ECOCEMENT
अडिग, अजर, अमर.

Dated 24.05.2013

To,
Ministry of Environment and Forests,
A-3, Chandrashekharpur, Bhubaneswar – 751 023, Orissa.
Tel: 0674-2301248, 2301213; Fax: 0674-2302432

Our Ref :ECO/BIHAR/SEC/24052013/02

Sub : Status of Environmental Compliance of M/s. Eco Cements Limited, Bhabhua for the period of OCT 2012 to MARCH 2013

Dear Sir,

This refers to above mentioned subject. In this matter, please find attached Status of Environmental Compliance of M/s. Eco Cements Limited, Bhabhua for the period of OCT 2012 to MARCH 2013

Kindly acknowledge the receipt and oblige.

Thanking you in anticipation,
For Eco Cements Limited

ECO CEMENTS LTD

Rajiv Sahi
Authorised Signatory / Director
Addl. Projects

Encl.

1. **Status of Environmental Compliance of M/s. Eco Cements Limited, Bhabhua for the period of OCT 2012 to MARCH 2013**

Copy to. -

1. **The Chairman,**
   Bihar State Pollution Control Board,
   Beltron Bhavan, 2nd Floor, Lal Bahadur Shastri Nagar,
   Patna- 800023

2. **The Chairman, Central Pollution Control Board,**
   Parivesh Bhawan, CBD-cum-Office Complex,
   East Arjun Nagar, Delhi - 110 032

ECO CEMENTS LIMITED, BHABHUA, BIHAR

Compliance report of Environment Clearance for Bhabhua Cement Plant

(For the Period from Oct 2012 to March 2013)

Reference Letter from MOEF, New Delhi - F. No. J-11011/287/2010-IA-II (I) dated 31.10.2011

Compliance of Specific Condition as per EC

Sl.No.	Particulars	Status of Compliance
1	Particulate emissions shall be controlled within 50 mg/Nm^3 by installing adequate air pollution control system viz. Bag filters and stacks of adequate height etc. Data on ambient air, fugitive and stack emissions shall be submitted to the Ministry's Regional Office at Bhubaneswar, SPCB and CPCB regularly.	Air borne dust at all emission points are extracted through dust extraction system to the bag filters and stacks of 30 Meter height high are erected. Particulate emmission is below and 50mg/Nm3. Data on ambient air, fugitive and stack emissions shall be submitted to the Ministry's Regional Office at Bhubaneswar, SPCB and CPCB regularly **(REPORTS ATTACHED SEE ANNEXURE- 1)**
2	The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 should be followed.	We are following the The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November.**(REPORTS ATTACHED SEE ANNEXURE - 2A)**
3	Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored. Guidelines/Code of Practice issued by the CPCB should be followed.	We are following the Guidelines of Practice issued by the CPCB. The gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry and it will be regularly monitored. **(REPORTS ATTACHED SEE ANNEXURE - 2B)**
4	The company shall install adequate dust collection and extraction system to control fugitive dust emissions at various transfer points, raw meal handling (unloading, conveying, transporting, stacking), vehicular movement, bagging and packing areas etc. All the raw material stock piles should be covered. A closed clinker stockpile system shall be provided. All conveyers should be covered with GI sheets. Covered sheds for storage of raw materials and fully covered conveyers for transportation of materials shall be provided besides cement, fly ash and clinker shall be stored in silos. Pneumatic system shall be used for fly ash handling.	Adequate no of dust collector are installed at all dust emission points. All the raw material are kept under covered yards and silos and all the conveyors are covered and cement, fly ash and clinker are stored in Silos. Pneumatic system is used for fly ash handling. **(DUST COLLETOR DETAILS ARE ATTACHED HEREWITH WITH TECKNICAL SPEC. - SEE ANNEXURE - 3A & 3B)**
5	Asphalting/concreting of roads and water spray all around the stockyard and loading/unloading areas in the cement plant shall be carried out to control fugitive emissions. Regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM such as haul road, loading and unloading points, transfer points and other vulnerable areas. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.	Concreting of road has been completed and provision has been made for regular water sprinkling by a tractor mounted sprinklers and pipe sprinklers has been laid near critical areas prone to air pollution

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6	Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land. All the raw materials including fly ash should be transported in the closed containers only and should not be overloaded. Vehicular emissions should be regularly monitored.	We are using close container vehicles and bulkers for the transportation of fly ash and the handling sections are equipped with dust collection equipments. Vehicular emission are regularly monitored and efforts are made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land.
7	Total ground water requirement for the cement plant shall not exceed 200 m^3/day and necessary permission for the drawl of water shall be obtained from the Competent Authority. All the treated wastewater should be recycled and reused in the process and/or for dust suppression and green belt development and other plant related activities etc. No process wastewater shall be discharged outside the factory premises and 'zero' discharge should be adopted.	Total ground water requirement for the cement plant is well below 200 m3/day and we are Exempted for abtaining NOC from CGWA as per their Guidelines for ground water abstraction for drinking and domestic purposes and Industry/Infrastructure project proposals in Non-notified areas. All other conditions are complied. **(REPORTS ATTACHED - SEE ANNEXURE- 4)**
8	Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources.	Rain Water harvesting is carried out and the capacity of the reservoirs is planned such that maximum water requirement may be met through it and balance water requirement shall be met from other sources. **(G.A ATTACHED - SEE THE ANNEXURE - 6)**
9	All the bag filter dust, raw meal dust, clinker dust and cement dust from pollution control devices should be recycled and reused in the process used for cement manufacturing. Spent oil and batteries should be sold to authorized recyclers / reprocessors only.	We are recycling and reusing all the bag filter dust, raw meal dust, clinker dust and cement dust from pollution control devices in the process used for the cement manufacturing. We will also sell off spent oil and batteries to authorized recylers/ reprocessors only. **((REPORTS ATTACHED - SEE ANNEXURE- 5)**
10	Green belt shall be developed in at least 33 % area in and around the cement plant as per the CPCB guidelines to mitigate the effects of air emissions in consultation with local DFO. Green belt development shall be started within 3 months after obtaining EC and completed within 3 years or before commissioning of the plant whichever is earlier.	Green Trees are planted in at least 33 % area in and around the cement plant as per the CPCB guidelines to mitigate the effects of air emissions in consultation with local DFO. Green belt has been developed by planting trees all around the plant. **(G.A ATTACHED - SEE THE ANNEXURE - 6)**
11	At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on locals need and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at at Bhubaneswar. Implementation of such program should be ensured accordingly in a time bound manner.	Enterprise Social Commitment is being followed and we have started community development programmes and participated in harit kranti.
12	The company shall provide housing for construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	We have provided housing for construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, safe drinking water, medical health care, crèche etc. The housing provided is temporary and is in the process of removal.

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ECO CEMENTS LIMITED, BHABHUA, BIHAR

Compliance report of Environment Clearance for Bhabhua Cement Plant

(For the Period from Oct 2012 to March 2013)

Reference Letter from MOEF, New Delhi - F. No. J-11011/287/2010-IA-II (I) dated 31.10.2011

Compliance of General Condition as per EC

Sl.No.	Particulars	Status of Compliance
1	The project authorities must strictly adhere to the stipulations made by the Bihar State Pollution Control Board and the State Government.	We will strictly adhere to the stipulations made by the Bihar State Pollution Control Board and the State Government.
2	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.	We will take no further expansion or modifications in the plant without prior approval of the Ministry of Environment and Forests.
3	The gaseous emissions from various process units shall conform to the load/mass based standards notified by this Ministry on 19th May, 1993 and standards prescribed from time to time. The State Pollution Control Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location.	We will conform to the load/mass based standards notified by this Ministry on 19th May, 1993 and standards prescribed from time to time for the gaseous emissions from various process units.
4	At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM10, SO_2 and NO_x are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Bhubaneswar and the SPCB/CPCB once in six months.	We have establish four ambient air quality monitoring stations in the downward direction as well as where maximum ground level concentration of PM10, SO2 and NOX are anticipated in consultation with our Pollution Consultant. Data on ambient air quality and stack emission are regularly submitted to this Ministry including its Regional Office at Bhubaneswar and the SPCB/CPCB once in six months.**(SEE ATTACHED LETTER NO. - ECO/BIHAR/SEC/15032013/02 & ECO/BIHAR/SEC/24052013/03)**
5	Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended form time to time. The treated wastewater shall be utilized for plantation purpose.	No Industrial wastewater generated
6	The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).	Noise control measures including noise dampener sheet in ball mill, acoustic hoods, silencers, enclosures etc. are installed on all sources of noise generation so that the overall noise levels in and around the plant area shall be kept well within the standards (85 dBA). The ambient noise levels shall conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime). **(REPORTS ATTACHED - SEE ANNEXURE- 7)**
7	Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.	We conduct occupational health surveillance of the workers on a regular basis and records are maintained as per the Factories Act.

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8	The company shall develop surface water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.	A reservoir has been dug and all rain water has been directed to it for storage for lean season and the ground water table too is recharged. **(G.A ATTACHED - SEE THE ANNEXURE - 6)**
9	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.	We are complying with all the environmental protection measures and safeguards recommended in the EIA/EMP report. We have started undertaking socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc.
10	As proposed, Rs. 0.85 Crores and Rs 5.6 lakhs shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of the Ministry at Bhubaneswar. The funds so provided shall not be diverted for any other purpose.	We have spent Rs. 0.85 Crores towards capital cost and Rs. 5.6 Lakhs has been earmarked towards recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. We will submit a schedule for implementing all the conditions stipulated herein to the Regional Office of the Ministry at Bhubaneswar. The funds so provided shall not be diverted for any other purpose. (See Annexure 8)
11	A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.	We are creating a website and a copy of the clearance letter shall be put on the website.
12	The project proponent shall upload the status of compliance of the stipulated environment clearance 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 the MOEF at Bhubaneswar. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM10, SO_2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.	We will upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on our website after it is created and shall update the same periodically. We send it to the Regional Office of the MOEF at Bhubaneswar. The respective Zonal Office of CPCB and the SPCB. We monitor and display the criteria pollutant levels namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects at a convenient location near the main gate of the company in the public domain.
13	The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bhubaneswar / CPCB / SPCB shall monitor the stipulated conditions.	We submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB.

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14	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company alongwith the status of compliance of environmental conditions and shall also be sent to the respective Regional Office of the MOEF at Bhubaneswar by e-mail.	We submit the environmental statement for each financial year ending 31st March in Form-V as to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently. We will also put it on the website of the company after creating it alongwith the status of compliance of environmental conditions and will also send it to the respective Regional Office of the MOEF at Bhubaneswar by e-mail. **(FORM - V IS ATTACHED WITH THIS REPORT)**
15	The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment and Forests at http:/envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office at Bhubaneswar.	We have informed the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment and Forests at http:/envfor.nic.in. We have advertised this within seven days from the date of issue of the clearance letter, in at least two local newspapers that are widely circulated in the region of which one is in the vernacular language of the locality concerned and a copy of the same was forwarded to the Regional office at Bhubaneswar.
16	Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.	We have informed the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.

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ECO CEMENTS LIMITED, BHABHUA, BIHAR

Compliance report of Environment Clearance for Bhabhua Cement Plant

(For the Period from Oct 2012 to March 2013)

Reference Letter from MOEF, New Delhi - F. No. J-11011/287/2010-IA-II (I) dated 31.10.2011

Compliance of conditions as per Consent-to-Establish (NOC)

Sl.No.	Particulars	Status of Compliance
1	The proponent shall obtain 'Consent-to-Operate' under Section 25 & 26 of The Water Act, 1974 and section 21 of The Air Act, 1981 prior to commissioning of the plant from Bihar State Pollution Control Board	We have obtained 'Consent-to-Operate' under Section 25 & 26 of The Water Act, 1974 and section 21 of The Air Act, 1981 prior to commissioning of the plant.
2	They shall comply with the provisions of Water (Prevention and Control of Pollution) Act, 1974, The Air (Prevention and Control of Pollution) Act, 1981, The Environment (Protection) Rules, 1986 and notification isssued thereunder	We have complied with the provisions of Water (Prevention and Control of Pollution)A ct, 1974, The Air (Prevention and Control of Pollution) Act, 1981, The Environment (Protection) Rules, 1986 and notification isssued thereunder
3	The effluent (Domestic or Trade) and emission shall conform to the standard prescribed under The Rules. No process waste water shall be discharged outside the factory premises and 'zero' discharge shall be adopted	No process waste water is discharged outside the factory premises and 'zero' discharge is adopted. The effluent water is used in the development of GreenBelt.
4	They shall submit data on ambient air, fugitive emission and stack emission to the Board. The National Ambient Air Quality Standards issued by the MoEF dated 16th-Nov,2009 shall be followed.	The data for all emission points have been submitted and stacks have been erected wherever required.
5	They shall install adequate air pollution control system viz. Bag filters and stacks of adequate height to control the particulate emissions within 50 mg/Nm3 at various transfer points	Air borne dust at all emission points are extracted through dust extraction system to the bag filters and stacks of 30 Meter height high are erected. And particulate emissions is within 50 mg/Nm3 at all transfer points.
6	They shall install adequate dust collection and extraction system to control fugitive dust emissions at various transfer points, raw mill handling (unloading, conveying, transporting, stacking etc), bagging and packing areas etc	Dust collection system and bag filters have been installed at all raw material handling and transfer points along with stacks of 30m height.
7	All the raw materials stockepile shall be covered. A closed clinker stockpile system shall be provided. All conveyor shall be covered with GI Sheet. Covered sheds for storage of raw materials shall be provided. Pneumatic system shall be provided for fly ash handling	All raw materials are stored in closed sheds and silos. Conveyors are covered with sheets. Fly Ash handling is done pneumatically.
8	They shall submit status of compliance/progress report of special conditionas and general condition of EC issued by MoEF, after every three months to the Board	Status of compliance/progress report of special conditionas and general condition of EC issued by MoEF, will be submitted after every three months to the Board.
9	They shall submit layout plant/drawing of green belt development (33 % of plant area) area, effluent and ambient air quality monitoring stations and rain water harvesting scheme as directed in condition of EC.	Layout drawing showing green belt development area and rain water harvesting reservoir has been submitted.
10	The Proponent shall procure and install D .G. Set with a valid Type of Approval Certificate and conformity of production Certificate from the manufacturer as specified under the Rules.	The D.G.Set has been procured from Jakson Limited and all conditions have been complied

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11	The proponent shall have to take all possible measure to control water and air pollution, so that surrounding environment/habitation/vegetation should not be affected directly or indirectly and,	Measures have been taken to control water and air pollution, so that surrounding environment/habitation/vegetation is not affected directly or indirectly. Air borne dust at all emission points are extracted through dust extraction system to the bag filters and stacks of 30 Meter height high are erected. The water discharge is used in the development of GreenBelt.
12	Greenbelt (33% of plant area) shall be developed and maintained	Green Trees are planted around the plant

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ANNEXURE - 1

Sr. No.	Month & Year	Particulate Matter Emission (mg/Nm3)						
		Stack Attached with Bag House of Cement Mill	Stack Attached with Bag House of flyash unloader	Stack Attached with Bag House of Clinker & gypsum unloader	Stack Attached with Bag House of gypsum & clinker feeding	Stack Attached with DG 500 KVA	Stack Attached with DG 125 KVA	Standard Limit of Particulate Matter Emission
1	Oct.,2012	28.4	27.1	25.4	30.4	NOT INSTALLED	32.5	50 mg/Nm3
2	Nov.,2012	29.1	26.1	28.2	29.3	NOT INSTALLED	33.5	
3	Dec.,2012	28.1	27.1	29.1	28.4	NOT INSTALLED	34.4	
4	Jan.,2013	27.1	25.4	28.4	29.4	NOT INSTALLED	31.1	
5	Feb.,2013	36.4	42.8	34.6	28.6	28.4	33.6	
6	Mar.,2013	26.1	28.2	27.7	28.1	31.7	32.7	
Average Values		29.20	29.45	28.90	29.03	10.02	32.97	

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ANNEXURE - 2A

Ambient Air Quality Monitoring Report (All Values in ug/m3)													
OCT-2012 TO MARCH-2013													
S. No.	Location ---->	Near Main Gate			Near CCR			Near Canteen			Near Gypsum & Clinker Storage		
	Month	PM_{10}	SO_2	NO_2	PM_{10}	SO_2	NO_2	PM_{10}	SO_2	NO_2	PM_{10}	SO_2	NO_2
1	Oct., 2012	76.1	19.3	23.4	80	19.12	22.5	69.7	15.4	19.3	76.3	17.9	20.7
2	Nov., 2012	72.8	21.2	22.2	75.7	18.4	19.8	67	16.5	21.2	72.5	16.4	18.3
3	Dec., 2012	72.7	17.6	23.5	79.7	16.6	20.4	70.4	15.1	19.3	73.6	12.7	18.9
4	Jan., 2013	72.5	16.4	18.3	75.7	16.5	21.2	71.5	21.2	23.4	75.7	15.4	19.3
5	Feb., 2013	67.1	10.5	11.5	71.2	9.3	10	60.6	9	9.5	63.4	7	10.1
6	Mar., 2013	71.5	11.7	12.2	75.5	11.2	13.9	62	17.9	11.7	64.1	9.5	12.7
Average		**72.1**	**16.1**	**18.5**	**76.3**	**15.2**	**18.0**	**66.9**	**15.9**	**17.4**	**70.9**	**13.2**	**16.7**

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ANNEXURE - 2B

Fugitive Dust Emission Level Monitoring Report for the period OCT 2012 TO MARCH 2013

Concentration of Total Dust (All Values in mg/m^3)

Sl.No.	Month	Mill Section Ground Floor	Mill Section 1st Floor	Mill Section 2nd Floor	South Side of Mill Section	North side of Mill Section
1	Oct.,2012	3.4	3.9	2.9	4.9	3.7
2	Nov.,2012	3.2	3.8	3.1	5	3.3
3	Dec.,2012	3.6	4.2	2.9	5.4	3.2
4	Jan.,2013	3.3	3.9	2.9	5.1	3.2
5	Feb.,2013	5.1	4.4	3	5.6	4.2
6	Mar.,2013	3.6	4.2	2.7	5.2	3.2
Average		3.7	4.1	2.9	5.2	3.5

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ANNEXURE - 3 A

TECHNICAL DATA SHEET OF DUST COLLECTORS

Input process data for each filter	Units	DUST COLLECTOR CLINKER UNLOADING	DUST COLLECTOR FLYASH UNLOADER	DUST COLLECTOR CLINKER & GYPSUM FEEDING
Quantity of filters	no	1	1	1
Firing Type		Not Required	Not Required	Not Required
Type of Fuel		Not Required	Not Required	Not Required
Dust to be handled		Clinker	Flyash	Clinker & Gypsum
Gas flow rate	Am3/hr	20000	30000	10000
Gas temperature (Minimum)	°C	70	70	70
Gas temperature (Maximum)	°C	80	80	80
Gas pressure at BF inlet	mmwc	-150	-150	-150
Inlet dust load	gm/Am3	70	70	50
Oxygen Content in flue gas	% V/V	Not Critical	Not Critical	Not Critical
SO2 Content in flue gas	% V/V	Not Critical	Not Critical	Not Critical
Moisture in gas	% V/V	5	5	5
Type of dust (Main Characteristic)		Dry	Dry	Dry
Dust Min bulk density for RAV sizing	Kg/m3	800	800	800
Dust Max bulk density for power	Kg/m3	1,200	1,200	1,200
Dust size distribution		*100% > 5 µ*	*100% > 5 µ*	*100% > 5 µ*
Area classification for Elect/ Instru		Safe & non hazardous	Safe & non hazardous	Safe & non hazardous
Technical data sheets for each filter				
Type of filter		Pulse jet	Pulse jet	Pulse jet
Filter mounting		Structure	Structure	Structure
Filter cleaning		On line	On line	On line
Gas entry		Hopper	Hopper	Hopper
Design pressure (incl wind load)	mmwc	± 500	± 500	± 500
Δ across filter	mmwc	150	150	150
Maximum outlet dust emission	mg/Nm3	*50*	*50*	*50*
Recommended air/cloth ratio	m3/min/m2	1.50	1.40	1.50
Offered bag height	m	3.6	3.6	2.4
Offered filtration area	m2	230.74	356.59	113.28
Offered air-to-cloth ratio	m3/min/m2	1.45	1.40	1.47
Selected filter		AJ-144-360SH	AJ-216-360SH	TK-108-240SH
Number of bags offered	no	132	204	96
External painting of filter- Primer		Red Oxide	Red Oxide	Red Oxide
External painting filter- Finish		Not in TL scope	Not in TL scope	Not in TL scope
External surface preparation of filter		Manual wire brush	Manual wire brush	Manual wire brush
External paint spec of filter- Primer		2 coats, 20 µ each	2 coats, 20 µ each	2 coats, 20 µ each
External paint spec of filter- Finish		NA	NA	NA
Internal painting of filter		Red Oxide	Red Oxide	Red Oxide
Internal surface preparation of filter		Manual wire brush	Manual wire brush	Manual wire brush
Internal paint spec of filter		2 coats, 20 µ each	2 coats, 20 µ each	2 coats, 20 µ each
Insulation & cladding scope		Not provided by TL	Not provided by TL	Not provided by TL
Insulation & cladding requirement		Required	Required	Required
Mineral wool insulation spec		LRB,100 Kg/m3	LRB,100 Kg/m3	LRB,100 Kg/m3
Mineral wool insulation thk	mm	50	50	50
Aluminium cladding spec		22 SWG plain	22 SWG plain	22 SWG plain
Filter casing				
MOC		IS 1079 Gr O	IS 1079 Gr O	IS 1079 Gr O
Thickness	mm	3	3	3
Condition of supply		Assembled	Assembled	Assembled
Filter Tube sheet				
MOC		IS 2062 Gr A	IS 2062 Gr A	IS 2062 Gr A
Thickness	mm	5	5	5
Cutting		Punch cut	Punch cut	Punch cut
Bag holding method		Snap band	Snap band	Snap band
Filter top covers				
MOC		IS 1079 Gr O	IS 1079 Gr O	IS 1079 Gr O
Thickness	mm	3	3	3
Insulation box		Not required	Not required	Not required
Filter Hopper		Provided by TL	Provided by TL	Provided by TL
Type		Pyramidical	Pyramidical	Pyramidical
MOC		IS 2062 Gr A	IS 2062 Gr A	IS 2062 Gr A
Thickness		5	5	5
Condition of supply		Assembled	Assembled	Assembled
No. of hoppers	no	1	1	1
Hopper plate angle	°	65	65	65
Hopper discharge opening		Round	Round	Round
Hopper Heater		Not provided by TL	Not provided by TL	Not provided by TL
Area covered				
Support structure		Provided by TL	Provided by TL	Provided by TL
Type of Mounting		Mounting on Steel	Mounting on Steel	Mounting on Steel
Ground clearance		1,200	1,200	1,200
Ladder to filter top		Provided by TL	Provided by TL	Provided by TL
Railing on filter top		Provided by TL	Provided by TL	Provided by TL

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ANNEXURE - 3 A

TECHNICAL DATA SHEET OF DUST COLLECTORS

Input process data for each filter	Units	DUST COLLECTOR CLINKER UNLOADING	DUST COLLECTOR FLYASH UNLOADER	DUST COLLECTOR CLINKER & GYPSUM FEEDING
RAV		Provided by TL	Provided by TL	Provided by TL
Quantity	no	1	1	1
MOC		CI	CI	CI
Type		Adjustable tip	Adjustable tip	Adjustable tip
Drive arrangment		Direct	Direct	Direct
Motor Make		TL approved	TL approved	TL approved
RAV rotor speed	RPM	20	20	20
Calculated Size	mm	200	200	200
Recommended Size		200	200	200
Painting		HR Matte black	HR Matte black	HR Matte black
Motor HP	HP	0.5	0.5	0.5
Voltage	V AC±6%	415	415	415
Frequency	HZ±3%	50	50	50
Filter bags		Provided by TL	Provided by TL	Provided by TL
Fabric material		Polyester	Polyester	Polyester
Bag length	mm	3,665	3,665	2,455
Bag fabric weight	gm/m2	550	550	550
Fabric design temperature (Max.)	°C	130	130	130
Antistatic treatment		No treatment	No treatment	No treatment
Fabric treatment for water/oil resistance		No Treatment	No Treatment	No Treatment
Source		Indigenous	Indigenous	Indigenous
T[illegible]		Stitched	Stitched	Stitched
Cages		Provided by TL	Provided by TL	Provided by TL
Vertical wire dia	mm	3.0	3.0	3.0
Ring wire dia	mm	3.0	3.0	3.0
No of vertical wires	no	10	10	10
Number of splits		None	None	None
Cage length	m	3,650.0	3,650.0	2,445.0
Cage surface treatment		HR Black	HR Black	HR Black
Material of construction		CS	CS	CS
Cage diameter	mm	143	143	143
ID Fan		Fan not available	Fan not available	Fan not available
Margin to be added for fan sizing	%			
Flow	m3/hr	20,500	31,000	NA
Static Pressure	mmwc	NA	NA	NA
Fan speed	rpm	NA	NA	NA
Estimated power consumption (@ Operating Temperature)	BKW	NA	NA	NA
Drive arrangement		NA	NA	NA
Orientation		NA	NA	NA
Mounting		NA	NA	NA
Motor scope		NA	NA	Manual wire brush
External surface preparation		Manual wire brush	Manual wire brush	
Painting				1
Q[illegible]tity	no	1	1	NA
Fan Make		NA	NA	NA
Motor size	KW	NA	NA	NA
Motor poles	no	NA	NA	Provided by TL
Pulse solenoid valve		Provided by TL	Provided by TL	Thermax
Make		Thermax	Thermax	1
Size	inch	1.5	1.5	230
Operating voltage	V AC	230	230	8
Quantity of PSV	no	11	17	(-)20°C Dewpt,Oil <20 pp
Quality of compressed air required		(-)20°C Dewpt,Oil <20 ppm	(-)20°C Dewpt,Oil <20 p	Provided by TL
Cables for solenoid valves		Provided by TL	Provided by TL	Unarmoured
Type		Unarmoured	Unarmoured	Copper
Conductor		Copper	Copper	2Cx1sq mm
Size	mm2	2Cx1sq mm	2Cx1sq mm	TL approved
Make		TL approved	TL approved	From PSV to JB
Application		From PSV to JB	From PSV to JB	Provided by TL
JB for PSV		Provided by TL	Provided by TL	Fabricated
Type		Fabricated	Fabricated	IP 55
Protection		IP 55	IP 55	TL approved
Make		TL approved	TL approved	Not provided by TL
JB for Hopper heater		Not provided by TL	Not provided by TL	
Type				Not provided by TL
Hopper Level Switch		Not provided by TL	Not provided by TL	
Type				Provided by TL
Sequential Controller		Provided by TL	Provided by TL	Cleaning seq control
Operation requirement		Cleaning seq control	Cleaning seq control	Solid state
Type		Solid state	Solid state	Kana

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ANNEXURE - 3 A

TECHNICAL DATA SHEET OF DUST COLLECTORS

Input process data for each filter	Units	DUST COLLECTOR CLINKER UNLOADING	DUST COLLECTOR FLYASH UNLOADER	DUST COLLECTOR CLINKER & GYPSUM FEEDING
Make		Kana	Kana	Relay
Type of output		Relay	Relay	Provided by TL
Housing Box		Provided by TL	Provided by TL	TL Approved
Housing box make		TL Approved	TL Approved	IP 55
Housing box protection		IP 55	IP 55	230
Control voltage	V AC	230	230	Not required
PLC for control		Not required	Not required	Provided by TL
U Tube manometer		Provided by TL	Provided by TL	U tube, water filled
Type		U tube, water filled	U tube, water filled	200
Range	± mm wc	200	200	TL approved
Make		TL approved	TL approved	1
Quantity	no	1	1	Provided by TL
Air filter regulator + Pr Gauge		Provided by TL	Provided by TL	1
Size	inch	3/4	1	TL approved
Make		TL approved	TL approved	1
Quantity	no	1	1	Not Provided by TL
Limit Switch		Not Provided by TL	Not Provided by TL	
Make				Not Provided by TL
LPBS		Not Provided by TL	Not Provided by TL	
Quanty				Not Provided by TL
Control Panel		Not Provided by TL	Not Provided by TL	
Type				415V+/-10 %
Power Supply, Volts		415V+/-10 %	415V+/-10 %	
Control Votage				Provided by TL
DP switch		Provided by TL	Provided by TL	Switzer
Make		Switzer	Switzer	Time mode
Type operation		Time mode	Time mode	1NO+1NC
Contact configuration		1NO+1NC	1NO+1NC	1
Quantity	no	1	1	High DP alarm
Duty		High DP alarm	High DP alarm	Not provided by TL
DP gauge		Not provided by TL	Not provided by TL	NA
Make		NA	NA	Not provided by TL
DP transmitter		Not provided by TL	Not provided by TL	NA
Make		NA	NA	Provided by TL
Pressure switch		Provided by TL	Provided by TL	Switzer
Make		Switzer	Switzer	2NO+2NC
Contact configuration		2NO+2NC	2NO+2NC	1
Quantity		1	1	Low air press alarm
Duty		Low air press alarm	Low air press alarm	Provided by TL
Zero speed switch-RAV		Provided by TL	Provided by TL	Jayashree
Make		Jayashree	Jayashree	1NO+1NC
Contact configuration		1NO+1NC	1NO+1NC	110/220
Supply voltage	V AC	110/220	110/220	1
Quantity		1	1	Not provided by TL
Thermostat		Not provided by TL	Not provided by TL	NA
Make		NA	NA	
#N/A				

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ANNEXURE - 3B

TECHNICAL DATA SHEET OF CEMENT MILL VENTING DUST COLLECTOR

CEMENT MILL VENTING DUST COLLECTOR		
Input process data for each filter	Units	Mill Venting
Input process data for each filter		
Quantity of filters	no	1
Application		Dedusting /Matl.Handling
Firing Type		Not Required
Type of Fuel		Not Required
Dust to be handled		Cement
Gas flow rate	Am3/hr	40000
Gas temperature (Minimum)	°C	80
Gas temperature (Maximum)	°C	90
Gas pressure at BF inlet	mmwc	-150
Inlet dust load	gm/Am3	200
Oxygen Content in flue gas	% V/V	Not Critical
SO2 Content in flue gas	% V/V	Not Critical
Moisture in gas	% V/V	5
Type of dust (Main Characteristic)		Fine
Dust Min bulk density for RAV sizing	Kg/m3	800
Dust Max bulk density for power	Kg/m3	1,200
Dust size distribution		*100% > 5 µ*
Area classification for Elect/ Instru		Safe & non hazardous
Technical data sheets for each filter		
Type of filter		Pulse jet
Filter mounting		Structure
Filter cleaning		On line
Gas entry		Preseparator
Design pressure (incl wind load)	mmwc	± 500
Δ P across filter	mmwc	150
Maximum outlet dust emission	mg/Nm3	*50*
Recommended air/cloth ratio	m3/min/m2	1.20
Offered bag height	m	3.6
Required filteration area	m2	556.00
Offered filtration area	m2	566.35
Offered air-to-cloth ratio	m3/min/m2	1.18
Selected filter		TK-324-360SP
Number of bags offered	no	324
External painting of filter- Primer		Red Oxide
External painting filter- Finish		Not in TL scope
External surface preparation of filter		Manual wire brush
External paint spec of filter- Primer		2 coats, 20 µ each
External paint spec of filter- Finish		NA
Internal painting of filter		Red Oxide
Internal surface preparation of filter		Manual wire brush
Internal paint spec of filter		2 coats, 20 µ each
Insulation & cladding scope		Not provided by TL
Insulation & cladding requirement		Required
Mineral wool insulation spec		LRB,100 Kg/m3
Mineral wool insulation thk	mm	50
Aluminium cladding spec		0.56mm/24 SWG plain
Filter casing		
MOC		IS 2062 Gr A
Thickness	mm	5
Condition of supply		Assembled
Filter Tube sheet		
MOC		IS 2062 Gr A
Thickness	mm	5
Cutting		Punch cut
Bag holding method		Snap band

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ANNEXURE - 3B

TECHNICAL DATA SHEET OF CEMENT MILL VENTING DUST COLLECTOR

CEMENT MILL VENTING DUST COLLECTOR		
Filter top covers		
MOC		IS 1079 Gr O
Thickness	mm	3
Insulation box		Not required
Filter Hopper		Provided by TL
Type		Pyramidical
MOC		IS 2062 Gr A
Thickness		5
Condition of supply		Assembled
No. of hoppers	no	2
Hopper plate angle	°	65
Hopper discharge opening		Round
Hopper Heater		Provided by TL
Area covered		1/3 of hopper
Support structure		Provided by TL
Type of Mounting		Mounting on Steel
Ground clearance		1,200
Ladder to filter top		Provided by TL
Railing on filter top		Provided by TL
RAV		Provided by TL
Quantity	no	2
MOC		CI
Type		Adjustable tip
Drive arrangment		Direct
Motor Make		TL approved
RAV rotor speed	RPM	20
Calculated Size	mm	350
Recommended Size		350
Painting		HR Matte black
Motor HP	HP	1.0
Voltage	V AC±6%	415
Frequency	HZ±3%	50
Filter bags		Provided by TL
Fabric material		Acrylic Homopolymer
Bag length	mm	3,665
Bag fabric weight	gm/m2	550
Fabric design temperature (Max.)	°C	130
Antistatic treatment		No treatment
Fabric treatment for water/oil resistance		No Treatment
Source		Imported Fabric
Type		Stitched
Cages		Provided by TL
Vertical wire dia	mm	3.0
Ring wire dia	mm	3.0
No of vertical wires	no	10
Number of splits		None
Cage length	m	3,650.0
Cage surface treatment		HR Black
Material of construction		CS
Cage diameter	mm	143
ID Fan		Not provided by TL
Margin to be added for fan sizing	%	
Flow	m3/hr	
Static Pressure	mmwc	NA
Fan speed	rpm	NA
Estimated power consumption (@ Operating Temperature)	BKW	NA

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ANNEXURE - 3B

TECHNICAL DATA SHEET OF CEMENT MILL VENTING DUST COLLECTOR

CEMENT MILL VENTING DUST COLLECTOR		
Drive arrangement		Coupled
Orientation		NA
Mounting		NA
Motor scope		NA
External surface preparation		
Painting		
Quantity	no	0
Fan Make		NA
Motor size	KW	NA
Motor poles	no	NA
Pulse solenoid valve		Provided by TL
Make		Thermax
Size	inch	1.5
Operating voltage	V AC	230
Quantity of PSV	no	27
Quality of compressed air required		(-)20°C Dewpt,Oil <20 ppm
Outlet Butterfly Damper		Not Provided by TL
Damper Size		
Cables for solenoid valves		Provided by TL
Type		Unarmoured
Conductor		Copper
Size	mm2	2Cx1sq mm
Make		TL approved
Application		From PSV to JB
JB for PSV		Provided by TL
Type		Fabricated
Protection		IP 55
Make		TL approved
JB for Hopper heater		Provided by TL
Type		Fabricated
Protection		IP 55
Make		TL approved
Hopper Level Switch		Provided by TL
Type		Capacitance
Make		EIP
Probe length	mm	750
Insulation		PTFE
Quantity	no	2
Sequential Controller		Provided by TL
Operation requirement		Cleaning seq control
Type		Solid state
Make		Kana
Type of output		Relay
Housing Box		Provided by TL
Housing box make		TL Approved
Housing box protection		IP 55
Control voltage	V AC	230
PLC for control		
Operation requirement		
Make		
Type of communication		
Panel make		
Supply voltage	V AC	
U Tube manometer		Provided by TL
Type		U tube, water filled
Range	± mm wc	200
Make		TL approved

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ANNEXURE - 3B

TECHNICAL DATA SHEET OF CEMENT MILL VENTING DUST COLLECTOR

CEMENT MILL VENTING DUST COLLECTOR		
Quantity	no	1
Air filter regulator + Pr Gauge		Provided by TL
Size	inch	1 1/2
Make		TL approved
Quantity	no	1
Limit Switch		Not Provided by TL
Make		
LPBS		Not Provided by TL
Quanty		
Control Panel		Not Provided by TL
Type		
Power Supply, Volts		415V+/-10 %
Control Votage		
DP switch		Provided by TL
Make		Switzer
Type operation		Time mode
Contact configuration		1NO+1NC
Quantity	no	1
Duty		High DP alarm
DP gauge		Not provided by TL
Make		NA
Dial size	mm	
Range	mmwc	NA
Quantity		
DP transmitter		
Make		
Type of communication		
Sensor MOC		
Range	mmwc	
Local indicator		
Quantity		
Pressure switch		Provided by TL
Make		Switzer
Contact configuration		2NO+2NC
Quantity		1
Duty		Low air press alarm
Zero speed switch-RAV		Provided by TL
Make		Jayashree
Contact configuration		1NO+1NC
Supply voltage	V AC	110/220
Quantity		2
Thermostat		Provided by TL
Make		Switzer
Quantity	no	2
Temperature Indicating Controller (TIC)		Not Provided by TL
Make		
Temperature element		Not Provided by TL
Make		
Probe length		
Process connection		3/4 inch BSP
Thermowell		Not Provided by TL
Type		
No of elements		
#N/A		

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ANNEXURE - 4

(I) **WATER CONSUMPTION:**

Process	N.A. (As plant is based on dry process technology)
Cooling and Dust Suppression	60.3 KL
Domestic	5110 KL

Name of Product	Process water cunsumption per unit of product Output	
	During Previous Financial Year(2011-12)	During Current Financial Year(2012-13)
PPC Cement	NIL(As plant was under construction)	.00123 KL/ MT OF CEMENT PRODUCTION

Note:

*We have 97 workers residing in our factory.
*Our current year production is 49026.61 MT.

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ANNEXURE – 5

HAZARDOUS WASTE

(As specified under Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008

Hazardous Waste	Total Quantity (Ltrs)	
	During Previous Financial Year (April 2011- March 2012)	During Current Financial Year (April 2012-March 2013)
	We are having common authorization for Hazardous Waste Management & Handling for Clinker Grinding Unit (Cement 1.0 MTPA , 500 &125 KVA D. G. Set)	
a) From Process, Cement manufacturing (Grinding) is based on "Dry Process" No Hazardous waste is generated from the process except used oil which is drained from Machinery / Equipments	Total Quantity Generated in 2011-12 : NIL Ltrs Old Stock : NIL Ltrs Sale out : NIL Ltrs Balance : NIL Ltrs	Total Quantity Generated in 2012-13 : 280 Ltrs Old Stock : NIL Ltrs Sale out : NIL Ltrs Balance : 280 Ltrs
(b) From Pollution Control Facilities	N.A	N.A

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ANNEXURE - 7

Ambient Noise level Monitoring Report for the year 2012-13 (dB(A)

S. No.	Location ---->	Plant boundary near Main gate	Plant boundary near CCR	Plant boundary near Canteen	Plant boundary near Gypsum storage	Plant boundary near clinker storage	Prescribed Standard Limit (dB(A)
1	Oct.,2012	61.7	66.3	60	60	60	75 dB(A)
2	Nov.,2012	60.7	67.3	63.4	63.4	63.4	
3	Dec.,2012	64.6	69.1	60.2	58.4	58.8	
4	Jan.,2013	65.3	64,0	62.5	62.5	62.5	
5	Feb.,2013	62.8	63.7	59.3	60.2	58.4	
6	Mar.,2013	62.5	61.2	59.9	60.3	61.4	
Average Values		62.9	54.6	60.9	60.8	60.8	

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ANNEXURE :- 8

NAME OF THE PARTY	BILL NO & DATE	AMOUNT	DESCRIPTION OF GOODS
THERMAX LIMITED	16044548/13.06.2011	1,411,212.09	BAG FILTER & ACCESSORIES
THERMAX LIMITED	16044676/30.06.2011	721,179.00	BAG FILTER & ACCESSORIES
THERMAX LIMITED	16044627/30.06.2011	1,659,113.10	BAG FILTER & ACCESSORIES
THERMAX LIMITED	589/29.07.2011	1,707,722.76	BAG FILTER & ACCESSORIES
THERMAX LIMITED	790/30.08.2011	353,944.00	BAG FILTER & ACCESSORIES
THERMAX LIMITED	803/31.08.2011	612,371.00	BAG FILTER & ACCESSORIES
THERMAX LIMITED	966/29.09.2011	600,445.00	BAG FILTER & ACCESSORIES
REITZ INDIA LTD	1378/31.03.2011	987,746.00	BAG FILTER & ACCESSORIES
REITZ INDIA LTD	1377/31.03.2011	390,000.00	BAG FILTER & ACCESSORIES
REITZ INDIA LTD	1379/31.03.2011	418,090.00	BAG FILTER & ACCESSORIES
REITZ INDIA LTD	10/17.06.2011	657,258.00	BAG FILTER & ACCESSORIES
REITZ INDIA LTD	335/24.06.2011	72,387.00	BAG FILTER & ACCESSORIES
REITZ INDIA LTD	1074/10.07.2011	116,308.00	BAG FILTER & ACCESSORIES
	TOTAL	**9,707,775.95**	

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