

# JANUARY '14 TO MAY'14

**Half yearly Compliance Report on Environmental Stipulations for Expansion of Cement Plant (from 900 TPD-2600 TPD), along with 10 MW Captive Power Plant at Thangskai, Jantia Hills District by M/s Meghalaya Cements Ltd. – Environmental Clearance Letter No. SEIAA/PROJECT-2/2007/18; Dated 25<sup>th</sup> March 2009.**

Sl. No. as per letter dated 25.03.2009 of State Environment Impact Assessment Authority	Action to be taken	Compliance
<b>SPECIFIC CONDITIONS</b>		
(i) A stack of 100 m height shall be provided with continuous on-line monitoring system in respect of Thermal Power Plant [TPP] The data collected shall be analyzed and submitted regularly to the Meghalaya State Pollution Control Board.	Provision of on-line monitoring	The project has been implemented. The online monitoring system has been installed and the data are being monitored in the system.
(ii) High efficiency Electrostatic Precipitators [ESPs] of not less than 99.98% efficiency shall be installed in the TPP to limit particulate emission to 50 mg/Nm <sup>3</sup>	ESPs being installed are to be certified by a third party for 99.98% efficiency and emission level to be max. 50 mg/Nm <sup>3</sup> .	Complied
(iii) Sorbent limestone shall be fed (12% of coal by weight) along with coal in the boiler of the TPP to reduce formation of SO <sub>x</sub> and thus help neutralize the impact of sulphur in coal.	Such limestone will be fed along with coal as per the process of TPP operation.	Complied. We are using limestone for above purpose.  as and when required for the process
(iv) Space provision shall be made for Flue Gas	At the project stage Flue Gas De-sulphurisation	Complied specific location identified&



	De-sulphurisation [FGD] unit of requisite efficiency for removal of SO <sub>2</sub> when required at a later stage.	provision to be made	displayed.
(v)	Dust extraction and suppression system along with water sprinklers shall be provided for controlling fugitive dust during transportation, in coal storage area and other vulnerable area of the TPP.	Mist type water sprinklers shall be provided.	Complied. Provisions made for water spray
(vi)	Water requirement for the Thermal Power Plant shall be met from the existing water source. No ground water shall be extracted for the power plant at any stage.	O.K.	No ground water is applicable in our case.
(vii)	Closed Cycle Cooling system with induced draft cooling towers shall be provided in the Thermal Power Plant.	To confirm in the project proposal.	Complied and working.
(viii)	Fire protection system shall be made in coal stock yard and other vulnerable areas of the TPP. Fire protection equipment and machinery should be tested periodically and shall always be kept in operational mode. Mock drills shall be conducted regularly.	Suitable water hydrant systems for fire protection shall be provided. ----- Mock drills shall be conducted regularly.	Complied and regular safety training is being provided.  For the next Mock drill demonstration, we have requested to Police Superintendent, Shillong, dated 15.05.2014 and the same likely to be held on 6 <sup>th</sup> June'2014 (Annexure -I).



(ix)	The treated effluents shall be re-circulated and reused within the plant area. There shall be no waste water discharge outside the plant boundary.	Arrangements to be made at the project stage.	Complied. We have RO plant supplied by ION EXCHANGE LTD. For recycling the water to boiler. Also a ground sump is made for recycle / Treatment.
(x)	Rain water harvesting shall be practiced. A detailed scheme for rain water harvesting to recharge the ground water aquifer shall be prepared in consultation with Central Ground Water Authority/State Ground Water Board within six months of receipt of Environmental Clearance.	Rain water harvesting scheme preparation in consultation with Central Ground Water Authority/State Ground Water Board.	Presently we are having a rain water harvesting pit and developed the same inside the plant premises. We are using this pit for our plant as well as for domestic purposes. We have one again requested to the Director of Soil & Water Conservation Dept. on 3 <sup>rd</sup> June'2014 seeking their technical expert(s) guidance to develop the existing Rain Water Harvesting Pit. Copy of the same is attached as. <b>(Annexure -II).</b>
(xi)	Permission for drawal of water of the required quantity from the streams in favour of the Cement – Thermal Power Plant complex shall be secured from the competent Authority within 6 (six) months of receipt of Environmental Clearance.	Permission for drawal of water.	Permission for drawing of water has been obtained from Executive Engineer (Irrigation), Jaintia Hills Dist, vide letter no.AID (J) 223/2007-2008, Dated Jowai 24/03/08.
(xii)	Leq of Noise level in the Thermal Power Plant premises shall be limited to 75 dBA and regular maintenance of equipment should be undertaken. For personnel working in	Provision in the equipments for reducing noise pollution to be made and in operation protective equipment shall be used.	Noise levels are under control Schedule maintenance is being carried out as per the Manufacturers' manuals and using necessary PPE's. (Half yearly report is enclosed)



	<p>personnel working in high noise areas, personal protection devices like earplugs /ear muffs, etc. should be provided. Workers engaged in noisy areas such as turbine area, air compressors, etc. shall be periodically examined to maintain audiometric record and for treatment for any hearing loss apart from exercising option of shifting to non noisy/less noisy areas when necessary.</p>		enclosed)
(xiii)	<p>Acoustic hoods shall be provided in respect of all equipment that have potential to contribute towards noise pollution and additionally technical improvement measure detailed in para 4.3.2 of the EIA/EMP report of the project proponent shall be adopted in the TPP towards noise attenuation.</p>	<p>While finalizing the machinery acoustic hoods shall also be planned.</p>	Complied.
(xiv)	<p>Dry ash collection system shall be provided in the Thermal Power Plant. 100% ash utilization shall be ensured from the very first day of commissioning of the Thermal Power Plant.</p>	<p>Dry ash collection and transportation system to be given in the project.</p>	Complied.
(xv)	<p>The stack emission</p>	<p>The regular monitoring</p>	Complied.



	from various sources shall not exceed 50 mg/Nm <sup>3</sup>	to be done by Environment Department.	(Six month's report is enclosed)
(xvi)	The project proponent shall get the optimum functioning of the environmental protection equipment certified by a technical institution of repute.	The necessary certification of Pollution Equipment to be done.	We are in dialogue with such institution/Organization for their certification.
(xvii)	Bag House/Filters shall be provided to control the fugitive emission during loading and unloading of raw materials/intermediate and finished products.	Fugitive emission while loading and unloading of raw materials etc.	Complied.
(xviii)	The project proponent shall store all the raw materials except limestone in covered sheds to control fugitive emission. The coal storage facility should have water sprinkling facility in order to arrest fire hazard, if any.	Suitable sheds if necessary further sheds are to be constructed at the project stage itself.	Complied.
(xix)	The ambient air quality monitoring stations shall be set up as per statutory requirement in consultation with the Meghalaya State Pollution Control Board (MSPCB) and additional stations shall be installed, in the downwind direction as well as	The ambient air quality monitoring has to be done and if necessary additional monitoring stations to be purchased.	Complied. (Six month's report is enclosed)



	where maximum Ground level concentrations are anticipated.		
(xx)	<p>Quarterly reports on emission levels, surface and ground water quality shall be submitted to Meghalaya State Pollution Control Board, Chromium (VI) level in nearby surface water bodies flowing in the eastern site of the Plant, and ground water shall be monitored and reported to the MSPCB. Water in the Common Effluent Pit of the TPP shall be monitored monthly for Chromium (VI) toxicity and ensured that its level dose not rise beyond 0.905 mg/t.</p>	<p>Emission levels, surface and water quality shall be submitted to MSPCB</p> <hr/> <p>Quarterly reports on Testing for Chromium (VI) level in nearby surface water bodies monitoring.</p> <hr/> <p>Monthly monitoring of Chromium (VI).in effluent pit. Provision of effluent treatment plant.</p> <hr/>	<p>Complied.</p>



(xxi)	<p>Total water requirement shall not exceed 2000 cum/day [inclusive of the water requirement of the TPP]. The project proponent shall install sewage treatment plant of minimum 120 m<sup>3</sup> /day capacity employing suitable and appropriate technology to treat domestic sewage and treated sewage shall be utilized for green belt development. No waste water shall be discharged outside the premises and zero discharge shall be ensured. No surface runoff from the factory premises shall either reach/contaminate Um-lunar River or any other stream flowing near the industrial location.</p>	<p>Total water requirement shall not exceed 2000 cum/day including TPP and zero discharge shall be ensured.</p>	<p>We are regularly intimating the water consumption reports to the Board. (Half yearly report is enclosed)</p>
(xxii)	<p>The project proponent shall make all out effort to use high calorific value hazardous waste in the kiln towards which necessary provision shall be made.</p>	<p>Utilization of high calorific value hazardous waste – refer MePCB letter dated 14.04.2009 on the subject.</p>	<p>Procurement of materials for use of high calorific value hazardous waste is not available around the plant within 50 kms. radius.</p>
(xxiii)	<p>The project proponent shall transport raw materials and industrial products</p>	<p>Transportation of raw materials by covered means.</p>	<p>Complied.</p>





	through covered means.		
(xxiv)	<p>Thirty three percent of the core project area i.e. 20.143 Ha of land shall be developed as green belt by the project proponent as per the guidelines of Central Pollution Control Board to mitigate the effect of fugitive emission, incurring the expenditure as stated by the project proponent. The program ought to be completed within 5 years from the date of issue of prior Environmental Clearance. Suitable species in respect of the same for the stated area shall be approved by the project proponent from the DFO (Territorial) of Jaintia Hills District.</p>	<p>Development of green belt upto 33% of the project area i.e. 20.143 Ha of land shall be developed as green belt.</p>	<p>Green belt development has been started since 2007 and the work is going on as per the guide lines. Inside the plant area we have 12.75 Ha natural green belts which we are maintaining from the very beginning. While, we have planted 2.0 Ha (approx) area till date. In totality we have covered 14.95 Ha.i.e.73% (approx) of the targeted area. We have already planted 4500 Nos Sapling during last month. DFO (T), Jowai has advised to Umkiang Range Forest Officer to provide 3500 nos. sapling and we have collected around 700 nos. saplings from Umkiang Nursery and rest from Youth Nursery Lanka, Dist- Hojai, Assam. For balance saplings from Umkiang nursery will be collecting soon to achieve the target during this monsoon season.</p>
(xxv)	<p>The project proponent shall provide a Health Care Center with all emergency medicines and ambulance along with regularly serving doctors complete with emergency unit that would function round</p>	<p>Provision of Health Care Centre.</p>	<p>The Health Care Centre is functioning under one qualified doctor with other supporting staff round the clock. Other infrastructures are Developed.</p>





	the clock. Occupational health surveillance of the workers shall be carried out on a regular basis and records shall be maintained in compliance of provisions contained on Chapter III and V of the Factories Act, 1948.		
(xxvi)	The salaries of the Cleaners shall be raised by 30% from the present Rs.2500/- p.m. as assured by the project proponent at p.0.15 of the EIA/EMP report in response to concern raised during the Public Hearing.	The salaries of Cleaners shall be raised.	Annual review is completed increments given to employees and this has reflected in salaries.
(xxvii)	Measures shall be taken to prevent impact of particulate emission/fugitive emission, if any, from the proposed plant on the surrounding private forest areas depicted in their land use study.	To conduct studies for preventing impact of emission on the surrounding private forest areas.	Implemented.
(xxviii)	The project proponent shall take all such measures as are necessary in the matter of utilization of limestone towards ensuring that no unscientific extraction of limestone is	This is regarding purchase of lime stone.	In practice.



	encouraged in the process.		
(xxix)	<p>Meghalaya has been recognized as a cradle for several endemic species and an important constituent of the biodiversity hotspots spread over North East India. Therefore, as a measure of protection of rich biodiversity of the region, the project proponent shall cover an area of not less than 2 ha where would be located green house, mist chamber etc. (within the green belt area already stipulated above), locate conservation plots in respect of at least two of the following species of endangered and endemic plants reported to have been occurring within the region:</p> <ul style="list-style-type: none"> <li>i) <i>Pteracanthus griffithianus</i>, Acanthaceae</li> <li>ii) <i>Nepenthes Khasiana</i>, Nepenthaceae</li> <li>iii) <i>Argostemma khasianum</i>, Rubiaceae</li> <li>iv) <i>Fimbristylis nigrobrunnea</i>, Cyperaceae</li> <li>v) <i>Trivalvaria kanjilali</i>,</li> </ul>	<p>Protection of biodiversity of the region and provision of green house etc. a scheme with the help of Botanical Survey of India to be made and activity to be shown within one year.</p>	<p>We have requested DFO(T), Jowai for providing us the requisite endangered species for the purpose and also request him to guide us about the matter. In the meantime we are trying to collect these species from other Nurseries. A copy of our request letter is attached as (Annexure – <u>III</u>.....).</p>



	<p>Annonaceae vi) <i>Begonia rubrovenia</i>, Begoniaceae vii) <i>Ceologyne ovalis</i>, Orchidaceae</p> <p>A scheme /conceptual plan of raising such threatened species shall be prepared in consultation with a reputed institution such as Botanical Survey of India complete with cost and activity schedule within one year from date of issue of prior Environmental Clearance.</p>		
(xxx)	<p>The project proponent shall sponsor research and development for conservation of threatened category of species occurring locally such <i>Hedychium dekianum</i>, [Zingiberaceae], <i>Cymbidium eburneum</i> (Orchidaceae), or <i>Dendrobium denonianum</i> (Orchidaceae) which would be carried out by an appropriate research or academic institution located in Meghalaya within a year of issue of prior</p>	<p>Research and Development project for conservation of threatened category of species - with the help of Research or Academic Institution of Meghalaya to be done.</p>	<p>We have once again requested to The Head of Department of Environmental Sciences, North Eastern Hills University, Shillong on 3<sup>rd</sup> June'2014 to conduct the research and development project at our site. Copy of which is attached as (Annexure-..IV..).</p>



	Environmental Clearance. The research project shall be instituted at an expenditure of a minimum of Rs.5 lakh per year spread over at least 3 years.		
(xxxii)	A Conservation Plan for conservation of wild fauna in consultation with a reputed institution such as Wildlife Institute of India, Dehradun shall be prepared and implemented. Such conservation plan drawn in respect of wild life shall be completed within a maximum of 1 year from the date of issue of prior Environmental Clearance and implemented thereafter by the project proponent.	Conservation of wild fauna – the plan to be made with the help of Wildlife Institute of India, Dehradun and submit.	Action has been taken and we are corresponding with Wildlife Institute of India, Dehradun for the same. However It is stated that We have no endangered wildlife animals in and around of the plant area as per the departmental Studies.
(xxxiii)	A sum of Rs.2109.52 lakh shall be spent towards capital expenditure as stated by the project proponent towards environment protection and a further sum of Rs.501.60 lakh as recurring cost annually shall be spent by the project proponent towards environmental protection.	Capital expenditure and revenue expenditure of the project and environment.	Complied Expenditure details are enclosed (Annexure-V).



(xxxiii)	<p>A sum of Rs.50 lakh shall be utilized annually by the project proponent till the project subsists towards socio-economic/eco-development activities in the area part of which shall be spent towards distribution of free medicines, malaria eradication program etc. in the nearby villages. A portion of the sum (5%) shall be set apart annually towards creation of employees' welfare fund. Details of expenditure incurred under this Para shall form part of the compliance report to be submitted to the SEIAA/SEAC. Further, a comprehensive long term eco-development plan shall be prepared by the project proponent within six months of receipt of prior Environment Clearance.</p>	<p>Socio-Economic development. An eco-development plan to be prepared and submitted.</p>	<p>Implemented, Expenditure details are enclosed</p>
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#### **A. GENERAL CONDITIONS**

In respect of the Cement Plant – Thermal Power Plant project the following general conditions shall be adhered to by the project proponent:

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(i)	The project proponent shall strictly adhere to the stipulations of the MSPCB/State Government or any other statutory body as framed/modified from time to time.	Following the stipulation of MSPCB.	Complied.
(ii)	At no point of time, either the clinker production or cement production of either PPC or OPC type shall exceed the limit of 2600 tons per day.	Limits of production capacity.	Complied.
(iii)	No further expansion or modification in the plant shall be carried out without prior approval of the Ministry of Environment & Forests or their nominated authority as the case may be. In case of deviation or alteration in the project proposal from those submitted to the Committee for clearance, a fresh reference shall be made to the SEAC through SEIAA to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	No further expansion or modification without clearance.	Complied.

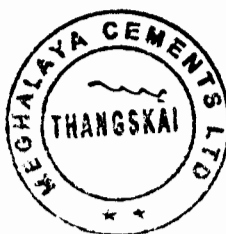


(iv)	<p>The gaseous emissions (SO<sub>2</sub>, NO<sub>x</sub>) and particulate matter levels from various process units shall conform to the standards prescribed by the concerned authorities from time to time. At no point of time, the emissions shall exceed the prescribed limits. Interlocking system of equipment shall be chosen such that in the event of failure of any pollution control system adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieved.</p>	<p>Interlocking system of machines to control SO<sub>2</sub>, NO<sub>x</sub> levels in case of failure.</p>	<p>Complied.</p>
(v)	<p>The project authorities should adhere to the provisions stipulated in the fly ash notification of September, 1999 as amended in August, 2003 with regard to fly ash utilization.</p>	<p>Adhering to the provision in the fly ash notification.</p>	<p>Complied.</p>
(vi)	<p>The industry shall undertake the following waste minimization measures:</p>	<p>Waste minimization measures.</p>	<p>It is an ongoing process and has been implemented.</p>





	<ul style="list-style-type: none"> <li>• Reuse of by-products from the process as raw materials or as raw material substitutes in other process.</li> <li>• Use of closed pneumatic system for transport of fine material.</li> <li>• All venting systems shall be connected with dust or particulate arresting equipments.</li> <li>• Dust/particulate matter collected in pollution control equipments shall be reused.</li> </ul>		
(vii)	<p>Fugitive emissions in the work zone environment, product and raw materials storage area shall be regularly monitored. The emissions shall conform to the limits imposed by the State Pollution Control Boards/Central pollution Control Board.</p>	<p>Monitoring fugitive emissions.</p> <hr/>	<p>Complied.</p> <hr/>



(viii)	Dust/particulate matter collected in pollution control equipments shall be reused. Spares would be maintained in respect of all pollution control equipment. Maintenance and optimum functioning of the pollution control equipment shall be ensured by the project proponent.	Use of dust collected in pollution control equipments.	Complied.
(ix)	The project proponent shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989, as amended from time to time. Authorization from the MSPCB shall be obtained for collection, treatment, storage and disposal of hazardous wastes.	Authorization for Hazardous materials.	Authorization letter No. MPCB/TB-(HSM)/ATH-21-2007/2010-2011; dated 15 <sup>th</sup> December 2010 obtained from MSPCB. Valid up to Dec 2015.
(x)	A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Environmental	Formation of Environmental Management Cell with laboratory and Chromium testing kit.	Complied and dedicated environmental Management Cell functioning.



	Quality Monitoring functions. A state of the art Chromium testing kit shall be maintained in the laboratory.		
(xi)	All pollution control equipment in STP of the type specified by the project proponent shall be duly installed and manned full time by trained personnel appointed for the purpose.	Sewage Treatment Plant.	The STP project has been commissioned and since 2 <sup>nd</sup> June' 2014 it has been adopted in our system. Flow diagram of the same is attached as Annexure- <u>...VI...</u>
(xii)	A six monthly compliance status report shall be submitted to SEIAA/SEAC and Regional Office, Ministry of Environment & Forests, Govt. of India, Shillong apart from posting the same on the website of the Company.	Six monthly report to SEIAA/SEAC and posting in website.	Complied.
(xiii)	Implementation of the project vis-à-vis environmental action plans shall be monitored by the Regional Office, Ministry of Environment & Forests duly assisted by the SPCB.  The Regulatory Authority may revoke or suspend the clearance on the	Meghalaya State concerned Offices	Concerned Authorities particularly MSPCB regularly visited the project area as per their requirements and we have been submitting all the reports accordingly from the very beginning.



<p>recommendation of the SEAC, if implementation of any of the above conditions is not satisfactory.</p> <p>The Regulatory Authority may on the recommendation of SEAC reserve the right to stipulate additional conditions, if found necessary. The company in a time bound manner shall implement these conditions too.</p> <p>The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention &amp; Control of Pollution) Act, 1974, Air (Prevention &amp; Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Waste (Management &amp; Handling) Rules, 2003 and the Public Liability Insurance Act, 1991 along with their amendments and Rules.</p>		
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Dated 15-05-2014

To,

The Superintendent of Police,  
Fire & Emergency Service,  
Meghalaya, Shillong.



**Sub: Request to conduct Fire Fighting Mock drill demonstration at  
Meghalaya Cements Limited,**

Dear Sir,


We would like to draw your kind attention to the fact that we are intent to organize a "Fire Fighting Mock Drill Programme" in our Plant premises with your consent and valuable assistance to guide our fire fighting team to face in any difficult situation in case of fire take place in and around the Plant. In this regard, we have requested you earlier also vide our letter dated 06-09-2013 to conduct this program but could not be held.

Therefore, we request to your good self to fix a program to conduct the event as soon as possible and let us know the exact date which is convenient for you to arrange the program at our Site located at Thangskai, P.O. Lumshnong, East Jaintia Hills district, Meghalaya. Meanwhile, we assure you that we shall be able to bear the expenses/fees if any likely to be arises while conducting the said program.

We are sanguine that you will be kind enough to consider our request and will advise concerned department to organize the program in the better interest of our Organization. We will be highly grateful if you could send us a line of confirmation on the proposed program.

Thanking you,

Yours faithfully,  
For Meghalaya Cements Limited

  
(R. K. Pareek)  
President.



**MEGHALAYA CEMENTS LIMITED**

Annexure - II



Ref: - MCL/JD/ENV/Soil & Water/2014-15/001

Date: - 29.05.2014

To,  
The Director,  
Soil and water Conservation Department,  
Shillong, Meghalaya

Sub: - Technical guidance for Rain Harvesting Pit.

Ref: our letter No. MCL/ENV/013/2012-13/02 dated 8<sup>th</sup> February'2014

Dear Sir,

With reference to the above we would like to draw your kind attention on the captioned subject to provide us your technical guidance from your department to develop our existing rain harvesting pit which we have constructed inside our plant area. Presently we are using the water for the purpose of our daily water consumption requirements for domestic as well as plant from the same pit. We have requested your good-office vide our above referred letter to give us your technical expert(s) guidance for the same but so far no pronouncement received from your end. As per the MoEF compliance report it should be approved by the State Water Authority.

Under the circumstances we humbly request your good-self to look into the matter and provide us the experts guidance at the earliest to enable us to comply the environmental stipulations properly.

Thanking you,

Yours faithfully,

For Meghalaya Cements Limited

  
(R.K. Pareek)  
President



Encl: - copy of our letter dated 8<sup>th</sup> Feb 2013

*Revised  
3/6/14*

Assistant Soil & Water Conservation  
Officer (MEU)  
Directorate of Soil & Water Conservation  
Meghalaya, Shillong



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Registered Office:  
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HELPLINE NO : 18001233666



Date: 12.12.2013



To,  
The Divisional Forest Officer (T)  
West Jaintia Hills District  
Jowai, Meghalaya

Sub: - Request to provide 3500 nos saplings of suitable species and also requisite quantity of some endemic species for green belt development and green house for our plant area located at Thangskal village, Meghalaya.

Dear Sir,

We would like to draw your kind attention to the fact in order to develop green belt and to mitigate the fugitive emission and to maintain eco-friendly atmosphere in East Jaintia Hills of Meghalaya, we, MCL, the pioneer of Green Field Project and need to register our requirement of suitable species of Plants from your end.

As a measure protection of rich biodiversity of North East region we need the requisite number of saplings as well as the following endemic species for our Green house project. The list of the endemic species as given by the SEIAA in our Environmental Clearance as an environmental compliance is as follows-

- |  |           |  |
|--|-----------|--|
| 1) <i>PTRACANTHUS GRIFFTHIANUS</i> , (ACANTHACEAE) | - 100 Nos | } Spare any<br>of 3 to 4<br>number species |
| 2) <i>NEPENTHES KHASIANA</i> , (NEPENTHACEAE)      | - 100 Nos |  |
| 3) <i>ARGASTEMMA KHASIANA</i> , (RUBIACEAE)        | - 100 Nos |  |
| 4) <i>FIMBRISTYL NIGROBRUNNEA</i> , (CYPERACEAE)   | - 100 Nos |  |
| 5) <i>TRIVALVARIA KANJILAJI</i> , (ANNONACEAE)     | - 100 Nos |  |
| 6) <i>BEGONIA RUBROVENIA</i> , (BEGONIACEAE)       | - 100 Nos |  |
| 7) <i>CEOLOGYNE OVALIS</i> , (ORCHIDACEAE)         | - 100 Nos |  |

Apart from the above mentioned endemic species also provide us the following saplings: -

- |               |           |
|---------------|-----------|
| 1) GULMAHAR   | - 800 Nos |
| 2) SILVER OAK | - 800 Nos |
| 3) KADAMBA    | - 500 Nos |
| 4) TITA CHAPA | - 500 Nos |
| 5) ROYAL PALM | - 400 Nos |
| 6) GOMARI     | - 500 Nos |



Further as per the condition of Environmental Clearance thirty three percent of the area shall be developed as green belt and suitable species in respect of the same for the stated area shall be approved by the project proponent from the D.F.O. (T) of Jaintia Hills District.

Contd. Page - 2



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Pin - 790 204, District Jaintia Hills, Meghalaya  
Tel.: 03605 276329 / 360 7364  
Fax: 03605 276327  
E-mail: meghalaya@topcem.in



HELPLINE NO: 18001233666





in view of the above you are requested to kindly instruct the concerned Nursery to arrange and issue us the above saplings at the earliest and also guide us in respect of conservation plots of the endemic species listed above. We are to inform you the cost of the Plants will be borne by us.

Thanking you,

Yours faithfully,

For M/s Meghalaya Cement Works Ltd.,

  
(R.K. Pareek)  
President





**MEGHALAYA CEMENTS LIMITED**



Annexure - IV

Ref: - MCL/JD/ENV/2014-15/001

Dated 29<sup>th</sup> May, 2014.

To,  
The Head of Department,  
Environmental Sciences,  
North Eastern Hill University  
Meghalaya, Shillong - 793022

Sub: - Request to support for a Research and Development project for the conservation of threatened category species for Cement manufacturing unit.

Ref: - our letter No. MCL/ENV/MOEF/2012-13/02 dated 11<sup>th</sup> February'2013

Dear Sir/Madam,

This is in continuation to our letter dated 11<sup>th</sup> February'2013 referring on the captioned subject wherein we have requested your valuable technical guidance, support and co-operation of your esteemed university for conducting a research project for our plant, located at Village - Thangskai, PO- Lumshnong, East Jaintia Hills, Meghalaya. In this connection, so far we have not received any communication from your good self to explore the feasibility of conducting the research and development project in our site.

At the same time, we like to bring your kind notice that it is extremely necessary on our part to conduct a research project as asked under the Ministry of Environment and Forest environmental stipulations for the expanded project. Meanwhile we have developed some threatened species saplings in our Company garden and later it may be shifted to green belt areas inside the plant.

As such we again request to your good-self to spare your valuable and convenient time to fulfill our requirements for the detailed project.

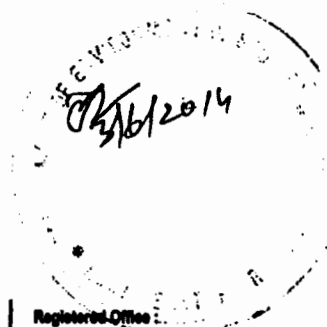
Thanking you,

Yours faithfully,  
For Meghalaya Cements Limited

  
(R.K. Pareek)  
President



Encl: Copy of our letter dated 11<sup>th</sup> Feb'2013



Sales & Marketing Office:  
Mega Plaza, 4th Floor, Christian Basti  
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Tel.: 0361 2345421/22/23, Fax: 0361 2345419  
E-mail: guwahati@topcem.in  
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Kolkata:  
BE-77, Salt Lake City  
Sector-1, Kolkata - 700 064  
Tel.: 033 2334 0666 / 0004  
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E-mail: kolkata@topcem.in

Registered Office:  
Village Thangskai, P.O. Lumshnong  
Pin - 793 200, District Jaintia Hills, Meghalaya  
Tel.: 03655 278324 / 363 / 364  
Fax: 03655 278327  
E-mail: meghalaya@topcem.in



HELPLINE NO : 18001233666

**Revenue Expenditure on Enviroment Protection Equipments/Machinery**  
**From 01.01.14 to 30.05.14**

SL NO	PARTICULARS	AMOUNT
1	Electrostatics Precipitators (ESP)	97,093
2	Reveresal Air Bag House (RABH)	34,445
3	Coal Mill	35,744
4	Cement Mill & Packing Plant	21,491
5	Raw Mix Section	10,568
6	Clinkerisation Section	3,210
7	L/S Section	126
	(The Man Power Maintenance in the above mentioned revenue's not included)	
	<b>TOTAL</b>	<b>202,677</b>



**Expenditure Incurred for Socio-Economic Development under CSR**  
**From 01.01.14 to 30.05.14**

SL.NO.	HEADING	AMOUNT
1	Emphasis on Education	228,241
2	Encouraging/Felcitation prog for students	26,000
3	Awarness campaign for personally given	3,000
4	Polio Immunization Camps,Family planing etc.	199,953
5	Infrastructure development of Hospitals/Schools (Ambulance Provision Etc.)	69,839
6	Cement Distribution Programe	2,497,600
7	Plant Distribution Programe	30,394
8	Donation to Churches & Road Repairing etc.	6,800
9	Drinking water supplying schemes	686,117
10	Village Development Funds	83,334
	<b>Total</b>	<b>3,831,278</b>





**Six Monthly Report: Stack Emission and Ambient Air  
Quality, 2014**

Chimney		<b><u>Suspended Particulate Matter (SPM) :mg/Nm<sup>3</sup></u></b>					
		January	February	March	April	May	Avg.
Primary Crusher		37.5	44.2	40.2	42.1	44.7	41.7
Secondary Crusher		32.8	40.9	46.9	44.9	41.7	41.4
Coal mill 1		32.4	39.7	31.5	27.8	33.6	33.0
Coal mill 2		.....	33.2	39.1	35.2	38.5	36.5
RABH 1		21.3	21.3	25.8	30.3	29.5	25.6
RABH 2		34.6	30.2	36.2	30.7	33.9	33.1
ESP 1		28.6	23.4	19.8	23.1	27.0	24.3
ESP 2		43.2	36.2	27.4	24.5	31.2	32.5
Packing House		33.8	43.7	45.2	46.2	39.6	41.7
Cement Mill		38.5	33.5	42.6	45.0	40.5	38.7
Location		<b><u>Ambient Air Quality (AAQ) : <math>\mu\text{g}/\text{Nm}^3</math></u></b>					
		January	February	March	April	May	Avg.
DG	PM <sub>10</sub>	85.3	79.8	81.9	62.5	74.9	76.8
House	PM <sub>2.5</sub>	38.73	22.1	54.8	25.2	32.1	34.6
Guest	PM <sub>10</sub>	62.7	33.2	48.2	52.7	52.9	49.9
House	PM <sub>2.5</sub>	31.1	65.5	13.2	16.9	21.3	29.6
Crusher	PM <sub>10</sub>	71.6	79.4	72.2	95.7	82.6	80.3
	PM <sub>2.5</sub>	28.3	45.2	28.6	40.4	44.2	37.3

Analyzed & Verified by



Dr. P.C. Mishra

**Six Monthly Report: Noise Intensity and Water  
Consumption, 2014**

Location		<b><u>Noise Intensity: (Db)</u></b>					
		January	February	March	April	May	Avg.
DG	Day	66	65	77	76	80	72.8
House	Night	57	60	74	75	71	67.4
Guest	Day	57	58	60	59	57	58.2
House	Night	53	53	52	50	52	52.0
Crusher	Day	65	72	77	72	69	71.0
	Night	58	55	55	51	49	53.6
Location		<b><u>Water Consumption: KL</u></b>					
		January	February	March	April	May Till-27 May	Avg.
Domestic		3640	3141	3503	3076	2617	3195.4
Industrial		32569	32182	28546	36105	38095	33499.4

Analyzed & Verified by



Dr.P.C.Mishra



**Six Monthly Report (CPP): SPM, AAQ and Water  
Consumption, 2014**

Chimney: CPP		<u>Suspended Particulate Matter (SPM) :mg/Nm<sup>3</sup></u>					
		January	February	March	April	May	Avg.
		35.4	42.1	46.5	42.6	45.7	42.5
Location: CPP		<u>Ambient Air Quality (AAQ) :µg/Nm<sup>3</sup></u>					
		January	February	March	April	May	Avg.
S-W	PM <sub>10</sub>	53.6	59.0	53.2	53.4	48.3	53.5
	PM <sub>2.5</sub>	41.5	37.6	42.6	49.3	26.4	39.5
S-E	PM <sub>10</sub>	47.3	51.8	60.1	67.2	58.6	57.0
	PM <sub>2.5</sub>	35.2	33.2	41.9	45.2	34.3	37.9
N-E	PM <sub>10</sub>	42.2	49.3	39.7	42.3	73.6	49.4
	PM <sub>2.5</sub>	31.6	35.5	31.5	36.3	45.8	36.2
Location: CPP		<u>Water Consumption:M<sup>3</sup></u>					
		January	February	March	April	May Till-27 May	Avg.
		56527	36063.73	43635.02	61121.2	37494	40219

Analyzed & Verified by



*(Signature)*

Dr.P.C.Mishra