ENVIRONMENTAL CLEARANCE

PARIVESH

(Pro-Active and Responsive Facilitation by Interactive, and Virtuous Environment Single-Window Hub)

Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

To,

The Manager - Environment
AMBUJA CEMENT LIMITED
228, Udyog Vihar, Phase-I,,Gurgaon,Haryana-122016

Subject: Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the Ministry vide proposal number IA/CG/IND/48966/2007 dated 18 Sep 2022. The particulars of the environmental clearance granted to the project are as below.

1.	**EC Identification No.**	**EC22A009CG158733**
2.	**File No.**	J-11011/355/2005-IA.II(I)
3.	**Project Type**	Expansion
4.	**Category**	A
5.	**Project/Activity including Schedule No.**	3(b) Cement plants
6.	**Name of Project**	Amendment EC for use of fuel-mix in 48 MW CPP.
7.	**Name of Company/Organization**	AMBUJA CEMENT LIMITED
8.	**Location of Project**	Chhattisgarh
9.	**TOR Date**	04 Mar 2021

The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 31/10/2022

(e-signed)
Dr. R. B. Lal
Scientist E
IA - (Industrial Projects - 1 sector)

Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH.Please quote identification number in all future correspondence.

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F. No. J-11011/355/2005-IA.II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(I.A. Division – Industry I sector)
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Indira Paryavaran Bhawan
Vayu Wing, 3rd Floor,
Jor Bagh Road, Aliganj,
New Delhi – 110003

Dated: 31st October, 2022

To,

M/s Ambuja Cements Limited,
228, Udyog Vihar, Phase-I, Gurgaon,
Haryana - 122016
Email: sanjeewkumar.singh@ambujacement.com

Project: Expansion of Integrated Cement Plant - Clinker (4.8 to 8.1 MTPA), Cement (3.5 to 6.5 MTPA) and WHRS (18 to 43 MW) by installation of new line -III by at M/s. Ambuja Cements Limited, located at Village: Rawan, Tehsil: Bhatapara, District: Balodabazar- Bhatapara, Chhattisgarh – Grant of Environmental Clearance regarding.

Sir,

This refers to your proposal no. IA/CG/IND/48966/2007 dated 18th September, 2022 along with copy of EIA/EMP Report, Form - 2 seeking Environment Clearance (EC) under the provisions of the EIA Notification, 2006 for the project mentioned above. Further, the Project proponent has uploaded the information on parivesh portal on 12.10.2022.

2. As per the provisions of the Environment Impact Assessment (EIA) Notification, 2006, the above-mentioned project/activity is covered under category **'A'** of item **3(b) Cement Plants of the EIA Notification, 2006 and appraised at Central Level.**

3. The above-mentioned proposal has been considered in **14th meeting of Expert Appraisal Committee (Industry-1 Sector) held on 29th - 30th September, 2022**. The minutes of the meeting and all the project documents are available on PARIVESH portal which can be accessed at https://parivesh.nic.in.

4. The details of the proposal are as per the EIA/EMP report submitted by the proponent. The salient features of the proposal as presented during the above-mentioned meetings of EAC (Industry 1 Sector) are as under: -

S. No.	Particulars	Details submitted by the PP
a.	Terms of Reference for undertaking EIA study	04.03.2021
b.	Period of baseline data collection	Summer Season (March to May, 2021)
c.	Date of Public Consultation	31st March, 2022
d.	Action plan to address the PH issues	An amount of Rs. 15.12 Cr. have been earmarked to address the issues raised during public hearing with 0.50 Cr. recurring Cost for maintenance. Detail of activities proposed attached as

S. No.	Particulars	Details submitted by the PP
		Annexure 1.
e.	Location of the project	Village: Rawan, Tehsil: Bhatapara, District: Balodabazar-Bhatapara, Chhattisgarh
f.	Latitude and Longitude of the project site	

Point	Latitude	Longitude
1.	21°41’4.57” N	82°4’45.55” E
2.	21°40’58.65” N	82°4’47.08” E
3.	21°40’55.85” N	82°4’48.32” E
4.	21°40’55.58” N	82°4’48.60” E
5.	21°40’55.52” N	82°4’49.94” E
6.	21°40’55.15” N	82°4’50.31” E
7.	21°40’54.17” N	82°4’50.28” E
8.	21°40’45.03” N	82°4’59.23” E
9.	21°40’44.81” N	82°5’3.45” E
10.	21°40’44.72” N	82°5’4.15” E
11.	21°40’43.92” N	82°5’5.59” E
12.	21°40’42.21” N	82°5’5.80” E
13.	21°40’42.48” N	82°5’6.80” E
14.	21°40’41.75” N	82°5’9.97” E
15.	21°40’41.97” N	82°5’10.37” E
16.	21°40’40.61” N	82°5’13.30” E
17.	21°40’39.85” N	82°5’15.30” E
18.	21°40’40.07” N	82°5’17.61” E
19.	21°40’43.98” N	82°5’17.21” E
20.	21°40’44.53” N	82°5’17.87” E
21.	21°40’44.89” N	82°5’18.44” E
22.	21°40’45.27” N	82°5’18.94” E
23.	21°40’44.73” N	82°5’20.05” E
24.	21°40’45.52” N	82°5’20.60” E
25.	21°40’45.21” N	82°5’21.27” E
26.	21°40’44.78” N	82°5’21.55” E
27.	21°40’45.05” N	82°5’22.62” E
28.	21°40’45.50” N	82°5’22.72” E
29.	21°40’45.22” N	82°5’23.88” E
30.	21°40’45.56” N	82°5’30.02” E
31.	21°40’45.12” N	82°5’33.74” E
32.	21°40’46.38” N	82°5’35.18” E
33.	21°40’45.43” N	82°5’36.84” E
34.	21°40’46.77” N	82°5’38.19” E
35.	21°40’38.95” N	82°5’46.18” E
36.	21°39’59.51” N	82°5’13.49” E
37.	21°39’58.43” N	82°5’12.41” E
38.	21°39’57.64” N	82°5’10.19” E
39.	21°39’57.01” N	82°5’8.13” E
40.	21°39’57.04” N	82°5’6.89” E
41.	21°40’3.31” N	82°4’52.91” E
42.	21°40’3.69” N	82°4’51.00” E
43.	21°40’1.98” N	82°4’42.91” E
44.	21°40’16.55” N	82°4’35.81” E
45.	21°40’18.66” N	82°4’36.39” E
46.	21°40’17.08” N	82°4’42.31” E
47.	21°40’23.89” N	82°4’44.72” E
48.	21°40’28.08” N	82°4’41.32” E

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details submitted by the PP</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>49.</td><td>21°40’32.21” N</td><td>82°4’44.67” E</td></tr>
<tr><td>50.</td><td>21°40’32.77” N</td><td>82°4’43.83” E</td></tr>
<tr><td>51.</td><td>21°40’35.84” N</td><td>82°4’43.64” E</td></tr>
<tr><td>52.</td><td>21°40’36.16” N</td><td>82°4’38.76” E</td></tr>
<tr><td>53.</td><td>21°40’39.80” N</td><td>82°4’39.51” E</td></tr>
<tr><td>54.</td><td>21°40’40.95” N</td><td>82°4’39.99” E</td></tr>
<tr><td>55.</td><td>21°40’41.38” N</td><td>82°4’38.65” E</td></tr>
<tr><td>56.</td><td>21°40’41.73” N</td><td>82°4’38.67” E</td></tr>
<tr><td>57.</td><td>21°40’43.01” N</td><td>82°4’34.08” E</td></tr>
<tr><td>58.</td><td>21°40’43.53” N</td><td>82°4’34.51” E</td></tr>
<tr><td>59.</td><td>21°40’44.43” N</td><td>82°4’31.99” E</td></tr>
<tr><td>60.</td><td>21°40’43.50” N</td><td>82°4’31.88” E</td></tr>
<tr><td>61.</td><td>21°40’43.87” N</td><td>82°4’28.85” E</td></tr>
<tr><td>62.</td><td>21°40’44.65” N</td><td>82°4’22.35” E</td></tr>
<tr><td>63.</td><td>21°41’3.97” N</td><td>82°4’21.83” E</td></tr>
<tr><td>64.</td><td>21°41’5.18” N</td><td>82°4’23.01” E</td></tr>
<tr><td>65.</td><td>21°41’5.20” N</td><td>82°4’32.24” E</td></tr>
</table>
</td></tr>
<tr><td>g.</td><td>Total land</td><td>238.97 ha (including plant and colony). Proposed expansion will be done within the existing plant premises.</td></tr>
<tr><td>h.</td><td>Land acquisition details as per MoEF&CC O.M. dated 7/10/2014</td><td>Total land area is under the possession of the company.</td></tr>
<tr><td>i.</td><td>Existence of habitation & involvement of R&R, if any</td><td>Plant Site: No habitation exists within the plant site and R&R is not applicable.
Study Area:
<table>
<tr><th>Habitation</th><th>Distance (km)</th><th>Direction</th></tr>
<tr><td>Bhadrapoli</td><td>~ 0.2</td><td>SW</td></tr>
<tr><td>Rawan</td><td>~ 0.2</td><td>North</td></tr>
<tr><td>Khairtal</td><td>~ 0.2</td><td>West</td></tr>
<tr><td>Pausari</td><td>~ 1.0</td><td>NE</td></tr>
<tr><td>Arjuni</td><td>~ 1.0</td><td>NW</td></tr>
<tr><td>Murhipar</td><td>~ 1.0</td><td>SW</td></tr>
<tr><td>Bharseli</td><td>~ 2.0</td><td>East</td></tr>
<tr><td>Magarwai</td><td>~ 2.0</td><td>NE</td></tr>
<tr><td>Kukardih</td><td>~ 2.0</td><td>SE</td></tr>
<tr><td>Karmadih</td><td>~ 2.5</td><td>SW</td></tr>
<tr><td>Maldi</td><td>~ 3.0</td><td>WSW</td></tr>
<tr><td>Gaitara</td><td>~ 3.0</td><td>NE</td></tr>
</table>
There are approx. 68 villages in 10 km radius study area.</td></tr>
<tr><td>j.</td><td>Elevation of the project site</td><td>257 m to 280 m above mean sea level.</td></tr>
<tr><td>k.</td><td>Involvement of Forest land if any.</td><td>No Forest Land Involved.</td></tr>
<tr><td>l.</td><td>Water body exists within the project site as well as study area</td><td>Plant site: No water body exists within the plant site except artificial Rainwater Harvesting ponds/reservoir developed by the company.

Study area: Following water bodies fall within 10 km radius:</td></tr>
</table>

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details submitted by the PP</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th>Water body</th><th>Distance (km)</th><th>Direction</th></tr>
<tr><td>Mahanadi Canal</td><td>Adjacent</td><td>SE</td></tr>
<tr><td>Kukurdih Talav</td><td>~1.5</td><td>SE</td></tr>
<tr><td>Kukridih - Dharsharma Canal</td><td>~4.0</td><td>SE</td></tr>
<tr><td>Banjari Nala</td><td>~5.0</td><td>WNW</td></tr>
<tr><td>Jamuniya Nadi</td><td>~6.5</td><td>NW</td></tr>
<tr><td>Khorsi Nala</td><td>~8.5</td><td>SE</td></tr>
<tr><td>Chitawar Nala</td><td>~8.5</td><td>South</td></tr>
</table>
Water Bodies such as ponds/ lakes comprises of 1.75% of the total buffer area.
</td></tr>
<tr><td>m.</td><td>Existence of ESZ / ESA / national park / wildlife Sanctuary / biosphere Reserve / tiger reserve / elephant reserve etc. if any within the study area</td><td>Nil.
List of Reserve forests in the study area:
<table>
<tr><th>Forests</th><th>Distance (km)</th><th>Direction</th></tr>
<tr><td>Dhadabih RF</td><td>~4.0</td><td>SSE</td></tr>
<tr><td>Latwa RF</td><td>~5.5</td><td>ENE</td></tr>
<tr><td>Sonbarsa RF</td><td>~6.5</td><td>NE</td></tr>
<tr><td>Mohtara RF</td><td>~9.0</td><td>NE</td></tr>
</table>
</td></tr>
<tr><td>n.</td><td>Project cost</td><td>The capital cost for the proposed expansion project is Rs. 2000 Crores.</td></tr>
<tr><td>o.</td><td>EMP cost</td><td>The capital cost for environmental protection measures is proposed as Rs. 172 Crores. The annual recurring cost towards the environmental protection measures for proposed expansion is Rs. 7.4 Crores/ annum.</td></tr>
<tr><td>p.</td><td>Employment opportunity</td><td>The employment generation from the proposed expansion project is 200 people (30 regular & 170 contractual).</td></tr>
<tr><td>q.</td><td>Water and Power requirement</td><td>The existing water requirement is 6044 KLD (including Captive Power Plant) which is being sourced from Groundwater & Mine Pits and company has obtained NOC from CGWA for withdrawal of 5366 KLD of Groundwater vide letter no. 21-4(117)/NCCR/CGWA/2011-1739, dated 06th Nov., 2015 and renewal of the same has been obtained vide letter no. 21 - 4(117)/NCCR/CGWA/2011 - 762 dated 05th Sept., 2019 which is valid up to 25th July, 2024. Additional 1500 KLD water will be required for proposed expansion project which will be Ground Water and Mine Pits for the expansion project of cement plant, Thus, the total water requirement after expansion will be 7544 KLD.

Existing power requirement is 60 MW is obtained from Captive Power Plant, Chhattisgarh State Electricity Board (CSEB), WHRS & DG set (For back up). The Power requirement for the proposed expansion project is estimated as 43 MW; out of which 25 MW will be obtained from WHRS, 15 MW will be obtained from CPP and 3 MW will be sourced from CSEB.</td></tr>
</table>

Unit configuration and capacity:

S. No.	Plant Equipment / Facility	Existing Facilities as per EC dated 25th January, 2016 & 15th May, 2009.								Proposed Unit		Final (Existing + Proposed)	
		Total (A + B)		Implemented (A)		Un - implemented (B)		As per CTO					
		Configuration	Capacity	Configur-ation	Cap-acity	Configur-ation	Cap-acity	Configur-ation	Cap-acity	Config-uration	Cap-acity	Confi-guration	Capacity
1.	Clinker	Kiln: 5100 TPD + 9400 TPD	4.8 MTPA	Kiln: 5100 TPD + 9400 TPD	4.8 MTPA	Nil	Nil	Kiln: 5100 TPD + 9400 TPD	4.8 MTPA	Kiln: 10,000 TPD	3.3 MTPA	Kiln: 5100 TPD + 9400 TPD + 10,000 TPD	8.1 MTPA
2.	Cement	Mill: 2 x 125 1 x 135 TPH	3.5 MTPA	Mill: 2 x 125 1 x 135 TPH	3.5 MTPA	Nil	Nil	Mill: 2 x 125 1 x 135 TPH	3.5 MTPA	Mill: 3 x 125 TPH	3.0 MTPA	Mill: 2 x 125 1 x 135, 3 x 125 TPH	6.5 MTPA
3.	CPP	Boiler capacity 2 x 15 TPH 1 x 33 TPH	63 MW	Boiler capacity 2x 15 TPH 1 x 33 TPH	63 MW	Nil	Nil	Boiler capacity 2 x 15 TPH 1 x 33 TPH	63 MW	Nil	Nil	Boiler capacity 2 x 15 TPH 1x33 TPH	63 MW
4.	WHRS	18 MW Turbine	18 MW	-	-	18 MW Turbine	18 MW	-	-	25 MW Turbine	25 MW	18 MW + 25 MW Turbine	43 MW

5. The EAC, in its meeting held during 29th - 30th September, 2022, inter-alia, deliberated the following:

(i) The instant proposal is for expansion of Integrated Cement Plant - Clinker (4.8 to 8.1 MTPA), Cement (3.5 to 6.5 MTPA) and WHRS (18 to 43 MW).

(ii) The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

(iii) The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

(iv) The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

(v) The existing project was accorded Environmental Clearance from MoEF&CC, New Delhi for Clinker - 4.8 MTPA vide letter no. J-11011/355/2005 - IA- II (I), dated 25th Jan., 2016 amended via letter dated 06th Jan., 2017 and for Cement (3.5 MTPA) vide letter no. J-11011/72/2009 - IA- II (I), dated 15th May, 2009; amended via letter dated 13th Nov., 2011. Consent to Established for Waste Head Recovery (18 MW) has been obtained from CECB vide letter no. 7254/TS/CECB/2020, dated 11th Nov., 2020. Consent to Establish for Waste Heat

Recovery (18 MW) has been obtained from CECB vide letter no. 7254/TS/CECB/2020, dated 11th November, 2020 which is under installation.

(vi) Mahanadi Canal, Kukurdih Talav, Kukridih - Dharsharma Canal, Banjari Nala, Jamuniya Nadi, Khorsi Nala and Chitawar Nala exists within the study area of the project site. The EAC is of the opinion that water bodies shall not be disturbed. Mitigation measures w.r.t. safeguarding the water bodies shall be implemented.

(vii) 7544 m3/day water will be required for the existing and proposed expansion; which will be obtained from Ground Water and Mine Pits. The EAC advised that project proponent shall explore the possibility of shifting to alternate source of water to reduce dependency on groundwater.

(viii) Two Schedule - I species i.e., Monitor lizard (Varanus bengalensis) and Python (Python molurus) are found in the sturdy area of the project area. Wildlife Conservation Plan for the two Schedule - I species has been authenticated by Principle Chief Conservator of Forest (Wildlife & Biodiversity Conservation) and Co - Chief Wildlife Warden on 04th July, 2022. The EAC deliberated the conservation plan and found in order.

(ix) Existing greenbelt has been developed in 83.1 ha area which is about 34.7% of the total project area of 238.97 ha with total saplings of 201484 tress. Further, the greenbelt/plantation will be enhanced by gap filling to meet the requirement of 2500 plants/ ha with 6000 Plants. The Committee deliberated on the action plan and budget allocation for green belt development and noted that as committed by the PP the green belt development shall be completed in a year.

(x) The Committee has found that the baseline data and incremental GLC due to the proposed project within NAAQ standards.

(xi) There are approx. 68 villages in 10 km radius study area of the project site. The EAC advised that Project Proponent shall take appropriate environmental safeguard measures to minimise the impact on the habitation of the locals. The PP shall also include some of these locations in its environmental monitoring programme.

(xii) Project proponent has submitted that Village - Rawan, Pausari, Bharseli, Maldi & Mopad will be adopted. PP has submitted an action plan to develop these villages into model villages.

(xiii) The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found them to be satisfactory.

(xiv) The Committee also deliberated on the public hearing issues along with action plan submitted by the proponent to address the issues raised during the public hearing and found it satisfactory.

(xv) The Committee deliberated upon the certified compliance report of IRO MoEFCC as well as action taken report submitted by PP with respect to the observations reported by IRO along with the review report of IRO and found it satisfactory.

(xvi) The Committee deliberated upon the written submission of the Project Proponent and found it satisfactory.

(xvii) The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.

(xviii) The environmental clearance recommended to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc.,

as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

6. The EAC, in its **14th meeting of Expert Appraisal Committee (Industry-1 Sector) held on 29th - 30th September, 2022**, based on information & clarifications provided by the project proponent and after detailed deliberations **recommended** the proposal for grant of Environment Clearance subject to stipulation of specific and general conditions as detailed in the point below.

7. The MoEF&CC has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and after accepting the recommendations of the Expert Appraisal Committee (Industry-1 Sector) hereby decided to grant **Environment Clearance for instant proposal of M/s Ambuja Cements Limited** under the provisions of EIA Notification, 2006 subject to the following specific conditions and general conditions:

A. <u>Specific conditions:</u>

(i) The PP shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii) The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(iii) Mahanadi Canal, Kukurdih Talav, Kukridih - Dharsharma Canal, Banjari Nala, Jamuniya Nadi, Khorsi Nala and Chitawar Nala exists within the study area of the project site. A robust and full proof Drainage Conservation scheme to protect the natural drainage and its flow parameters; along with Soil conservation scheme and multiple Erosion control measures shall be implemented.

(iv) As committed, PP shall adopt Rawan, Pausari, Bharseli, Maldi & Mopad villages and develop them into model villages. PP shall implement the action plan submitted for the development of the villages.

(v) 7544 m^3/day water will be required for the existing and proposed expansion; which will be obtained from Ground Water and Mine Pits. Necessary permission shall be obtained from the Competent Authority in this regard. PP shall explore the possibility of shifting to alternate source of water to reduce dependency on groundwater.

(vi) Three tier Green Belt shall be developed in a time frame of one year covering at least 33% of the total project area with native species all along the periphery of the project site of adequate width and tree density shall not be less than 2500 per ha. Survival rate of green belt developed shall be monitored on periodic basis to ensure that damaged plants are replaced with new plants in the subsequent years. Gap filling shall be undertaken for the existing greenbelt to achieve target of plantation of 2500 saplings per ha.

(vii) Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.

(viii) Mitigation measures to minimise the impact of high noise levels generated due to the conveyor belt passing near the Village Murhipar shall be strictly implemented as committed which shall specifically include six row shelter belt of trees (~500 m) to be planted near the Village Murhipar (particularly noise-absorbing species) and other technological measures.

(ix) The Action Plan for the Panch-tatva (5 commitments) including fossil fuel reduction road map and net-zero carbon emissions shall be strictly implemented.

(x) The proposed project shall be designed as "Zero Liquid Discharge" Plant. ETP shall be installed and there shall be no discharge of effluent from the plant. Domestic effluent shall be treated in Sewage Treatment Plant. MSW waste shall be treated in digester and recovered gas shall be used in the canteen.

(xi) The company shall also undertake rain water harvesting measures as per the plan submitted in the EIA/EMP report and reduce water dependence from the outside source.

(xii) All stockyards shall be having impervious flooring and shall be equipped with water spray system for dust suppression. Stock yards shall also have garland drains to trap the run off material.

(xiii) Slip roads shall be provided at the gates and along crossings on main roads.

(xiv) All internal and connecting road to the Highway shall be black topped/ concreted with suitable load in term of Million Standard Axle (MSA) as per IRC guidelines.

(xv) Performance monitoring of pollution control equipment shall be taken up yearly and compliance status in this regard shall be reported to the concerned Regional Office of the MoEF&CC.

(xvi) Dioxin and furans shall be monitored twice a year during co-processing of hazardous waste and report shall be submitted to the Regional Office of the MoEF&CC.

(xvii) Particulate matter emissions from all the stacks shall be less than 30 mg/Nm^3.

(xviii) DeSOx system shall be provided dry type. NOx level shall be maintained below 600 mg/Nm^3 by using best available technology.

(xix) Petcoke dosing shall be controlled automatically to control SO_2 emission from chimney within the prescribed limits.

(xx) PP shall identify the Source of fluoride emissions and action plan to mitigate the same shall be implemented.

(xxi) A proper action plan must be implemented to dispose of the electronic waste generated in the industry.

(xxii) All the recommendations made in the risk assessment report shall be implemented and compliance status in this regard shall be furnished to the Regional Office of the MoEF&CC along with the six monthly compliance report.

(xxiii) All the commitments made to the public during the Public Hearing/Public Consultation shall be satisfactorily implemented. The action plan based on the social impact assessment study of the project as per the EMP in accordance to the Ministry's OM dated 30.09.2020 shall be strictly implemented and progress shall be submitted to the Regional Office of MoEF&CC.

(xxiv) The Plastic Waste Management Rules 2016, inter-alia, mandated banning of identified Single Use Plastic (SUP) items with effect from 01/07/2022. In this regard, CPCB has issued a direction to all the State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) on 30/06/2022 to ensure the compliance of Notification published by Ministry on 12/08/2021. The technical guidelines issued by the CPCB in this regard is available at https://cpcb.nic.in/technical-guidelines-3/. All the project proponents are hereby requested to

sensitize and create awareness among people working within the Project area as well as its surrounding area on the ban of SUP in order to ensure the compliance of Notification published by this Ministry on 12/08/2021. A report, along with photographs, on the measures taken shall also be included in the six monthly compliance report being submitted by the project proponents.

(xxv) The project proponent shall adopt the Clean Air practices like mechanical collectors, wet scrubbers, fabric filters (bag houses), electrostatic precipitators, combustion systems (thermal oxidizers), condensers, absorbers, adsorbers, and biological degradation. Controlling emissions related to transportation shall include emission controls on vehicles as well as use of cleaner fuels. Sufficient numbers of additional truck mounted Fog/Mist water cannons shall be procured and operated regularly inside the project premises and also in the surrounding villages to arrest suspended dust in the atmosphere.

(xxvi) The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report to the concerned Regional Office of the MoEF&CC.

B. General conditions:

I. Statutory compliance:

i. The Environment Clearance (EC) granted to the project/ activity is strictly under the provisions of the EIA Notification, 2006 and its amendments issued from time to time. It does not tantamount/ construe to approvals/ consent/ permissions etc., required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.

II. Air quality monitoring and preservation

i. The project proponent shall install 24x7 continuous emission monitoring system with respect to standards prescribed in Environment (Protection) Rules 1986 vide G.S.R. No. 612 (E) dated 25thAugust, 2014 (Cement) and subsequent amendment dated 9thMay, 2016 (Cement) and 10th May, 2016 (in case of Co-processing Cement); 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.

ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognised under Environment (Protection) Act, 1986.

iii. The project proponent shall install system carryout to Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area at least at four locations (one within and three outside the plant area at an angle of 120°each), covering upwind and downwind directions.

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.

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.
vi. The project proponent shall provide leakage detection and mechanised 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.
viii. Sufficient number of mobile or stationery vacuum cleaners shall be provided to clean plant roads, shop floors, roofs, regularly.
ix. Ensure covered transportation and conveying of raw material to prevent spillage and dust generation; Use closed bulkers for carrying fly ash.
x. Provide wind shelter fence and chemical spraying on the raw material stock piles; and
xi. Provide Low NOX burners as primary measures and SCR /NSCR technologies as secondary measure to control NOX emissions.
xii. Have separate truck parking area and monitor vehicular emissions at regular interval.
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
xiv. Ventilation system shall be designed for adequate air changes as per ACGIH document for all tunnels, motor houses, cement bagging plants.

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 25thAugust, 2014 (Cement) and subsequent amendment dated 9thMay, 2016 (Cement) and 10th May, 2016 (in case of Co-processing Cement) 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.
ii. The project proponent shall regularly monitor 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.
iii. Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
iv. Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off
v. Water meters shall be provided at the inlet to all unit processes in the cement plant.
vi. The project proponent shall make efforts to minimize water consumption in the cement plant complex by segregation of used water, practicing cascade use and by recycling treated water.

IV. Noise monitoring and prevention

i. Noise quality shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

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.

V. Energy Conservation measures

i. Waste heat recovery system shall be provided for kiln and cooler.
ii. The project proponent makes efforts to achieve power consumption less than 65 units/ton for Portland Pozzolona Cement (PPC) and 85 units/ton for Ordinary Portland Cement (OPC) production and thermal energy consumption of 670 Kcal/Kg of clinker.
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.
iv. Provide the project proponent for LED lights in their offices and residential areas.

VI. Waste management

i. Used refractories shall be recycled as far as possible.

VII. Green Belt

i. The project proponent shall prepare GHG emissions inventory for the plant and shall submit the program for reduction of the same including carbon sequestration by trees in the plant premises.
ii. Project proponent shall submit a study report within six months on Decarbonisation program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon offsetting strategies. Further, the report shall also contain time bound action plan to reduce its carbon intensity of its operations and supply chains, energy transition pathway from fossil fuels to Renewable energy etc. All these activities/ assessments should be measurable and monitorable with defined time frames.

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.
ii. The project proponent 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.
iii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained.

IX. Environment Management

i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020. As part of Corporate Environment Responsibility (CER) activity, company shall adopt villages based on the socio-economic survey and undertake community developmental activities in consultation with the village Panchayat and the District Administration as committed.
ii. The company shall have a well laid down environmental policy duly approve by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of

the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

X. 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.

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.

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.

iv. The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, 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.

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.

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.

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.

viii. 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.

ix. The PP shall put all the environment related expenditure, expenditure related to Action Plan on the PH issues, and other commitments made in the EIA/EMP Report etc. in the company web site for the information to public/public domain. The PP shall also put the information on the left over funds allocated to EMP and PH as committed in the earlier ECs and shall be carried out and spent in next three years, in the company web site for the information to public/public domain.

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).

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.

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

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

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.

xv. 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.

8. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

9. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.

10. Any appeal against this environmental clearance 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.

11. 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.

12. This issues with approval of the competent authority.

(Dr. R. B. Lal)
Scientist 'E'/Additional Director
Tel: 011-20819346
Email-rb.lal@nic.in

Encl. as above at Annexure –I

Copy to: -

1. The Principal Secretary Environment, Mahanadi Bhawan, Nawa Raipur, Atal Nagar Chhattisgarh.
2. The Principal Secretary Forest, Mahanadi Bhawan, Nawa Raipur, Atal Nagar Chhattisgarh.
3. The Director General of Forest, Ministry of Environment, Forest and Climate Change, New Delhi.

4. The Principal Chief Conservator of Forests (HoFF) Chhattisgarh Forest Department, Jai Road Aranya Bhavan Raipur, Chhattisgarh -492007.
5. Regional Officer, Ministry of Environment, Forest and Climate Change, Integrated Regional Office, Aranya Bhawan, North Block, Sector-19 Naya Raipur, Atal Nagar, Chhattisgarh - 492002.
6. The Chairman, Central Pollution Control Board, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
7. The Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas Bhavan, North Block Sector-19 Naya Raipur, Chhattisgarh -492002.
8. The Member Secretary, Central Ground Water Authority, Jamnagar House, 18/11, Man Singh Road Area, New Delhi, Delhi 110001
9. The District Collector, Balodabazar- Bhatapara, Chhattisgarh.
10. Guard File/Record File/Monitoring File/MoEFCC website/Parivesh Portal

(Dr. R. B. Lal)
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Annexure – 1

Table: Action plan as per MoEF&CC O.M. dated 30/09/2020

S. No.	Physical activity to be done	Unit of Measurement			Tentative Budget (Rs. in Crores)
		1st Year	2nd Year	3rd Year	
1	***Construction of Road in the villages***				2.85
(i)	Construction of Road in Rawan Village (500 Meters)	√	-	-	0.3
(ii)	Construction of Road in Arjuni Village (340 Meters)	√	-	-	0.2
(iii)	Construction of Road in Khairtal Village (167 Meters)	√	-	-	0.1
(iv)	Construction of Road in Maldi Village (167 Meters)	√	-	-	0.1
(v)	Construction of Road in Devrani Village (250 Meters)	√	-	-	0.3
(vi)	Construction of Road in Mopar Village (340 Meters)	√	-	-	0.2
(vii)	Construction of Road in Sarkipar Village (167 Meters)	√	-	-	0.1
(viii)	Construction of Road in Karmandih Village (50 Meters)	√	-	-	0.05
(ix)	Construction of Road in Bhadrapali Village (1200 Meters)	√	-	-	0.7
(x)	Construction of Road in Mudhipar Village (340 Meters)	√	-	-	0.2
(xi)	Construction of Road in kukurdih Village (340 Meters)	√	-	-	0.2
(xii)	Construction of Road in Bharseli Village (340 Meters)	√	-	-	0.2
(xiii)	Construction of Road in Pousari Village (340 Meters)	√	-	-	0.2
	**Rs. 28.50 Lacs will be allocated for further maintenance of roads*				
2	***Construction of water harvesting structures / ground water recharge / pond***				1.45
(i)	Village Rawan (2 Ponds)	√	-	-	0.2
(ii)	Village Arjuni (1 Pond)	√	-	-	0.1
(iii)	Village Khairthal (2 Ponds)	√	-	-	0.2
(iv)	Village Devrani (1 Pond)	√	-	-	0.1
(v)	Village Mopar (1 Pond)	√	-	-	0.1
(vi)	Village Sarkipar (1 Pond)	√	-	-	0.1
(vii)	Village Bhadrapali ((2 Pond)	√	-	-	0.2
(viii)	Village Kukurdih (1 Pond)	√	-	-	0.1
(ix)	Village Bharseli (1 Pond)	√	-	-	0.15
(x)	Village Pousari (2 Ponds)	√	-	-	0.2
3	***Construction of playground / playground levelling / playground development***				0.25
(i)	Playground in Village Rawan	√	-	-	0.05
(ii)	Playground in Village Khairtal	√	-	-	0.05
(iii)	Playground in Village Devrani	√	-	-	0.05
(iv)	Playground and leveling in Village Kukurdih	√	-	-	0.1
4	***Village sanitation / drain construction***				0.3
(i)	Drain construction on Village Rawan (100 Meters)	√	-	-	0.05
(ii)	Drain construction on Village Bhadrapali (200 Meters)	√	-	-	0.1
(iii)	Drain construction on Village kukurdih (100 Meters)	√	-	-	0.05
(iv)	Drain construction on Village Pousari (200 Meters)	√	-	-	0.1
5	***Gothan development / village livelihood***				0.3
(i)	Village Mopar	√	-	-	0.1
(ii)	Village Karmandih	√	-	-	0.1
(iii)	Village Mudhipur	√	-	-	0.1
6	***Education -***				

S. No.	Physical activity to be done	Unit of Measurement			Tentative Budget (Rs. in Crores)
		1st Year	2nd Year	3rd Year	
	Development of smart classrooms with Wi-Fi facilities, Girl's toilets in Schools, drinking water, improving sanitation facilities, sports equipment and facilities, laboratory equipment, boundary walls, etc.				0.3
(i)	Village Bhadrapali	√	-	-	0.15
(ii)	Village Maldi	√	-	-	0.15
7	***Health - Infrastructure development in hospitals and providing medical equipment's***				0.35
(i)	Village Rawan	√	-	-	0.15
(ii)	Village Bhadrapali	√	-	-	0.1
(iii)	Village Maldi	√	-	-	0.1
8	**Agriculture land development / farm fencing**				0.34
(i)	Village Arjuni (3000 Meters)	√	-	-	0.12
(ii)	Village Devrani (1250 Meters)	√	-	-	0.05
(iii)	Village Bhadrapali (500 Meters)	√	-	-	0.02
(iv)	Village Pousari (3750 Meters)	√	-	-	0.15
9	***Bridge / culvert construction***				0.2
(i)	Culvert construction in Village Mopar	√	-	-	0.2
10	***Other village infra cremation shed, village lighting, school building etc.***				0.78
(i)	Construction of Muktidham (1 No.) in Village Rawan	√	-	-	0.06
(ii)	Construction of Muktidham (1 No.) and installation of 2 Solar Light in Arjuni Village	√	-	-	0.1
(iii)	Construction of Muktidham (1 No.) and installation of 2 Solar Light in Khairtal Village	√		-	0.08
(iv)	Construction of Muktidham (1 No.) in Village Maldi	-	√	-	0.05
(v)	Installation of 2 Solar Light in Devrani Village	√	-	-	0.03
(vi)	Primary School building construction in Village Sarkipar	√		-	0.15
(vii)	Construction of Muktidham (1 No.) and 1 No health clinic in Village Karmandih	√	-	-	0.15
(viii)	Installation of 2 Nos. of Solar Lights in Village Mudhipar	√	-	-	0.03
(ix)	Construction of Rangmanch (1 No.) and construction of Aanganwari boundary wall in Village Bharseli	√	-	-	0.1
(x)	Installation of Solar Lights (2 Nos.) in Village Pousari	√	-	-	0.03
11	***Conveyers belt issues (Maintenance of Conveyers belt to avoid Noise problem)***				5
12	***Strengthen of Strom water Management in the plant construction***				3
Total Capital Cost					15.12
Total Recurring Cost for maintenance					***Rs. 0.50 Crores***

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Signature Not Verified
Digitally signed by Dr. R. B. Lal
Scientist E
Date: 10/31/2022 12:32:18 PM