

# Ambuja Cement

ACL/BYT/EMD/HCR/October-March-2017/63

Date: 19.06.2017

To,  
Additional Principal Chief Conservator of Forests  
Ministry of Environment, Forest & Climate Change  
Regional Office ( West Central Zone)  
Ground Floor, East Wing  
"New Secretary Building"  
Civil Lines, Nagpur-440001

**Sub:** Submission of Six monthly EC Compliance report for the period **October-March-2017** for Maldi- Mopar Limestone Mine located at Maldi, Mopar, Devrani, Karmadih and Boirdih Village.

**Ref:**

1. EC letter no. J-11015/252/2008-IA.II (M) dated 13<sup>th</sup> August, 2010.

Dear Sir,

We are submitting herewith one copy of the Six monthly EC Compliance Report (October-March-2017) for the Environmental Clearances obtained vide reference mentioned above for Maldi- Mopar Limestone Mine located at Maldi, Mopar, Devrani, Karmadih and Boirdih Village for your perusal and record.

Thanking you.

Yours Sincerely,

For **Ambuja Cements Ltd.**

(Unit: Bhatapara)



(**Subbaraidu Ayyagari**)

Head Operations

**Enclosure:** Six Monthly Compliance report for Six No.s of Environmental Clearances

**Copy to:**

- 1) Mr. R.S Kori, Scientist "E" & In-charge, **Central Pollution Control Board**, Zonal Office, Sahkar Bhawan, North T.T. Nagar, Bhopal -462003
- 2) The Member Secretary, **Chhattisgarh Environment Conservation Board**, Paryavas Bhavan, North Block Sector-19, Naya Raipur (C.G.) 490099
- 3) The Regional Officer, CECB, Kabir Nagar Commercial Complex, **Chhattisgarh Housing Board Colony**, Kabir Nagar, Raipur (C.G.)

**AMBUJA CEMENTS LIMITED – UNIT: BHATAPARA**  
~~P.O. Rawan, Tehsil Baloda Bazar, Dist. Baloda Bazar~~ – 493 331 (C.G.)  
Ph.: 07727-220010 to 15, Fax: 220004

**EC Compliance Report  
&  
Environment Status Report  
( October-2016 to March-2017)**

**of**

**Maldi-Mopar Limestone Mine  
(Capacity: 2.0 MTPA, ML Area: 553.656 Ha)**

**Located at  
Maldi, Mopar, Devrani, Karmadih and Boirdih Villages,  
P.O. Rawan, Tehsil-Baloda Bazar,  
District-Raipur, Chhattisgarh**

**Project Proponent:  
M/s, AMBUJA CEMENTS LTD,  
(Unit: Bhatapara )  
P.O: Rawan Dist :Bhatapara- Baloda Bazar  
Chhattisgarh - 493331, India**

**June-2017**

**Compliance Status of Environmental Clearance Conditions** accorded by MoEF for the **Maldi- Mopar Limestone Mine** (capacity 2.0 MTPA, ML area: 553.656 ha) of **M/s Ambuja Cement Ltd.** Located at **Maldi, Mopar, Devrani, Karmadih and Boirdih Village, Tehsil- Baloda Bazar, District- Raipur, Chhattisgarh.**

Ref.no. J-11015/252/2008-IA.II (M)

Date: 13th August, 2010

Sr. No.	EC Conditions	Action taken /Compliance Status
<b>A. Specific Conditions</b>		
i.	The environmental clearance is subject to approval of the State land use Department or concerned Authority in the State, Government of Chhattisgarh for diversion of agricultural land for non-agricultural use.	Noted and agreed.
ii.	The project proponent shall obtain prior Consent to Establish and Consent to Operate from the Chhattisgarh Environment Conservation Board and effectively implement all the conditions stipulated therein.	Noted and will be complied. The mine is not yet started but developmental activities have been started like top-soil removal, plantation, road construction.
iii.	The top soil shall temporarily be stored at earmarked site(s) only and it should be kept unutilized for long. The top soil shall be used for land reclamation plantation and green belt development.	Noted and will be complied.
iv.	Catch drains and siltation ponds of appropriate size should be constructed for the working pit to arrest flow of silt and sediment directly into the agricultural fields, rivers and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly de-silted particularly after the monsoon and maintained properly. Garland drain (size, gradient and length) shall be constructed for the mine pit to prevent run off of water and flow of sediments directly into the agricultural fields rivers and other water bodies and capacity should be designated keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pit shall be constructed at the corners of the garland drains and de-silted at regular intervals.	Noted and will be complied.
v.	Dimension of the retaining wall at the toe of solid waste benches within the mine to check run-off and siltation should be based on the rain fall data.	Noted and will be complied.
vi.	Plantation shall be raised in an area of at least	Noted and will be complied.



Sr. No.	EC Conditions	Action taken /Compliance Status
	54.15 ha including a 7.5m wide green belt in the safety zone around the mining lease, around the water body, reclaimed area, mine benches, along the roads etc. by planting the native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2000-2500 plants per ha. Greenbelt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.	
vii.	The excavated area of 497.396 ha left unfilled shall be converted into water body. The higher benches of excavated void/mining pit shall be terraced and plantation done to stabilize the slopes. The slope of higher benches shall be made gentler for easy accessibility by local people to use the water body. Peripheral fencing shall be carried out along the excavated area.	Noted and will be complied.
viii.	Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as mineral handling area, around loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.	Noted and will be complied.  Adequate air pollution control measures such as regular water sprinkling, plantation of green belt, etc will be adopted in the mines to control dust emission.
ix.	The project authority should implement suitable water conservation measures including rainwater harvesting on long term basis to augment ground water resources in the area and work out a detailed scheme in consultation with the Regional Director, Central Ground Water Board/Central Ground Water Authority and submit a copy of the same to the Ministry of Environment and Forests and its Regional Office, Bhopal.	Noted and will be complied.  Surface run-off from mine lease area will be collected in settling tanks and in mine pit and will be allowed to percolate to ground thereby recharging ground water table. Also, rainwater harvesting structures will be constructed in the nearby villages to augment ground water table.
x.	Limestone from mines to Crushing plant shall be transported through covered dumpers up to crusher plant and from crusher plant to cement plant by conveyor belt and no other mode of transportation shall be used.	Noted and will be complied.
xi.	Necessary safeguard measures shall be taken to ensure that the resultant particulate level in the area is well within the prescribed limit.	Noted and will be complied. Adequate air pollution control measures will be adopted in the mines to control dust emission.
xii.	The details of project affected peoples (Land oustees / other affected peoples) shall be submitted to the R.O. Office of this Ministry at	Noted. Land acquisition is in progress. Project is not yet commenced.



Sr. No.	EC Conditions	Action taken /Compliance Status
	Bhopal and to the Ministry within 30 days from the issue of this letter. The project affected peoples shall be Rehabilitated and compensated as per the National Rehabilitation and Resettlement policy, 2007 in consultation with the State Government. Detailed Plan shall be prepared in this regard within 3 months and a copy of the same be submitted to Regional Office of this Ministry at Bhopal and to the Ministry immediately.	
xiii.	Land-use pattern of the nearby villages shall be studied, including common property resources available for conversion into productive land. Action plan for abatement and compensation for damage of agricultural land/common property land (if any) in the nearby villages, due to mining activity shall be prepared and implemented.	Noted and will be complied.
xiv.	The project authorities should undertake sample survey to generate data on pre-project community health status within a radius of 3 km from proposed mine. Pre-placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.	Periodic health and hygiene survey is being conducted in villages around the Maldi-Mopar mine lease area. Each employee of the mine will be subjected to Pre-placement and periodic medical examination and records will be maintained at the mines office.
xv.	Over burden (OB) shall be stacked at earmarked dump site(s) only and shall not be kept active for long period. The maximum height of the dump shall not exceed 30 m, each stage shall preferably be of 10 m and overall slope of the dump shall not exceed 28°. The OB dumps shall be scientifically vegetated with suitable native species to prevent erosion and surface run off. To the extent possible, the OB generated shall be back filled. The entire backfilled area shall be progressively afforested. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests and its Regional Office located at Bhopal on six monthly basis.	Noted and will be complied.
xvi.	Regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM10 and PM2.5 such as around crushing and screening plant, loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. <del>It shall be ensured that the Ambient Air</del> Quality parameters conform to the norms	Noted and will be complied.  Adequate air pollution control measures such as regular water sprinkling, plantation of green belt, etc will be adopted in the mines to control dust emission.



Sr. No.	EC Conditions	Action taken /Compliance Status
	prescribed by Central Pollution Control Board in this regard.	
xvii.	Regular monitoring of ground water level and quantity shall be carried out within the mines lease and in the surrounding area (up to 5 km of the mine lease) by establishing a network of groundwater monitoring stations (existing wells and installing new piezometers) during the mining operation in consultation with Central Groundwater Authority / Ground Water Board and groundwater table shall be monitored and records maintained. The periodic monitoring [(at least four times in a year- pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January); once in each season)] shall be carried out in consultation with the State Ground Water Board/Central Ground Water Authority and the data thus collected may be send regularly to the Ministry of Environment and Forests and its Regional Office Bhopal, the Central Ground Water Authority and the Regional Director, Central Ground Water Board. If at any stage, it is observed that the groundwater table is getting depleted due to the mining activity then mining shall be stopped and resumed only after mitigating steps to contain any adverse impact on ground water is implemented.	<p>Noted and will be complied.</p> <p>Periodic ground water table monitoring is being conducted in the villages located in the vicinity of the mines and reports are submitted to MoEF. Ground water level monitoring results are attached as <b>Annexure I</b>.</p> <p>Suitable rainwater harvesting measures will be implemented in the mines and surrounding villages to augment the ground water table.</p>
xviii.	The project proponent shall obtain necessary prior permission of the competent authorities from drawl of requisite quantity of ground water required for the project.	Noted and will be complied.
xix.	Appropriate mitigative measures shall be taken to prevent pollution, percolation/seepage of water and breaching of the canal system adjoining the ML area. There shall be no use of canal water in this mine project in any way and at any point of time and no utility, if any, shall be constructed over the canals without prior approval of the concerned State Agency/Deptt. Of Chhattisgarh Govt.	<p>Noted and will be complied.</p> <p>A safety zone will be left along the canal and necessary protective measures will be adopted to avoid damage to the adjoining canal.</p>
xx.	Drills shall either be operated with dust extractors or equipped with water injection system.	<p>Noted and will be complied.</p> <p>Drills will be provided with dust extractor or water injection system.</p>
xxi.	Need based assessment for the nearby villages shall be conducted to study economic measures which can help in upliftment of poor section of society. Income generating projects consistent with the traditional skills of the people besides development of fodder farm, fruit bearing orchards, vocational training etc. can form a part of such programme. Company shall provide	<p>Noted &amp; being complied.</p> <p>CSR activities along with economic upliftment measures are being carried out in the villages around Maldi-Mopar mine lease area through Ambuja Cement Foundation (ACF). Needs of the</p>



Sr. No.	EC Conditions	Action taken /Compliance Status
	separate budget for community development activities and income generating programmes under CSR. This will be in addition to vocational training for individuals imparted to take up self-employment and jobs.	local people are regularly assessed and accordingly programmes are developed for implementation of CSR.
xxii.	Sewage treatment plant shall be installed in ML area. ETP shall also be provided for the workshop and wastewater generated during the mining operation.	Domestic effluent from the mine office, rest shelter, etc will be discharged in septic tank & soak pit system. STP is already provided in colony located in cement plant premises. ETP will be provided in workshop in the mine area. No effluent will be discharged outside the mine lease area.
xxiii.	Provision shall be made for the housing the labourers within the site with all necessary infrastructure and facilities such as fuels 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.	Noted and will be complied. No housing is proposed at mine site. Colony is already established at Rawan Cement plant along with necessary amenities and infrastructure facilities. Necessary facilities like rest shelter, drinking water, urinals, first aid center, toilets, etc will be provided at mine for the mine workers.
xxiv.	The critical parameters such as RSPM (Particulate matter with size less than 10 micron i.e., PM10 ), NOx in the ambient air within the impact zone, peak particle velocity at 300 m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, pH and Total Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the Company in public domain. The Circular No. J-20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment and Forests, which is available on the website of the Ministry <a href="http://www.envfor.nic.in">www.envfor.nic.in</a> , shall also be referred in this regard for its compliance.	Noted for compliance.  Regular monitoring of ambient air quality, noise levels, water quality, mine pit water, peak particle velocity at nearest habitation, etc will be conducted and reports will be submitted to Regional office of MoEF and the data will also be displayed at main gate and on company's website.
xxv.	The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered flora and fauna found in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. Necessary allocation of funds for	Noted and will be complied.  Existing vegetation will be removed from the mining area, only when immediately required. Thick green belt will be developed around the mine lease boundary using native plant species.



Sr. No.	EC Conditions	Action taken /Compliance Status
	implementation of the conservation plan shall be made and the funds so allocated shall be included in the project cost. All the safeguard measures brought out in the Wildlife Conservation Plan so prepared specific to the project site shall be effectively implemented. A copy of action plan shall be submitted to the Ministry of Environment and Forests and its Regional Office, Bhopal.	Plantation will also be carried out on OB dumps for stabilization. Fencing will be provided around the mining area to avoid inadvertent entry of the animals in the mining area.
xxvi.	Digital processing of the entire lease area using remote sensing technique shall be carried out regularly once in three years for monitoring land use pattern and report submitted to Ministry of Environment and Forests and its Regional Office, Bhopal.	Noted for compliance.
xxvii.	A final mine closure plan, along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.	Noted and will be complied.
xxviii.	The environment clearance is subject to the condition, if any, stipulated by the IBM on the mining scheme submitted by the project proponent for its approval.	Noted.
<b>B. General Conditions</b>		
i.	No change in mining technology and scope of working shall be made without prior approval of the Ministry Of Environment & Forests.	Noted and agreed. No change in mining technology and scope of working will be made without prior approval of MoEF.
ii.	No change in the calendar plan including excavation, quantum of mineral and waste shall be made.	Noted and will be complied.
iii.	At least four ambient air quality-monitoring stations shall be established in the core zone as well as in the buffer zone for PM10, PM2.5, SO2, Nox monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State pollution Control Board.	Noted and will be complied.
iv.	Data on ambient air quality (PM10, PM2.5, SO2, Nox) should be regularly submitted to the Ministry including its regional office located at Bhopal and the State Pollution Control Board/ Central Pollution Control Board once in six months.	Noted and will be complied.
v.	Measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc shall be provided with ear plugs/muffs.	Noted and will be complied



Sr. No.	EC Conditions	Action taken /Compliance Status
vi.	Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluents.	Noted and will be complied
vii.	Personnel working in dusty areas shall be provided with protective respiratory devices and they shall also be imparted adequate training and information on safety and health aspect. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.	Noted and will be complied.
viii.	A separate environmental management cell with suitable qualified personnel shall be set-up under the control of a Senior Executive, who will report directly to the Head of the organization.	Environmental Management Cell has been established under supervision of Environmental Manager, who directly reports to the Unit Head.
ix.	The project authorities shall inform to the Regional Office of the Ministry located at Bhopal regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	<ul style="list-style-type: none"> <li>• Grant of environmental clearance: 13th August, 2010</li> <li>• Mine is not yet started.</li> </ul>
x.	The fund earmarked for environmental protection measures shall be kept in separate account and should not be diverted to other purpose. Year wise expenditure shall be reported to the Ministry and its Regional Office located at Bhopal.	Noted and will be complied.
xi.	The project authorities shall inform the Regional Office located at Bhopal regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.	<ul style="list-style-type: none"> <li>• Grant of environmental clearance: 13th August, 2010</li> <li>• Mine is not yet started.</li> </ul>
xii.	The Regional Office of this Ministry located at Bhopal 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.	Noted and is being complied.
xiii.	The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, its Regional office, Bhopal, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of compliance of the environment of the	Noted and is being complied.

Sr. No.	EC Conditions	Action taken /Compliance Status
	environmental clearance conditions on their website and update the same periodically and simultaneously send the same by e-mail to the Regional Office, Ministry of Environment and Forests, Bhopal, the respective Zonal Office of Central Pollution Control Board and the State Pollution Control Board.	
xiv.	The project proponent should advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned, within seven days of the issue of the clearance letter informing that the project has been accorded Environmental clearance and copies of clearance letter are available with the State Pollution Control Board and also at the website of the Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> and a copy of the same shall be forwarded to the Regional Office of this Ministry located in Bhopal.	Complied.
xv.	A copy of clearance letter shall be send by the proponent to concerned Panchayat, Zila Panchayat/Municipal Corporation, Urban Local bodies and local NGO, if any, from whom suggestion/representation, if any were received while processing the proposal. The clearance letter shall also be put on website of the company by the proponent.	Complied.
xvi.	State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.	Complied.
xvii.	The environment statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and shall also be put on the website of the company along with the status of compliance of environmental clearance conditions. The same shall also be sent to the Regional Office of the Ministry by e-mail.	Noted and will be complied.
5.	The Ministry of Environment and Forests reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry. MOEF may impose additional environmental conditions or modify the existing ones, if necessary.	Noted & agreed.
6.	In case of any deviation or alteration in the project proposed from those submitted to this Ministry for clearance, a fresh reference should	Noted & agreed.



Sr. No.	EC Conditions	Action taken /Compliance Status
	be made to the Ministry to assess the adequacy of the condition(s) imposed and to add additional environmental protection measures required, if any.	
7.	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 Environment (Protection) Act, 1986.	Noted & agreed.
8.	Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred, within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Authority Act, 1997.	Noted & agreed.
9.	The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	Noted.

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**Annexure I**  
**Ground Water Monitoring Report**



# Ambuja Cement

## REGISTERED AD

No: ACL/BU/MINE/ 1394

Dated: January 05, 2017

To,

### **Ministry of Environment & Forest**

Paryavaran Bhavan  
CGO Complex, Lodhi Road  
NEW DELHI - 110003

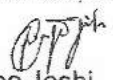
**Sub: Ground Water monitoring report of Ambuja Cements Ltd.(Unit Bhatapara).**

Dear Sir

Enclosed please find herewith the Ground Water Monitoring report of Maldi- Mopar Limestone Mines for the quarter ending December 2016 (from October 16 to December-16), in favour of M/s Ambuja Cements Limited, (Unit Bhatapara).

Thanking You,

Yours faithfully,  
For Ambuja Cements Ltd.  
Unit: Bhatapara

  
Rajoo Joshi  
AVP (Mines)

Encl. As above

Cc: **The Member of Secretary,**  
Central Ground Water Authority,  
West Block-II, Wing-3 (Ground Floor, Sector-1), R.K. Puram,  
NEW DELHI- 110066

**The Additional Principal Chief Conservator of Forest**  
Ministry of Environment Forest & Climate Change  
Regional Office (West Central Zone)  
Ground Floor, East Wing "New Secretary Building"  
Civil lines, Nagpur - 440001

**The Regional Director,**  
Central Ground Water Board, Reena Apartment,  
2<sup>nd</sup> Floor, NH-43, Dhamtari Road, Pachpedi Naka,  
Raipur (CG) - 492007.

O/C

## **AMBUJA CEMENTS LIMITED**

(Unit - Bhatapara)


P.O.-Rawan, Tehsil : Balodabazar, Dist. : Balodabazar-Bhatapara (C.G.). Ph. : 07727-220010 to 15, Fax: 220001  
(Regd. Office : P.O. : Ambuja Nagar, Taluka: Kodinar, District : Junagadh, Gujarat. 362 715)

**AMBUJA CEMENTS LIMITED, UNIT: BHATAPARA**

**MALDI-MOPAR LIMESTONE MINES**  
**GROUND WATER MONITORING REPORT**

**FOR THE QUARTER ENDING DECEMBER-2016 (FROM OCTOBER-2016 TO DECEMBER-2016)**

Station no.	Location	Water level October -16	Water level November-16	Water level December-16
1	Khamariya Village	1.86	3.66	5.56
2	Topa Village	1.56	3.11	5.01
3	Arjuni Village	1.25	2.90	3.80
4	Maldi Village	1.05	2.95	3.85
5	Devrani Village	0.83	1.53	1.68
6	Mopar Village	2.95	3.45	6.15
7	Rawan Village	2.85	3.15	4.15
8	Karmada Village	2.73	3.43	3.93
9	Pausari Village	2.83	3.43	6.43
10	Chhuiha Village	2.36	2.86	3.36
11	Baloda Bazar	2.35	0.00	0.00
12	Latua Village	1.13	1.63	1.68
13	Dhabadih Village	3.20	4.60	5.20
14	Magarchaba Village	1.64	1.74	4.24
15	Amera Village	2.15	2.15	2.75
16	Risda Village	1.08	1.18	1.88
17	Champa Village	0.90	2.20	4.00
18	Semaradih Village	4.00	4.75	8.20
19	Chandih Village	0.65	1.25	1.55
20	Khelwari Village	2.01	3.11	5.01
21	Kukurdi Village	3.50	3.65	5.50

  
**RAJOO JOSHI**  
**AVP (MINES)**



The Summarized Water Quality Data for the Quarter from Oct'16 to Dec'16

Parameters	Prescribed limits as per IS 10500	Khamariya DW/G	Topa TB/G	Mopar TB/G	Dhabadhi DW/G	Risda DW/G	Champa HP/G	Chandi HP/G	Pausari DW/G
pH value	6.5 to 8.5	7.55	7.55	7.58	7.28	7.23	7.58	7.68	7.39
Total Dissolved solids, mg/l	2000	1580.4	1608.1	813.6	1402.6	913.4	373.9	274.8	1298.3
Total hardness (as CaCO3) mg/l	600	584	588	420	568	468	228	176	464
Alkalinity, mg/l	600	160	236	256	300	300	216	192	248
Chlorides (as Cl) mg/l	1000	295.9	335.9	142.9	172.9	167.9	12.9	7.99	255.9
Iron (as Fe) mg/l	0.3	<0.05	0.06	<0.05	<0.05	<0.05	<0.05	0.05	<0.05
Fluoride (as F) mg/l	1.5	0.24	0.154	0.118	0.374	0.181	0.0813	0.224	0.0981
Sulphate (as SO4) mg/l	400	63.2	65.6	30.6	69.7	36.7	6.30	10.3	51.6
Nitrate (as NO3) mg/l	45	1.80	3.30	1.60	1.20	1.10	0.7	0.1	1.2
Calcium (as Ca), mg/l	200	214.4	195.2	124.8	184	187.2	73.6	64	169.6
Magnesium (as Mg)	100	11.7	24.4	26.4	26.4	6.63	10.7	3.90	9.76

BDL (Below Detectable Level)

# Ambuja Cement

## REGISTERED AD

No: ACL/BU/MINE/ 1733

Dated: April 11, 2017

To,

### **Ministry of Environment & Forest**

Paryavaran Bhavan,  
CGO Complex, Lodhi Road  
NEW DELHI - 110003

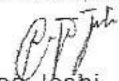
### **Sub: Ground Water monitoring report of Ambuja Cements Ltd, (Unit Bhatapara).**

Dear Sir

Enclosed please find herewith the Ground Water Monitoring of Maldi- Mopar Limestone Mines for the quarter ending March 2017 (from January -17 to March -17), in favour of M/s Ambuja Cements Limited, (Unit Bhatapara).

Thanking You,

Yours faithfully,  
For Ambuja Cements Ltd.  
Unit: Bhatapara

  
Rajoo Joshi  
AVP (Mines)

Encl: As above

Cc: **The Member of Secretary,**  
Central Ground Water Authority,  
West Block-II, Wing-3 (Ground Floor, Sector-1), R.K. Puram,  
NEW DELHI- 110066.

**The Additional Principal Chief Conservator of Forest**  
Ministry of Environment Forest & Climate Change  
Regional Office (West Central Zone)  
Ground Floor, East Wing "New Secretary Building"  
Civil Lines, Nagpur - 444001.

**The Regional Director,**  
Central Ground Water Board, Keena Apartment,  
2<sup>nd</sup> Floor, NH-43, Dhamtari Road, Pachpedi Naka,  
Raipur (CG) - 492007.

O/C

## **AMBUJA CEMENTS LIMITED**

(Unit - Bhatapara)

P.O.-Rawan, Tehsil : Balodabazar, Dist : Balodabazar-Bhatapara (C.G.). Ph. : 07727-220010 to 15; Fax : 220004  
(Regd. Office : P.O. : Ambuja Nagar Taluka : Kerdmar, District : Junagadh, Gujarat. 362 715)




**AMBUJA CEMENTS LIMITED, UNIT: BHATAPARA**

**MALDI-MOPAR LIMESTONE MINES**

**GROUND WATER MONITORING REPORT**

**FOR THE QUARTER ENDING MARCH-2017 (FROM JANUARY-2017 TO MARCH-2017)**

Station no.	Location	Water level January -17	Water level February-17	Water level March-17
1	Khamariya Village	7.06	7.76	10.76
2	Topa Village	7.26	7.51	8.21
3	Arjuni Village	6.35	7.05	7.25
4	Maldi Village	5.15	6.20	7.25
5	Devrani Village	1.93	2.03	3.73
6	Mopar Village	6.10	0.00	0.00
7	Rawan Village	0.00	0.00	0.00
8	Karmada Village	0.00	0.00	0.00
9	Pausari Village	9.23	9.43	10.43
10	Chhuiha Village	0.00	0.00	0.00
11	Baloda Bazar	0.00	0.00	0.00
12	Latua Village	1.73	2.13	3.68
13	Dhabadih Village	5.30	5.60	7.10
14	Magarchaba Village	3.04	2.84	2.74
15	Amera Village	2.85	2.55	4.05
16	Risda Village	2.58	2.88	3.18
17	Chanpa Village	4.80	5.20	5.90
18	Semaradih Village	0.00	0.00	0.00
19	Chandih Village	4.55	4.85	5.95
20	Khelwari Village	8.21	8.91	9.41
21	Kukurdi Village	5.65	0.00	0.00

  
**RAJOO JOSHI**  
**AVP (MINES)**

The Summarized Water Quality Data for the Quarter from Jan'17 to March'17

Parameters	Prescribed limits as per IS 10500	Khamariya DW/G	Topa TB/G	Mopar TB/G	Dhabadhi DW/G	Risda DW/G	Champa HP/G	Chandi HP/G	Pausari DW/G
pH value	6.5 to 8.5	7.58	7.99	7.74	7.17	7.55	7.55	7.51	7.65
Total Dissolved solids, mg/l	2000	961.5	1197.8	407.2	1270.8	619.3	339.8	372.5	1369.5
Total hardness (as CaCO <sub>3</sub> ) mg/l	600	564	484	260	335	320	228	262	576
Alkalinity, mg/l	600	475	405	136	334	256	140	140	436
Chlorides (as Cl) mg/l	1000	45.5	77.8	56.9	118.5	56.5	34.5	42.9	117.9
Iron (as Fe) mg/l	0.3	<0.05	<0.05	<0.05	0.08	<0.05	<0.05	<0.05	0.07
Fluoride (as F) mg/l	1.5	0.281	0.283	0.332	0.275	0.178	0.142	0.278	0.131
Sulphate (as SO <sub>4</sub> ) mg/l	400	97.4	116.2	84.2	156.3	87.4	57.6	71.8	157.3
Nitrate (as NO <sub>3</sub> ) mg/l	45	2.50	2.90	1.30	1.40	<0.2	0.30	1.30	0.50
Calcium (as Ca), mg/l	200	172	137.6	96	100	62.4	56	74.4	176
Magnesium (as Mg)	100	32.7	34.2	4.88	20.9	40	21.5	18.5	33.2

BDL (Below Detectable Level)



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**ANNEXURE II**  
**CSR ACTIVITIES DURING THE YEAR**  
**October'2016 to March'2017**

<b>AMBUJA CEMENT FOUNDATION - BHATAPARA,</b>		
<b>Expenditure Details for Oct-16 March-17</b>		
<b>Sr. No.</b>	<b>ACTIVITY</b>	<b>Total Expenditure (in Rs. )</b>
<b>1</b>	Water Resource Management & Drinking water	1830057.00
<b>2</b>	Rural Infrastructre Development Programme	8685963.00
<b>3</b>	Agrobased Livelihood & Allied Activities	2628573.00
<b>4</b>	Health & Sanitation Programe	4720488.40
<b>5</b>	Education Development	1957523.00
<b>6</b>	Women development	473292.00
<b>7</b>	Non-conventional Energy	317772.00
<b>8</b>	Skill and Entrepreneurship Development Institute (SEDI)	1414871.00
<b>9</b>	Stakeholder Engagement Event/ Community Welfare Expenses	170684.00
<b>10</b>	Establishment	401083.00
<b>TOTAL</b>		<b>22600306.40</b>



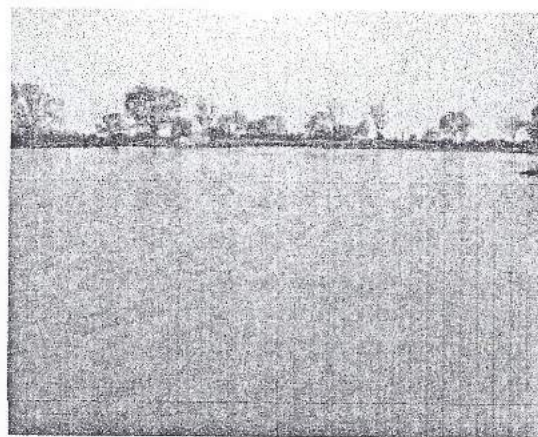
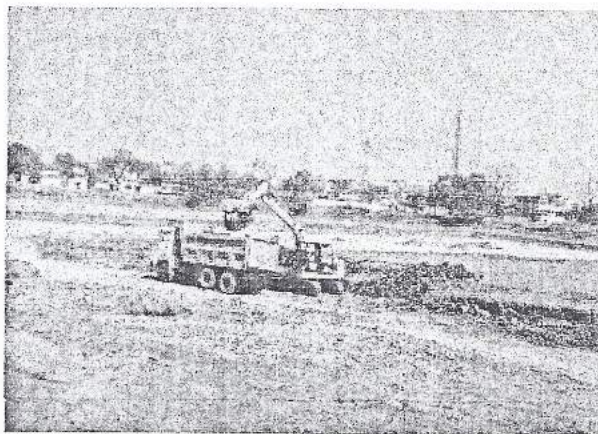
### Highlights of Works of Ambuja Cement Foundation (October-March-2017)

Programmes / Activities	Achievement	Details of Activity
<b>Water Resource Management and Drinking Water</b>		
Pond Deepening	3	In Baloda Bazar and Bhatapara. Cleaning of Canal In Rawan.
Drinking water pipe line for schools	6	
Installation of Hand Pump	3	3 Hand pumps installed in the villages- Kukurdi and Bharseli
Solar Based drinking water	3	Bhadrapali, Rawan and Sarkipar
<b>Agro based Livelihood and Allied Activities</b>		
Seed drill support	1	For Kukurdi village (Kisaan Club)
Training of extension workers	4	5 Training given to field extension workers.
Seed drill support	1	For Kukurdi village (Kisaan Club)
Organizing Farmer's field Day	1	1 Farmer's field was organised in village Kukurdi. Subject covered was working, operation and maintenance of seed planter. 30 farmers from 6 villages participated in this event.
Critical input and technology support for Wheat cultivation	115	115 farmers for 200 acres of land
Critical input and technology support for Vegetable cultivation	170	170 farmers for 106 acres of land
Solar based irrigation bore wells	4	Arjuni and Rawan
Group bore wells	25	Only 18 bore wells had potential to irrigate the land
<b>Rural Infrastructure Development</b>		
Boundary wall	881 mt	In core villages like Mopar, Rawan, Khairtal, Pousari
Construction of Road	68 Mtr	Bharseli, Pousari, Mudhipar
Construction of PDS Building	1	In Devrani village

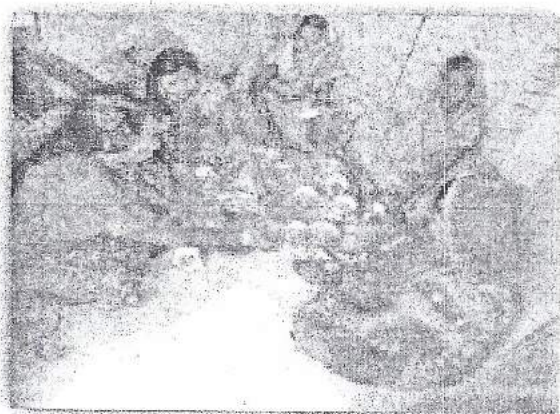
Pond Beautification	1	In Bhatapara
<b>Health and sanitation</b>		
Health Camps	48	48 Health camps organized including general health camp, Anti Natal care camps, Medicines were also distributed to the patients.
Health Awareness Camp	26	26 Awareness camp organized on Nutrition, Safe delivery, Breast feeding, Neonatal care, Triggerring work shop on sanitation.
Anemia Detection camp	1	Anemia detection camps were organised for adolescent girls in village Bhadrपाली
Medicine for Anemia Patients	91	Provided medicines to 91 anemic patients in Villages of Mudhipar, Khairtal, Rawan and Bhadrपाली
Strengthening of VHSNC.	12	12 trainings provided to village health sanitation and nutrition committee on health and sanitation. (Subject covered under training role and responsibility of VHSNC member, Use of untide fund, Planning for sanitation.
Training of Village Health functionaries.	2	2 trainings provided to village level health functionaries, health Sakhis (Subject covered on HBNC and NCD)
Construction and repair of toilet	102 + 311	102 new toilets in Rawan, Kukurdi, Bhadrपाली and Arjuni. 311 toilets have been repaired in the mentioned villages along with Bharseli and Mudhipar.
Construction of soak pits	39	Rawan, Bharseli, Khairtal, Mudhipar and Bhadrपाली villages
<b>Education Development</b>		
Balmitra	5	5 Education Volunteers provided to support quality education in 3 schools
Bus facility for school	6	Bus facility for college going girls



children		being run on regular basis for girls of project villages to Baloda bazar.
Support to schools and Anganwadi centers	28	Sports material, utensils, fans etc.
<b>Women Empowerment and Development</b>		
Training of SHGs	13	13 Training programmes were organized for SHG members on various aspects such as strengthening of SHG, maintaining books of accounts, income generating activities, VO formation.
Bank loan of SHG	2 SHG ( RS. 1.0 Lakhs)	In Mopar and Devrani
New SHG Formation	20	In Rawan, Arjuni, Khirtal, Bhadrapali, Mopar, Mudhipar, Pousari and Bharseli
Credit Plan of SHG	63 SHG	Credit rotation plan of 63 SHGs
Inter loaning activity	105 SHGs	
Income Generation Activity	432 Individual IGAs and 6 Group based IGAs	
SEDI	Driving-10 Asst. Beautician Therapist-60 Mason Training under PMAY-50	



**Pond Deepening Work**

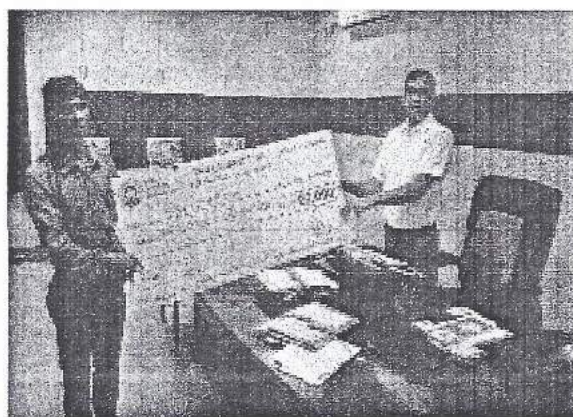
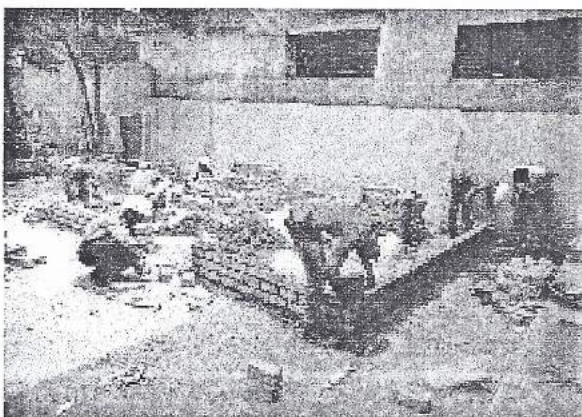


**Women Empower Development**





Community Health & Sanitation



Skill and Entrepreneurship Development Institute (SEDI)

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**Appendix  
EC Letter**





F.No.J-11015/252/2008- IA. II (M)  
Government of India  
Ministry of Environment & Forests

By SPEED POST

Paryavaran Bhavan,  
C.G.O. Complex, Lodi Road,  
New Delhi -110003

Dated: 13<sup>th</sup> August, 2010

To,

M/s Ambuja Cements Ltd  
P.O. -Rawan, Tensli : Baloda Bazar  
District : Raipur- 493 331, Chhattisgarh

Sub: Maldi- Mopar Limestone mines ( Capacity 2.0 MTPA, ML area 553.656 ha) in Maldi, Mopar, Devrani, Karmadih and Boirdih Villages, Tehsil Baloda Bazar, District Raipur, Chhattisgarh: of M/s Ambuja Cements Limited - Environmental Clearance regarding.

Sir,

The undersigned is directed to refer to your letter No. ACL/MMLM/ENV/MOEF/2010 dated 12.3.2010 on the above mentioned subject. Subsequent information submitted vide letter dated 12.4.2010 have also been considered.

2. It has been noted that the proposal is for opening of a new mine for production of 2.0 million TPA of limestone. The mine lease area is 553.656 ha. Out of 553.656 ha ML area 499.974 ha is private agricultural land and 53.682 ha is Government land. The coordinates of the mine site are latitude 21° 38' 04" to 21° 39' 47" N and longitude 82° 02' 20" to 82° 04' 30" E. The limestone produced from this mine will be for their captive use in the cement plant at a distant of about 3 km from the mine lease and about 1.5 km from the crusher. Transportation of mineral from crusher to the cement plant will be by conveyor. No forest land is involved. However, Dadadih and Kukurdi Reserve forests are at distance of 2.4 km and 3.2 Km respectively. No National park/Wildlife sanctuary/ Tiger reserve/ Elephant reserve /Biosphere Reserve/conservation Reserve/Wildlife corridors etc. are reported within 15 km radius area from Mine site. There will be two blocks, called north and south block. The ultimate working depth will be 32 m bgl (225 mRL). Mine working will be open cast.

mechanized involving drilling and blasting. Life of mine is 105 years. The water requirement is 100 kld, which will be met from mine sump water. The groundwater table in the buffer zone during post monsoon varies between 4 - 7 m bgl (250 - 255 m AMSL). Mine working will intersect groundwater table. Hydro-geological studies have been carried out. Based on the same, it has been shown that the stage of groundwater development in the area is 64.64%. An area of 54.15 ha will be covered under plantation and an area of 497.396 ha will be converted into water body, at the conceptual stage. Public hearing has been held on 6<sup>th</sup> August, 2009 as per the EIA Notification, 2006 for production of 2 million TPA of limestone. The Indian Bureau of Mines had approved the mining plan of the project on 28.4.2008. Budget allocation under CSR activities will be Rs. 3.037 Crores. EMP cost will be Rs. 0.248 Crores (Recurring), Project cost will be Rs. 66.26 Crores.

3. The comments of the Chhattisgarh Environmental Conservation Board dt. 26.5.2010 have also been considered wherein it has been stated that the said mine is located at more than 50 km away from the Industrial cluster of Urla, Siltara and Borjhara areas of Raipur. Therefore, it does not seem that above mentioned industrial clusters of Raipur will have any significant environmental impact on the proposed project.

4. The proposal has been considered by the Expert Appraisal Committee (Mining) and Ministry of Environment & Forests hereby accords environmental clearance to the said project under the provisions of Environment Impact Assessment Notification, 2006 subject to implementation of the following terms and conditions:-

**A. Specific conditions:**

- (i) The environmental clearance is subject to approval of the State Land use Department or Concerned Authority in the State, Government of Chhattisgarh for diversion of agricultural land for non-agricultural use.
- (ii) The project proponent shall obtain prior Consent to Establish and Consent to Operate from the Chhattisgarh Environment Conservation Board and effectively implement all the conditions stipulated therein.
- (iii) The top soil shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation plantation and green belt development.
- (iv) Catch drains and siltation ponds of appropriate size should be constructed for the working pit to arrest flow of silt and sediment directly into the



agricultural fields, rivers and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly desilted particularly after the monsoon and maintained properly.

Garland drain (size, gradient and length) shall be constructed for the mine pit to prevent run off of water and flow of sediments directly into the agricultural fields rivers and other water bodies and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and desilted at regular intervals.

- (v) Dimension of the retaining wall at the toe of solid waste benches within the mine to check run-off and siltation should be based on the rain fall data.
- (vi) Plantation shall be raised in an area of at least 54.15 ha including a 7.5m wide green belt in the safety zone around the mining lease, around the water body, reclaimed area, mine benches, along the roads etc. by planting the native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2000-2500 plants per ha. Greenbelt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.
- (vii) The excavated area of 497.396 ha left unfilled shall be converted into water body. The higher benches of excavated void/mining pit shall be terraced and plantation done to stabilize the slopes. The slope of higher benches shall be made gentler for easy accessibility by local people to use the water body. Peripheral fencing shall be carried out along the excavated area.
- (viii) Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as mineral handling area, around loading and unloading point and oil transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.

- 4-
- (ix) The project authority should implement suitable water conservation measures including rainwater harvesting on long term basis to augment ground water resources in the area and work out a detailed scheme in consultation with the Regional Director, Central Ground Water Board/ Central Groundwater Authority and submit a copy of the same to the Ministry of Environment and Forests and its Regional Office, Bhopal.
  - (x) Limestone from mine to the Crushing plant shall be transported through covered dumpers up to crusher plant and from crusher plant to the cement plant by conveyor belt and no other mode of transportation shall be used.
  - (xi) Necessary safeguard measures shall be taken to ensure that the resultant particulate level in the area is well within the prescribed limits.
  - (xii) The details of project affected peoples (Land oustees / other affected peoples ) shall be submitted to the R.O Office of this Ministry at Bhopal and to the Ministry within 30 days from the issue of this letter. The project affected peoples shall be rehabilitated and compensated as per the National Rehabilitation and Resettlement Policy, 2007 in consultation with the State Government. Detailed Plan shall be prepared in this regard within 3 months and a copy of the same be submitted to Regional Office of this Ministry at Bhopal and to the Ministry immediately.
  - (xiii) Land-use pattern of the nearby villages shall be studied, including common property resources available for conversion into productive land. Action plan for abatement and compensation for damage to agricultural land/ common property land (if any) in the nearby villages, due to mining activity shall be prepared and implemented.
  - (xiv) The project authorities should undertake sample survey to generate data on pre-project community health status within a radius of 3 km from proposed mine. Pre-placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.
  - (xv) Over burden (OB) shall be stacked at earmarked dump site(s) only and shall not be kept active for long period. The maximum height of the dump shall not exceed 30 m, each stage shall preferably be of 10 m and overall slope of the dump shall not exceed 28°. The OB dumps shall be scientifically vegetated with suitable native species to prevent erosion and surface run off. To the extent possible, the OB generated shall be back filled. The entire backfilled area shall be progressively afforested.



Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests and its Regional Office located at Bhopal on six monthly basis.

- (xvi) Regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of  $PM_{10}$  and  $PM_{2.5}$  such as around crushing and screening plant, loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
- (xvii) Regular monitoring of ground water level and quality shall be carried out within the mine lease and in the surrounding area (upto 5 km of the mine lease) by establishing a network of groundwater monitoring stations (existing wells and installing new piezometers) during the mining operation in consultation with Central Groundwater Authority / Ground Water Board and groundwater table shall be monitored and records maintained. The periodic monitoring [(at least four times in a year- pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January); once in each season)] shall be carried out in consultation with the State Ground Water Board/Central Ground Water Authority and the data thus collected may be sent regularly to the Ministry of Environment and Forests and its Regional Office Bhopal, the Central Ground Water Authority and the Regional Director, Central Ground Water Board. If at any stage, it is observed that the groundwater table is getting depleted due to the mining activity then mining shall be stopped and resumed only after mitigating steps to contain any adverse impact on ground water is implemented.
- (xviii) The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of ground water required for the project.
- (xix) Appropriate mitigative measures shall be taken to prevent pollution, percolation/seepage of water and breaching of the canal system adjoining the ML area. There shall be no use of canal water in this mine project in any way and at any point of time and no utility, if any, shall be constructed over the canals without prior approval of the concerned State Agency/Deptt. of Chhattisgarh Govt.

- (xx) Drills shall either be operated with dust extractors or equipped with water injection system.
- (xxi) Need based assessment for the nearby villages shall be conducted to study economic measures which can help in upliftment of poor section of society. Income generating projects consistent with the traditional skills of the people besides development of fodder farm, fruit bearing orchards, vocational training etc. can form a part of such programme. Company shall provide separate budget for community development activities and income generating programmes under CSR. This will be in addition to vocational training for individuals imparted to take up self employment and jobs.
- (xxii) Sewage treatment plant shall be installed in ML area. ETP shall also be provided for the workshop and wastewater generated during the mining operation.
- (xxiii) Provision shall be made for the housing the labourers 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.
- (xxiv) The critical parameters such as such as RSPM (Particulate matter with size less than 10micron i.e.,  $PM_{10}$ ),  $NO_x$  in the ambient air within the impact zone, peak particle velocity at 300m distance or within the nearest habitation, whichever is closer shall be monitored periodically. Further, quality of discharged water shall also be monitored [(TDS, DO, PH and Total Suspended Solids (TSS)]. The monitored data shall be uploaded on the website of the company as well as displayed on a display board at the project site at a suitable location near the main gate of the Company in public domain. (The Circular No. J-20012/1/2006-IA.II(M) dated 27.05.2009 issued by Ministry of Environment and Forests, which is available on the website of the Ministry [www.envfor.nic.in](http://www.envfor.nic.in) shall also be referred in this regard for its compliance.)
- (xxv) The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered flora and fauna found in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. Necessary allocation of funds for implementation of the conservation plan shall be made and the funds so allocated shall be included in the project cost. All the safeguard measures brought out in the



Wildlife Conservation Plan so prepared specific to the project site shall be effectively implemented. A copy of action plan shall be submitted to the Ministry of Environment and Forests and its Regional Office, Bhopal.

- (xxvi) Digital processing of the entire lease area using remote sensing technique shall be carried out regularly once in three years for monitoring land use pattern and report submitted to Ministry of Environment and Forests and its Regional Office, Bhopal.
- (xxvii) A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests 5 years in advance of final mine closure for approval.
- (xxviii) The environmental clearance is subject to the condition, if any, stipulated by the IBM on the mining scheme submitted by the project proponent for its approval.

**B. General conditions**

- (i) No change in mining technology and scope of working shall be made without prior approval of the Ministry of Environment & Forests.
- (ii) No change in the calendar plan including excavation, quantum of mineral and waste shall be made.
- (iii) At least four ambient air quality-monitoring stations shall be established in the core zone as well as in the buffer zone for  $PM_{10}$ ,  $PM_{2.5}$ ,  $SO_2$ ,  $NO_x$  monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.
- (iv) Data on ambient air quality ( $PM_{10}$ ,  $PM_{2.5}$ ,  $SO_2$ ,  $NO_x$ ) should be regularly submitted to the Ministry including its Regional office located at Bhopal and the State Pollution Control Board / Central Pollution Control Board once in six months.
- (v) Measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. shall be provided with ear plugs / muffs.
- (vi)\* Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19<sup>th</sup> May, 1993 and 31<sup>st</sup> December, 1993 or as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluents.

- (vii) Personnel working in dusty areas shall be provided with protective respiratory devices and they shall also be imparted adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.
- (viii) A separate Environmental Management Cell with suitable qualified personnel shall be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.
- (ix) The project authorities shall inform to the Regional Office of the Ministry located at Bhopal regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
- (x) The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year wise expenditure shall be reported to the Ministry and its Regional Office located at Bhopal.
- (xi) The project authorities shall inform the Regional Office located at Bhopal regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
- (xii) The Regional Office of the Ministry located at Bhopal shall monitor compliance of the stipulated conditions. The project authorities shall extend full cooperation to the officer(s) of the Regional Office by furnishing the requisite data / information / monitoring reports.
- (xiii) The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment and Forests, its Regional Office, Bhopal, Central Pollution Control Board and State Pollution Control Board. The project proponent shall upload the status of compliance of the environment of the environmental clearance conditions on their website and update the same periodically and simultaneously send the same by e-mail to the Regional Office, Ministry of Environment and Forests, Bhopal, the respective Zonal Office of Central Pollution Control Board and the State Pollution Control Board.
- (xiv) The project proponent shall advertise in at least two local newspapers widely circulated in the region around the project, one of which shall be in the vernacular language of the locality concerned, within seven days of



the issue of this clearance letter informing that the project has been accorded environmental clearance and copies of clearance letter are available with the State Pollution Control Board and also at Website of the Ministry of Environment and Forests at <http://envfor.nic.in> and a copy of the same should be forwarded to the Regional Office of this Ministry located at Bhopal.

- (xv) A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Panchayat /Municipal Corporation, Urban Local Bodies and the local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.
- (xvi) The State Pollution Control Board shall display a copy of the clearance letter at the Regional office, District Industries Centre and the Collector's office / Tehsildar's Office for 30 days.
- (xvii) The environmental statement for each financial year ending 31<sup>st</sup> March in Form-V as is mandated shall be submitted to the State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and shall also be put on the website of the company along with the status of compliance of environmental clearance conditions. The same shall also be sent to the Regional Office of the Ministry by e-mail.

- 5. The Ministry of Environment and Forests reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the Ministry. MOEF may impose additional environmental conditions or modify the existing ones, if necessary.
- 6. In case of any deviation or alteration in the project proposed from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of the condition(s) imposed and to add additional environmental protection measures required, if any.
- 7. 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 Environment (Protection) Act, 1986.
- 8. Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred, within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Authority Act, 1997.

9. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

*(Signature)*  
13/8/02  
(OM PRAKASH)  
SCIENTIST 'C'

Copy to:

1. Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi.
2. Secretary, Department of Environment, Government of Chhattisgarh, Raipur-492 001.
3. Secretary, Department of Mines and Geology, Government of Chhattisgarh, Raipur-492 001.
4. Secretary, Department of Forests, Government of Chhattisgarh, Raipur-492 001.
5. Chief Wildlife Warden, Government of Chhattisgarh, Raipur-492 001.
6. Chief Conservator of Forests, Ministry of Environment & Forests, Regional Office, Kendriya Paryavaran Bhawan, E-5, Arera Colony, Link Road -3, Ravishankar Nagar, Bhopal- 462 016.
7. Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
8. Chairman, Chhattisgarh Environment Conservation Board, 1- Tilak nagar, Shiv Mandir Chowk, Main Road, Awanti Vihar, Raipur (C.G.)- 492 006
9. Member Secretary, Central Ground Water Authority, A2, W -3 Curzon Road Barracks, K.G. Marg, New Delhi-110001.
10. Controller General, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur- 440 001.
11. District Collector, Raipur, Govt. Chhattisgarh-492 001.
12. EI Division, Ministry of Environment & Forests, New Delhi.
13. Monitoring File.
14. Guard File
15. Record File.

(OM PRAKASH)  
SCIENTIST 'C'