

COMPLIANCE OF THE CONDITIONS MENTIONED IN THE ENVIRONMENTAL CLEARANCE ACCORDED BY MoEF FOR PRODUCTION ENHANCEMENT FROM 1.2 MTPA TO 1.8 MTPA CEMENT PRODUCTON.

Ref. no. J-11011/289/2005-IA II (I)

Date: 6th January 2006

This has reference to the letter no. nil dated 15th May, 2005 from M/s CICON Environment Technologies Ltd., Bhopal along with project documents including EIA/EMP, questionnaire seeking environmental clearance and subsequent clarifications furnished by M/s Ambuja Cement Eastern Ltd. (ACEL) earlier known as Modi Cement Ltd. vide communications dated 12th September, 2005 and 21st September, 2005 regarding the above mentioned cement project.

2.0 The Ministry of Environment and Forests has examined your application. It is noted that the proposal is for environmental clearance for expansion of cement plant from 1.2 MTPA to 1.8 MTPA. The unit is located at village Rawan, District Raipur, Chhattisgarh. The company is already in acquisition of 238.97 ha. Land and proposed expansion/modernization will be carried out within the existing premises. No additional land will be required. Limestone requirement will be met from the existing limestone mine, which has sufficient deposit to sustain the cement plant for more than 50 years. Application for expansion of limestone mine will be submitted to the Ministry separately. It is noted that existing 4-stage heater will be replaced with 6-stage pre-heater with better thermal efficiency. Vertical roller mill of 240 TPH will be replaced with VRM of 450 TPH. All the air pollution control equipments will be operated to meet the particulate emissions less than 50 mg/Nm³. Glass bag house at the raw mill kiln and bag house at the coal mill will be installed to control the particulate emissions. At the transfer points, bag filters will be installed. Coal storage and clinker storage will be in the form of covered stock pile. Dry process technology will be adopted to reduce water consumption. Water requirement of 1,343 nr/d would be met from the mine pit and ground water source. About 112,95 m³/d of effluent will be generated and totally recycled. The solid waste generated would be 100% recycled. Public hearing of the project was held on 22nd December, 2003 and 'NOC has been granted by the Chattisgarh Environment Conservation Board (CECB) vide letter no. 4618/TS/CECB/2004 dated 9th November, 2004. Total cost of the project is Rs. 114.62 Crores.

3.0 The Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA Notification dated 27th January, 1994 as amended subsequently subject to strict compliance to the following specific and general conditions:

A. Specific Conditions

- i. The gaseous and particulate matter emissions from various units should conform to the standards prescribed by the State Pollution Control Board, at no time the particulate emissions from the cement plant and captive power plant (CPP) shall exceed 50 mg/Nm³. Regular lime injection at Circulating Fluidized Bed Combustion (CFBC) boiler must be ensured to reduce SO₂ emissions. NOX burners should be installed to control NOX emissions. Continuous on-line monitors for particulate emissions will be installed. Interlocking facility should be provided in the pollution control equipment so that in the event of the pollution control equipment not working, the respective unit (s) is shut down automatically.

Refer Annexure – 1 for the performance details of Pollution Control Equipment.

- ii. Ambient air quality including ambient noise levels must not exceed the Stipulated under EPA or by the State authorities. Monitoring of ambient air Quality and stack emissions shall be carried out regularly in consultation with CECB and report submitted to the Board quarterly and to the Ministry's Regional Office at Bhopal half- yearly. Continuous stack monitoring system Should be installed.

Refer Annexure – 1 for ambient air monitoring.

- iii. The company shall install adequate dust collection and extraction system to control fugitive dust emissions at various transfer points. Glass bag house in raw mill and kiln, ESP in cooler and cement mill and bag filter at all the transfer points shall be installed. Coal and clinker storage will be in the form of stockpile. The dust collected from the pollution control equipment shall be recycled back into the process. Storage of raw material shall be in closed roof sheds. Water sprinkling arrangement shall be made in the raw material stock yard and cement bag loading areas.

Complied with PJBF installation.

- iv. All the recommendations of the Corporate Responsibility for Environmental Protection (CREP) shall be followed and existing ESP in cement mill I and II and bag filters in raw mill and kiln, and crusher area shall be modified to achieve 99.95% efficiency and particulate emission levels less than 50 mg/Nm³.

Refer Annexure -1 for the status of performance of pollution control equipment.

- v. No effluent shall be discharged from the process outside the premises and all the treated effluent from CPP and STP shall be utilized for green belt development and other plant related activities.

No effluent is discharged from the process outside the premises. Treated effluent from STP is used for green belt development. Treated effluent from TPP is used for dust suppression and recycled in the TPP process through RO Plant.

- vi. The company must harvest the rainwater from the roof tops and storm water drains to recharge the ground water. The company must also collect rain water in the mined out pits of captive lime stone mine and use the same water for the various activities of the project to conserve fresh water.

Rain water is collected in the mined out pits. We have already started Roof top rain water harvesting.

- vii. Green belt shall be developed in 33% of the plant area. Central Pollution Control Board guidelines must be followed in planning and developing green belt and selection of species etc.

Being adhered to, we are covering up to 33% area tree plantation in phased manner as per CPCB guideline.

- viii. Solid waste generated in the form of fly ash and slag shall be 100% recycled in the process itself.

100% fly ash is recycled in the process for production of PPC grade cement.

- ix. The company shall undertake eco – development measures including community welfare measures in the project area.

Complied with. Please refer Annexure 4.

B. General Conditions

- i. The project authority must adhere to the stipulations made by Chhattisgarh Environment Conservation Board (CECB) and State Government.

Being adhered to,

- ii. No further expansion or modification of the plant should be carried out without prior approval of this ministry.

Noted for compliance,

- iii. At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of SPM, SO₂ and NO_x are anticipated in consultation with the CECB. Data on ambient air quality and stack emissions should be regularly submitted to this Ministry including its Regional Office at Bhopal and CECB /CPCB once in six months.

Being adhered to, refer annexure-1.

- iv. Industrial waste water 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. The treated wastewater should be utilized for plantation purpose.

No effluent is discharged from the process outside the premises. Treated effluent from STP is used for green belt development. Treated effluent from TPP is used for dust suppression and recycled in the TPP process through RO Plant.

- v. The overall noise levels in and around the plant area should be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under Environmental (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).

Complied with, refer Annexure – 1 for Ambient Noise Monitoring Reports.

- vi. Proper housekeeping and adequate occupational health programmes must be taken up. Occupational Health Surveillance programme should be done on a regular basis and records maintained. The programme must include lung function and sputum analysis tests once in six months.

Complied, Records are available with health department.

- vii. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the Environmental Impact Assessment/Environmental Management Plan.

Complied.

- viii. A separate environmental management cell with full fledged laboratory-facilities to carry out various management and monitoring functions should be set up under the control of Senior Executive.

Complied, we are having full-fledged environment cell.

- ix. The project authorities will provide adequate funds both recurring and non-recurring to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided should not be diverted for any other purposes.

Noted for compliance.

- x. The Regional Office of this Ministry at Bhopal / CPCB / CECB will monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation should be submitted to them regularly.

Complied.

- xi. The Project Authorities should inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

Complied.

- xii. The Project Proponent should inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the CECB / Committee and may also be seen at Website of the Ministry of Environment and Forests at <http://envfor.ntc.m>. This should be advertised within seven days from the date of issue of the clearance letter at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office.

Complied.

- 3.0 The Ministry or any competent, authority may stipulate any further condition(s) on receiving reports from the project authorities. The above conditions will be monitored by the Regional Office of this Ministry located at Bhopal.

Agreed.

- 4.0 The Ministry may revoke or suspend the clearance id implementation of any of the above mentioned conditions is not satisfactory.

Noted for compliance,

- 5.0 Any other conditions or alteration in the above conditions will have to be implemented.

Being adhered to,

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

Noted for compliance,

COMPLIANCE OF THE CONDITIONS MENTIONED IN THE ENVIRONMENTAL CLEARANCE GIVEN BY MINISTRY OF ENVIRONMENT AND FORESTS FOR 2.72 MTPA NEW CLINKER PRODUCTION UNIT (2.72MTPA) ALONG WITH THERMAL POWER PLANT (15 MW) AND CAPTIVE POWER PLANTV (33 MW).

Ref.no. J-11011/355/2005-IA II(I)

Date: 13th April 2007

A. SPECIFIC CONDITIONS:

- i. The gaseous and particulate matter emission from various units shall conform to the standards prescribed by the Chhattisgarh Environment Conservation Board (CECB). At no time, the particulate emission from the cement plant shall exceed 50 mg/Nm³. The emission from CPP shall be less than 100 mg/Nm³. Continuous on-line stack monitoring facilities for all the stacks and adequate air pollution control system shall be provided to keep emission levels below 50 mg/Nm³ and on-line data shall be submitted to the CECB and CPCB regularly. Interlocking facility shall be provided in the pollution control equipment so that in the event of the pollution control equipment not working, the respective unit(s) is shut down automatically.

Refer Annexure-1 for performance details of the Pollution Control Equipment.

- ii. Ambient air quality including ambient noise levels shall not exceed the standards stipulated under EPA or by the State authorities. Monitoring of ambient air quality and stack emissions shall be carried out regularly in consultation with CECB and report submitted to CECB quarterly and to the Ministry's Regional Office at Bhopal half-yearly. One ambient air quality monitoring station shall be installed in downwind direction.

Compliance reports are submitted to CECB and MoEF regularly. Refer Annexure- 1 for the details of ambient air quality monitoring stations and monitoring.

- iii. The company shall install adequate dust collection and extraction system to control fugitive dust emissions at various transfer points, raw mill handling (unloading, conveying, transporting, stacking), vehicular movement bagging and packing areas etc. ESP to AFBC boilers, clinker cooler and glass bag house to the raw mill/kiln system shall be provided to control air emission less than 50 mg/Nm³ from all the sources except CPP where 100 mg/Nm³ norms shall be achieved. Bag filters shall be provided to crushing plant, raw mill hopper, blending silo/kiln feed clinker storage, coal mill system, transfer points and vesting of auxiliaries. The dust collected from the pollution control equipments.

Refer Annexure- 1 for the details of performance of Air Pollution Control Equipment.

- iv. Asphaltting/concreting of roads and water spray all around the coal stockpiles shall be carried out to control fugitive emissions.

Most of the roads inside the plant premises are black topped / concreted and water is sprayed around the raw material storage facilities.

- v. Secondary fugitive emissions should be controlled and shall be within the prescribed limits and regularly monitored. Guidelines / Code of Practice issued by the CPCB in this regard shall be followed.

Noted for compliance,

- vi. Total water requirement shall be met from the mine pits only and no surface/ground water shall be used. No process wastewater shall be discharged due to use of all the treated wastewater for ash conditioning, dust suppression, green belt development and other plant related activities etc. No effluent shall be discharged outside the factory premises and 'zero' discharge shall be adopted. Domestic effluent shall be used after treated in Sewage Treatment Plant (STP) for green belt development within the plant and colony area.

No effluent is discharged from the process outside the premises. Treated effluent from STP is used for green belt development. Treated effluent from TPP is used for dust suppression and recycled in the TPP process through RO Plant.

- vii. All the water requirement shall be met from the artificial reservoir made in mine pit only and no water from surface and ground water sources shall be used for any purpose.

Complied with.

- viii. The company must harvest the rainwater from the roof tops and storm water drains to recharge the ground water. The company must also collect rain water in the mined out pits and use the same water for the various activities of the project to conserve fresh water.

Rain water harvesting is carried out in the mined out pits but in colony roof top rain water harvesting is to be started.

- ix. As proposed in EIA/EMP, out of total 238.97 ha. green belt shall be developed in 75 ha. (30%) in consultation with the local DFO as per the CPCB guidelines.

Being adhered to, we are covering up to 33% area tree plantation in phased manner as per CPCB guideline.

- x. All the cement dust collected from pollution control devices shall be recycled and reutilized in the process. The entire fly ash generated from the power plant shall be pneumatically conveyed to the cement plant and used for manufacturing of Pozollona Portland Cement (PPC) Boiler ash shall be used for land filling Sludge from the sewage treatment plant shall be used as manure Hazardous waste viz. Spent oil

from gear boxes and automatic batteries etc. shall be properly stored in a designated area and sold to authorized recyclers / reprocessors.

- 1. The dust collected from Pollution Control Equipment is reused in the process.**
- 2. Fly ash is handled pneumatically and is utilized for production of PPC grade Cement.**
- 3. Bottom ash is used for filling the low lying area and also used in Raw Meal.**
- 4. STP sludge is used as manure in gardening.**
- 5. Hazardous wastes and batteries are sold to authorized recyclers.**

- xi. Efforts shall be made to make use of high calorific hazardous waste as fuel in kiln. Accordingly, provision shall be made in the kiln and inform to the Ministry.

Complied with, Efforts are being made to use different types of high calorific hazardous waste in the kiln and we have already have the permission to use waste mix from M/s MCCPTA as a fuel in our Kiln

- xii. The company shall undertake eco-development measures including community welfare measures in the project area.

Ambuja Cement Foundation is engaged in Socio economic activities. Ambuja Cement Foundation carries out various social activities like Installation of Bio gas plants, Skill development programs, Installation of Gobar Gas Plants, Wadi Project etc.

- xiii. All the recommendations of the CREP guidelines shall be strictly followed.

Complied with.

B. GENERAL CONDITIONS:

- i. The project authorities must strictly adhere to the stipulations made by the Chhattisgarh Environment Conservation Board (CECB) and the State Government.

Being Adhered to.

- ii. No further expansion or modifications in the plant should be carried out without prior approval of the Ministry of Environment and Forests.

Noted for compliance.

- iii. At least four ambient air quality-monitoring stations should be established in the downward direction as well as where maximum ground level concentration of SPM, SO₂ and NO_x are anticipated in consultation with the CECB Data on ambient air quality and stack emission should be regularly submitted to this Ministry including its Regional Office at Bhopal and the CECB/CPCB once in six months.

Refer Annexure-1.

- iv. Industrial wastewater shall 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. The treated wastewater shall be utilized for plantation purpose.

No effluent is discharged from the process outside the premises. Treated effluent from STP is used for green belt development. Treated effluent from TPP is used for dust suppression and recycled in the TPP process through RO Plant.

- v. The overall noise level in and around the plant area shall be kept well within the standards (85dBA) by providing noise control measures including acoustic hoods silencers enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz 75 dBA (daytime) and 70 dBA (nighttime).

Refer Annexure- 1 for noise monitoring reports.

- vi. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA / EMP report. Further the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.

Complied with.

- vii. The project authorities shall provide Rs. 40.00 Crores and Rs. 5.00 Crores/annum towards capital and recurring cost/annum for environmental protection measures to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government and an implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of this Ministry at Bhopal. The funds so provided shall not be diverted for any other purpose.

Agreed, please refer Annexure- 4.

- viii. The Regional Office of this ministry at Bhopal / CPCB / CECB will monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.

Six monthly monitoring reports are submitted to MoEF regularly.

- ix. The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the CECB/Committee and may also be seen at Website of the Ministry of Environment and Forests at <http://envfor.nic.in>. This shall be advertised within seven day from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular

language of the locality concerned and a copy of the same should be forwarded to the Regional office at Bhopal.

We have advertised about the Environmental Clearance by printing the notice in newspaper and have already sent the copy of notice to MoEF Bhopal office.

- x. Project authorities 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 and the date of commencing the land development work.

Consent to Operate received from Chhattisgarh Environment Conservation Board.

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

Agreed with,

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

Agreed with,

- 5.0 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, Hazardous Wastes (Management and Handling) Rules, 2003 and the Public (insurance) Liability Act, 1991 along with their amendments and rules.

Noted for compliance.

COMPLIANCE OF THE CONDITIONS MENTIONED IN THE ENVIRONMENTAL CLEARANCE ACCORDED BY MoEF FOR THE EXPANSION MINES PROJECT FROM 2.06 MTPA TO 6.31MTPA.

Ref.no. J-11015/330/2006-IA II(M)

Date: 8th June 2007

A. SPECIFIC CONDITIONS:

- (i) Top soil shall be stacked properly with proper slope with adequate safeguards and shall be backfilled for reclamation and rehabilitation of mined out area.

Complied.

- (ii) Over burden 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 20 m, each stage shall preferably be of 10 m and over all slope of the dump shall not exceed 26°. The reverse slope shall be maintained to prevent wash off and water logging during rainy season. The mine pit area shall be reclaimed by back filling the OB in a phased manner. The OB dump shall be scientifically vegetated with suitable native species to prevent erosion and surface run off. Monitoring and management of rehabilitated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall submitted to the Ministry Of Environment & Forests on six month basis.

Complied, over burden is stacked properly and slope is stabilized by coir matting and plantation over it.

- (iii) Garland drains shall be constructed to arrest silt and sediment flows from soil, and mineral dumps. The water so collected shall be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly. Garland drain (size, gradient and length) shall be constructed for both mine pit and for waste dump and sump capacity shall 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 shall 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.

Complied.

- (iv) Controlled drilling and blasting shall be done by using dust extractors/wet drilling.

Complied.

- (v) Plantation shall be raised in an area of 98.04 ha including green belt of adequate width by planting the native species around the ML area, roads, OB dump sites etc. in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha.

Complied.

- (vi) The project authority shall implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.

Complied.

- (vii) Regular monitoring of ground water level and quality shall be carried out by establishing well and constructing new piezometers during the mining operation. The monitoring shall be carried out four times in a year – pre-monsoon (April-May), monsoon (August), Post Monsoon(November) and winter (January) and the data thus collected may be sent regularly to MOEF, Central Ground Water Authority and Regional Director Central Ground Water Board.

Complied with, please find attached recently sent ground water monitoring report as annexure- 3 for your ready reference.

- (viii) Prior permission from the competent authority shall be obtained for drawl of ground water, if any.

Complied.

- (ix) Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The vehicles shall be covered with a tarpaulin and shall not be overloaded.

Proper maintenance is carried out to keep emission under control, during transportation care is taken that the vehicles are not overloaded and water sprinkling is done over blasted muck.

- (x) 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 for compliance,

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.

Agreed.

- ii. No change in the calendar plan including excavation, quantum of mineral limestone ore shall be made .

Noted for compliance,

- iii. Conservation measures for protection of flora and fauna in the core and buffer zone shall be drawn up in consultation with the local forest and wildlife department.

Noted for compliance,

- iv. Four ambient air quality-monitoring stations shall be established in the core zone as well as in the buffer zone for RPM, SPM,SO₂, 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.

Complied.

- v. Data on ambient air quality (RPM, SPM, SO₂, 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.

Compliance reports with pollution monitoring reports are regularly submitted to MoEF and CECB.

- vi. Fugitive dust emissions from all the sources shall be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points shall be provided and properly maintained.

Complied.

- vii. 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.

All vehicles are provided with AC cabin. Ear muffs and ear plugs are provided to the personnel engaged in operations of HEMM.

- viii. 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.

Oil and Grease trapping system has been provided for the treatment of waste water from workshop. There is no waste water generation from Mines.

- ix. Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects .

Complied, all the necessary PPEs are provided to the workers working in the dusty area.

- x. Occupational health surveillance program of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.

Occupational health surveillance program for the workers are regularly undertaken.

- xi. 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.

Complied.

- xii. The project authorities shall inform to 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.

We have received Consent to Operate from Chhattisgarh Environment Conservation Board.

- xiii. 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.

Complied.

- xiv. 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.

Complied.

- xv. A copy of clearance letter will be marked to concerned Panchayat/local NGO, if any, from whom suggestion/representation has been received while processing the proposal.

Complied.

- xvi. State Pollution Control Board should display a copy of the clearance letter at the Regional Office, District Industry Centre and Collector's office/ Tehsildar's Office for 30 days.

Complied.

- xvii. The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at the website of the Ministry of Environment and Forests at <http://envfor.nic.in> and a copy of the same shall be forwarded to the Regional Office of this Ministry located in Bhopal.

Being adhered to, we have already forwarded the copy of newspaper cutting to Regional Office Bhopal.

- 5.0 The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environmental protection.

Agreed with,

- 6.0 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.

Agreed with,

- 7.0 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. Hazardous Wastes (Management and Handling) Rules, 2003 and the Public (insurance) Liability Act, 1991 along with their amendments and rules.

Complied with,

**COMPLIANCE OF THE CONDITIONS MENTIONED IN THE ENVIRONMENTAL CLEARANCE GIVEN BY
MINISTRY OF ENVIRONMENT AND FORESTS FOR THE EXPANSION PROJECT FROM 1.8 MTPA TO 2.4
MTPA CEMENT PRODUCTION**

Ref.no. J-11011/539/2008-IA II(I)

Date: 23rd December 2008

2.0 The Ministry of Environment and Forests has examined your application. It is noted that proposal is for the expansion of the Cement Plant (1.80 MTPA to 2.40 MTPA Cement) at Bhatapara, Village Rawan, Tehsil Baloda Bazar, District Raipur, Chhattisgarh by M/s Ambuja Cements Ltd. The clinker to be ground at Bhatapara unit will be 1.67 MTPA for 2.40 MTPA cement production and additional 2.75 MTPA clinker will be transported to other cement grinding units of M/s Ambuja Cements Ltd. Existing cement mill area is 1,512 m². Vertical Roller Pre-grinding Mill (VRPM) (175 TPH) and grinding mill will be installed besides chain bucket Elevator (500 TPH) in 200 m² area. No additional land will be required. Total cost of the project is Rs. 45.00 Crores.

3.0 Clinker from existing cement plant, fly ash from NTPC, Korba and Gypsum from Jodhpur, Rajasthan will be used as raw material. It is proposed to use clinker produced at the existing unit. Fly ash and gypsum will also be available from the existing source. Existing plant is of 1.80 of cement grinding and 1.70 MTPA clinker production capacity and cement capacity will be enhanced by 0.60 MTPA by adding fly ash grinding.

4.0 Existing ESPs will be replaced by glass bag house and during expansion, glass bag house to kiln/raw mill and bag filters will be provided to coal mill to control gaseous emissions from the stack within 50 mg/Nm³. Fugitive emissions will be controlled from material handling and transportation areas. Cement and ash will be stored in silos. Total water requirement from mine pit will be 50 m³/day and no surface or ground water will be tapped. No liquid effluent will be generated from the cement plant. Sewage water will be treated in Sewage Water Reclamation Plant (SWRP) and treated wastewater will be 100% used for green belt development, spraying on haul road and cooling purpose. No solid waste will be generated since all the solid materials collected through bag filters will be recycled to the process. SWRP sludge will be used as manure for plantation. Fly ash will be used for making PPC,

5.0 No public hearing / public consultation meeting is required due to expansion of the proposed unit in the same campus as per Section 7 (ii) of EIA Notification, 2006

6.0 The Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA Notification dated 27th January, 1994 as amended subsequently subject to strict compliance to the following specific and general conditions:

Specific Conditions:

- i. Continuous stack monitoring facilities to monitor gaseous emissions from all the stacks shall be provided. After expansion, limit of SPM shall be controlled within 50 mg/Nm³ by installing adequate air pollution control system viz. glass bag house to kiln mill, bag filters to coal mill etc. As proposed, existing electrostatic precipitators (ESPs) provided to kiln/ shall be replaced by glass bag house. Data on ambient air, fugitive and stack emissions shall be submitted to the Ministry's Regional Office at Bhopal, CEGB and CPCB regularly. Efforts shall also be made to reduce SO₂ and NO_x emissions. Stack emission monitoring reports shall be submitted to the Ministry's Regional Office at Bhopal, CEGB and CPCB regularly.

Complied with,

- ii. Secondary fugitive emissions shall be controlled and should be within the prescribed limits and regularly monitored. Guidelines / Code of Practice issued by the CPCB in this regard shall be followed.

Noted for compliance,

- iii. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land. All the raw materials, including fly ash shall be transported in the dosed containers only and shall not be overloaded. Vehicular emissions shall be regularly monitored.

Being adhered to,

- iv. The company shall install adequate dust collection and extraction system to control fugitive dust emissions from different sources viz. raw material storage yards, loading and unloading operations, transfer points, crusher, coal mill and packing plant. Bag filters and water sprinkling arrangements shall be made in raw material stock yards and cement bag loading areas etc. Covered sheds for storage of raw materials and fully covered conveyers for transportation of materials shall be provided. Cement and fly ash shall be stored in silos. Dust suppression system shall be provided at transfer points and coal/lignite handling area to control fugitive emissions. Automatic dust cleaning system for removing dust from floors, concrete/tar topped roads inside the plant to avoid dispersion of dust and good house keeping shall be adopted to control fugitive emissions.

Being adhered to,

- v. Asphaltting/concreting of roads and water spray ail around the stockyard and loading/unloading areas in the cement plant shall be carried out to control fugitive emissions. Regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of SPM and RPM such as haul road, loading and unloading points, transfer points and other vulnerable areas. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.

Refer Annexure-1

- vi. Ambient air quality including ambient noise levels shall be monitored at different locations including fence of the sanctuary and must not exceed the standards stipulated under EPA or by the State authorities. Monitoring of ambient air quality, fugitive and stack emissions shall be carried out regularly in consultation with CECB and reports submitted to the to the Ministry's Regional Office at Bhopal, CECB and CPCB regularly.

Refer Annexure-1

- vii. As proposed, total water requirement for cement plant (50 m³/day) shall be met from mine pit only and no surface or ground water shall be used. No liquid effluent shall be generated from the cement plant. All the other treated wastewater shall be recycled and reused in the process for cooling and/or for ash quenching, dust suppression, green belt development and other plant related activities etc. No process wastewater shall be discharged outside the factory premises and 'zero' discharge shall be adopted. All the sewage water shall be treated in Sewage Water Reclamation Plant (SWRP) and treated wastewater shall be used for green belt development.

Being Adhered to,

- viii. Sewage Water Reclamation Plant (SWRP) shall be used for the treatment of sewage from the colony and treated domestic effluent shall be used for green belt development within the plant premises. Domestic waste from colony and SWRP shall be segregated into biodegradable and non-biodegradable. Biodegradable waste shall be composted and non-biodegradable waste should be land filled at identified sites. Effluent treatment plant (ETP) shall also be provided for workshop.

No effluent is discharged from the process outside the premises. Treated effluent from STP is used for green belt development. Treated effluent from TPP is used for dust suppression and recycled in the TPP process through RO Plant.

- ix. All the bag filter dust, raw meal dust, coal dust, clinker dust and cement dust from pollution control devices shall be recycled and reused in the process and used for cement manufacturing. Spent oil and batteries shall be sold to authorized recyclers / reprocessors only. All the solid waste generated from colony and Sewage Water Reclamation Plant (SWRP) shall be disposed after segregating the waste into biodegradable and non-degradable. Treated SWRP sludge shall be used as manure for green belt development. The waste oil and scrapped automobile batteries etc. shall be properly disposed off as per the Hazardous Waste (Management & Handling) Rules, 1989 and subsequent amendments and shall be sold to authorized recyclers / reprocessors only.

Being adhered to,

- x. An effort shall be made to use high calorific hazardous waste in the cement kiln and necessary provision shall be made accordingly.

Noted for compliance,

- xi. Efforts shall be made to use low grade lime, more fly ash and solid waste in the cement manufacturing.

Being adhered to,

- xii. All the fly ash shall be utilized as per Fly Ash Notification, 1999 subsequently amended in 2003. Efforts shall be made to use fly ash maximum in making Pozzolona Portland Cement (PPC).

100% fly ash is recycled in the process for production of PPC grade cement.

- xiii. As proposed, green belt shall be developed in at least 33 % area in and around the cement plant as per the CPCB guidelines to mitigate the effects of air emissions in consultation with local DFO.

Being adhered to, we are covering up to 33% area tree plantation in phased manner as per CPCB guideline.

- xiv. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Cement Plants shall be implemented.

Being Adhered to,

- xv. The company shall provide housing for construction labour within the site with all. Necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile \ STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

Complied.

GENERAL CONDITIONS

- i. The project authority must adhere to the stipulations made by Chhattisgarh Environment Conservation Board (CECB) and State Government.

Being Adhered to,

- ii. No further expansion or modification of the plant shall be carried out without prior approval of this Ministry.

Agreed with,

- iii. The gaseous (SO₂, NO_X, CO) and particulate matter emissions from various units shall conform to the standards prescribed by the Chhattisgarh Environment Conservation Board. Inter-locking facility shall be provided between pollution control equipment and the process operation so that in the event of the pollution control equipment not working, the respective unit(s) is shut down automatically.

Being Adhered to,

- iv. Industrial wastewater shall 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. The treated wastewater shall be utilized for plantation purpose.

Being Adhered to,

- v. The company shall harvest surface as well as rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and use the same water for the various activities of the project to conserve fresh water.

Being Adhered to,

- vi. The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environmental (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time). Compliance to all the standards for DG sets for noise shall be ensured and acoustic enclosures around DG sets shall be provided.

Refer Annexure-1

- vii. Proper house keeping and adequate occupational health programmes must be taken up. All the persons working in the sensitive areas shall wear protective covers. Occupational Health Surveillance programme shall be done on a regular basis and records maintained. The programme must include lung function and sputum analysis tests once in six months.

Being Adhered to,

- viii. The company shall undertake eco-development measures including community welfare measures in the project area.

Being Adhered to,

- ix. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the Rapid and Comprehensive EIA/EMP.

Agreed with,

- x. A separate environmental management cell with full fledged laboratory facilities to carry out various management and monitoring functions shall be set up under the control of Senior Executive.

Complied, we are having full-fledged environment cell.

- xi. As proposed, Rs. 2.02 Crores and Rs. 0.20 Crores shall be earmarked towards capital cost and recurring cost/annum for environmental pollution control measures shall be used exclusively to implement the conditions stipulated by the Ministry of Environment and Forest's as well as the State Government. A time bound action plan along with the implementation schedule for all the conditions stipulated herein shall be submitted to the Ministry, CECB and CPCB. The funds so provided shall not be diverted for any other purposes.

Agreed with. Refer Annexure- 4 for the expenses on CSR activity and on pollution control measures.

- xii. The Regional Office of this Ministry at Bhopal/CPCB/CECB shall monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.

Agreed with,

- xiii. The Project Authorities 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 and the date of commencing the land development work.

Date of commencement: 12/04/2010

Date of commissioning: 21st September, 2012

- xiv. The Project Proponent should inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the CECB and may also be seen at Website of the Ministry of Environment and Forests at <http://envfor.nic.in>. This shall be advertised within seven days from the date of issue of the clearance letter at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the Regional office.

Complied

- 7.0 The Ministry or any competent authority may stipulate any further condition(s) on receiving reports from the project authorities. The above conditions shall be monitored by the Regional Office of this Ministry located at Bhopal.

Agreed with,

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

Agreed with,

- 9.0 Any other conditions or alteration in the above conditions shall have to be implemented by the project authorities in a time bound manner.

Agreed with,

- 10.0. 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 Act, 1997.

Agreed with,

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

Agreed with,

COMPLIANCE OF THE CONDITIONS MENTIONED IN THE ENVIRONMENTAL CLEARANCE GIVEN BY MINISTRY OF ENVIRONMENT AND FORESTS FOR THE EXPANSION PROJECT FROM 2.4 MTPA TO 3.5 MTPA

Ref.no. J-11011/72/2009-IA II(I)

Date: 15th May 2009

2.0 The Ministry of Environment and Forests has examined the proposal and noted that M/s Ambuja Cement Ltd. has proposed for Expansion of 2.4 MTPA to 3.5 MTPA cement plant by installing a cement grinding mill of capacity 1.1 MTPA at Village Rawan, District Raipur, Chhattisgarh. The company is having an integrated cement plant with present installed capacity of 1.70 MTPA of clinker production and 2.4 MTPA of cement grinding. The company has taken up a Capacity Expansion of project at this site by installing a new clinkering line of 2.72 MTPA which is expected to be commissioned by April 2009 for which environmental clearance has already been obtained from the Ministry vide F. No. J-11011/539/2008 dated 23rd December, 2008. The additional clinker to be produced from this unit will be catered to grinding unit. The total cost of the grinding unit will be Rs. 240.00 Crores. The total land required for the project will be 0.88 ha from the existing premises. The details of production capacities of the existing and proposed plant are as follows:

Details	(Million Ton / Annum)
Clinker Production Capacity	4.42
Existing Cement Production capacity	2.40
Proposed additional Cement Production Capacity	1.10

3.0. Air pollution control measures will be provided to control emission of dust particles in to achieve particulate emission below 50 mg/Nm³. The total water requirement of 150 KLD for the proposed cement grinding plant will be met from existing mine pits. No wastewater will be discharged from the plant. The company has existing sewage treatment plant for treatment of domestic wastewater and treated sewage water will be used for dust suppression/green belt development.

Refer Annexure -1 for the performance details of pollution control equipment.

- 1. Water requirement is fulfilled by the mines pit.**
- 2. There is no discharge of waste water from the plant premises.**
- 3. Treated sewage effluent is used for the gardening purpose.**

4.0 The public hearing was exempted as per para 7(ii) of the EIA Notification, 2006.

5.0 Based on the information provided, the Ministry of Environment and Forests hereby accords environmental clearance to above project under the provisions of EIA Notification dated 14th September 2006 subject to the compliance of the following Specific and General conditions:

A. SPECIFIC CONDITIONS :

- i. The company shall comply with the stipulation made in the environmental clearance granted to the existing plant by the Ministry of Environment and Forests vide letter No. J-11011/539/2008 dated 23rd December, 2008.

Complied with,

- ii. The particulate matter emissions from various sources shall not exceed 50 mg/Nm³. Bag house/ filters shall be provided to control air emissions to achieve the prescribed standards. The fugitive emissions during loading and unloading shall be suitably controlled.

Refer Annexure-1 for performance details of the pollution control equipment.

- iii. The locations of ambient air quality monitoring stations shall be set up as per statutory requirement in consultation with Chhattisgarh Environment Conservation Board (CECB) and additional stations shall be installed, if required, in the downwind direction as well as where maximum ground level concentrations are anticipated.

Refer Annexure – 1 for the details of ambient air quality monitoring.

- iv. Data on ambient air quality, stack emission and fugitive emissions shall be uploaded on the company's website and also regularly submitted on line to Ministry's Regional Office at Bhopal, Chhattisgarh Environment Conservation Board and Central Pollution Control Board as well as hard copy once in six months. Data on SPM, SO₂ and NO_x shall also be displayed prominently outside the premises at the appropriate place for the general public.

Ambient air quality data display on company's website job is under progress and submitted to Ministry's Regional Office on six monthly frequencies.

- v. The Company shall submit water conservation and management plan to meet out the requirement of 150 m³/day from the existing water sources and no ground water shall be drawn for the plant. The copy of water conservation and management plan shall be submitted to the Ministry and its Regional Office at Bhopal within three months from date of issue of this letter.

Refer Annexure-2 for water management plan & efforts done by Ambuja Cements Ltd in the recent years through our CSR Wing, Ambuja Cement Foundation.

- i. Green belt shall be developed at least in 33% of plant area to mitigate the effect of fugitive emissions all around the plant as per the guidelines of Central Pollution Control Board.

Being adhered to, we are covering up to 33% area tree plantation in phased manner as per CPCB guideline.

- ii. The project authorities shall transport the raw materials and cement in covered means to avoid fugitive emission during transport.

All the raw materials and finished product are transported in fully covered/closed manner.

- iii. The clinker requirement shall be met from the existing unit and no additional clinker manufacturing facility shall be installed by the company for this grinding unit.

Noted for compliance,

- ix. All the recommendations mentioned in the CREP guidelines for the cement plants shall be followed and complied.

Complied with,

- v. Provision shall be made for the housing of construction labor within the site will 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.

Complied with,

- B. GENERAL CONDITIONS :

- i. The project authorities shall strictly adhere to the stipulations of the SPCB/state government or any statutory body.

Being Adhered to,

- ii. All other necessary statutory clearances from the concern Departments including 'No Objection Certificate' from the State Pollution Control Board shall be obtained prior to commencement of construction and/or operation.

Complied with,

- iii. No further expansion or modification of the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to add additional environmental protection measures required, if any.

Noted for compliance,

- ix. At no time, the emissions shall exceed the prescribed limits. In the event of failure of any pollution control system adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieved.

Agreed with,

- v. The gaseous emissions (SO₂, NO_x,) and particulate matter along with RSPM levels from various process units shall conform to the standards prescribed by the concerned authorities from time to time.

Refer Annexure-1 for ambient air quality reports.

- vi. The company shall undertake following Waste Minimization measures.
- Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - Use of "Closed pneumatic" system for transport of fine material.
 - All venting systems shall be connected with dust arresting equipments.
 - Dust collected in pollution control equipments shall be reused.

Complied with, There is fully utilization of fly ash generated from our captive power plant for making PPC. The transportation of fly ash by closed pneumatic system. All the venting and transfer points are connected with bag filters for arresting the dust. Cement Mill ESPs have been converted to Hybrid Filters. The collected dust from bag filter and ESPs is reused in the process.

- vii. Fugitive emissions in the work zone environment, product, and raw materials storage area shall be regularly monitored. The emissions shall conform to the limits imposed by the State Pollution Control Boards/Central Pollution Control Board.

Noted for compliance,

- vii. The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environmental (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).

Refer Annexure – 1 for the details of noise monitoring reports.

- viii. The company shall develop rain water harvesting structures to harvest the run off water for recharge of ground water.

Rain water is being harvested in mined out pits. The storage capacity of mined out pit is about 57 lakh m³. The water requirement of plant and Mines is fulfilled by the harvested water stored in mined out pits.

- ix. Occupational health and safety measures shall be undertaken. Periodic monitoring for exposure to dust on the workers should be conducted and records maintained including health records of the workers. The company shall engage a doctor who is trained in occupational health.

Occupational health surveillance programs are conducted regularly and records are maintained.

- x. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment. The eco-development plan should be submitted to the SPCB within three months of receipt of this letter for approval.

Noted for compliance, on going process.

- xi. A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

A full fledged Environmental Management Cell with laboratory facilities and monitoring facilities are being maintained.

- xii. The project authorities shall earmark adequate fund to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. An implementation schedule for all the conditions stipulated herein shall be submitted to the Ministry's Regional Office. The funds so provided shall not be diverted for any other purpose.

Complied with,

- xiii. The implementation of the project vis-à-vis environmental action plans shall be monitored by the concerned Regional Office of the Ministry/SPCB/CPCB. A six monthly compliance status report shall be submitted to monitoring agencies and shall be posted on the website of the Company.

Complied with,

- xiv. The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry at <http://envfor.nic.in>. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional office of the Ministry.

Complied with,

- xv. The project authorities 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 and the date of start of the project.

Complied with,

- 6.0 The ministry may revoke or suspend the clearance if implementation of any of the above conditions is not satisfactory.

Agreed with,

- 7.0 The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner shall implement these conditions.

Agreed with,

- 8.0 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.

Agreed with,

- 9.0 The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, Air (Prevention and Control of Pollution) Act, 1981 the Environment (Protection) Act, 1986, Hazardous waste (Management and Handling) Rules, 2003 and the Public Liability Insurance Act, 1991 alongwith their amendments and rules.

Agreed with,

**COMPLIANCE OF THE CONDITIONS MENTIONED IN THE ENVIRONMENTAL CLEARANCE
(AMENDED) GIVEN BY MINISTRY OF ENVIRONMENT AND FORESTS FOR THE INTERMEDIATE
CEMENT CAPACITY EXPANSION FROM 1.8 MTPA TO 2.9 MTPA**

Ref.NO. J-11011/72/2009-IA-II(I)

Dated : 13th May, 2011

This has reference to your letter no. ACL: BH: ENV:25: 2010/7216 dated 6.12.2010 seeking permission for expansion of intermediate capacity of cement production from 1.8 MTPA to 2.9 MTPA by installing 1.1 MTPA cement grinding mill.

2. It is noted that intermediate cement capacity expansion for Stage I would be from 1.8 MTPA to 2.9 MTPA by installing a ball mill and then cement capacity expansion for Stage II would be from 2.9 MTPA to 3.5 MTPA by installing a VRPM.

3. The matter was placed before the Expert Appraisal Committee in its meeting held during 22nd – 23rd February, 2011. The Committee recommended the proposal for amendment in environmental clearance i.e. for intermediate cement capacity expansion for Stage I (i.e. from 1.8 to 2.9 MTPA) by installing ball mill and Stage II from 2.9 MTPA to 3.5 MTPA by installing VRPM subject to stipulation of the following specific conditions:

- i. The Stage I and Stage II cement expansion should be within the maximum capacity for which environmental clearance has been obtained i.e. 3.5 MTPA.

Agreed with,

- ii. There should not be any change in process technology, or any other process parameters, or air pollution control system.

Agreed with,

4. The Ministry accepts the recommendations of the Expert Appraisal Committee (Industry-1) for intermediate capacity expansion from 1.8 MTPA to 2.9 MTPA by installing 1.1 MTPA cement grinding mill in the Stage-I expansion and from 2.9 to 3.5 MTPA in the Stage-II expansion subject to compliance of following additional conditions:

- i. The Stage I and Stage II cement expansion should be within the maximum capacity for which environmental clearance has been obtained i.e. 3.5 MTPA.

Complied With,

- ii. There shall not be any change in process technology, or any other process parameters, or air pollution control system.

Agreed With,

- iii. Continuous on-line monitors for the particulate emissions shall be installed. Interlocking facility shall be provided in the pollution control equipment so that in the event of the pollution control equipment not working, the respective unit(s) is shut down automatically.

Complied with,

- iv. A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/representations if any, were received while processing the proposal. The clearance letter shall also put up on the website of the company by the proponent.

Complied with,

- v. The environment statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986 as amended subsequently, shall also be put on the website of the Company alongwith the status of compliance of environmental clearance conditions and shall also be sent to the respective regional Office of the MoEF by e-mail.

Being Adhered to,

- 5.0 In case of change in the scope of the project, the company shall obtain fresh environmental clearance.

Agreed with,

COMPLIANCE OF THE CONDITIONS MENTIONED IN THE ENVIRONMENTAL CLEARANCE ACCORDED BY MoEF -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.

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

Date: 13th August, 2010

1. 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.

2.0. 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, Dhabadih and KukurdiH 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 opencast 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 ground water table in the buffer zone during post monsoon varies between 4 – 7 m bgl (250 – 265 m AMSL). Mine working will intersect ground water 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 6th 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.

3.0. 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 are more than 50 km away from the industrial cluster of Urla, Siltara and Borjhara areas of Raipur. Therefore it dose not seem that above mentioned industrial clusters of Raipur will have any significant environmental impact on the proposed project.

4.0. 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.

Agreed with,

- 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.

Agreed with, Consent to Establish received from Chhattisgarh Environment Conservation Board and applied for Consent to Operate.

- 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.

Agreed with,

- 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 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 desilted at regular intervals.

Agreed with,

- 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.

Agreed with,

- 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.

Noted for compliance,

- 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 for compliance,

- 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 for compliance,

- 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 for compliance,

- 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 for compliance,

- xi. Necessary safeguard measures shall be taken to ensure that the resultant particulate level in the area is well within the prescribed limit.

Noted for compliance,

- 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.

Land purchasing is going on. Still date the project is not started.

- 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 for compliance,

- 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.

Noted for compliance,

- 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 for compliance,

- xvi. Regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM₁₀ 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 Central Pollution Control Board in this regard.

Noted for compliance,

- 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.

Noted for compliance,

- 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 for compliance,

- 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.

Noted for compliance,

- xx. Drills shall either be operated with dust extractors or equipped with water injection system.

Noted for compliance,

- 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.

Noted for compliance,

- 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.

Noted for compliance.

- 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 for compliance,

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 www.envfor.nic.in shall also be referred in this regard for its compliance.

Noted for 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.

Noted for compliance,

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 for compliance,

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.

Being adhered to,

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.

Being adhered to,

- ii. No change in the calendar plan including excavation, quantum of mineral and waste shall be made.

Being adhered to,

- 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, PM_{2.5}, 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.

Being adhered to,

- iv. Data on ambient air quality (PM₁₀, PM_{2.5}, 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.

Being adhered to,

- 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.

Ear muffs and ear plugs are provided to the personnel engaged in operations of HEMM.

- 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.

Being adhered to, we have Oil and Grease trapping system for the treatment of waste water from workshop. There is no waste water generation from Mine.

- 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.

Being adhered to, Personnel working in dusty areas wear dust mask. Training programs are regularly conducted for workers working in the dusty area.

- 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.

Being complied with,

- 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.

Being adhered to,

- 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.

Being adhered to,

- 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.

Being adhered to,

- 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.

Being adhered to,

- xii. 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.

Being adhered to,

- xiii. 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 a 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 <http://envfor.nic.in> and a copy of the same shall be forwarded to the Regional Office of this Ministry located in Bhopal.

Being adhered to, We have already forwarded the copy of newspaper cutting to Regional Office Bhopal.

- xiv. 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 with,

- xv. 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 with,

- xvi. 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.

Being adhered to,

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.

Agreed with,

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.

Agreed with,

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.

Agreed with,

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.

Agreed with,

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.

Being complied with.

Annexure-1

MONTH – OCTOBER 2013

AMBIENT AIR MONITORING REPORT

Monitoring Station	Avg. SPM (µg/m ³)	Avg. PM ₁₀ (µg/m ³)	Avg. PM _{2.5} (µg/m ³)	Avg. SO ₂ (µg/m ³)	Avg. NOx (µg/m ³)	Avg. CO (µg/m ³)
Khairtal Village	96.0	43.8	21.8	9.2	9.1	BDL
Kukurdi Village	93.7	42.8	21.5	9.2	8.1	BDL
Guest House	92.2	42.9	24.4	9.9	10.5	BDL
Water Treatment Plant	130.9	54.4	30.5	10.2	13.2	BDL
Mines Field Office	145.2	58.8	33.3	11.6	14.8	BDL
Railway Operation	140.3	57.9	32.6	10.6	13.3	BDL

BDL: Below Detectable level

STACK MONITORING REPORT

Monitoring Station	Air Pollution control device	Particulate Matter (mg/Nm ³)
Kiln Stack (Line- 1)	Bag House	7.8
Crusher Stack (Line- 1)	Bag Filter	14.3
Cooler (Line- 1)	ESP	25.9
Coal Mill (Line- 1)	Bag House	17.9
Cement Mill – 1	Hybrid Filter	Didn't run in the month
Cement Mill – 2	Hybrid Filter	14.3
VRPM Stack	Bag Filter	27.6
Cement Mill- 3	Bag Filter	38.4
Kiln Stack (Line- 2)	Glass Bag House	10.8
Crusher Stack (Line- 2)	Bag Filter	21.3
Coal Mill (Line- 2)	ESP	15.8
Cooler (Line- 2)	ESP	10.6
DG - 04 MW	-	Didn't run in the month
DG - 10 MW	-	Didn't run in the month
TPP- 15 MW (Old)	ESP	Didn't run in the month
TPP- 33 MW	ESP	37.3
TPP- 15 MW (New)	ESP	42.9

AMBIENT NOISE LEVEL REPORT

Location	Noise Level (dB)
Plant Canteen Area	58.9
Colony	45.1
Near CCR Building	71.6
Mines Field Office	64.2
Mines Office	54.8
TPP area	68.7
Main office	55.4

WATER QUALITY REPORT

EFFLUENT QUALITY							
	pH	COD	BOD	Oil & Grease	S.S.	TDS	Remark
STP	7.5	36	15	Nil	24	357	
Mines Work Shop (treated)	7.4	32	13	2.8	27	298	
TPP DM Plant Back Wash treated in RO plant	7.1	Nil	Nil	Nil	0	81	

Note: All parameters are in mg/lit except pH.

MONTH – NOVEMBER 2013

AMBIENT AIR MONITORING REPORT

Monitoring Station	Avg. SPM (µg/m ³)	Avg. PM ₁₀ (µg/m ³)	Avg. PM _{2.5} (µg/m ³)	Avg. SO ₂ (µg/m ³)	Avg. NOx (µg/m ³)	Avg. CO (µg/m ³)
Khairtal Village	112.1	52.6	26.9	11.6	9.6	BDL
Kukurdiyh Village	115.9	54.1	26.7	10.7	10.2	BDL
Guest House	120.5	55.2	28.6	12.0	13.6	BDL
Water Treatment Plant	147.2	62.6	32.3	11.8	13.3	BDL
Mines Field Office	176.2	74.5	37.5	13.8	16.8	BDL
Railway Operation	164.5	70.6	35.9	11.8	13.3	BDL

BDL: Below Detectable level

STACK MONITORING REPORT

Monitoring Station	Air Pollution control device	Particulate Matter (mg/Nm ³)
Kiln Stack (Line- 1)	Bag House	8.4
Crusher Stack (Line- 1)	Bag Filter	13.2
Cooler (Line- 1)	ESP	11.6
Coal Mill (Line- 1)	Bag House	15.4
Cement Mill – 1	Hybrid Filter	Didn't run in the month
Cement Mill – 2	Hybrid Filter	13.2
VRPM Stack	Bag Filter	14.9
Cement Mill- 3	Bag Filter	16.3
Kiln Stack (Line- 2)	Glass Bag House	10.8
Crusher Stack (Line- 2)	Bag Filter	24.4
Coal Mill (Line- 2)	ESP	17.3
Cooler (Line- 2)	ESP	19.3
DG - 04 MW	-	Didn't run in the month
DG - 10 MW	-	Didn't run in the month
TPP- 15 MW (Old)	ESP	Didn't run in the month
TPP- 33 MW	ESP	34.5
TPP- 15 MW (New)	ESP	39.8

AMBIENT NOISE LEVEL REPORT

Location	Noise Level (dB)
Plant Canteen Area	63.1
Colony	47.8
Near CCR Building	72.6
Mines Field Office	67.1
Mines Office	59.2
TPP area	60.6
Main office	57.5

WATER QUALITY REPORT

	EFFLUENT QUALITY						
	pH	COD	BOD	Oil & Grease	S.S.	TDS	Remark
STP	7.2	40	16	Nil	21	408	
Mines Work Shop (treated)	7.2	28	12	2.6	18	505	
TPP DM Plant Back Wash treated in RO plant	7.0	Nil	Nil	Nil	0	23	

Note: All parameters are in mg/lit except pH.

MONTH – DECEMBER 2013

AMBIENT AIR MONITORING REPORT

Monitoring Station	Avg. SPM (µg/m ³)	Avg. PM ₁₀ (µg/m ³)	Avg. PM _{2.5} (µg/m ³)	Avg. SO ₂ (µg/m ³)	Avg. NO _x (µg/m ³)	Avg. CO (µg/m ³)
Khairtal Village	119.6	54.6	29.6	10.7	9.2	BDL
KukurdiH Village	132.2	58.3	28.0	10.2	10.8	BDL
Guest House	141.1	63.0	32.3	10.0	12.0	BDL
Water Treatment Plant	158.5	71.3	33.3	10.9	13.9	BDL
Mines Field Office	162.1	72.2	35.4	11.2	13.5	BDL
Railway Operation	170.8	77.2	39.6	11.2	13.1	BDL

BDL: Below Detectable level

STACK MONITORING REPORT

Monitoring Station	Air Pollution control device	Particulate Matter (mg/Nm ³)
Kiln Stack (Line- 1)	Bag House	Plant under shut down
Crusher Stack (Line- 1)	Bag Filter	Plant under shut down
Cooler (Line- 1)	ESP	Plant under shut down
Coal Mill (Line- 1)	Bag House	Plant under shut down
Cement Mill – 1	Hybrid Filter	26.5
Cement Mill – 2	Hybrid Filter	23.7
VRPM Stack	Bag Filter	10.5
Cement Mill- 3	Bag Filter	12.9
Kiln Stack (Line- 2)	Glass Bag House	8.8
Crusher Stack (Line- 2)	Bag Filter	27.4
Coal Mill (Line- 2)	ESP	17.9
Cooler (Line- 2)	ESP	16.6
DG - 04 MW	-	Didn't run in the month
DG - 10 MW	-	Didn't run in the month
TPP- 15 MW (Old)	ESP	29.5
TPP- 33 MW	ESP	Didn't run in the month
TPP- 15 MW (New)	ESP	39.2

AMBIENT NOISE LEVEL REPORT

Location	Noise Level (dB)
Plant Canteen Area	61.3
Colony	44.9
Near CCR Building	71.6
Mines Field Office	65.8
Mines Office	58.4
TPP area	61.3
Main office	59.2

WATER QUALITY REPORT

	EFFLUENT QUALITY						Remark
	pH	COD	BOD	Oil & Grease	S.S.	TDS	
STP	7.4	36	14	Nil	27	429	
Mines Work Shop (treated)	7.3	32	12	2.9	23	243	
TPP DM Plant Back Wash treated in RO plant	7.1	Nil	Nil	Nil	0	31	

Note: All parameters are in mg/lit except pH.

MONTH – JANUARY 2014

AMBIENT AIR MONITORING REPORT

Monitoring Station	Avg. SPM (µg/m ³)	Avg. PM ₁₀ (µg/m ³)	Avg. PM _{2.5} (µg/m ³)	Avg. SO ₂ (µg/m ³)	Avg. NOx (µg/m ³)	Avg. CO (µg/m ³)
Khairtal Village	128.8	59.7	28.4	9.1	8.9	BDL
Kukurdih Village	129.9	60.5	29.1	9.0	8.1	BDL
Guest House	132.5	63.8	32.3	9.3	10.5	BDL
Water Treatment Plant	171.5	73.4	37.0	10.9	12.7	BDL
Mines Field Office	195.9	81.0	41.7	12.6	16.0	BDL
Railway Operation	184.7	77.5	40.1	12.1	13.4	BDL

BDL: Below Detectable level

STACK MONITORING REPORT

Monitoring Station	Air Pollution control device	Particulate Matter (mg/Nm ³)
Kiln Stack (Line- 1)	Bag House	5.8
Crusher Stack (Line- 1)	Bag Filter	12.9
Cooler (Line- 1)	ESP	19.5
Coal Mill (Line- 1)	Bag House	13.9
Cement Mill – 1	Hybrid Filter	27.4
Cement Mill – 2	Hybrid Filter	18.0
VRPM Stack	Bag Filter	9.7
Cement Mill- 3	Bag Filter	13.2
Kiln Stack (Line- 2)	Glass Bag House	7.5
Crusher Stack (Line- 2)	Bag Filter	26.1
Coal Mill (Line- 2)	ESP	13.9
Cooler (Line- 2)	ESP	11.5
DG - 04 MW	-	Didn't run in the month
DG - 10 MW	-	Didn't run in the month
TPP- 15 MW (Old)	ESP	28.5
TPP- 33 MW	ESP	36.9
TPP- 15 MW (New)	ESP	33.8

AMBIENT NOISE LEVEL REPORT

Location	Noise Level (dB)
Plant Canteen Area	66.6
Colony	47.7
Near CCR Building	72.6
Mines Field Office	65.9
Mines Office	55.8
TPP area	72.9
Main office	65.1

WATER QUALITY REPORT

	EFFLUENT QUALITY						Remark
	pH	COD	BOD	Oil & Grease	S.S.	TDS	
STP (treated)	7.3	40	16	Nil	26	489	
Mines Work Shop (treated)	7.3	28	10	2.3	25	206	
TPP DM Plant Back Wash treated in RO plant	6.6	Nil	Nil	Nil	0	28	

Note: All parameters are in mg/lit except pH.

MONTH – FEBRUARY 2014

AMBIENT AIR MONITORING REPORT

Monitoring Station	Avg. SPM (µg/m ³)	Avg. PM ₁₀ (µg/m ³)	Avg. PM _{2.5} (µg/m ³)	Avg. SO ₂ (µg/m ³)	Avg. NOx (µg/m ³)	Avg. CO (µg/m ³)
Khairtal Village	118.0	57.2	25.5	9.7	8.7	BDL
Kukurdih Village	115.3	56.8	27.5	8.4	7.7	BDL
Guest House	126.0	59.9	30.0	8.6	9.9	BDL
Water Treatment Plant	169.8	71.9	37.5	12.5	13.8	BDL
Mines Field Office	178.2	76.5	40.6	14.8	17.4	BDL
Railway Operation	182.2	74.8	39.6	13.4	14.7	BDL

BDL: Below Detectable level

STACK MONITORING REPORT

Monitoring Station	Air Pollution control device	Particulate Matter (mg/Nm ³)
Kiln Stack (Line- 1)	Bag House	6.3
Crusher Stack (Line- 1)	Bag Filter	15.1
Cooler (Line- 1)	ESP	16.1
Coal Mill (Line- 1)	Bag House	19.4
Cement Mill – 1	Hybrid Filter	22.4
Cement Mill – 2	Hybrid Filter	23.5
VRPM Stack	Bag Filter	19.1
Cement Mill- 3	Bag Filter	11.5
Kiln Stack (Line- 2)	Glass Bag House	4.8
Crusher Stack (Line- 2)	Bag Filter	21.6
Coal Mill (Line- 2)	ESP	13.6
Cooler (Line- 2)	ESP	8.2
DG - 04 MW	-	Didn't run in the month
DG - 10 MW	-	Didn't run in the month
TPP- 15 MW (Old)	ESP	Didn't run in the month
TPP- 33 MW	ESP	28.3
TPP- 15 MW (New)	ESP	30.1

AMBIENT NOISE LEVEL REPORT

Location	Noise Level (dB)
Plant Canteen Area	64.7
Colony	47.8
Near CCR Building	72.3
Mines Field Office	67.6
Mines Office	61.8
TPP area	73.9
Main office	58.9

WATER QUALITY REPORT

	EFFLUENT QUALITY						Remark
	pH	COD	BOD	Oil & Grease	S.S.	TDS	
STP (treated)	7.2	36	14	Nil	28	471	
Mines Work Shop (treated)	7.2	32	12	3.1	23	206	
TPP DM Plant Back Wash treated in RO plant	6.5	Nil	Nil	Nil	0	42	

Note: All parameters are in mg/lit except pH.

MONTH – MARCH 2014

AMBIENT AIR MONITORING REPORT

Monitoring Station	Avg. SPM (µg/m ³)	Avg. PM ₁₀ (µg/m ³)	Avg. PM _{2.5} (µg/m ³)	Avg. SO ₂ (µg/m ³)	Avg. NOx (µg/m ³)	Avg. CO (µg/m ³)
Khairtal Village	128.8	60.8	28.6	9.8	8.6	BDL
Kukurdiñ Village	129.9	68.0	30.1	10.1	9.7	BDL
Guest House	132.5	66.6	33.3	11.0	11.9	BDL
Water Treatment Plant	185.9	80.3	41.1	11.5	13.1	BDL
Mines Field Office	194.9	87.8	44.0	13.6	16.1	BDL
Railway Operation	191.0	82.8	42.3	11.5	12.9	BDL

BDL: Below Detectable level

STACK MONITORING REPORT

Monitoring Station	Air Pollution control device	Particulate Matter (mg/Nm ³)
Kiln Stack (Line- 1)	Bag House	7.2
Crusher Stack (Line- 1)	Bag Filter	12.4
Cooler (Line- 1)	ESP	34.4
Coal Mill (Line- 1)	Bag House	21.5
Cement Mill – 1	Hybrid Filter	28.8
Cement Mill – 2	Hybrid Filter	12.6
VRPM Stack	Bag Filter	19.5
Cement Mill- 3	Bag Filter	14.1
Kiln Stack (Line- 2)	Glass Bag House	6.1
Crusher Stack (Line- 2)	Bag Filter	20.5
Coal Mill (Line- 2)	ESP	14.0
Cooler (Line- 2)	ESP	13.0
DG - 04 MW	-	Didn't run in the month
DG - 10 MW	-	Didn't run in the month
TPP- 15 MW (Old)	ESP	Didn't run in the month
TPP- 33 MW	ESP	39.3
TPP- 15 MW (New)	ESP	21.3

AMBIENT NOISE LEVEL REPORT

Location	Noise Level (dB)
Plant Canteen Area	61.2
Colony	44.7
Near CCR Building	70.3
Mines Field Office	68.2
Mines Office	51.3
TPP area	70.8
Main office	59.0

WATER QUALITY REPORT

	EFFLUENT QUALITY						
	pH	COD	BOD	Oil & Grease	S.S.	TDS	Remark
STP (treated)	7.4	48	16	Nil	26	421	
Mines Work Shop (treated)	7.4	40	14	2.7	21	276	
TPP DM Plant Back Wash treated in RO plant	6.3	Nil	Nil	Nil	0	35	

Note: All parameters are in mg/lit except pH.

Annexure-2

Water Management Plan

The water requirement for cement plant is being fulfilled by the mines pit water only, which is harvested rain water. The details of the water consumption are given in the following table.

Sections	Quantity of water (m ³ /day)
DM water consumption	37
Raw water consumption	
1. GCT	627
2. Raw mill	190
3. Cement Mill-1	30
4. Cement Mill-2	72
5. Cement Mill-3	150
6. VRPM	50
Miscellaneous	
1. Coal Mill	144
2. Compressor House	240
3. Cooling Tower	144
4. Packing Plant	120
Total	1801

Annexure-2

Water Harvesting and Water Conservation

The some of the efforts for water conservation and rain water harvesting done by Ambuja in the past 3 years through CSR activity and the project carried out by Ambuja Cement Foundation (ACF) are given as under:

Sr.No.	Project Name	Location	Project completion date	Structure dimensions	
				Surface area (m ²)	Depth (m)
1.	Pond Deepening in Shanker Pond Arjuni	Near Village Market,	14/06/2012	10000	1.0
2.	Deepening in Sahu Mopar	Near School	11/6/2012	15000	1.0
3.	Pond Deepening in Kukurdih Village	Amakoni road	26/06/2012	8000	1.0
4.	Pond Deepening in Pounsri pond	Near Karmandi road	26/06/2012	12000	1.0
5.	Pond deepening in Bharseli Village	Bharsela Road	05/05/2013	5850	0.85
6.	Pond deepening in Rawan Village	Back side of Ambuja Temple (Bhatapara Road)	20/05/2013	8740	0.78
7.	Pond Deepening in Bhatapara	Pratap Pond Near Petrol Pump	16/06/2013	6083	0.45
8.	Deepening in Bhadrपाली Village	Near Gothan	14/6/2013	3960	0.82
9.	Nala Deepening Baloda Bazar	Khorsinala Near Mukti Dham	10/05/2013	1748	0.8
10.	Pond Deepening in Baloda Bazar	Near Garden Chouk in Kamal Colony	07/06/2013	5695	0.58
11.	Farm pond in Arjuni Village	Tonatar Road	February-14	198	2.0
12.	Farm pond in Arjuni Village	Mirgi Road	March- 14	198	2.0

Annexure-3

Ground Water Monitoring Report

Ambuja Cement

REGISTERED AD

No:ACL/BU/MINE/ 9278

Dated: February 5, 2014

To,
Ministry of Environment & Forest,
Paryavaran Bhavan
CGO Complex, Lodhi Road
NEW DELHI – 110 003.


Sub: Ground Water Monitoring report of Ambuja Cements Ltd, (Unit Bhatapara).

Dear Sir,

Enclosed please find herewith the Ground Water monitoring of Rawan Limestone Mines for the quarter ending Dec-2013 (from Oct-13 to Dec-13), 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: a/a

Cc: **The Member Secretary,**
Central Ground Water Authority,
West Block- II, Wing-3(Ground Floor,Sector-1), R.K. Puram,
NEW DELHI – 110 066.

The Joint Director,
Ministry of Environment & Forest,
Regional Office, Western Region, Kendriya Paryavaran Bhawan,
Link Road No – 3, E-5, Ravishankar Nagar,
Bhopal-426 016.

The Regional Director,
Central Ground Water Board, Reena Apartment,
2nd Floor, NH 43, Dhamtari Road, Packpedi Naka,
Raipur (C.G.) – 492 007.




19-2-14
DESPATCHEK,
C.G.W.B. N.C.C.R.
Reena Apartment, Ind. Floor
N.H. 43, Dhamtari Road.,
Near Pachpedi Naka,
RAIPUR. (C.G.)

AMBUJA CEMENTS LIMITED

(Unit - Bhatapara)

P.O.- Rawan, Dist. : Baloda Bazar-Bhatapara (C.G.) 493 331, Phone : 07727-220010 to 220015, Fax: 07727-220004
(Regd. Office : P. O. Ambuja Nagar, Taluka : Kodinar, Dist. : Junagarh, Gujarat 362 715)

AMBUJA CEMENTS LIMITED, UNIT: BHATAPARA

RAWAN LIMESTONE MINES
GROUND WATER MONITORING REPORT

FOR THE QUARTER ENDING DEC-2013 (FROM OCT- 2013 TO DEC-2013)

STATION NO.	LOCATION OF Village & City	WATER LEVEL OCT-13	WATER LEVEL NOV-13	WATER LEVEL DEC-13
1	Khamriya	1.62	4.03	4.78
2	Topa	1.11	3.19	4.29
3	Arjuni	1.38	2.97	3.88
4	Maldi	1.02	2.60	3.65
5	Devrani	0.53	0.64	0.83
6	Mopar	2.89	4.61	5.35
7	Rawan	1.88	4.00	4.35
8	Karmada	2.21	2.72	3.13
9	Pausari	2.79	5.51	6.82
10	Chhuiha	1.43	3.41	Dry
11	Baloda Bazar	4.34	8.49	Dry
12	Latua	0.40	0.68	0.93
13	Dhabadih	2.28	4.43	4.98
14	Magardhapa	0.61	1.18	1.34
15	Amera	1.1	1.74	1.97
16	Risda	0.83	1.41	1.53
17	Chanpa	1.31	2.80	3.95
18	Semarahdih	2.77	5.2	6.85
19	Chandih	0.25	0.36	1.08
20	Khelwari	1.66	2.82	4.96
21	Kukurdih	1.7	3.77	4.7



(RAJOO JOSHI)

AVP (MINES)

AMBUJA CEMENTS LIMITED (UNIT BHATAPARA)

RAWAN LIMESONE MINES

Piezometer Data (Core Zone) Unit in mbgl (from Oct-13 to Dec-13)

#	Area		Oct-13	Nov-13	Dec-13
1	ML AREA	TP-1	5.55	9.75	11.75
2	Plant	TP-2	7.45	7.65	20.75
3	Bhadrapali Pond	TP-3	2.85	4.25	10.15



(Rajoo Joshi)
AVP (Mines)

The summarized water quality data for the quarter from October -13 to December -13

Parameters	Prescribed limits as per IS 10500	Khamariya DW/G	Topa TB/G	Mopar TB/G	Dhabadli DW/G	Risda DW/G	Champa HP/G	Chandi HP/G	Amra DW/G
pH value	6.5 to 8.5	7.52	7.67	7.92	8.52	7.73	7.95	8.20	7.94
Total Dissolved solids, mg/l	2000	1070	1604	462	431	867	385	240	536
Total hardness (as CaCO3) mg/l	600	514.8	751.8	248.1	207.4	388.8	188.8	144.4	196.2
Alkalinity, mg/l	600	148.8	297.6	225.6	244.8	235.2	196.8	158.4	216
Chlorides (as Cl) mg/l	1000	224.9	149.9	41.9	26.9	169.9	35.9	3.9	69.9
Iron (as Fe) mg/l	1.0	0.03	0.02	0.03	0.01	0.3	0.02	Nil	0.02
Fluoride (as F) mg/l	1.5	1.4	1.5	0.8	0.6	1.1	0.9	0.7	0.82
Sulphate (as SO4) mg/l	400	79	131.5	32.4	30.3	81	29	11.5	41.9
Nitrate (as NO3) mg/l	45	30.5	28	5.7	1.7	14	2.81	0.3	1.7
Calcium (as Ca), mg/l	200	170.3	241.4	79.9	51.8	119.9	63.7	51.8	60.7
Magnesium (as Mg)	100	21.6	36.2	11.7	18.9	21.6	7.22	3.6	10.8

BDL (Below Detectable Level)

Annexure- 4

CSR activity & Environment Management expenses during the year 2012-13 and 2013-14

Sr.No	Proposed action Towards socio-economic development during the year	Expenditure proposed in Rs.lakhs.		Expenditure incurred in Rs.Lakhs		Remarks
		2012-13	2013-14	2012-13	2013-14	
1	General development in the area					
a	Housing					
b	Water supply/Water Resource Development	71.7	49.12	30.027	28.73	
C	sanitation					
D	Health,Safety,and medicalfacilites	19.42	28.53	15.723	23.27	
2	Training (Skill Trg.)					
3	Employment to local inhabitants	49.57	63.08	35.423	83.46	
4	Infrastructure-public transport,road communication and electricity	76.77	73.15	48.955	84.05	
5	Recreation and other sport activities					
6	Expenditure for environment management			3902.37	192.08	
7	Education	12.5	16.19	12.093	14.67	
8	Agrobased Livelihood	29.33	16.86	16.1	20.14	
9	Women development	1.95	2.51	4.863	2.81	
10	Non Planned activity	8.5	4.45		2.02	
11	Establishment	36.14	56.12	64.534	46.11	
12	Villge development Programme/Stakeholder	3	10.75	0	9.82	
13	Non Conventional Energy	5.2	4.63	0	0.77	
	Total	314.08	325.39	4130.09	507.94	