

SHREE RAIPUR CEMENT PLANT



(A UNIT OF SHREE CEMENT LIMITED)

Village : Khaparadih, Tehsil : Simga, Distt. : Baloda Bazar-Bhatapara (C.G.) Pin : 493 332, Ph. : 07727-203101, CIN No. : L26943RJ1979PLC001935

SRCP/ENV/2021-22/119

Date: - 20.11.2021

To,

Deputy Director General of Forests (C), Integrated Regional Office, MoEF & CC, Aranya Bhawan, North Block, Sector-19, Naya Raipur, Atal Nagar, Chhattisgarh.

Sub:- Regarding compliance for the period April, 2021 to September, 2021 to the conditions of Environment Clearance for Expansion of Integrated Cement Plant (Shree Raipur Cement Plant): 2*2.6 to 3*4.5 Million TPA Clinker, 2*3.0 to 3*5.5 million TPA Cement, 30 to 100 MW Waste Heat Recovery Power Plant, 25 to 125 MW Captive Power Plant along with Synthetic Gypsum Unit (65 TPH) and DG Sets [2000 KVA (size 1000/500/250/125)] near Village Khapradih, Tehsil – Simga in District – Baloda Bazar - Bhatapara (Chhattisgarh) by Shree Raipur Cement Plant (A unit of Shree Cement Limited).

Ref: - Environment Clearance Letter No. J-11011/235/2008- IA II(I) dated 11th September 2019.

Dear Sir,

Kindly refer to the above subjected matter and referred EC letter. We are submitting herewith the point wise Half Yearly EC compliance status for the period of **April**, **2021 to September**, **2021**.

This is for your kind information & submission please.

Thanking you.

Yours faithfully For Shree Raipur Cement Plant. (A unit of Shree Cement Ltd.)

R. K. Wijay Joint VP (Operations)

Enclosed: Compliance status Report period April,2021 to September, 2021.

Cc to:-

- The In charge (Zonal Office), Central Pollution Control Board (CPCB), 3rd floor, Sahkar Bhawan, North T.T. Nagar, Bhopal – 462003 (M.P.)
- 2) The Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas Bhavan, North Block, Sector-19 Naya Raipur (C.G)
- 3) The Regional Officer, Chhattisgarh Environment Conservation Board, Commercial Complex, Chhattisgarh Housing Board Colony, Kabir Nagar, Raipur (C.G.) 492099

RAIPUR OFFICE : House No. 31/248, Civil Lines, Near C.M. House, Raipur-492001, Ph. : 0771-2430007, Fax : 0771-2430007

Compliance Status of Environment Clearance

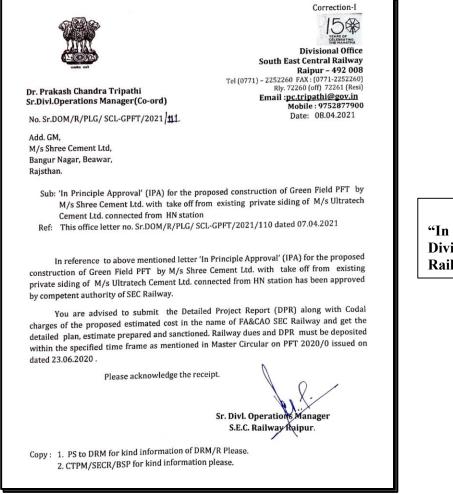
Period from April, 2021 to September, 2021

Name of Project:	Shree Raipur Cement Plant (A unit of Shree Cement Ltd)	
Capacity:	2*2.6 to 3*4.5 Million TPA Clinker, 2*3.0 to 3*5.5 million TPA Cement, 30 to 100 MW Waste Heat Recovery Power Plant, 25 to 125 MW Captive Power Plant along with Synthetic Gypsum Unit (65 TPH) and DG Sets [2000 KVA (size 1000/500/250/125)]	
Location:		
EC letter No.	Ay:MW Waste Heat Recovery Power Plant, 25 to 125 MW Captive Power Plant along with Synthetic Gypsum Unit (65 TPH) and DG Sets [2000 KVA (size 1000/500/250/125)]n:Village Khapradih, Tehsil-Simga, Distt Baloda Bazar - Bhatapara (Chhattisgarh)	

A. Specific Conditions:

S. No	Conditions	Compliance status
i	The limestone for the project shall be sourced only from (i) Existing Captive Semradih & Bharuwadih Limestone (M.L Area - 531.126 ha) and (ii) Karhi Chandi Limestone Mine (ML area 242.127 ha) which are located adjacent to plant site. In case of any change in source of limestone, the project proponent shall obtain prior permission from MoEF&CC.	Limestone for the project is being sourced from our existing Semradih & Bharwadih Captive Limestone Mines (Mining Lease Area of 531.126 Ha.). Production of Limestone from Karhi- Chandi Captive Limestone Mines (Mining Lease Area of 225.719 Ha) is not yet started. Prior permission will be taken from MoEF&CC in case of any change in source of limestone.
ii	Project proponent shall conduct health studies in all the villages covered within a radius of 2km radius of the project site for assessment of prevalence of silicosis for once in six months.	We are planning to conduct health studies in all the villages covered within a radius of 2 km of the project site for assessment of prevalence of silicosis by conducting camps. Due to COVID-19 the said health studies could not be carried out.

S. No	Conditions	Compliance status
iii	Railway siding shall be completed in a time frame of five years.	We have obtained "In Principal Approval" from the Sr. Divisional Operations Manager, SEC Railway, Raipur, Vide Letter No. Sr.DOM/R/PLG/SCL- GPFT/2021/111, dated: 07.04.2021. Currently excavation and track bed laying work in under progress. The Railway siding will be completed within 5 years. The Copy of Approval Letter is attached as Annexure-1 .



Annexure-1: "In Principal Approval" from the Sr. Divisional Operations Manager, SEC Railway, Raipur,

S. No	Conditions	Compliance status
iv	CER related activities shall be completed within a time frame of three years.	CER related activities are being implemented in a time bound manner & shall be completed within 3 years. CER activities & expenditure details during the period April to September 2021 is attached as Annexure-2 .

Annexure-2: Details of CER Expenses

S. No.	AREA OF CER	Expenditure FY- 2020-21 (Apr-21 to Sept-21)
		(Rs.)
1	 Renovation of public health center of village Khaparadih, Semaradih, Bharuadih, Chandi & Karhi. 1. Construction of Male, Female and child ward 15 nos. 2. Construction of Male & Female toilet 20 nos. 3.Water cooler 05 nos. 4. Ambulance – 05 nos. 	
2	Health management center with full-fledged medical check-up, doctors and nursing staff, free medicines and 10 beds for male & female ward for primary health treatment and availability of 24x7 ambulance at village Bharuadih.	
3	 Renovation of Govt. schools of village Khaparadih, Semaradih, Bharuadih, Chandi & Karhi. 1. Construction of rooms: 25 rooms. 2. Construction of Male & Female toilet: 30 nos. 3.Water cooler 05 nos. 4. Computers labs- 05 nos. 5. Furniture's 	
4 5	 English medium school of 12th standards at village Bharuadih. Sports complex in village Khaparadih and Bharuadih. 1. Construction of rooms: 2 rooms. 2. Construction of Male & Female toilet: 04 nos. 3.Water cooler 02 nos. 4. Preparation of playground: 02 nos. 5. Sports equipment's - 02 sets 	
6	Construction of roads in village: 1. Bharuadih : 02 Kms. 2. Chandi : 03 Kms.	Construction of CC road at Bharuadih village - 22,10,665
7	Construction of community center at village Khaparadih, Semaradih, Bharuadih, Chandi & Karhi : 05 Nos.	Construction of Rangmanch at Chandi village - 89,366
8 9	Drinking water tank at village Lohari & Paunsari Renovation of existing water ponds for rainwater recharge and plantation all around the boundary of pond at village Khaparadih, Semaradih, Bharuadih, Chandi & Karhi.	 Pond deepening & renovation work at village Bharuadih - 16,29,222

	Total (Rs.)	39,29,253
	Semaradih, Bharuadih, Chandi & Karhi.	
	area, dispensary, bus stand and school at village Khaparadih,	
12	Installation of solar street lights at community center, common	
	Bharuadih, Chandi & Karhi @ 5000 per year.	
	available free space at village Khaparadih, Semaradih,	
11	Plantation in nearby villages along the roads, Govt. offices, and	
	Bharuadih, Chandi & Karhi	
	Ha agriculture land in nearby village Khaparadih, Semaradih,	
10	Subsidy on drip irrigation system, seeds and agroforestry in 100	

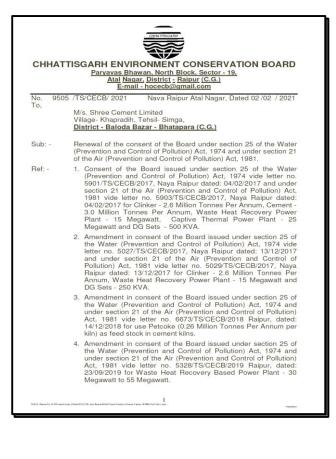
S. No	Conditions	Compliance status
V	The project proponent shall reduce the abstraction of ground water by shifting the requirement to surface water and regular report shall be submitted to the Regional Office of the Ministry at the interval of six months.	Surface water harvested at our existing mines pit

Annexure-3: Water Consumption Report

	Shree Raipur Cement Plan (A Unit of Shree Cement Limit	ted)
	Water Consumption Report for the April-2021 to September-202	1
Month	Process/ Industrial Water (KL)	Domestic Water (KL)
Apr-21	38796	17270
May-21	30299	15182
Jun-21	26835	15117
Jul-21	23573	17681
Aug-21	17092	19686
Sep-21	24704	19815
Total	161299	104751

B. (General Conditions	
I- \$	Statutory compliance	
S.	Conditions	Compliance status
No		
i	The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.	We have obtained Consent to Operate vide letter no. 9505/TS/CECB/2021, dated 02/02/2021 for Clinker production 5.2 MTPA, Cement production 3.00 MTPA, Captive Power Plant 25 MW, Waste Heat Recovery Based Power Plant 55 MW, DG sets 750 KVA & use of Pet coke to a tune of 0.52 MTPA. The copy of CTO is attached as Annexure- 4 . Additionally, we have obtained Consent to Establish for expansion vide letter No. 10020/TS/CECB/2020, Dated: 12.02.2020 for Clinker production 5.2 to 13.5 MTPA, Cement production 3.00 to 16.5 MTPA, Captive Power Plant 25 to 125 MW, Waste Heat Recovery Based Power Plant 55 to 100 MW, DG sets 750 to 2000 KVA from Chhattisgarh Environment Conservation Board. The copy of CTE is attached as Annexure-5.

Annexure-4: Copy of CTO



 Renewal of consent issued under section 25 of the Water (Prevention and Control of Pollution) Act, 1974 and under section (Prevention and Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 vide letter no. 97767/TS/CECB/2020 Nava Raipur Atal Nagar, dated: 01/02/2020 for Cinker – 5.2 Million Tonnes Per Annum, Cement - 3.0 Milgiam Tonnes Per Annum, Waste Heat Recovery Power Plant - 30 Megawatt, Captive Thermal Power Plant - 25 Megawatt, DG Sets - 750 KVA and Petcoke (0.26 Million Tonnes Per Annum Per Kiln) as feed stock in cement kilns. Your online application dated: 17/11/2020 and subsequent correspondence ending dated: 09/12/2020 (online application no. 6336230) 6 With reference to your above application, consents under section 25 of the Water (Prevention and Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 are hereby renewed up to 31/01/2023, subject to the fulfilliment of the terms and conditions incorporated in the water consent letter no. 5901/TS/CECB/2017, Naya Raipur dated: 04/02/2017, subsequent renewal of consent letter and additional conditions mentioned below. These renewal of consents are valid for production capacity of: Sr. No. Name of Product Production Capacity
 Production Capacity

 5.2 Million Tonnes per Annum (Five Point Two Million Tonnes Per Annum)

 3.0 Million Tonnes Per Annum (Three Point Zero Million Tonnes Per Annum)

 d Power

 55 Megawatt.

 (Fifty Five Megawatt)

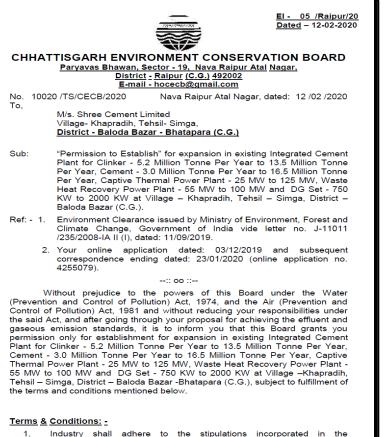
 755 KVA

 (Seven Hundred Fifty KVA)

 Maximum Petcoke

 Source of Petcoke

 Quantity / Annum
 01 Clinker 02 Cement Waste Heat Recovery Based Power Plant Captive Thermal Power Plant 03 04 DG Sets 05. Maximum Petcoke Quantity / Month 0.024 Million Tonnes (1^{et} Kiln) 0.024 Million Tonnes (2rd Kiln) 06 Ouantity / Annum 0.26 Million Tonnes (1st Kiln) 0.26 Million Tonnes (2nd Kiln) Imported (or) from refineries in India Imported (or) from refineries in India Additional Conditions A. Water consent as per the Water (Prevention and Control of Pollution) Act, 1974 Industry shall not use biomass (rice husk) as fuel/raw material in the cement/ power plant in any case. 2



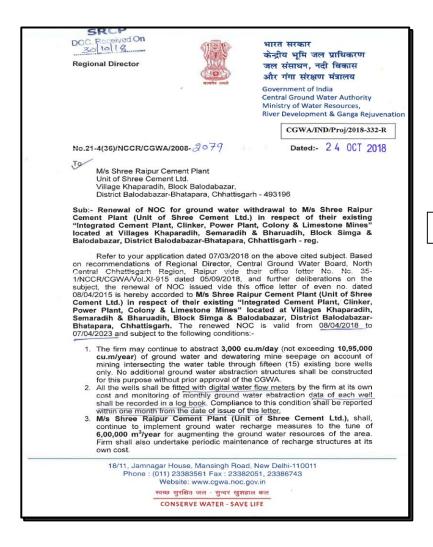
Industry shall adhere to the stipulations incorporated in the environmental clearance issued by the Ministry of Environment, Forests and Climate Change, Government of India vide letter no. J-11011/235/2008-IA II (I), dated: 11/09/2019.

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Annexure-5: Copy of CTE for expansion, Clinker production 5.2 to 13.5 MTPA, Cement production 3.00 to 16.5 MTPA, Captive Power Plant 25 to 125 MW, Waste Heat Recovery Based Power Plant 55 to 100 MW, DG sets 750 to 2000 KVA

S. No	Conditions	Compliance status
ii	The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.	CGWA for withdrawal of 3000 KL/ Day ground water vide Letter No. 21-



Annexure-6: Copy of CGWA NOC

S. No	Conditions	Compliance status
iii	1 5 1 1	We have obtained authorization under the Hazardous and other Waste Management Rules, 2016 vide Letter No. 11201/HSMD/HO/CECB/2021 dated – 18.03.2021 valid up to 03.02.2024. The copy of the same is attached as Annexure-7 .

C	CHHATTISGARH ENVIRONMENT CONSERVATION BOARD PARYAVAS BHAWAN, NORTH BLOCK, SECTOR -19, NAVA RAIPUR ATAL NAGAR, RAIPUR (C.G.) 492002 E-mail: hocech@gmail.com, Ph. No. 071-251220				
No. 11	201/HS	MD/HO/CECB/2021		Raipur, Date 18/03	/2021
To,					
	(A Vil	's Shree Raipur Cement Plant, Unit of Shree Cement Limited) llage- Khapradih, Tehsil - Simg stt Balodabazar Bhatapara (C.	a,		
Sub:-		ird amendment of authorization us ansboundary Movement) Rules, 2		l Other Wastes (Manage	ment &
Ref :-	2. A 3. Se 13 4. Y	 Grant of authorization letter no. 7883/HSMD/HO/CECB/2019 dated 27/02/2019. Amendment of authorization letter no. 5850/HSMD/HO/CECB/2019 dated 03/10/2019. Second amendment of authorization letter no. 11176/HSMD/HO/CECB/2019 dated 13/03/2020. Your Online application no. 6910707 dated 29/01/2021 & Subsequent Correspondence ending dated 24/02/2021. 			
11176/HS	zardous SMD/HC	attisgarh Environment Conserva and Other Wastes (Management o)(CECB/2019 dated 13/03/2020 ent of the terms and conditions m	& Transboundary Mov for following hazardo	ement) Rules, 2016 vide	e letter i
	Sr. No.	Category of Hazardous Waste as per the Schedules I, II and III of these rules	Authorised mode of disposal or recycling or utilization or co- processing etc.	Quantity (Tonnes/Annum)	
	1.	Furnace or reactor residue and debris (Schedule-I, Cat. No. 1.1)	Co-processing	1000 MT/Month	
	2.	Tarry residue and still bottoms from distillation (Schedule-I, Cat. No. 1.2)	do	1000 MT/Month	
	3.	Oily sludge emulsion (Schedule-I, Cat. No. 1.3)	do	1000 MT/Month	
	4.	Organic residues (Schedule-I, Cat. No. 1.4)	do	1000 MT/Month	
	5.	Residues from alkali wash	do	1000 MT/Month	

Annexure-7: Copy of Hazardous Waste Authorization

II A	Air quality monitoring and preservation	
S. No	Conditions	Compliance status
i	The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 (G.S.R. No. 612 (E) dated 25th August, 2014 (Cement) and subsequent amendment dated 9th May, 2016 (Cement) and 10th May, 2016 (Co-processing Cement); S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants) as amended from time to time and connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	We have installed Continuous Emission Monitoring System at all stacks to monitor stack emission as per prescribed standards and the data is being transmitted to both SPCB & CPCB servers. Calibration of installed Continuous Emission Monitoring System are also being done on regular basis. Photographs of the same are attached as Photo No. 1, 2 & 3.



Photo 1: Showing CEMS installed at Raw Mill Kiln Stack Unit-1



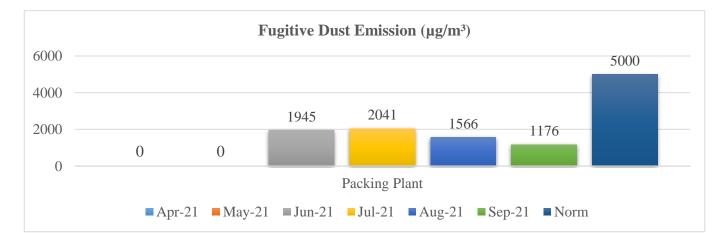
Photo 2: Showing CEMS installed at Raw Mill Kiln Stack Unit-11

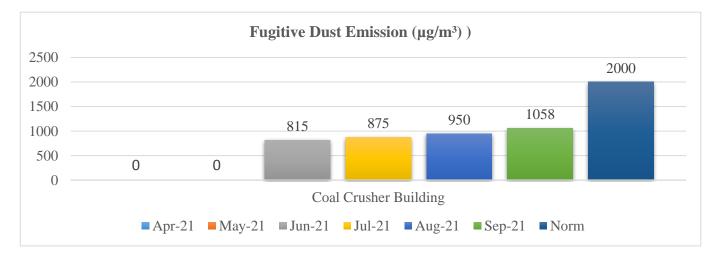


Photo 3: Showing CEMS installed at Captive Power Plant

S. No	Conditions	Compliance status
ii	1 5 1 1	Fugitive emission monitoring is being done in the plant premises on regular basis through labs recognized under Environment (Protection) Act, 1986. Fugitive Emission Monitoring Reports for the period April,2021 to September, 2021 are attached herewith as Annexure-8 .

Annexure 8: Monthly Fugitive Emission Monitoring Results





Shree Raipur Cement Plant								
	Monthly Fugitive Emission Monitoring Results (µg/m ³)							
Location		Monitoring Period						
	Norms	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	
Packing Plant	5000	Not monit	arad dua ta	1945	2041	1566	1176	
Coal Crusher Building	2000	Not monitored due to COVID-19		815	875	950	1058	

S.	Conditions	Compliance status
No		
iii	The project proponent shall install system carryout to Continuous Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM_{10} and $PM_{2.5}$ in reference to PM emission, and SO ₂ and NOx in reference to SO ₂ and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120°each), covering upwind and downwind directions.	We have Installed 4 nos. of CAAQMS for the monitoring of the parameters PM_{10} , $PM_{2.5}$, SO ₂ , NOx & CO out of which two are installed within the plant premises and two CAAQMS stations are installed outside the plant area. Photographs of the same are attached as Photo No. 4, 5, 6 & 7.



Photo 4: Showing CAAOMS-1



Photo 5: Showing CAAQMS- 2

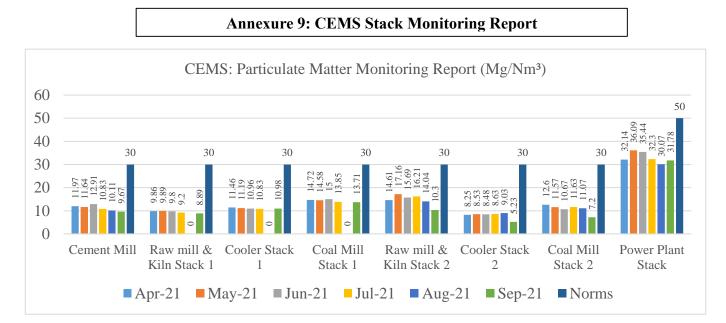


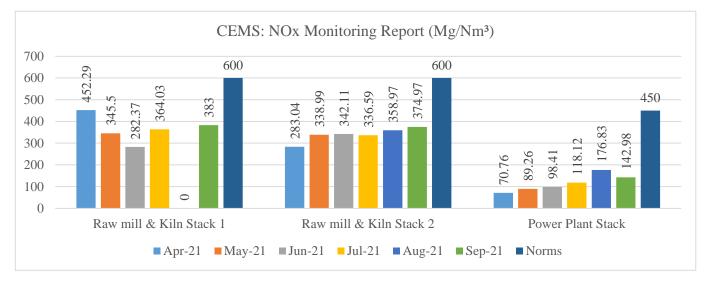
Photo 6: Showing CAAQMS- 3

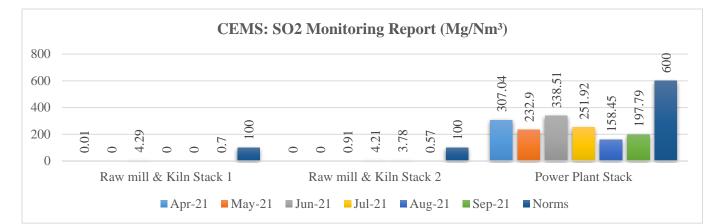


Photo 7: Showing CAAQMS-4

S.	Conditions	Compliance status
No		
iv	The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.	1. Continuous & Manual stack monitoring report for the period April 2021 to September 2021 Annexure-9 .



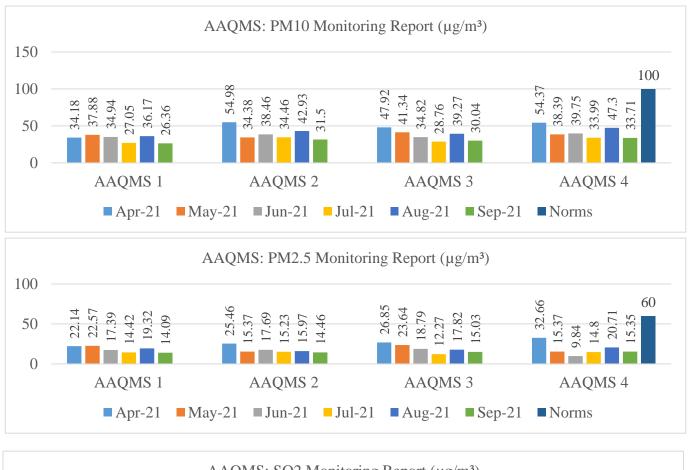


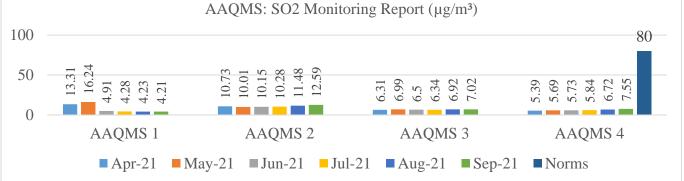


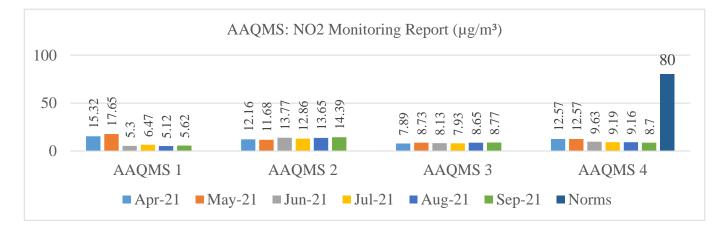
Onl	Online CEMS Stack Monitoring Report (Monthly Average Values) (mg/Nm ³)								
Name of Stacks	Parameter	Norma	Monitoring Period						
Name of Stacks	rarameter	Norms	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	
Cement Mill	PM	30	11.97	11.64	12.91	10.83	10.11	9.67	
Coal Mill Stack- 1	PM	30	14.72	14.58	15	13.85	Not in	13.71	
Cooler Stack-1	PM	30	11.46	11.19	10.96	10.83	operation	10.98	
Coal Mill Stack- 2	PM	30	12.60	11.57	10.67	11.63	11.07	7.20	
Cooler Stack-2	PM	30	8.25	8.53	8.48	8.63	9.03	5.23	
Ram Mill &	PM	30	9.86	9.89	9.8	9.2	Not in	8.89	
Kiln Stack-1	SO2	100	0.01	0.0	4.29	0.0	operation	0.7	
KIIII Stack-1	NOx	600	452.29	345.50	282.37	364.03	operation	383	
Ram Mill &	PM	30	14.61	17.16	15.69	16.21	14.04	10.30	
Kiln Stack-2	SO2	100	0.0	0.0	0.91	4.21	3.78	0.57	
KIIII Stack-2	NOx	600	283.04	338.99	342.11	336.59	358.97	374.97	
Power Plant	PM	50	32.14	36.09	35.44	32.30	30.07	31.78	
Stack	SO2	600	307.04	232.9	338.51	251.92	158.45	197.79	
Stack	NOx	450	70.76	89.26	98.41	118.12	176.83	142.98	

	Manual Stack Emission Monitoring Report (mg/Nm ³)								
Name of Stacks	Parameter	Norms	Monitoring Period						
Ivanie of Stacks	rarameter	INDEFINS	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	
Cement Mill	PM	30			16.78	15.71	16.15	15.74	
Coal Mill -1	PM	30			19.24	18.21	Not in	19.87	
Cooler Stack-1	PM	30			12.75	12.50	operation	11.95	
Coal Mill -2	PM	30			18.07	16.42	17.45	18.24	
Cooler Stack-2	PM	30			9.75	10.11	9.97	8.45	
Dam Mill P	PM	30			12.25	11.75	Not in	10.85	
Ram Mill & Kiln Stack-1	SO2	100	Not moni	tored due	<4.0	8.0		6.50	
KIIII Stack-1	NOx	600	to Covid	to Covid -19		365.34	operation	385.47	
D M:11.9	PM	30				15.66	14.24	12.15	
Ram Mill &	SO2	100				6.0	5.15	5.60	
Kiln Stack-2	NOx	600			408.68	440.25	425.63	465.47	
Darway Dlant	PM	50			35.86	38.47	36.28	37.84	
Power Plant	SO2	600			350.47	260.74	220.14	224.52	
Stack	NOx	450			135.28	105.58	160.57	180.32	









Continuo	Continuous Ambient Air Quality Monitoring Report (Monthly Average Values) (µg/m³)								
Logation	Danamatan	Norma	Monitoring Period						
Location	Location Parameter	Norms	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	
AAQMS-1	PM10	100	34.18	37.88	34.94	27.05	36.17	26.36	
Mines Boundary	PM2.5	60	22.14	22.57	17.39	14.42	19.32	14.09	
towards village	SO2	80	13.31	16.24	4.91	4.28	4.23	4.21	
Bharuwadih	NOx	80	15.32	17.65	5.30	6.47	5.12	5.62	
AAQMS-2	PM10	100	54.98	34.38	38.46	34.46	42.93	31.50	
Mines Boundary	PM2.5	60	25.46	15.37	17.69	15.23	15.97	14.46	
towards village	SO2	80	10.73	10.01	10.15	10.28	11.48	12.59	
Semradih	NOx	80	12.16	11.68	13.77	12.86	13.65	14.39	
AAQMS-3	PM10	100	47.92	41.34	34.82	28.76	39.27	30.04	
Plant Boundary	PM2.5	60	26.85	23.64	18.79	12.27	17.82	15.03	
towards South	SO2	80	6.31	6.99	6.50	6.34	6.92	7.02	
Direction	NOx	80	7.89	8.73	8.13	7.93	8.65	8.77	
AAQMS-4	PM10	100	54.37	38.39	39.75	33.99	47.30	33.71	
Plant Boundary	PM2.5	60	32.66	15.37	19.84	14.80	20.71	15.35	
towards village	SO2	80	5.39	5.69	5.73	5.84	6.72	7.55	
Khapradih	NOx	80	12.57	12.57	9.63	9.19	9.16	8.70	

Manual Ambient Air Quality Monitoring Report (µg/m³)									
Location	Parameter	Norms	Monitoring Period						
Location	Parameter	INOLINS	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	
AAQMS-1	PM10	100			56.10	58.25	60.56	62.4	
Mines Boundary	PM2.5	60			27.20	29.62	30.43	33.6	
towards village	SO2	80			15.20	6.24	8.61	9.2	
Bharuwadih	NOx	80			16.13	10.26	10.75	24.8	
AAQMS-2	PM10	100			69.92	71.66	66.37	67.2	
Mines Boundary	PM2.5	60				35.53	33.62	35.5	
towards village	SO2	80			9.21	7.36	6.47	8.5	
Semradih	NOx	80	Not mon	itored due	14.17	12.47	20.55	22.7	
AAQMS-3	PM10	100	to Co	vid-19	59.40	65.42	62.72	69.3	
Plant Boundary	PM2.5	60			25.52	29.67	31.42	37.4	
towards South	SO2	80			15.43	8.16	6.23	10.6	
Direction	NOx	80			18.11	12.85	18.65	24.5	
AAQMS-4	PM10	100			64.60	62.85	59.68	59.8	
Plant Boundary	PM2.5	60			30.57	32.72	30.60	31.9	
towards village	SO2	80			8.14	7.38	7.22	9.5	
Khapradih	NOx	80			14.22	10.82	13.47	21.8	

S. No	Conditions	Compliance status
v	Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed stack emission and fugitive emission standards.	Unit has installed Appropriate Air Pollution Control (APC) measures at all the dust generating points including fugitive dust from all vulnerable sources to comply with prescribed standards. List of Air Pollution Control (APC) system is attached as Annexure-11 Photographs of Air Pollution Control devises are attached as Photo No. 8,9,10,11,12 & 13 .

Annexure 11: List of Air Pollution Control Devices

S. No.	Name of Sources	Pollution Control Measures
1.	Coal Unloading	Covered Unloading point
2.	Limestone Unloading	Covered unloading and water spray arrangement at crusher
3.	Material Transfer Points	Cover shed & Dust Collectors
4.	Fly Ash Storage	Silo
5.	Gypsum Storage	Cover shed
6.	Petcoke / Coal Storage	Cover shed
7.	Limestone Storage	Cover shed
8.	Clinker Storage	Silo
9.	Conveyor Belt	Covered
10.	Raw Mill & Kiln-I	RABH
11.	Clinker Cooler-I	ESP
12.	Coal Mill-I	Bag House
13.	Raw Mill & Kiln-II	RABH
14.	Clinker Cooler-II	ESP
15.	Coal Mill-II	Bag House
13.	Cement Mill	Bag House
14.	All Silo	Dust Collector for silo venting



Photo 8: Showing Line-1 RABH



Photo 10: Showing Line-1 Cooler ESP



Photo 12: Showing Power Plant ESP



Photo 9: Showing Line-2 RABH



Photo 11: Showing Line-2 Cooler ESP



Photo 13: Showing Cement Mill Baghouse

S. No	Conditions	Compliance status		
vi	The project proponent shall provide leakage detection and mechanized bag cleaning facilities for better maintenance of bags.			
vii	Pollution control system in the cement plant shall be provided as per the CREP Guidelines of CPCB.	Compliance status of conditions mentioned in CREP is attached herewith as Annexure-12 .		

Annexure 12: Compliance of CREP Guidelines

S No.	CREP Condition	Compliance
1	Cement plant, which are not complying with notified standards, shall do the following to meet the standards:Augmentation of existing Air Pollution Control	We are complying with the standards prescribed by MoEF & CC and CECB.
	Devices - by July 2003. Replacement of existing Air Pollution Control	
	Devices - by July 2004.	
2	Cement plants located in critically polluted or urban areas(including 5 Km distance outside urban boundary) will meet 100 mg/Nm3 limit of particulate matter by December 2004 and continue working to reduce the emission of particulate matter 50 mg/Nm3.	Our plant is not located within critically polluted or urban area. And the emissions from our stacks are well within the statutory norms.
3	The new cement kiln to be accorded NOC/ Environmental Clearance w.e.f 1/4/03 will meet the limit of 50 mg/Nm3 for particulate matter emission.	We are complying with the standards prescribed by MoEF & CC and CECB.
4	CPCB will evolve load-based standards by December 2003.	Not Applicable
5	CPCB and NCBM will evolve SO2 and NOx emission standards by June -2004.	Standards Notified by MoEF&CC.
6	The cement industries will control fugitive emission from all raw material and product storage and transfer points by December 2003. However, the National Task Force will decide the feasibility for the control of fugitive emission from limestone and coal storage areas. The NTF shall submit its recommendations within months.	Unit has installed Appropriate Air Pollution Control (APC) measures at all the dust generating points including fugitive dust from all vulnerable sources to comply with prescribed standards. Covered storages/silos have been provided for clinker, Fly ash, Gypsum and cement storage.
7	CPCB, NCBM, BIS and Oil refineries will jointly prepare the policy on use of petroleum cock as fuel in Cement Kiln by July 2003.	Not Applicable
8	After performance evaluation of various types of continuous monitoring equipment and feedback from the industries and equipment manufacturers, NTF will decide feasible unit operation/section for installation of continuous monitoring equipment. The industry will install the continuous monitoring system (CMS) BY December 2003.	Continuous emission monitoring system are installed at all the stacks to measure emission levels and measured data is being continuously uploaded to CPCB & CECB Servers.
9	Tripping in Kiln ESP to be minimized by July 2003	Conditions of ESP tripping has been

	as per the recommendation of NTF.	minimized as per given recommendation of NTF
10	Industries will submit the target date to enhance the utilization of waste material by April 2003.	 We have obtained applicable permissions from CPCB & CECB for use of waste material in cement kilns. Fly ash, pond ash is being used for cement manufacturing process. Hazardous Waste i.e. spent catalyst, plastic waste, oily sludge, process resides, spent solvents, distillation residues, ETP sludge, Resin waste etc. are co-processed in cement kilns as AFR.
11	NCBM will carry out a study on hazardous waste utilization in cement kiln by December 2003.	We have obtained applicable permissions from CPCB & CECB for use of spent catalyst, plastic waste, oily sludge, process resides, spent solvents, distillation residues, ETP sludge, Resin waste etc. for utilization of AFR.
12	Cement industries will carry out feasible study and submit target dates to CPCB co-generation of power by July-2003.	Waste Heat Recovery systems are installed at all the units.

S. No	Conditions	Compliance status			
viii	Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.	Provided four Numbers of heavy duty sweeping machines for regular sweeping of all plants roads, shop floors on regular basis.			
		Photograph of sweeping machines are attached as Photo -14 & 15 .			



Photo 14 & 15: Showing Sweeping machine engaged to clean Roads, floors on regular basis

S. No	Conditions	Compliance status
ix	Recycle and reuse lime fines, coal fines and such other fines collected in the pollution control devices and vacuum cleaning devices in the process after agglomeration.	Dust collected from pollution control devices and vacuum cleaning devices is being totally recycled & reused in the process of cement manufacturing.
X	Ensure covered transportation and conveying of ore, coal and other raw material to prevent spillage and dust generation; Use closed bulkers for carrying fly ash;	All the Environment protection measures have been taken to reduce impact on surrounding environment. All raw materials are being transported in tippers/trucks covered by tarpaulin to prevent spillage and dust generation. Limestone and other material is transported through covered conveyor belts. Fly ash transportation is being done in closed bulkers only.
		Photographs of the covered conveyor is attached as Photo no 16.

	Photographs of closed bulker is attached as Photo
	no 17.



Photo 16: Showing Covered Conveyor Belt on the Right & Pipe Conveyor Belt on the Left



Photo 17: Showing Transportation through Closed bulkers

S. No	Conditions	Compliance status
xi	Provide wind shelter fence and chemical spraying on the raw material stock piles; and	Covered storage shed have been provided for stockpiles of Limestone, Coal & Gypsum.
		For fly ash we have constructed silo and the transportation of fly ash is done through closed bulkers only.
		Photographs of covered stock yard is attached as Photo no 18.
		Photographs of fly ash silo is attached as Photo no. - 19.

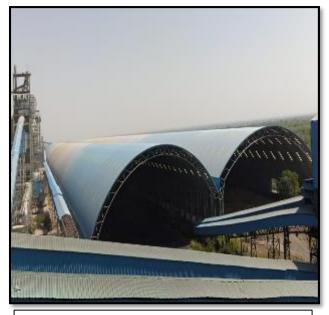


Photo 18: Showing Covered Shed for Storage of Raw material



Photo 19: Showing fly ash Silo

S. No	Conditions	Compliance status
xii	Provide Low NOx burners as primary measures and SCR /NSCR technologies as secondary measure to control NOx emissions. Have separate truck parking area and monitor vehicular emissions at regular interval.	separate truck parking area with basic amenities



Annexure 12: Sample Copy of PUC

S. No	Conditions	Compliance status
xiii	Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land by the use of covered conveyor belts/railways as a mode of transport.	All the Environment protection measures has been taken to reduce impact on surrounding environment. The raw material i.e. limestone is transported to plant with help of covered conveyor belts and end product Cement & Clinker being transported in trucks covered with tarpaulin. Photographs of covered conveyor belt is attached as Photo no 16 .
		Photographs of transportation trucks covered with tarpaulin is attached as Photo no. 20 .



Photo 20: Showing Transportation truck covered with tarpaulin

S.	Conditions	Compliance status
No		
xiv	Ventilation system shall be designed for adequate air changes as per ACGIH document for all tunnels, motor houses, cement bagging plants.	Ventilation system has been designed as per ACGIH specifications at all tunnels, motor houses, cement bagging/Packing plants area.
III.	Water quality monitoring and preservation	
i	The project proponent shall install 24x7 continuous effluent monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 612 (E) dated 25th August, 2014 (Cement)and subsequent amendment dated 9th May, 2016 (Cement)and 10th May, 2016(in case of Co- processing Cement)as amended from time to time; S.O. 3305 (E) dated 7th December 2015 (Thermal Power Plants)as amended from time to time) and	Not applicable as no effluent is generated from the Cement plant process as the cement manufacturing is based on dry process technology. However, treated waste water from WTP is being reuse in process.

	connected to SPCB and CPCB online servers and calibrate these system from time to time according to equipment supplier specification through labs recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	5 5
ii	The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.	basis (pre and post monsoon) through labs recognized under EPA, 1986 and NABL

Annexure 14: Ground Water Quality Monitoring Report

	Ground Water Quality Monitoring Report (June, 2021)								
S No.	Parameters	Unit	Permissible Limit	BW-1	BW-2	BW-3	BW-4	BW-5	BW-6
1	pН	-	No relaxation	7.33	7.35	7.38	7.06	7.27	7.45
2	Turbidity	NTU	5	0.90	0.50	0.90	0.50	3.80	0.50
3	Alkalinity	mg/lit	600	326	214	326	254	360	272
4	Total Hardness as CaCO3	mg/lit	600	306	482	306	428	350	352
5	Chlorides as Cl	mg/lit	1000	58.98	31.99	58.98	32.99	59.98	38.19
6	TDS	mg/lit	2000	400	596	408	574	485	423
7	Nitrate as NO3	mg/lit	No relaxation	16.76	10.99	16.76	3.66	11.99	7.99
8	Calcium as Ca	mg/lit	200	94.58	179.55	94.58	151.50	108.22	117.21
9	Magnesium as Mg	mg/lit	100	17.01	8.26	17.01	12.15	19.44	25.83
10	Sulphates as SO4	mg/lit	400	33.65	19.78	33.65	38.74	30.64	12.68
11	Iron as Fe	mg/lit	No relaxation	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
12	Fluoride as F	mg/lit	1.5	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
13	Copper as Cu	mg/lit	1.5	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
14	Manganese as Mn	mg/lit	0.3	<0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
15	Free Residual Chlorine	mg/lit	1	<0.01	<0.01	<0.01	<0.01	<0.01	< 0.01
16	Zinc as Zn	mg/lit	15	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
17	Mineral Oil	mg/lit	No relaxation	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
18	Phenolic compound	mg/lit	0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
19	Ammonia (as total ammonia-N)	mg/lit	No relaxation	<0.05	< 0.05	<0.05	< 0.05	< 0.05	< 0.05
20	Anionic detergents (as	mg/lit	1.0	<0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

	MBAS)								
21	Barium as Ba	mg/lit	No	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
			relaxation						
22	Boron as B	mg/lit	1.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
23	Chloramines	mg/lit	No	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
	(as Cl2)		relaxation						
24	Sulphide as	mg/lit	No	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
	H2S		relaxation						
25	Selenium as	mg/lit	No	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	Se		relaxation						
26	Fecal	MPN/100ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent
	Coliform								
27	E.Coli	MPN/100ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent

Ground Water Quality Monitoring Report (June, 2021)									
S No.	Parameters	Unit	Permissible Limit	BW-7	BW-8	BW-9	BW-10	BW-11	BW-12
1	рН	-	No relaxation	6.86	7.06	7.24	7.20	7.08	7.93
2	Turbidity	NTU	5	0.20	< 0.05	0.30	0.90	0.50	0.80
3	Alkalinity	mg/lit	600	326	324	218	258	324	104
4	Total Hardness as CaCO3	mg/lit	600	298	302	340	280	240	138
5	Chlorides as Cl	mg/lit	1000	23.99	23.99	45.99	16.99	8.99	18.99
6	TDS	mg/lit	2000	471	464	540	346	375	375
7	Nitrate as NO3	mg/lit	No relaxation	12.98	18.76	13.96	16.25	11.69	11.69
8	Calcium as Ca	mg/lit	200	74.55	62.52	82.56	80.16	56.91	65.23
9	Magnesium as Mg	mg/lit	100	27.22	35.47	32.56	19.44	23.81	24.30
10	Sulphates as SO4	mg/lit	400	24.78	38.96	28.75	40.25	26.92	33.80
11	Iron as Fe	mg/lit	No relaxation	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
12	Fluoride as F	mg/lit	1.5	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
13	Copper as Cu	mg/lit	1.5	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
14	Manganese as Mn	mg/lit	0.3	<0.20	<0.20	<0.20	< 0.20	<0.20	< 0.20
15	Free Residual Chlorine	mg/lit	1	<0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
16	Zinc as Zn	mg/lit	15	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
17	Mineral Oil	mg/lit	No relaxation	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
18	Phenolic compound	mg/lit	0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
19	Ammonia (as total ammonia-N)	mg/lit	No relaxation	<0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.05
20	Anionic detergents (as MBAS)	mg/lit	1.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
21	Barium as Ba	mg/lit	No relaxation	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
22	Boron as B	mg/lit	1.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
23	Chloramines (as Cl2)	mg/lit	No relaxation	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
24	Sulphide as	mg/lit	No	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

	H2S		relaxation						
25	Selenium as	mg/lit	No	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	Se		relaxation						
26	Fecal	MPN/100ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent
	Coliform								
27	E.Coli	MPN/100ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent

	S	Shree Raipu Ground V	Water Quali	•)	
S No.	Parameters	Unit	Permissible Limit	BW-13	BW-14	TW-1	TW-2	TW-3	TW-4
1	pН	-	No relaxation	7.30	8.07	7.14	7.29	7.21	7.43
2	Turbidity	NTU	5	1.10	1.03	2.20	1.60	1.40	2.50
3	Alkalinity	mg/lit	600	326	102	252	288	204	214
4	Total Hardness as CaCO3	mg/lit	600	212	246	224	248	192	268
5	Chlorides as Cl	mg/lit	1000	32.98	37.98	12.99	56.98	30.99	85.97
6	TDS	mg/lit	2000	346	497	310	363	304	437
7	Nitrate as NO3	mg/lit	No relaxation	15.13	8.99	8.17	14.09	10.55	12.95
8	Calcium as Ca	mg/lit	200	77.75	93.46	35.27	45.69	45.69	58.52
9	Magnesium as Mg	mg/lit	100	4.13	28.18	37.91	32.56	18.95	29.65
10	Sulphates as SO4	mg/lit	400	40.96	17.39	10.99	28.70	26.09	23.04
11	Iron as Fe	mg/lit	No relaxation	< 0.05	<0.05	< 0.05	< 0.05	< 0.05	< 0.05
12	Fluoride as F	mg/lit	1.5	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
13	Copper as Cu	mg/lit	1.5	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
14	Manganese as Mn	mg/lit	0.3	< 0.20	<0.20	<0.20	< 0.20	<0.20	< 0.20
15	Free Residual Chlorine	mg/lit	1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
16	Zinc as Zn	mg/lit	15	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
17	Mineral Oil	mg/lit	No relaxation	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
18	Phenolic compound	mg/lit	0.002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
19	Ammonia (as total ammonia-N)	mg/lit	No relaxation	< 0.05	<0.05	< 0.05	<0.05	< 0.05	<0.05
20	Anionic detergents (as MBAS)	mg/lit	1.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
21	Barium as Ba	mg/lit	No relaxation	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
22	Boron as B	mg/lit	1.0	<0.10	< 0.10	<0.10	< 0.10	< 0.10	< 0.10
23	Chloramines (as Cl2)	mg/lit	No relaxation	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
24	Sulphide as H2S	mg/lit	No relaxation	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
25	Selenium as Se	mg/lit	No relaxation	< 0.05	<0.05	< 0.05	< 0.05	< 0.05	< 0.05
26	Fecal Coliform	MPN/100ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent
27	E.Coli	MPN/100ml	Absent	Absent	Absent	Absent	Absent	Absent	Absent

SL No.	Borewell Number	Borewell Location
1	BW-1	Near CCR Building
2	BW-2	Cement mill Garden
3	BW-3	RABH
4	BW-4	Cement mill feed hopper
5	BW-5	GPP Office
6	BW-6	Old pump house
7	BW-7	Mahto Batching plant
8	BW-8	Near main gate
9	BW-9	Limestone stacker
10	BW-10	Crusher 1
11	BW-11	Crusher 2
12	BW-12	GDCL labour hutment
13	BW-13	IOT labour hutment
14	BW-14	Mines pit
15	TW-1	Bharuadih Village
16	TW-2	Semradih Village
17	TW-3	Khapradih Village
18	TW-4	Chandi Village

S. No	Conditions	Compliance status
iii	The project proponent shall submit monthly summary report of continuous effluent monitoring and results of manual effluent testing and manual monitoring of ground water quality to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.	No effluent is generated from the Cement plant process as the cement manufacturing is based on dry process technology. The monitoring report of ground water quality for pre and post monsoon 2021 is attached as Annexure-14 .
iv	Adhere to 'Zero Liquid Discharge'.	Cement manufacturing is based on dry process technology. Zero effluent discharge is being maintained inside/outside of plant premises.
V	Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.	We have installed 2 Nos. of STP with 40 KL capacity each for treatment of Domestic sewage which is generated from offices & canteen and treated wastewater quality is as per prescribed standards.
		Photographs of STP is attached as Photo no. 21. The STP water quality report for the period April, 2021 to September, 2021 is attached as Annexure-15.



Photo 21: Showing STP present in Plant

Annexure 15: STP Treated Water Quality Monitoring Report

S	Location	Parameters	Prescribed	Apr-21	May-	Jun-	Jul-21	Aug-21	Sep-21
No.			Limit		21	21			
1	STP -1	nII	6.5-9.0			8.50	8.30	8.10	8.40
	STP-2	pН	0.3-9.0			8.30	8.10	-	8.50
2	STP -1	TSS	100			30.00	42.00	45.00	47.00
	STP-2	155	100			17.00	36.00	-	43.00
3	STP -1	COD	250	NT - 4	Not monitored		96.00	68.00	76.00
	STP-2	COD			60.00	102.00	-	82.00	
4	STP -1	BOD (3 day	20	due to COVID- 30 19	7.00	16.00	10.00	12.00	
	STP-2	27°)	30		7	10.00	20.00	-	16.00
5	STP -1	Oil &	10			<2.0	<2.0	<2.0	<2.0
	STP-2	Grease	10			3.0	<2.0	-	<2.0
6	STP -1	Fecal	1000			79.00	84.00	46	70
	STP-2	Coliform	1000			70.00	63.00	-	63

#Note: - STP-2: Under maintenance during August 2021.

S.	Conditions	Compliance status
No		
vi	Garland drains and collection pits shall be provided for each stock pile to arrest the runoff in the event of heavy rains and to check the water pollution due to surface run off.	The raw material stock piles are kept under covered shed. So, no surface runoff is generated from stock pile. Photograph of Covered shed is attached as Photo no. 18.
vii	The project proponent shall practice rainwater harvesting to maximum possible extent.	For augmentation of ground water, the project has constructed 2 Nos. of Rain water harvesting ponds of capacity 1,00,000 KL & 1,50,000 KL each in plant area. The photographs of rain water harvesting ponds are attached as Photo no. 22 , 23 & 24 .





Photo 22 & 23: Showing Rain Water Harvesting Ponds



Photo 24: Showing RWH Recharge Structure

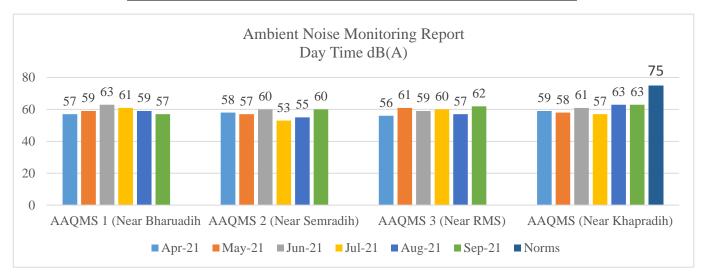
S. No	Conditions	Compliance status
viii	Water meters shall be provided at the inlet to all unit processes in the cement plant.	We have installed digital water flow meter at every bore wells & as well as at the inlet of all unit processes in the plant.
		Photographs of digital flow meters are attached as Photo no. 25 & 26 .

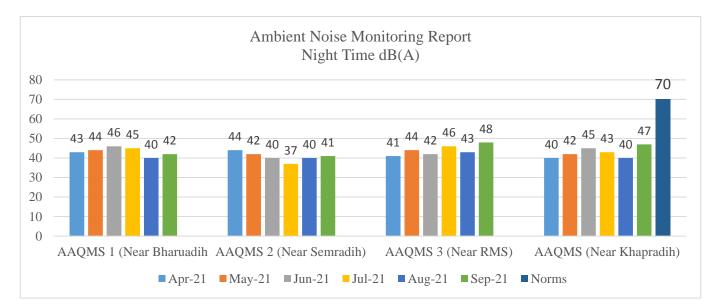


Photo 25 & 26: Showing Digital Flow meters at different locations

S. No	Conditions	Compliance status
ix	The project proponent shall make efforts to minimize water consumption in the steel plant complex by segregation of used water, practicing cascade use and by recycling treated water.	Not Applicable for Cement plant.
IV.	Noise monitoring and prevention	
i	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.	Noise Monitoring is being carried out as per the prescribed guidelines on regular basis. The noise monitoring report for the period April to September 2021 is attached as Annexure-16 .

Annexure 16: Noise Monitoring Report





	Shree Raipur Cement Plant Noise Monitoring Report									
S No.	Location	_	5-1 (Near 1adih)	¥		- (AAQMS-4 (Near Khapradih)		
	Month	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time	Day Time	Night Time	
1	Apr-21	57	43	58	44	56	41	59	40	
2	May-21	59	44	57	42	61	44	58	42	
3	Jun-21	63	46	60	40	59	42	61	45	
4	Jul-21	61	45	53	37	60	46	57	43	
5	Aug-21	59	40	55	40	57	43	63	40	
6	Sep-21	57	42	60	41	62	48	63	47	

S. No	Conditions	Compliance status				
ii	The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time.	Regular monitoring of ambient noise levels is being carried out and the results are well within the norms. Ambient noise monitoring results during the period April, 2021 to September, 2021 is attached as Annexure-16 .				
V. E	nergy Conservation measures					
i	Waste heat recovery system shall be provided for kiln and cooler.		ower generation f	system of capacity from the waste heat		
ii	power consumption less than 65 units/tone for		All efforts are being made to achieve power consumption & thermal energy consumption for cement & clinker production.			
	production and thermal energy consumption of 670 Kcal/Kg of clinker.	Year	Power consumption for cement production	Thermal energy consumption for Clinker		
		2019-20	62.26	714		
		2020-21	61.65	724		
iii	Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly.	colony area. the solar pl powered ligh	Further we are pla ant to be most	street lights at our anning to layout for efficient for solar areas, street lights,		
iv	Provide the project proponent for LED lights in their offices and residential areas.			s in all office areas. ached as Photo no.		



Photo 27: Showing LED light fixtures at Office area

S. No	Conditions	Compliance status
V	Maximize utilization of fly ash, slag and sweetener in cement blend as per BIS standards.	Continuous efforts have been made for use of maximum fly ash in making PPC cement as per BIS standards. During the April, 2020 to March,2021 total 6,21,285 MT fly ash used for PPC manufacturing in existing Cement Plant.
vi	maximize utilization of alternate fuels and Co- processing to achieve best practice norms.	For utilization/co-processing of Hazardous wastes in Cement kiln. We have obtained the authorization for various types of hazardous waste from CECB and Co-processing of hazardous & non-hazardous waste such as ETP sludge, Organic residue, Process residue from pharmaceutical industries including RDF/MSW in cement kiln.
		Further we will explore the higher calorific wastes material for co-processing as AFR in our cement plant.
VI.	Waste management	
i	Used refractories shall be recycled as far as possible.	The used refractories are being sold to vendors for recycling.
ii	The waste oil, grease and other hazardous shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016.	The used/spent oil generated are stored in earmarked area with concrete flooring and is only sold to CPCB/ SPCB authorized parties.
iii	Kitchen waste shall be composted or converted to biogas for further use.	Waste generated from kitchen is converted into manure which is used as bio-fertilizer in green belt development.
VII.	Green Belt	
i	Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant	Out of Total plant area of 159.256 hectare, Green belt has been developed on 53.00 Hectare (33.2%) area with 1,15,176 Nos. of saplings along with entire periphery of the plant.
		Additionally, under Hariyar Chhattisgarh project we have planted 15,000 saplings near school of Bharuwadih, Semradih, Khapradih, Chandi, Karahi & Parkidih villages. Road side plantation of about 10 KM on both side of road from Bharuwadih to Chandi village has been done. And we have also planted 15,050 saplings at Bhatapara. Apart from that 2,000 sapling has been planted near the Logistic building.

Local native species viz. Neem, Karanj, Platofarm, Cassia Siamea, Shisham etc. are planted to increase the survival rate. Photographs of the same is attached as **Photo no. 28 & 29.**



Photo 28 & 29: Showing Plantation within the Plant area

S	Conditions	Compliance status		
S.	Conditions	Compliance status		
No				
ii	The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programmer for reduction of the same including carbon sequestration including plantation.	A team of expert performs the survey of the entire plant and collect the raw data of GHG emissions. Company follow the GCCA and Energy Accounting and reporting standard for the Cement Industry" for the calculation of the GHG emission. Every year a third party is engaged for assurance at the GHG data.		
		During the year 2020-21 CO2 emitted by existing plant operation was 3353588 Tons and sequestered CO2 was 3707 Tons.		
VIII	VIII. Public hearing and Human health issues			
i	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	The emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan is implemented.		
ii	The PP shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.	Heat stress analysis is conducted for the workmen who work in high temperature work zone. And Personal Protection Equipment (PPE) are provided to all the workers working in the plant as per the norms of Factory Act. Photographs of the same is attached as Photo no. 30 .		



Photo 30: Showing PPEs provided to workers

S. No	Conditions	Compliance status
iii	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	We have provided temporary housing structures with all necessary infrastructure and facilities such as fuel for cooking, toilets, STP, safe drinking water, medical health care etc. for construction workers.
iv	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Occupational health programs are conducted on regular basis and records being maintained by the Occupation Health Center (OHC). During the period of April,2021 to September 2021 total 6819 Nos. health checkup conducted. A sample copy of Occupational health surveillance is attached as Annexure-17 .

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	Construction of the constr	$\begin{array}{c} c_{L} = c_{L} =$	
NAME AD. E. J. C/O SURC DEPARTMENT	Ky. Ratye Sh Ratye om pet bryop	DATE <u>25/08/202</u> / A/S/R2 ⁵	
1. GENERAL EXAMINAT HEIGHT	10N 65 (in cm) WEIGHT 60 28 (in cm) EXPIRATION 8	(in KG) BMI	
BUILT : AVERA PALLOR ICTERUS CLUBBING	AGE/STRONG/POOR TONGUE JAL GUMS THROAT		
, OEDEMA LYMPHNODES ADDITIONAL FINDING 2. CARDIO-VASCULAR S			Annexure 17: Sample Medical
2. CARDIO-VAGGOLAR S	0	1 1 2 2	
PULSE (per min.) HEART SOUND : ADDITIONAL FINDING	BP (mm of Hg) Normal/Abnormal MURMER, IF AN SS, IF ANY	Y	Report
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S. No	Conditions	Compliance status
i	The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1 st May 2018, as applicable, regarding Corporate Environment Responsibility.	All commitments made during the public hearing have been incorporated in CSR activities. Details of expenses for CSR activities from April- 2021 to September- 2021 enclosed as Annexure- 18 . Photographs of some of the CSR Activities are attached as Photo no. 31 & 32 .

	Annexure 18: CSR Expenditure Details		
	Shree Raipur Cement Plant		
	(A Unit of Shree Cement Limited)		
SI No.	Description	Amount in Rs.	
1	Activities under COVID-19 relief	5,56,679	
2	Supply of ventilators at newly set up Covid Hospital	14,65,002	
3	Sanitization of nearby villages	3,291	
4	Supply of oxygen cylinders to Various Dist. hospital	25,98,596	
5	Supply of refill oxygen cylinders to Dist. hospital	22,56,482	
6	Monetary support to Govt. Schools (15th August)	25,000	

7	Support to BPL family for Girl's Marriage	2,60,524
8	Purchase of Vermicompost for Plantation	24,900
9	Monetary support to various socio-cultural functions	
	(Vishwakarma Pooja, Ganesh Pooja, Durga Pooja, Dussehra	7,70,000
	etc.)	
10	Construction of Jyoti Kakshak	1,29,802
11	Bore well Submersible Pump provided at Semaradih Village	29120
	Total	81,19,396

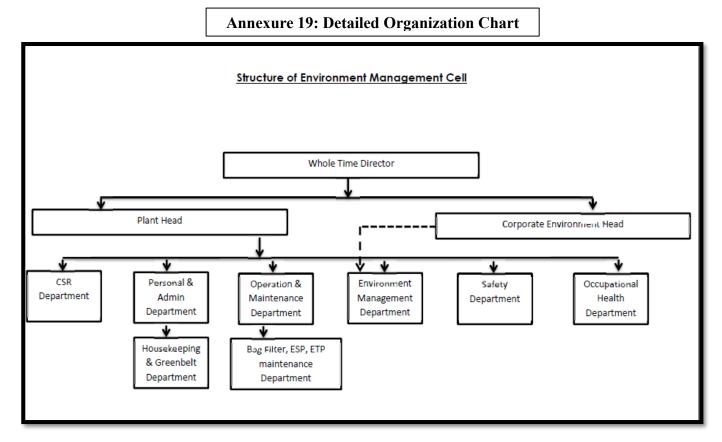


Photo 31: Showing Vridashram Constructed by Shree Cement Ltd.



Photo 32: Showing Plantation & guard rail provided at Balodabazar

	5. No	Conditions	Compliance status
ii	i	and company head quarter level, with qualified personnel shall be set up under the control of	Established a separate Environmental Cell at project and company head quarter level with qualified person under the control of Jt. Vice President (Operation). The detailed organization chart is enclosed as Annexure – 19 .



S. No	Conditions	Compliance status
iv	Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.	Protection measures are being utilized for the same and Total expenditure incurred during the period April, 2021 to September, 2021 is attached as Annexure – 20 .

Annexure 19: Details of Environment Expenditure

SL No.	Description	Amount in Rs.
1	Sewage Treatment Plant	1,05,076
2	Technical Consultancy	8,54,926
3	Environment Monitoring	2,11,860
4	Plantation	30,47,020
5	Housekeeping & Vacuum Sweeping	2,12,59,147
6	Energy Consumption in Pollution Control Devices	8,68,18,363
	Total	11,22,96,392

S. No	Conditions	Compliance status
v	Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.	Self- environmental audit is conducted internally on Annual basis. And we shall engage 3 rd party to carry out environmental audit once in every three years.
vi	All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Cement plants shall be implemented.	All CREP recommendations have been implemented. Compliance status of CREP conditions is attached as Annexure- 12.
X . I	Miscellaneous	
i	The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.	Advertised the environment clearance in two different newspapers with one in vernacular language "Dainik Bhaskar" & "Times of India" dated 14.09.2019 within the stipulated time period. The copy the EC letter has been put on the company website that can be downloaded from by the following link <u>www.shreecement.com</u> The copy of advertisement is attached as Annexure-21.
	मैसर्स श्री रायपुर सीमेंट प्लांट (इकाई श्री सीमेन्ट लिमिटेड) गांव- खपराडीह, तहसील- सिमगा, जिला-बलोवाबाजार-भाटापारा (छत्तीसगढ़) सार्वजनिक सूचना सर्व साधारण को सूचित किया जाता है कि मैसर्स श्री रायपुर सीमेंट जांद (इकाई श्री सीमेन्ट लिमिटेड) के इन्टीग्रेटेड सीमेन्ट प्लांट का विस्तार, क्षमता 2 × 26 लाख टन प्रतिवर्ष से 3 × 45 लाख टन प्रतिवर्ष किलंकर, 2 × 30 लाख टन प्रतिवर्ष से 3 × 45 लाख टन प्रतिवर्ष सीमेन्ट, कैप्टिव पावर प्लांट 25 मेगाबाट से 125 मेगाबाट, वेस्ट हीट रिकवरी पावर प्लांट 30 मेगावाट से 100 मेगाबाट, सिंधेटिक जिप्सम 65 टन प्रतिघंटा तथा डीजी सेट 2000 केवीए, जो कि गांव- खपराडीह, तहसील- सिमगा, जिला-बलौदाबाजार-माटापारा (छत्तीसगढ़) में स्थापित किये जा रहे हैं, को भारत सरकार के पर्यावरणीय स्वीकृति पत्र क्रमांक F. No. J-11011/235/2008- IA-II (I) दिनांक 11 सितंबर 2019 के द्वारा दी गई है।	Annexure 21: Copy of Paper Advertisement

पर भी उपलब्ध हैं।

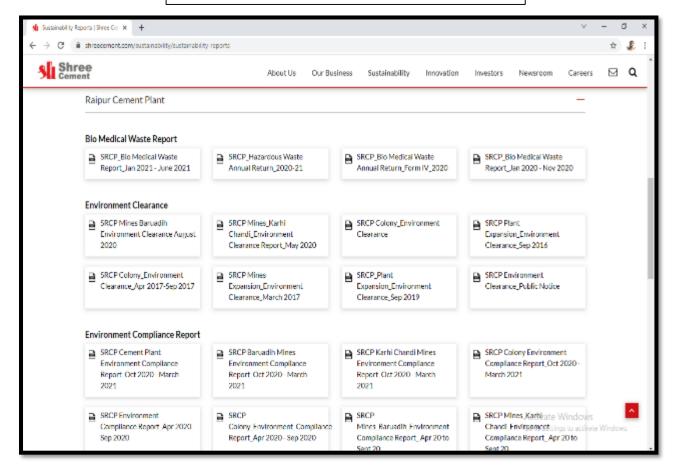
पर्यावरण स्वीकृति पत्र की प्रतिलिपि छत्तीसगढ पर्यावरण संरक्षण

मण्डल, रायपुर में उपलब्ध है तथा पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार की वेबसाइट "www.moef.nic.in" एवं श्री सीमेन्ट लिमिटेड की वेबसाइट "www.shreecement.in"

Dainik Bharkae-14/09/19 Raipun

S. No	Conditions	Compliance status
ii	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.	Copy of EC letters have been submitted to the respective Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government date 13.09.2019 for their information.
iii	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.	The status of compliance of the stipulated environment clearance conditions, including results of monitored data uploaded on the company's website <u>www.shreecement.com</u> i.e. on half yearly basis. The screenshot of the company website is attached as Annexure-22 .

Annexure 22: Screenshot of Company Website



S. No	Conditions	Compliance status
iv	The project proponent shall monitor the criteria pollutants level namely; PM10, S02, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.	The monitoring data of ambient monitoring quality & stack emission is uploaded on our company website www.shreecement.com periodically i.e. on half yearly basis . The screenshot of the company website is attached as Annexure-22 . Monitoring data of existing cement plant is being displayed at main gate of the company in the public domain. Photograph of the same is attached as Photo no. 33 .



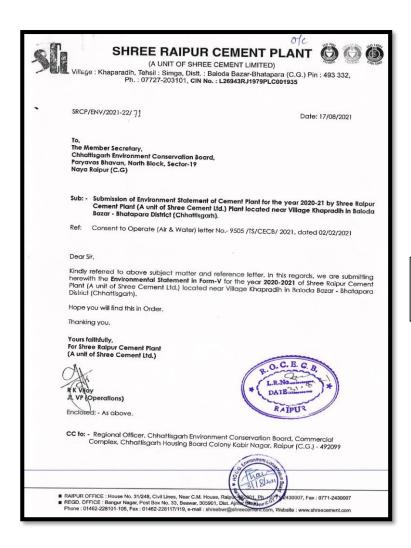
Photo 33: Showing Display Board installed at Plant Main gate

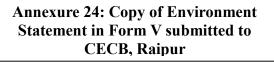
S.	Conditions	Compliance status
No		
V	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.	The Six monthly compliance reports on the status of the compliance of the stipulated environmental conditions is uploaded on the website of the MoEF&CC at Environment Clearance portal. The E.C Compliance for the period October, 2020 to March, 2021 has been uploaded on the website of the MoEF&CC at Environment Clearance portal. Screenshot of the uploaded E.C compliance on on the website of the MoEF&CC at Environment Clearance portal is attached as Annexure-23 .

Annexure 23: Screenshot of E.C Compliance Uploaded on Parivesh Portal

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2 IA/CO/IND/78064/2018	05802020WWW9H2AK5RCPH	antECComplianceOct-18toMar-20.pdf	Six Monthly compliance for the perio March 2020	d October 2019 to	80/06/2020	Show desktop	

S. No	Conditions	Compliance status
vi	The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.	in FORM-V is submitting regularly to the Chhattisgarh Environment Conservation Board as prescribed under the Environment (Protection) Rules, 1986, and the copy of the same is also being





S. No	Conditions	Compliance status
vii	The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.	Noted.
viii	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.	We are complying with all the conditions stipulated by the State Pollution Control Board and the State Government.
ix	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.	All the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing are being complied.
X	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).	Noted. Prior approval shall be obtained from MoEF&CC in case of any expansion or modification in the plant.

xi	Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Noted.
xii	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Noted
xiii	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	We shall abide by any additional conditions if any stipulated by MoEF&CC.
xiv	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.	We shall extend our full co-operation to the officers of the Regional Office.
XV	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter	Noted
xvi	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Noted