before the date of	other than critically polluted area or urban centres	30 (with effect from 01.06.2016)
		notrication		100 (with effect from 01.01.2015)
				30 (with effect from 01.06.2016)
	Sulphur Dioxide (SO ₂)	irrespective of date of commissioning	anywhere in the country	100
*		on or after the date of notification	anywhere in the country	600 (with effect from 01.06.2015)
-	Nitrogen Dioxide (NO ₂)	before the date of notification	anywhere in the country	800 (with effect from 01.01.2016)

(1)	(2)	(3)	(4)			
			(a)	(b)	(c)	
			ii) Vertleal Shaft Kiln - (without coprocessing)			
The second second		Particulate Matter (PM)	on or after the date of notification	anywhere in the country	50 (with effect from 01.06.2016)	
			before the date of notification	critically polluted area or urban Centres with population above 1.0 lakh or within its	100 (with effect from 01.06.2015)	
				lakh or within its periphery of 5 kilometre radius	75 (with effect from 01.06.2016)	
				other than critically polluted area or urban centres	150 (with effect from 01.01.2015)	
		Sulphur Dioxide (SO ₂)			200 (with effect from 01.01.2016)	
	ľ	Nitrogen Dioxide (NO ₂)	*	-	500 (with effect from 01.01.2016)	

(1)	(2)	(3)	(4)			
170		B Service wastewater- (without coprocessing)				
		All efforts shall be made by the industry for 'zero discharge' of service wastewater. In ca the industry prefers to discharge service wastewater, the following norms shall be compli- with:				
			Concentration not to exceed, milligramme per litre (except pH and temperature)			
1		pH	5.5 to 9.0			
		Suspended Solids	100			
		Oil and Grease	10			
		Temperature	not more than 5°C higher than the intake water temperature			
		C Stormwater				
		 Stormwater shall not be allowed to mix with effluent, treated sewage, scrubber we and/ or floor washings. Stormwater within battery limits of industry shall be channelized through separation of the sepa				

[भाग]1-खण्ड 3(i)]

भारत का राजपत्र : असाधारण

7

(b) in Schedule VI, under 'PART- D' relating to General Emission Standards, in item III relating to Load/Mass based standards, after serial number 9, and the entries relating thereto, the following serial number and entries shall be inserted, namely:—

(1)	(2)	(3)	(4)
"10	Cement Plan (without coprocessing)	Rotary kiln based plants (Particulate Matter from raw mill, kiln and pre-calciner system put together).	0.125 Kg/ tonne of clinker (with effect from 01.01.2017)
		Vertical shaft kiln based plants (Particulate Matter from raw mill and kiln put together)	0.50 Kg/ tonne of clinker (with effect from 01.01.2017) . ".

[F. No. Q-15017/30/2007-CPW]

DR. RASHID HASAN, Advisor

Note: —The principal rules were published in the Gazette of India vide number S.O. 844 (E), 19th November, 1986 and subsequently amended vide notifications numbers S.O. 433 (E), dated 18th April 1987; G.S.R. 97 (E), dated the 18th February, 2009; G.S.R. 149 (E), dated the 4th March, 2009; G.S.R. 739 (E), dated the 9th September, 2010; G.S.R. 809(E), dated, the 4th October, 2010, G.S.R. 215 (E), dated the 15th March, 2011; G.S.R. 221(E), dated the 18th March, 2011; G.S.R. 354 (E), dated the 2nd May, 2011; G.S.R. 424 (E), dated the 1st June, 2011; G.S.R. 446 (E), dated the 13th June, 2011; G.S.R. 152 (E), dated the 16th March, 2012; G.S.R. 266(E), dated the 30th March, 2012; and G.S.R. 277 (E), dated the 31st March, 2012; and G.S.R. 820(E), dated the 9th November, 2012; G.S.R. 176 (E), dated the 18th March, 2013; G.S.R. 535(E), dated the 7th August, 2013; G.S.R. 771(E), dated the 11th December, 2013; G.S.R. 2(E), dated the 2nd January, 2014; G.S.R. 229 (E), dated the 28th March, 2014; G.S.R. 232(E), dated the 31st March, 2014; and G.S.R. 325(E), dated the 7th May, 2014.

General Standards for discharge of environment Pollutants Part-A: Effluents

s.			Standards Land for				
No-	Parameter	Inland	surface water	public Sewers	Land for irrigation	Marine coastal areas	
1	2				3		
			(a)	(b)	©	(d)	
1	Color and Odor		5 to 25 greeable	-	5 to 25 Agreeable	5 to 25 Agreeable	
2	Suspended		100	600	200	(a) For process waste water-100	
	Solids mg/l, Max.					(b) For Cooling water effluent 10 percent above total suspended matter of influent	
3	Particular size of suspended solids	Shall pa	ss 850 micron	-	-	(a) Floatable solids, max. 3 mm	
						(b) Settleable solids, max 850 micron	
4*			(<u>a</u>	-	the sec sec	-	
5	pH value	5	.5 to 9.0	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0	
6	Temperature	Shall no	t exceed 5°C	-	-	Shall not exceed 5°C above the	
			the receiving			receiving water temperature	
		water ter	nperature 10		3700	20	
7	Oil and grease mg/L Max			20	10	20	
8	Total residual		1.0	E	8	1.0	
	chlorine mg/1, Max						
9	Ammonical nitrogen (as N), mg/1 max.		50	50		50	
10	Total Kjeldhal niti (as NH ₃) mg/l, Max	rogen	100	Ti.		100	
11	Free Ammonia (as NH ₃) mg/1, Max		5.0	7.	8	5.0	
12	Biochemical oxygen demand (5 days at 20°C), mg/1 Max)		30	350	100	100	
13	Chemical Oxygen mg/1 Max	demand,	250	=	-	250	
14	Arsenic (as As) mg/1 Max	-32 A	0.2	0.2	0.2	0.2	
15	Mercury (As Hg), mg/1 max)		0.01	0.01		0.01	
16	Lead (as Pb) mg/L, Max		0.1	1.0	-	2.0	
17	Cadmium (as Cd) m	ıg/1, Max	2.0	1.0	-	2.0	
18	Hexavalent chromiu Cr) mg/1, Max		0.1	2.0	-	1.0	
19	Total chromium (as mg/l, Max	Cr)	2.0	2.0	-	2.0	

	1901				
	CO C		-2-		
20	Copper (as Cu) g/l, Max	3.0	3.0	-	3.0
21	Zinc (as Zn) mg/l,Max	5.0	15	2	15
22	Selenium (as Se) mg/l, Max	0.05	0.05	-	0.05
23	Nickel (as Ni) mg/l,Max	3.0	3.0	-	5.0
24*	<u> </u>	-	*	-	
25*	-	-	-	-	-
26	∞	100	(+)		÷
27	Cyanide (as CN), mg/l Max	0.2	2.0	0.2	0.2
28*	-	-		-	(#
29	Fluoride (as F) mg/l Max	2.0	15	-	15
	Dissolved Phosphates (as p), mg/l Max	5.0		-	
31*		-	-	_	<u> </u>
32	Sulphide (as S) mg/l Max	2.0	(#)	-	5.0
	Phenolic Compounds (as C ₆ H ₅ OH) mg/l Max	1.0	5.0		5.0
34	Radioactive materials:				
	(a)Alpha emitter micro curie/ml	10-7	10-7	10-8	10-7
	(b) Beta emitter micro curie/ml)	10 ⁻⁶	10 ⁻⁶	10-7	10 ⁻⁶
	Bio-assay test	90% survival of fish after 96 hours in 100% effluent	survival of	of fish	90% survival of fish after 96 hours in 100% effluent
36	Manganese (as Mn)	2 mg/l	2 mg/l	-	2 mg/l
37	Iron (as Fe)	3 mg/l	3 mg/l		3 mg/l
38	Vanadium (asV)	0.2 mg/l	0.2 mg/l		0.2 mg/l
39	Nitrate Nitrogen	10 mg/l		-	20 mg/l
40	-	-	-	-	40

Omitted by Rule 2 (d) (i) of the Environment (Protection) Third Amendment Rules, 1993 vide Notification No. G.S.R 801 (E) dated 31.12.1993





Envirocon Building, I.O.C.L (AOD) New Market P.O.: Digboi, Dist.: Tinsukia, Assam - 786 171 Ph: 03751-264414, 9435008657, 8876028672 E-mail: envirocon@rediffmail.com

ISO 9001:2015 Certified ISO 45001:2018 Certified

: 30/12/2022

Order No.: 4557000844/311 Report No.: ENV/CCIL/NGN/23-24/N-06/01 Date

Date : 14/06/2023

CALCOM CEMENT INDIA LIMITED Report Issued To:

> (Unit of Dalmia Cement (Bharat) Ltd.) Pipalpukhuri, Dist.- Nagaon, Assam- 782446

AMBIENT NOISE LEVEL MEASUREMENT RESULTS

		Date Of	Day Time	Night Time
Sl. No.	Location(s)	Measurement Measurement	L _{eq} (dB-A)	L _{eq} (dB-A)
1.	In front of CCR	02.06.2023	71.6	67.8
2.	Near Cement Mill- 1	02.06.2023	74.6	67.5
3.	Near Cement Mill- 2	02.06.2023	74.8	68.4
4.	Near Packing Plant	02.06.2023	71.6	66.2
5.	Central Store	02.06.2023	66.8	48.7
6.	Dispensary	02.06.2023	52.6	39.2
7.	Main Security Gate No. 1	02.06.2023	61.8	52.4
8.	Workshop	02.06.2023	64.7	54.3
9.	Near DSP Silo	02.06.2023	73.9	67.2
10.	Compressor Area	02.06.2023	73.6	65.9
11.	CCR Lab	02.06.2023	58.2	42.8
12.	Chemical Laboratory	02.06.2023	55.1	43.2
13.	New Mill Side (RP Building)	02.06.2023	74.2	67.9
14.	Near Weigh Bridge	02.06.2023	63.6	55.8

<u>Limit</u>: - Day Time- 75 dB-A, Night Time- 70 dB-A, as per G. S. R. 1063 (E), Dated- 26.12.1989.



Checked By: Mr. Pankaj Baroi, ENVIROCON

NOTE: 1. Results reported are valid at the time of and under the prevailing conditions of measurement.

2. Results refer only to the particular parameters tested.

3. This test report shall not be reproduced except in full, without the written permission of ENVIROCON, LO.C.L (AOD) New Market, Digboi - 786171, Assam.



Envirocon Building, I.O.C.L (AOD) New Market P.O.: Digboi, Dist.: Tinsukia, Assam – 786 171 Ph: 03751-264414, 9435008657, 8876028672 E-mail: envirocon@rediffmail.com

ISO 9001:2015 Certified ISO 45001:2018 Certified

Report No.: ENV/CCIL/NGN/23-24/N-06/01 Order No.: 4557000844/311

Date : 14/06/2023 Date : 30/12/2022

Report Issued To: CALCOM CEMENT INDIA LIMITED

(Unit of Dalmia Cement (Bharat) Ltd.) Pipalpukhuri, Dist.- Nagaon, Assam- 782446

D. G. SET NOISE LEVEL MEASUREMENT RESULTS

Sl. No.	Location(s)	Date Of Measurement	Result (dB-A)
1	DG Set 125 KVA/100 KW Make: Jakson Ltd., Sl. No.: 09040083	02.06.2023	73 . 9
2	DG Set 380 KVA/304 KW Make: Jakson Ltd., Sl. No.: CJX-SDG-07080197	02.06.2023	74.3

Limit: -75 dB-A (at 1 meter distance), as per G. S. R. 371 (E), Dated-17.05.2002.



Checked By: Mr. Pankaj Baroi, ENVIROCON

NOTE: 1. Results reported are valid at the time of and under the prevailing conditions of measurement.

2. Results refer only to the particular parameters tested.

3. This test report shall not be reproduced except in full, without the written permission of ENVIROCON, LO.C.L (AOD) New Market, Digboi - 786171, Assam.

Envirocon Building, I.O.C.L (AOD) New Market P.O.: Digboi, Dist.: Tinsukia, Assam – 786 171 Ph: 03751-264414, 9435008657, 8876028672 E-mail: envirocon@rediffmail.com

ISO 9001:2015 Certified ISO 45001:2018 Certified

Format No.: ENV/R/TR/19/N-01

NOISE LEVEL TEST REPORT

Rev. No.: 00

ULR No.	NA NA	A SHAPPORT	I CHANCE
Report No.	ENV/TR/DCNEL/NGN/23-24/N-01	Issue Date	20/09/2023
Order No.	4557001170/311	Order Date	14/07/2023
Report Issued To	DALMIA CEMENT (NORTH EAST) LIMITED Pipalpukhuri, Dist Nagaon, Assam - 782446	on enviroco	n envirocor

Sample T	ype:	Ambient Noise	Category of Area/Zone:	Industrial Area	Date of Monitoring:	09.09.2023		
Sound Me	eter Used:	SL-4030/Lutron	INPOCON ENV	Sampled By:		Bidyut Kalita, Envirocon		
/ROC	One	N/Rocon e	TEST RESU	JLTS CON E	TVROCOTI E	TVROCOL		
Sl. No.	oner	Locations	nvrocon enu	ime Duration	Test Method	Result Leq dB (A)		
1.	Packing A	rea / HOX ON I	INVROCON ENV	Day Time	IS 9989 (RA 2020)	70.6		
2.	Central St	ore Area	INVROCON ENV	Day Time	IS 9989 (RA 2020)	63.4		
3.	Security G	ate - 2 (Dispensary)	INVROCON ENV	Day Time	IS 9989 (RA 2020)	57.5		
4.	Security G	ate - 1	nvisocon env	Day Time	IS 9989 (RA 2020)	59.7		
5.	In front of	CCR	nvisocon anv	Day Time	IS 9989 (RA 2020)	68.6		
6.	Near Ceme	ent Mill- 1	minoron mu	Day Time	IS 9989 (RA 2020)	74.6		
7.	Near Ceme	ent Mill- 2		Day Time	IS 9989 (RA 2020)	74.2		
8.	Near Silo	TUHOCON	THUTTOCOTT STO	Day Time	IS 9989 (RA 2020)	74.8		
9.	RP Buildin	ig Area	HVHOCOH HIN	Day Time	IS 9989 (RA 2020)	70.6		
10.	Near Main	Hopper	HAROCOLLEIA	Day Time	IS 9989 (RA 2020)	65.1		
11.	Near Coal	Crusher	INBOCOLLEIN	Day Time	IS 9989 (RA 2020)	65.7		
12.	Near Truc	k Trippler	INVROCON ENV	Day Time	IS 9989 (RA 2020)	72.3		
13.	In front of	Workshop	INVROCON ENV	Day Time	IS 9989 (RA 2020)	68.2		
14.	Near Weig	h Bridge	nvirocon my	Day Time	IS 9989 (RA 2020)	63.2		

NA: Not Applicable

Limit:

/ROCON ENVRO	Limit in dB (A) Leq			
Category of Area/Zone	Day Time	Night Time		
Industrial Area	75 200	70		
Commercial Area	65	55		
Residential Area	55	45		
Silence Zone	50	40		



Authorised Signatory: Mr. Pankaj Baroi (Director)

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Envirocon Building, I.O.C.L (AOD) New Market P.O.: Digboi, Dist.: Tinsukia, Assam – 786 171 Ph: 03751-264414, 9435008657, 8876028672 E-mail: envirocon@rediffmail.com

ISO 9001:2015 Certified ISO 45001:2018 Certified

Format No.: ENV/R/TR/19/N-01

NOISE LEVEL TEST REPORT

Rev. No.: 00

Report No.	ENV/TR/DCNEL/NGN/23-24/N-02	Issue Date	20/09/2023
Order No.	4557001170/311	Order Date	14/07/2023
Report Issued To	DALMIA CEMENT (NORTH EAST) LIMITED	on entire oco	in envisore
Report Issueu 10	Pipalpukhuri, Dist Nagaon, Assam - 782446	ALC IN ICCO	

Sample T	ype:	Ambient Noise	Category of Area/Zone:	Industrial Area	Date of Monitoring:	09.09.2023	
Sound Me	eter Used:	SL-4030/Lutron	Sampled B		Bidyut Kalita, Enviroco	n ROCO	
/ROC	one	N/Rocon e	TEST RESU	JLTS CON E	TVROCOTIE	WROCO	
Sl. No.	oner	Locations	nvirocon enu	ime Duration	Test Method	Result Leq dB (A)	
1.	Packing A	rea / HOX ON E	NVROCON ENV	Night Time	IS 9989 (RA 2020)	68.2	
2.	Central St	ore Area	nvrocon env	Night Time	IS 9989 (RA 2020)	59.6	
3.	Security G	ate - 2 (Dispensary)	nvirocon env	Night Time	IS 9989 (RA 2020)	56.1	
4.	Security G	ate - 1	ni/Rocon eni/	Night Time	IS 9989 (RA 2020)	57.4	
5.	In front of	CCR	ovisocon tov	Night Time	IS 9989 (RA 2020)	65.3	
6.	Near Ceme	ent Mill- 1	avipovon tov	Night Time	IS 9989 (RA 2020)	69.2	
7 .	Near Ceme	ent Mill- 2	au pococ cau	Night Time	IS 9989 (RA 2020)	68.6	
8.	Near Silo	TUHOCON	DUDOCOO COU	Night Time	IS 9989 (RA 2020)	69.3	
9.	RP Buildin	g Area	HUHOCOH SHA	Night Time	IS 9989 (RA 2020)	67.4	
10.	Near Main	Hopper	INFOCOL GIV	Night Time	IS 9989 (RA 2020)	62.6	
11.	Near Coal	Crusher	MHOCOLLEIN	Night Time	IS 9989 (RA 2020)	61.7	
12.	Near Truc	k Trippler	NVROCON ENV	Night Time	IS 9989 (RA 2020)	68.3	
13.	In front of	Workshop	nvrocon env	Night Time	IS 9989 (RA 2020)	63.2	
14.	Near Weig	h Bridge	nvisocon my	Night Time	IS 9989 (RA 2020)	58.6	

NA: Not Applicable

Limit

/ROCON ENVRO	Limit in dB (A) Leq			
Category of Area/Zone	Day Time	Night Time		
Industrial Area	75 200	70		
Commercial Area	65	55		
Residential Area	55	45		
Silence Zone	50	40		

*******End of Report******

Authorised Signatory: Mr. Pankaj Baroi (Director)

NOTE: 1. Results reported are valid at the time of and under the prevailing conditions of measurement.

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Envirocon Building, I.O.C.L (AOD) New Market P.O.: Digboi, Dist.: Tinsukia, Assam - 786 171 Ph: 03751-264414, 9435008657, 8876028672 E-mail: envirocon@rediffmail.com

ISO 9001:2015 Certified ISO 45001:2018 Certified

Format No.: ENV/R/TR/19/N-01

NOISE LEVEL TEST REPORT

Rev. No.: 00

ULR No.	NA TOCOL I I I I I I I I I I I I I I I I I I I	A SHAPERCE	I CHIMITOCOLI
Report No.	ENV/TR/DCNEL/NGN/23-24/N-03	Issue Date	20/09/2023
Order No.	4557001170/311	Order Date	14/07/2023
Report Issued To	DALMIA CEMENT (NORTH EAST) LIMITED Pipalpukhuri, Dist Nagaon, Assam - 782446	on enviroco	n envirocon

Sample Type:	Genset Noise	Category of Area/Zone:	DG Set	Date of Monitoring:	20.03.2023
Sound Meter Used:	SL-4030/Lutron	INFOCOL ELIV	Sampled By:	Bidyut Kalita, Enviroco	on # OCOII
1 locol le	IN HOCOLLS	TEST RESI	II TS	THAT TO COLL SI	MI IOCOLI

Sl. No.	Locations Local	Time Duration	Test Method	Result Leq, dB (A)
1.)(DG Set 125 KVA/100 KW Make: Jakson Ltd., Sl. No.: 09040083	Day Time	IS 9989 (RA 2020)	74.2
2.	DG Set 380 KVA/304 KW Make: Jakson Ltd., Sl. No.: CJX-SDG-07080197	Day Time	IS 9989 (RA 2020)	74.5

NA: Not Applicable

Limit: 75 db(A) at 1 meter distance as per CPCB norms.

*******End of Report*****



Authorised Signatory: Mr. Pankaj Baroi (Director)

NOTE: 1. Results reported are valid at the time of and under the prevailing conditions of measurement.

2. Results refer only to the particular parameters tested.

3. This test report shall not be reproduced except in full, without the written permission of ENVIROCON, I.O.C.L (AOD) New Market, Digboi - 786171, Assam.

Apollo Clinic, Kanchan Road, Opp. Bora Service, G. S. Road, Guwahati - 781007 Phone: 9085612000, E-mail: info@apolloclinicguwahati.com



Patient Name : Mr. Ashis Kumar Biswal

MR No

: FGUW.0000172070

Age/Sex

: 30 Y/M

Visit No

: FGUWOPV299152

Pres Doctor

Bill Date

:20-07-2023 10:11

Ref.by

: SELF

Report Date

: 20-07-2023 14:41

CHEST (PA VIEW)

Lung fields do not reveal any active parenchymal lesion.

Pleural angles are clear and domes of the diaphragm are of normal contour.

Cardio-thoracic ratio is within normal limits.

Hilar shadows are normal.

Bony thorax is intact.

Soft tissue shadows are normal.

- RADIOGRAPH IS ESSENTIALLY WITHIN NORMAL LIMITS.

Dr. ANJAN KUMAR BHUYAN MBBS, MD

CONSULTANT RADIOLOGIST

TOUCHING LIVES



Apollo Clinic, Kanchan Road, Opp. Bora Service, G. S. Road, Guwahati - 781007 Phone: 9085612000, E-mail: info@apolloclinicguwahati.com



Patient Name

: Mr. Ashis Kumar Biswal

UHID/MR No.

: FGUW.0000172070

Visit Date

: 20-07-2023 10:10

Sample Collected on : 20-07-2023 10:22

Ref Doctor Emp/Auth/TPA ID

: SELF : 434

Sponsor Name

DALMIA CEMENT BHARAT LIMITED

Age / Gender

: 30Y/Male

OP Visit No

: FGUWOPV299152

Reported on

: 20-07-2023 12:48

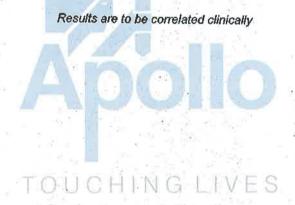
Specimen Pres Doctor: : Citrated Blood

DEPARTMENT OF LABORATORY MEDICINE

	TEST NAME	RESULT	BIOLOGICAL REFERENCE INTERVALS	UNITS
	ERYTHROCYTE SEDIMENTATION RATE (ESR)			
	ERYTHROCYTE SEDIMENTATION RATE (ESR). Method: Westergren's Method	05	0 - 20 mm in 1hrs	mm in
1	HAEMOGLOBIN		E NIC TO STATE	THIS '
1	HAEMOGLOBIN: Method: Non Cyanide	15.4	13 - 17	gm/dl

End of the report

Lab Technician / Technologist Chandan_Baishya



Dr. Sailendra Kr. Das



Apollo Clinic, Kanchan Road, Opp. Bora Service, G. S. Road, Guwahati - 781007 Phone: 9085612000, E-mail: info@apolloclinicguwahati.com



Patient Name UHID/MR No. : Mr. Ashis Kumar Biswal : FGUW.0000172070

Visit Date

: 20-07-2023 10:10 Sample Collected on : 20-07-2023 10:22

Ref Doctor

: SELF

Emp/Auth/TPA ID Sponsor Name

: 434 : DALMIA CEMENT BHARAT LIMITED Age / Gender

: 30Y/Male

OP Visit No

: FGUWOPV299152

Reported on

: 20-07-2023 15:21

Specimen Pres Doctor:

: Serum

DEPARTMENT OF LABORATORY MEDICINE

TEST NAME	RESULT	BIOLOGICAL REFERENCE INTERVALS	UNITS
LIPID PROFILE TEST (PACKAGE)		INTERVALS	2.11.10
S.Cholesterol	162.2	< 200 Desirable 200-239 Borderline High >=240 High	mg/dl
S.Triglyceride	69.0	<150 Desirable 150-199 Borderline High 200-499 High >500 Very High	mg/dl
S.VLDL-Cholesterol	13.8	10 - 40	mg/dl
S.HDL-Cholesterol	54.9	<40 (Man) - Poor <50 (Women) - Poor 40-49 (Man) - Good 50-59 (Women) - Good >=60 - Best	mg/dl
S.LDL-Cholesterol	112.0	<100 Ideal for people at risk of heart disease 100 - 129 Near Ideal 130 - 159 Borderline High 160 - 189 high	mg/dl
Ratio of Cholesterol/HDL Method: Calculated.	2.95	>=190 Very High 0 - 4.5	
	TOUCHING LI	VES	

Results are to be correlated clinically

Lab Technician / Technologist Reshma_Begum

Dr. Sailendra Kr. Das



Apollo Clinic, Kanchan Road, Opp. Bora Service, G. S. Road, Guwahati - 781007 MC-2252 Phone: 9085612000, E-mail: info@apolloclinicguwahati.com



Patient Name

: Mr. Ashis Kumar Biswal

UHID/MR No.

: FGUW.0000172070

Visit Date

20-07-2023 10:10

Sample Collected on : 20-07-2023 10:22

Ref Doctor Emp/Auth/TPA ID : SELF

Sponsor Name

: 434

DALMIA CEMENT BHARAT LIMITED

Age / Gender

: 30Y/Male

OP Visit No

: FGUWOPV299152

Reported on

: 20-07-2023 16:25

Specimen

: Serum

Pres Doctor:

DEPARTMENT OF LABORATORY MEDICINE

RESULT	BIOLOGICAL R	REFERENCE	UNITS
28.0	10 - 50		mg/dl
79.4	70 - 110		mg/dl
	28.0	28.0 10 - 50	28.0 10 - 50

End of the report

Results are to be correlated clinically

Lab Technician / Technologist Reshma_Begum

Dr. Sailendra Kr. Das



Apollo Clinic, Kanchan Road, Opp. Bora Service, G. S. Road, Guwahati - 781007 Phone: 9085612000, E-mail: info@apolloclinicguwahati.com



Patient Name

Mr. Ashis Kumar Biswal

UHID/MR No. Visit Date

: FGUW.0000172070 20-07-2023 10:10

Sample Collected on : 20-07-2023 10:22

Ref Doctor Emp/Auth/TPA ID SELF

Sponsor Name

: 434

DALMIA CEMENT BHARAT LIMITED

Age / Gender

: 30Y/Male

OP Visit No

: FGUWOPV299152

Reported on

: 20-07-2023 14:49

Specimen

: Urine

Pres Doctor:

DEPARTMENT OF LABORATORY MEDICINE

URINE ROUTINE EXAMINATION

	Urine Routine	e & Microscopy	1 2 15 2 Tarest 11
	RESULT	Method	REFERENCE RANGE
Volume	40 ml	Macroscopy	INCI ENCINCE RANGE
Colour	Pale Yellow	Macroscopy	
Specific Gravity	1.030	Based on pka change	1.005 - 1.030
Appearance	Clear	Macroscopy	1.003 - 1.030
pH	5.5	Bromothymol blue /Methyl Red	4.6 – 8.0
Chemical Examination		THICKIYI IVE	
Sugar	Nil	GOD-POD	Nil
Protein	Trace	Heat Method	Nil
Bile Salts	Negative	Sulphur Powder Method	
Bile Pigments	Negative		Negative
Microscopic Examination		DictiorOatmine Metriod	
Pus Cells	1-2/hpf	Microscopy	
Red Blood Cells	Nil	Microscopy	
pithelial Cells	- / 		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Cast	Nil	Microscopy	
Crystals	Nil	Microscopy	
Others		Microscopy	

End of the report

Results are to be correlated clinically

Lab Technician / Technologist Chandan_Baishya

Dr. Sailendra Kr. Das



Apollo Clinic, Kanchan Road, Opp. Bora Service, G. S. Road, Guwahati - 781007 Phone: 9085612000, E-mail: info@apolloclinicguwahati.com



Patient Name

: Mr. Ashis Kumar Biswal

UHID/MR No.

: FGUW:0000172070

Visit Date

: 20-07-2023 10:10

Sample Collected on : 20-07-2023 10:22

Ref Doctor

: SELF

Sponsor Name

Emp/Auth/TPA ID

: 434

: DALMIA CEMENT BHARAT LIMITED

Age / Gender

: 30Y/Male

OP Visit No

: FGUWOPV299152

Reported on

: 20-07-2023 13:30

Specimen **Pres Doctor:** : EDTA Blood

DEPARTMENT OF LABORATORY MEDICINE

TEST NAME

RESULT

BIOLOGICAL REFERENCE **INTERVALS**

UNITS

BLOOD GROUP AND RH TYPE

ABO

Method: Forward and Reverse

RH TYPE

POSITIVE

End of the report

Results are to be correlated clinically

Lab Technician / Technologist Chandan_Baishya

OUCHINGLIVES

Dr. Sailendra Kr. Das

Apollo Clinic, Kanchan Road, Opp. Bora Service, G. S. Road, Guwahati - 781007 Phone: 9085612000, E-mail: info@apolloclinicguwahati.com



Patient Name:

Mr. Ashis Kumar Biswal

Visit No:

FGUWOPV299152

Cond Doctor:

Dr. NIRMAL K BHATTACHARJEE

Referred By:

MR No:

Age/Gender:

FGUW.0000172070

30 Y/M

Conducted Date:

20-07-2023 11:38

Prescribing Doctor:

ECG

RESULTS

- 1. Sinus rhythm with sinus arrhythmia
- 2. Heart rate is 53 beats per minute
- 3. Normal P,QRS,T wave axis
- 4. Normal PR,QRS,QT duration
- 5. No pathological Q wave or ST T changes seen
- 6. No evidence of chamber hypertrophy or enlargement seen

IMPRESSION

SINUS BRADYCARDIA

TOUCHING LIVES

Medical Report

Dr. Nirmal K Bhattacharjee, MD, D. Card **Consultant Cardiologist**





INVESTIGATION REPORT

9831345159/8910141155

healthlined@gmail.com

Patient ID

284PAT002014

Patient Name Mr.NIRUPAM SAHA

<200

200-239

>=240

Referred by

SELF

Serial No

2088

Age: 38 Y

Sex: Male

Receiving Date: 16-09-2023

Reporting Date: 16-09-2023

Test/Profiles	Value	(s)	Reference Range	Units
	DEPARTI	MENT OF BIOC	HEMISTRY	
LIPID PROFILE TOTAL CHOLESTEROL	196		130.00-200.00	mg/dl
TRIGLYCERIDES	128		30.00-150.00	mg/dl
H D L CHOLESTEROL DIRECT	49		30.00-65.00	mg/dl
VLDL (METHOD: ELISA)	25.6		15.00-30.00	mg/dl
L D L CHOLESTEROL DIRECT	121.4		50.00-130.00	mg/di
CHOLE/HDL RATIO	4		0.00-4.97	mg/dl
LDL / HDL CHOLESTEROL RATIO	2.48		0.00-3.55	mg/dl
NON-HDL CHOLESTEROL	147	High	0.00-130.00	mg/d
Comments:-				
Remarks cholesterol in mg/dl	riglyceride in m	g/dl Ldl choles	terol in mg/dl Non hdl cholestero	l in mg/dl

High

Optimal

Above optimal

Borderline high

NOTE:-1. Measurements In The Same Patient Can Show Physiological And Analytical Variation. Three Serial Samples 1 week Apart Air Recommended For Total Cholesterol, Triglycerides, HDL & LDL Cholesterol.

NLA-2014 Recommends A Complete Lipoprotein Profile As The Initial Test For Evaluating Cholesterol.

<170

170-219

220-519

LOOD SUGAR FASTING SLOOD SUGAR FASTING

87

60.00-110.00

<100

100-159

130-159 160-189

mg/dl

<130

130-159

160-189

190-219

Comments: -

All reference ranges are age and sex matched. Reference limits mentioned herein are in accordance with the literature provided alongwith the kit which may change with the change in chemistry or the kit.

UREA

UREA

24

10.00-45.00

mg/dl

Comments:-

Urea is a renal function test that is often interpreted with creatinine. It is also useful when measured before and after dialysis treatments.

Dr. S. Majumder

M.Sc. (Bio-chemistry) Consultant Bio-chemist Dr. Aditi Bhattacharyya

Associated Professor Consultant Pathologist Dr. J. C. Halder DCP, MBBS

Consultant Pathologist











INVESTIGATION REPORT

9831345159/8910141155

healthlined@gmail.com

Patient ID

284PAT002014

Patient Name Mr.NIRUPAM SAHA

Referred by

SELF

Serial No

2088

Specimen: BLOOD

Age: 38 Y

Sex: Male

Receiving Date: 16-09-2023

Reporting Date: 16-09-2023

Test/Profiles

Value(s)

Reference Range

Units

SERUM CREATININE

SERUM CREATININE

0.86

0.80-1.40

mg/dl

Comments:-

Creatinine estimation is done to assess kidney function. It is not dependent on dietary factors. Normal values are obtained in kidney diseases, except in advanced renal failure and therefore its estimation is more valuable if coupled with clearance.

Dr. S. Majumder M.Sc. (Bio-chemistry) Consultant Bio-chemist Dr. Aditi Bhattacharyya

Associated Professor Consultant Pathologist











INVESTIGATION REPORT

9831345159/8910141155

healthlined@gmail.com

Patient ID

284PAT002014

Patient Name Mr.NIRUPAM SAHA

Referred by

SELF

Serial No

2088

Specimen: OTHERS

Age: 38 Y

Sex: Male

Receiving Date: 16-09-2023

Reporting Date: 16-09-2023

Test/Profiles

Value(s)

Reference Range

Units

DEPARTMENT OF HEMATOLOGY

ESR (WESTEGREN'S METHOD)

ESR (WESTEGREN'S METHOD)

15

0.00-20.00

mm/ hrs.

Comments:-

Interpretation: Indicates presence and intensity of an inflammatory process; never diagnostic of a specific disease. ESR is increased in chronic inflammatory diseases, especially collagen and vascular diseases. Decreased ESR is seen in congestive heart failure, cachexia and after high dose of adrenal steroids.

HAEMOGLOBIN (HB)

HAEMOGLOBIN

13.8

13.50-18.00

gm/dl

Comments:-

A decrease in hemoglobin below normal range is an indication of anemia. An increase in hemoglobin concentration occurs in hemoconcentration due to loss of body fluid in severe diarrhoea and severe vomitting. High values are also observed in congenital heart disease(due to reduced oxygen supply), in emphysaema and also in polycythaemia. Hemoglobin concentration drops during pregnancy due to hemodilution.

Dr. S. Majumder M.Sc. (Bio-chemistry)

Consultant Bio-chemist

Dr. Aditi Bhattacharyya

Associated Professor Consultant Pathologist









284PAT002024

Patient Name: Mr.NIRUPAM SAHA

SELF



AN ISO 9001:2015 CERTIFIED ## 2011/18/4 (1000) ## 14/4 ## 21/0 ### 18/4 (## 18/4 (### 18/4 (## 18/4 (## 18/4 (### 18/4 (## 1 INVESTIGATION REPORT

9831345159/8910141155

healthlined@gmail.com

Age: 38 Y

Sex: Male

Receiving Date: 16-09-2023

Reporting Date: 16-09-2023

Serial No 2089 Test/Profiles

Specimen : URINE

Value(s)

Reference Range URINE EXAMINATION TEST

Units

PHYSICAL EXAMINATION QUANTITY

Patient ID

Referred by

COLOUR

TRANSPARANCY

REACTION

SPECIFIC GRAVITY

CHEMICAL EXAMINATION

ALBUMIN

REDUCING SUGAR

MICROSCOPIC EXAMINATION

RBCS

PUS CELL

EPITHELIAL CELLS

50

STRAW

SLIGHTLY TURBID

ACIDIC

1015

NIL

NIL

NOT FOUND

OCCASIONAL

OCCASIONAL

** END OF REPORT **

mL

/HPF

/HPF

/HPF

Dr. S. Majumder

M.Sc. (Bio-chemistry) Consultant Bio-chemist Dr. Aditi Bhattacharyya

Associated Professor Consultant Pathologist

HEALTH LINE DIAGNOSTIC CENTRE 147, Nimtala Ghat Road, Shyamnagar, W.B.











INVESTIGATION REPORT

9831345159/8910141155

healthlined@gmail.com

Age: 38 Y Sex: Male

Receiving Date: 16-09-2023

Reporting Date: 16-09-2023

Serial No 2076 Specimen :EDTA BLOOD

Patient Name | Mr.NIRUPAM SAHA

SELF

284PAT002015

Test/Profiles Value(s) Reference Range

Units

BLOOD GROUP ABO

BLOOD GROUP

Patient ID

Referred by

RH

Comments:-

O

В

DEPARTMENT OF HEMATOLOGY

O

POSITIVE

** END OF REPORT **

Dr. S. Majumder M.Sc. (Bio-chemistry)

Consultant Bio-chemist

Dr. Aditi Bhattacharyya

Associated Professor Consultant Pathologist





