



**MEGHALAYA CEMENTS LIMITED**

CIN- U26942ML2003PLC007125



Ref: MCL/ENV/MoEF&CC/Compliance-I/2020-21/26

Date: 20/11/2020

To,

The Addl. Director General (Central),  
Ministry of Environment Forest & Climate Change,  
North Eastern Regional Office, Shillong,  
Meghalaya.

Sub: - Submission of half yearly compliance report for the period of April'20 to September'20.

Dear Sir,


We are hereby furnishing the half yearly compliance report (hard copy and soft copy) for the period from **April'20 to September'2020** 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: 25<sup>th</sup> 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  
(President)

Encl: As stated above

Copy to:

- 1) The Member Secretary, Meghalaya State Pollution Control Board, Shillong.
- 2) The Member Secretary, State Environment Impact Assessment Authority, Shillong.



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**Half yearly Compliance Report (for the period April'2020 to September'2020) on Environmental Stipulations for Expansion of Cement Plant (from 900 TPD-2600 TPD), along with 10 MW Captive Power Plant at Thangskai, East Jaintia 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	Compliance Status
<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.	<b>Complied with.</b> A stack of required height is provided and opacity meter for continuous online monitoring (CEMS) is provided. The data transmission of online data to MsPCB and CPCB are being done through 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>	<b>Complied with.</b> ESP is provided for thermal power plant and it is working effectively.
(iii) Sorbent limestone shall be fed (12% of coal by weight) along with coal in the boiler of the TPP to reduce formation of Sox and thus help neutralize the impact of sulphur in coal.	<b>Complied with.</b> Provision has been made for lime feeding in boiler through over bed feeding system to reduce the formation of Sox. Project proponent is using limestone for above purpose, as per requirement of the process.
(iv) Space provision shall be made for Flue Gas De-sulphurisation [FGD] unit of requisite efficiency for removal of SO <sub>2</sub> when required at a later stage.	<b>Complied with.</b> Provision for flue gas De-sulphurisation has been already 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.	<b>Complied with.</b> Water sprinkling is being carried out on daily basis in plant premises on the places where fugitive dust particles are present and also on internal roads. Provision of water sprinklers system has made at coal storage area and other vulnerable area of TPP.
(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.	<b>Complied with.</b> Water requirement for the Thermal Power Plant is meeting from rain water during rainy season and from existing source during non rainy season. No extraction of ground water for Thermal Power plant is being done.
(vii)	Closed Cycle Cooling system with induced draft cooling towers shall be provided in the Thermal Power Plant.	<b>Complied with.</b> Closed cycle cooling system has been adopted and recirculation of cooling water is being practiced
(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.	<b>Complied with.</b> Regular safety training is being provided. Fire protection system along with fire extinguisher of various types is already installed within the entire premises as well as other vulnerable areas of TPP. The fire protection equipments and machineries are being tested periodically and kept in operation mode. Mock drills are being conducted on regular basis by our Safety & Vigilance Department. Details of Mock drills and trainings are attached herewith. ( <i>Annexure-i</i> )
(viii) (a)	The PP is prohibited to use high sulphur local coal in its thermal power plant.	<b>Complied with.</b> PP is not using high sulphur local coal in its thermal power plant.
(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.	<b>Complied with.</b> The treated water is being utilized for greenbelt development around the plant and colony. Also a surface water 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.	<b>Complied with.</b> The PP has upgraded the existing system. Scheme for rain water recharging pit has been made, the lay out copy is submitted earlier. The rain water collection and reuse also being practiced to fulfill the requirement of cooling water as well as drinking purpose during monsoon period.
(xi)	Permission for drawl 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.	<b>Complied with.</b> 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 was enclosed earlier.
(xii)	Noise level in the Thermal Power Plant premises shall be limited to 75 dB and regular maintenance of equipment should be undertaken. For 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.	<b>Complied with.</b> Noise level in TTP premises is under limit. Necessary PPEs to employee are being provided. We have fully automated system for operation of turbine, so the exposure of employee to the high noise is minimum. The PP has provided an acoustic covered screw air compressor to maintain the noise level within the acceptable limit. The regular routine testing is been carried out as per the manufacturers' manuals and, by using the necessary PPE's. (Half yearly report is enclosed). ( <i>Annexure-ii</i> )
(xiii)	Acoustic hoods shall be provided in respect of all equipment that has 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.	<b>Complied with.</b> The project proponent has provided acoustic hoods in the Thermal Power Plant.





(xiv)	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.	<b>Complied with.</b> Fly ash generated in Captive Power Plant is completely collects in silo through ESP and it is being loaded into tankers for feeding to cement mill hoppers pneumatically. Hence 100% consumption of the ash generated is achieved in our cement plant.
(xv)	The stack emission from various sources shall not exceed 50 mg/Nm <sup>3</sup>	<b>Complied with.</b> (Six month's report is enclosed) as an <b>(Annexure-ii)</b>
(xvi)	The project proponent shall get the optimum functioning of the environmental protection equipment certified by a technical institution of repute.	<b>Complied with.</b> Performance assessment has been conducted as per as the norms by the NCCBM, New Delhi. The test results are submitted earlier. Further the project proponent is continuously maintaining the pollution control devices to maintain the efficiency.
(xvii)	Bag House/Filters shall be provided to control the fugitive emission during loading and unloading of raw materials/intermediate and finished products.	<b>Complied with.</b> Nuisance bag filters has been provided to control fugitive emission at Raw Mill, Coal Mill, Kiln and Cement mill. Water sprinkler has also installed at transportation area, Coal storage area and other vulnerable area of the plant.
(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.	<b>Complied with.</b> Proper water sprinkling on the places of fugitive dust generation is implemented and controlled.
(xviii) (a)	The storage of the coal dump shall be housed by permanent sheds open on all sides and stacked on impervious floor, preferably cemented to prevent Acid Mine Drain (AMD).	<b>Agreed for compliance.</b> Construction of permanent shed for storage of coal with cemented flooring has been completed for storage of coal and to prevent Acid Mine Drain (Acid Mine Drain).
(xviii) (b)	The project proponent shall construct garland drains along with Acid Mine Drains Neutralization tanks, in consultation with and approved by the state pollution control board.	<b>Agreed for compliance.</b> Garland drain is provided along the shed and shed is covered from all side to avoid any contamination of surface water due to storage of coal.





(xviii) (c)	No direct discharge of AMD into any drains/natural drains shall be allowed; proper treatment of AMD shall be done by the Project Proponent in the Neutralization Tank before releasing the water to the drain/natural drain, which shall be duly approved by the Meghalaya State Pollution Control Board.	<b>Agreed for compliance.</b> Garland drain is provided along the shed and shed is covered from all side to avoid any contamination of surface water due to storage of coal. No direct discharge of AMD will be assured by the PP.
(xix)	The ambient air quality monitoring stations shall be set up as per statutory requirement in consultation with the Meghalaya State Pollution Control Board ( <b>MsPCB</b> ) and additional stations shall be installed, in the downwind direction as well as where maximum ground level concentrations are anticipated.	<b>Complied with.</b> Ambient Air Quality monitors – Installed as required having one point at crusher area where maximum concentration is anticipated. (Six month's report is enclosed) ( <i>Annexure-ii</i> )
(xx)	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.	<b>Complied.</b> Monitoring of surface water from River pumped to CPP and surface water from water harvesting pit near primary crusher is being tested and reports are being submitted to MsPCB, Chromium (VI) level testing from the effluent is also been tested on monthly basis and reports are attached herewith. ( <i>Annexure-iii</i> )



*Amel*



(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 <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.	<b>Complied.</b> Total water requirement will not exceed 2000cum/day including TPP. The PP has install the STP to treat and reuse the residential waste water and ETP to treat and reuse the waste water generated from HEMM workshop to ensure zero discharge.STP treated water is being used for greenbelt development and sprinkling purpose. ETP treated water is reuse for vehicle washing. <b>(Annexure-ii)</b>
(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.	<b>Complied with.</b> The project proponent has made a mechanical arrangement for feeding of plastic waste in Tertiary Air Duct (TAD) at pre- heater and using the waste as alternative fuel on availability basis. NOC for utilization of high calorific waste has been obtained from MsPCB.
(xxiii)	The project proponent shall transport raw materials and industrial products through covered means.	<b>Complied with.</b> Raw materials like coal and industrial products like clinker are being transported from one location to other location by properly covered with tarpaulin to avoid any spreading of fugitives.
(xxiv)	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	<b>Complied with.</b> Development of Green belt had been started in the Year 2009 and 100% of the project area (i.e. <b>20.22 Ha</b> ) plantation has been completed. Suitable local species are being planted as per the suggestions given by the Sr. Engineer, (CPCB) & DFO (Territorial); East Jaintia hills Dist, Jowai. The details are enclosed herewith for your kind reference. Additional 03 numbers of blocks having total area of 2.79 ha has been planted with local species around the project area. Total plantation including project area and around the project area is 23.01 ha. <b>(Annexure-iv)</b>



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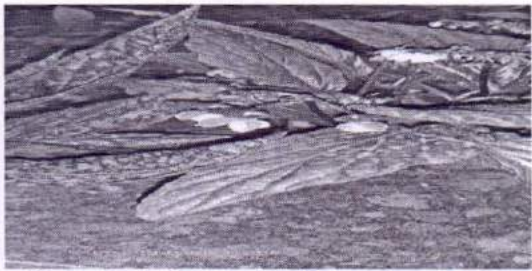


	Hills District.	
(xxv)	The project proponent shall provide a Health Care Center with all emergency medicines and ambulance along with regularly serving doctors complete with emergency unit that would function round the clock. Occupational health surveillance of the workers shall be carried out on a regular basis and records shall be maintained in compliance of provisions contained on Chapter III and V of the Factories Act, 1948.	<b>Complied with.</b> The Health Care Centre is functioning under qualified Doctor, Nurses and staffs. With all emergency medicine and ambulance to meet up the emergency.
(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.	<b>Complied with.</b> The salaries of Cleaners are being reviewed on the yearly basis. The details are already submitted earlier. (Annexure-v)
(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.	<b>Complied with.</b> Necessary measures such as bag filter maintenance, Dust suppression is being practiced. Ambient Air Quality Analysis nearby plant area is being done on regular basis. (Annexure - vi)
(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 encouraged in the process.	<b>Complied with.</b> The Project proponent ensures that no unscientific extraction of limestone is encouraged in the process.
(xxix)	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.	<b>Complied with.</b> The Project proponent has started the work in co-ordination with Environment Department of North Eastern Hill University, Shillong. The NEHU, officials have already appointed a Project fellow for the Project and he is now working at our site on Biodiversity Conservation Plan with focus on conservation of the schedule -I species in the area. The green house has developed and conservation of three flora species namely:



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	<p>(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>, Annonaceae</li> <li>vi) <i>Begonia rubrovenia</i>, Begoniaceae</li> <li>vii) <i>Ceologyne ovalis</i>, Orchidaceae</li> </ul> <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>	<p><i>Fimbristylis nigrobrunnea</i>, Cyperaceae, <i>Begonia rubrovenia</i>, Begoniaceae and <i>Ceologyne ovalis</i>, Orchidaceae has been initiated (Annexure - vii)</p>  <p><i>Ceologyne ovalis</i>, Orchidaceae</p>  <p><i>Begonia rubrovenia</i>, Begoniaceae</p>
(xxx)	<p>The project proponent shall sponsor research and development for conservation of threatened category of species occurring locally such as <i>Hedychium dekianum</i>, [Zingiberaceae], <i>Cymbidium eburneum</i> (Orchidaceae), or <i>Dendrobium denoniamum</i> (Orchidaceae) which would be carried out by an appropriate research or academic institution located in Meghalaya within a year of issue of prior 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.</p>	<p><b>Complied with.</b> The Project proponent has started the work in co-ordination with Environment Department of North Eastern Hill University, Shillong. The NEHU, officials have already appointed a Project fellow for the Project and he is now working at our site on Biodiversity Conservation Plan with focus on conservation of the schedule -I species in the area. The green house has developed and conservation of three flora species namely: <i>Fimbristylis nigrobrunnea</i>, Cyperaceae, <i>Begonia rubrovenia</i>, Begoniaceae and <i>Ceologyne ovalis</i>, Orchidaceae has been initiated. (Annexure - vii)</p>
(xxxi)	<p>A Conservation Plan for conservation of wild fauna in consultation with a reputed institution such as Wildlife Institute of India, Dehradun shall be</p>	<p><b>Complied with.</b> Questionnaire survey to account for the existing fauna in the project area and its surrounding has been completed and the list of fauna has provided</p>





	<p>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.</p>	<p>by NEHU. Further, camera traps have been installed near the project area and final report on existing fauna in the project area prepared by NEHU on the basis of data acquired by camera traps.</p> <p>Plantation of fruit plan bearing species in the project area has done as per Central Pollution Control Board guideline, so as to encourage the increase visitation and roosting of avian species.</p> <p><i>(Annexure - vii)</i></p>
(xxxii)	<p>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.</p>	<p><b>Complied with.</b></p> <p>An expenditure detail is enclosed herewith.</p> <p><i>(Annexure - viii)</i></p>
(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><b>Complied with.</b> Implementation done and the expenditure details are enclosed herewith.</p> <p><i>(Annexure - ix)</i></p>





## 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:

(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.	<b>Complied.</b> Following the stipulation of MSPCB.
(i)-a	The Project Proponent shall not violate applicable provisions of any Acts, Rules Orders of the Government and judicial orders issued by the Hon'ble Supreme Court/High Courts/NGT, applicable to the project.	<b>Agreed for compliance.</b> The Project Proponent is not violating applicable provisions of any Acts, Rules Orders of the Government and judicial orders issued by the Hon'ble Supreme Court/High Courts/NGT, applicable to the project.
(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.	<b>Agreed for compliance.</b> Against Letter no.: ML/SEIAA(2018)/PP/Pt/03/2019/23/510; Dated-19 <sup>th</sup> August 2019
(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.	<b>Agreed for compliance.</b> No further expansion or modification will be carried out without prior clearance.
(iv)	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	<b>Complied.</b> 1. Project Proponent confirms that the gaseous emissions (Sox, NO <sub>x</sub> & PM) level confirmed to standard prescribed by the concerned authorities from time to time at no point of time. The emission will exceed the prescribed limit.



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	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.	2. ABB make SCADA based Interlocking is in system to control SO <sub>2</sub> , NO <sub>x</sub> levels in case of failure and working effectively
(v)	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.	<b>Complied with.</b> Fly ash generation in our Captive Thermal Power Plant is completely collected by the ESP to its hoppers and it is being loaded into tankers for feeding to cement mill hoppers pneumatically. Hence 100% consumption of the ash generated is achieved by our cement plant.
(vi)	The industry shall undertake the following waste minimization measures: <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>	<b>Complied with.</b> The Project Proponent is not generating any kind of bi-product of process. Closed pneumatic system is installed for transport of the fine material in the manufacturing process. All venting systems are connected with dust or particulate arresting equipments such as Bag Filters.
(vii)	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.	<b>Complied with.</b> Monitoring of fugitive emission is already been under taken and the tests were conducted in-house with our team and also by the third party. The Project Proponent is submitting monthly report to MsPCB which is generated by the third party as well as our laboratory team.





(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.	<b>Complied with.</b> The Project proponent has provided different types of Environmental Protection Equipments for collection of dust/particulate matter and to reuse the same in our process. The required spares parts are also maintaining for optimum functioning of the said equipments.
(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.	<b>Complied with.</b> Authorization letter No (ADDENDUM). MPCB/ATH-21/2007/ 2018-2019/14; dated 5 <sup>th</sup> July 2018 for 2600 TPD cement manufacturing plant, valid up to 30 <sup>th</sup> November, 2020 and Authorization letter No (ADDENDUM). MPCB/ATH-46/2017/2018-2019/2; dated July 2018 for 10 MW CPP, valid up to 31 <sup>st</sup> August, 2022 obtained from MSPCB.
(x)	A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Environmental Quality Monitoring functions. A state of the art Chromium testing kit shall be maintained in the laboratory.	<b>Complied with.</b> Dedicated environmental Management Cell is functioning and Environmental quality functions like Ambient Air Quality Monitoring, Stack Monitoring Emission, and Drinking Water Quality and Waste Water quality are being regularly monitored. Chromium testing for CPP blow down water is also being carried out regularly.
(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.	<b>Complied with.</b> The Sewage Treatment Plant (STP) has been installed and the capacity of the same is 100m <sup>3</sup> /Day, and the treated water being utilized for suppresses the fugitive dust of our internal roads. The Effluent Treatment Plant (ETP) has been installed near Vehicle Work Shop and the treated water is being recycled for the same purpose. The capacity of the ETP is 25 kL/Day. The Neutralization Pit has been also installed at CPP. Rejected water generates through De-mineralization of water is being neutralized in the neutralizing pit and then used for green belt development. Drainage system and STP, ETP and NPT map are submitted earlier.





(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 Project proponent.	<b>Complied with.</b> Half yearly compliance reports along with monitoring data are being submitted to concerned officials on the regular basis and posting the same data on the website also.
(xiii)	<p>Implementation of the project vis-à-vis environmental action plans shall be monitored by the Regional Office, Ministry of Environment &amp; Forests duly assisted by the SPCB.</p> <p>The Regulatory Authority may revoke or suspend the clearance on the 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 Project proponent 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>	<b>Agreed for compliance.</b>





# FIRE FIGHTING TRAINING REPORT

Annex-I

Date: 13.06.2020

- ❖ **THEME:** Fire Fighting procedure, Classification of fire, Types of fire extinguisher & its operation and various rescue procedure.
- ❖ **TRAINER'S NAME:** - Shri B. Bhagavan Singh, Mr. Prajjal Rajkumar & Mr. Ganesh Quila
- ❖ **VENUE:** - COMMUNITY HALL
- ❖ **DATE:** - 12.06.2020
- ❖ **TIME:** - 3:30 PM TO 5:30 PM
- ❖ **DURATION:** - 2:00 HOURS
- ❖ **NUMBER OF PARTICIPANTS:** - [20] Twenty persons were attended.

On 12<sup>th</sup> June 2020 we have conducted "FIRE FIGHTING TRAINING" at community hall at time 3:30 PM, total 20 persons were participated from Security staff of Meghalaya Cements Ltd & Bombay security service & Electrical department.

At the time of any Fire emergency how to fight with fire & what precautions to be taken during that situation those were discussed as well as explained 'EMERGENCY PREPAREDNESS' code of practice i.e. Siren alarming system, how to activate or rush to assembling point after hearing the siren. Convinced about operation of all available fire equipments also elaborated about location wise installed fire equipments operating procedure.

Classification of Fire: Fire is five (5) types.

A class Fire: Fire involving combustible materials of Organic nature.

- Example: wood, paper, rubber plastic etc.
- For extinguishing fire involving this class we can use Water, Foam, ABC, DCP, CO<sub>2</sub> type Fire Extinguisher.

B class Fire: Fire involving Flammable liquids.

- Example: diesel, petrol, kerosene, etc.
- For extinguishing fire involving this class we can use Foam, ABC, DCP, CO<sub>2</sub> type Fire Extinguisher.

C class Fire: Fire involving flammable Gases.

- Example: LPG etc.
- To extinguish the fire we should close down the supply of gas by closing the valve and simultaneously for cooling CO<sub>2</sub>, DCP & ABC type Extinguisher can be used.

D class Fire: Fire involving combustible metals.

- Example: magnesium, aluminum, zinc etc.
- For extinguishing fire involving this class we can use ABC & DCP type Fire Extinguisher.

E class Fire: Fire involving on Electrical appliances.

- Example: Computer, motor, switch etc.
- For extinguishing fire involving this class we can use CO<sub>2</sub>, ABC & DCP type Fire Extinguisher.
- ✓ For Electric Fires switch of the power supply before attempting extinguish the fires. & **Dangerous if used water or Foam type fire extinguisher on live Electrical Equipments.**

During fire duties of employees:

- ❖ Which type of Fire extinguishers can to use on what type of Fire.



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- ❖ Classification of Fire and according to it explanation of types of fire.
- ❖ Explanation of Emergency preparedness as per the reference of MCL Emergency preparedness.
- ❖ Firstly know where we kept our Fire extinguishers that explanation as per reference of extinguishers report.
- ❖ Communication procedure during emergency.
- ❖ During Fire what can do or do not.
- ❖ Explanation of location where Fire can catch at our factory premises.
- ❖ Introduction and function of Fire fighting tanker along with Fire equipments.
- ❖ During fire accident siren alarming procedure.
- ❖ Operating procedure of Fire extinguishers & Fire fighting tanker.

Explained how to operate fire fighting tanker during emergency:

At least four Fire men with one driver essential to operate/handle Fire fighting Tanker, explained & demonstrate the following mentioned to participants.

- 1<sup>st</sup> raise alarm and alert everyone in your premises.
  - Simultaneously fire fighting team comes to fire fighting tanker to take to accident place by the help of tanker driver.
  - The tanker to be kept on the hard surface (safe place) and minimum 14-15 meters distance from the fire accident place.
  - Firstly Fire men open the hose box to take the hose and branch pipe by the help of hose box key which kept in the driver cabin.
  - Then Fire men connect hose (Male coupling of hose with female coupling of hydrant] to right angle type hydrant valve and hose branch pipe give to 2<sup>nd</sup> Fire men.
  - 2<sup>nd</sup> Fire men carry the hose and branch near fire caught place & he connect the hose with branch nozzle and 3<sup>rd</sup> Fire men hold hose as standing of 2<sup>nd</sup> fire men back side to avoid back pressure of water & help for control.
  - Simultaneously 4<sup>th</sup> Fire men open gate valve & start the pump.
  - 2<sup>nd</sup> man will up his hand for good communication and said 'water' on.
  - 1<sup>st</sup> Fire men open the valve of Hydrant.
  - Water came to branch through hose & get out in 'Jet' or fog as position of fire & requirement.
  - After extinguish the fire to be off the pump & open the branch pipe from hose and open hose from hydrant.
  - Then water must be getting out from the hose because standing water remains in hose for long time can get worse the material.
  - Pump to be cleaned and all equipments to be kept at designated place & fire fighting tanker to be kept at ready position at designated place.
  - At last oil level of pump to be checked if level is down then to be filled and kept ready position simultaneously water also necessary to fill in tank for future emergency.
- ❖ Rescue process – Demonstrate rescue process to all participants & one by one they practiced rescue process. Following rescues are shown & demonstrate.
- One casualty – one rescuer (Pick on back, Reverse pick on back, man crown, man catch, down stair).
  - One casualty two rescuers (Two hand seat & four hand seat).
  - Stretcher Rescue.

Finally we have conducted practical demo program on fire by use of fire fighting equipments like Fire extinguishers. Fire fighting tanker & given the training to all Bombay Security staff and other participants. each and every one can operate the extinguishers and understood fire fighting process. Finally we have seen most of the persons learnt well & satisfactory as practice training will be continued for further progress.

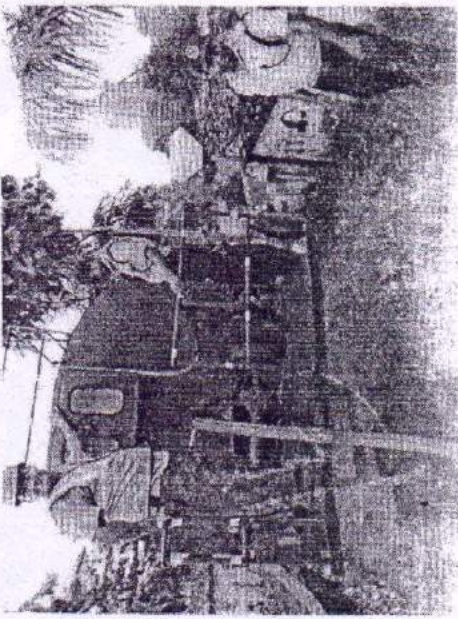
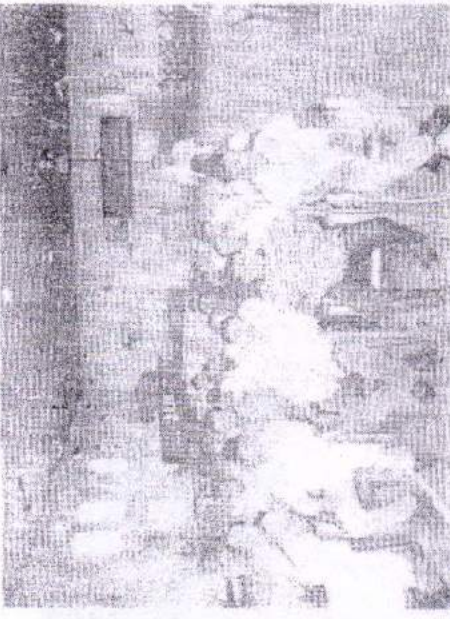
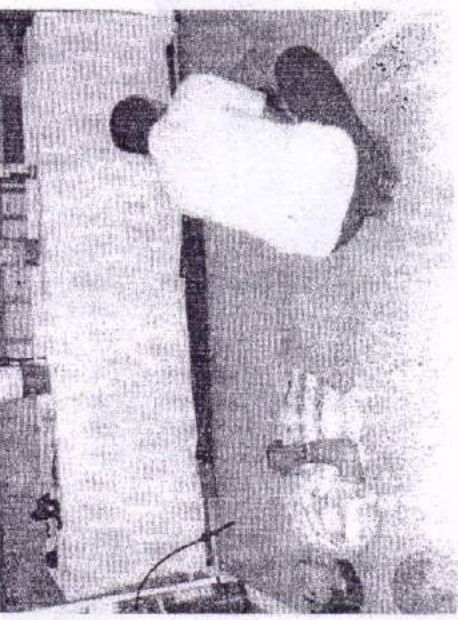
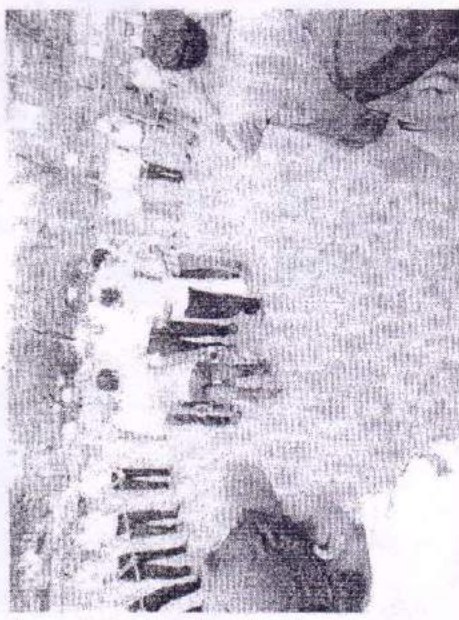
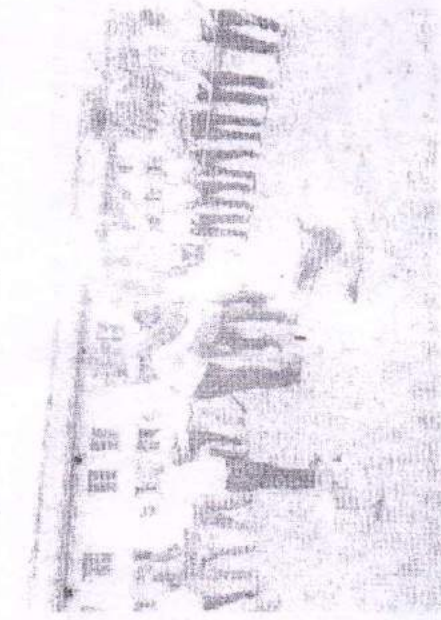
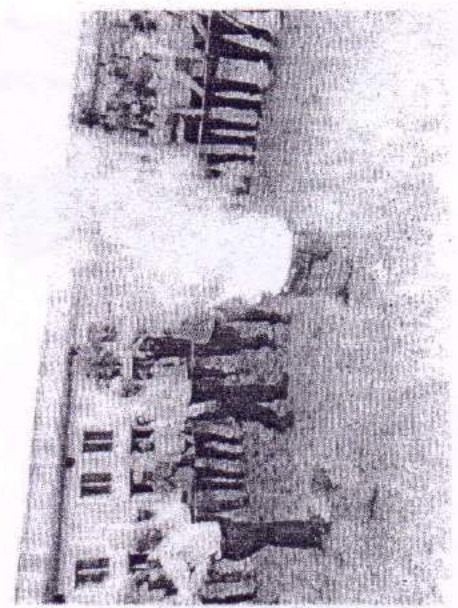
  
SAFETY OFFICER



  
DGM [SAFETY]



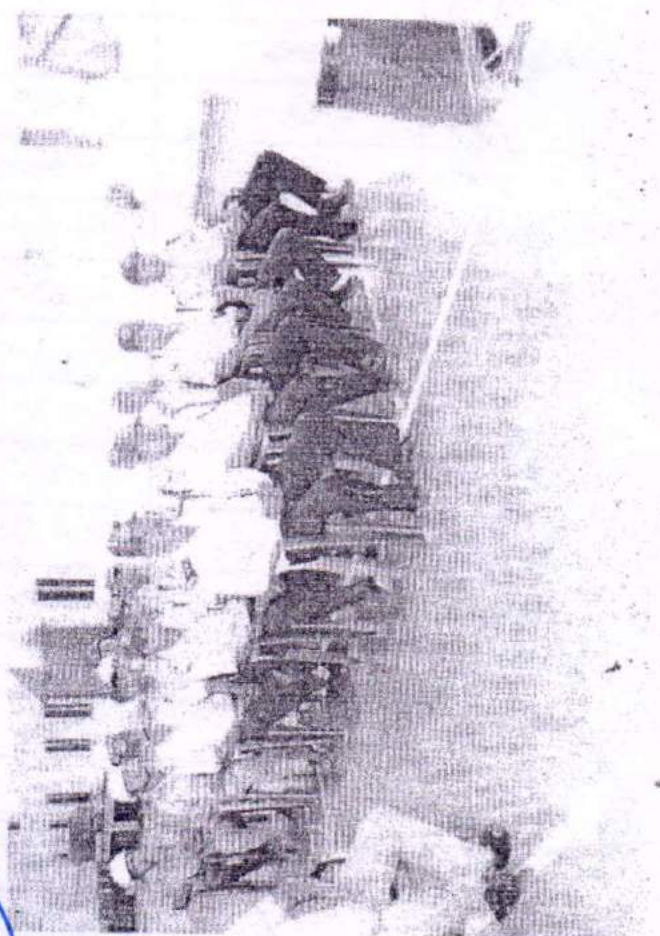
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## Meghalaya Cements Ltd.

Village Thangskai, P.O. Lumshnong, East Jaintia Hills, Meghalaya-793210

## Attendance Sheet for IMS/EnMS/External Agency Training

Doc.No:MCL/ IMS &amp;EnMS/MR/G10

Rev No.:00

Date:

Training Details

Agency

Fire Fighting procedure, classification of Fire,  
Types of Fire extinguisher & its operation and various  
rescue procedure.  
Safety department.

Duration

: 02:00 Hour

(a) Dates

From: 12-06-2020

To: -

(b) Time

From: 3:30 PM

To: 5:30 pm

Names of Trainers

1. B. Bhagvan Singh (D.G.M - Safety) 2. P. Roy Kumar (Safety Officer)  
Attendance Record: 3. Ganesh Swila (A.F.O)

Sr	Employee Name	Department	Designation	Signature
01.	Mr. Anmol Lahkar	HR & A	Security	
02.	Mr. Arup Borah	-do-	-do-	
03.	Mr. Jiten Nath	-do-	-do-	
04.	Mr. Pradip Boro	-do-	-do-	
05.	Mr. Salah Uddin Khan	-do-	-do-	
06.	Mr. Tukeshwar Nath	-do-	-do-	
07.	Mr. Manju Borah	-do-	-do-	
08.	Mr. Tejendra Chutia	-do-	-do-	
09.	Mr. Ramee Rajbensi	-do-	-do-	
10.	Mr. Bhawan Nath	-do-	-do-	
11.	Mr. Moni Patar	Cont. - B.S.S	Guard	
12.	Mr. Biswajeet Sinha	-do-	-do-	
13.	Mr. Sujay Kar	-do-	-do-	
14.	Mr. Kuton Das	-do-	-do-	



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**INTERNAL FIRE MOCKDRILL & EMERGENCY PROGRAMME**DATE: 22<sup>nd</sup> Agust'2020**THEME: MOCKDRILL ON FIRE**

CONDUCTED BY	: SAFETY DEPARTMENT
VENUE	: Old Weight Bridge back side colony
DATE	: 22.08.2020
TIME	: 4:40 PM – 6:05 PM
NUMBER OF ATTENDED PERSONS	: Eighteen [15] persons.
NAME OF INFORMER	: A person of resident colony
ALARM RAISED BY	: CCR security person (after got the information)
FIRE CAUGHT	: At around 4:41 PM
FIRE-FIGHTING & RESCUE TEAM REACHED	: At around 4:45 PM
TOTAL LIVING PERSONS	: In Fire caught room 03 persons.
PERSONS EVACUATED TO	: Safe zone within 4 minutes.
LAST PERSON EVACUATED	: At around 4:52 PM.
'FALLING THREE' PROCESS	: Head counting started during evacuation Simultaneously.
DECLARATION	: After getting everyone in counting as well as Extinguished the fire, the area was declared safe and total 03 persons were safely evacuated.

On 22.08.2020 at around 4:40PM to 6:05 PM at Residence colony a "Mock Drill on Fire" was held total 15 persons were involved.

Main Motto of the training programme was, in case of any fire emergency how to fight and extinguish the fire and how to handle the situation also how can evacuate the persons from fire area i.e. hot zone as well as practically shown the Drill to involved persons along with rescue procedure of casualties. During this program we had shown to participants about rescue procedure, if found senseless due to fire accidents then immediately how to rescue the injured persons (casualties) & also demonstrate the process in practical & theoretically.

Mock Drill - Suddenly Alarm was raised by CCR security person after got the information from Gate No-3. After reached the spot within 4 minutes workers were evacuated from Hot Zone to Cold zone i.e. safe zone, one person at around 4:52 PM he evacuated from there he was last men. During rescue simultaneously head counting also continued at safe zone by helping of 'Falling Three' procedures and finally observed total casualties were removed from Fire caught area.





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After got the information & heard of Alarm as per code of practice immediately Fire Fighting Tanker and Fire Fighting team had reached the spot place. According to procedure of Emergency Preparedness activate to Medical team also in ready position. After extinguished and controlled, Safety officer observed the area and taken the report of property lost & damage as well as after mitigation Safety officer had declared that it is now safe.

- 1) TURN OUT: Employees were taught how to fight with fire at the time of Emergency and given knowledge about evacuation process & First Aid knowledge also imparted them.
- 2) SAFE ZONE ASSEMBLY: Employees were taught about why and how gathered at assembling point also introduced "COLD / SAFE ZONE".
- 3) VICTIMS: Demonstrations for treating victims & shown to everyone. All the victims were treated & transported for Medical Aid to the nearby facility by the employees of MCL and they were aided by the Medical staff.
- 4) ATTENDANCE & CHECKING OF DAMAGE PROPERTY & LIVES LOST AND REPORTING. After the drill Safety officer with his team visited the area & estimated the damages.
- 5) COMMUNICATION: Safety officer makes the communication to concern as well as informed to unit head about the incident and for further action.

**CONCLUSION:** Training is important part for help to educate of employees for make potential and competent in this regards the Fire Mock drill was held which help to spread knowledge to our employees as well as participants also can understand and gain the knowledge about Fire mock drill, it was observed most of the workers activated while siren rang and every involved persons learned the lesson and became active.

  
Safety Officer  
DGM Safety



## Meghalaya Cements Ltd.

Vill. Thangskai, P.O. Lumshnong, East Jaintia Hills, Meghalaya-793210

## Attendance Sheet for IMS/EnMS/External Agency Training

Doc.No:MCL/ IMS &amp; EnMS/MR/G10

Rev No.:00

Date:

Training Details

Internal Fire Mockdrill &amp; Emergency programme

Agency

Safety department.

Duration

01 Hour 25 minutes.

(a) Date/s

From: 22-08-2020

To: -

(b) Time

From: 4:40 pm

To: 6:05 pm

Names of Trainers

1. B. Bhagvan Singh (D.G.M-safety) 2. P. Raj Kumar (safety officer)

Attendance Record:

3) Ganesh Ghila (A.F.O)

Sl	Employee Name	Department	Designation	Signature
01	Mr. Tejendra Chutia	HR&A	Security	[Signature]
02	Mr. Sujay Kar	Cont - B.S.S	Guard	[Signature]
03	Mr. Mani Patra	- Co -	- Co -	[Signature]
04	Mr. Montu Borah	HR&A	Security	[Signature]
05	Mr. Biswajit Sinha	Cont - B.S.S	Guard	[Signature]
06	Mr. Bhawan Nots	HR&A	Security	[Signature]
07	Mr. Kutan Das	Cont - B.S.S	Guard	[Signature]
08	Mr. Sudip Ch. Deb	- Co -	- Co -	[Signature]
09	Mr. Suman Kar	- Co -	- Co -	[Signature]
10	Mr. Ramdas Borski	HR&A	Security	[Signature]
11	Mr. Rohit Hazarika	Cont - B.S.S	Guard	[Signature]
12	Mr. Anil Lakkar	HR&A	Security	[Signature]
13	Mr. Binitchi Baruah	Cont - B.S.S	Guard	[Signature]
14	Mr. Satyajeet Sinha	- Co -	- Co -	[Signature]



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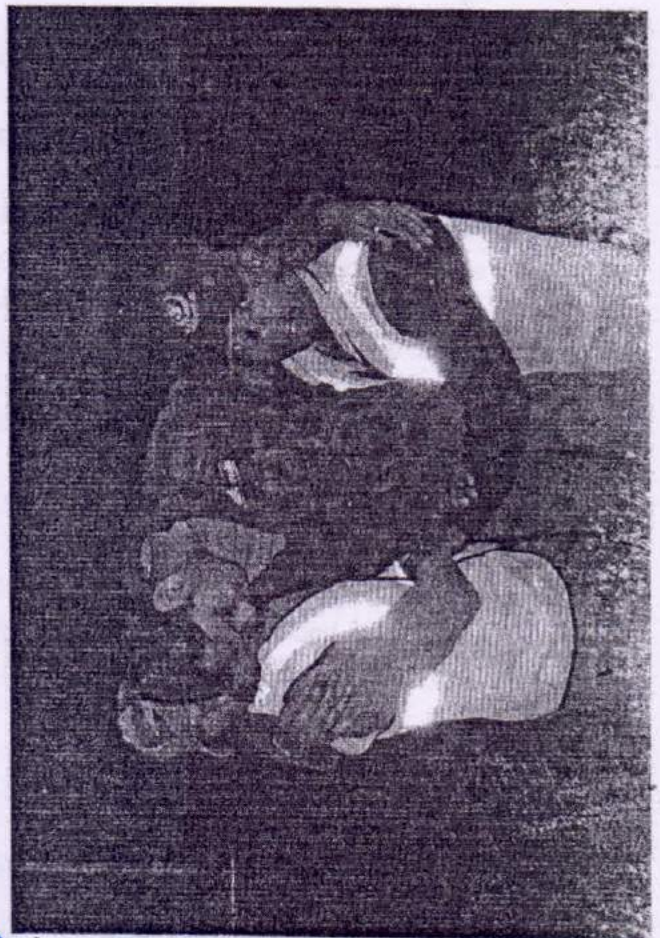
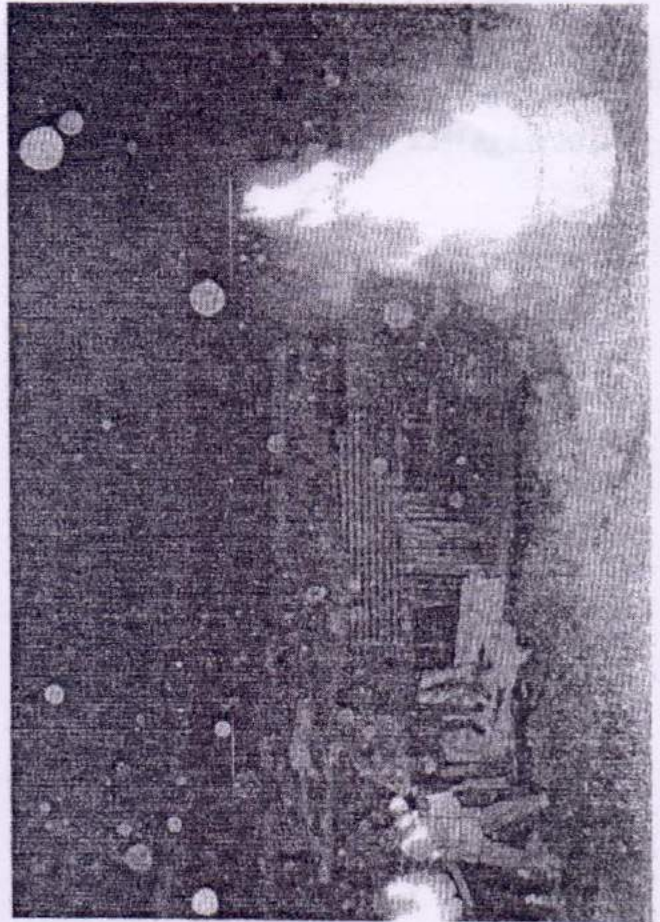
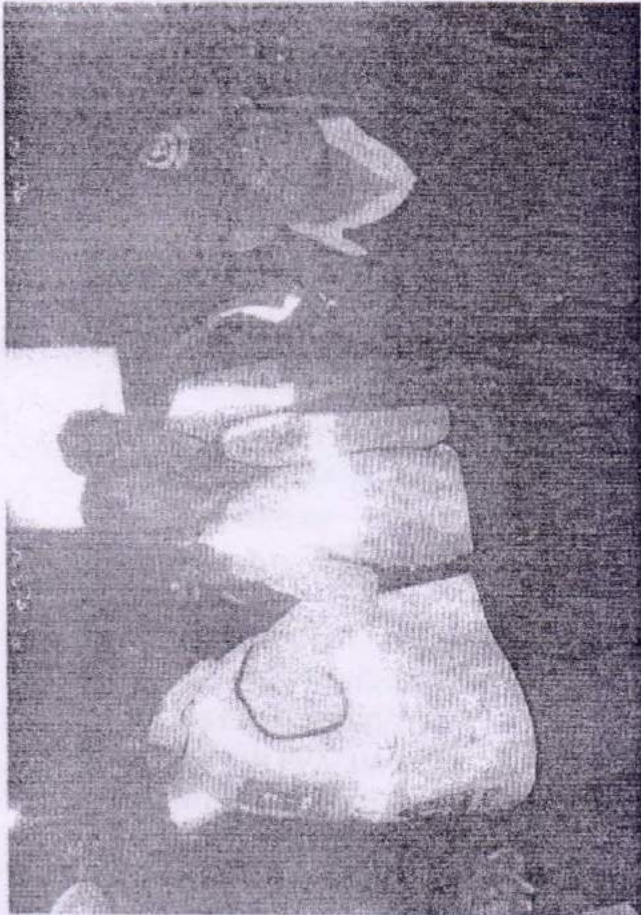
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## MEGHALAYA CEMENTS LIMITED

Six Monthly Reports: Stack Emission Report, 2020-2021

Chimney		Suspended Particulate Matter (PM):mg/Nm <sup>3</sup>							Concentration not to exceed, in mg/Nm <sup>3</sup>
		Apr' 2020	May' 2020	Jun' 2020	Jul' 2020	Aug' 2020	Sep' 2020	Avg.	
Pr. Crusher		17.29	22.03	16.64	20.32	12.93	13.54	17.125	30
Sec. Crusher		15.37	16.31	18.35	28.13	17.83	19.67	19.28	30
Coal mill 1		21.64	21.45	14.65	11.06	25.22	24.03	19.68	30
Coal mill 2		20.64	23.82	21.74	25.09	29.60	15.37	22.71	30
RABH 1	PM	21.60	22.29	17.66	18.48	15.54	15.64	18.54	30
	SO <sub>2</sub>	879.49	809.18	786.26	716.21	698.87	676.96	761.16	1000 (Based on pyritic sulphur presence in limestone)
	NO <sub>x</sub>	284.34	237.34	245.31	256.85	298.41	224.67	257.82	600
RABH 2	PM	19.64	17.70	21.34	19.72	18.81	19.26	19.41	30
	SO <sub>2</sub>	843.18	823.14	811.95	826.01	779.01	796.68	813.33	1000 (Based on pyritic sulphur presence in limestone)
	NO <sub>x</sub>	272.47	261.31	274.54	251.54	269.63	256.95	264.41	600
ESP 1		28.75	26.34	28.60	27.02	22.30	13.95	24.49	30
ESP 2		29.31	29.13	28.91	29.16	26.82	27.34	28.46	30
Cement Mill No-1		-	12.80	13.94	15.19	16.18	14.66	14.55	30
Cement Mill No-2		-	14.73	15.86	17.81	13.69	16.57	15.73	30
Packing House-1		-	24.71	22.97	11.56	10.72	13.76	16.74	30
Packing House-2		-	17.29	12.38	9.74	12.63	16.57	13.72	30
Prepared by Arti Singh		Checked & Verified by Dinesh Meshram							

Regd. Office and Works: Village Thangskai, P.O. Lumshnong, Dist Jaintia Hills, Meghalaya Pin-793200 Ph.:03655-278324/363/364  
Corporate Office: BE-77, Salt Lake City, Sector - 1, Kolkata - 700 064, Ph:033 23340666/0004, Fax: 03655 278327



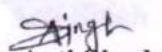


## MEGHALAYA CEMENTS LIMITED

Six Monthly Report: Ambient Air Quality Report, 2020-2021

Location		Ambient Air Quality (AAQ): $\mu\text{g}/\text{m}^3$							MoEF notification G.S.R 826(E), dated 16.11.2009, Concentration not to exceed,
		Apr' 2020	May' 2020	Jun' 2020	Jul' 2020	Aug' 2020	Sep' 2020	Avg.	
Near CCR Building	PM <sub>10</sub>	60.57	56.08	32.59	29.18	35.18	37.44	41.84	100
	PM <sub>2.5</sub>	49.02	39.18	23.61	21.67	24.69	26.94	30.85	60
	SO <sub>2</sub>	8.14	7.64	9.62	8.42	9.12	7.86	8.47	80
	NO <sub>x</sub>	15.16	14.02	12.34	11.84	13.81	13.62	13.46	80
Guest House	PM <sub>10</sub>	46.28	43.18	24.63	22.09	28.61	31.26	32.68	100
	PM <sub>2.5</sub>	31.21	32.34	18.26	17.05	21.68	23.58	24.02	60
	SO <sub>2</sub>	4.54	3.67	5.26	4.34	5.62	5.21	4.77	80
	NO <sub>x</sub>	10.02	9.07	8.85	9.12	8.26	9.12	9.07	80
Crusher	PM <sub>10</sub>	78.15	71.34	36.95	31.12	37.54	40.69	49.29	100
	PM <sub>2.5</sub>	48.01	49.24	29.14	25.03	29.41	31.05	35.31	60
	SO <sub>2</sub>	10.49	11.91	10.24	9.47	8.34	4.36	9.13	80
	NO <sub>x</sub>	11.38	12.38	13.17	12.34	11.61	11.51	12.06	80
DG House (Downwind direction)	PM <sub>10</sub>	65.43	62.40	27.41	25.52	31.95	34.82	41.25	100
	PM <sub>2.5</sub>	52.39	48.28	18.75	14.32	19.46	21.43	29.10	60
	SO <sub>2</sub>	6.81	7.34	8.14	9.69	8.14	4.52	7.44	80
	NO <sub>x</sub>	9.14	9.24	7.56	6.23	6.89	7.92	7.83	80

Prepared by

  
 Arti Singh

Checked &amp; Verified by

  
 Dinesh Meshram

Regd. Office and Works: Village Thangskai, P.O. Lumshnong, Dist Jaintia Hills, Meghalaya Pin-793200 Ph.:03655-278324/363/364  
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## MEGHALAYA CEMENTS LIMITED

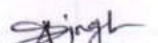
Six Monthly Report: Noise Intensity and Water Consumption, From Apr'2020 to Sep'2020

Location		Noise Intensity: dB (A) Leq							
		Apr' 2020	May' 2020	Jun' 2020	Jul' 2020	Aug' 2020	Sep' 2020	Avg.	Noise Level not to exceed, in dB (A) Leq
DG House	Day	72	71	73	69	71	72	71.33	75
	Night	64	59	61	58	57	62	60.17	70
Guest House	Day	46	53	56	52	57	52	52.67	75
	Night	42	40	45	43	42	41	42.17	70
Crusher	Day	70	69	71	73	72	70	70.83	75
	Night	49	58	63	58	66	63	59.50	70

NOTE : Day Time (6:00AM to 9:00PM), Night Time (9:00PM to 6:00AM)

Location		Water Consumption(Monthly) : M <sup>3</sup>							
		Apr' 2020	May' 2020	Jun' 2020	Jul' 2020	Aug' 2020	Sep' 2020	Avg. (m <sup>3</sup> /Day)	Water Consumption not exceed
Domestic		10142	12066	10777	10881	11194	12254	367.84	1236 m <sup>3</sup> /Day
Industrial		11187	10739	6998	6495	7765	17038	329.082	

Prepared by

  
 Arti Singh

Checked &amp; Verified by

  
 Dinesh Meshram





## MEGHALAYA CEMENTS LIMITED

Six Monthly Report (CPP): PM & AAQ Report, 2020-2021

Chimney : CPP		<u>Suspended Particulate Matter (PM) &amp; Gaseous Emission:mg/Nm<sup>3</sup></u>							
			Apr' 2020	May' 2020	Jun' 2020	Jul' 2020	Aug' 2020	Sep' 2020	Avg.
		PM	33.34	31.59	31.26	-	-	30.68	31.72
		SO <sub>2</sub>	502.15	527.39	564.39	-	-	596.49	547.60
		NO <sub>x</sub>	233.14	207.64	289.95	-	-	243.14	243.47
Location: CPP		<u>Ambient Air Quality (AAQ):µg/m<sup>3</sup></u>							
			Apr' 2020	May' 2020	Jun' 2020	Jul' 2020	Aug' 2020	Sep' 2020	Avg.
S↔E	PM <sub>10</sub>		63.24	62.61	67.89	81.22	79.09	84.61	73.11
	PM <sub>2.5</sub>		57.23	56.91	54.47	63.64	55.09	55.34	57.11
	SO <sub>2</sub>		13.64	10.47	14.34	13.81	15.24	11.84	13.22
	NO <sub>x</sub>		15.69	11.34	16.48	12.31	12.41	14.39	13.77
S↔W	PM <sub>10</sub>		55.34	56.71	63.22	64.57	71.39	72.64	63.98
	PM <sub>2.5</sub>		42.12	47.33	45.00	45.58	51.74	54.42	47.70
	SO <sub>2</sub>		11.34	13.52	12.48	13.62	11.94	14.26	12.86
	NO <sub>x</sub>		15.62	11.34	12.84	12.43	13.64	13.49	13.23
N↔E	PM <sub>10</sub>		65.32	61.28	63.49	62.30	61.49	60.89	62.46
	PM <sub>2.5</sub>		33.65	31.48	33.62	34.71	40.61	38.62	35.45
	SO <sub>2</sub>		10.69	11.35	13.52	11.82	12.37	10.64	11.73
	NO <sub>x</sub>		14.29	12.42	12.47	11.38	14.39	13.49	13.07
Prepared by Arti Singh		Checked & Verified by Dinesh Meshram							





## MEGHALAYA CEMENTS LIMITED

Location: CPP	<u>Water Consumption(Monthly) :M<sup>3</sup></u>							
	Apr' 2020	May' 2020	Jun' 2020	Jul' 2020	Aug' 2020	Sep' 2020	Avg. (m <sup>3</sup> /Day Cons.)	Water Consumpti on not exceed
	1,451	11,519	12,483	0	0	8,605	186.1093	2000 m <sup>3</sup> /Day

Prepared by

  
 Arti Singh

Checked &amp; Verified by

  
 Dinesh Meshram





## MEGHALAYA CEMENTS LIMITED

Location		Meteorological Data (Monthly Avg.)					
		Apr' 2020	May' 2020	Jun' 2020	Jul' 2020	Aug' 2020	Sep' 2020
Temperature	Min	-	14.52	15.56	17.27	18.29	18.05
	Max	-	30.94	30.53	28.44	33.10	33.68
	Avg.	-	22.64	21.10	21.07	23.54	22.37
Humidity	Min	-	20.60	37.35	54.67	24.35	49.36
	Max	-	91.33	91.29	91.35	91.33	91.35
	Avg.	-	74.71	89.07	90.32	86.19	89.46
Rain Fall	MTD	-	873	1732	2129.50	614.50	1214.50
	YTD	-	873	2605	4734.50	5349	6544.50



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# MEGHALAYA CEMENTS LIMITED

## Six Monthly Reports: Noise Intensity from Apr'2020 to Sep'2020

Location	Period	Noise Intensity: dB (A) Leq							
		Apr' 2020	May' 2020	Jun' 2020	Jul' 2020	Aug' 2020	Sep' 2020	Avg.	Noise Level not to exceed, in dB (A) Leq
TG Area	Day	72	71	70	69	72	70	70.67	75
	Night	67	68	67	69	68	69	68.00	70
Boiler Area	Day	70	71	72	70	72	71	71.00	75
	Night	66	64	65	66	67	61	64.83	70
Near ID Fan	Day	73	71	72	69	71	70	71.00	75
	Night	66	63	64	62	68	64	64.50	70
Near FD Fan	Day	70	73	72	69	72	70	71.00	75
	Night	66	65	63	67	66	65	65.33	70
Compressor Area	Day	71	72	68	69	71	73	70.66	75
	Night	67	66	64	68	65	64	65.66	70
Coal Crusher Area	Day	73	71	68	71	72	70	70.83	75
	Night	64	63	65	63	67	64	64.33	70

NOTE : Day Time (6:00AM to 9:00PM), Night Time (9:00PM to 6:00AM)

Prepared by

*Arti Singh*  
Arti Singh

*Dinesh*  
Checked & Verified by

Dinesh Meshram

Regd. Office and Works: Village Thangskai, P.O. Lumshnong, Dist Jaintia Hills, Meghalaya Pin-793200 Ph.:03655-278324/363/364  
Corporate Office: BE-77, Salt Lake City, Sector - 1, Kolkata - 700 064, Ph.:033 23340666/0004, Fax: 03655 278327



*Dinesh*



Date: 10.04.2020

SL NO	PARAMETER	UNIT	DM WATER		FEED WATER		CBD		SAT. STEAM		S.H. STEAM		CONDENSER		RAW WATER		COOLING WATER	
			NORM.	MEASURED	NORM.	MEASURED	NORM.	MEASURED	NORM.	MEASURED	NORM.	MEASURED	NORM.	MEASURED	NORM.	MEASURED	NORM.	MEASURED
1	pH		8.5 - 8.8		8.8 - 9.2		9.8-10.2	9.88	8.8-9.2		8.8-9.2		8.8-9.2					
2	Conductivity	µs/cm	5		10		200	28	5		5		5					
3	TDS	ppm	3		5		100	16.8	3		3		3					
4	Total hardness	ppm						Nil										
5	Ca Hardness	ppm						Nil										
6	Mg Hardness	ppm						Nil										
7	P- Alkalinity	ppm						7										
8	M- Alkalinity	ppm						12										
9	Silica	ppm	<0.02		<0.02		<5	0.20	<0.02		<0.02		<0.02					
10	Phosphate	ppm					<10	5.90										
11	Iron	ppm																
12	Hydrazine	ppm			<0.1													
13	Chloride	ppm																
14	FRC	ppm																
15	Turbidity	NTU																
16	Cr <sup>+6</sup>							0.022										



*Signature*

Annex - III



**MEGHALAYA CEMENTS LIMITED**

CAPTIVE POWER PLANT - 10 MW

**WATER ANALYSIS REPORT**

Date:- 11.05.2020

SL NO	PARAMETER	UNIT	DM WATER		FEED WATER		CBD		SAT. STEAM		S.H. STEAM		CONDENSER		RAW WATER		COOLING WATER	
			NORM.	MEAS URED	NORM.	MEAS URED	NORM.	MEAS URED	NORM.	MEAS URED	NORM.	MEAS URED	NORM.	MEAS URED	NORM.	MEAS URED	MEAS URED	MEAS URED
1	pH		8.5 - 8.8		8.8 - 9.2		9.8-10.2	10.04	8.8-9.2		8.8-9.2		8.8-9.2					
2	Conductivity	µs/cm	5		10		200	30	5		5		5					
3	TDS	ppm	3		5		100	18	3		3		3					
4	Total hardness	ppm						112										
5	Ca Hardness	ppm						112										
6	Mg Hardness	ppm						112										
7	P- Alkalinity	ppm						7										
8	M- Alkalinity	ppm						12										
9	Silica	ppm	<0.02		<0.02		<5	0.19	<0.02		<0.02		<0.02					
10	Phosphate	ppm					<10	4.75										
11	Iron	ppm																
12	Hydrazine	ppm			<0.1													
13	Chloride	ppm																
14	FRC	ppm																
15	Turbidity	NTU																
16	Cr+6							0.020										



*Signature*



Ann

Date: 13.06.2020

MEGHALAYA CEMENTS LIMITED  
CAPTIVE POWER PLANT - 10 MW  
WATER ANALYSIS REPORT



SL NO	PARAMETER	UNIT	DM WATER		FEED WATER		CBD		SAT. STEAM		SHL STEAM		CONDENSER		RAW WATER		COOLING WATER	
			NORM.	MEASURED	NORM.	MEASURED	NORM.	MEASURED	NORM.	MEASURED	NORM.	MEASURED	NORM.	MEASURED	NORM.	MEASURED	NORM.	MEASURED
1	pH		8.5 - 8.8		8.8 - 9.2		9.8 - 10.2	10.0	8.8 - 9.2		8.8 - 9.2		8.8 - 9.2					
2	Conductivity	µs/cm	5		10		200	30	5		5		5					
3	TDS	ppm	3		5		100	18	3		3		3					
4	Total hardness	ppm						Nil										
5	Ca Hardness	ppm						Nil										
6	Mg Hardness	ppm						Nil										
7	P- Alkalinity	ppm						7										
8	M- Alkalinity	ppm						12										
9	Silica	ppm	<0.02		<0.02		<5	1.16	<0.02		<0.02		<0.02					
10	Phosphate	ppm					<10	5.42										
11	Iron	ppm																
12	Hydrazine	ppm			<0.1													
13	Chloride	ppm																
14	FRC	ppm																
15	Turbidity	NTU																
16	Cr <sup>+6</sup>							0.018										



*Signature*



# MEGHALAYA CEMENTS LIMITED

CAPTIVE POWER PLANT - 10 MW

## WATER ANALYSIS REPORT

Date: 20.09.2020

SL NO	PARAMETER	UNIT	DM WATER		FEED WATER		CBO		SAT. STEAM		S.H. STEAM		CONDENSER		RAW WATER		COOLING WATER	
			NORM.	MEASURED	NORM.	MEASURED	NORM.	MEASURED	NORM.	MEASURED	NORM.	MEASURED	NORM.	MEASURED	NORM.	MEASURED	NORM.	MEASURED
1	pH		8.5 - 8.8		8.8 - 9.2		9.8-10.2	10.05	8.8-9.2		8.8-9.2		8.8-9.2					
2	Conductivity	µs/cm	5		10		200	112	5		5		5					
3	TDS	ppm	3		5		100	25.2	3		3		3					
4	Total hardness	ppm						1112										
5	Ca Hardness	ppm						1112										
6	Mg Hardness	ppm						1112										
7	P- Alkalinity	ppm						7										
8	M- Alkalinity	ppm						12										
9	Silica	ppm	<0.02		<0.02		<5	0.18	<0.02		<0.02		<0.02					
10	Phosphate	ppm					<10	6.98										
11	Iron	ppm																
12	Hydrazine	ppm			<0.1													
13	Chloride	ppm																
14	FRC	ppm																
15	Turbidity	NTU																
16	Cr <sup>+6</sup>							0.022										



*Signature*



Annexure: - IV

**YEAR WISE PLANTATION DETAILS**  
**MEGHALAYA CEMENTS LIMITED**

Date: - 09-10-2019

Year	Saplings planted (Nos.)	Area covered (Ha.)	Saplings Survive (Nos.)	Survival Rate	Remarks
2009-10	10630	1.063	6909	65.00%	Planted near Office Campus, Residential Blocks, Children Park, Guest House, Temple and Road side.
2010-11	4485	0.4485	3304	73.67%	CPP Campus,
2011-12	1425	0.1425	1271	89.19%	CPP Campus.
2012-13	1725	0.1725	1609	93.28%	CPP Campus, Lawn of residential blocks & Dispensary.
2013-14	1793	0.1293	1365	76.12%	Planted in the Topcem Public School Campus, Children Park & Approach Road side.
2014-15	7904	0.8	5532	69.99%	CPP Campus, Along Plant Boundary & Crusher Road side.
2015-16	12905	1.7	9290	71.99%	Approach Road side, CPP Campus, Along Plant Boundary & Dispensary Campus.
2016-17	52700	1.79	42149	79.98%	Along Plant Boundary & Behind Scrap Yard near Civil Office by 'Akira Miyawaki' Method.
2017-18	3820	0.545	3094	80.99%	Planted in the Topcem Public School Campus and CPP Campus & Interspaces in plant boundary and road side. Residential colonies,
2018-19	4750	0.27	3620	76.21%	Planted near crusher side & Interspaces in plant boundary and road side.
2019-20	1200	0.21	1026	85.50%	Planted near HSD pump side, DG House site & Interspaces in plant boundary and road side.
<b>Total</b>	<b>103337</b>	<b>7.2708</b>	<b>79169</b>	<b>76.61%</b>	

Note: - 1. We have naturally grown 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 20.22 hectares.

2. Another Three Blocks such as near main Gate no-1 (0.26 ha), behind Main Gate no-1 (1.33 ha) and in between Khliehjeri and South Khliehjeri mines (1.2 ha) = **2.79 Hectares.**

**Total Plantation as on 30.09.2019 = 23.01 hectares.**



*Final*



## SALARY DETAILS OF CLEANER FOR THE MONTH OF SEPT'20

S.N.	NAME	CODE NO.	SEX	D.O.J.	GRADE	DEPT	DESIG	SALARY
1	DISWONLANG BAREH	2260	FEMALE	01.04.2011	WKM	HR&A	CLEANER	12899
2	EDEN LALOO	3323	FEMALE	01.04.2011	WKM	HR&A	CLEANER	12155
3	PRAS BAREH	2261	FEMALE	01.04.2011	WKM	HR&A	CLEANER	15006
4	SABINA SYIH	2262	FEMALE	01.04.2011	WKM	HR&A	CLEANER	11010
5	KHALMISS SUTING	2263	FEMALE	01.04.2011	WKM	HR&A	CLEANER	12654
6	PHINIAL DHAR	2264	FEMALE	01.04.2011	WKM	HR&A	CLEANER	10849
7	TNGENMON SYIH	2266	FEMALE	01.04.2011	WKM	HR&A	CLEANER	LEFT
8	IBASHISHA KHARSATI	2267	FEMALE	01.04.2011	WKM	HR&A	CLEANER	11748
9	ESTAR PUSIEN	2268	FEMALE	01.04.2011	WKM	HR&A	CLEANER	11516
10	DIL PHAWA	2270	FEMALE	01.04.2011	WKM	HR&A	CLEANER	LEFT
11	PHIMAI SUTNGA	2271	FEMALE	01.04.2011	WKM	HR&A	CLEANER	12374
12	HILDIS SYRTI	2272	FEMALE	01.04.2011	WKM	HR&A	CLEANER	9052
13	LILY POHBAN	2273	FEMALE	01.04.2011	WKM	HR&A	CLEANER	9316
14	KYRSOI SYIH	2275	FEMALE	01.04.2011	WKM	HR&A	CLEANER	11644
15	PHYRNAI SYRTI	2276	FEMALE	01.04.2011	WKM	HR&A	CLEANER	9296
16	RIDAMON SUCHEN	2277	FEMALE	01.04.2011	WKM	HR&A	CLEANER	9416
17	JUBLI LAPASAM	2307	FEMALE	01.04.2011	WKM	HR&A	CLEANER	9583
18	METHILDA SYIEMLEH	2315	FEMALE	01.04.2011	WKM	HR&A	CLEANER	9000
19	SPELBHA SUCHIANG	2322	FEMALE	01.04.2011	WKM	HR&A	CLEANER	9193
20	WONDERFUL PALE	2330	FEMALE	01.04.2011	WKM	HR&A	CLEANER	9000
21	RANCHI PUSSEIN	2343	FEMALE	01.04.2011	WKM	HR&A	CLEANER	9000
22	SAPHA SIANGSHAI	2344	FEMALE	01.04.2011	WKM	HR&A	CLEANER	9000
23	EMLI DHAR	2345	FEMALE	01.04.2011	WKM	HR&A	CLEANER	9000
24	MARGRED KHONGLAM	2348	FEMALE	01.04.2011	WKM	HR&A	CLEANER	9000
25	TALITHA RYMBAI	2349	FEMALE	01.04.2011	WKM	HR&A	CLEANER	9000
26	SHANIAHLANG SHYLLA	2352	FEMALE	01.04.2011	WKM	HR&A	CLEANER	9000
27	PRIN SALAHE	2354	FEMALE	01.04.2011	WKM	HR&A	CLEANER	LEFT
28	CHEBARIMA BAREH	2362	FEMALE	02.06.2011	WKM	HR&A	CLEANER	9734
29	MINU RAI	2269	FEMALE	01.04.2011	WKM	HR&A	CLEANER	10569
30	NILDIS KHLUNG	3288	FEMALE	07.08.2012	WKM	HR&A	CLEANER	9000
31	LUTMON LAMARE	3030	FEMALE	03.08.2012	WKM	HR&A	CLEANER	9000
32	SHIBA SUMER	3249	FEMALE	01.05.2013	WKM	HR&A	CLEANER	9000
33	SHIDA SUTNGA	3316	FEMALE	01.07.2013	WKM	HR&A	CLEANER	9000
34	HEL PAJAT	3244	FEMALE	03.08.2013	WKM	HR&A	CLEANER	9000
35	PALDIS SUTING	3247	FEMALE	01.08.2013	WKM	HR&A	CLEANER	9000
36	SABITRI PUSEIN	3248	FEMALE	03.10.2013	WKM	HR&A	CLEANER	9000
37	RIMAIA SHADAP	4014	FEMALE	01.12.2014	WKM	HR&A	CLEANER	9000
38	KEEPHIM SYMPLI	5436	FEMALE	13.08.2018	WKM	HR&A	CLEANER	9000



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## SALARY DETAILS OF CLEANER FOR THE MONTH OF SEPT'20

S.N.	NAME	CODE NO.	D.O.J.	SEX	GRADE	DEPT	DESIG	SALARY
1	MILI ROY	2282	01.04.2011	FEMALE	WKM	HR&A	CLEANER	9000
2	BABLI ROY	2284	01.04.2011	FEMALE	WKM	HR&A	CLEANER	9000
3	MEENATI MALAKAR	2328	01.04.2011	FEMALE	WKM	HR&A	CLEANER	9000
4	BULTI ROY	2339	01.04.2011	FEMALE	WKM	HR&A	CLEANER	9000



*True*



# M/s MEGHALAYA CEMENTS LIMITED

## AMBIENT AIR QUALITY SURVEY

MCL/ENV/PB-AAQM/2020-21/01

Location of sampling	Forest Area (Near by plant boundry)
Date duration of sampling	29.06.2020 to 30.06.2020
Time Duration of sampling	48 hours
Weather	Rainy
Total Rain Fall, mm (On Date)	117.00 mm
Ambient Temperature (°C) :	Max. - 26.80°C, Min. - 18.68°C
Relative Humidity (%) :	Max. - 91.27%, Min. - 71.41%
Wind direction	→SE(115.13°)

Pollutants	Analysis Results			Permissible Limits for Rural Areas (By MSPCB 24 hrs Monitoring)
	Village Name & Air Quality Survey No.			
	A1. Near Wahiajer Village V/01/20-21	A2. Near Shiehrvphi Village V/02/20-21	A3.Near Thangskai Village V/03/20-21	
	48 hrs.	48 hrs	48 hrs	
Particulate Matters PM10 (µg/m³)	46.05	42.69	39.41	100
Particulate Matters PM2.5 (µg/m³)	32.19	27.84	25.63	60

Remarks : The Parameters analysed were found to be within the permissible Limits of Ambient Air Quality Standards (National) for Rural Areas as per EPA Notification GSR 176, April 1996.

Prepared By

*Arti Singh*  
(Arti Singh)

Checked &amp; Verified By

*Dinesh Meshram*  
(Dinesh Meshram)



*Dinesh*



**M/s MEGHALAYA CEMENTS LIMITED**  
**AMBIENT AIR QUALITY SURVEY**

MCL/ENV/PB-AAQM/2020-21/02

Location of sampling	Forest Area (Near by plant boundry)
Date duration of sampling	18.09.2020 to 19.09.2020
Time Duration of sampling	48 hours
Weather	Clear
Total Rain Fall, mm (On Date)	0.00 mm
Ambient Temperature (°C) :	Max. - 30.66°C, Min. - 21.15°C
Relative Humidity (%) :	Max. - 62.31%, Min. - 71.41%
Wind direction	→SW(213.19°)

Pollutants	Analysis Results			Permissible Limits for Rural Areas (By MSPCB 24 hrs Monitoring)
	Village Name & Air Quality Survey No.			
	A1. Near Wahiajer Village V/04/20-21	A2. Near Shiehrvphi Village V/05/20-21	A3.Near Thangskai Village V/06/20-21	
	48 hrs.	48 hrs	48 hrs	
Particulate Matters PM10 (µg/m³)	51.03	48.27	43.90	100
Particulate Matters PM2.5 (µg/m³)	36.81	33.51	29.94	60

Remarks : The Parameters analysed were found to be within the permissible Limits of Ambient Air Quality Standards (National) for Rural Areas as per EPA Notification GSR 176, April 1996.

Prepared By

*Arti Singh*  
(Arti Singh)

Checked &amp; Verified By

*Dinesh Meshram*  
(Dinesh Meshram)



*Dinesh*



**BIODIVERSITY INVENTORIZING AND CONSERVATION THROUGH ASSISTED  
REGENERATION OF RET SPECIES IN LIMESTONE MINING AREA OF  
MEGHALAYA CEMENTS LTD**

**PROJECT TEAM**

**Prof. D. Paul Principal, Investigator  
Dr. S. S. Chaturvedi, Co-investigator  
Paka I Yo Suja, Project Fellow**

**Department of Environmental Studies  
North Eastern Hill University, Shillong-793022**

**/ April, 2019**





### Executive Summary

Meghalaya Cement Ltd. (MCL) is located at Thangskai in District Jaintia Hills, Meghalaya. The area forms a part of the Shillong Plateau characterized by a rugged hilly topography. The geotectonic activities in the past have resulted in the development of deep gorges, valleys & steep cliffs, with several streams dissecting the hilly terrain. The elevation of plant area is 754msl. The plateau area around village Thangskai is dissected by numerous streams which drain the area and ultimately join the rivers Prang and Lubha. The company intended to increase the production capacity of its existing plant from 900 TPD clinker to 2,600 TPD clinker along with a 18 MW captive thermal power plant and captive limestone mines including 33.45ha ML. The plant is based on nearby limestone deposits in the villages of Moing, Kheliegari and New Kheliegari, and proposed mines in South Khlehjeri in Jaintia hills district of Meghalaya. The environmental clearance for the expansion was accorded by the State Environmental Impact Assessment Authority (SEIAA), Govt. of Meghalaya, wherein, it was stipulated that an area not less than 2 ha within the green belt of the project area would be year marked to construct a green house. It was also stipulated that a conceptual plan for raising threatened species would be prepared in consultation with a reputed institution.

The Department of Environmental Studies, North Eastern Hill University (NEHU) was entrusted to undertake the stipulations prescribe by SEIAA through a 3 year project entitled "Biodiversity inventorization and conservation through assisted regeneration of RET species in Limestone mining area Meghalaya Cements Ltd."

An extensive survey of the flora & fauna of the project area was undertaken. Line transect and quadrat sampling revealed that the flora of the project area comprised of 54 tree species and 50 species of shrub, herb and climber and species. A questionnaire survey undertaken for fauna documented the presence of 29 animal species comprising Amphibians, Reptiles, Aves and Mammals. However, camera traps failed to document the presence of animals in the project area. In consonance with the stipulations of SEIAA, several species of herbaceous plants and orchid species were collected for establishment in an installed green house and subsequent planting out





in the designated plot/s in the project area. Further, seedlings of other indigenous tree species and fruit bearing species have been raised in the green house and/ or procured from the Forest department for planting out in designated plots. The company has been advised to utilize the green house for continuous raising of recommended species which are to be planted out in vacant locations within the project area.

For the eco-development of the project area, it is prescribed that mine spoils are properly stacked and managed with mulches to discourage erosive losses. It is also advised that roads within the project area should have avenue plantations so as to mitigate aerial dispersal of dust due to movement of heavy vehicular traffic within the project area. The mined pits should be appropriately managed for rain water and runoff water harvesting and also as ground water recharge pits. Barren and or open areas should be provided with plant cover through green house raised seedlings of recommended tree and fruit bearing species so as to encourage visitation of fauna.





# MEGHALAYA CEMENTS LIMITED

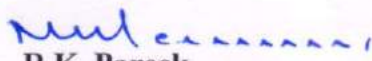
Village –Thangskai, P.O.-Lumshnong, District- East Jaintia Hills,  
Meghalaya, PIN – 793210.

The capital expenditure & revenue expenditure incurred on an environmental protection equipments / Machineries.

From 01<sup>st</sup> April' 2020 to 30<sup>th</sup> September'2020.

Sl.No	Type	Heading	Amount in Rs.
1.	Revenue	Bag Filters ( Cement mill, Raw mill, Coal mill & Crusher)	1,030,337.64
2.		ESP	4,811,427.47
3.		RABH	294,559.49
4.		Sewage Treatment Plant & Neutralization Pit	6,475.65
5.		SOX Reduction System	46,479.35
6.		RO Treatment Plant	31,430.02
Gross Total			Rs. 6,220,709.62

For MEGHALA CEMENTS LIMITED

  
R.K. Pareek  
(President)





# MEGHALAYA CEMENTS LIMITED

Village –Thangskai, P.O.-Lumshnong, District- East Jaintia Hills,  
Meghalaya, PIN – 793210.

Expenditure Incurred for Socio-Economic Development under CSR activities  
From 01<sup>st</sup> April' 2020 to 30<sup>th</sup> September'2020.

Sl.No	Heading	Amount in Rs.
1.	Emphasis on Education	132,000.000
2.	Encouraging/Felicitation program for Students.	-
3.	Polio Immunization Camps, family planning, etc.	581,591.00
4.	Infrastructure development of Hospitals / Schools	133,525.00
5.	Cement Distribution Programme.	2,385,967.00
6.	Plant Distribution programme	73,100.00
7.	Donation to Churches, Road & House Repairing etc.	33,000.00
8.	Drinking water supplying scheme.	126,694.00
9.	Village development funds.	375,000.00
10.	Corona Pandemic	929,264.00
<b>Gross Total</b>		<b>4,770,141.00</b>



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For MEGHALA CEMENTS LIMITED

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