



MEGHALAYA CEMENTS LIMITED

CIN-U26942ML2003PLC007125

Ref: MCL/Comm/MsPCB/Compliance/2015-16/185

Date:-02/12/2015



To
 ✓ The Member Secretary
 Meghalaya State Pollution Control Board,
 'ARDEN' LYMPYNGGAD
 Meghalaya, Shillong

Sub. Submission of half yearly compliance report.

Dear Sir,

We are hereby furnishing the half yearly compliance report (hard and soft copy) for the period from June 2015 to November 2015 on Environmental Stipulation for Expansion of Cement Plant (from 900 TPD to 2600 TPD) along with 10MW Captive Power Plant at Village- Thangskai, East Jaintia Hills District, Meghalaya, vide your Environment Clearance letter no SEIAA/PROJECT-2/2007/18 dated: 25th March 2009.

This is for your kind information and perusal. You are requested to kindly acknowledge the receipt of the same.

Thanking You.

Yours Faithfully,
 For Meghalaya Cements Limited

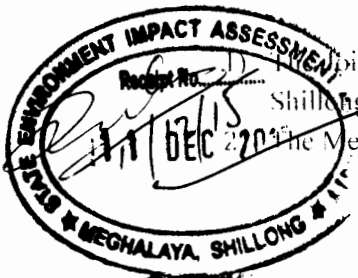
R.K. Pareek
 (R.K. Pareek)
 President



Enc. As stated above

Copy to:

Joint Director (S), Ministry of Environment and Forest, North Eastern Regional Office,
 Shillong, Meghalaya.
 The Member Secretary, State Environment Impact Assessment Authority, Shillong



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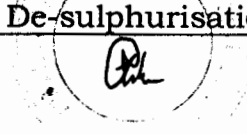
Registered Office :
 Village: Thangskai, P.O. & P.S. Lumshnong
 District: East Jaintia Hills, Meghalaya, PIN: 793210
 Tel. : 03655 278324 / 363 / 364
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HELPLINE NO : 18001233666

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 25th March 2009.

| Sl. No. as per letter dated 25.03.2009 of State Environment Impact Assessment Authority | Action to be taken | Compliance | |
|---|--|---|-----------|
| SPECIFIC CONDITIONS | | | |
| (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. | The online monitoring system of our stacks has been commissioned and working properly. | Complied. |
| (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 ³ | ESPs being installed are to be certified by a third party for 99.98% efficiency and emission level to be max. 50 mg/Nm ³ . | 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 _x and thus help neutralize the impact of sulphur in coal. | Such limestone is being used in the process. | Complied. |
| (iv) | Space provision shall be made for Flue Gas | At the project stage Flue Gas De-sulphurisation | Complied. |



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| | De-sulphurisation [FGD] unit of requisite efficiency for removal of SO ₂ when required at a later stage. | provision to be made | |
| (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. | We have made the provision of water sprinkling system at coal storage area. | Complied. |
| (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. | No ground water is applicable in our system. | Complied. |
| (vii) | Closed Cycle Cooling system with induced draft cooling towers shall be provided in the Thermal Power Plant. | Closed Cycle Cooling system has been adopted for the same. | Complied. |
| (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. | Fire protection system is already installed in coal stock yard as well as other vulnerable areas of TPP. The fire protection equipments and machineries are being tested periodically and kept in operation mode. Mock drill is also conducting every year by our Safety & Vigilance Department. | Complied. |

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| (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. | We have RO plant supplied by ION EXCHANGE LTD. For recycling the water to boiler. Also a ground sump is made for recycle/Treatment. | Complied |
| (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. | We have already a rain water harvesting pit and we are using the collected water for our plant as well as domestic purposes. We have been seeking technical guidance from several Departments/Board for upgrading the existing system to recharge the ground water aquifer and we are in process to upgrade the system | Consulted with Executive Engineer – Water Resource for technical guidance. Waiting for guidance from water resource Khliehrat. <i>Annexure- I</i> |
| (xi) | Permission for drawal of water of the required quantity from the streams in favor 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 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. | Complied. |
| (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 of equipments for reducing the noise pollution is being adopted in our system. | Complied. Schedule maintenance is being carried out as per the Manufacturers' manuals and using necessary PPE's. (Half yearly report is enclosed). <i>Annexure- II</i> |

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| | <p>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> | | |
| (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> | <p>Complied.</p> |
| (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> | <p>Complied.</p> |
| (xv) | <p>The stack emission from various sources</p> | <p>The regular monitoring to be done by</p> | <p>Complied. (Six month's report is</p> |

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| | shall not exceed 50 mg/Nm ³ | Environment Department. | enclosed) as <i>Annexure- II</i> |
| (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. Performance assessment has been done by NCCBM. | Performance certificate awaited. |
| (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 where maximum | 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) as <i>Annexure- II</i> |

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| | 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 0.05 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> | Complied. |



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| (xxi) | 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 ³ /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. | We are regularly intimating the water consumption reports to the Board. | Complied. (Half yearly report is enclosed) <i>Annexure- II</i> |
| (xxii) | 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. | Utilization of high calorific value hazardous waste – refer MePCB letter dated 14.04.2009 on the subject. | Procurement of materials for use of high calorific value hazardous waste is not available around the plant within 50 kms. Radius. |
| (xxiii) | The project proponent shall transport raw materials and industrial products | Transportation of raw materials by covered means. | Complied. |




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| | 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>Green belt development has been started since 2007 and the work is going on as per the guide lines. We have 17.40 Ha green areas inside the plant which we are maintaining from very beginning. We have planted this year 12905 saplings and the survival rate of 71.60%.</p> | <p>Now we have covered about 18.15 Ha i.e. about 90% of target. <i>Annexure- III</i></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>The Health Care Centre is functioning under qualified Doctor, Nurses and staffs. We have also an Ambulance facility to meet up the emergency.</p> | <p>Complied.</p> |


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| | <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.</p> | | |
| (xxvi) | <p>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.</p> | <p>Annual review is completed increments given to employees and this has reflected in salaries.</p> | <p>Complied.</p> |
| (xxvii) | <p>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.</p> | <p>We are taking preventive measures for emission of particulate matters to the surrounding private forest area.</p> | <p>Complied.</p> |
| (xxviii) | <p>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</p> | <p>During the renewal of mines lease we are in practice with verifying the Environment clearance.</p> | <p>Complied.</p> |

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| | 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"> i) <i>Pteracanthus griffithianus</i>, Acanthaceae ii) <i>Nepenthes khasiana</i>, Nepenthaceae iii) <i>Argostemma khasianum</i>, Rubiaceae iv) <i>Fimbristylis nigrobrunnea</i>, Cyperaceae v) <i>Trivalvaria kanjilali</i>, | <p>We are ready to sponsor the project to the department of Environmental Sciences, NEHHU, and Shillong accordingly we have communicated to the authorities but no response received from their side.</p> | <p>The soil of the land which is inside our plant boundary is not suitable for such type of plantation because of its high iron content i.e. 5 % and low pH. This is an unfavorable condition to grow such type of species. Under this circumstance we are requesting that it may be considered as such. So it may consider as Complied.</p> |

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| | <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>It is stated that we have no endangered wildlife animals in and around of the plant area as per the departmental studies.</p>  | Complied. |

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| | 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 It is stated that we have no endangered wildlife animals in and around of the plant area as per the departmental Studies. |
| (xxxii) | 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 as <i>Annexure-IV</i> |

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| (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 style="text-align: center;"></p> | <p>Implemented an expenditure details are enclosed as <i>Annexure- V</i></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. |



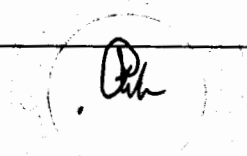
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| (iv) | <p>The gaseous emissions (SO₂, NO_x) and particulate matter levels from various process units shall conform to the standards prescribed by the concerned authorities from time to time. At no point of time, the emissions shall exceed the prescribed 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 SO₂, NO_x 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>It is an ongoing process and has been implemented.</p> | <p>Complied.</p> |

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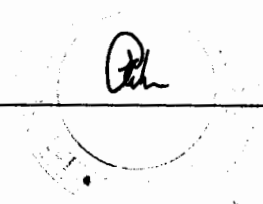
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| | <ul style="list-style-type: none"> • Reuse of by-products from the process as raw materials or as raw material substitutes in other process. • Use of closed pneumatic system for transport of fine material. • All venting systems shall be connected with dust or particulate arresting equipments. • Dust/particulate matter collected in pollution control equipments shall be reused. | | |
| (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/> |



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| (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 letter No. MPCB/TB-(HSM)/ATH-21-2007/ 2010-2011; dated 15 th December 2010 obtained from MSPCB. Valid up to Dec 2015. | Complied. We have applied for further renewal for the same. |
| (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. |



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| | 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. | The STP project has been commissioned and using the same for suppresses the fugitive dust of our internal roads. | Complied. |
| (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 reports 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 | 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. | Complied. |



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| <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 & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Waste (Management & Handling) Rules, 2003 and the Public Liability Insurance Act, 1991 along with their amendments and Rules.</p> | | |
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MEGHALAYA CEMENTS LIMITED



Dated 24th November, 2015
Ref: MCL/ENV/SWB/2015-16

To
The Chief Engineer,
Water Resources Department,
Shillong

Through: The Executive Engineer, Water Resources, khliehriat.

Sub: Detail Scheme for Rain Water Harvesting Pit to recharge the ground water aquifer.

Dear Sir,

With reference to above subject, we beg to inform you that we are complying the compliances and condition under MoEF North Eastern Regional Office, Shillong for our expended project. We are interested to develop a Rain water harvesting pit at proper place in the campus of M/s Meghalaya Cement Limited, Village- Thangskai, P.O-Lumshnong, East Jaintia Hills Dist, Meghalaya. This is for recharge the under ground water table for hilly and rocky area. In this regard we would like to request you to provide us a technical guide line for the same. As per MoEF norms the "Rain Water Harvesting Pit" scheme should be approved by State Ground Water Authority Board.

We shall be highly thankful to you if you will provide us a technical guide line which is suitable as per environmental condition of our plant premises.

Thanking you,

Your Faithfully,
For Meghalaya Cements Limited

[Signature]
Authorized Signatory

*Received for compliance
by the C.E (WR) Shgl.
of 28/11/15.*



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Tel. : 03655 278324 / 363 / 364
Fax : 03655 278327
E-mail : meghalaya@topcem.in



Stack Emission and Ambient Air Quality, 2015

| Chimney | | <u>Suspended Particulate Matter (SPM) :mg/Nm³</u> | | | | | | Avg. |
|---------------|--------|---|-----------|-------------|-----------|----------|----------|-------|
| | | June 2015 | July 2015 | August 2015 | Sept 2015 | Oct 2015 | Nov 2015 | |
| Pr. Crusher | | 37.90 | 45.80 | 41.30 | 40.70 | 42.10 | 39.40 | 41.20 |
| Sec. Crusher | | 39.20 | 37.50 | 36.40 | 38.40 | 39.70 | 38.20 | 38.23 |
| Coal mill 1 | | 26.30 | 30.10 | 34.50 | 43.60 | 41.10 | 40.30 | 35.98 |
| Coal mill 2 | | 32.10 | 26.90 | 30.10 | 35.80 | 36.80 | 38.60 | 33.38 |
| RABH 1 | | 26.10 | 38.80 | 38.10 | 36.20 | 39.70 | 37.10 | 36.00 |
| RABH 2 | | 33.20 | 34.60 | 35.90 | 41.40 | 43.20 | 41.40 | 38.28 |
| ESP 1 | | 35.70 | 38.30 | 36.70 | 37.20 | 32.90 | 35.80 | 36.10 |
| ESP 2 | | 27.90 | 33.40 | 34.80 | 32.80 | 34.30 | 36.30 | 33.25 |
| Packing House | | 26.70 | 40.10 | 39.70 | 32.70 | 35.60 | 37.80 | 35.43 |
| Cement Mill | | 41.80 | 43.60 | 40.50 | 42.80 | 40.80 | 39.20 | 41.45 |
| Location | | <u>Ambient Air Quality (AAQ) : $\mu\text{g}/\text{Nm}^3$</u> | | | | | | Avg. |
| | | June 2015 | July 2015 | August 2015 | Sept 2015 | Oct 2015 | Nov 2015 | |
| DG House | PM 10 | 46.81 | 59.10 | 52.90 | 58.14 | 64.37 | 69.30 | 58.44 |
| | PM 2.5 | 18.12 | 29.30 | 25.20 | 25.63 | 28.31 | 34.70 | 26.88 |
| Guest House | PM 10 | 29.35 | 34.90 | 31.80 | 38.32 | 37.21 | 43.60 | 35.85 |
| | PM 2.5 | 12.50 | 15.70 | 12.90 | 18.11 | 16.83 | 21.10 | 16.19 |
| Crusher | PM 10 | 66.33 | 74.20 | 70.80 | 78.46 | 82.54 | 87.20 | 76.59 |
| | PM 2.5 | 33.73 | 35.60 | 30.80 | 38.74 | 41.82 | 49.60 | 38.38 |

Analyzed by

Sunil Kunwar

Verified by

Sunil Kumar Choudhary

Six Monthly Report: Noise Intensity and Water Consumption, 2015

| Location | | <u>Noise Intensity: (Db)</u> | | | | | | Avg. |
|------------------------------|-------|------------------------------|-----------|-------------|-----------|----------|----------|-------|
| | | June 2015 | July 2015 | August 2015 | Sept 2015 | Oct 2015 | Nov 2015 | |
| DG House | Day | 73 | 74 | 73 | 74 | 73 | 74 | 73.5 |
| | Night | 61 | 60 | 61 | 63 | 65 | 64 | 62.33 |
| Guest House | Day | 60 | 62 | 63 | 60 | 64 | 60 | 61.50 |
| | Night | 47 | 45 | 48 | 49 | 51 | 52 | 48.66 |
| Crusher | Day | 72 | 73 | 74 | 72 | 73 | 75 | 73.16 |
| | Night | 56 | 53 | 58 | 58 | 60 | 67 | 58.66 |
| <u>Water Consumption: KL</u> | | | | | | | | |
| Location | | June 2015 | July 2015 | August 2015 | Sept 2015 | Oct 2015 | Nov 2015 | Avg. |
| Domestic | | 3960 | 4016 | 4071 | 3775 | 3782 | 3518 | 3854 |
| Industrial | | 43098 | 46196 | 62999 | 57110 | 70536 | 51953 | 55315 |

Analyzed by


 Sunil Kumar

Verified by


 Sunil Kumar Choudhary



**Six Monthly Report (CPP): SPM, AAQ and Water
Consumption, 2015**

| Chimney: CPP | | <u>Suspended Particulate Matter (SPM) :mg/Nm³</u> | | | | | | |
|---|-------------------|--|-----------|-------------|-----------|----------|----------|-------|
| | | June 2015 | July 2015 | August 2015 | Sept 2015 | Oct 2015 | Nov 2015 | Avg. |
| | | 43.20 | 42.10 | 39.10 | 38.20 | 36.8 | 36.40 | 39.30 |
| Note: Presently, there is a shutdown of CPP for maintenance work. | | | | | | | | |
| Location: CPP | | <u>Ambient Air Quality (AAQ) :µg/Nm³</u> | | | | | | |
| | | June 2015 | July 2015 | August 2015 | Sept 2015 | Oct 2015 | Nov 2015 | Avg. |
| S→E | PM ₁₀ | 34.26 | 57.23 | 45.60 | 41.40 | 39.28 | 41.26 | 43.17 |
| | PM _{2.5} | 16.48 | 38.15 | 32.20 | 34.22 | 21.62 | 32.48 | 29.19 |
| S→W | PM ₁₀ | 38.28 | 53.36 | 48.50 | 45.32 | 42.36 | 44.18 | 45.33 |
| | PM _{2.5} | 17.42 | 40.24 | 35.60 | 30.24 | 28.66 | 29.66 | 30.30 |
| N→E | PM ₁₀ | 32.62 | 46.34 | 42.50 | 46.55 | 44.22 | 44.88 | 42.85 |
| | PM _{2.5} | 18.56 | 36.25 | 34.50 | 32.52 | 24.45 | 28.26 | 29.09 |
| Location: CPP | | <u>Water Consumption:M³</u> | | | | | | |
| | | June 2015 | July 2015 | August 2015 | Sept 2015 | Oct 2015 | Nov 2015 | Avg. |
| | | 9189 | 21583 | 14909 | 15403 | 24036 | 20560 | 17613 |

Analyzed by


Sunil Kumar

Verified by


Sunil Kumar Choudhary



WASTE WATER ANALYSIS RESULTS

M/s MEGHALAYA CEMENTS LTD.
Village: Thangskai; PO: Lumshnong
Meghalaya

(NOVEMBER - 2015)

Sample Type : Waste Water
Sample Source : STP Outlet
Collected By : Jointly by Envirocon & Client
Collected On : 21.11.2015
Analysis Protocol : IS 3025

| S. No. | Parameters | Results | Limits (IS:2490) |
|--------|------------------------------------|---------|---------------------|
| 01 | BOD (3 days, 27 °C), mg/l | 15 | 30 |
| 02 | COD, mg/l | 58 | 250 |
| 03 | Total Suspended Solids (TSS), mg/l | 21 | 100 |



Checked By: Bivash Mahanta, ENVIROCON



NOTE:

1. Results reported are valid at the time of and under the prevailing conditions of measurement.
2. Results refer only to the particular parameters tested.
3. This test report shall not be reproduced except in full, without the written permission of ENVIROCON, Digboi Stores Building, New Market, Digboi - 786171, Assam

YEAR WISE PLANTATION DETAILS
MEGHALAYA CEMENTS LIMITED

Date:-26.10.2015

| YEAR | Saplings planted (Nos.) | Area covered (Hect.) | Saplings Survive (Nos.) | Survival Rate | Remarks |
|---------------|-------------------------|----------------------|-------------------------|---------------|--|
| 2009-10 | 10630 | 1.063 | 6909 | 65% | Planted near Office Campus, residential blocks, Children park, Guest house Temple and road side. |
| 2010-11 | 4485 | 0.4485 | 3304 | 73% | CPP Campus, |
| 2011-12 | 1425 | 0.1425 | 1271 | 89% | CPP Campus. |
| 2012-13 | 1725 | 0.1725 | 1609 | 93% | CPP Campus, Lawn of residential blocks & Dispensary. |
| 2013-14 | 1793 | 0.1293 | 1365 | 76% | Planted in the Topcem Public School Campus, Children Park & Approach Road side. |
| 2014-15 | 7904 | 0.8 | 5532 | 70% | CPP Campus, Along Plant Boundary & Crusher Road side. |
| 2015-16 | 12905 | 1.70 | 9290 | 72% | Approach Road side, CPP Campus, Along Plant Boundary & Dispensary Campus. |
| Total= | 40867 | 4.4558 | 29280 | 71.6% | |

Note: - 1. We have natural green belt area of 2.45 hectares and 10.5 hectares situated at north eastern and south-eastern part of the plant area and we are maintaining the said area regularly. Therefore, the total area under green belt is **17.40 hectares**.

2. Another three Blocks such as near mines no. 1 (0.26 ha), near mines no- 3 (0.23 ha) and near main Gate no-1 (0.26 ha) = 0.75 Hectares.

Total Plantation as on Date= 18.15 hectares.



The Revenue Expenditure incurred on Environmental Protection Equipments/Machineries

From 01.06.2015 to 30.11.2015

| Sl. No. | Heading | Amount |
|--------------|---|------------------|
| 1. | Bag Filter (Cement mill, Coal mill, Raw mill, Crusher etc.) | 2895316 |
| 2. | Reversible Air Bag House (RABH) | 476564 |
| 3. | Electrostatic Precipitator (ESP) | 675682 |
| 4. | Raw Material Yard | 18006 |
| Total | | 40,65,568 |

Q



CB

EGHAY
[Signature]
Authorised Signatory

Expenditure Incurred for Socio-Economic Development under CSR
From 01.06.15 to 30.11.15

| SL.NO. | HEADING | AMOUNT |
|--------|---|------------------|
| 1 | Emphasis on Education | 421,890 |
| 2 | Encouraging/Felicitation prog. For Students. | 95,000 |
| 3 | Awareness campaign for personally given. | 700 |
| 4 | Polio Immunization Camps, Family planning, etc. | 233,180 |
| 5 | Infrastructure development of Hospitals/Schools | 1,155,430 |
| 6 | Cement Distribution Programme. | 7,254,191 |
| 7 | Plant Distribution Programme. | 142,016 |
| 8 | Donation to Churches & Road Repairing etc. | 25,120 |
| 9 | Drinking water supplying scheme. | 235,726 |
| 10 | Village Development Funds. | 135,000 |
| | Total | 9,698,253 |



MEGHAYA CEMENTS LTD
[Signature]
Authorised Signatory