

o/c (EMD)

# Ambuja Cement

77103/3

REGD. A/D

ACL/EMD/F-16/2015/ 509

24.11.2015

**The Director (s),**  
Ministry of Environment & Forest (MoEF),  
Regional Office, Western Region,  
"Kendriya Paryavaran Bhavan"  
Link Road No.3, Ravi Shankar Nagar,  
Bhopal – 462016 (M.P.)

**Sub.:** Half Yearly Compliance Status Report of Environmental Clearance of TPP.

**Ref.:** Environmental Clearance Order No. J -13012/20/2004.I (A)-II (T) dated 15<sup>th</sup> March 2005 & amendment on 03<sup>rd</sup> June 2009 and 03<sup>rd</sup> December 2009.

Sir,

We are pleased to submit herewith half yearly compliance status report (i.e. for the period of April'15 to September'15) of Environmental Clearance Order No. 13012/20/2004.I(A)-II (T) granted by MoEF to 90 MW **Thermal Power Plant** of Ambuja Cements Ltd., located at Ambujanagar , Taluka - Kodinar , District – Gir Somnath (Gujarat). We are also enclosing here with CD containing soft copy of the same.

In case of further clarification/information require, we shall be please to provide the same.

Thanking you,

Yours Faithfully,  
For **Ambuja Cements Ltd.**

  
**Dr. Anand K. Rai**  
**HOD (Environment)**



Encl.: As above.

CC:

- 1) Central Pollution Control Board  
Privesh Bhavan, Atmajyoti Ashram Rd,  
Opp. VMC Ward Office No. 10, Subhanpura,  
Vadodara – 390023 (Gujarat)



**Regd. Office :**

PO : Ambujanagar - 362 715, Tal : Kodinar,  
Dist. : Gir Somnath (Gujarat)  
Phone : (02795) 221137, 232009,  
Fax : (02795) 220328, 232032

**Ambuja Cements Limited**

(Unit : Ambujanagar)

CIN No. : L26942GJ1981PLC004717  
www.ambujacement.com

**Corporate Office:**

Elegant Business Park,  
MIDC Cross road 'B'  
Off Andheri - Kurla Road, Andheri (E),  
Mumbai - 400 059. Phone : (022) 4066700

2) Member Secretary,  
Gujarat Pollution Control Board,  
Sector 10A, Paryavaran Bhavan, Gandhinagar-382010

3) Regional Officer  
Gujarat Pollution Control Board,  
Opp. Saint Anne's Church Station Road,  
Junagadh.

# MONITORING THE IMPLEMENTATION OF ENVIRONMENTAL SAFEGUARDS

Ministry of Environment & Forests  
Regional Office (W), Bhopal  
Monitoring Report  
Part-I

## DATA SHEET

Date: 24.11.2015

- 01 Project type : Thermal Power Plant
- 02 Name of the project : Captive Thermal Power Plant (90 MW)
- 03 Clearance letter(s) / OM no. and date : Letter No. J – 13012/20/2004. IA –II (T) dated 15<sup>th</sup> March and 18<sup>th</sup> March, 2005, amended on 03<sup>rd</sup> June 2009 & 3<sup>rd</sup> December 2009.
- 04 Location :
- a) District(s) : Gir Somnath
- b) State(s) : Gujarat
- c) Latitude : 21<sup>0</sup> 00' N
- d) Longitude : 70<sup>0</sup> 30' E
- 05 Address for correspondence :
- a) Address of concerned Project Chief Engineer (with pincode & telephone / telex / fax numbers). : Shri, S Ramarao (Unit Head)  
Ambuja Cements Ltd.  
PO Ambujanagar-362715  
Taluka- Kodinar  
District- Gir Somnath (Gujarat)  
Tel: 02795-221136/237200  
Fax: 02795-220328/222032
- b) Address of Executive Project Engineer / Manager (with pincode / fax numbers). : Shri, Pravin Varotaria (Head -TPP)  
Ambuja Cements Ltd.  
PO Ambujanagar-362715  
Taluka- Kodinar  
District- Gir Somnath (Gujarat)  
Tel: 02795-221136/237230  
Fax: 02795-220328/222032

06

Salient features

a) of the project

: To full fill the power requirements for manufacturing of cements, ACL has decided & commissioned 90 MW coal based captive thermal power plant adjacent to cement plant at Ambujanagar. At present 3x30 MW has been commissioned & under operation.

b) of the environmental management plans

1. Separate Environment Management Division (EMD) with suitable qualified staff has been set up as per company's policy with adequate monitoring instrument and other infrastructure for implementation of the stipulated environmental safeguards.
2. Continuous online monitoring systems for measurements of particulate matter, SO<sub>2</sub> & NO<sub>x</sub> have been installed at boiler stack.
3. Ambient Air Quality Monitoring is being regularly carried out at three locations for PM 10, PM 2.5, SO<sub>2</sub>, NO<sub>x</sub> and the monitoring report is being regularly submitted to SPCB & MoEF.
4. Occupational Exposure Monitoring – Worker's exposure to coal dust, fly ash & noise is being regularly carried out in plant area.
5. Meteorology - Wind speed, wind direction, temperature, relative humidity & rainfall is being regularly monitored and record maintained on daily basis.
6. Water Quality Monitoring – It involves regular monitoring of waste water from RO plant. Waste water from RO plant is being stored in closed Water tank and used for cooling process in cement plant.
7. A green belt in available area has been created which gives aesthetic look to the plant and also helps in dust level abatement.
8. Fly Ash Utilization Plan – Imported coal is being used as fuel in Power

plant with low sulphur content. Fly ash generated from TPP is being stored in closed silos and 100% utilization in cement manufacturing in Cement plant in environment friendly manner.

9. Adequate air pollution control equipments like ESP's and Bag filters have been installed for effective air pollution control.

- 07 Break up of the project area.
- a) Submergence area (forest & non-forest) : Not applicable
  - b) Others : 4.8 ha.
- 08 Break up of the project affected population with enumeration of those losing houses / dwelling unit's only agricultural land only, both dwelling units & agricultural land & landless labourers / artisan.
- a) SC, ST / Adivasis : ---
  - b) Others : ---
- 09 Financial details :
- a) Project cost as originally planned and subsequent revised estimates and the year of price reference. : Rs. 350 Crore, Year 2005
  - b) Allocation made for environmental management plans with item wise and year wise breakup : Rs. 9.85 Crore
  - c) Benefit cost ratio / Internal rate of return and the year of assessment. : Not Applicable
  - d) Whether (c) includes the cost of environmental management as shown in the above. : Not Applicable
  - e) Actual expenditure incurred on the project so far. : Rs. 350.29 Crore

- f) Actual expenditure incurred on the environmental management plans so far. : 9.34 Crore
- 10 Forest land requirement. : Not applicable.
- a) The status of approval for diversion of forest land for non-forestry use :
- b) The status of clearing felling :
- c) The status of compensatory afforestation, if any :
- d) Comments on the viability & sustainability of compensatory afforestation programme in the light of actual field experience so far. :
- 11 The status of clear felling in non-forest areas (such as submergence area of reservoir, approach roads), if any with quantitative information. : Not applicable
- 12 Status of construction. :
- a) Date of commencement (Actual and / or planned) : 60 MW commissioned in November 2005  
30 MW commissioned in January 2009
- b) Date of completion (Actual and / or planned). : 2007, 2010
- 13 Reasons for the delay if the project is yet to start. : Not applicable.
- 14 Dates of site visits :
- a) The dates on which the project was monitored by the Regional Office on previous occasions, if any. : 12.10.10 to 13.10.10 by Dr. A. Mehrotra  
Regional Office, Bhopal
- b) Date of site visit for this monitoring report : 12.10.10 to 13.10.10

- 15 Details of correspondence with project : Half yearly compliance status report is authorities for obtaining action plans / being regularly submitted and last information on status of compliance to submission was on 27.05.2015 vide letter safeguards other than the routine letters no.ACL/EMD/F-16/2015 for logistic support for site visits).

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**Compliance Status of Environmental Clearance issued to 90 MW Captive Thermal Power Plant  
(EC vide MoEF letter No. J – 13012/20/2004. IA –II (T) dated 15th March and 18th March, 2005)**

<b>S No.</b>	<b>Condition</b>	<b>Compliance Status</b>
3 (i)	All the conditions stipulated by Gujarat Pollution Control Board letter No. PC/NOC/CCA-49/11712 dated 15.04.2004 & PC/CCA –JNG-49/32287 dated 11.10.2004 should be strictly implemented.	<ul style="list-style-type: none"> <li>• Yes, we are complying with all the Stipulation made by GPCB.</li> </ul>
3 (ii)	DG set shall be discontinued after commissioning of captive power plant	<ul style="list-style-type: none"> <li>• 28 MW DG sets (3 DG sets of 6 MW &amp; 1 DG set of 10 MW) has been discontinued. 30 MW DG sets has been retained and shall be continued for emergency purposes during preventive maintenance of 2x30 MW &amp; 1x30 MW captive thermal power plant.</li> <li>• MoEF has granted permission for retention of 30 MW DG set (3 x 10 MW). A Copy of the approval letter has already been submitted to MoEF vide our letter no.ACL/EMD/F-16/2010/55928 dated 25.12.2010</li> </ul>
3 (iii)	Coal requirement is estimated at 1180 TPD (Indian/Imported Coal) of 25 – 35% / 15% ash content and 0.9% / 0.5% Sulphur content.	<ul style="list-style-type: none"> <li>• Point noted &amp; complied for Indian/imported coal.</li> </ul>
3 (iv)	Any change in fuel shall be referred to the committee.	<ul style="list-style-type: none"> <li>• MoEF has amended EC vide its letter dated 3rd June, 2009 &amp; 3rd December 2009 in respect of fuel change. Copy of letter has already been submitted to MoEF vide our letter no.ACL/EMD/F-16/2010/55928 dated 25.12.2010.</li> </ul>
3 (v)	Copy of coal linkage duly approved by SLC Ministry of coal should be submitted before starting commissioning at the site.	<ul style="list-style-type: none"> <li>• Coal linkage has been approved by SLC, Ministry of Coal and CIL have issued letter of assurance dated 24.09.2008 for 90 MW captive thermal power plant. Copy of LoA has already been submitted to MoEF vide our letter no.ACL/EMD/F-16/2010/55928 dated 25.12.2010.</li> </ul>
3 (vi)	Water requirement shall not exceed 1460 m <sup>3</sup> /day. No discharge of waste water should be done outside the plant boundary / natural drain and all the waste water should be recycled and reused in the plant.	<ul style="list-style-type: none"> <li>• Point noted and complied. Water requirement is not exceeding 1460 m<sup>3</sup>/Day.</li> <li>• Waste water generated from thermal power plant is being re-used for cooling at cement plant.</li> </ul>



**Compliance Status of Environmental Clearance issued to 90 MW Captive Thermal Power Plant  
(EC vide MoEF letter No. J – 13012/20/2004. IA –II (T) dated 15th March and 18th March, 2005)**

3 (vii)	Ground water will not be extracted/purchased for any purpose / use in captive power plant. Only recycled water and / or stored water in Mine pit reservoirs shall be used.	<ul style="list-style-type: none"> <li>Harvested rain water stored in mined out pits/reservoirs are being used for captive power plant operation.</li> </ul>
3 (viii)	A regular auditing of ground water availability and use by an independent agency should be put in place.	<ul style="list-style-type: none"> <li>Study on ground water potential in 1 km radius zone of captive power plant was carried out jointly by Ground Water &amp; Mineral Investigation Consultancy Centre (P) Ltd. Jaipur, Rajasthan.</li> </ul>
3 (ix)	Rain water harvesting should be adopted. Central Ground Water Authority / Board shall be consulted for finalization of appropriate water harvesting technology within a period of three months from the date of clearance.	<ul style="list-style-type: none"> <li>Water-harvesting practices are already in place. However, as directed, we have consulted CGWA/CGWB for finalization of appropriate water harvesting technology. Officials from – Central Ground Water Board, Ahmedabad has visited our site. Water conservation measures to augment ground water resources in the area are being done by our Ambuja Cement Foundation (ACF). A brief about ACF &amp; community development work done by ACF in surrounding areas is enclosed as <b>Annexure 1</b>.</li> </ul>
3 (x)	Two stacks of 94 m height each shall be provided with continuous online monitoring system with exit velocity of 20-25m/sec should be maintained.	<ul style="list-style-type: none"> <li>Continuous online emission monitoring system has been installed at both stacks. 03 nos. of ESP's have been Installed and designed to restrict the PM emission below 100 mg/Nm<sup>3</sup>.</li> </ul>
3 (xi)	High efficiency Electrostatic Precipitator (ESP) having efficiency of 99.8% should be installed to limit outlet SPM emission at 100 mg/Nm <sup>3</sup>	<ul style="list-style-type: none"> <li>Stack monitoring results for the period April'15 to September'15 is enclosed as <b>Annexure 2</b>.</li> </ul>
3 (xii)	The downwind AAQM station is 5 Km to the East. A station in the SE sector at a distance of 1 Km able to capture the impact of the existing & proposed stacks should be set up.	<ul style="list-style-type: none"> <li>We have already setup AAQM stations in 5 Km to the E and 1 Km in SE direction as suggested.</li> <li>Ambient air quality monitoring reports for the period April'15 to September'15 are enclosed as <b>Annexure 3</b>.</li> </ul>
3 (xiii)	Space for FGD installation shall be kept in the plant premises.	<ul style="list-style-type: none"> <li>Space for FGD installation has been kept in the plant premises itself.</li> </ul>
3 (xiv)	Ash generation will be 630 TPD. 100% of the fly ash and bottom ash generated shall be utilized in cement manufacturing.	<ul style="list-style-type: none"> <li>All the generated fly ash (including bottom ash) is being stored in Silo and being fully (100%) utilized in cement</li> </ul>

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(EC vide MoEF letter No. J – 13012/20/2004. IA –II (T) dated 15th March and 18th March, 2005)**

	Fly ash will be stored in silos only and there shall be no open storage pond.	manufacturing at own cement plant.
3 (xv)	Regular monitoring of water quality including heavy metals should be undertaken around ash dyke and the project area to ascertain the change in water quality, if any, due to leaching of contaminants from ash disposal area.	<ul style="list-style-type: none"> <li>Not applicable as there is no ash ponds. Fly ash generated is being stored at fly ash silo.</li> </ul>
3 (xvi)	Noise level should be limited to 75 dB (A) and regular maintenance of equipment will be undertaken. For people working in the area of generator and other high noise area, earplug should be provided.	<ul style="list-style-type: none"> <li>Ambient noise level around thermal power plant is maintained well below 75 dB (A).</li> <li>People working in the area of generator and other high noise areas are provided with necessary PPE's like earplugs and ear muffs.</li> </ul>
3 (xvii)	Greenbelt of 20-25 m along the plant boundary should be developed covering an area of 0.5 ha.	<ul style="list-style-type: none"> <li>Green belt in and around plant boundary have been developed.</li> <li>Photographs of the same are enclosed as <b>Annexure 4</b>.</li> </ul>
3 (xviii)	Regular monitoring of the air quality should be carried out in and around the power plant and records should be maintained. Periodic six monthly reports should be submitted to this Ministry.	<ul style="list-style-type: none"> <li>Ambient air quality is being regularly monitored at identified AAQM stations and report is being regularly submitted to SPCB on monthly basis and to MoEF on six monthly basis.</li> <li>Ambient air quality monitoring report for the period April'15 to September'15 is enclosed as <b>Annexure 3</b>.</li> </ul>
3 (xix)	For controlling fugitive dust, regular sprinkling of water in vulnerable areas of the plant should be ensured.	<ul style="list-style-type: none"> <li>Measures are being taken to control fugitive emission like construction of RCC roads inside plant premises, closed conveying system for fly-ash handling. Transport roads and internal plant roads are being regularly cleaned using mechanized vacuum sweeping machines.</li> </ul>
3 (xx)	All other mitigative measures shall be taken as enumerated in Chapter 5 of the REIA report.	<ul style="list-style-type: none"> <li>Compliance status has already been submitted to MoEF vide our letter no.ACL/EMD/F-16/2010/55928 dated 25.12.2010.</li> </ul>
3 (xxi)	The project proponent should advertise at least in two local newspapers widely circulated in the region around the project, one of which should be in the vernacular language of the locality concerned, informing that the project has been accorded environmental clearance and copies of clearance letters are	<ul style="list-style-type: none"> <li>Advertisement has been published in local newspapers. Copy of advertisement has already been submitted to MoEF vide our letter no.ACL/EMD/F-16/2010/55928 dated 25.12.2010.</li> </ul>

**Compliance Status of Environmental Clearance issued to 90 MW Captive Thermal Power Plant  
(EC vide MoEF letter No. J – 13012/20/2004. IA –II (T) dated 15th March and 18th March, 2005)**

	available with the State Pollution Control Board / Committee and may also be seen at Website of Ministry of Environment and Forests in the <a href="http://envfor.nic.in">http://envfor.nic.in</a> .	
3 (xxii)	A separate environmental monitoring cell with suitable qualified staff should be set up for implementation of the stipulated environmental safeguards.	<ul style="list-style-type: none"> <li>• A well established Environmental Management Division (EMD) with suitable qualified personnel is in place.</li> <li>• Head of environmental management cell directly report to the Unit Head of the organization. EMD organization chart is enclosed as <b>Annexure 5</b>.</li> </ul>
3 (xxiii)	Half yearly report on the status of implementation of the conditions stipulated and environmental safeguards should be submitted to this Ministry / Regional office / CPCB / SPCB.	<ul style="list-style-type: none"> <li>• Half yearly compliance status report is being regularly submitted to MoEF/CPCB/SPCB, our last submission was on 27.05.2015 vide letter no.ACL/EMD/F-16/2015.</li> </ul>
3 (xxiv)	Regional office of the Ministry of Environment and Forests located at Bhopal will monitor the implementation of the stipulated conditions. Complete set of Environmental Impact Assessment Report and Management Plan should be forwarded to the Regional Office for their use during monitoring.	<ul style="list-style-type: none"> <li>• EIA report and management plan have been submitted vide our letter no. GACL/EMD/44/2005/30623 dated 09/04/2005.</li> </ul>
3 (xxv)	Separate funds should be allocated for implementation of environmental protection measures along with item wise break-up. These cost should be included as part of the project cost. The funds remarked for the environment protection measures should not be diverted for other purposes and year –wise expenditure should be reported to the Ministry.	<ul style="list-style-type: none"> <li>• Details of capital and recurring expenditure for environmental protection measures are enclosed as <b>Annexure 6</b>.</li> </ul>
3 (xxvi)	Full cooperation should be extended to the Scientist/officer from the Ministry / Regional Office of the Ministry at Bhopal / the CPCB/The SPCB who would be monitoring the compliance of environmental stipulations and measures.	<ul style="list-style-type: none"> <li>• Full support and co-operation is being extended during the visit of officer from Ministry of Environment &amp; Forest, CPCB as well as GPCB. Project was monitored by Dr. A. Mehrotra (Regional Office, Bhopal) during 12.10.10 to 13.10.10.</li> </ul>
4	The ministry reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the ministry.	<ul style="list-style-type: none"> <li>• Point Noted.</li> </ul>
5	The environmental clearance accorded shall be valid for a period of 5 years for construction/operation of the power plant. In case ,if the project authorities fails to	<ul style="list-style-type: none"> <li>• Point Noted.</li> </ul>

**Compliance Status of Environmental Clearance issued to 90 MW Captive Thermal Power Plant  
(EC vide MoEF letter No. J – 13012/20/2004. IA –II (T) dated 15th March and 18th March, 2005)**

	do so within this stipulated period , this environmental clearance shall stand lapsed automatically.	
6	In case of any deviation or alteration in the project proposed from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of the condition (s) imposed and to add additional environmental protection measures required, if any.	<ul style="list-style-type: none"> <li>Point Noted</li> </ul>
7	The above stipulations would be enforced among others under the Water (Prevention and Control of pollution)Act, 1974, the Air (Prevention and control of Pollution) Act 1981, the Environment Protection Act , 1986 and rules there under, Hazardous Waste (Management & Handling)Rules, 1989 and its amendments, the Environment Impact assessment Notification of January, 1994 and its amendments.	<ul style="list-style-type: none"> <li>Point Noted.</li> </ul>
<b>Compliance Status of Environmental Clearance No. J-13012/20/2004- IA. II (T) dated 03.06.2009 issued to Thermal Power Plant [EC 1st amendment]</b>		
(i)	The Pet coke shall be blended with imported coal and the blended fuel shall be used instead of imported/indigenous coal.	<ul style="list-style-type: none"> <li>Yes, we are blending Petcoke with imported coal and being used as fuel.</li> </ul>
(ii)	Sulphur content in the blended fuel (mixture of Pet coke and Imported coal) should not exceed 3.5%. Quenching of sulphur through limestone dosing should be at least 90 %.	<ul style="list-style-type: none"> <li>Blending of fuels is done in a manner to restrict Sulphur % below 3.5% in blended fuel. Limestone dosing is done along with coal, in order to limit Sulphur dioxide emission.</li> </ul>
(iii)	All the waste generated from sulphur quenching shall be used in a cement plant.	<ul style="list-style-type: none"> <li>Point noted &amp; being Complied regularly.</li> </ul>
(iv)	First aid and sanitation arrangement shall be made for the drivers and the contract workers during construction phase.	<ul style="list-style-type: none"> <li>Complied.</li> </ul>
(v)	Regular monitoring of ground level concentration of SO <sub>2</sub> , NO <sub>x</sub> , Hg, SPM and RSPM shall be carried out in the impact zone and records should be maintained. If at any stage these levels are found to exceed the prescribed limits, necessary control measures shall be provided immediately. The location of the monitoring stations and frequency of monitoring shall be submitted to the	<ul style="list-style-type: none"> <li>Ambient air quality is being regularly monitored at identified AAQM stations and report is being regularly submitted to SPCB on monthly basis and to MoEF on six monthly basis. Ambient air quality monitoring report for the period April'15 to September'15 is enclosed as <b>Annexure 3</b>.</li> </ul>

**Compliance Status of Environmental Clearance issued to 90 MW Captive Thermal Power Plant  
(EC vide MoEF letter No. J – 13012/20/2004. IA –II (T) dated 15th March and 18th March, 2005)**

	regional office of the ministry. The data shall also be put on the website of the company.	
(vi)	Provision shall be made for the housing of construction labor 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 structure to be removed after the completion of the project.	<ul style="list-style-type: none"> <li>Project has already completed and plant is under operational stage.</li> </ul>
(vii)	The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutants levels namely: SPM, RSPM, SO <sub>2</sub> , NO <sub>x</sub> (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	<ul style="list-style-type: none"> <li>Half yearly compliance status report is being regularly submitted to MoEF/CPCB/SPCB, our last submission was on 27.05.2015 vide letter no. ACL/EMD/F-16/2015. Pollutants level is being uploaded on website and also being displayed on board at main gate of the power plant.</li> </ul>
(viii)	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.	
(ix)	Project proponent will up-load the compliance status on their website and up-date the same from time to time at least on six monthly basis. Criteria pollutants level (Stack & ambient level of NO <sub>x</sub> ) will be displayed at the main gate of the power plant.	<ul style="list-style-type: none"> <li>Six monthly pollutants level (Stack &amp; ambient) is being uploaded on website and also being displayed at main gate of the power plant.</li> </ul>
<b>Compliance Status of Environmental Clearance No. J-13012/20/2004- IA. II (T) dated 03.12.2009 issued to Thermal Power Plant [EC 2nd amendment]</b>		
2	Ministry has no objection in permitting lignite and domestic coal in addition to petcoke and imported coal blended as fuel subject to strict compliance of the following.	--

**Compliance Status of Environmental Clearance issued to 90 MW Captive Thermal Power Plant  
(EC vide MoEF letter No. J – 13012/20/2004. IA –II (T) dated 15th March and 18th March, 2005)**

(i)	CFBC Boiler shall be installed along with air cooled condenser and ESP having at least 99.8% efficiency.	<ul style="list-style-type: none"> <li>Complied.</li> </ul>
(ii)	Sulphur content in blending fuel shall not exceed 3.5% and 90% SO <sub>2</sub> removal shall be achieved by lime dosing or any other suitable mechanism.	<ul style="list-style-type: none"> <li>Blending of fuels is done in a manner to restrict % Sulphur below 3.5% in blended fuel. Limestone dosing is done along with coal, in order to limit sulphur dioxide emission.</li> </ul>
(iii)	100% Fly Ash utilization shall be achieved from the date of commissioning of the plants of total capacity.	<ul style="list-style-type: none"> <li>All the generated fly ash (including bottom ash) is being stored in Silo and being fully (100%) utilized in cement manufacturing at own cement plant.</li> </ul>
3	All other conditions earlier prescribed vide this Ministry letters of even no. dated 15.03.2005 and 03.05.2009 respectively shall remain the same.	<ul style="list-style-type: none"> <li>Point Noted.</li> </ul>

**Ambuja Cement Foundation - Ambujanagar**  
**Details for programme wise expenditure from April 2015 to September 2015**

(Rs. In lakhs)

Sr.No	Programme	Funds from ACF Resources	*Funds received through Government	from other Donors / Donor Agencies	***People's Contribution	****Direct Funding to Communities	Total Exp.
	<b>GUJARAT - Kodinar</b>						
1	Water Resource Mangement & Drinking Water Projects						
	a. Water Resource Development	23.60	-	-	-	-	23.60
	B .Drinking Water Programme	17.82	28.60	11.53	76.24	54.98	189.17
	c. Salinity Prevention (KVV III)	8.33	-	49.50	54.42	75.01	187.26
2	Agriculture Development( Farm Forestry & Afforesation)	23.09	-	8.72	39.34	105.71	176.86
3	Better Cotton Initiative (BCI)	3.13	-	9.14	-	-	12.27
4	Krishi Vigyan Kendra (KVK)	0.75	49.05	-	-	-	49.80
5	Health & Sanitation Programme	5.10	-	-	6.82	-	11.92
6	Skill and Enterprunership Development Programme	21.86	11.97	0.24	4.84	-	38.91
7	Village Knowledge Centre & Anganwadi exp	0.68	-	-	-	-	0.68
8	Women / Youth Development & Others	1.72	-	-	-	-	1.72
9	Integrated Community Development Programme	68.68	-	-	-	-	68.68
10	Co-ordination & Administration Expenses	37.57	-	-	-	-	37.57
11	Capital Expenditure	0.65	-	-	-	-	0.65
	<b>TOTAL</b>	<b>212.98</b>	<b>89.62</b>	<b>79.13</b>	<b>181.66</b>	<b>235.70</b>	<b>799.09</b>





# Annexure -II

## Stack Monitoring Results (April 2015 - September 2015 )

Month	Stack attached to					
	Boiler I & II			Boiler III		
	PM	SOx	NOx	PM	SOx	NOx
	mg/Nm <sup>3</sup>	ppm	ppm	mg/Nm <sup>3</sup>	ppm	ppm
Apr-15	38.00	45.80	20.40	42.00	49.50	18.70
May-15	36.00	42.80	22.50	40.00	47.30	17.10
Jun-15	38.00	46.50	21.40	42.00	43.10	19.90
Jul-15	36.00	48.60	22.90	39.0	41.70	18.10
Aug-15	34.00	45.10	23.30	37.0	43.90	19.60
Sep-15	36.00	44.10	22.50	33.0	41.90	20.70
<b>Minimum</b>	34.0	42.8	20.4	33.0	41.7	17.1
<b>Maximum</b>	38.0	48.6	23.3	42.0	49.5	20.7
<b>Average</b>	<b>36.3</b>	<b>45.5</b>	<b>22.2</b>	<b>38.8</b>	<b>44.6</b>	<b>19.0</b>
<b>Permissible Limit</b>	<b>100.0</b>	<b>100.0</b>	<b>50.0</b>	<b>100.0</b>	<b>100.0</b>	<b>50.0</b>
<b>Std. Deviation</b>	<b>1.5</b>	<b>2.0</b>	<b>1.1</b>	<b>3.4</b>	<b>3.2</b>	<b>1.3</b>



## Annexure - III

### Ambient Air Quality Monitoring Results (April 2015 - September 2015 )

Month	Average Ambient Air Quality Monitoring Results ( $\mu\text{g}/\text{m}^3$ )											
	Inside TPP				Navapara				Devalpara			
	PM2.5	PM10	SO2	NOx	PM2.5	PM10	SO2	NOx	PM2.5	PM10	SO2	NOx
Apr-15	33.1	56.8	11.9	15.9	27.2	48.9	11.9	15.5	25.2	46.8	12.1	15.1
May-15	30.8	59.0	11.8	15.8	30.1	53.2	12.0	15.9	27.1	48.3	11.8	16.1
Jun-15	32.3	57.1	11.8	15.8	28.8	51.9	12.2	16.1	29.0	49.4	11.6	15.5
Jul-15	31.1	54.2	12.0	15.4	26.1	50.1	12.0	15.7	26.0	45.0	12.1	15.2
Aug-15	28.9	48.6	12.8	15.9	22.5	46.9	11.9	15.8	25.4	52.0	12.3	15.5
Sep-15	29.9	49.7	11.9	15.6	24.6	50.1	11.9	15.7	27.4	50.7	11.9	15.5
<b>Minimum</b>	<b>28.9</b>	<b>48.6</b>	<b>11.8</b>	<b>15.4</b>	<b>22.5</b>	<b>46.9</b>	<b>11.9</b>	<b>15.5</b>	<b>25.2</b>	<b>45.0</b>	<b>11.6</b>	<b>15.1</b>
<b>Maximum</b>	<b>33.1</b>	<b>59.0</b>	<b>12.8</b>	<b>15.9</b>	<b>30.1</b>	<b>53.2</b>	<b>12.2</b>	<b>16.1</b>	<b>29.0</b>	<b>52.0</b>	<b>12.3</b>	<b>16.1</b>
<b>Average</b>	<b>31.0</b>	<b>54.2</b>	<b>12.0</b>	<b>15.7</b>	<b>26.5</b>	<b>50.2</b>	<b>12.0</b>	<b>15.8</b>	<b>26.7</b>	<b>48.7</b>	<b>12.0</b>	<b>15.5</b>
<b>Std. Deviation</b>	<b>1.5</b>	<b>4.2</b>	<b>0.4</b>	<b>0.2</b>	<b>2.8</b>	<b>2.2</b>	<b>0.1</b>	<b>0.2</b>	<b>1.4</b>	<b>2.6</b>	<b>0.3</b>	<b>0.3</b>

## ANNEXURE – 4

### Green belt around periphery of Thermal Power Plant



Greenery inside Thermal Power Plant



**Greenery inside Thermal Power Plant**



**Greenery inside Thermal Power Plant**



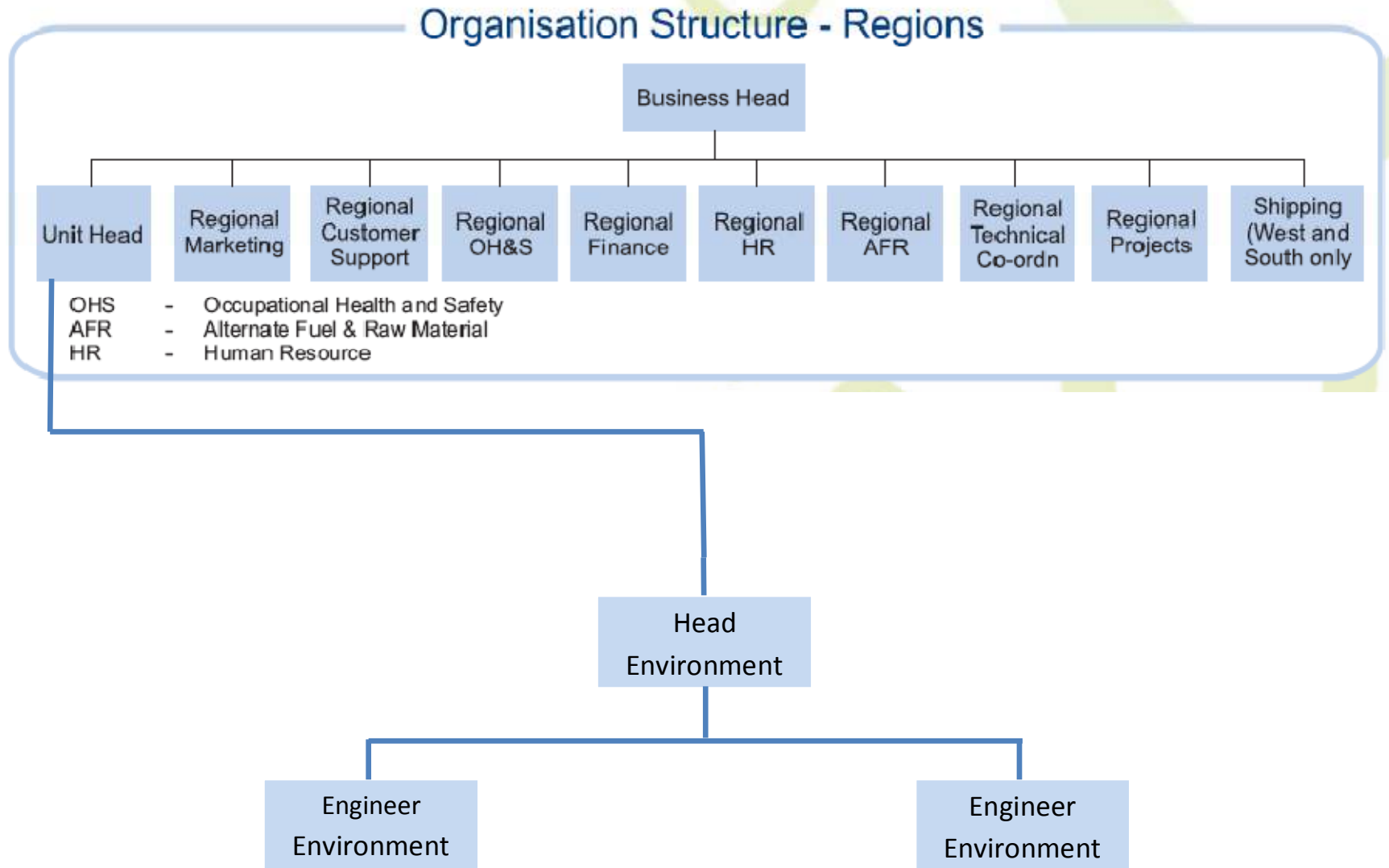
**Greenery inside Thermal Power Plant**



**Greenbelt around Ambujanagar Plants**



## Annexure 5 [ORGANISATION CHART]



**(A) Capital Investment for Environmental Monitoring :**

(1) Monitoring Equipments	: 37.08 Lakh
(2) Environmental Laboratory	: 10.00 Lakh
(3) Others (Monitoring Van & DG sets)	: 10.00 Lakh

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**Total : Rs. 57.08 Lakh****(B) Recurring expenditure for the period of April'15 to September'15 :**

(1) Green belt development	: 0.73 Lakh
(2) Manpower Cost*	: 11.42 Lakh
(3) House Keeping	: 2.38 Lakh
(4) Maintenance of Pollution Control Equipments	: 10.16 Lakh
(5) Other Env. Protection (Environmental Monitoring)	: 2.41 Lakh
(6) Environmental Awareness*	: 0.50 Lakh

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**Total : Rs. 27.60 Lakh**

\*Expenditures common for all plants & mines



# Annexure 6

## EXPENDITURE INCURRED ON THE ENVIRONMENTAL MANAGEMENT PLANS

### (C) Community Development expenditure by Ambuja : Rs. 07.99 Crore Cement Foundation\*\*

\*\* Community development expenditure is common for all plant & mines at Ambujanagar for the period of April'15 to September'15. Programme Wise Expenditure Details is as below:

Ambuja Cement Foundation - Ambujanagar							(Rs. In lakhs)
Details for programme wise expenditure from April 2015 to September 2015							
Sr.No	Programme	Funds from ACF Resources	*Funds received through Government	from other Donors / Donor Agencies	***People's Contribution	****Direct Funding to Communities	Total Exp.
	<b>GUJARAT - Kodinar</b>						
1	Water Resource Mangement & Drinking Water Projects						
	a. Water Resource Development	23.60	-	-	-	-	23.60
	B .Drinking Water Programme	17.82	28.60	11.53	76.24	54.98	189.17
	c. Salinity Prevention (KVY III)	8.33	-	49.50	54.42	75.01	187.26
2	Agriculture Development( Farm Forestry & Afforesation)	23.09	-	8.72	39.34	105.71	176.86
3	Better Cotton Initiative (BCI)	3.13	-	9.14	-	-	12.27
4	Krishi Vigyan Kendra (KVK)	0.75	49.05	-	-	-	49.80
5	Health & Sanitation Programme	5.10	-	-	6.82	-	11.92
6	Skill and Enterprunership Development Programme	21.86	11.97	0.24	4.84	-	38.91
7	Village Knowledge Centre & Anganwadi exp	0.68	-	-	-	-	0.68
8	Women / Youth Development & Others	1.72	-	-	-	-	1.72
9	Integrated Community Development Programme	68.68	-	-	-	-	68.68
10	Co-ordination & Administration Expenses	37.57	-	-	-	-	37.57
11	Capital Expenditure	0.65	-	-	-	-	0.65
	<b>TOTAL</b>	<b>212.98</b>	<b>89.62</b>	<b>79.13</b>	<b>181.66</b>	<b>235.70</b>	<b>799.09</b>