



DCBL/Plant/Env/MoEF&CC/EC Compliance/112023/01

Date: 28.11.2023

Additional Principal Chief Conservator of Forests, Ministry of Environment, Forest & Climate Change Integrated Regional Office, Ground Floor, East Wing, New Secretariat Building, Civil Lines, Nagpur- 440001.

Sub: Compliance of Environmental Clearance for 2.0 MTPA of Clinker Plant, 2.16 MTPA of OPC and 2.86 MTPA PPC and Captive Power Plant of 2 x 25 MW at village Naranda, District – Chandrapur Maharashtra for the period of April 2023 to September 2023.

Ref: Environmental Clearance F.No. J-11011/319/2006-IA II (I) dated 28.06.2007, Amended on dated 04.09.2009 and EC Transferred on dated 14.12.2021 & 26.09.2022

Dear Sir,

With respect to the subjected matter & referred above, we are submitting herewith the point wise half yearly compliance of Environmental Clearance for our Integrated Cement plant (2.0 MTPA of Clinker Plant, 2.16 MTPA of OPC and 2.86 MTPA of PPC) and Captive Power Plant (2 x 25 MW) for the period from **April 2023 to September 2023**. Soft copy of the EC Compliance report has been emailed to eccompliance-mh@gov.in and also uploaded on MOEF&CC Parivesh Portal.

Submitted for your kind information please.

Thanking you

Yours Faithfully,

For Dalmia Cement (Bharat) Ltd.

(Subbaraidu Ayyagari)

Unit Head

- CC: 1. The Regional Director, Central Pollution Control Board (CPCB), Survey No. 110, Dhankude Multi Purpose Hall, Baner Road, Baner, Pune – 411045.
 - 2. The Member Secretary, Maharashtra Pollution Control Board, Kalpataru Point, 3rd and 4th floor, Opp. CineMax Theatre, Sion (E), Mumbai 400 022.
 - 3. Regional Officer, Maharashtra Pollution Control Board (MPCB), 1st Floor, Udyog Bhawan, Railway Station Road, Chandrapur 442401.

ENVIRONMENTAL CLEARANCE COMPLIANCE REPORT

(Compliance Period - April 2023 to September 2023)

Ref: Environmental Clearance F.No. - J-11011/319/2006 -IA II (I) dated 28.06.2007, Amendment on dated 04.09.2009 and EC Transferred on dated 14.12.2021 & 26.09.2022

Name of the Company: Dalmia Cement (Bharat) Ltd, Unit Chandrapur Cement Works

Project Name – Environmental Clearance for Integrated Cement Plant (Clinker 2.0 MTPA, Cement -2.16 MTPA of OPC and 2.86 MTPA PPC and Captive Power Plant of 3x16.5 MW) at village Naranda, District – Chandrapur, Maharashtra.

Detailed point wise compliance of conditions stipulated in Environmental Clearance vide F.No. - J-11011/319/2006 -IA II (I) dated 28.06.2007 is given below:

Sr. No.	Specific Conditions	Compliance						
i.	The gaseous emissions from various units shall conform to the standards prescribed by the Maharashtra State Pollution Control Board. Bag filters and Electrostatic Precipitator of highest efficiency shall be installed and Particulate Emissions from the cement plant shall be less than 50 mg/Nm³ and for CPP, the same will be less than 80-100 mg/Nm³. Particulate emissions from DG House will be restricted to 40 mg/Nm³.	 We have taken various primary control measure to reduce the gaseous emissions and to achieve gaseous emissions well within the standards prescribed by CPCB and Maharashtra State Pollution Control Board (MPCB). Efficient bag filters are installed at all material transfer points, loading & unloading points, Air Pollution Control equipment installed i.e. Bag houses attached at Coal Mill, Raw Mill & Kiln, Cement Mill-1 & 2 and ESPs attached to CPP boiler & Clinker Cooler section and DG sets attached with Retrofit emission control system to meet more stringent standards prescribed by CPCB & MPCB. We have replaced Electro static Precipitators (ESP) with Reverse Air Bag House in Raw Mill/Kiln, single phase transformer replaced with three phase transformers in cooler to increase the ESP efficiency of Clinker Cooler ESP, ESP attached with CPP boiler and also upgraded from 3 field ESP to 4 fields ESP & 2 phase transformers to 3 phase transformers to meet the emissions norms specified vide MoEF&CC notification G.S.R. 497 (E) 10th May, 2016 for Cement Plant with coprocessing. Installed low NOx Burner in Cement Kiln and lime dosing arrangements in CPP to control NOx and SO₂ emissions within prescribed norms. The Particulate emission and gaseous emissions from the Various stacks are given below: Location Standard Apr-23 May-23 Jun-23 Jul-23 Aug-23 Sep-23 Raw mill + kiln 30 mg/Nm³ 23.9 24.67 22.11 27.6 26.71 25.65 						

Coal Mill	30 mg/Nm ³	25.85	23.18	28.6	25.21	28.74	27.87
Clinker Cooler	30 mg/Nm ³	25.21	19.69	27.41	23.28	27.11	26.59
Cement Mill 1	30 mg/Nm ³	27.13	24.75	28.54	26.76	27.46	25.20
Cement Mill 2	30 mg/Nm ³	27.82	23.52	24.16	25.51	25.98	28.67
Packer-1	30 mg/Nm ³	26.91	26.28	24.73	22.98	20.31	20.06
Packer-2	30 mg/Nm ³	21.3	22.14	26.05	28.57	22.27	25.17
Packer-3	30 mg/Nm ³	28.62	26.3	25.85	21.22	21.03	19.72
CPP	50 mg/Nm ³	39.59	42.6	46.66	32.45	31.07	29.3

^{*} All values are in mg/Nm³

Location	Parameters	Standard	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23
Raw mill	SO_2	700 mg/Nm ³	27.84	21.23	23.66	19.33	17.67	17.28
+ kiln	NO_x	800 mg/Nm ³	517.57	531.37	465.68	485.3	426.69	472.3
СРР	SO_2	600 mg/Nm ³	422.4	426.17	410.61	407.04	375.11	380.16
CPP	NO_x	450 mg/Nm ³	184.68	223.45	181.82	179.63	156.21	164.42

^{*} All values are in mg/Nm³

- ii. Five stacks of the prescribed height (as presented before the Environmental clearance EC) shall be erected to disperse SOx and NOx. All the major stacks shall be provided with continuous emission monitoring for particulate matter.
- We have constructed/erected the stacks to better dispersion of the SO₂, NOx and PM emissions.
- Continuous Emission Monitoring System (CEMS) provided at all major stacks for monitoring of particulate matter and gaseous emission monitoring as per applicability. Data of CEMS is being transferred to CPCB & MPCB server.
- Stack details are given below:

Sr No	Name of Stack	Material of Construction	Stack Height (in m)		
1	Raw Mill & Kiln	Mild steel	110		
2	Clinker Cooler	Mild steel	54		
3	Coal Mill	Mild steel	118		
4	Cement Mill -01	Mild steel	35		
5	Cement Mill -02	Mild steel	35		
6	CPP Boiler	RCC	83		

- iii. Continuous On-line monitors for particulate emissions, SO₂ and NO_x in Raw/kiln mill, clinker cooler, coal mill, cement mill etc. shall be provided and shall make necessary arrangements for submission of On-line real time emission data to CPCB website. NO_x burners shall be installed to control NO_x emissions. Interlocking facility shall be provided between pollution control equipment and the process operation so that in the event of the pollution control equipment not working, the respective unit (s) is shut down automatically.
- We have installed Continuous Emission Monitoring System (CEMS) at all major stacks for the listed parameters given below:

Sr No	Stack	Air Pollution Control	Monitoring Parameters
		Equipment	
1	Raw Mill & Kiln Stack	Jet Pulse Bag House	PM, SO ₂ & NOx
2	Clinker Cooler	ESP	PM
3	Coal Mill	Bag House	PM
4	Cement Mill -01	Bag House	PM
5	Cement Mill -02	Bag House	PM
6	CPP Boiler Stack	ESP	PM, SO ₂ & NOx

- All the necessary arrangements are made for the real time emission data at all major stacks, the data is being uploaded to MPCB and CPCB server.
- Low NOx burner installed in Cement Kiln and CPP Boiler to control the NOx emission
- Interlocking facility has been provided at all pollution control equipment to stop the process in case failure of the Air Pollution Control (APC) equipment.
- Regular Ambient Air Quality Monitoring is being carried out through NABL accredited laboratory i.e. M/s Go Green Mechanisms Pvt. Ltd., Nagpur and data is being submitted to MPCB on monthly basis.
- Continuous Ambient Air Quality Monitoring stations have set up in consultation with Maharashtra State Pollution Control Board.
- On-line data for Continuous emissions and Ambient Air Quality Monitoring Station is being transferred to the CPCB and MPCB regularly.
- Calibration of Monitoring Instruments is being done at regular intervals.
- Photographs of CAAQMS stations & CEMS enclosed as **Annexure 01**.
- Ambient air quality monitoring data for the Compliance period (Apr 23 to Sep 23) is given below:

AAQM Station - 01 at Main Gate										
Month	PM 2.5 ($\mu g/m^3$)	PM 10 (μg/m ³)	SO_2 (µg/m ³)	NO_2 (µg/m ³)						
Standard	60	100.0	80.0	80.0						
Apr-23	41.65	72.60	12.10	22.21						
May-23	36.24	67.52	11.91	18.31						
Jun-23	36.66	68.02	11.22	17.12						
Jul-23	32.49	62.50	10.77	16.90						
Aug-23	34.16	69.11	11.86	19.07						
Sep-23	39.57	70.77	13.62	17.87						

iv. Regular Ambient Air **Ouality** Monitoring shall be carried out. The monitoring stations will be set up in consultation with the Maharashtra Pollution Control Board. It will be ensured that at least one monitoring station is set up in upwind & in down-wind direction along with those in other directions. On-line data for air emissions shall be transferred to the CPCB and MPCB regularly. The instruments used for ambient air quality monitoring shall be calibrated regularly.

			AAQM Station - 0	2 Near CPP Area					
			Apr-23	36.24	66.52	14.69	23.29		
			May-23	35.0	65.7	11.0	19.7		
			Jun-23	35.83	66.51	11.36	19.15	1	
			Jul-23	33.32	63.53	12.98	15.75		
			Aug-23	33.3	65.08	14.7	21.5		
			Sep-23	37.07	67.60	10.01	18.69	1	
			AAQM Station - 0	3 at Limestone Sta	cker Area				
			Apr-23	41.24	71.10	11.56	19.29		
			May-23	35.8	68.4	12.1	18.3		
			Jun-23	34.58	66.38	13.87	18.41		
			Jul-23	30.82	60.69	10.87	15.39		
			Aug-23	33.7	65.6	13.5	19.3		
			Sep-23	38.32	68.02	11.27	17.84		
	and clinker shall be stored in a dome with all round high sidewalls to control fugitive emissions. Fugitive emissions from cement mill, packing area and coal yard shall also be controlled.	 material, coal & petcoke Clinker is being stored in a dome with all round high sidewalls and provided bag filters to control fugitive emissions Fly ash unloading through pneumatic system & transporting through bulker and stored in closed Silo Cement is being stored in closed Silos. Efficient bag filters are provided at Cement mill, packing area and Coal handling section to control the fugitive dust emission. Water sprinklers are provided at material storage and unloading points. Mechanical Road Sweeper deployed for the road cleaning. Photographs of the mechanical Road Sweeping Machines enclosed as Annexure -02. 							
vi.	Dust collectors and extraction system (suction apparatus) shall be installed to control fugitive dust emissions at coal and limestone unloading points, at all the transfer points, stockpiles to arrest free release of dust.	mate	erial transfer points	g transporting throu of covered belt conv on. Material collected	eyors, raw materia	al loading & unloa	ading points to a		

vii.	Materials will be transported in tippers, covered trucks, covered	Materials is being transported in tippers, covered trucks, covered containers. The selection to be in a true as a standing the selected by the selected
	containers, covered rail wagons etc.	Fly ash is being transported in the closed bulkers.
viii.	Windbreakers will be installed to	Relevant control methods are installed/deployed in dust prone areas.
	restrict fugitive dust.	 03 tier Plantation is being done around plant boundary.
ix.	Water sprinkling arrangement should be made in the raw material stock yard	Water sprinkling systems have been installed at Limestone crusher and material storage yard to minimize the dust generation.
	and dust collectors in cement bag	Efficient bag filters are provided at raw Material conveyer system and material transfer points.
	loading areas.	Efficient Bag Filter are provided at Packing Plant
х.	Total water requirement	Noted and being complied
	from Wardha /Pen Ganga River shall	
	not exceed 6020 m ³ /d as per the	
	permission granted by State Irrigation	
	Department.	
xi.		We maintain the Minimum 05 cycle of concentration for the CPP
	(COC) for the CPP will be 5.0.	
xii.	The wastewater from CPP and domestic activities shall be treated in	 No effluent is being /will be discharged outside the plant premises and adopted zero liquid discharge.
	Effluent Treatment Plant (ETP) and Sewage Water Reclamation Plant	 Wastewater from CPP is treated in ETP (neutralization pit) and treated water is recycled back to process/Reused in dust suppression and cooling at cement plant.
	(SWRP) respectively and recycled/reused in cement plant for	• The Domestic wastewater is being treated in Sewage Treatment Plant and treated water is being utilized for greenbelt development and plantation.
	make-up, in CPP for cooling, dust	 Photographs of Sewage treatment plant are enclosed as Annexure -03
	suppression, other plant related	1 notographs of sewage treatment plant are enclosed as Annexure -03
	activities and green belt development.	
	No wastewater will be released	
	outside the premises. Zero discharge	
	shall be strictly adopted. During	
	monsoon, the wastewater will be	
	stored in the mine pit.	
xiii.	Solid waste generated shall be 100 %	The solid waste i.e. dust collected from air pollution control equipment is being recycled back in
	recycled and reutilized in the process	to process.
	itself and no solid waste shall be	The Fly ash generated from CPP is being utilized for manufacturing of PPC.
	disposed off outside the plant premises. The fly ash generated will be	Bottom Ash generated from CPP is being used in cement manufacturing or sold to brick manufacturing agency.
	used in-house for the manufacture of	manufacturing agency.
	III III III III III III III III I	

	PPC. Bottom ash shall be used in the raw mill and used for land filling. Treated STP sludge shall be used as manure for green belt development. Waste oil sludge shall be reused in the plant and finally burnt in the kiln or sold to authorized recyclers/ reprocessors.	 Sludge generated from STPs is being utilized as manure for greenbelt development and plantation. The waste oil, grease generated during plant operation is being /will be sold to authorized recycler.
xiv.	The company shall strictly follow all the recommendations mentioned in the Charter on Corporate Responsibility for Environmental Protection (CREP).	Noted and being Complied.
xv.	As agreed, green belt shall be developed in 17 ha area.	 Plantation & green belt is being developed in and along the periphery of plant premises. We have covered 15 Ha of area under green belt and plantation and which is our continuous ongoing programme. We are doing the planation in and around plant area to cover the 17 Ha land under green belt & plantation. Total Number of Plantation during this Compliance period is 3647 & Greenbelt photographs is enclosed as Annexure -04
xvi.	The company must harvest surface as well as rainwater from the rooftops of the buildings proposed in the expansion project and storm water drains to recharge the ground water and use the same water for the various activities of the project to conserve fresh water.	 Storm/Rain Water accumulated is being harvested in the mined-out pits and the harvested water is being utilized for plant operation and various activities to conserve fresh water. We have Constructed 06 number of rain water harvesting structures to recharge the ground water. Rainwater from the rooftops of the buildings is being collected and utilized for utility activities inside the plant.
	GENERAL CONDITIONS	
i.	The project authorities must strictly adhere to the stipulations made by the Maharashtra Pollution Control Board (MPCB) and the State Government.	We are committed to follow the stipulations made by Maharashtra Pollution Control Board (MPCB) and the State Government.
ii.	No further expansion or modifications in the plant shall be carried out	Noted and will be complied

	without prior approval of the Ministry of Environment and Forests.		 No expansion and modifications in the plant will be carried out without prior approval from MoEF&CC. 							
iii.	Adequate number of influent and effluent quality monitoring stations shall be set up in consultation with the MPCB. Regular monitoring shall be carried out for relevant parameters.	1	• Influent and effluent quality monitoring stations set up in consultation with the MPCB. For relevant parameters Regular monitoring is being carried out by NABL accredited authorized agency and data is being submitted to the MPCB on monthly basis.							
iv.	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report.		Environmental protection measures and safeguards recommended in the EIA/EMP report are being Complied with.							
V.	Industrial wastewater shall be properly collected and treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May	wastewater conforms to the standards prescribed under GSR 422 (E) as amended. • Quality of ETP (Neutralization pit) outlet for the period of Apr 23 to Sep 23 is given below:								
	1993 and 31st December, 1993 or as		Parameter	pН	TDS	TSS	BOD	COD	Oil and Grease	
	amended from time to time. The		Unit		mg/L	mg/L	mg/L	mg/L	mg/L	
	treated wastewater shall be utilized		Standard	5.5 to 8.5	2100 max.	100	30	100	10 max.	
	for plantation purpose.		Apr-23	7.59	902	18	6	20	BQL	
			May-23	7.38	1150	27	9.6	35	BQL	
			Jun-23	7.29	1040	38	9.6	40	BQL	
			Jul-23	7.62	1150	32	9.3	30	BQL	
			Aug-23	7.96	1082	26	8.3	25	BQL	
		Sep-23 7.88 1013 23 6.4 20 BQL								
		 The treated wastewater is being recycled back in to process/reused in dust suppression green belt development & plantation. RO reject water is being used in mill spray 								n and

vi.	The overall noise levels in and around								
	the plant area shall be limited within								
	the prescribed standards (85 dBA) by								
	providing noise control measures								
	including acoustic hoods, silencers,								
	enclosures etc. on all sources of noise								
	generation.								

- Noise abatement measures including acoustic hoods, silencers, enclosures etc. have been provided at appropriate places in order to meet the standards prescribed and same is being maintained.
- Noise Level is being monitoring in & around the plant area results are well within the prescribed standards and details are given below:

Location	Limesto	ne Stacker	CPP	Area	Main gate		
Time	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time	
Standard	75 (dB)	70 (dB)	75 (dB)	70 (dB)	75 (dB)	70 (dB)	
Apr-23	71.8	63.1	73.2	64.3	70.6	61.7	
May-23	68.5	61.1	67.7	60.1	67.1	59.5	
Jun-23	56.2	45.8	77.1	49.5	56.8	46	
Jul-23	78	61	68.1	60	67.5	61.9	
Aug-23	71.5	64.3	68.4	59.7	72.2	61.7	
Sep-23	77.3	62.9	69.7	58.1	71.7	60.4	

- vii. Proper Housekeeping and adequate occupational health programmes shall be taken up. Regular Occupational Health Surveillance Programme shall be carried and records shall be maintained properly for at least 30-40 years. The programme shall include lung function and sputum tests once in six months. Sufficient preventive measures shall be adopted to avoid direct exposure to dust etc.
- Housekeeping and Occupational health programmes are being taken up in the plant premises and will be continued in future too.
- Regular Occupational Health Surveillance program is being taken up for employees & workers and records will be maintained for at least 30-40 years. As the company has been recovered from Insolvency through NCLT route, the older documents are not available.
- Pre-Occupational Health Check-ups have been carried out for all the employees currently employed.
- viii. A separate environment management cell with full fledge laboratory facilities to carry out various management and monitoring functions shall be set up under the control of a Senior Executive.
- A separate Environment Management Cell has been set up under the control of Unit Head.
- For the regular environmental monitoring and analysis purpose, we have installed Environmental laboratory inside the plant premises.
- In addition, regular environment monitoring is being done from the MoEFCC/NABL accredited laboratory i.e. Go Green Mechanisms Pvt. Ltd., Nagpur
- Photographs of laboratory is enclosed as **Annexure 5**.

- ix. As proposed in the EIA/EMP, Rs. 31.08 Cr and Rs. 0.313 Cr/annum shall be earmarked to meet the capital cost and recurring cost/annum for the environmental protection measures shall be used judiciously to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose.
- During the revival of the plant company has invested more than Rs. 32 Crores for the installation and upgradation of Pollution Control Equipment's to maintain the particulate & gaseous emission levels within prescribed standards
- The funds earmarked towards recurring cost will not be diverted for any other purpose.
- The Expenditure for the Environment Protection measure during April 23 to Sept 23 are given below:

SN	Activity	Environmental Expenditures (in Rs. Lakhs)		
SIN	Activity	Capital Cost	Recurring (O & M) Expenditure	
1	Air Pollution Control Measures	2.60	314.08	
2	Water Pollution Control			
	Measures		36.74	
4	Environment Monitoring		11.93	
5	Plantation & Greenbelt			
5	Development		18.79	
6	Rainwater Harvesting		0	
7	Waste Management		7.5	
8	Environmental Awareness		1.11	
•	Total	2.60	390.15	

- x. Regional Office of this Ministry at Bhopal/Maharashtra Pollution
 Control Board/Central Pollution
 Control Board shall monitor the implementation of the stipulated conditions. Six monthly compliance status report and monitoring data along with statistical interpretation shall be submitted to them regularly.
- Six monthly compliance status report along with monitoring data is being submitted to concern authority on regular basis.
- Last Six-monthly compliance status and monitoring report for Oct 2022 Mar 23 was submitted to regional office, MoEFCC, Nagpur & MPCB vide letter No. DCBL/ENV/MoEFCC/PLANT/EC/COMPL/052023/01 Dated 01.05.2023
- xi. The Project Proponent should advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned informing that the project has been

Complied with.

Company has been recovered from Insolvency through National Company Law Tribunal (NCLT) route, the older documents are not available.

	accorded environmental clearance by	
	the Ministry and copies of the	
	clearance letter are available with	
	the Maharashtra Pollution Control	
	Board / Committee and may also be	
	seen at Website of the Ministry and	
	Forests at http://envfor.nic.in. The	
	advertisement should be made within	
	7 days from the date of issue of the	
	clearance letter and a copy of the same	
	should be forwarded to the Ministry's	
	Regional Office at Bhopal.	
xii.	The Project Authorities shall inform	Noted and will be Complied.
	the Regional Office as well as the	
	Ministry the date of financial closure	
	and final approval of the project by the	
	concerned authorities and the date of	
	start of land development work.	
5	The Ministry may revoke or suspend	
	the clearance, if implementation of any	Noted.
	of the above conditions is not	Noted.
	satisfactory.	
6	The Ministry reserves the right to	
	stipulate additional conditions if	
	found necessary. The company will	Noted.
	implement these conditions in a time	
	bound manner.	
7	The above conditions will be enforced,	
	inter-alia under the provisions of the	
	Water (Prevention & Control of	
	Pollution) Act, 1974, the Air	
	(Prevention & Control of Pollution)	Noted.
	Act, 1981, the Environment	
	(Protection) Act, 1986, the Public	
	Liability Insurance Act, 1991,	
	Hazardous Waste (Management &	

Handling)	Rules,	1989
and Manufacture,	Storage ar	nd Import
of Hazardous Che	emicals Ru	ıles, 1989
along with their	amendm	nents and
rules.		

INSTALLATION OF CAAQMS AND CEMS



CAAQMS -01 installed at Plant Main Gate



CAAQMS -02 installed at CPP Area



CAAQMS -03 Installed at Crusher Area (Mines)



Installation of Opacity Meter for PM Monitoring at Major Stacks



Installation of CEMS for Gaseous Emission Monitoring at Raw Mill + Kiln and CPP

ROAD SWEEPING MACHINE





Mechanical Road Sweeper deployed for Road Cleaning

Sewage treatment plant



Sewage Treatment Plant Installed at Packing Plant Area



Sewage Treatment Plant Installed at CCR Area



Sewage Treatment Plant Installed at Temperory Hutment Area



Sewage Treatment Plant Installed at Admine Building Main Gate

GREEN BELT DEVELOPMENT



Plantation at Plant Area

ANNEXURE- 5

ENVIRONMENT LABORATORY







