

Date: 05.11.2022



MIL/ENV/MoEFCC/PLANT/EC/COMPL/112022/01

Additional Principal Chief Conservator of Forests

Ministry of Environment, Forest & Climate Change Regional Office (West Central Zone) Ground Floor, East Wing, New Secretariat Building,

Civil Lines, NAGPUR - 440001

Sub: Compliance of Environmental Clearance issued for, 2.0 MTPA of Clinker Plant, 2.16 MTPA

of OPC and 2.86 MTPA PPC and Captive Power Plant of 50 MW at village Naranda, District

- Chandrapur Maharashtra for the period of April 22 to September 22.

Ref: 1. Environmental Clearance F. No. - J-11011/319/2006 -IA II (I), Date: 28th June 2007 & EC

2. Change of Company Name F. No. - J-11011/319/2006 -IA II (I), Dated 14th Dec 2021

3. Change of Company Name F. No. - J-11011/319/2006 -IA II (I), Dated 26th Sept 2022

Dear Sir,

With respect to the subjected referred above, we are submitting herewith the point wise half yearly compliance of above referred Environmental Clearance for our Integrated Cement plant and Captive Power Plant for the period from **April**, **22 to Sept**, **2022**. Soft copy of the compliance report is sent on your email ID eccompliance-mh@gov.in

Submitted for your kind information please.

Thanking you

Yours Faithfully, For Dalmia Cement (Bharat) Limited.



CC: 1. The Regional Director, Central Pollution Control Board (CPCB), Regional Office, Jog Centre, 3rd Floor, Mumbai Pune Road, Wakdewadi, Pune, Maharashtra – 411003.

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

Ref: Environmental Clearance F.No. - J-11011/319/2006 -IA II (I), Date: 28th June 2007 & Dated 14th Dec 2021, Amendment Dated 28.06.2007, EC Transfer Dated 14.12.2021 & EC Transfer Dated 26.09.2022

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

Project Name – Environmental Clearance for 2.0 MTPA of Clinker Plant, 2.16 MTPA of OPC and 2.86 MTPA PPC and Captive Power Plant of 3 x 16.5 MW at village Naranda, District – Chandrapur, Maharashtra.

Compliance Period - April 2022 to September 2022

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 the various primary control measure to reduce the gaseous emission and achieve the gaseous emissions standards prescribed by Maharashtra 2 Pollution Control Board & CPCB. Efficient bag filters and ESPs have been installed to meet more stringent stand than prescribed in EC. Air pollution control Equipments are modified to mee emissions norms as specified vide MoEF&CC notification G.S.R. 497 (E) 10th 2016 for Cement Plant with co-processing. The Emission from the Various stacks are given below Location Standard Apr-22 May-22 Jun-22 Jul-22 Aug-22 Sep Raw mill + kiln 30 mg/Nm³ 26.05 24.31 21.61 20.89 23.97 17 						tandards neet the 0 th May,		
			Coal Mill Clinker Cooler	30 mg/Nm ³	1		17.04 16.12	19.37 22.73	17.77 16.03	15.13
			Cement Mill 1	30 mg/Nm ³	1	21.13	23.17	19.74	13.99	-
			Cement Mill 2	30 mg/Nm ³	22.47	19.46	16.42	22.78	16.09	19.40
			Packer-1	30 mg/Nm ³		1	16.11	22.91	18.11	15.69
			Packer-2	30 mg/Nm ³	1		16.18	ļ	21.84	16.84
			Packer-3	30 mg/Nm ³	1	1	20.50	21.84	19.46	14.91
			СРР	50 mg/Nm ³	41.99	46.46	42.34	45.31	34.65	43.43
		*⊅	All values are in m	g/NM³						

- ii. Five stacks of the prescribed height (as presented before the Environmental clearance ECI) 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	Stack Name	Material of construction	Stack Height (m)
1	Raw Mill & Kiln Stack	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 Stack	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 as for the listed parameters

Sr	Stack	Air Pollution Control	Monitoring
No		Equipment	Parameters
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

- Photographs of the CEMS is enclosed as **Annexure -01**
- All the necessary arrangements are made for the real time data monitoring at all major stacks, the data is being uploaded to MPCB and CPCB server.
- Control the NOx emission at Raw Mill & Kiln Stack and Boiler stack we have taken all the primary emission control measures which includes Low NOx burner.
- Interlocking facility has been provided at all pollution control equipment to stop the process in case of failure of the Air Pollution Control (APC) equipment.

- iv. Regular Ambient Air Quality 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 up-wind & 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.
- Regular Ambient Air Quality Monitoring is being carried out through NABL accredited laboratory 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 station Enclosed as Annexure 01
- Data of Ambient Air for the Compliance period (April22-Sept 22) is given below

AMBIENT AIR STATION -01 MAIN GATE								
Month	PM 2.5 (ug/m ³)	PM 10 (ug/m³)	SO ₂ (ug/m³)	NO _x (ug/m ³)				
Standard	60	100.0	80.0	80.0				
Apr-22	32.49	62.12	11.72	17.06				
May-22	27.49	58.08	9.37	15.82				
June-22	26.2	52.2	7.15	11.18				
July-22	29.16	60.48	10.59	18.00				
Aug-22	24.58	52.86	6.28	13.66				
Sep-22	24.58	54.69	8.75	14.13				
AMBIENT AIR STAT	ION -02 NEAR CPP	AREA						
Apr-22	26.25	54.74	10.54	15.36				
May-22	28.7	58.1	12.6	18.5				
June-22	27.07	53.8	14.1	21.58				
July-22	24.16	55.49	11.60	16.67				
Aug-22	23.3	50.51	8.0	12.5				
Sep-22	25.41	53.91	10.25	15.65				
AMBIENT AIR STAT	ION -03 LIMESTON	E STACKER AREA						
Apr-22	31.24	65.15	9.37	14.50				
May-22	33.7	69.6	11.8	17.5				
June-22	28.3	62.95	13.55	21.06				
July-22	30.82	64.93	14.36	21.04				
Aug-22	27.9	52.1	9.6	17.3				
Sep-22	29.99	63.64	10.45	16.17				

- Raw material will be properly covered and clinker shall be stored in a dome with all round high sidewalls to control fugitive emissions. Fugitive emissions from
- Covered sheds are provided for Raw material storage.
- Clinker, fly ash and 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.

vi.	cement mill, packing area and coal yard shall also be controlled. Dust collectors and extraction system (suction apparatus) shall be installed to control fugitive dust emissions at coal and lime stone unloading points, at all the transfer points, stockpiles to arrest free release of dust. Materials will be transported in tippers, covered trucks,	 Water sprinklers are provided at material storage and unloading points. Mechanical Road Sweeper deployed for the road cleaning. Photographs of the mechanical Road sweeper enclosed as Annexure -02. Efficient Bag filters are installed at all material transfer points, unloading points to arrest the fugitive dust emission. Noted and being complied.
	covered containers, covered rail wagons etc.	 Materials is being transported in tippers, covered trucks, covered containers. Fly ash is being transported in the closed bulkers.
viii.	Windbreakers will be installed to restrict fugitive dust.	 Relevant control methods are installed/deployed in dust prone areas. 03 tier Plantation is being done around plant boundary.
ix.	Water sprinkling arrangement should be made in the raw material stock yard and dust collectors in cement bag loading areas.	 Water sprinkling systems have been installed at Limestone crusher and material storage yard to minimize the dust generation. Efficient bag filters are provided at raw Material conveyer system and Material transfer points. Efficient Bag Filter are provided at Packing Plant
x.	Total water requirement from Wardha /Pen Ganga River shall not exceed 6020 m³/d as per the permission granted by State Irrigation Department.	Noted and being complied
xi.	Minimum Cycle of Concentration (COC) for the CPP will be 5.0.	We maintain the Minimum 05 cycle of concentration for the CPP
xii.	The wastewater from CPP and domestic activities shall be treated in Effluent Treatment Plant (ETP) and Sewage Water Reclamation Plant (SWRP) respectively and recycled/reused in cement plant for make-up, in CPP for cooling, dust suppression, other plant related 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.	 No effluent is being /will be discharged outside the plant premises. 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. The Domestic wastewater is being treated in Sewage Treatment Plant and treated water is being utilized for greenbelt development. Photographs of Sewage treatment plant are enclosed as Annexure -03
xiii.	Solid waste generated shall be 100 % recycled and reutilized in the process itself and no solid waste shall be disposed off outside the plant premises. The fly ash	 The solid waste i.e. dust collected from air pollution control equipment is being recycled back to process. The Fly ash generated from CPP is being utilized for manufacturing of PPC.

xiv.	generated will be used in-house for the manufacture of 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/ re-processors. The company shall strictly follow all the	 Bottom Ash generated from CPP is being used in cement manufacturing or sold to brick manufacturing agency. Treated STP Sludge from STP is being utilized as manure for greenbelt development. The waste oil, grease generated during plant operation is being /will be sold to authorized recycler. Noted and Being Complied.
AIV.	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.	 Being Complied Green belt is being developed in and along the periphery of plant premises. We have covered 12 Ha of area under green belt. We are doing the planation in and around plant area to cover the 17 Ha land under green belt Last year plantation and compliance period plantation along with the photographs are enclosed here with 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 are constructing 06 number of rain water harvesting structures to recharge the ground water.
i.	GENERAL CONDITIONS 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 without prior approval of the Ministry of Environment and Forests.	 Noted and will be complied 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.	 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. Quality of ETP outlet is for the Period of April 22 to Sept 22 is given below

	Parameter	рН	TDS	TSS	BOD	COD	Oil and Grease
	Unit	-	mg/L	mg/L	mg/L	mg/L	mg/L
	Standard	5.5 to 8.5	2100 max	100	30	100	10 max
	Apr-22	8.79	1460	19	9.0	30	3.0
	May-22	8.45	1392	24	8.67	40	4.0
	Jun-22	8.23	1369	35	18.50	55	3.20
	July-22	8.11	1302	29	9.0	45	2.80
	Aug-21	8.0	1206	38	7.5	40	3.36
	Sep-22	8.22	1154	22	9.0	40	2.5
 The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Industrial wastewater shall be properly collected and 							
treated so as to conform to the standards prescribed	amended.						
under GSR 422 (E) dated 19 th May 1993 and 31 st December, 1993 or as amended from time to time.	amended.				dards pres	scribed ui	
under GSR 422 (E) dated 19 th May 1993 and	amended.				dards pres	cod	
under GSR 422 (E) dated 19 th May 1993 and 31 st December, 1993 or as amended from time to time.	amended.Monitoring I	Data of ETP	outlet is give	n below.			nder GSR 422 (E
under GSR 422 (E) dated 19 th May 1993 and 31 st December, 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation	amended.Monitoring [Parameter	Data of ETP	outlet is give	n below.	BOD	COD	nder GSR 422 (E
under GSR 422 (E) dated 19 th May 1993 and 31 st December, 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation	amended.Monitoring IParameterUnit	Data of ETP pH	outlet is give TDS mg/L	n below. TSS mg/L	BOD mg/L	COD mg/L	Oil and Grease
under GSR 422 (E) dated 19 th May 1993 and 31 st December, 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation	amended.Monitoring [ParameterUnitStandard	Data of ETP pH 5.5 to 8.5	outlet is give TDS mg/L 2100 max	n below. TSS mg/L 100	BOD mg/L 30	COD mg/L 100	Oil and Grease mg/L 10 max

July-22

Aug-21

Sep-22

8.11

8.0

8.22

and green belt development.

1302

1206

1154

29

38

22

• The treated wastewater is being recycled back to process/reused in dust suppression

9.0

7.5

9.0

45

40

2.80

3.36

2.5

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.	been provided at appropriate places in order to meet the standards prescribed same is being maintained. Noise Level Monitoring results are given below Location Lime Stone Stacker CPP Area Main gate						escribed and	
			Time	Day Time	Night Time	· ·		Day Time	Night Time
			Standard	75 (dB)	70 (dB)	75 (dB)	70 (dB)	75 (dB)	70 (dB)
			Apr-22	67	56.4	67.9	57.8	67.4	56.8
			May-22	70.6	55.8	68.5	54.8	68.4	54.8
			Jun-22 July-22	71.04 68.8	58.61 57.9	68.4 67.2	55.93 55	68.79 69.1	58.17 56.2
			Aug-21	68.36	58.44	67.03	56.66	68.11	57.94
			Sep-22	68.9	56.7	66.9	55.3	68.4	55.5
			36p-22	00.5	30.7	00.5	33.3	00.4	33.3
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.	 Adequate Occupational health programmes are being taken up and will be continued in future too. As the company has been recovered from Insolvency through NCLT route, the older documents are not available. Occupational Health Surveillance program is being taken up and records will be maintained for at least 30-40 years. Pre-Occupational Health Check-ups have been carried out for all the employees 							
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 environment monitoring and analysis purpose, we have installed Environment laboratory at our plant premises. In addition to this regular environment monitoring is being done from the MoEFCC/NABL accredited laboratory. Photographs of laboratory is enclosed as Annexure 5. 							

ix.	, , , , , , , , , , , , , , , , , , , ,
	0.313 Crores/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 32 Crores for the installation and upgradation of Pollution Control Equipment's.
- The funds earmarked towards recurring cost will not be diverted for any other purpose.
- The expenditure for the Environment Protection measure during **April 22 to Sept 22** are given below.

CNI	A aki ita	Expenditure in Lac
SN	Activity	(April-22 to Sept-22)
1	Operation and Maintenance of Air Pollution Control Equipment	536.9
2	Operation Maintenance of STP	7.6
3	Fugitive Dust Emission Control Measures	153.94
4	Environment Monitoring	6.2
5	Green Belt Development	15.5
6	Rainwater Harvesting	9.0
7	Fly ash and Solid Waste Management	7.5
8	Other Env Exp	92
9	Env Exp in Nearby Community	5.5
	Total	834.1

- 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.
- 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 accorded environmental clearance by the Ministry and copies of the clearance letter are available with the Maharashtra Pollution Control Board /
- 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 2021 Mar 21 was submitted to regional office, MoEFCC, Nagpur & MPCB vide letter No. MIL/ENV/MoEFCC/PLANT/EC/COMPL/052022/01 Dated 16.05.2022
- Noted and Complied.

	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 the Regional Office	 Noted and Complied.
	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 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) Act, 1981, the Environment (Protection) Act,	
	1986, the Public Liability Insurance Act, 1991, Hazardous	Noted.
	Waste (Management & Handling) Rules, 1989	
	and Manufacture, Storage and Import of Hazardous	
	Chemicals Rules, 1989 along with their amendments and	
	rules.	
	and Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 along with their amendments and	

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 Packing Plant 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

PLANTATION DETAILS

SN	Plant Local Name	Scientific Name	Plantation FY 2020-21	Total Plantation April-Sept 2022
1	Karanj	Millettia pinnata	1200	3738
2	Neem	Azadirachta indica	467	215
3	Silk Cotton Tree	Ceiba pentandra	15	652
4	Amla	Phyllanthus emblica	2	8
6	Tamarind	Tamarindus indica	9	113
7	Ashoka	Saraca asoca	543	89
8	Chafa	Plumeria	70	43
9	Shivan	Gmelina arborea	16	59
10	Jamun	Syzygium cumini	1	179
11	Shisham	Dalbergia sissoo	417	93
12	Gulmohar	Delonix regia	328	91
13	Kaner	Cascabela thevetia	0	692
14	Cassia	Cassia siamea	994	163
15	Shahara	Adenium obesum	181	13
16	Jaswand	Hibiscus rosa-sinensis	0	426
17	Bougainville	Bougainvillea glabra	73	23
18	Pipal	Ficus religiosa	8	1
19	Siras	Albizia lebbeck (69	6
20	Sitafal	Annona squamosa	7	78
21	Bamboo	Bambusa vulgaris	14	38
22	Munga	Moringa oleifera	20	0
23	Maharukh	Ailanthus excelsa	16	0
24	Saptaparni	Alstonia scholaris	10	0
25	Ber	Ziziphus mauritiana	18	0
26	Bel	Aegle marmelos	1	0
17	Khair	Senegalia catechu	731	0
	Total		5210	6720

ANNEXURE- 5

ENVIRONMENT LABORATORY







