

Cement

ACL/EMD/F-16/2023/ 2477

REGD. A/D

Dt.15.05.2023

The Director ,

Ministry of Environment, Forest and Climate Change (MoEF&CC),
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 **Thermal Power Plant** Unit of Ambuja Cements Ltd.

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

Sir,

We are pleased to submit herewith half yearly compliance status report (i.e. for the period of **(October'2022 to March'2023)** of Environmental Clearance Order No. 13012/20/2004.I(A)-II (T) granted by MoEF&CC to 90 MW **Thermal Power Plant** Unit of Ambuja Cements Ltd., located at Ambujanagar, Taluka - Kodinar, District - Gir Somnath (Gujarat).

This is for your information and record please.

Thanking you,

Yours Faithfully,

For **Ambuja Cements Ltd.**



Devendra Singh Chauhan
Head-Environment

Encl.: As above.

Copy to:

- 1) **The Central Pollution Control Board (CPCB)** Parivesh Bhawan, Atmajyoti Ashram Rd, Opp. VMC Ward Office No. 10, Subhanpura, Vadodara – 390023 (Gujarat).
- 2) **The Member Secretary, Gujarat Pollution Control Board (GPCB)**, Paryavaran Bhavan, Sector-10-A, Gandhinagar-382010
- 3) **The Regional Officer, Gujarat Pollution Control Board (GPCB)**, 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

01	Project type	:	Thermal Power Plant
02	Name of the project	:	Captive Thermal Power Plant (90 MW) for Cement Plant (5.7 MTPA capacity), Taulka Kodinar, Dist Gir Somnath & Bulk Cement Terminal, Village Muldwarka, Dist Gir Somnath
03	Clearance letter(s) / OM no. and date	:	Letter No. J – 13012/20/2004. IA –II (T) dated 15 th March and 18 th March, 2005, amended on 03 rd June 2009 & 3 rd December 2009.
04	Location	:	
	a) District(s)	:	Gir Somnath
	b) State(s)	:	Gujarat
	c) Latitude	:	21° 00' N
	d) Longitude	:	70° 30' E
05	Address for correspondence	:	
	a) Address of concerned Project Chief Engineer (with pincode & telephone / telex / fax numbers).	:	Sh. Devendra Singh Chauhan (Head - Environment) Ambuja Cements Ltd. PO Ambujanagar, Taluka : Kodinar, Pin- 362715 District: Gir Somnath (Gujarat). Tel: 02795-221137/232009/237403 Fax: 02795-220328/232032
	b) Address of Executive Project Engineer / Manager (with pincode / fax numbers).	:	Shri Rajesh Vadher (Head -TPP) PO Ambujanagar, Taluka : Kodinar, Pin- 362715 District: Gir Somnath (Gujarat). Tel: 02795-237220/237221 Fax: 02795-220328/232032
06	Salient features	:	
	a) of the project	:	<ul style="list-style-type: none"> - This is a CPP - Fuels are Indigenous Coal, Imported Coal, Petcoke, Lignite in Blend - 3 nos. of CFBC Boilers each having capacity of 135 TPH, 87 kg/cm² temperature 515°c - Air cooled Condenser (ACC)
	b) of the environmental management plans	:	<p>a) Construction Phase</p> <ul style="list-style-type: none"> ➤ Proper disposal of construction waste done during construction phase. ➤ Minimize noise by using acoustic enclosure for boiler, Low noise generation equipments viz boiler and compressor area. Ear muffs & ear plugs are provided to workers engaged at high noise area. Visuals for safe working in high noise are displayed at various location. ➤ Spraying suppression at regular intervals. <p>b) Operation Phase</p> <ul style="list-style-type: none"> ➤ An 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.



		<ul style="list-style-type: none"> ➤ Continuous online monitoring systems for measurements of particulate matter, SO₂ & NO_x have been installed at boiler stack and data are continuously uploading to CPCB website & GPCB website. ➤ Ambient Air Quality Monitoring is being regularly carried out at three locations for PM 10, PM 2.5, SO₂, NO_x and the monitoring report is being regularly submitted to SPCB & MoEF&CC Bhopal. ➤ Occupational Exposure Monitoring – Worker's exposure to coal dust, fly ash & noise is being regularly carried out in plant area. ➤ Meteorology - Wind speed, wind direction, temperature, relative humidity & rainfall is being regularly monitored and record maintained on daily basis. ➤ Water Quality Monitoring – Waste water quality monitoring of RO plant is ensured. Waste water from RO plant is being stored in closed Water tank and used for cooling process in cement plant after neutralization. ➤ 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. ➤ Adequate air pollution control equipments like ESP's and Bag filters have been installed for effective air pollution control.
07	Breakup of the project area.	
	a) Submergence area (forest & non-forest)	: Not applicable
	b) Others	: 4.8 ha (excluding cement plant).
08	Breakup 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.	: Not applicable As CPP is built on the already land occupied for cement plant .
	a) SC, ST / Adivasis	: ---
	b) Others	: ---
09	Financial details	:
	a) roject cost as originally planned and subsequent revised estimates and the year of price reference.	: Rs. 300 Crore, Year 2005 Rs. 226.90 Crore for Steam Turbine Generator 1 & 2 in 2007 and 106.21 Crore for Steam Turbine Generator 3 in 2010
	b) Allocation made for environmental management plans with item wise and year wise breakup	: Rs. 16.61 Crore were allocated for Environment Management Plan and it included in Project cost
	c) Benefit cost ratio / Internal rate of return and the year of assessment.	: Approx. 8% in 2015-16
	d) Whether (c) includes the cost of environmental management as shown in the above.	: Yes
	e) Actual expenditure incurred on the project so far.	: Rs. 336.11 Cr.
	f) Actual expenditure incurred on the environmental management plans so far.	: Rs. 17.523 Cr.




10	Forest land requirement.	:	
	a) The status of approval for diversion of forest land for non-forestry use	:	Not applicable.
	b) The status of clearing felling	:	No clearing felling
	c) The status of compensatory afforestation, if any	:	Not Applicable
	d) Comments on the viability & sustainability of compensatory afforestation programme in the light of actual field experience so far.	:	Not Applicable
11	The status of clear felling in non-forest areas (such as submergence area of reservoir, approach roads), if any with quantitative information.	:	No Clearing felling
12	Status of construction.	:	
	a. Date of commencement (Actual and / or planned)	:	Not applicable.
	b. Date of completion (Actual and / or planned).	:	60 MW commissioned in November 2007 30 MW commissioned in January 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.	:	17.8.2016 (by Dr. B.B. Burman Regional Office, Bhopal),
	b) Date of site visit for this monitoring report	:	17.08.2016
15	Details of correspondence with project authorities for obtaining action plans / information on status of compliance to safeguards other than the routine letters for logistic support for site visits).	:	Half yearly compliance status report is being regularly submitted and last submission was on 18.11.2022 vide letter no. ACL/EMD/F-16/2022/2682



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

S No.	Condition	Compliance Status
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.	Complied. <ul style="list-style-type: none">Gujarat Pollution Control Board vide their letter no. PC/NOC/CCA-49/11712 dated 15.04.2004 stipulated seventeen conditions & PC/CCA –JNG-49/32287 dated 11.10.2004 stipulated two conditions. All this conditions are complied with and strictly implemented.
3 (ii)	DG set shall be discontinued after commissioning of captive power plant	Complied. <ul style="list-style-type: none">28 MW DG sets (3 DG sets of 6 MW & 1 DG set of 10 MW) have been discontinued. 30 MW DG sets has been retained and shall be utilized for emergency purposes during preventive maintenance of 2x30 MW & 1x30 MW captive thermal power plant.MoEF&CC 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&CC vide our letter no. ACL/EMD/F-16/2010/55928 dated 25.12.2010Copy of the same is enclosed as under :



J-13012/20/2004. IA, II (T)
Government of India
Ministry of Environment & Forests

Telephone: 011-2436 7287
E-mail: w.bharat@nic.in
Paryavaran Bhawan, C.O. Complex,
Lodi Road, New Delhi - 110003.
Date: August 04, 2010.

OFFICE ORDER

Sub: Retention of 30 MW DG Set installed at Cement Plant at village Vadnagar, in Junagarh Distt., in Gujarat - reg.

Sir,

The undersigned is directed to refer to your letter dated 22.03.2010 requesting for allowing retention of 30 MW DG Set installed within the premises of Cement and Captive Power Plants at village Vadnagar, in Junagarh Distt., in Gujarat.

2. In this regard it is to inform you that the request has been considered and permission is hereby granted for retaining 30 MW DG Set out of the total installed capacity of 58 MW subject to strict compliance of the following.

ii) The 30 MW DG Set retained shall be used only for emergency purpose during preventive maintenance of any one of the 3x30 MW Lignite/Coal/Petroleum Based Captive TPP.

iii) Sulphur content in fuel for 30 MW DG Set shall not exceed the permissible limits as prescribed under this Ministry's notification issued vide GSR 489 (E), dated 09.07.2002.

3. It is accordingly informed that in the Ministry's letter of even no. dated 15.03.2005, the condition no. (ii) under para no. 3 shall be now substituted as under:


"30 MW DG Set only shall be retained strictly as stand by arrangement for power requirement during preventive maintenance of any one of the 3x30 MW Captive TPP".

4. Copy 12.....

-2-

4. All other conditions earlier prescribed vide this Ministry letters of even no. dated 15.03.2005 and 03.05.2009 and 13.012.2009 respectively shall remain the same.

This issues with the approval of the Competent Authority.

Yours faithfully,

(W. Bharat Singh)
Deputy Director

M/s Gujarat Ambuja Cements Ltd.,
P.O Ambuja Nagar - 362715
Taluk: Kodinar, Distt. Junagarh
Gujarat.

Copy to:



- The Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi - 110 001.
- The Secretary, Deptt. Of Forests & Environment, Government of Gujarat, Sachivalaya, 8th Floor, Gandhi Nagar - 382010.
- The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi - 110 006.
- The Chairman, Gujarat Pollution Control Board, Paryavaran Bhawan, Sector-10A, Gandhi Nagar - 382010.
- The Chairman, Central Pollution Control Board, Parvash Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 110032.
- The Chief Conservator of Forests, Ministry of Environment & Forests, Regional Office (W2), Kendriya Paryavaran Bhawan, E-5 Arera Colony, Ravishankar Nagar, Bhopal - 462016.
- Director (B), MoEF
- Guard file
- Monitoring file.

(W. Bharat Singh)
Deputy Director

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.	Complied. <ul style="list-style-type: none">Average Coal consumption is 390.43 TPD (Indian/Imported Coal) quality is being complied for Indian/Imported coal <table><tr><th colspan="7">Coal Consumption (October-2022 to March 2023)</th></tr><tr><th>Month</th><th>Oct-22</th><th>Nov-22</th><th>Dec-22</th><th>Jan-23</th><th>Feb-23</th><th>Mar-23</th></tr><tr><td>Total Coal (MT)</td><td>10311</td><td>11350</td><td>10154</td><td>14292</td><td>11316</td><td>14039</td></tr><tr><td>Coal TPD (MT)</td><td>332.61</td><td>378.33</td><td>327.55</td><td>461.03</td><td>390.21</td><td>452.87</td></tr></table>	Coal Consumption (October-2022 to March 2023)							Month	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Total Coal (MT)	10311	11350	10154	14292	11316	14039	Coal TPD (MT)	332.61	378.33	327.55	461.03	390.21	452.87
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3 (iv)	Any change in fuel shall be referred to the committee.	Complied <ul style="list-style-type: none">MoEF&CC has amended EC vide letter dated 03.06.2009 & 03.12.2009 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. No change proposed now & if it will be proposed then we will get prior permission from MoEF&CC.																												




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

<p align="center">No.J-13012/20/2004-IA-II(T) Government of India Ministry of Environment & Forests</p> <p align="right">By Speed Post</p> <p align="right">Paryavaran Bhawan, CGO Complex, Lodi Road, New Delhi- 110003.</p> <p align="right">Dated : 3rd June, 2009</p> <p>To M/s Gujarat Ambuja Cements Ltd P.O.Ambujanagar- 362 715 Taluka-Kodinar, Distt. Junagadh Gujarat</p> <p>Subject: Change in fuel in 3x30 MW CPP at vill. Vadnagar, Distt. Junagadh, Gujarat by M/s Gujarat Ambuja Cements Ltd – Environmental clearance regarding.</p> <p>Sir, Reference is invited to your letter no. Nil dated 24th March, 2009 regarding change in fuel in respect of the above mentioned project.</p> <p>2. It is noted that the environmental clearance for the above mentioned power project was accorded vide letter dated 15.3.2005. M/s Gujarat Ambuja Cements Ltd has now proposed for change in fuel from imported/indigenous coal to Pet coke blended with imported coal.</p> <p>3. The proposal has been considered and in accordance with the recommendation of the EAC, the Ministry of Environment & Forests has no objection for change in fuel from imported/indigenous coal to Pet coke blended with imported coal subject to strict implementation of all the conditions contained in the environment clearance letter of even no. dated 15th March, 2005 and additional conditions stipulated as follows:</p> <ol style="list-style-type: none"> The Pet coke shall be blended with imported coal and the blended fuel shall be used instead of imported / indigenous coal. 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 %. 	<p align="center">J-13012/20/2004-IA-II (T) Government of India Ministry of Environment & Forests</p> <p align="center"></p> <p align="center">Paryavaran Bhawan, C.O.O. Complex, Lodi Road, New Delhi - 110003. Dated: December 03, 2009 - 73</p> <p align="center">OFFICE ORDER</p> <p>Sub: 90 MW Captive Power Plant at Ambuja Nagar, in Gujarat -reg.</p> <p>Sir, The undersigned is directed to refer to your letters dated 18.09.2008 requesting for allowing domestic coal and lignite along with pet coke blended with imported coal.</p> <p>2. In this regard it is to inform you that the matter has been examined in consultation with the Expert Appraisal Committee (Thermal), it is to inform that this 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:</p> <ol style="list-style-type: none"> CFBC Boiler shall be installed along with air cooled condenser and ESP having atleast 99.8% efficiency. Sulphur content in blended fuel shall not exceed 3.5 % and 90% SO₂ removal shall be achieved by lime dosing or any other suitable mechanism. 100 % Fly Ash utilization shall be achieved from the date of commissioning of the plants of total capacity. <p>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.</p> <p>This issue with the approval of the Competent Authority.</p> <p align="right">Yours faithfully,  (W. Shastry) Deputy Director</p> <p>M/s Gujarat Ambuja Cements Ltd, P.O.Ambuja Nagar – 362715 Taluka-Kodinar, Distt. Junagadh Gujarat.</p> <p>Copy to:</p> <ol style="list-style-type: none"> The Secretary, Ministry of Power, Shriam Shakti Bhawan, Rafi Marg, New Delhi – 110 001. The Secretary, Deptt. Of Forests & Environment, Government of Gujarat, Sachivalaya, 8th Floor, Gandhi Nagar – 382010. The Chairman, Central Electricity Authority, Sewa Bhawan, R.K. Puram, New Delhi – 110 066.
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(v) Copy of coal linkage duly approved by SLC Ministry of coal should be submitted before starting commissioning at the site.

Complied

- First phase (CFBC boilers 1 & 2) of TPP commissioned in 2007
- 2nd Phase (CFBC boiler 03) of TPP commissioned in 2010.
- 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.
- Copy of the same is enclosed as below :

<p align="center"> South Eastern Coalfields Limited (A Subsidiary of Coal India Limited) Seepal Road, P.O. SECL, Bilaspur-495 006 (Chhattisgarh)</p> <p>Tel: 0775-26632 Fax: 0775-26647</p> <p>Sales of MEGs Deptt.</p> <p>Dtd: 24.09.2008</p> <p align="right">Speed Post</p> <p>SECL/BSF/S&M/COMML/31/ACL CTP (LOA)/ 1003</p> <p>To, Ambuja Cements Limited, P. O. Ambujanagar, Taluka-Kodinar, Distt. Junagadh, Gujarat-362715</p> <p>Dear Sir,</p> <p align="center">Subject: Letter of Assurance</p> <p>Preamble In consideration of the request by Ambuja Cements Limited, P. O. Ambujanagar, Taluka-Kodinar, Distt. Junagadh, Gujarat-362715 (hereinafter referred to as "the Assured") for issuance of Letter of Assurance (hereinafter referred to as "LOA") requiring 4,94,000 tonnes per annum (tpa) of F Grade coal for its 90 MW Captive Power Plant located at P. O. Ambujanagar, Taluka-Kodinar, Distt. Junagadh, Gujarat-362715 (hereinafter referred to as "CPP"), from about October 2008, as requested by the Assured, SECL (hereinafter referred to as "the Assurer") hereby provisionally assures that it would endeavour to supply coal to the Assured subject to the following terms and conditions:</p> <p>1. Scope of Assurance 1.1 Quantity & Grade of coal Subject to the Assured fulfilling its obligations in accordance with Clause 2 to the satisfaction of the Assurer within the period of validity of this LOA and the signing of the Fuel Supply Agreement (FSA) within three (3) months thereafter, the Assurer shall endeavour to supply, as per the normative requirement of the CPP, 4,94,000 tonnes per annum (tpa) of F¹ Grade(s) coal to the Assured, which shall be subject to review and assessment by the Assurer of the actual coal requirement of the Assured as well as the incremental availability of coal from the mines of the Assurer and/or imported coal. It is expressly clarified that in the</p>	<p>event that the incremental coal supplies available with the Assurer (after meeting out the commitments already made) is less than the incremental coal demand, such incremental availability shall be distributed on pro-rata basis and the balance quantity of coal requirement shall be met through imported coal available with the Seller, which too shall be distributed on pro-rata basis.</p> <p>* Parameters in case of imported coal shall be as specified by CIL/Assurer</p> <p>1.2 Price of coal The price of coal assured herein shall be as per the notified price of CIL from time to time. Notwithstanding, in case the quantity of normative requirement, as stated in Clause 1.1 above, necessitates opening of a dedicated mine, then coal shall be priced at the higher of the cost plus reasonable return or such notified price. The quantity of imported coal that may be supplied to the Assured, as mentioned in Clause 1.1, shall be charged at the landed cost plus service charge. Such service charge shall be notified by the Assurer from time to time. The Assured shall be liable to pay all applicable taxes and statutory levies.</p> <p>1.3 Change in law In the event of an enactment, promulgation, amendment or repeal of any statute, policy, decree, notice, rule or direction by any government instrumentality that would have an impact on the coal supply terms assured hereof, the Assurer shall be free to amend or repeal this LOA without any liabilities or damages, whatsoever, payable to the Assured.</p> <p>1.4 Force-Majeure affecting the Assurer In the event that development of the coal block identified by the Assurer for the purpose of meeting the normative requirement stated in Clause 1.1 is delayed or terminated for reasons including de-allocation of such block by the Government and inordinate delays faced in acquiring land or receiving environmental/forest clearances; Or that imports of coal required for the purpose of meeting the portion of normative requirement stated in Clause 1.1 is reasonably withheld owing to such factors as global shortage or a Force-Majeure event affecting the source(s) of imported coal or logistical bottlenecks faced in transportation and unloading, which are not within the control of and not caused by the negligence or fault of the Assurer, the Assurer shall be free to amend or repeal this LOA without incurring any liability whatsoever, including the liability for payment of damages to the Assured.</p>
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**Compliance Status of Environmental Clearance issued to 90 MW Captive Thermal Power Plant
(EC vide MoEF&CC letter No. J – 13012/20/2004. IA –II (T) dated 15th March and 18th March, 2005)**

3 (vi)	Water requirement shall not exceed 1460 m3/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.	Complied <ul style="list-style-type: none"> Average Industrial Water consumption is 320.34 m3/day and average domestic water consumption is 25.41 m3/day. Total Average water consumption is 345.75 m3/day which is within the permissible quantity 1460 m3/day. Our Thermal power plant is Zero Liquid Discharge unit, waste water (RO reject water) generated from thermal power plant is being re-used for cooling purpose and dust suppression in cement plant.
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.	Complied. <ul style="list-style-type: none"> No ground water is being extracted or purchased for power plant. Harvested rain water stored in our mined out pits/reservoirs are being used for captive power plant operation.
3 (viii)	A regular auditing of ground water availability and use by an independent agency should be put in place.	Complied. <ul style="list-style-type: none"> The ground water is not being used for TPP. Only harvested rain water is being used in operation of TPP. CSR arm i.e. Ambuja Cement Foundation of Ambuja Cements Limited has constructed various rain water harvesting structures around the area in association with Ministry of Water Resources (Govt. of Gujarat). As a result of this, Salinity of the area is reduced and ground water level is augmented. However preliminary scientific Study on ground water potential in 1 km radius zone of captive power plant was carried out in Aug-2004 jointly by Ground Water & Mineral Investigation Consultancy Centre (P) Ltd. Jaipur, Rajasthan. Renewed audit agency M/S DNV is engaged for auditing of groundwater availability & use year 2019 report reveals that we are 21.1 times water positive.

DNV-GL

INDEPENDENT VERIFICATION STATEMENT

Introduction

DNV GL Business Assurance India Private Limited ("DNV GL") has been commissioned by the management of Ambuja Cements Limited ("Ambuja") to carry out an independent verification of the water accounting data ("Water Data") for the period 1st January 2019 to 31st December 2019 and the procedures described by the Company in the "Water Accounting Policy" (Version 2012) ("Water Policy").

The Company is responsible for the collection, analysis, preparation and presentation of its Water Data as detailed in the Water Policy. Our responsibility in performing this work is to the management of the Company only and is not an assurance or a guarantee. The verification is performed on the basis of the information provided to us by the Company. DNV GL does not assume any liability or responsibility for any decision or action or omission that may be taken by the Company based on the Water Data. This limited level of assurance verification is not intended to be a substitute for an internal control system or a financial audit.

Scope, Boundary and Limitations of Assurance

The agreed upon scope of work agreed upon with the Company included the verification of the following as per the methodology adopted by the Company:

- Water balance data for Ambuja's facilities
- Water data calculation
- Water data calculation
- Water data calculation

As required sample facilities and water harvesting structures of the Company at Ambuja (Gujarat) and Rajasthan (Rajasthan) and the Corporate Office at Mumbai, representing diverse activities of the Company and ensuring a minimum of 30% of the overall corporate water data for 20 major facilities as mutually agreed with the Company. The verification was carried out in February 2020 to March 2020. No external stakeholders were interviewed as part of this verification engagement.

Verification Methodology

DNV GL adopted a risk-based approach and conducted the onsite and offsite verifications of the water accounting data and procedures presented to us by the Company. We have examined and reviewed documents, records and other information made available to DNV GL by Ambuja. We reviewed the uncertainty and limitations relating to the methodologies used in the preparation of water accounting data, and these were clearly explained to us.

Our verification was based on the following as defined by the Company:

- Water balance data is defined as the ratio of water credit over water debit.
- Water Data includes: The volume of industrial activated water withdrawn, and
- Water Credit is the summation of volume of recycled / reused water, harvested rainwater, groundwater recharge quantities and water saving through efficient initiatives.
- If Water balance index is greater than zero, then it refers to a "Positive Water balance" (Positive Water balance).

The verification process is detailed in the report on page 2 of 4.

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DNV-GL

The water debit data is accounted based on metered water withdrawal at the sites and through water bills for freshwater intake. The water credit data is based on recycled water, rainwater harvested, groundwater recharge and water savings estimated across various water harvesting structures and initiatives.

As part of the verification process, we:

- Reviewed by means of sample-based checks, the methodology, measurement techniques, estimation methods, assumptions and uncertainties involved in the process of water accounting as detailed by the Company;
- Conducted onsite visits to the Ambuja integrated plants located at Ambajipet and Ambajipet, Gujarat, other sites and value-added services (VAGS);
- Performed a desk review of the water balance data and quantification methodology provided by the Company for its operational sites and water harvesting structures, in view of the ground water recharge structures, water savings through better agricultural practices (dry, sprinkler, systematic rainwater harvesting) located inside and outside the facilities and value added services;
- Verified the quantified data presented by the Company on water extraction, water consumption including wastewater treatment and harvested rainwater;
- Conducted a walk-through audit along with Ambuja representatives to physically verify the sources of water extraction, storage of water, activities for which water is used, discharge points, reuse, metering etc. and the monitoring techniques used at points of debit and credit;
- Examined and reviewed documents, records and other information made available to us by Ambuja.

As part of the verification process, we obtained:

- An understanding of the systems used to generate, aggregate and report Water Data;
- An understanding of the water data from sustainability data management system and the Compliance, Reliability and Accuracy of the Water Data;
- Performed sample-based checks of the processes for generating, gathering and managing Ambuja's water accounting data.

Conclusions

Nothing has come to our attention that would cause us to believe that the Water balance index and Water Accounting data submitted are not a fair representation of its Water Data based on our limited level of verification of water credit and water debit data presented to us for sustained data spread across, as below:

Facility	Water Credit (Total Withdrawal)	Water Credit				Total Credit	Water Debit	Water balance index
		Water Credit (Total Withdrawal)	Water Credit (Total Withdrawal)	Water Credit (Total Withdrawal)	Water Credit (Total Withdrawal)			
Integrated Plant (1)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (2)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (3)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (4)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (5)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (6)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (7)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (8)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (9)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (10)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (11)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (12)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (13)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (14)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (15)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (16)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (17)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (18)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (19)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (20)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (21)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (22)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (23)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (24)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (25)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (26)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (27)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (28)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (29)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (30)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (31)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (32)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (33)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (34)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (35)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (36)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (37)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (38)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (39)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (40)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (41)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (42)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (43)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (44)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (45)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (46)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (47)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (48)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (49)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (50)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (51)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (52)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (53)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (54)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (55)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (56)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (57)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (58)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (59)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (60)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (61)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (62)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (63)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (64)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (65)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (66)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (67)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (68)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (69)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (70)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (71)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (72)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (73)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (74)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (75)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (76)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (77)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (78)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (79)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (80)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (81)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (82)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (83)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (84)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (85)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (86)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (87)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (88)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (89)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (90)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (91)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (92)	100000	100000	100000	100000	100000	100000	100000	1.0
Integrated Plant (93)	100000	100000	100					

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

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.	Complied. <ul style="list-style-type: none">The company has constructed various rain water harvesting structures around the area in association with Ministry of Water Resources (Govt. of Gujarat). As a result of this Salinity of these area is reduced and ground water level is augmentedThe company has also well qualified and experienced in-house hydrogeologist. These in house experts are competent to design & develop rainwater harvesting structure. However, as directed, we had consulted 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 CSR arm “Ambuja Cement Foundation” (ACF). A brief about ACF & community development work done by ACF in surrounding areas is enclosed as under and rain water harvesting measures are enclosed as under.																																																																																																																																														
	<table><tr><th colspan="7">Ambuja Cement Foundation - Ambujanagar Details for programme wise expenditure for the year October 2022 to March 2023</th></tr><tr><th colspan="7">(Rs. In lakhs)</th></tr><tr><th>Sr.No</th><th>Programme</th><th>ACF - ACL</th><th>*Funds received through Government</th><th>** Funds from other Donors / Donor Agencies</th><th>***People's Contribution</th><th>****Direct Funding to Communities</th><th>Total Exp.</th></tr><tr><td></td><td>GUJARAT - Kodinar</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>1</td><td>Water Resource Mangement & Drinking Water Projects</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td>a.Water Resource Development</td><td>11.05</td><td>0.00</td><td></td><td></td><td></td><td>11.05</td></tr><tr><td></td><td>B .Drinking Water Programme</td><td>2.75</td><td></td><td></td><td>3.30</td><td></td><td>6.05</td></tr><tr><td>2</td><td>Agricuture Development(Drip Irrigation, Farm Forestry & Afforesation)</td><td>37.03</td><td></td><td></td><td>191.35</td><td>233.95</td><td>462.33</td></tr><tr><td>3</td><td>BCI</td><td>28.33</td><td>1.54</td><td>221.84</td><td>297.00</td><td>396.06</td><td>944.77</td></tr><tr><td>4</td><td>Krishi Vigyan Kendra (KVK) - Agriculture</td><td>1.87</td><td>133.47</td><td></td><td></td><td></td><td>135.34</td></tr><tr><td>5</td><td>Health & Sanitation</td><td>12.25</td><td></td><td></td><td>8.27</td><td></td><td>20.52</td></tr><tr><td>6</td><td>Education Programme</td><td>7.75</td><td></td><td></td><td></td><td></td><td>7.75</td></tr><tr><td>7</td><td>Women / Youth Development</td><td>21.15</td><td></td><td></td><td></td><td></td><td>21.15</td></tr><tr><td>8</td><td>Skill and Enterprunership Development Programme</td><td>38.78</td><td>38.83</td><td></td><td>26.74</td><td></td><td>104.35</td></tr><tr><td>9</td><td>Integrated Community Development Programme</td><td>81.21</td><td></td><td></td><td></td><td></td><td>81.21</td></tr><tr><td>10</td><td>Co-ordination & Administration Expenses</td><td></td><td></td><td></td><td></td><td></td><td>0.00</td></tr><tr><td>11</td><td>Capital Expenditure</td><td></td><td></td><td></td><td></td><td></td><td>0.00</td></tr><tr><td></td><td>TOTAL</td><td>242.17</td><td>173.84</td><td>221.84</td><td>526.66</td><td>630.01</td><td>1794.52</td></tr></table>		Ambuja Cement Foundation - Ambujanagar Details for programme wise expenditure for the year October 2022 to March 2023							(Rs. In lakhs)							Sr.No	Programme	ACF - ACL	*Funds received through Government	** Funds from other Donors / Donor Agencies	***People's Contribution	****Direct Funding to Communities	Total Exp.		GUJARAT - Kodinar							1	Water Resource Mangement & Drinking Water Projects								a.Water Resource Development	11.05	0.00				11.05		B .Drinking Water Programme	2.75			3.30		6.05	2	Agricuture Development(Drip Irrigation, Farm Forestry & Afforesation)	37.03			191.35	233.95	462.33	3	BCI	28.33	1.54	221.84	297.00	396.06	944.77	4	Krishi Vigyan Kendra (KVK) - Agriculture	1.87	133.47				135.34	5	Health & Sanitation	12.25			8.27		20.52	6	Education Programme	7.75					7.75	7	Women / Youth Development	21.15					21.15	8	Skill and Enterprunership Development Programme	38.78	38.83		26.74		104.35	9	Integrated Community Development Programme	81.21					81.21	10	Co-ordination & Administration Expenses						0.00	11	Capital Expenditure						0.00		TOTAL	242.17	173.84	221.84	526.66	630.01	1794.52
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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.	Complied. <ul style="list-style-type: none">Two stacks are provided with height 95 m each.Continuous online emission monitoring systems for particulate matter (PM), SO₂ and NO_x have been installed at both stack and data are continuously transmitted & reported to CPCB and GPCB.																																																																																																																																														
3 (xi)	High efficiency Electrostatic Precipitator (ESP) having efficiency of 99.8% should be installed to limit outlet SPM emission at 100 mg/Nm ³	Complied. <ul style="list-style-type: none">03 ESP's have been Installed and designed to restrict the PM emission below 50 mg/Nm³.Average concentration of PM is found to be 25.0 mg/Nm³ against specified limit of 50 mg/Nm³.Stack monitoring results for the period from October 2022 to March 2023 is enclosed as under:																																																																																																																																														



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

**Stack Monitoring Results)
(October 2022 - March 2023)**

Month	Stack attached to							
	Boiler I & II				Boiler III			
	PM	SOx	NOx	Hg	PM	SOx	NOx	Hg
	mg/Nm ³	mg/Nm ³	mg/Nm ³	mg/Nm ³	mg/Nm ³	mg/Nm ³	mg/Nm ³	mg/Nm ³
Oct-22	25.90	342.60	139.50	0.0053	26.7	334.60	132.90	0.0032
Nov-22	27.60	355.20	140.20	0.0049	24.2	331.20	133.20	0.0034
Dec-22	28.50	340.20	142.30	0.0044	25.6	355.40	139.30	0.0039
Jan-23	26.40	559.80	238.50	0.0049	24.8	508.70	198.50	0.0042
Feb-23	29.40	541.90	245.70	0.0053	24.4	524.20	207.40	0.0045
Mar-23	26.30	554.30	251.30	0.0057	24.3	535.30	209.10	0.0048
Permissible Limit	50.0	600.0	450.0	0.03	50.0	600.0	450.0	0.03

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.

Complied.

- We have already setup AAQM stations in 5 Km to the E and 1 Km in SE direction as suggested.
- Ambient air quality monitoring reports for the period from April 2022 to September 2022 are enclosed as under :

Ambient Air Quality Monitoring Results (October 2022 - March 2023)

Month	Average Ambient Air Quality Monitoring Results (µg/m3)											
	Inside TPP				Navapara				Devalpara			
	PM2.5	PM10	SO2	NOx	PM2.5	PM10	SO2	NOx	PM2.5	PM10	SO2	NOx
Oct-22	26.99	38.28	12.56	15.18	25.16	35.78	13.99	13.90	26.00	37.50	15.20	15.30
Nov-22	25.71	37.19	15.08	15.51	24.73	36.54	13.95	13.75	28.30	37.40	13.50	15.20
Dec-22	26.39	37.70	14.12	16.00	26.16	35.29	15.78	14.00	26.80	38.30	13.90	14.40
Jan-23	24.79	36.34	13.74	14.21	26.89	38.10	14.31	14.38	26.90	34.40	12.50	14.10
Feb-23	25.88	37.00	14.60	15.69	26.36	38.83	15.57	16.76	27.50	39.20	12.60	13.60
Mar-23	25.20	37.14	14.87	15.87	26.80	37.91	15.40	16.36	27.20	38.90	12.90	13.70
Average	25.8	37.3	14.2	15.4	26.0	37.1	14.8	14.9	27.1	37.6	13.4	14.4

3 (xiii) Space for FGD installation shall be kept in the plant premises.

Complied.

- Space for FGD installation has been kept in the plant premises itself.

3 (xiv) Ash generation will be 630 TPD. 100% of the fly ash and bottom ash generated shall be utilized in cement manufacturing. Fly ash will be stored in silos only and there shall be no open storage pond.

Complied.

- Total average Ash generation including bottom ash is **116.734 TPD** which is well **630 TPD**.
- Fly ash is stored in Silo and bottom ash directly (100%) utilized in cement manufacturing along with fly ash at our own cement plant.
- There is no open storage pond as CPP generated Fly ash is stored in silo only.
- Total quantity of fly Ash generation at 3*30 TPP for the period from October 2022 to March 2023 as under :

Fly Ash Generation (October-2022 to March 2023)						
Month	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23
Fly Ash(MT)	2715	3286	4187	5733	3307	2056

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.

- Not applicable as there is no ash ponds. Fly ash generated is being stored at fly ash silo.


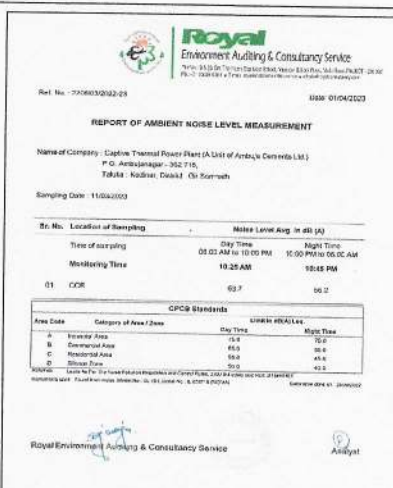
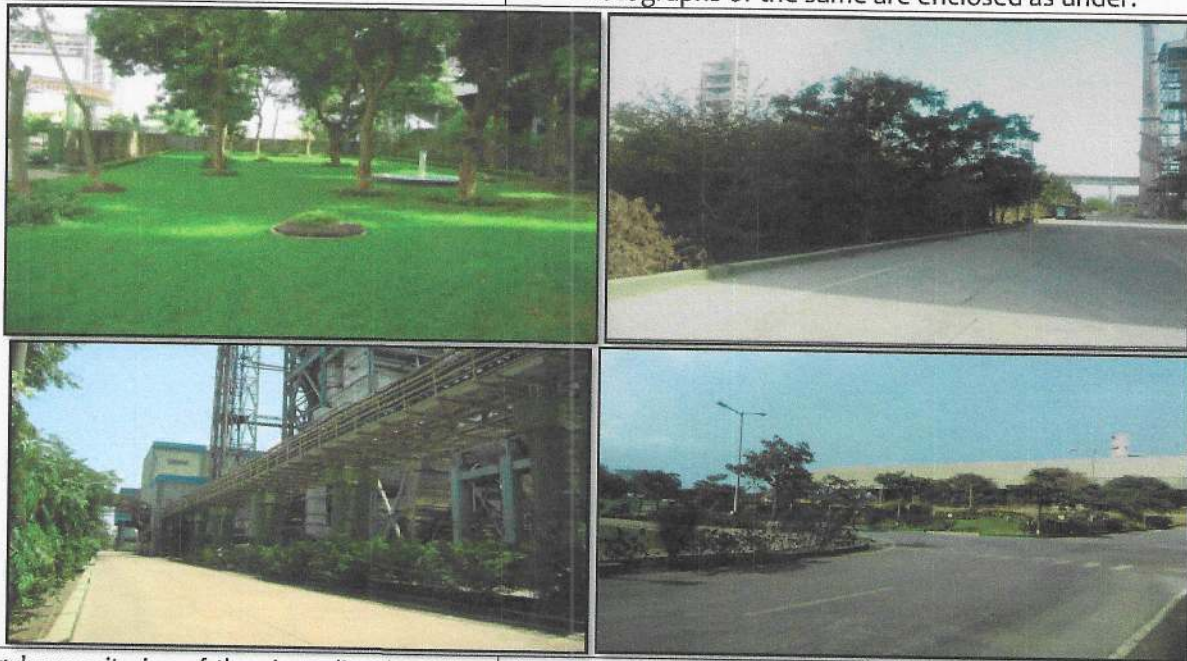
3 (xvi) Noise level should be limited to 75 dB (A) and regular maintenance of equipment will be undertaken. For people working in the area of generator and other high noise area, earplug should be provided.

Complied.

- Monitoring of Ambient noise level is done on regular basis and the noise level around thermal power plant is maintained well below 75 dB (A). report are enclosed as under:
- People working in the area of generator and other high noise areas are provided with necessary PPE's like earplugs and ear muffs.



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3 (xvii)	Greenbelt of 20-25 m along the plant boundary should be developed covering an area of 0.5 ha.	<p>Complied.</p> <ul style="list-style-type: none"> Greenbelt of 20-25 m has been established around the plant boundary wherever open space is available. However the company has done plantation where space is available inside the plant area. The company has already developed 2.10 hectares of greenbelt, more than the requirement. Photographs of the same are enclosed as under:
		
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.	<p>Complied.</p> <ul style="list-style-type: none"> Ambient air quality is being regularly monitored at identified AAQM stations and report is being regularly submitted to GPCB on monthly basis and to MoEF on six monthly basis. Ambient air quality monitoring report for the period from October-2022 to March-2023 enclosed as under:



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

Ambient Air Quality Monitoring Results (October 2022 - March 2023)

Month	Average Ambient Air Quality Monitoring Results (µg/m3)											
	Inside TPP				Navapara				Devalpara			
	PM2.5	PM10	SO2	NOx	PM2.5	PM10	SO2	NOx	PM2.5	PM10	SO2	NOx
Oct-22	26.99	38.28	12.56	15.18	25.16	35.78	13.99	13.90	26.00	37.50	15.20	15.30
Nov-22	25.71	37.19	15.08	15.51	24.73	36.54	13.95	13.75	28.30	37.40	13.50	15.20
Dec-22	26.39	37.70	14.12	16.00	26.16	35.29	15.78	14.00	26.80	38.30	13.90	14.40
Jan-23	24.79	36.34	13.74	14.21	26.89	38.10	14.31	14.38	26.90	34.40	12.50	14.10
Feb-23	25.88	37.00	14.60	15.69	26.36	38.83	15.57	16.76	27.50	39.20	12.60	13.60
Mar-23	25.20	37.14	14.87	15.87	26.80	37.91	15.40	16.36	27.20	38.90	12.90	13.70
Average	25.8	37.3	14.2	15.4	26.0	37.1	14.8	14.9	27.1	37.6	13.4	14.4

3 (xix)

For controlling fugitive dust, regular sprinkling of water in vulnerable areas of the plant should be ensured.

Complied.

- Various 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.
- Actions are being implemented in a time bound manner for controlling the fugitive dust emissions from all the sources. Regular monitoring of fugitive dust emission is carried out at the prescribed intervals.
- Fugitive Emission monitoring report (Average data) for the period **October 2022 to March 2023** enclosed as under:

Fugitive Emission Monitoring Results October 2022 to March 2023			
Average Fugitive Emission Monitoring Results (µg/m3)			
Fly ash silo - TPP	Bottom Ash Collection Area	Fly Ash Loading Area	CPP Main Gate Road
SPM (µg/m3)	SPM (µg/m3)	SPM (µg/m3)	SPM (µg/m3)
1367	1452	1625	1246

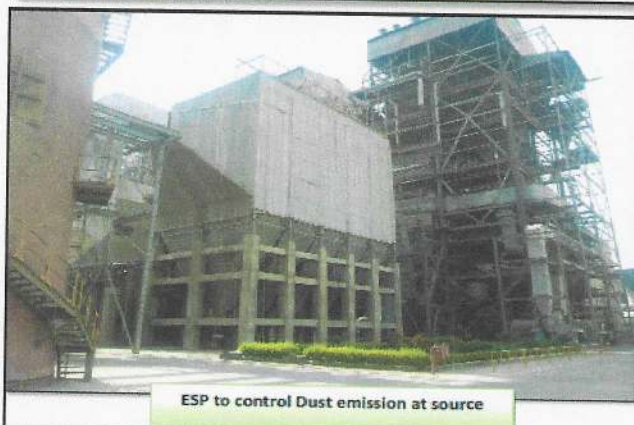
- Photographs of fugitive dust control measures are enclosed as under .



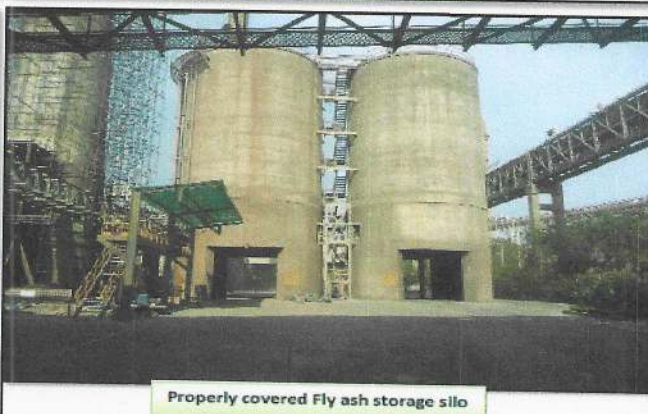
Concrete roads throughout the plant



Dust Sweeping Machine






ESP to control Dust emission at source



Properly covered Fly ash storage silo

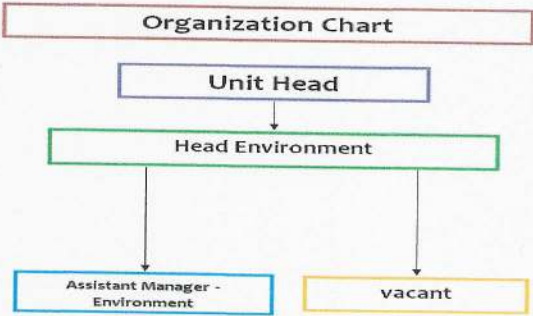


**Compliance Status of Environmental Clearance issued to 90 MW Captive Thermal Power Plant
(EC vide MoEF&CC letter No. J – 13012/20/2004. IA –II (T) dated 15th March and 18th March, 2005)**

	 <p align="center">Covered belt conveyor from Coal storage area to Boiler</p>	
3 (xx)	<p>All other mitigative measures shall be taken as enumerated in Chapter 5 of the REIA report.</p>	<p>Complied.</p> <ul style="list-style-type: none"> The main mitigation measures suggested in REIA chapter -5 are as follows. <ul style="list-style-type: none"> ➤ Recycle and reuse of treated effluent for green belt development, ➤ No adverse impact on flora -fauna ➤ Land use pattern of area to be remain unchanged. ➤ Upliftment of socio economic condition of surrounding area ➤ Solid waste management by proper storage facilities. All of the above recommendations are being followed and detail Compliance status has already been submitted to MoEF&CC vide our letter no. ACL/EMD/F-16/2010/55928 dated 25.12.2010.
3 (xxi)	<p>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 available with the State Pollution Control Board / Committee and may also be seen at Website of Ministry of Environment and Forests in the http://envfor.nic.in.</p>	<p>Complied</p> <ul style="list-style-type: none"> Advertisement has been published in local newspapers "Jai Hind" and "Indian Express" dated 24.03.2005. Copy of advertisement has already been submitted to MoEF&CC vide our letter no. ACL/EMD/F-16/2010/55928 dated 25.12.2010. Copy of the same is enclosed as under:
	<p align="center">"JAI HIND" DATED-24-03-2005</p> 	<p align="center">"INDIAN EXPRESS" DATED 24-03-05</p> 
3 (xxii)	<p>A separate environmental monitoring cell with suitable qualified staff should be set up for</p>	<p>Complied.</p> <ul style="list-style-type: none"> A well established Environmental Management Dept. (EMD)



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	implementation of the stipulated environmental safeguards.	<p>having qualified staff to carry out environment compliance.</p> <ul style="list-style-type: none"> Head of environmental management cell directly report to the Unit Head of the organization in order to oversee effective implementation of environment protection measures and to monitor the routine environmental performance within the premises. EMD organization chart is enclosed as under : <div style="text-align: center;">  <pre> graph TD A[Unit Head] --> B[Head Environment] B --> C[Assistant Manager - Environment] B --> D[vacant] </pre> </div>
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.	<p>Complied.</p> <ul style="list-style-type: none"> Half yearly compliance status report along with the monitored data are regularly submitted to MoEF&CC /CPCB/SPCB in hard and soft copies, our latest submission was vide Letter No . ACL/EMD/F-16/2022/2682 on dtd 18.11.2022.
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.	<p>Complied.</p> <ul style="list-style-type: none"> EIA report and management plan have been submitted vide our letter no. GACL/EMD/44/2005/30623 dated 09/04/2005.
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.	<p>Complied.</p> <ul style="list-style-type: none"> Capital investment for environment monitoring Rs 57.08 Lakhs. Recurring expenditure for period of from October 2022 to March 2023 is 45.49 Lakhs. Details of capital and recurring expenditure for environmental protection measures are enclosed as under:



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Expenditure incurred in Environment Management Plan -TTP		
A. Capital Investment for Environmental Monitoring :		
S.No	Particulars	Cost (In Lacs)
1	Monitoring Equipments	37.08
2	Environment Laboratory	10.00
3	Others (Monitoring Van, DG Sets etc.)	10.00
	Total (In Lacs INR)	57.08
B. Recurring Expenditure for the period of October'2022 to March'2023		
S.No	Particulars	Cost (In Lacs)
1	Green belt development & Dust suppression	1.02
2	Manpower Cost *	13.15
3	House Keeping	9.49
4	Maintenance of Pollution Control Equipments	15.97
5	Other Env. Protection (Environmental Monitoring)	4.43
6	Environment Awareness *	1.43
	Total (In Lacs INR)	45.49
* Expenditures are Common for All the Plants & Mines.		
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.	Complied. <ul style="list-style-type: none"> Full support and co-operation is being extended during the visit of officer from Ministry of Environment & Forest, CPCB as well as GPCB. Project was monitored by Director (Regional Office, Bhopal) during 12.10.10 to 13.10.10 & 17.08.2016
4	The ministry reserves the right to revoke the clearance if conditions stipulated are not implemented to the satisfaction of the ministry.	Agreed.
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 do so within this stipulated period , this environmental clearance shall stand lapsed automatically.	Noted. <ul style="list-style-type: none"> The environment clearance was issued on Nov-2005 and first phase of project was commissioned in 2007 and second phase of project was commissioned in 2010. Hence condition is complied.
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.	Complied. <ul style="list-style-type: none"> The company has applied for type of fuel change to MOEF&CC for amendment of EC condition and same has been amended as per MOEF&CC letter dated 03.06.2009 & 03.12.2009.
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.	Complied. <ul style="list-style-type: none"> All stipulations under Water (Prevention and Control of pollution)Act, 1974, the Air (Prevention and control of Pollution) Act 1981, the Environment Protection Act , 1986, Hazardous waste Rules, 1989 amendment 2003, 2008, 2016 and EIA Notification 1994 are being complied.
Compliance Status of Environmental Clearance No. J-13012/20/2004- IA. II (T) dated 03.06.2009 issued to Thermal Power Plant [EC 1st		



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

amendment]		
(i)	The Pet coke shall be blended with imported coal and the blended fuel shall be used instead of imported/indigenous coal.	Complied. <ul style="list-style-type: none"> As per further amendment in CPP EC dated 03.12.2009 we are blending lignite and domestic coal in addition to petcoke and imported coal.
(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 %.	Complied. <ul style="list-style-type: none"> Blending of fuels is done in a manner to restrict Sulphur percentage below 3.5%. Limestone dosing is being done along with coal, in order to limit Sulphur dioxide emission.
(iii)	All the waste generated from sulphur quenching shall be used in a cement plant.	Complied. <ul style="list-style-type: none"> The fly ash and bottom ash generated from sulphur quenching is being used in cement plant.
(iv)	First aid and sanitation arrangement shall be made for the drivers and the contract workers during construction phase.	Complied. <ul style="list-style-type: none"> All required facilities such as first aid, drinking water and sanitation arrangements were made for the drivers and the contract workmen during the construction phase. All these facilities are also available for workmen presently working in thermal power plant. A multispecialty hospital of 60 beds is established in 2015 at Ambujanagar.
(v)	Regular monitoring of ground level concentration of SO ₂ , NO _x , 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 regional office of the ministry. The data shall also be put on the website of the company.	Complied. <ul style="list-style-type: none"> 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&CC on six monthly basis. Ambient air quality monitoring report for the period from October 2022 - March 2023 enclosed as under:

Ambient Air Quality Monitoring Results (October 2022 - March 2023)

Month	Average Ambient Air Quality Monitoring Results (µg/m ³)											
	Inside TPP				Navapara				Devalpara			
	PM2.5	PM10	SO ₂	NO _x	PM2.5	PM10	SO ₂	NO _x	PM2.5	PM10	SO ₂	NO _x
Oct-22	26.99	38.28	12.56	15.18	25.16	35.78	13.99	13.90	26.00	37.50	15.20	15.30
Nov-22	25.71	37.19	15.08	15.51	24.73	36.54	13.95	13.75	28.30	37.40	13.50	15.20
Dec-22	26.39	37.70	14.12	16.00	26.16	35.29	15.78	14.00	26.80	38.30	13.90	14.40
Jan-23	24.79	36.34	13.74	14.21	26.89	38.10	14.31	14.38	26.90	34.40	12.50	14.10
Feb-23	25.88	37.00	14.60	15.69	26.36	38.83	15.57	16.76	27.50	39.20	12.60	13.60
Mar-23	25.20	37.14	14.87	15.87	26.80	37.91	15.40	16.36	27.20	38.90	12.90	13.70
Average	25.8	37.3	14.2	15.4	26.0	37.1	14.8	14.9	27.1	37.6	13.4	14.4

(vi)	Provision shall be made for the housing of construction labor within the site with all necessary infrastructure and facilities	Complied.
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**Compliance Status of Environmental Clearance issued to 90 MW Captive Thermal Power Plant
(EC vide MoEF&CC letter No. J – 13012/20/2004. IA –II (T) dated 15th March and 18th March, 2005)**

	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"> Project has already completed and plant is under operational stage. Presently, all our management staff and wage board employees are residing in company provided residential colony.
(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 ₂ , NO _x (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.	<p>Complied.</p> <ul style="list-style-type: none"> Compliance status reports of the stipulated conditions, including results of monitoring data are being regularly uploaded on company website. Half yearly compliance status report including results of monitored data are being regularly submitted to MoEF&CC/CPCB/SPCB, our last submission was on dated 26.05.2022 vide letter no. ACL/EMD/F-16/2022/2514/90447. Pollutants level is being uploaded on website and also being displayed on board at main gate of the power plant.
(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 _x) will be displayed at the main gate of the power plant.	<p>Complied</p> <ul style="list-style-type: none"> Six monthly compliance status report and pollutants level (Stack & ambient) is being uploaded on website: www.ambujacement.com and also being displayed at main gate of the power plant.
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]		
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.	Agreed
(i)	CFBC Boiler shall be installed along with air cooled condenser and ESP having at least 99.8% efficiency.	<p>Complied</p> <ul style="list-style-type: none"> CFBC Boilers are installed along with air cooled condensers and highly efficient ESP's to control emission.
(ii)	Sulphur content in blending fuel shall not exceed 3.5% and 90% SO ₂ removal shall be achieved by lime dosing or any other suitable mechanism.	<p>Complied</p> <ul style="list-style-type: none"> 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.
(iii)	100% Fly Ash utilization shall be achieved from the date of commissioning of the plants of total capacity.	<p>Complied</p> <ul style="list-style-type: none"> All the generated fly ash (including bottom ash) is being stored in Silo and being fully (100%) utilized in cement manufacturing at our own cement plant.
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.	Complied as all above condition.

