

EC COMPLIANCE REPORT & ENVIRONMENTAL STATUS REPORT

(October 2014 - March 2015)

Of

Ambuja Cement Plant

1. EC letter no. J-11011/289/2005-IA II (I) dated 6th January 2006.
2. EC letter no. J-11011/355/2005-IA II (I) dated 13th April 2007.
3. EC letter no. J-11011/539/2008-IA II (I) dated 23rd December 2008.
4. EC letter no. J-11011/72/2009-IA II (I) dated 15th May 2009.
5. EC letter no. J-11011/72/2009-IA-II (I) dated 13th May, 2011.

Located At

**P.O. Rawan, Tehsil- Baloda Bazar,
District- Raipur, Chhattisgarh**

Project Proponent:

M/s Ambuja Cements Ltd.

**P.O. Rawan, Tehsil Baloda Bazar,
District Raipur, Chhattisgarh, India - 493331**

Environment Consultant:

Anacon Laboratories Pvt. Ltd., Nagpur

Recognized by MoEF (GOI) as per EPA and valid upto Jan'2019
Accredited by NABL for Chemical & Biological), valid up to 03.10.2016

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May 2015

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

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

Date: 6th January 2006

Sr. No.	EC Conditions	Action taken / Compliance Status
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/Nm ³ . Regular lime injection at Circulating Fluidized Bed Combustion (CFBC) boiler must be ensured to reduce SO ₂ 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.	Cement Plant and Captive Power Plant are equipped with dust extraction system (Bag filters, Glass Bag House & ESP) of adequate capacity to achieve gaseous and particulate matter emission below 50 mg/Nm ³ . Continuous stack monitoring system has been installed. (Photographs of control equipment's are shown in Annexure I . Monitoring results are given in Annexure II)
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.	Continuous stack monitoring system has been installed. Regular ambient air quality monitoring at six locations and noise level monitoring at seven locations is being done. The monitoring report is enclosed as Annexure II .
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.	Adequate dust collection and extraction system are installed at various transfer points to control fugitive dust. Glass bag house in raw mill and kiln, ESP in cooler and cement mill and bag filter at all the transfer points are installed. Coal and clinker storage are in the form of stockpile. The dust collected from the pollution control equipment is recycled back into the process. Storage of raw material is in closed roof sheds. Water sprinkling arrangement is made in the raw material stock yard and loading areas. (Photographs of APCS equipment's shown in Annexure I)

Sr. No.	EC Conditions	Action taken / Compliance Status
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/Nm ³ .	Being Complied. CREP guidelines are being followed. Cement Plant and Captive Power Plant are equipped with dust extraction system (Bag filters, Glass Bag House & ESP) of adequate capacity to achieve gaseous and particulate matter emission below 50 mg/Nm ³ . Monitoring results are given in Annexure II .
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.	Being Complied. 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.
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.	Being Complied. Rain water that gets collected in the mined out pit is used for plantation after proper settling. Rain water harvesting measures are being taken.
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 Complied. Plantation is being carried out in phased manner to cover 33% area of the plant. (Photographs of Plantation shown in Annexure IV).
viii.	Solid waste generated in the form of fly ash and slag shall be 100% recycled in the process itself.	Being Complied. Fly ash and slag is 100% recycled for production of PPC grade cement.
ix.	The company shall undertake eco – development measures including community welfare measures in the project area.	Being Complied. Community welfare activities are being conducted in the nearby villages through Ambuja Cement Foundation (ACF). (Annexure VII)
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. No further expansion or modification will be done without prior approval of ministry.
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, SO ₂ and NO _x are anticipated in consultation with the CECB. Data on	Six nos. of ambient air quality monitoring stations have been established in consultation with CECB & are operational for monitoring ambient air data. The data for Oct 2014 to March

Sr. No.	EC Conditions	Action taken / Compliance Status
	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.	2015 is enclosed as Annexure II .
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.	Being Complied. The treated waste water from the treatment plant is used for the purpose of dust suppression and also recycled in TPP process.
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).	Being Complied. Noise control measures including acoustic hoods, silencers, enclosures etc. are applied at various noise generating sources. The ambient noise level monitoring report is enclosed as Annexure II
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.	Being Complied. Record are maintained at 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.	Environmental protection measures suggested in the EIA/EMP report are duly implemented in the plant.
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.	Environmental Management Cell has been established under supervision of Environmental Manager with laboratory facilities. Environmental monitoring is being carried out through MOEF & NABL accredited laboratories.
ix.	The project authorities will provide adequate funds both recurring and nonrecurring 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.	Agreed and being complied. State of the art environmental protection measures have been implemented in the plant facilities. Necessary funds are allocated for implementation and maintenance of the environmental protection measures to contain pollution within permissible limits.
x.	The Regional Office of this Ministry at Bhopal / CPCB / CECB will monitor the stipulated	Being Complied.

Sr. No.	EC Conditions	Action taken / Compliance Status
	conditions. A six monthly compliance report and the monitored data along with statistical interpretation should be submitted to them regularly.	
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.	Noted and 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.nic.in . 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.	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.	Noted
4.	The Ministry may revoke or suspend the clearance id implementation of any of the above mentioned conditions is not satisfactory.	Noted
5.	Any other conditions or alteration in the above conditions will have to be implemented.	Noted
6.	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

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

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

Date: 13th April 2007

Sr. No.	EC Conditions	Action taken /Compliance Status
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/Nm ³ . The emission from CPP shall be less than 100 mg/Nm ³ . Continuous online stack monitoring facilities for all the stacks and adequate air pollution control system shall be provided to keep emission levels below 50 mg/Nm ³ 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.	Cement Plant and Captive Power Plant are equipped with dust extraction system (Bag filters, Glass Bag House & ESP) of adequate capacity to achieve gaseous and particulate matter emission below 50 mg/Nm ³ . Continuous stack monitoring system has been installed. (Photographs of control equipment's are shown in Annexure I . Monitoring Results are given in Annexure II)
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.	Regular ambient air quality monitoring at six locations including one location in downwind direction and noise level monitoring at seven locations is done. Half yearly reports are regularly submitted to MoEF, Bhopal. The monitoring report for Oct 2014 to March 2015 is enclosed as Annexure II
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/Nm ³ from all the sources except CPP where 100 mg/Nm ³ 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	The company has installed 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 has been provided to control air emission less than 50 mg/Nm ³ from all the sources except

Sr. No.	EC Conditions	Action taken /Compliance Status
	auxiliaries. The dust collected from the pollution control equipment's shall be recycled back in to the process. Storage of raw material shall be in closed roof shed.	CPP where 100 mg/Nm ³ norms are being achieved. Bag filters are 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 equipment's is recycled back in to the process. Storage of raw material is in closed roof shed. (Photographs of control equipment's shown in Annexure I)
iv.	Asphalting/concreting of roads and water spray all around the coal stockpiles shall be carried out to control fugitive emissions.	Noted and Complied. Most of the roads are black topped/concreted inside the plant premises and water is sprinkled around the raw material storage facilities. (Photographs of black topped roads shown in Annexure V)
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 and being complied.
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.	Being complied. Total water requirement is being met from the mine pits only. The waste water after treatment in ETP is used for ash conditioning, dust separation and green belt development. Zero effluent discharge condition is maintained at plant. Domestic effluent after treatment in STP is used for green belt development within plant and colony and for dust suppression and plantation in mines. (Photographs of treatment plants shown in Annexure VI)
vii.	The entire 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.	Being Complied. The entire water requirement is being met from artificial reservoir made in mine pit only.
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	Being Complied. Rain water that gets collected in the mined out pit is used for plantation after proper settling. Rain water harvesting is being carried out.

Sr. No.	EC Conditions	Action taken /Compliance Status
	conserve fresh water.	
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 Complied. (Photographs of Plantation shown in Annexure IV).
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 Pozollana 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 / re-processors.	Being Complied. All the dust collected from pollution control process is reused in various processes. Fly ash generated from the power plant is handled pneumatically and is used in making PPC grade cement. Boiler ash and sludge from the sewage treatment plant is used for land filling and as manure respectively. Hazardous waste and batteries are sold to authorize recycler only.
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.	Being Complied. High calorific hazardous waste generated in the plant is being used as fuel in kiln.
xii.	The company shall undertake eco-development measures including community welfare measures in the project area.	Being Complied. Ambuja Cement Foundation is engaged in Socio economic welfare activities like Installation of Bio gas plants, Skill development programs, Installation of Gobar gas plants, Wadi projects, etc. (Annexure VII)
xiii.	All the recommendations of the CREP guidelines shall be strictly followed.	Noted and Being Complied.
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. No further expansion or modification will be done without prior approval of ministry.
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, SO ₂ 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.	Six nos. of ambient air quality monitoring stations have been established in consultation with CECB & are operational for monitoring ambient air data. The date for Oct 2014 to March 2015 is enclosed as Annexure II .

Sr. No.	EC Conditions	Action taken /Compliance Status
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 Complied. The treated waste water from the treatment plant is used for the purpose of dust suppression and also recycled in TPP process.
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).	Being Complied. Noise control measures are applied at various noise generating sources. The ambient noise level monitoring report is enclosed as Annexure II
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.	Noted and Complied. Environmental protection measures, suggested in the EIA/EMP report are duly implemented in the plant.(Annexure VII)
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 and being complied. State of the art environmental protection measures have been implemented in the plant facilities. Annual funds are allocated for implementation and maintenance of the environmental protection measures to contain pollution within permissible limits.
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 compliance reports of the EC conditions are regularly submitted to MoEF Bhopal, CPCB and CECB offices.
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	The advertisement of grant of environmental clearance was published in local widely circulated newspapers.

Sr. No.	EC Conditions	Action taken /Compliance Status
	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.	
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.	<ul style="list-style-type: none"> • Complied. • Environmental Clearance date:13.04.2007 • Annual financial closures is on 31st December.
3.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Agreed.
4.	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner will implement these conditions.	Agreed.
5.	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.

COMPLIANCE OF THE CONDITIONS STIPULATED 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

Sr. No.	EC Conditions	Action taken /Compliance Status
A. 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 50mg/Nm ³ 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, CECB and CPCB regularly. Efforts shall also be made to reduce SO ₂ and Nox emissions. Stack emission monitoring reports shall be submitted to the Ministry's Regional Office at Bhopal, CECB and CPCB regularly.	Cement Plant is equipped with dust extraction system (Bag filters, Glass Bag House & ESP) of adequate capacity to achieve gaseous and particulate matter emission below 50 mg/Nm ³ . Continuous stack monitoring system has been installed. (Photographs of control equipment's are shown in Annexure I . Monitoring results are given in Annexure II)
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.	Being complied.
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 complied. Material transport is being carried out in covered trucks. Transport roads are regularly sprinkled with water and are periodically maintained. Overloading is strictly prohibited. Air quality monitoring is carried out in nearby villages to ensure efficacy of air pollution control measures adopted in the plant.
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	Adequate dust collection and extraction system are installed at various transfer points to control fugitive dust. (Photographs of control equipment's shown in Annexure I)

Sr. No.	EC Conditions	Action taken /Compliance Status
	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 goodhousekeeping shall be adopted to control fugitive emissions.	
v.	Asphalting/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.	Noted and Complied. Most of the roads are black topped/concreted inside the plant premises and water is sprayed around the raw material storage facilities. (Monitoring results are given in Annexure II Photographs of black topped roads shown in Annexure V)
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.	Ambient air quality including ambient noise levels are being monitored at six different locations including core zone and buffer zone. Stack monitoring is also regularly conducted and reports are submitted six monthly to MoEF, CPCB & CECB. Monitoring results for the period October 2014 to March 2015 are given in Annexure II)
vii.	As proposed, total water requirement for cement plant (50m ³ /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	Water requirement of the plant is being met from mine pit water. Effluent generated from the plant is treated and is reused for dust suppression and plantation. No effluent is discharged outside the plant premises. Sewage is treated in STP located in colony and treated effluent is used for green belt development and dust suppression.

Sr. No.	EC Conditions	Action taken /Compliance Status
	green belt development.	
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. Domestic waste from the colony is used for composting and the compost thus prepared is used for green belt development.
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 / re-processors 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 / re-processors only.	All the bag filter dust, raw meal dust, coal dust, clinker dust and cement dust from pollution control devices is being recycled and reused in the process and used for cement manufacturing. Spent oil and batteries shall be sold to authorized recyclers / re-processors only. All the solid waste generated from colony and STP are disposed after segregating the waste into biodegradable and non-degradable. Treated STP sludge is used as manure for green belt development. The waste oil and scrapped automobile batteries etc. are sold to authorized recyclers / re-processors only.
x.	An effort shall be made to use high calorific hazardous waste in the cement kiln and necessary provision shall be made accordingly.	Being complied.
xi.	Efforts shall be made to use low grade lime, more fly ash and solid waste in the cement manufacturing.	Being complied.
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 Pozzollana 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 Complied. Plantation is being carried out in phased manner to cover 33% area of the plant. (Photographs of Plantation shown in Annexure IV)
xiv.	All the recommendations made in the Charter on	Noted and Being Complied.

Sr. No.	EC Conditions	Action taken /Compliance Status
	Corporate Responsibility for Environment Protection (CREP) for the Cement Plants shall be implemented.	
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.
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 shall be carried out without prior approval of this Ministry.	Noted. No further expansion or modification will be done without prior approval of ministry.
iii.	The gaseous (SO ₂ , 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 complied. Stack monitoring and Ambient air quality monitoring results are regularly submitted to MoEF, CPCB & CECB.
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 Complied. The treated waste water from the treatment plant is used for the purpose of dust suppression and also recycled in TPP process.
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 Complied. Rainwater harvesting measures are being carried out. Rain water that gets collected in the mined out pit is used for plantation after proper settling..
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	Being Complied. Noise control measures are applied at various noise generating sources. The ambient noise level monitoring report is enclosed as Annexure II

Sr. No.	EC Conditions	Action taken /Compliance Status
	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.	
vii.	Proper housekeeping 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 Complied. Records are maintained at Health department.
viii.	The company shall undertake eco-development measures including community welfare measures in the project area.	Being complied. Eco-development measures and community welfare measures are being implemented through Ambuja Cement Foundation. (Annexure VII)
ix.	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the Rapid and Comprehensive EIA/EMP.	Being complied. Environmental protection measures recommended in EIA/EMP report are duly implemented in the plant.
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.	Environmental Management Cell has been established under supervision of Environmental Manager.
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.	Being complied. State of the art environmental protection measures have been implemented in the plant facilities. Annual funds are allocated for implementation and maintenance of the environmental protection measures to contain pollution within permissible limits.
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. Six monthly compliance report to the EC conditions are regularly submitted to MoEF, CPCB & CECB.
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	Being complied. Environmental clearance granted on 23rd December 2008.

Sr. No.	EC Conditions	Action taken /Compliance Status
	concerned authorities and the date of commencing the land development work.	Annual financial closure is on 31st December.
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.	The advertisement of grant of environmental clearance was published in local widely circulated newspapers.
7.	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.	Noted.
8.	The Ministry may revoke or suspend the clearance if implementation of any of the above conditions is not satisfactory.	Noted.
9.	Any other conditions or alteration in the above conditions shall have to be implemented by the project authorities in a time bound manner.	Noted.
10.	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.	Noted.
11.	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.

COMPLIANCE OF THE CONDITIONS STIPULATED 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

Sr. No.	EC Conditions	Action taken /Compliance Status
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.	Being complied.
ii.	The particulate matter emissions from various sources shall not exceed 50 mg/Nm ³ . 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.	Cement Plant is equipped with dust extraction system (Bag filters, Glass Bag House & ESP) of adequate capacity to achieve gaseous and particulate matter emission below 50 mg/Nm ³ (Photographs of control equipment's are shown in Annexure I . Monitoring results are given in Annexure II)
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.	Being complied. Six air quality monitoring locations including core zone and downwind direction are established and regular monitoring is being carried out. Monitoring results are given in Annexure II
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, SO ₂ and NO _x shall also be displayed prominently outside the premises at the appropriate place for the general public.	Being complied. Ambient air quality stack emission and fugitive emission data is uploaded on the website and submitted to Ministry's Regional Office on six monthly frequencies. http://www.ambujacement.com/sustainable-development/environment/
v.	The Company shall submit water conservation and management plan to meet out the requirement of 150 m ³ /day from the existing water sources and no ground water shall be drawn for the plant.	Rainwater accumulated in Rawan Mine pit is being used for plant operation. Treated effluent from process is recycled in the plant. Rainwater harvesting measures are implemented. Treated effluent from STP in

Sr. No.	EC Conditions	Action taken /Compliance Status
	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.	the colony is used for dust suppression and plantation in mines and plant. The water conservation and management plan to meet the requirement of 150 m ³ /day from the existing water sources is shown in Annexure III
vi.	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 Complied. Plantation is being carried out in phased manner to cover 33% area of the plant. (Photographs of Plantation shown in Annexure IV)
vii.	The project authorities shall transport the raw materials and cement in covered means to avoid fugitive emission during transport.	Raw material and cement are transported in fully covered/closed manner.
viii.	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 and complied with.
ix.	All the recommendations mentioned in the CREP guidelines for the cement plants shall be followed and complied.	Noted and Being Complied.
x.	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.
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.
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	Noted. No further expansion or modification will be done without prior approval of ministry.

Sr. No.	EC Conditions	Action taken /Compliance Status
	clearance, a fresh reference shall be made to add additional environmental protection measures required, if any.	
iv.	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.	Noted and being implemented.
v.	The gaseous emissions (SO ₂ , 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.	Noted and being implemented. Monitoring results are given in Annexure II
vi.	The company shall undertake following Waste Minimization measures. <ul style="list-style-type: none"> • Reuse of by-products from the process as raw materials or as raw materials substitutes in other processes. • Use of "Closed pneumatic" system for transport of fine material. • All venting systems shall be connected with dust arresting equipment's. • Dust collected in pollution control equipment's shall be reused. 	Being Complied. Fly ash generated from captive power plant is fully utilized for making PPC grade cement. Fly ash generated from the power plant is handled by closed pneumatic system. All venting and transfer points are connected with bag filters for arresting the dust. Cement Mill ESPs have been converted to Hybrid Filter and dust from pollution control equipment's 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.	Being complied.
viii.	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).	Being Complied. Noise control measures are applied at various noise generating sources. The ambient noise level monitoring report is enclosed as Annexure II
ix.	The company shall develop rain water harvesting structures to harvest the run-	Rain water is being harvested in mined out pits. The storage capacity of mined out pit is

Sr. No.	EC Conditions	Action taken /Compliance Status
	off water for recharge of ground water.	about 54 lakh m3. The water requirement of plant and Mines is fulfilled by the harvested water stored in mined out pits. Rooftop rainwater harvesting measures are being carried out.
x.	Occupational health and safety measures shall be undertaken. Periodic monitorial 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 program for the workers are undertaken regularly. Records are maintained at Health department.
xi.	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.	Being complied. Eco-development measures and community welfare measures are being implemented through Ambuja Cement Foundation. (Annexure VII)
xii.	A separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.	Environmental Management Cell has been established under supervision of Environmental Manager.
xiii.	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.	Being complied. State of the art environmental protection measures have been implemented in the plant facilities. Annual funds are allocated for implementation and maintenance of the environmental protection measures to contain pollution within permissible limits.
xiv.	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.	Being complied. Six monthly compliance reports are regularly submitted to MoEF, CPCB & CECB and are posted on website of the company.
xv.	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	The advertisement of grant of environmental clearance was published in local widely circulated newspapers.

Sr. No.	EC Conditions	Action taken /Compliance Status
	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.	
xvi.	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.	<ul style="list-style-type: none"> • Complied. • Environmental Clearance date:15.05.2009 • Annual financial closure is on 31st December.
6.	The ministry may revoke or suspend the clearance if implementation of any of the above conditions is not satisfactory.	Noted.
7.	The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner shall implement these conditions.	Noted.
8.	Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred within a period of 30 days asprescribed under Section 11 of the National Environment Appellate Authority Act, 1997.	Noted.
9.	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 along with their amendments and rules.	Noted.

COMPLIANCE OF THE CONDITIONS STIPULATED 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.

Sr. No.	EC Conditions	Compliance Status
	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. The Stage I and Stage II cement expansion is within the maximum capacity of 3.5 MTPA for which environmental clearance has been obtained.
ii.	There shall not be any change in process technology, or any other process parameters, or air pollution control system.	Noted and being complied. There is no change in process technology, or any other process parameters, or air pollution control system.
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.	Being complied. Continuous on-line monitors for the particulate emissions are installed.
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.	Noted and complied.
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	Being adhered to. Environmental statement is submitted annually to the CECB.

Sr. No.	EC Conditions	Compliance Status
	amended subsequently, shall also be put on the website of the Company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective regional Office of the MoEF by e-mail.	
5.	In case of change in the scope of the project, the company shall obtain fresh environmental clearance.	Noted. No further expansion or modification will be done without prior approval of ministry.

ANNEXURE I

Pollution Control Equipment's



ESP at TTP 15 MW



ESP at Cooler



Bag Filter at Crusher Stack



Hybrid Filter at Cement Mill



ESP at TTP 50 MW



ESP at Old TTP 15 MW



Bag House at Klin Stack



Bag House at Klin Stack



ESP at Cooler

ANNEXURE II

Monitoring Results

MONTH – OCTOBER 2014

AMBIENT AIR MONITORING REPORT

Monitoring Station	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	34.82	17.53	8.38	9.65	BDL
Kukurdi Village	37.62	20.2	8.97	9.69	BDL
Guest House	38.74	22.62	8.73	11.28	BDL
Water Treatment Plant	41.03	23.96	9.05	9.23	BDL
Mines Field Office (Rawan Mine)	42.43	29.69	9.74	12.41	BDL
Railway Operation	40.03	26.56	9.02	11	BDL

BDL: Below Detectable level**STACK MONITORING REPORT**

Monitoring Station	Particulate Matter (mg/Nm ³)
Kiln Stack (Line- 1)	9.90
Crusher Stack (Line- 1)	24.93
Cooler (Line- 1)	24.25
Coal Mill (Line- 1)	23.04
Cement Mill – 1	29.33
Cement Mill – 2	6.73
Cement VRPM stack	22.34
Cement Mill- 3	19.36
Kiln Stack (Line- 2)	9.54
Crusher Stack (Line- 2)	28.46
Coal Mill (Line- 2)	27.87
Cooler (Line- 2)	28.87
DG - 04 MW	Didn't run in the month
DG - 10 MW	Didn't run in the month
TPP- 15 MW (Old)	36.79
TPP- 33 MW	28.60
TPP- 15 MW (New)	Didn't run in the month

AMBIENT NOISE LEVEL REPORT

Location	Noise Level (Leq in dBA)
Plant Canteen Area	60.73
Colony	47.65
Near CCR Building	69.58
Mines Field Office (Rawan Mine)	64.65
Mines Office (Rawan Mine)	57.68
TPP area	70.65
Main office	56.15

WATER QUALITY REPORT

EFFLUENT QUALITY							
	pH	COD	BOD	Oil & Grease	S.S.	TDS	Remark
STP (treated)	7.49	37	12	Nil	32	241	
Mines Work Shop (treated) (Rawan Mine)	7.54	38	13	2.1	17	354	
TPP DM Plant back wash (RO installed)	5.5	Nil	Nil	Nil	0	45	

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

MONTH – NOVEMBER 2014

AMBIENT AIR MONITORING REPORT

Monitoring Station	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	34.1	21.2	7.9	8.3	BDL
Kukurdi Village	36.2	18.2	8.2	8.3	BDL
Guest House	40.5	26.6	9.1	10.6	BDL
Water Treatment Plant	46.1	28.1	8.3	9.3	BDL
Mines Field Office (Rawan Mine)	42.0	28.6	8.0	10.5	BDL
Railway Operation	45.0	30.2	10.6	11.9	BDL

BDL: Below Detectable level**STACK MONITORING REPORT**

Monitoring Station	Particulate Matter (mg/Nm ³)
Kiln Stack (Line- 1)	8.8
Crusher Stack (Line- 1)	29
Cooler (Line- 1)	19.5
Coal Mill (Line- 1)	17.4
Cement Mill – 1	29.7
Cement Mill – 2	5.3
Cement VRPM stack	Didn't run in the month
Cement Mill- 3	38.5
Kiln Stack (Line- 2)	6.1
Crusher Stack (Line- 2)	24.3
Coal Mill (Line- 2)	21
Cooler (Line- 2)	19.8
DG – 04 MW	Didn't run in the month
DG – 10 MW	Didn't run in the month
TPP- 15 MW (Old)	Didn't run in the month
TPP- 33 MW	31.4
TPP- 15 MW (New)	34.9

AMBIENT NOISE LEVEL REPORT

Location	Noise Level (Leq in dBA)
Plant Canteen Area	61.6
Colony	48.0
Near CCR Building	69.1
Mines Field Office (Rawan Mine)	65.8
Mines Office (Rawan Mine)	59.0
TPP area	59.6
Main office	56.9

WATER QUALITY REPORT

EFFLUENT QUALITY							
	pH	COD	BOD	Oil & Grease	S.S.	TDS	Remark
STP (treated)	7.55	38	14	Nil	27	358	
Mines Work Shop (treated) (Rawan Mine)	7.62	32	12	1.9	29	349	
TPP DM Plant back wash (RO installed)	4.96	Nil	Nil	Nil	0	37	

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

MONTH – DECEMBER 2014

AMBIENT AIR MONITORING REPORT

Monitoring Station	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	37.1	24.6	8.3	8.0	BDL
Kukurdi Village	35.2	24.1	8.0	8.6	BDL
Guest House	45.1	30.2	9.9	10.3	BDL
Water Treatment Plant	49.4	29.7	9.1	9.9	BDL
Mines Field Office (Rawan Mine)	49.6	31.2	9.5	10.2	BDL
Railway Operation	44.4	29.2	9.2	10.2	BDL

BDL: Below Detectable level**STACK MONITORING REPORT**

Monitoring Station	Particulate Matter (mg/Nm ³)
Kiln Stack (Line- 1)	8.9
Crusher Stack (Line- 1)	14.6
Cooler (Line- 1)	21.1
Coal Mill (Line- 1)	18.1
Cement Mill – 1	32.8
Cement Mill – 2	6.4
Cement VRPM stack	20.7
Cement Mill- 3	10.5
Kiln Stack (Line- 2)	6.2
Crusher Stack (Line- 2)	19.7
Coal Mill (Line- 2)	24.8
Cooler (Line- 2)	23.6
DG – 04 MW	Didn't run in the month
DG – 10 MW	Didn't run in the month
TPP- 15 MW (Old)	Didn't run in the month
TPP- 33 MW	36.3
TPP- 15 MW (New)	28.3

AMBIENT NOISE LEVEL REPORT

Location	Noise Level (Leq in dBA)
Plant Canteen Area	64.8
Colony	47.6
Near CCR Building	68.7
Mines Field Office (Rawan Mine)	65.9
Mines Office (Rawan Mine)	61.1
TPP area	67.7
Main office	63.0

WATER QUALITY REPORT

EFFLUENT QUALITY							
	pH	COD	BOD	Oil & Grease	S.S.	TDS	Remark
STP (treated)	7.6	44	16	Nil	24	382	
Mines Work Shop (treated) (Rawan Mine)	7.7	28	10	1.8	22	361	
TPP DM Plant back wash (RO installed)	5.7	Nil	Nil	Nil	0	69	

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

MONTH – JANUARY 2015

AMBIENT AIR MONITORING REPORT

Monitoring Station	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	34.0	29.45	9.51	8.57	BDL
Kukurdi Village	33.4	28.61	9.14	8.93	BDL
Guest House	40.5	30.21	10.45	10.36	BDL
Water Treatment Plant	45.9	32.14	12.46	12.1	BDL
Mines Field Office (Rawan Mine)	45.7	32.74	12.74	9.99	BDL
Railway Operation	46.2	31.55	12.74	11.81	BDL

BDL: Below Detectable level**STACK MONITORING REPORT**

Monitoring Station	Particulate Matter (mg/Nm ³)
Kiln Stack (Line- 1)	15.5
Crusher Stack (Line- 1)	17.6
Cooler (Line- 1)	26.1
Coal Mill (Line- 1)	19.6
Cement Mill – 1	31.7
Cement Mill – 2	9.0
Cement VRPM stack	20.7
Cement Mill- 3	11.2
Kiln Stack (Line- 2)	5.90
Crusher Stack (Line- 2)	8.20
Coal Mill (Line- 2)	24.1
Cooler (Line- 2)	18.6
DG – 04 MW	Didn't Run in the month
DG – 10 MW	Didn't Run in the month
TPP- 15 MW (Old)	Didn't Run in the month
TPP- 33 MW	30.7
TPP- 15 MW (New)	34.4

AMBIENT NOISE LEVEL REPORT

Location	Noise Level (Leq in dBA)
Plant Canteen Area	65.5
Colony	47.7
Near CCR Building	68.5
Mines Field Office (Rawan Mine)	66.5
Mines Office (Rawan Mine)	58.0
TPP area	65.8
Main office	58.8

WATER QUALITY REPORT

EFFLUENT QUALITY							
	pH	COD	BOD	Oil & Grease	S.S.	TDS	Remark
STP (treated)	7.41	36	16	Nil	29	414	
Mines Work Shop (treated) (Rawan Mine)	7.55	34	14	1.7	24	346	
TPP DM Plant back wash (RO installed)	5.10	Nil	Nil	Nil	0	29	

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

MONTH – FEBRUARY 2015

AMBIENT AIR MONITORING REPORT

Monitoring Station	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	39.7	33.8	7.90	8.40	BDL
Kukurdi Village	41.3	28.9	7.14	9.30	BDL
Guest House	42.8	26.2	7.90	8.40	BDL
Water Treatment Plant	54.1	37.3	10.8	12.7	BDL
Mines Field Office (Rawan Mine)	54.9	34.7	9.74	14.3	BDL
Railway Operation	56.1	33.7	8.68	12.9	BDL

BDL: Below Detectable level**STACK MONITORING REPORT**

Monitoring Station	Particulate Matter (mg/Nm ³)
Kiln Stack (Line- 1)	7.10
Crusher Stack (Line- 1)	10.4
Cooler (Line- 1)	10.2
Coal Mill (Line- 1)	18.1
Cement Mill – 1	27.9
Cement Mill – 2	10.9
Cement VRPM stack	8.20
Cement Mill- 3	28.9
Kiln Stack (Line- 2)	5.60
Crusher Stack (Line- 2)	6.20
Coal Mill (Line- 2)	22.0
Cooler (Line- 2)	18.4
DG – 04 MW	Didn't Run in the month
DG – 10 MW	Didn't Run in the month
TPP- 15 MW (Old)	31.7
TPP- 33 MW	35.6
TPP- 15 MW (New)	Didn't Run in the month

AMBIENT NOISE LEVEL REPORT

Location	Noise Level (dBA)	
	Day Time (Leq in dBA)	Night Time (Leq in dBA)
Plant Canteen Area	66.8	64.2
Colony	49.5	47.6
Near Old CCR Building	69.2	68.4
Near New CCR Building	68.8	67.8
Mines Field Office (Rawan Mine)	65.5	64.2
Mines Office (Rawan Mine)	56.0	52.0
TPP area	64.2	63.4
Main office	59.8	57.4

WATER QUALITY REPORT

EFFLUENT QUALITY							
	pH	COD	BOD	Oil & Grease	S.S.	TDS	Remark
STP (treated)	7.75	32	14	Nil	32	392	
Mines Work Shop (treated) (Rawan Mine)	7.80	30	12	1.6	26	358	
TPP DM Plant back wash (RO installed)	5.40	Nil	Nil	Nil	0	38	

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

MONTH – MARCH 2015

AMBIENT AIR MONITORING REPORT

Monitoring Station	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	42.5	28.4	9.2	10.4	BDL
Kukurdi Village	43.6	33.8	8.6	10.1	BDL
Guest House	45.8	31.8	9.3	10.9	BDL
Water Treatment Plant	57.2	38.8	10.2	11.8	BDL
Mines Field Office (Rawan Mine)	58.9	37.1	10.8	12.6	BDL
Railway Operation	58.1	36.7	11.6	13.5	BDL

BDL: Below Detectable level**STACK MONITORING REPORT**

Monitoring Station	Particulate Matter (mg/Nm ³)
Kiln Stack (Line- 1)	10.1
Crusher Stack (Line- 1)	11.9
Cooler (Line- 1)	21.8
Coal Mill (Line- 1)	22.5
Cement Mill – 1	27.2
Cement Mill – 2	17.3
Cement VRPM stack	8.60
Cement Mill- 3	30.6
Kiln Stack (Line- 2)	5.10
Crusher Stack (Line- 2)	16.0
Coal Mill (Line- 2)	19.9
Cooler (Line- 2)	13.7
DG – 04 MW	Didn't Run in the month
DG – 10 MW	Didn't Run in the month
TPP- 15 MW (Old)	27.8
TPP- 33 MW	36.6
TPP- 15 MW (New)	Didn't Run in the month

AMBIENT NOISE LEVEL REPORT

Location	Noise Level (dBA)	
	Day Time (Leq in dBA)	Night Time (Leq in dBA)
Plant Canteen Area	66.2	65.9
Colony	47.3	46.9
Near Old CCR Building	67.9	67.6
Near New CCR Building	68.2	67.8
Mines Field Office (Rawan Mine)	60.9	60.6
Mines Office (Rawan Mine)	60.0	59.6
TPP area	67.9	67.5
Main office	65.0	59.6

WATER QUALITY REPORT

EFFLUENT QUALITY							
	pH	COD	BOD	Oil & Grease	S.S.	TDS	Remark
STP (treated)	7.79	30	12	Nil	28	484	
Mines Work Shop (treated) (Rawan Mine)	7.82	28	12	1.7	28	380	
TPP DM Plant back wash (RO installed)	5.49	Nil	Nil	Nil	0	9	

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

ANNEXURE III

Water Management Plan

The water requirement for cement plant is being fulfilled through the rainwater accumulated in Rawan Limestone mines pits only. The details of the water consumption are given in the following table:

Section	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

Some of the efforts for water conservation and rain water harvesting done by Ambuja Cements Ltd. 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	11/06/2012	15000	1.0
3	Pond Deepening in Kurkurdih Village	Amakoni road	26/06/2012	8000	1.0
4	Pond Deepening in Pounsri pond	Near Karmandi	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 Bhadrupali Village	Near Gothan	14/06/2013	3960	0.82
9	Nala Deepening Baloda Bazar	Khorsinala Near MuktiDham	10/05/2013	1748	0.80
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	Februray-14	198	2.0
12	Farm pond in Arjuni Village	Mirgi Road	March-14	198	2.0

Note: Increase in rainwater storage capacity of pond/nala due to deepening and creation of new farm pond is given in table below:

Sr. No.	Type of Water Body	Increased storage Capacity (m ³)
1.	Deepening of Pond	67474
2.	Farm Pond	792
Total		68266

ANNEXURE IV

Photographs of Plantation in Plant Premises





ANNEXURE V

Black Topped Road inside Plant Premises





ANNEXURE VI

Water Treatment Plant



ANNEXURE VII

CSR DURING THE YEAR OCTOBER 2014 TO MARCH 2015

AMBUJA CEMENT FOUNDATION - BHATAPARA,		
Expenditure Details for October 2014- March, 2015		
Sr. No.	ACTIVITY	Expenditure (in Rs. Lakhs)
1	Water Resource Management & Drinking water	3.649
2	Rural Infrastructure Development Programme	77.217
3	Agrobased Livelihood & Allied Activities	10.437
4	Health & Sanitation Program	31.601
5	Education Development	11.843
6	Women development	1.104
7	Non-conventional Energy	0.301
8	Skill and Entrepreneurship Development Institute (SEDI)	32.266
9	Stakeholder Engagement Event	2.207
10	Establishment	27.696
11	Unplanned Activity(Community Welfare Expenses)	0.483
TOTAL		198.805

Highlights of Works of Ambuja Cement Foundation (October 2014 to March 2015)		
Programmes / Activities	Achievement	Details of Activity
Water Resource Management and Drinking Water		
Hand Pump	1	1 Hand pump installed in Karmandi village.
Drinking water Supply Pipe Line	1	1 Drinking water pipe line of 360 m installed in Mudhipar village
Rural Infrastructure Development		
Roads and Culverts	1229 m	300 m C.C. Road constructed in Karmandi village. 200 m cc road constructed in Kukurdi village, 270 m in Rawan village, 200 m in Jethani village. 259 m road in Baloda bazar, 1 km Road repairing work done in Mudhipar village.
Cemented Ghat	1	1 Cemented ghat constructed in Maldi village
Drainage Construction	100 m	100m drainage in Rawan covered with slab
Street lights	40	40 street lights installed in Rawan and Pousari
Play Ground Development	1	1 Playground developed in school in Devrani village
Construction of Community Place	2	1 community place constructed in Rawan village, 1 bus stop constructed in Baloda bazar.
Agro based Livelihood and Allied Activities		
Farmer's training and Exposure visits	6	6 Trainings and exposure visits organized for Farmers on improved agriculture
Crop Diversification	60	Monitoring of Kharif crop demonstration of Urad, Pigion pea, Soyabean
Vegetable Promotion	66	Monitoring of vegetable promotion
Promotion of SRI	08 (15)	Monitoring of SRI method of paddy cultivation
SMART (Sustainable Multispecies Agriculture Resource Use Technique)	3	1 low cost Drip irrigation system installed in Kukurdi village
Aquaculture		Fingerlings provided to 2 groups for two pond in Rawan and Pousari from ponds of fisheries department ponds. 10000 fingerlings provided to each group. 1500 fingerlings provided to one farmer of Rawan village.
Promoting Irrigation facilities	3	
Vermi-compost Promotion		5 Vermi-compost pits constructed (Arjuni-3, Kahirtal-1, Kukurdi-1)

Highlights of Works of Ambuja Cement Foundation (October 2014 to March 2015)		
Programmes / Activities	Achievement	Details of Activity
Animal Husbandary Treatment cum Awareness Camp	13	
Health and sanitation		
Health Camps	70	70 Health camps organized including general health camp, Anti Natal care camps, Diabetes detection camp, Blood group detection camps etc in the project villages. Medicines were also distributed to the patients.
Health Awareness Camp	20	2 Awareness camp organized on National Nutrition week in Rawan and Mopar village. Mrs Santoshi Dheebbar conducted the programme as a resource person. They educated about the importance of nutrition, type of supplementary diet after 6 month, nutritional diet of the breast feeding mothers and benefits of a breast feeding mother.
Construction of Toilets	35	25 toilet construction supported for individual houses and 10 toilets constructed for schools
Training of Village health functionaries	9	10 trainings provided to village level health functionaries, health <i>Sakhis</i> , etc on health and sanitation
HIV/AIDS awareness programmes	7	7 awareness programmes on HIV/AIDS conducted in project villages
Support to Anganwadi	6	6 Anganwadi centres supported for health check up, medicines and wall paintings on various health related aspects.
Education Development		
School Support programme	25	25 schools of project villages supported with sports materials, education materials, infrastructure support such as Almirah etc.
Orientation and Sensitization of teachers	3	3 training programmes were conducted for teachers of schools on action based learning to improve quality of education in schools.
Recurring cost per school(For Nine Months)	1	Support of 2 Teachers as Balmitras given to Devrani, and Sarkipar village from this month.
Bus facility for school children		Bus facility for college going girls being run on regular basis for girls of project villages to Baloda bazar.

Highlights of Works of Ambuja Cement Foundation (October 2014 to March 2015)		
Programmes / Activities	Achievement	Details of Activity
Support for Library		School library of schools were supported with books. In Bhatapara, one library is being developed and infrastructure support provided to the library.
Village Knowledge Centre		1 Village knowledge centre is being run in Rawan village and basic computer education is being provided in the center.
Women Empowerment and Development		
Training of SHGs	6	6 Training programmes were organized for SHG members on various aspects such as strengthening of SHG, maintaining books of accounts, income generating activities such as Agarbatti making, Paper plate making, paper envelope making etc.
Support to SHG	20	20 new SHG formed and provided box and stationery
Women Empowerment Event		International Women's Day celebrated and women from project villages discussed about rights and issues related to women.
Non-conventional Energy		
Bio-gas Promotion	1	1 Bio-gas constructed in Mopar village
SEDI	178 youths trained	178 Youths trained on various trades such as Electrician, Mason, Carpentry, Beautician and Driving trade
Stakeholder Engagement Event		
CAP Meeting	2	2 Meetings organized for Community Advisory Panel
News Letter	1	1 newsletter published covering developmental innovations
Sports Events	6	6 Sports events organized for promoting sports among rural youths



Agricultural Activity



Animal Husbandry Camp



Cement Road Karmandi



CAP Meeting



Nutrition Week



Community Safety Program



Hand Wash Day Program



Health Awareness Program



HIV AIDS awareness Program



IGA Training



Karmandi Hand Pump



Mega Health Camp

Appendix

EC Letter

F. No. J-11011/289/2005- IA II (I)
Government of India
Ministry Environment and Forests
(I.A. Division)

E-Mail : pb.rastogi@nic.in
Telefax : 011-24367668

Paryavaran Bhawan,
CGO Complex, Lodhi Road
New Delhi – 110 003
Dated 6th January, 2006

To, ✓
Shri S. Banerjee
Vice President (Engg.)
M/s Gujarat Ambuja Cements Ltd.
24& Okhla Industrial Estate, Phase – III
New Delhi

Fax No. 011- 26848007

**Sub : Cement plant at Baloda Bazar, village Rawan, District Raipur, Chattisgarh by
M/s Ambuja Cement Eastern Ltd. - Environmental clearance reg.**

Sir,

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 m³/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. NO_x burners should be installed to control NO_x 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.
- ii. Ambient air quality including ambient noise levels must 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 the Board quarterly and to the Ministry's Regional Office at Bhopal half-yearly. Continuous stack monitoring system should be installed.
- 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.
- iv. All the recommendations of the Corporate Responsibility or Environmental Protection (CREP) shall be followed and existing ESP in cement mill I and II and bag filters in raw mill, kiln and crusher area shall be modified to achieve 99.95% efficiency and particulate emission levels less than 50 mg/Nm³.
- 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.
- 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.
- 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.
- viii. Solid waste generated in the form of fly ash and slag shall be 100% recycled in the process itself.

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

B. General Conditions

- i. The project authority must adhere to the stipulations made by Chattisgarh Environment Conservation Board (CECB) and State Government.
- ii. No further expansion or modification of the plant should be carried out without prior approval of this Ministry.
- 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.
- 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.
- 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).
- 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.
- vii. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the Environmental Impact Assessment/Environmental Management Plan.
- 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.
- 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.
- 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.

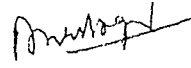
- xi. The Project Authorities should inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.
- xii. The Project Proponent should inform the public that the project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

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.

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


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

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.


(Dr. P. B. Rastogi)
Additional Director

Copy to:

1. Secretary, State Department of Environment, Govt. of Chattisgarh, Chattisgarh.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
3. The Chairman, Chattisgarh Environment Conservation Board, Nanak Niwas, Civil Lines, Raipur, Chattisgarh.
4. The Chief Conservator of Forests (Eastern), Regional Office (WZ), E-3/240, Arera Colony, Bhopal 462 016, M.P.
5. Joint Secretary (CCI-I), Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
6. Monitoring Cell, Ministry of Environment & Forests, New Delhi.
7. Guard file.
8. Record file.


(Dr. P. B. Rastogi)
Additional Director

F. No. J-11011/355/2005- IA II (I)
Government of India
Ministry of Environment and Forests
(I.A. Division)

Paryavaran Bhawan,
CGO Complex, Lodhi Road
New Delhi – 110 003

E-Mail : pb.rastogi@nic.in
Telefax : 011-24367668
Dated 13th April, 2007

To, ✓
Shri S.N. Toshiniwal
President (Commercial)
M/s Ambuja Cement Eastern Ltd.
P.O. Rawan, Baloda Bazar
Raipur, Chattisgarh

E-mail : yks@ambujamail.com; Fax No. : 07727 – 220004.

Subject : Expansion of Cement Plant (1.2 MTPA) by adding new Clinker production unit (2.72 MTPA) alongwith Thermal Power Plant (15 MW) and Captive Power Plant (33 MW) at Baloda Bazar, Rawan, Raipur, Chattisgarh by M/s Ambuja Cement Eastern Ltd. - Environmental clearance reg.

Sir,

This has reference to your letter no. nil 26th December, 2006 alongwith 'Application' in Schedule II, 'Questionnaire', EIA/EMP and related project documents seeking environmental clearance under the EIA Notification, 1994 on the above mentioned project and subsequent clarifications furnished by you vide letters dated 25th January, 2007 and 31st January, 2007. The Ministry of Environment and Forests has examined your application. It is noted that proposal is for the expansion of existing cement plant by setting up a Clinker Production Unit (2.72 MTPA) alongwith Thermal Power Plant (15 MW) and Captive Power Plant (33 MW) at Baloda Bazar, Rawan, Raipur, Chattisgarh. Total project area is 238.97 ha. No additional land will be required for the project since new line will come up adjacent to the existing plant.

2.0 Dry process of clinker manufacturing using 6-stage suspension pre-heater and pre-calcinator (rotary kiln) will be used for clinkerization. The hot gases of the pre-heater will be used in the Coal mill. ESP to clinker cooler and CPP, glass bag house to the raw mill/kiln system, bag filter to crushing plant, raw mill hopper, blending silo/kiln feed, clinker storage, coal mill system, transfer points and vesting of auxiliaries will be provided to maintain emissions standards below 50 mg/Nm³ from other sources and 100 mg/Nm³ from CPP. Water spraying system will be provided to suppress fugitive emissions. Total water requirement will be met from mine pits only and no water from surface and ground water sources will be used. No process water will be generated and 'zero' discharge will be adopted. Dust from ESP will be reused in the process. Fly ash will be used in manufacturing PPC. Boiler ash will be used for land filling. No industrial waste will be generated. Sludge from the sewage treatment plant will be used as manure. AFBC Technology will be used for CPP (1x15 MW and 1x33MW CPP).

3.0 Public hearing meeting was held on 11th December, 2006 for the Expansion of Cement Plant (1.2 MTPA) by adding new Clinker production unit (2.72 MTPA), Thermal Power Plant (15 MW) and Captive Power Plant (33 MW). Total cost of the project is Rs. 900.00 Crores.

4.0. The Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA Notification dated 14th September, 2006 subject to strict compliance of the following specific and general conditions:

A. SPECIFIC CONDITIONS :

- i. The gaseous and particulate matter emissions from various units shall conform to the standards prescribed by the Chhattisgarh Environment Conservation Board (CECB). At no time, the particulate emissions from the cement plant shall exceed 50 mg/Nm³. The emissions from CPP shall be less than 100 mg/Nm³. Continuous on-line stack monitoring facilities for all the stacks and adequate air pollution control systems shall be provided to keep emissions 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.
- 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 the 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.
- 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 emissions 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 shall be recycled back into the process. Storage of raw material shall be in closed roof sheds.
- iv. Asphaltting/concreting of roads and water spray all around the coal stockpiles shall be carried out to control fugitive emissions.
- 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.
- ✓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 treatment in Sewage Treatment Plant (STP) for green belt development within the plant and colony area.
- ✓vii. All the water requirement shall be met from the artificial reservoir made in the mine pit only and no water from surface and ground water sources shall be used for any purpose.
- 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.

- 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.
- 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 Pozzollona 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.
- 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.
- xii. The company shall undertake eco-development measures including community welfare measures in the project area.
- xiii. All the recommendations of the CREP guidelines shall be strictly followed.

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.
- ii. No further expansion or modifications in the plant should be carried out without prior approval of the Ministry of Environment and Forests.
- 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.
- 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.
- v. 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 should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).
- 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.

- 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.
- 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.
- 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 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 at Bhopal.
- 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.

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

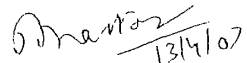
6.0. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner will implement these conditions.

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


(Dr. P. B. Rastogi)
Additional Director

Copy to:

1. Secretary, State Department of Environment, Govt. of Chhattisgarh, Chhattisgarh.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
3. The Chairman, Chhattisgarh Environment Conservation Board, Nanak Niwas, Civil Lines, Raipur, Chhattisgarh.
4. The Chief Conservator of Forests (Eastern), Regional Office (WZ), E-3/240, Arera Colony, Bhopal - 462 016, M.P.
5. Joint Secretary (CCI-I), Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
6. Monitoring Cell, Ministry of Environment & Forests, New Delhi.
7. Guard file.
8. Record file.


(Dr. P. B. Rastogi)
Additional Director

F. No. J-11011/539/2008- IA II (I)
Government of India
Ministry of Environment and Forests
(I.A. Division)

Paryavaran Bhawan
CGO Complex, Lodhi Road
New Delhi – 110 003

E-mail : pb.rastogi@nic.in
Telefax : 011: 2436 7668

Dated 23rd December, 2008

To,

Senior Vice President
M/s Ambuja Cements Ltd. (Unit – Bhatapara)
Village Rawan, Tehsil Baloda Bazar
District Raipur – 493331, Chhattisgarh

E-mail : anurag.solankey@ambujacement.com ; Fax No. : 07727-220004.

Subject : 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. – Environment clearance reg.

Ref. : Your letter no. ACL/ENV/MOEF/PREGRINDER dated 18th May, 2008.

Sir,

This has reference to your letter no. ACL/ENV/MOEF/PREGRINDER dated 18th May, 2008 alongwith project documents including Application in Form I, Prefeasibility Report, draft Terms of References and EIA/EMP seeking environmental clearance and subsequent clarifications furnished vide communications 20th August, 2008 and 10th October, 2008 regarding the above mentioned cement project.

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:

A. 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, CECB 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, CECB and CPCB regularly.
- 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.
- 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 closed containers only and shall not be overloaded. Vehicular emissions shall be regularly monitored.
- 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.
- v. Asphalting/concreting of roads and water spray all 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.
- 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.

- 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.
- 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 bio-degradable and non-biodegradable. Bio-degradable 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.
- 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 bio-degradable 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.
- x. An effort shall be made to use high calorific hazardous waste in the cement kiln and necessary provision shall be made accordingly.
- xi. Efforts shall be made to use low grade lime, more fly ash and solid waste in the cement manufacturing.
- 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 Pozollona Portland Cement (PPC).
- 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.
- xiv. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Cement Plants shall be implemented.
- 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, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

B. GENERAL CONDITIONS :

- i. The project authority must adhere to the stipulations made by Chhattisgarh Environment Conservation Board (CECB) and State Government.
- ii. No further expansion or modification of the plant shall be carried out without prior approval of this Ministry.
- iii. The gaseous (SO_2 , 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.
- 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.
- 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.
- 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.
- 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.
- viii. The company shall undertake eco-development measures including community welfare measures in the project area.
- ix. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the Rapid and Comprehensive EIA/EMP.
- 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.
- 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 Forests 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.

- 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 alongwith statistical interpretation shall be submitted to them regularly.
- 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.
- 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.

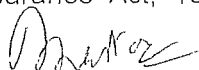
7.0 The Ministry or any competent authority may stipulate any further condition(s) on receiving reports from the project authorities. The above conditions shall be monitored by the Regional Office of this Ministry located at Bhopal.

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

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.


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.

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 alongwith their amendments and rules.


(Dr. P. B. Rastogi)
Director

Copy to:

1. The Secretary, Department of Environment, Govt. of Chhattisgarh, Chhattisgarh.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
3. The Chairman, Chhattisgarh Environment Conservation Board, Nanak Niwas, Civil Lines, Raipur, Chhattisgarh.
4. The Chief Conservator of Forests (Eastern), Regional Office (WZ), E-3/240, Arera Colony, Bhopal - 462 016, M.P.
5. Adviser IA-II(I), Ministry of Environment & Forests, New Delhi.
6. Monitoring Cell, Ministry of Environment & Forests, New Delhi.
7. Guard file.
8. Record file.


(Dr. P. B. Rastogi)
Director



Government of India
Ministry of Environment & Forests
(IA Division)

By speed post

Paryavaran Bhawan
CGO Complex, Lodhi Road
New Delhi - 110 003
E-mail: hsmalviva@gmail.com
Telephone: 011: 24367076
Dated : May 15, 2009

F. No. J-11011/72/2009-IA-II(I)

To

M/s Ambuja Cements Ltd.
Unit Bhatapara
PO: Rawan, Tehsil Baloda Bazar
Distt. Raipur (C.G) - 493331

sudipto.banerjee@ambujacement.com, anurag.solankev@ambujacement.com

Sub: Expansion of Cement plant (2.4 MTPA to 3.5 MTPA) by installing a cement grinding mill of the capacity 1.1 MTPA at Village Rawan, Raipur, Chhattisgarh by M/s Ambuja Cements Limited – Environmental Clearance reg.

Sir,

This has reference to your letter no. nil dated 20th January, 2009 alongwith Application in Form-I and pre-feasibility report seeking environmental clearance for the above project under the Environment Impact Assessment Notification, 2006 and subsequent communication vide letter dated 3rd March, 2009.

2.0 The Ministry of Environment and Forests has examined the proposal and noted that M/s Ambuja Cements Ltd. has proposed for expansion of 2.4 MTPA to 3.5 MTPA cement plant by installing a cement grinding mill of the capacity 1.1 MTPA at village Rawan, Distt. Raipur, Chhattisgarh. The company is having an integrated cement plant with present installed capacity of 1.70 MTPA of clinker production and 2.40 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 of 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.

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.
- 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.
- iii) The locations of ambient air quality monitoring stations shall be set up as per statutory requirement in consultation with the Chhattisgarh Environmental 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.
- iv) Data on ambient air quality stack emission and fugitive emissions shall be uploaded on the company's website and also regularly submitted online 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.
- 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.
- vi) 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.



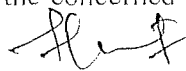
- vii) The project authorities shall transport the raw materials and cement in covered means to avoid fugitive emission during transport.
- viii) The clinker requirement shall be met from the existing unit and no additional clinker manufacturing facility shall be installed by the company for this grinding unit.
- ix) All the recommendations mentioned in the CREP guidelines for the cement plants shall be followed and complied.
- x) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

B. GENERAL CONDITIONS

- (i) The project authorities shall strictly adhere to the stipulations of the SPCB/state government or any statutory body.
- (ii) All other necessary statutory clearances from the concerned Departments including 'No Objection Certificate' from the State Pollution Control Board shall be obtained prior to commencement of construction and / or operation.
- (iii) No further expansion or modifications in 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 the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- (iv) 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.
- (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.
- (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 collect in pollution control equipments shall be reused.



- (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.
- (viii) 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 Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- (ix) The company shall develop rain water harvesting structures to harvest the run off water for recharge of ground water.
- (x) Occupational health and safety measures shall be undertaken. Periodic monitorial 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.
- (xi) 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.
- (xii) A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.
- (xiii) 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.
- (xiv) 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.
- (xv) 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.




(xvi) 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.

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

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.


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.

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


(H.S. Malviya)
Joint Director

Copy to :-

1. The Secretary, Department of Environment, Govt. of Chhattisgarh, Chhattisgarh.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
3. The Chairman, Chhattisgarh Environment Conservation Board, Nanak Niwas, Civil Lines, Raipur, Chhattisgarh.
4. The Chief Conservator of Forests (Eastern), Regional Office (Western Zone), E-3/240, Arera Colony, Bhopal - 462 016, M.P.
5. Adviser (IA-II), Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
6. Monitoring Cell, Ministry of Environment & Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
7. Guard file.
8. Record file.


(H.S. Malviya)
Joint Director

Government of India

Ministry of Environment and Forests

(I.A. Division)

Paryavaran Bhawan

CGO Complex, Lodhi Road

New Delhi – 110 003

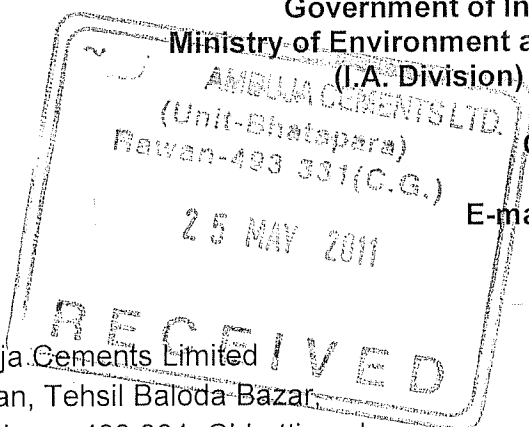
E-mail: plahujarai@yahoo.com

Tele/fax: 011 – 2436 3973

Dated: 13th May, 2011

To,

M/s Ambuja Cements Limited
P.O. Rawan, Tehsil Baloda Bazar,
District Raipur - 493 331, Chhattisgarh



Fax: 07727- 220004

Sub: Request for permission for intermediate cement capacity expansion (from 1.8 MTPA to 2.9 MTPA) of the existing cement plant by installing a cement grinding mill (1.1 MTPA) at Village Rawan, Tehsil Baloda Bazar, District Raipur in Chhattisgarh by **M/s Ambuja Cements Limited - regarding Amendment in Environmental Clearance**

Sir,

This has reference to your letter no. ACL: BH: ENV: 25: 2010/7216 dated 6.12.2010 on the above mentioned subject 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 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.
- ii) There should not be any change in process technology, or any other process parameters, or air pollution control system.

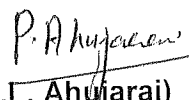
4. The Ministry accepts the recommendations of the Expert Appraisal Committee (Industry-1) for intermediate capacity expansion from 1.8 MTPA to 2.9 MTPA by installing 1.1 MTPA cement grinding mill in the Stage -I expansion and from 2.9 to

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.
 - ii). There shall not be any change in process technology, or any other process parameters, or air pollution control system.
 - iii). Continuous on-line monitors for 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.
 - 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.
 - v). The environmental 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.
5. In case of change in the scope of the project, the company shall obtain fresh environmental clearance.

This issues with approval of the Competent Authority.

Yours faithfully,


(Dr. P.L. Ahujara)
Scientist 'F'

Copy to:

1. The Secretary, Department of Environment, Govt. of Chhattisgarh, Chhattisgarh.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.

3. The Chairman, Chhattisgarh Environment Conservation Board, Nanak Niwas, Civil Lines, Raipur, Chhattisgarh.
4. The Chief Conservator of Forests (Eastern), Regional Office (Western Zone), E-3/240, Arera Colony, Bhopal - 462 016, M.P.
5. Monitoring Cell, Ministry of Environment & Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
6. Guard file / Record file.

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(Dr. P. L. Ahujarai)
Scientist 'F'