



MEGHALAYA CEMENTS LIMITED

CIN- U26942ML2003PLC007125



Ref: MCL/ENV/MoEF&CC/Compliance-II/2025-26/13

Date: 23/06/2025

To,

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

Sub: - Submission of half yearly compliance report for 2600 TPD cements plant for the period of October'2024 to March'2025.

Dear Sir,

We are hereby furnishing the half yearly compliance report (hard copy and soft copy) for the period from October'2025 to March'2025 on Environmental Stipulation for Expansion of Cement Plant (from 900 TPD to 2600 TPD) along with 10 MW 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

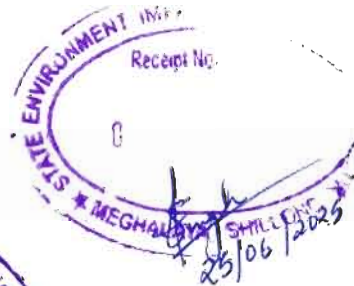
[Signature]
(Authorized Signatory)



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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Registered Office :
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Half yearly Compliance Report (for the period October'2024 to march'2025) 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 25th March 2009.

Sl. No. as per letter dated 25.03.2009 of State Environment Impact Assessment Authority

Compliance Status

A. 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.	<p>Complied with.</p> <p>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. Also, Monthly report for the Analysis of PM, Sox, Nox and Hg being submitted to MsPCB. Tested data for Captive Power Plant Stack is mentioned below for the period of October'2024 to March'2025:-</p> <table><tr><td></td><td>Oct' 2024</td><td>Nov' 2024</td><td>Dec' 2024</td><td>Jan' 2025</td><td>Feb' 2025</td><td>Mar' 2025</td><td>Avg.</td></tr><tr><td>PM</td><td>44</td><td>42</td><td>44</td><td>44</td><td>44</td><td>43</td><td>43.50</td></tr><tr><td>SO₂</td><td>408</td><td>416</td><td>422</td><td>320</td><td>546</td><td>409</td><td>420.2</td></tr><tr><td>NOx</td><td>178</td><td>194</td><td>187</td><td>164</td><td>209</td><td>194</td><td>187.7</td></tr><tr><td>Hg</td><td>-</td><td>-</td><td>-</td><td>0.015</td><td>0.001</td><td>-</td><td>0.008</td></tr></table>		Oct' 2024	Nov' 2024	Dec' 2024	Jan' 2025	Feb' 2025	Mar' 2025	Avg.	PM	44	42	44	44	44	43	43.50	SO ₂	408	416	422	320	546	409	420.2	NOx	178	194	187	164	209	194	187.7	Hg	-	-	-	0.015	0.001	-	0.008
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(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	<p>Complied with.</p> <p>ESP is provided for thermal power plant to control the emission from Captive power plant and it is working effectively. Monthly report for the Analysis of PM is being submitted to MsPCB. Tested data for Captive Power Plant Stack is mentioned below for the period of October'2024 to March'2025.</p> <table><tr><td></td><td>Oct' 2024</td><td>Nov' 2024</td><td>Dec' 2024</td><td>Jan' 2025</td><td>Feb' 2025</td><td>Mar' 2025</td><td>Avg.</td></tr><tr><td>PM</td><td>44</td><td>42</td><td>44</td><td>44</td><td>44</td><td>43</td><td>43.5</td></tr></table>		Oct' 2024	Nov' 2024	Dec' 2024	Jan' 2025	Feb' 2025	Mar' 2025	Avg.	PM	44	42	44	44	44	43	43.5																								
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(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.	<p>Complied with.</p> <p>Provision has been made for lime feeding in boiler through over bed feeding system to reduce the formation of So₂.</p> <p>Project proponent is using limestone for above purpose, as per requirement of the process and it helps neutralize the impact of sulphur in coal. Monthly report for the Analysis of Sox is being submitted to MsPCB. Tested data for Captive Power Plant Stack is mentioned below for the period of October'2024 to March'2025.</p>																																								



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(iv)	Space provision shall be made for Flue Gas De-sulphurisation [FGD] unit of requisite efficiency for removal of SO2 when required at a later stage.	<p>Complied with. Space provided for Flue Gas De-sulphurisation [FGD] unit of requisite efficiency for removal of SO2 when required at a later stage. The Project proponents are using CIL Auction coal in Captive power plant. The Company has maintaining SO2 in flue gas within the prescribed range. Also, provision for lime feeding in boiler through over bed feeding system has been made to reduce the formation of SO2. Monthly report for the Analysis of Sox is being submitted to MsPCB. Tested data for Captive Power Plant Stack is mentioned below for the period of October'2024 to March'2025.</p> <table><tr><td></td><td>Oct' 2024</td><td>Nov' 2024</td><td>Dec' 2024</td><td>Jan' 2025</td><td>Feb' 2025</td><td>Mar' 2025</td><td>Avg.</td></tr><tr><td>SO₂</td><td>408</td><td>416</td><td>422</td><td>320</td><td>546</td><td>409</td><td>420</td></tr></table>		Oct' 2024	Nov' 2024	Dec' 2024	Jan' 2025	Feb' 2025	Mar' 2025	Avg.	SO ₂	408	416	422	320	546	409	420
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(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.	<p>Complied with. 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 through Mobile tanker fitted with sprinklers. Permanent Water Sprinklers has already installed along the haul road in the CPP, Coal storage area and other vulnerable area to reduce the fugitive emission which is working efficiently.</p>																
(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.	<p>Complied with. Water requirement for the Thermal Power Plant is meeting from Chynryntong-Umparti River. During rainy season PP is using Seepage Rain water for operation of Captive Power Plant. No extraction of ground water is being done by the PP for any activities. Water consumption for Captive Power Plant is mentioned below for the period of October'2024 to March'2025.</p> <table><tr><td>Oct' 2024</td><td>Nov' 2024</td><td>Dec' 2024</td><td>Jan' 2025</td><td>Feb' 2025</td><td>Mar' 2025</td><td>Avg.</td></tr><tr><td>15734</td><td>16833</td><td>16663</td><td>17164</td><td>16212</td><td>18961</td><td>475.6</td></tr></table>	Oct' 2024	Nov' 2024	Dec' 2024	Jan' 2025	Feb' 2025	Mar' 2025	Avg.	15734	16833	16663	17164	16212	18961	475.6		
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(vii)	Closed Cycle Cooling system with induced draft cooling towers shall be provided in the Thermal Power Plant.	Complied with. Closed cycle cooling system has been adopted and recirculation of cooling water is being practiced. Induced draft cooling towers are a type of mechanical draft tower that features with fans. These fans will be located atop the tower, drawing air upwards against the downward flow of water. The water is passed through it and system is working efficiently.
(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.	Complied with. 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. Also, Fire Hydrants has installed at coal stock yard and other vulnerable areas of the Captive Power Plant. Regular safety training is being provided to the workers. The fire protection equipment's 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 as an Annexure-I Also, Summary sheet of periodic testing for Fire protection equipment and machinery is attached as an Annexure-II
(viii) (a)	The PP is prohibited to use high sulphur local coal in its thermal power plant.	Complied with. PP is not using high sulphur local coal in its thermal power plant. The Project proponents are using CIL Auction coal in Captive 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.	Complied with. The PP has installed Sewage Treatment Plant with capacity 100 KLD for treatment of domestic effluents and Effluents Treatment Plant with capacity 25 KLD for treatment of Effluents water generated from Automobile workshop. 100% treatment is being done and treated water is being utilized in Dust suppression, Green belt development and Vehicle washing in or around the plant and colony. No waste water is discharge outside the plant boundary.



(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.	<p>Complied with.</p> <p>The PP has upgraded the existing system of Rain water harvesting. Scheme for rain water recharging pit has been made, the rain water collection and reuse also being practiced to fulfill the requirement of cooling water as well as drinking purpose during monsoon period. Preparation & implementation of Rainwater Harvesting Scheme has been done and plan has submitted to Central Ground Water Board, Guwahati vide Letter No. - MCL/ENV/CGWB/Comm./2022-23/31, dated: 07.11.2022. Further, CGWB-Guwahati has issued Report and give their recommendation. MCL has taken action on it and made appropriate no. of Rain water harvesting tanks and submitted Action Taken Report to Regional Director, CGWB vide letter no. MCL/ENV/CGWB/Comm./2024-24/12, Dated-08.06.2024. Inspection done for verification of Action Taken Report.</p> <p>Action taken report is attached as an Annexure-III.</p>
(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.	<p>Complied with.</p> <p>Permission for drawing of water has been obtained from Executive Engineer (Irrigation), Jaintia, Hills Division Jowai; vide letter no.AID (J) 223/2007-2008/4456, Dated Jowai 24th March 2008 for the required quantity 0.04 Cumecs from Chynryntong-Umparti river. Also, PP has obtained NOC from Office of the Deputy Commissioner Jaintia Hills District vide letter no. GEN/MCL-4/81/140-A, dated 21st Nov 2007, Office of the DolloiElakaNarpuh, Jaintia Hills District, dated 03 Sept 2007 and Office of the Jaintia Hills Autonomous District Council, Jowai vide letter no. JHADC/FOR/22/04/1318, dated 05th June 2007. Copy of the all NOC are attached as Annexure- IV</p>
(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.	<p>Complied with.</p> <p>Noise level in TTP premises is analyzed periodically and it is being maintained under limit. Necessary PPEs like earplugs /ear muffs, etc. are being provided to those employees who engaged in noisy areas such as turbine area, air compressors, etc. We have fully automated system for operation of turbine, so the exposure of employee to the high noise is very less. The PP has provided an acoustic covered screw air compressor to maintain the noise level within the permissible limit i.e 75 dB. The regular routine testing of the machinery is being carried out as per the manufacturers' manuals</p> <p>Periodically examination of employees is being done</p>




		<p>to maintain audiometric record and for treatment for any hearing loss apart from exercising option of shifting to non-noisy/less noisy areas.</p> <p>Analysis report for Noise level attached as Annexure-V</p> <p>List of the employees who have examined audiometric record are mentioned as an Annexure-VI</p>																																																									
(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.	<p>Complied with.</p> <p>The project proponent has provided acoustic hoods in the Thermal Power Plant. Also, Earmuff/Ear Plug has been provided to the workers who engaged in highly noisy area and regularly observed by Safety Officer. Noise pollution has regularly monitored by Environment department and Detailed report attached as Annexure-V</p>																																																									
(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.	<p>Complied with.</p> <p>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.</p>																																																									
(xv)	The stack emission from various sources shall not exceed 50 mg/Nm ³	<p>Complied with.</p> <p>The stack emission from various sources has monitored regularly for PM, Sox and Nox. Total 13 stack are existing in plant including Captive Power Plant. Monitoring of Hg being done on regular basis. All the parameters are maintained within permissible limits. Details of the Stacks as mentioned below: -</p> <table border="1"> <thead> <tr> <th>Chimney</th><th>Avg. of Oct'24 to Mar'25</th><th>Permissible Limits (mg/Nm³)</th></tr> </thead> <tbody> <tr><td>Pr. Crusher</td><td>17</td><td>30</td></tr> <tr><td>Sec. Crusher</td><td>19.33</td><td>30</td></tr> <tr><td>Coal mill 1</td><td>23.66</td><td>30</td></tr> <tr><td>Coal mill 2</td><td>21.17</td><td>30</td></tr> <tr><td>RABH-1 (PM)</td><td>22</td><td>30</td></tr> <tr><td>RABH-1 (Sox)</td><td>636.16</td><td>1000</td></tr> <tr><td>RABH-1 (Nox)</td><td>312.16</td><td>600</td></tr> <tr><td>RABH-2 (PM)</td><td>22</td><td>30</td></tr> <tr><td>RABH-2 (Sox)</td><td>636</td><td>1000</td></tr> <tr><td>RABH-2 (Nox)</td><td>299.66</td><td>600</td></tr> <tr><td>ESP 1</td><td>26.50</td><td>30</td></tr> <tr><td>ESP 2</td><td>27</td><td>30</td></tr> <tr><td>Cement Mill No-1</td><td>24.50</td><td>30</td></tr> <tr><td>Cement Mill No-2</td><td>23.83</td><td>30</td></tr> <tr><td>Packing House-1</td><td>24.17</td><td>30</td></tr> <tr><td>Packing House-2</td><td>23.17</td><td>30</td></tr> <tr><td>CPP (PM)</td><td>43.50</td><td>50</td></tr> <tr><td>CPP (Sox)</td><td>420.16</td><td>600</td></tr> </tbody> </table>	Chimney	Avg. of Oct'24 to Mar'25	Permissible Limits (mg/Nm ³)	Pr. Crusher	17	30	Sec. Crusher	19.33	30	Coal mill 1	23.66	30	Coal mill 2	21.17	30	RABH-1 (PM)	22	30	RABH-1 (Sox)	636.16	1000	RABH-1 (Nox)	312.16	600	RABH-2 (PM)	22	30	RABH-2 (Sox)	636	1000	RABH-2 (Nox)	299.66	600	ESP 1	26.50	30	ESP 2	27	30	Cement Mill No-1	24.50	30	Cement Mill No-2	23.83	30	Packing House-1	24.17	30	Packing House-2	23.17	30	CPP (PM)	43.50	50	CPP (Sox)	420.16	600
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(xvi)	The project proponent shall get the optimum functioning of the environmental protection equipment certified by a technical institution of repute.	<p>Complied with.</p> <p>Performance assessment has been conducted as per as the norms by the NCCBM, New Delhi. The test results are submitted earlier for environmental protection equipment. Further the project proponent is continuously maintaining the pollution control devices to maintain the efficiency. Regular maintenance of Pollution Control Device has taken by PP.</p>																					
(xvii)	Bag House/Filters shall be provided to control the fugitive emission during loading and unloading of raw materials/intermediate and finished products.	<p>Complied with.</p> <p>Nuisance bag filters, Bag House and ESP has been provided to control fugitive emission at Crusher, Raw Mill, Coal Mill, Kiln, Cement mill & Packing Plant. Regular maintenance is being done to maintain the efficiency of the Bag House/Filters and other Pollution control device. Fugitive emission are being monitored regularly: -</p> <table> <tr> <th>Location</th><th>Avg. of Oct'24 to Mar'25</th><th>As per standard limit (µg/m³)</th></tr> <tr> <td>Lime stone Storage Area</td><td>1420.16</td><td>5000</td></tr> <tr> <td>Coal Storage Area</td><td>1220.50</td><td>2000</td></tr> <tr> <td>Clinker Loading Area</td><td>2171.50</td><td>5000</td></tr> <tr> <td>Cement Loading Area</td><td>2257.16</td><td>5000</td></tr> <tr> <td>Coal Storage Area (CPP)</td><td>1037.16</td><td>2000</td></tr> <tr> <td>Fly Ash Silo Area (CPP)</td><td>1102.83</td><td>2000</td></tr> </table> <p>Detailed report is attached as Annexure-VII</p>	Location	Avg. of Oct'24 to Mar'25	As per standard limit (µg/m ³)	Lime stone Storage Area	1420.16	5000	Coal Storage Area	1220.50	2000	Clinker Loading Area	2171.50	5000	Cement Loading Area	2257.16	5000	Coal Storage Area (CPP)	1037.16	2000	Fly Ash Silo Area (CPP)	1102.83	2000
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(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.	<p>Complied with.</p> <p>All the raw materials except limestone are being stored in covered shed. We have constructed an additional Coal Shed with impervious flooring, fire hydrants and permanent water sprinkling facilities. Coal is being stored inside the permanent shed.</p>																					
(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).	<p>Agreed for compliance.</p> <p>We have constructed an additional Coal Shed with impervious flooring, fire hydrants and permanent water sprinkling facilities. Coal is being stacked on impervious cemented floor inside the permanent</p>																					



		shedopen on all sides to prevent Acid Mine Drain (AMD).																														
(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.	<p>Agreed for compliance.</p> <p>The Project proponent has constructed garland drain along with Acid Mine Drains Neutralizing tanks in consultation with and approved by the state pollution control board. PP has adopted approval for the Neutralizing Tank from Meghalaya State Pollution Control Board vide letter no. MPCB/TB-CON-143-2007/2023-24/24, Dated Shillong 26th February 2024. PP has submitted Analysis report for checking of effectiveness of Neutralizing Tank.</p> <p>The acknowledged copy of Approval of Neutralizing Tank and Analysis report is attached as an Annexure-VIII.</p>																														
(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.	<p>Agreed for compliance.</p> <p>The PP has maintaining No direct discharge of AMD into any drains/natural drains. Proper treatment of AMD is being done by the Project Proponent in the Neutralization Tank before releasing the water to the drain/natural drain. PP has adopted approval for the Neutralizing Tank from Meghalaya State Pollution Control Board vide letter no. MPCB/TB-CON-143-2007/2023-24/24, Dated Shillong 26th February 2024. PP has submitted Analysis report for checking of effectiveness of Neutralizing Tank to MeSEB.</p> <p>The acknowledged copy of Approval of Neutralizing Tank and Analysis report is attached as an Annexure-VIII.</p>																														
(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 ground level concentrations are anticipated.	<p>Complied with.</p> <p>The testing of ambient air quality is being done at four location including downwind direction and where maximum ground level concentrations are anticipated. The testing parameters are PM₁₀, PM_{2.5}, SO₂, NO_x. One online ambient air quality monitoring station installed near Plant entrance gate in consultation with the Meghalaya State Pollution Control Board.</p> <table><tr><th>Location</th><th>Parameters</th><th>Avg. of Oct'24 to Mar'25</th><th>Permissible limits</th></tr><tr><td rowspan="4">Near CCR Building</td><td>PM₁₀</td><td>70.98</td><td>100</td></tr><tr><td>PM_{2.5}</td><td>40.87</td><td>60</td></tr><tr><td>SO₂</td><td>6.76</td><td>80</td></tr><tr><td>NO_x</td><td>7.86</td><td>80</td></tr><tr><td rowspan="4">Guest House</td><td>PM₁₀</td><td>67.15</td><td>100</td></tr><tr><td>PM_{2.5}</td><td>36.56</td><td>60</td></tr><tr><td>SO₂</td><td>7.33</td><td>80</td></tr><tr><td>NO_x</td><td>8.63</td><td>80</td></tr></table>	Location	Parameters	Avg. of Oct'24 to Mar'25	Permissible limits	Near CCR Building	PM ₁₀	70.98	100	PM _{2.5}	40.87	60	SO ₂	6.76	80	NO _x	7.86	80	Guest House	PM ₁₀	67.15	100	PM _{2.5}	36.56	60	SO ₂	7.33	80	NO _x	8.63	80
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		<table><tr><td rowspan="4">Crusher</td><td>PM 10</td><td>77.10</td><td>100</td></tr><tr><td>PM 2.5</td><td>43.76</td><td>60</td></tr><tr><td>SO2</td><td>8.73</td><td>80</td></tr><tr><td>NOx</td><td>9.06</td><td>80</td></tr><tr><td rowspan="4">DG House (Downwind direction)</td><td>PM 10</td><td>58.82</td><td>100</td></tr><tr><td>PM 2.5</td><td>33.33</td><td>60</td></tr><tr><td>SO2</td><td>7.67</td><td>80</td></tr><tr><td>NOx</td><td>8.97</td><td>80</td></tr></table> <p>Detailed report attached as an Annexure-V</p>	Crusher	PM 10	77.10	100	PM 2.5	43.76	60	SO2	8.73	80	NOx	9.06	80	DG House (Downwind direction)	PM 10	58.82	100	PM 2.5	33.33	60	SO2	7.67	80	NOx	8.97	80
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(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.	<p>Complied.</p> <p>Report on emission levels are being submitted to Meghalaya State Pollution Control Board. Report attached as Annexure-V</p> <p>Chromium (VI) level in nearby surface water bodies flowing in the eastern site of the Plant (i.eUmparti River) are is being monitored on monthly basis and submitted to MSPCB with Half yearly compliance. The results of Chromium (VI) for average of the Oct'24-Mar'25are 0.0269 mg/t for Upstream & 0.0247 for Downstream.</p> <p>Detailed report of Chromium (VI) for Surface water is attached as an Annexure-IX.</p>																										
(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.	<p>Complied.</p> <p>Total water requirement will not exceed 2000cum/day including TPP. The PP has installed the Sewage Treatment Plant to treat the domestic sewage water with the help of suitable and appropriate technology. 100% treated water is being utilized for green belt development and dust suppression.Also, Effluent Treatment Plant (ETP) has installed to treat the effluent water generated from Automobile workshop. 100% treated water is being utilized for washing of HEMM vehicle. No waste water is being discharged outside the premises and zero discharge is maintained by the company. There is no surface runoff from the factory premises either reach/contaminate Um-lunar River or any other stream flowing near the industrial location. Water consumption details mentioned here: -</p> <table><tr><th>Location</th><th>Avg. of Oct'24 to Mar'25</th><th>Water Consumption not exceed</th></tr><tr><td>Domestic consumption</td><td>181.54</td><td rowspan="4">2000 m³/Day</td></tr><tr><td>Cement Plant Industrial consumption</td><td>471.54</td></tr><tr><td>WHRS Industrial consumption</td><td>256.19</td></tr><tr><td>Captive Power</td><td>474.64</td></tr></table>	Location	Avg. of Oct'24 to Mar'25	Water Consumption not exceed	Domestic consumption	181.54	2000 m ³ /Day	Cement Plant Industrial consumption	471.54	WHRS Industrial consumption	256.19	Captive Power	474.64														
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		Plant consumption		
		Details of Water consumption attached in Annexure-V		
(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.	Complied with. The project proponent has made an Automated mechanical arrangement for feeding of high calorific value hazardous waste in the kiln 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 vide letter no. MPCB/TB-86(2016)/2019-2022/35, dated 17 th Dec 2019 for Plastic waste, Scrap Tyre and Wood chips.		
(xxiii)	The project proponent shall transport raw materials and industrial products through covered means.	Complied with. 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 Hills District.	Complied with. Development of Green belt had been started in the Year 2009 and 100% of the project area (i.e. 20.22 Ha) 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. As per amendment of EC vide letter no. SEIAA/PROJECT-2/2007/8/1818 dated Shillong, the 30th September, 2020 (Area 59.269 to 52.949). Total plantation including project area and around the project area is 19.9253 Ha. Details of the Plantation is attached as an Annexure-X		
(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.	Complied with. The Health Care Centre is functioning under qualified Doctor, Nurses and staffs. With all emergency medicine and ambulance to meet up the emergency. Complied with. Proponent has appointed Competent Occupational Health Specialist including Medical Officer, Dentist, Nurse, Compounder, Lab Technician & Dresser for the medical examination of the workers engaged in the project. Occupational Health check-ups schedule is being followed as per the guideline and necessary remedial/ preventive measures are taken. The Recommendations of National Institute for ensuring a		



		<p>good occupational environment for mine workers are implemented.</p> <p>The following equipment's has setup in Occupational Health for examination of workers: - ECG Machine, Audiometry, Spirometry (PFT), Cardiac Monitor, Oxygen Cylinder, Suction Machine, Nebulizer machine, Semi auto Analyzer, Micro Scope, Incubator, Centrifuge machine, Haemometer, Accucheck machine, Blood cell counter, Homocytometer etc. Company has 02 (Two) Ambulance in which one is Advanced life support with Cardiac monitor & Defibrillator and another one is only with Oxygen support. The prevention measures for burns, material, and provision of anti-snake venom including all other paramedical safeguards are already implemented to the workers for mining activities. List of Occupational Health check-ups of employees working in company and details of Occupational health center including Medical staff, Equipment's and testing facilities attached as an Annexure-VI&Annexure-XI.</p>
(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.	<p>Complied with.</p> <p>The salaries of Cleaners are being reviewed on the yearly basis. Total 63 Cleaners are working and details of salary is attached as Annexure- XII</p>
(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.	<p>Complied with.</p> <p>An air quality dispersion modelling study has been carried out to assess the contribution by the existing stacks of the cement plant in the present ambient air quality of the area within 10 km radius of the project. The storage areas of the various raw materials and fuels are covered and hence, the fugitive airborne dust due to wind erosion has not been considered. This air quality dispersion modeling study has been carried out by M/s Min Mec Consultancy Pvt. Ltd., New Delhi (Accredited by NABET, QCI vide letter no. NABET/EIA/2225/IA 0095 valid till 29.03.2025). The conclusion of the report speaks that the maximum Ground Level Concentration does not have a significant impact on environment/ ambient air quality on sensitive receptors. Copy of the report has already submitted to IRO-Shillong vide letter no. - MCL/ENV/MoEF&CC/Compliance-I/2022-23/35, dated 10th Dec'2022.</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 encouraged in the process.</p>	<p>Complied with.</p> <p>The Project proponent ensures that no unscientific extraction of limestone is encouraged in the process. The best mining practices are being adopted by the Project Proponent for extraction of limestone. Systematic opencast mechanized mining method being implemented to win the limestone minerals which have involved deep hole drilling and blasting, excavator and blasting by slurry explosive. Loading and hauling from the mine face being done mechanically by excavators and tipper combination. The method involves the removal of huge quantities of overburden, dumping, and backfilling of the excavated area. In the mining area adequate number of check dams, retaining walls / structures, garland drains and settling ponds are provided to arrest the wash-off with rain water in catchment area. All necessary approval taken from the Authority and NOC from nearby villagers. The mining is being done in day light time only and necessary measures are being maintained to mitigate the impact of Air, water, Noise Pollution. Also, Plantation is being done by the mining employee to maintain the ecology. Regular water sprinkling is being done to avoid fugitive emission. Also, transportation of limestone is being done through covered vehicle.</p>
(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>Pteracanthusgriffithianus</i>, Acanthaceae ii) <i>Nepenthes Khasiana</i>, Nepenthaceae iii) <i>Argostemmakhasianum</i>, Rubiaceae iv) <i>Fimbristylisnigrobrunnea</i>, Cyperaceae v) <i>Trivalvariakanjilali</i>, Annonaceae vi) <i>Begonia rubrovenia</i>, Begoniaceae vii) <i>Ceologyneovalis</i>, Orchidaceae <p>A scheme /conceptual plan of raising such threatened species shall be prepared in consultation with a reputed institution such as</p>	<p>Complied with.</p> <p>The company has already doing work on Biodiversity Conservation of Schedule-I species in co-ordination with Environment Department of North Eastern Hill University (NEHU), Shillong since 05 (five) years. The NEHU, officials have already appointed a Project fellow for the Project and they are working at our site on Biodiversity Conservation Plan with focus on conservation of the schedule – I species in the area. The greenhouse already developed with mist chamber and conservation of three flora species namely:</p> <ul style="list-style-type: none"> i) <i>Nepenthes Khasiana</i>, Nepenthaceae ii) <i>Begonia rubrovenia</i>, Begoniaceae iii) <i>Ceologyneovalis</i>, Orchidaceae iv) <i>Cymbidium</i> Orchidaceae v) <i>Cattelya</i> Orchidaceae <p>Project report on Biodiversity Inventorization and Conservation through Assisted Regeneration of RET Species has already submitted to IRO-Shillong vide letter no. -MCL/ENV/MoEF&CC/Compliance-1/2022-23/35, dated 10th Dec'2022. Photographs are attached as an Annexure-XIII</p>



	Botanical Survey of India complete with cost and activity schedule within one year from date of issue of prior Environmental Clearance.	
(xxx)	The project proponent shall sponsor research and development for conservation of threatened category of species occurring locally such <i>Hedychiumdekianum</i> , [Zingiberaceae], <i>Cymbidium eburneum</i> (Orchidaceae), or <i>Dendrobiumdenonianum</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>Complied with.</p> <p>The company has already doing work on Biodiversity Conservation of Schedule-I species in co-ordination with Environment Department of North Eastern Hill University (NEHU), Shillong since 05 (five) years. The NEHU, officials have already appointed a Project fellow for the Project and they are working at our site on Biodiversity Conservation Plan with focus on conservation of the schedule – I species in the area. The greenhouse already developed with mist chamber and conservation of three flora species namely:</p> <ul style="list-style-type: none"> i) <i>Nepenthes Khasiana</i>, Nepenthaceae ii) <i>Begonia rubrovenia</i>, Begoniaceae iii) <i>Ceologyneovalis</i>, Orchidaceae iv) <i>Cymbidium Orchidcear</i> v) <i>CattelyaOrchidceae</i> <p>Photographs are attached as Annexure-XIII</p>
(xxxi)	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.	<p>Complied with.</p> <p>Conservation plan for the conservation of wild fauna has prepared by North Eastern Hill University (NEHU), Shillong against the Work Order no. MCL/WO/NEHU/22-23/287, dated: 03.11.2022. The title of the Work is "Preparation of Wildlife Conservation Plan". Report is already submitted to Regional Office MoEF&CC, Shillong vide Letter no. - MCL/ENV/MoEF&CC/Compliance-II/2023-24/35, dated 16/06/2023.</p> <p>Also, Company is ready to contribute the funds for implementation of Regional conservation plan as discussed in the meeting held at Regional Office MoEF&CC, Shillong.</p>



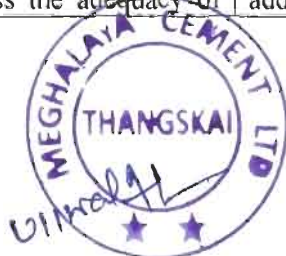
(xxxii)	<p>A sum of Rs.2109.52 lakh shall be spent towards capital expenditure as stated by the project proponent towards environment protection and a further sum of Rs.501.60 lakh as recurring cost annually shall be spent by the project proponent towards environmental protection.</p>	<p>Complied with. The Company has installed Pollution Control Device to control the air, water & noise pollution from the process. Regular maintenance of PDC is being carried out by the company. The revenue expenditure incurred on an environmental protection equipment's / Machineries (from October'24 to March'25) are mentioned below: -</p> <table><tr><th>Heading</th><th>Amount in Rs.</th></tr><tr><td>Plant Bag Filters (Crusher, Raw Mills, Cement mill, Coal mill, Kiln & Packing Plant)</td><td>544732.3</td></tr><tr><td>ESP</td><td>336606.65</td></tr><tr><td>RABH</td><td>8322694.0</td></tr><tr><td>Sewage Treatment Plant, Effluent Treatment Plant & Neutralization Pit</td><td>26547</td></tr><tr><td>Green Belt Development</td><td>54096</td></tr><tr><td>Environment Miscellaneous</td><td>295663</td></tr><tr><td>Total</td><td>95800339.55</td></tr></table>	Heading	Amount in Rs.	Plant Bag Filters (Crusher, Raw Mills, Cement mill, Coal mill, Kiln & Packing Plant)	544732.3	ESP	336606.65	RABH	8322694.0	Sewage Treatment Plant, Effluent Treatment Plant & Neutralization Pit	26547	Green Belt Development	54096	Environment Miscellaneous	295663	Total	95800339.55
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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>Complied with. Implementation of socio-economic/eco-development activities has been done towards distribution of free medicines, malaria eradication program etc. in the nearby villages. Company has also spent funds annually towards creation of employees' welfare fund. The company has spent Rs.58,98,833.00 funds on the following activities under Socio-Economic Development under CSR activities (duration October'24-March'25): -</p> <ol style="list-style-type: none">1. Emphasis on Education2. Sports Activity3. Encouraging/Felicitation program for Students4. Polio Immunization Camps, family planning, etc5. Infrastructure development of Hospitals / Schools6. Cement Distribution Programme7. Plant Distribution programme8. Donation to Churches, Road & House Repairing etc9. Community Feast10. Drinking water supplying scheme11. Village development funds <p>Detailed report is attached as an Annexure-XIV Further, a comprehensive long-term eco-development plan shall be prepared by the project proponent with the help of NEHU Shillong. Report is already submitted vide letter no. MCL/Env/MOEF&CC/2021-22/05; Dt: 19.05.2021.</p>																



B. 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.	Complied. The company has following the stipulation of MSPCB State Government or any other statutory body as framed/modified from time to time and complies accordingly.																									
(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.	Agreed for compliance. 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. The PP has following all applicable provisions of any Acts, Rules Orders of the Government and judicial orders issued by the Hon'ble Supreme Court/High Courts/NGT.																									
(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.	Agreed for compliance. As per EC Amendment (Ref. Letter No. - ML/SEIAA/PROJECT-2/2007/937; Dated, Shillong, 24 th November 2021) company can produce Annual production of 8, 58,000 MTPA and 330 day working for both Cement and Clinker. Therefore, company has maintaining the Annual production of 8, 58,000 MTPA both Cement and Clinker bases on 330 days working. The detail of Cement & Clinker Production as mentioned below: - <table><tr><th>FY</th><th>Clinker</th><th>Cement (OPC)</th><th>Cement (PPC)</th><th>Cement (PSC)</th></tr><tr><td>2024-25</td><td>857850</td><td>107537.5</td><td>4013170</td><td>12196</td></tr><tr><td>2023-24</td><td>829097</td><td>118541.6</td><td>398446.0</td><td>42743.7</td></tr><tr><td>2022-23</td><td>857995</td><td>135365.15</td><td>397419.0</td><td>55987.0</td></tr><tr><td>2021-22</td><td>770834</td><td>216855.75</td><td>327100.50</td><td>68854.40</td></tr></table>	FY	Clinker	Cement (OPC)	Cement (PPC)	Cement (PSC)	2024-25	857850	107537.5	4013170	12196	2023-24	829097	118541.6	398446.0	42743.7	2022-23	857995	135365.15	397419.0	55987.0	2021-22	770834	216855.75	327100.50	68854.40
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(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	Agreed for compliance. No further expansion or modification will be carried out by the company without prior approval of the Ministry of Environment & Forests or their nominated authority. The Company will inform to the authority and take prior approval and the same status or information will be share to SEAC through SEIAA to assess the adequacy of conditions imposed and to add additional environmental protection measures.																									



	conditions imposed and to add additional environmental protection measures required, if any.																																																																
(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 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>Complied.</p> <p>The gaseous emissions (SO₂, NO_x) and particulate matter levels from various process units are being maintained within prescribed limit. Data is continuously transmitted to SPCB/CPCB. ABB make SCADA based Interlocking is in system to control SO₂, NO_x levels in case of failure and working effectively and at no point of time the emission will exceed the prescribed limit. Monitoring results are mentioned below: -</p> <table border="1"> <thead> <tr> <th>Chimney</th><th>Avg. of Oct'24 to Mar'25</th><th>Permissible Limits (mg/Nm3)</th></tr> </thead> <tbody> <tr><td>Pr. Crusher</td><td>17</td><td>30</td></tr> <tr><td>Sec. Crusher</td><td>19.33</td><td>30</td></tr> <tr><td>Coal mill 1</td><td>23.66</td><td>30</td></tr> <tr><td>Coal mill 2</td><td>21.17</td><td>30</td></tr> <tr><td>RABH-1 (PM)</td><td>22</td><td>30</td></tr> <tr><td>RABH-1 (Sox)</td><td>636.16</td><td>1000</td></tr> <tr><td>RABH-1 (Nox)</td><td>312.16</td><td>600</td></tr> <tr><td>RABH-2 (PM)</td><td>22</td><td>30</td></tr> <tr><td>RABH-2 (Sox)</td><td>636</td><td>1000</td></tr> <tr><td>RABH-2 (Nox)</td><td>299.66</td><td>600</td></tr> <tr><td>ESP 1</td><td>26.50</td><td>30</td></tr> <tr><td>ESP 2</td><td>27</td><td>30</td></tr> <tr><td>Cement Mill No-1</td><td>24.50</td><td>30</td></tr> <tr><td>Cement Mill No-2</td><td>23.83</td><td>30</td></tr> <tr><td>Packing House-1</td><td>24.17</td><td>30</td></tr> <tr><td>Packing House-2</td><td>23.17</td><td>30</td></tr> <tr><td>CPP (PM)</td><td>43.50</td><td>50</td></tr> <tr><td>CPP (Sox)</td><td>420.16</td><td>600</td></tr> <tr><td>CPP (Nox)</td><td>187.66</td><td>300</td></tr> <tr><td>CPP (Hg)</td><td>0.008</td><td>0.03</td></tr> </tbody> </table> <p>The gaseous emission report in detailed are attached as Annexure-V</p>	Chimney	Avg. of Oct'24 to Mar'25	Permissible Limits (mg/Nm3)	Pr. Crusher	17	30	Sec. Crusher	19.33	30	Coal mill 1	23.66	30	Coal mill 2	21.17	30	RABH-1 (PM)	22	30	RABH-1 (Sox)	636.16	1000	RABH-1 (Nox)	312.16	600	RABH-2 (PM)	22	30	RABH-2 (Sox)	636	1000	RABH-2 (Nox)	299.66	600	ESP 1	26.50	30	ESP 2	27	30	Cement Mill No-1	24.50	30	Cement Mill No-2	23.83	30	Packing House-1	24.17	30	Packing House-2	23.17	30	CPP (PM)	43.50	50	CPP (Sox)	420.16	600	CPP (Nox)	187.66	300	CPP (Hg)	0.008	0.03
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(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>Complied with.</p> <p>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 flyash generated from the Captive Power Plant is being utilized in making of Cement.</p>																																																															
(vi)	<p>The industry shall undertake the following waste minimization measures:</p> <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 	<p>Complied with.</p> <p>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</p>																																																															



	<p>transport of fine material.</p> <ul style="list-style-type: none"> All venting systems shall be connected with dust or particulate arresting equipments. Dust/particulate matter collected in pollution control equipments shall be reused. 	arresting equipment's such as Bag Filters.																					
(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>Complied with. 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. Results of monitoring of Fugitive emissions in the work zone environment, product and raw materials storage area is mentioned below: -</p> <table border="1"> <thead> <tr> <th>Location</th><th>Avg. of Oct'24 to Mar'25</th><th>As per standard limit ($\mu\text{g}/\text{m}^3$)</th></tr> </thead> <tbody> <tr> <td>Lime stone Storage Area</td><td>1420.16</td><td>5000</td></tr> <tr> <td>Coal Storage Area</td><td>1220.50</td><td>2000</td></tr> <tr> <td>Clinker Loading Area</td><td>2171.50</td><td>5000</td></tr> <tr> <td>Cement Loading Area</td><td>2257.16</td><td>5000</td></tr> <tr> <td>Coal Storage Area (CPP)</td><td>1037.16</td><td>2000</td></tr> <tr> <td>Fly Ash Silo Area (CPP)</td><td>1102.83</td><td>2000</td></tr> </tbody> </table> <p>Detailed report is attached as an Annexure-VII</p>	Location	Avg. of Oct'24 to Mar'25	As per standard limit ($\mu\text{g}/\text{m}^3$)	Lime stone Storage Area	1420.16	5000	Coal Storage Area	1220.50	2000	Clinker Loading Area	2171.50	5000	Cement Loading Area	2257.16	5000	Coal Storage Area (CPP)	1037.16	2000	Fly Ash Silo Area (CPP)	1102.83	2000
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(viii)	<p>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.</p>	<p>Complied with. The Project proponent has provided different types of Environmental Protection Equipment's like ESP, RABH, Bag filters etc 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 equipment's.</p>																					
(ix)	<p>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.</p>	<p>Complied with. Authorization letter No. MPCB/ATH-27/2007/2021-2022/20; dated 11th FEB 2022. Authorization letter No. MPCB/ATH-27/2007/2021-2022/19; dated 11th FEB 2022 for 2600 TPD cement manufacturing plant, valid up to 30th November, 2025. Authorization letter No. MPCB/ATH-46/2017/2023-</p>																					



		<p>2024/08; dated 15th MAY 2023 for Captive Power Plant, valid up to 31st August 2027.</p> <p>Copy of the Authorization is already submitted to Regional Office MoEF&CC, Shillong vide letter no. - MCL/ENV/MoEF&CC/Compliance-II/2023-24/35, dated: 16/06/2023.</p>
(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.	<p>Complied with.</p> <p>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 kit maintained in laboratory and testing of for Surface water is also being carried out regularly. Testing report attached as Annexure-IX. Also detail of Environmental Management Cell and testing equipment's details are attached an Annexure-XV.</p>
(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.	<p>Complied with.</p> <p>The Sewage Treatment Plant (STP) has been installed and the capacity of the same is 100m³/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. All pollution control equipment in STP being operated by trained personnel.</p>
(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.	<p>Complied with.</p> <p>Half yearly compliance reports along with monitoring data are being submitted to concerned officials SEIAA/SEAC and Regional Office, Ministry of Environment & Forests, Govt. of India, Shillong on the regular basis and posting the same data on the website https://topcem.in/ also.</p>
(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.	<p>Agreed for compliance.</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 & 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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C. ADDITIONAL CONDITIONS

(i)	<p>The project proponent to create a good and successful plantation in the green belt area of approximately 18 hectares by using indigenous plant species like <i>MicheliaChanmpacca</i>, <i>Castanopsissp</i>, <i>Schimawallichi</i>, <i>Mesuaferrea</i>, <i>Artocarpus hetero-phylla</i> preceded by establishing well stocked nurseries of above species in the different plots. The project proponent must accord importance & seriousness to undertake the plantation on mission mode. The plantation so create act as a model for all the industrial units located within the district.</p>	<p>Complied with</p> <p>Company has established a Nursery in which indigenous plant species like <i>MicheliaChanmpacca</i>, <i>Castanopsissp</i>, <i>Schimawallichi</i>, <i>Mesuaferrea</i>, <i>Artocarpus hetero-phylla</i> has planted in different plots inside the nursery. The planted quantity of the indigenous plant species as mentioned below: -</p> <table border="1"> <thead> <tr> <th>SL. No.</th><th>Name of the Species</th><th>Quantity Planted</th></tr> </thead> <tbody> <tr> <td>1</td><td><i>MicheliaChanmpacca</i></td><td>150</td></tr> <tr> <td>2</td><td><i>Mesuaferrea</i></td><td>100</td></tr> <tr> <td>3</td><td><i>Artocarpus hetero-phylla</i></td><td>2500</td></tr> <tr> <td>4</td><td><i>Castanopsissp</i></td><td>70</td></tr> <tr> <td>5</td><td><i>Schimawallichi</i></td><td>15</td></tr> </tbody> </table>	SL. No.	Name of the Species	Quantity Planted	1	<i>MicheliaChanmpacca</i>	150	2	<i>Mesuaferrea</i>	100	3	<i>Artocarpus hetero-phylla</i>	2500	4	<i>Castanopsissp</i>	70	5	<i>Schimawallichi</i>	15
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MEGHALAYA CEMENTS LTD.**FIRE MOCKDRILL & EMERGENCY****FIRE ALARM TRAINING & SMOKE DETECTION SYSTEM**

Date: 28.02.2025

THEME: MOCKDRILL ON FIRE

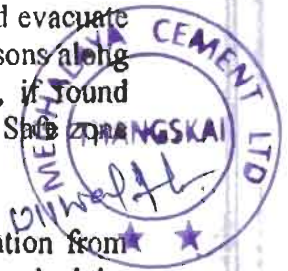
CONDUCTED BY	: Safety dept & Glyptic
VENUE Location	: Beside WHRS
DATE	: 26.02.2025
TIME	: 3:30 PM to 4:00 PM
NUMBER OF ATTENDED PERSONS	: 18 Persons.
NAME OF INFORMER	: Artist
ALARM RAISED BY	: Security person at CCR (after got the information)
EARTHQUAKE STARTED	: At around 2:29 PM
FIRE-FIGHTING & RESCUE TEAM REACHED	: At around 2:31 PM
TOTAL LIVING PERSONS	: From affected area 04 Persons.
PERSONS EVACUATED TO	: Safe zone within 9 minutes.
LAST PERSON EVACUATED	: At around 2:39 AM
FALLING THREE PROCESS	: Head counting started during evacuation Simultaneously.
TOTAL RESCUER	: 04 Persons
DECLARATION	: After getting everyone in counting Extinguished the fire & mitigates the area.

On 26.02.2025 at around 2:30 PM to 4:00 PM at WHRS "Mock Drill was conducted on Fire" total 18 Persons were involved from various departments.

Main Motto of the training programme was in case of any emergency how to take precautions and Fire breakout and how to fight and extinguish the fire and how to handle the situation and evacuate the persons from fire affected area, as well as practically shown the Drill to involved persons along with rescue systems of casualties. We shown to participants about rescue procedure, if found senseless due to fire accidents then immediately how to rescue the victim (casualties) to Safe zone and to Occupational health centre also shown its procedure.

Mock Drill- Suddenly Alarm was raised by CCR security person after got the information from Artist. According to siren & information by Artist the Fire fighting team & Rescue team reached the spot within 2 minutes. workers were evacuated from Hot Zone to Cold zone i.e safe zone at assembling point. one person at around 2:39 PM he evacuated from there he was last men as per information of our 1st responder team Fire caught inside Safety & Vigilance office. During rescue simultaneously head counting also continued at safe zone by helping of 'Falling Three' procedures and finally observed total casualties were removed from affected area.

Medical team also in ready position during emergency for help and further first-aid of casualties, after that extinguished and controlled, Safety officer observed & investigated 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 office makes the communication to concern as well as informed to unit head about the incident and for further action.

Following observations were noted during the Mock Drill:

- 1) All the workmen and staff reported to the Assembly point without any panic.
- 2) The evacuation was performed successfully well in time.
- 3) Communication was well enough to reach the Fire Point at the right time.
- 4) The fire-Fighting team used the right Extinguishing media for the Extinguishing purpose (Water used with Foam)
- 5) ERT member done well and evacuated the Work Location on time.
- 6) Emergency Vehicle is available and reached at Site in time.
- 7) The workforce remains calm, while the mock drill was in progress, and showed keen interest to get knowledge about the emergency among involved employees.
- 8) Workers were briefed about the emergency response procedure and fire Emergency.

Deficiency observed during Drill: - There is no deficiency observed during Mock drill.

CONCLUSION: Training is important part for help to educate of employees for make potential and competent in this regards the any type Mock Drill was held to spread knowledge to our employees as well as participants also can understand and gain the knowledge about Earthquake and Fire mock drill, it was observed most of the workers activated while siren rang and every involved persons learned the lesson and seen 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 & EnMS/MR/G10

Rev.No: 00

Date:

Training Details,

Agency

Fire alarm training, smoke detection
External Loc. - Safety office
Mock Drill on Fire.

Duration

1/2 Hour

(a) Date/s

From: 26.02.2025

To: -

(b) Time

From: 3:30 PM

To: 4:00 PM.

Names of Trainers

1. Rathin Jang - GLYPTIC 2. -

Attendance Record:

Sl.	Employee Name	Department	Designation	Signature
1	Deyuk. BR. Gantua	Electrical	Asst. Manager	Deyuk Gantua
2	Bipinjit Bhattacharya	CPP	Sr. Manager	Bipinjit
3	Ranjeet Singh	Inst.	Asst. Eng.	Ranjeet
4	Paras ram Sahu	Mech.	Foreman	Paras
5	Prasanta Phukan	Store	Jr. officer	Prasanta
6	Md. Sahid	Prod.	Welder	Shahid
7	Karan Lombay	Inst.	Technician	Karan
8	Sanjay Patil	Inst.	Sr. Tech.	Sanjay
9	Abhay Kumar	Inst.	Sr. Engineer	Abhay Kumar
10	Diganta Choudhury	Stores	Officer	Diganta
11	N. Dharmraj Singh	INST	Sr. Engg	N. Dharmraj
12	Indranil Maji	Electrical	Asst. Engineer	Indranil Maji
13	Mohit Singh	Electrical	"	Mohit Singh
14	Prasanta Das	Painter	Painter	Prasanta



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 &EnMS/MR/G10

Rev No: 00

Date: _____

Training Details

Agency

Fire alarm training, smoke detection.
External

Duration

$\frac{1}{2}$ Hour

(a) Date/s

From: 26/02/2015

To: _____

(b) Time

From: 3:30 pm

To: 4:00 pm.

Names of Trainers

1. Ratin Jana - Glyptic 2. -

Attendance Record:

[illegible]

100

OCCUPATIONAL HEALTH DISEASE & SAFETY ON SILICOSIS

Date: 17.01.2025

❖ **THEME:** Taught about Prevention of Silicosis, Elimination of Dust, Control Airborne dust, Periodic Medical Health checkup etc.

- ❖ **TRAINER'S NAME** : Prajjal Rajkumar (Safety Officer)
 ❖ **VENUE** : VTC Vocational Training Centre at HEMM.
 ❖ **DATE** : 15th Jan'2025
 ❖ **TIME** : 3:30 PM To 5:00 PM
 ❖ **NUMBER OF PARTICIPANTS:** 43 Persons were attended.

On 15/01/2025 at around 4:30 PM up to 5:00 PM at VTC HEMM we have conducted "SILICOSIS AWARENESS PROGRAMME" total 43 Persons were attended from various department workers, staff and officers. At the time of working in Mining area or in industry crusher area / packing area/Raw materials / mill area etc what precautions to be taken to avoid occupational disease hazards like "SILICOSIS" and its introduction etc.

SILICOSIS:

- Disease of lungs caused by breathing dust containing crystalline silica particles.
- Dust cause fibrosis (scar tissue) in the lungs which reduce the ability of the lung to extract oxygen from the air.
- ✓ Early stages of disease may go unnoticed, Continued exposure may result in-
 - Shortage of breath, possibly fever.
 - Occasionally blueing of skin at ear lobes and lips due to reduction in circulation.
 - More susceptible to infectious disease (particularly tuberculosis).
- ✓ Progression of disease leads to-
 - Fatigue, extreme shortness of breath.
 - Loss of appetite.
 - Pain in chest
 - Respiratory failure which may cause death.
- ✓ Diagnosis of Silicosis-
 - Normally detected in Periodic Medical Examination.
 - Lung functions are or mild Restrictive or mixed pattern, till late stage.
 - Chest X-ray shows typical fine granular opacities initially and large shadows only in case of PMF.
- ✓ Broad based actions required to be taken for control-
 - Early diagnosis of Chest ailments
 - Periodic Medical Examination of all employees once in every three years for employees above 45 years, once in five for employees below 45 years.
(Mines Rule 29 B of 1955 & Recommendation of Tenth Safety Conference)
 - PME once in every year for employees of all categories above 60 years of age. (Cir Tech 7/2011).



- More emphasis to be given on Pulmonary Function Test & ILO Classification of Chest X-rays in **Medical Surveillance of Mines** employees as per the modified Statutory Form 'O' used for **PME**. (Cir Tech 5/2011)

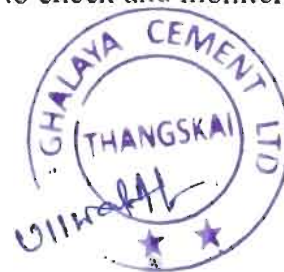
✓ Specific actions taken by the Directorate on NHRC recommendations-

- DG's Tech Circular been issued to all Managers, Agents and Owners of Mines in regards to Respirable Dust Measurements and Control to Prevent Pneumoconiosis in Mines which specified:
- Exposure limits
- Sampling and analysis of respirable dust.
- Dust control Measures in Mines.
- Occupational Health survey and Monitoring.

✓ WHY THE AWARENESS PROGRAMME? –

- The persons working therein are liable to be affected by an incurable lung disease called silicosis.
- Silicosis is caused by inhaling silica dust over a period of time.
- Silica (sio₂) dust is generated during mining, crushing and grinding of minerals such as sand stone, slate, granite, limestone and quartzite are and also during construction activity involving concrete and clay bricks, glass manufacturing and sand blasting.
- The disease often has fatal consequence.
- There is lack of awareness amongst the people in general about the cause, consequence and preventive measures of the diseases.
- Minerals containing free silica are being mined in every state of our country.
- These mines are largely in unorganized sectors.
- Most of the mining/crushing/grinding is done without effective dust control.
- No advanced technology is adopted.
- Mine/plant operators are either unaware of their statutory obligations or deliberately ignore health care issues of their workers.
- Medical examination of workers is not done periodically.
- There is dearth of doctors trained in diagnosing silicosis/dust pneumoconiosis.
- Very few states have constituted dust pneumoconiosis boards to check and monitor this disease.
- Hence the disease goes undetected and to the extent of fatality.
- There is an urgent need to focus on this issue.

HENCE THE AWARENESS PROGRAMME IS NECESSARY.



✓ SOCIO ECONOMIC ASPECTS-

- In unorganized sectors, proper record of employment is seldom maintained.
- As such, affected work –persons do not get medical aid, compensation etc.
- Due to reduced lung capacity and continued ailment the work-person is rendered jobless.
- Ultimately a family & the society suffer.
- The industry also suffers due to loss of skill.

✓ **PREVENTION OF SILICOSIS**

- Elimination of Dust, Dust suppression by water sprinkling and water spraying to be strictly ensured in Haul roads, man ways as well as working phases.
 - Dry Drilling in mines to be completely stopped.
 - Dust suppression by approved wetting agent.
- ✓ Control of dust during drilling- Dust control can be done by: -
- By using sharp bits.
 - Wet drilling by using water.
 - By using dust extractors.
 - By providing air tight enclosed cabins on drills rig and mobile equipment.
 - By using personal protective equipments like respirators as the last resort.

✓ **DUST CONTROL AT LOADING AND DUMPING POINTS:**

- Jack hammers are most common in small and medium quarries/industry.
- Drill steels have central annulars for water flow to the bit.
- The cuttings flush out as sludge through the gap between wall of holes and steel.
- Apart from wet drilling use of dust mask is a must, as:
 - Small amount of air leaks piston and collects dust which comes out with sludge.
 - collaring, drillers avoid to open water.

✓ **DUST CONTROL AT LOADING AND DUMPING POINTS:**

- Blasted muck prior to loading to be completely drenched with water. Spray loaded vehicles with water.
- No overloading of Vehicles to prevent spillage and crushing on haul road, adequate water spraying at all dumping points.
- The height of fall at tipping or transfer points must be optimized.
- Enclose the transfer point tightly to exhaust the dust -laden air.
- Inactive top and slopes of all dumps to be planted.

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 & EnMS/HR&A/TAF/0109

Rev No.:01

Date: 01.04.2016

Training Details : OCCUPATIONAL HEALTH & SAFETY ON "SILICOSIS".
 Department : SAFETY & VIGILANCE.
 Agency : Internal
 Date : 15.01.2025
 Time : 3.30 PM TO
 Name of Trainers : MR.PRAJJAL RAJKUMAR(DY.MANAGER-S&V) &
 DR.AKASH AIMOL (MEDICAL OFFICER).



Attendance Record:

Sl. No.	Emp Code	Employee Name	Department	Designation	Signature
1	5436	Satendra Singmaif	Mines	Sr. Engineer	Satendra
2	2599	Ashok K. Pandey	Mines	J.E	A
3	2032	Kripa Shankar Verma	CPP	Dy. Manager	Kripa
4	5929	Abhinav Kumar	Mechanical Section	Asst. Engg.	Abhinav
5	5866	Amit Kumar	Dispatch	Supervisor	Amit
6	6127	Subhashis Saha	CPP	GET	Subhashis
7	2433	Pankaj Pandit	Dispatch	Assistant	Pankaj
8	6137	Ticky Thakur	Logistic	Supervisor	Ticky
9	6042	Ajoy Sutradhan	Logistics	Sr. Supervisor	Ajoy
10		Abdul Motaleb	Logistics	Asst. Engg.	Abdul
11		Mostafizur Rahman	Logistics	G.R. Engg.	Mostafizur
12	2473	Mohammad Rahman	W. Comp.	Mr. Rahman	Mohammad

Sl. No.	Emp Code	Employee Name	Department	Designation	Signature
13	-	SIRAJUL ISLAM	Contractor - G.R. End.	Loader	SIRAJUL ISLAM
14	-	Jamun Ali	-do-	Loader	Jamun Ali
15	2956	Rajesh Kumar	Safety Vigil	Sr. Supervisor	[Signature]
16	2604	Arun Son Swargiam	mines	Drill CPT	[Signature]
17	5879	Rahul Kajla	Mechanical	Asst. Engineer	Rahul
18	5898	Suseet K.B.	Mechanical	Asst. Enr.	Suseet
19	5992	Rausan Kumar	MECH	Jr Engrg	[Signature]
20	6154	Prasenjit Halder	Mechanical	GET	Prasenjit
21	5538	Narhen K. Singh	mines	Blasting work	NIR
22	5411	Ashim Lal Thakur	Despatch	Supervision	AB
23	2097	L. K. Mondol Singh	Electrical	Senior Electrician	L
24	5862	Ratul Bhuyan	Electrical	Electrician	Ratul
25	2693	Upendra Prasad	mines	Drill operator	[Signature]
26	2607	Balwant pal	mines	Blaster	Bal
27	4067	Fauzul Laskar	Electrical	Technician	Fauz
28	3163	Brijesh Kumar	Medium	Fitter	Brijesh
29	2656	Devind Tiwari	Mines	Roc afr	Dev
30	5406	Sandeep Paul	"	Roc afr	21/1/14
31	5190	Bachchan Singh			B Singh
32	5755	Satyam K. Thakur	MECH	Engineer	Satyam



Sl. No.	Emp Code	Employee Name	Department	Designation	Signature
33	5967	Shivam	mech	A.S	<i>[Signature]</i>
34	5897	Ritesh Kr. Singh	Mech	Engineer	<i>[Signature]</i>
35	5167	Subhankar Rajbongshi	Q. C	Chemist-	<i>[Signature]</i>
36	2074	Homen Beishya	CPP	D.m. plant opt	<i>[Signature]</i>
37	2996	Ramlesh Sharma	CPP	1st Class Lenna	<i>[Signature]</i>
38		Abdul Syftan	Q. C	L.B	<i>[Signature]</i>
39		Hidul Sinha	Q. C Jara	Retroller	<i>[Signature]</i>
40		Rupam Bora	HR & A	Asst. officer	<i>[Signature]</i>
41	5844	Picmon Sutirig	HR & A	Asst. Officer	<i>[Signature]</i>
42		Tarun Kr. Das	HR & A	Sweeper	<i>[Signature]</i>
43		Tiewlina Pyrtuh	Mines	Jr. officer	<i>[Signature]</i>
44					
45					

.....
HOD (SAFETY & VIGILANCE)



MEGHALAYA CEMENTS LIMITED

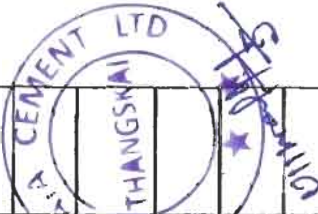
LOCATION & DETAILS OF FIRE EXTINGUISHERS

DOC NO: MCL/SA/FE/2014-15

LOCATION: T.G BUILDING

REVIEWED ON: 31.12.2024

SL NO	AREA NAME	DEPARTMENT	EXTING. SL. NO	LOCATION	CYLINDER TYPE	PRESSURE REGULATOR	TARE WEIGHT	CAPACITY/NET WEIGHT	GROSS WEIGHT	PHYSICAL WEIGHT	DATE OF REFILLING	NEXT DUE DATE OF REFILLING	REMARKS
1	CHP	CPP	MCL-47	CIIP Building 2nd floor.	CO2	N/A	19.5 Kg	9 Kg	28.5 Kg	26.5 Kg	01.03.2024	28.02.2025	
2	Coal Yard	CPP	MCL-148	On the left side column.	CO2	N/A	Gas Cartridge 400 gm	9 Kg	Gas Cartridge 460 gm	Gas Cartridge 472 gm	01.03.2024	28.02.2025	
3	Bad material & Charcoal Godown		MCL-118	Outside on the sheet near entrance door 2.	Mechanical foam	N/A	Gas Cartridge 440 gm	9 Ltrs	Gas Cartridge 500 gm	Gas Cartridge 506 gm	01.03.2024	28.02.2025	
4	Compressor House		MCL-96	Inside the compressor room.	CO2	N/A	19.4 Kg	9 Kg	28.4 Kg	31 Kg	30.03.2024	29.03.2025	
5			MCL-88	MCC Room for Comp/Ash handling/ESP.	CO2	N/A	7.23 Kg	2.27 Kg	9.50 Kg	9.30 Kg	09.02.2024	08.02.2025	
6	Turbine House ground floor		MCL-85	Ground floor near Fire Sand bucket stand.	CO2	N/A	19.6 Kg	9 Kg	28.6 Kg	31.5 Kg	01.03.2024	28.02.2025	
7	Turbine House 1st floor in MCC panel room		MCL-87	On the wall beside entrance door.	CO2	N/A	6.35 Kg	2.27 Kg	8.62 Kg	8.81 Kg	09.02.2024	08.02.2025	
8		CPP	MCL-99	Inside the MCC Room door side of turbine.	CO2	N/A	19.5 Kg	9 Kg	28.5 Kg	30.4 Kg	31.08.2024	30.08.2025	
9			MCL-89	On the side wall near Exit side.	CO2	N/A	6.5 Kg	2.27 Kg	8.77 Kg	8.15 Kg	09.02.2024	08.02.2025	
10			MCL-81	On the floor beside MOT	CO2	N/A	19.3 Kg	9 Kg	28.3 Kg	30 Kg	09.02.2024	08.02.2025	
11	Turbine House 1st floor		MCL-245	1st floor of T.G building near landing platform of staircase.	Mechanical foam	N/A	Gas cartridge 1160 gm	50 Ltrs	Gas cartridge 1460 gm	Gas cartridge 1581 gm	05.12.2024	04.12.2025	
12			MCL-83		CO2	N/A	10 Kg	4.5 Kg	14.5 Kg	15.8 Kg	01.03.2024	28.02.2025	
13	Turbine House 2nd floor	CPP	MCL-21	Near Tea stall.	CO2	N/A	19.4 Kg	9 Kg	28.4 Kg	28.4 Kg	01.03.2024	28.02.2025	
14			MCL-120	Outside wall of CCR (Exit door side).	CO2	N/A	5.1 Kg	2.27 Kg	7.37 Kg	8.5 Kg	10.02.2024	09.02.2025	
15	CPP Office - 2nd floor		MCL-95	Office Gallery	CO2	N/A	6.25 Kg	2.27 Kg	8.52 Kg	7.8 Kg	01.03.2024	28.02.2025	



Annexure - II

16	DCS Control Room- 2nd floor	MCL-79	Inside the CCR	CO2	N/A	11.85 Kg	4.5 Kg	16.35 Kg	17 Kg	02.01.2024	01.01.2025
17	D.M PLANT	MCL-144	Beside the office	CO2	N/A	6.35 Kg	2.27 Kg	8.62 Kg	9.36 Kg	26.10.2024	25.10.2025
18	CPP LABORATORY	MCL-LMV-25	Inside the CPP Laboratory, front side of partition wall.	ABC	✓	N/A	1 Kg	N/A	N/A	30.08.2024	29.07.2025
19	WATER TREATMENT MCC PANEL ROOM	MCL-113	Inside the panel room	CO2	N/A	6.35 Kg	2.27 Kg	8.62 Kg	8.76 Kg	01.03.2024	28.02.2025
20	CHEMICAL STORAGE ROOM	MCL-157	Beside entrance door inside the room.	CO2	N/A	20.65 Kg	9 Kg	29.65 Kg	35 Kg	30.03.2024	29.03.2025
21	PUMP SHED	MCL-20	Entrance way of Pump shed.	CO2	N/A	19.8 Kg	9 Kg	28.8 Kg	32 Kg	23.08.2024	22.08.2025
CHECKING CRITERIA											
* CO2 Extinguisher and CO2 Gas cartridge which have weight less than 10% are to be rejected											
* Extinguisher CO2 - to be checked through gross weight											
* DCP Extinguisher - only gas cartridge weight											
* Mechanical Foam - only Gas cartridge weight											
* ABC Extinguisher - Check by only pressure regulator, in the regulator needle should within green zone [if ok Mark ✓]											
* If any Extinguisher found empty / Pressure low / Body corrosion then necessary to send refilling through checking cylinder condition.											
* Hydrostatic Test will be done every five years / if necessary as per condition of extinguisher body .											
Total Riser - 4 Nos											
Total Fire Extinguisher - 21 Nos											
Total Fire Hose - 4 Nos											
Total Hose Box- 4 Nos.											
Total Emergency Exit - 3 Nos											

G. Jula

MONITORED BY

CHECKED BY



APPROVED BY

MEGHALAYA CEMENTS LIMITED
LOCATION & DETAILS OF FIRE EXTINGUISHERS

DOC NO: MCL/SA/FE/2014-15

LOCATION: - BOILER HOUSE - CPP

REVIEWED ON - 31.03.2025

S.NO	AREA NAME	DEPARTMENT	EXTINGUISHER SL. NO	LOCATION	CYLINDER TYPE	PRESSURE REGULATOR	TARE WEIGHT	CAPACITY NET WEIGHT	GROSS WEIGHT	PHYSICAL WEIGHT	DATE OF REFILLING	NEXT DUE DATE OF REFILLING	REMARKS
1	BOILER HOUSE	CPP	MCL-97	Near the FD-Fan (HT).	CO2	N/A	19.4 Kg	9 Kg	28.4 Kg	32 Kg	27.11.2024	26.11.2025	
2	GROUND FLOOR		MCL-91	Ground floor on the column.	CO2	N/A	11.68 Kg	4.5 Kg	16.18 Kg	15.5 Kg	28.02.2025	27.02.2026	
3	BOILER HOUSE 1ST FLOOR		MCL-05	1st floor beside staircase.	AFFF Foam	N/A	N/A	9 Ltr	N/A	N/A	28.02.2025	27.02.2026	
4	FLOOR		MCL-106	1st floor beside of staircase.	ABC	✓	N/A	5 Kg	N/A	N/A	27.11.2024	26.11.2025	
5	Boiler House 2nd floor		MCL-104	At 2nd floor of Boiler House.	ABC	✓	N/A	5 Kg	N/A	N/A	01.01.2025	30.12.2026	

CHECKING CRITERIA

- * CO2 Extinguisher and CO2 Gas cartridge which have weight less than 10% are to be rejected
- * Extinguisher CO2 - to be checked through gross weight
- * DCP Extinguisher - only gas cartridge weight
- * Mechanical Foam - only Gas cartridge weight
- * ABC Extinguisher - Check by only pressure regulator, in the regulator needle should within green zone [if ok Mark ✓]
- * If any Extinguisher found empty / Pressure low / Body corrosion then necessary to send refilling through checking cylinder condition.
- * Hydrostatic Test will be done every five years / if necessary as per condition of extinguisher body.

Total Emergency exit - 01 No

Total Fire Extinguisher - 5 Nos

Total Fire Hose - 8 Nos

Total Hose Box- 7 Nos.

Total Riser line - 7 Nos



G. Deka

MONITORED BY

CHECKED BY

APPROVED BY

MEGHALAYA CEMENTS LIMITED
THANGSKAI

INSIDE PLANT PREMISES IMPLEMENTED HYDRANT/RISER AND FIRE HOSE BOX LOCATION DETAILS

Date: 31-03-2025

Sl. No	Location of fire Hydrant / Riser & Fire Hose Box.	Quantity of Hose	Quantity of Nozzle	Box type	Sl. No of Box	Hydrant / Riser	Key Location of Hose box	Remarks
1	In-front of Coal shed (CPP) beside entrance way.	01	01	Single	18	Hydrant -06	 Key kept with CPP - CCR	
2	In-front of coal shed (CPP) on the drain middle.	01	01	Single	19	Hydrant - 05		
3	In-front of coal shed just beside of coal feeding hopper.	01	01	Single	20	Hydrant -04		
4	In-front of Compressor shed.	01	01	Single	21	Hydrant -07		
5	At CHP (CPP) ground floor bottom of returning belt BC-2.	01	Required	Single	15	Riser No-12		
6	At CHP building of CPP ground floor fitted on the column.	01	Required	Single	16	Riser No-13		
7	At CHP building (CPP) 1 st floor beside right side corner column.	02	Required	Double	17	Riser No-14		
8	Bottom of ESP (CPP) on the column.	01	01	Single	22	Riser No -15		
9	At bottom of APH (CPP) ground floor back side fitted on the column.	01	01	Single	23	Riser No -16		
10	At bottom of Boiler house (CPP) ground floor on the column.	01	01	Single	24	Riser No-17		
11	Boiler house (CPP) 1 st floor beside furnace.	01	01	Single	25	Riser No -18		
12	Boiler House (CPP) 1 st floor beside staircase.	02	01	Double	26	Riser No -- 19		
13	Boiler House (CPP) 2 nd floor besides landing platform.	01	01	Single	27	Riser No - 20		
14	Boiler House (CPP) 3 rd floor besides landing of staircase.	01	01	Single	28	Riser No - 21		
15	T.G building ground floor front side fitted on the column.	01	01	Single	29	Riser No - 22		
16	T. G Building ground floor beside BFP pump.	02	Required	Double	30	Riser No - 23		

(Signature)

Annexure -II

17	T.G building ground floor outside near Emergency exit.	01	01	Single	31	Riser No - 24	Key kept with CPP - CCR	
18	T.G building 1 st floor.	02	01	Double	32	Riser No - 25		

Note: 1) Hydrant No. - 01 at store connected from water storage syntax (5 KL) which kept beside store Pantry room.

2) Except Store remain all 'Hydrant and Riser' connected from CPP Cap. 16000 M3 & WHRS Raw water storage tank Cap. 977M³.

3) All Boxes additional 'Key' for Emergency kept with Safety office.




MEGHALAYA CEMENTS LIMITED
CIN- U26942ML2003PLC007125


Ref.: -MCL/ENV/CGWB/Comm./2024-25/12

Date: 08.06.2024

To,

The Regional Directorate
**Central Ground Water Board,
4P7C+7RQ, NH-37, OPP-ISBT,
Betkuchi, Gaurchuk,
Guwahati, Assam.**
Sub: - Submission of Action Taken Report on Rainwater harvesting measures implemented by Meghalaya Cements Limited at Village -Thangskai.
Ref: - Report issued by Central Ground Water Board, Regional Office- Guwahati in December, 2023.

Dear Sir,

With reference to subject cited above, we are hereby submitting the Action Taken Report on Rainwater harvesting measures as per recommendation given by you through mail on 13th December-2023 (report enclosed). Further we wish to inform you that we have constructed appropriate numbers of storage tank to catch & use of the roof top rain water and established the Piezometer to monitor the ground water level & quality in our 2600TPD Cement Plant & 31.05 Ha Limestone Mines to comply the EC Stipulation.

Detail layout of Storage tanks along with roof area, roof materials, volume of rain water and number of recharge structures are attached herewith for your kind consideration.

On view of the above we request you to kindly provide us closure report on Rainwater harvesting measures implemented by the company.

Thanking You Sir,

Yours Faithfully,

 For **Meghalaya Cements Limited**
Authorized Signatory

Encl: as above.



12/6/24
 Dispatched
 Government of India
 Central Ground Water Board
 Regional Office
 Guwahati (Opp-ISBT)
 Tel: 0361 2345419


 ISO 9001:2015 & 14001:2015
 50001:2011 Certified Company

Sales & Marketing Office:
 Mega Plaza, 4th Floor, Christian Basti
 G.S. Road, Guwahati - 781 005
 Tel.: 0361 2345421/22/23, Fax: 0361 2345419
 E-mail: guwahati@topcem.in
 Web: www.topcem.in

HELPLINE NO : 18001233666

Kolkata:
 BE-77, Salt Lake City
 Sector-1, Kolkata - 700 064
 Tel.: 033 2334 0666 / 0004
 Fax: 033 2334 0505
 E-mail: kolkata@topcem.in

Registered Office:
 Village: Thangskai, P.O. & P.S. Lumshing
 District: East Jaintia Hills, Meghalaya, PIN: 793210
 Tel.: +91 89742 17765 / 70850 58469 / 96625 09599
 E-mail: meghalaya@topcem.in



Action Taken Report

Meghalaya Cements Limited

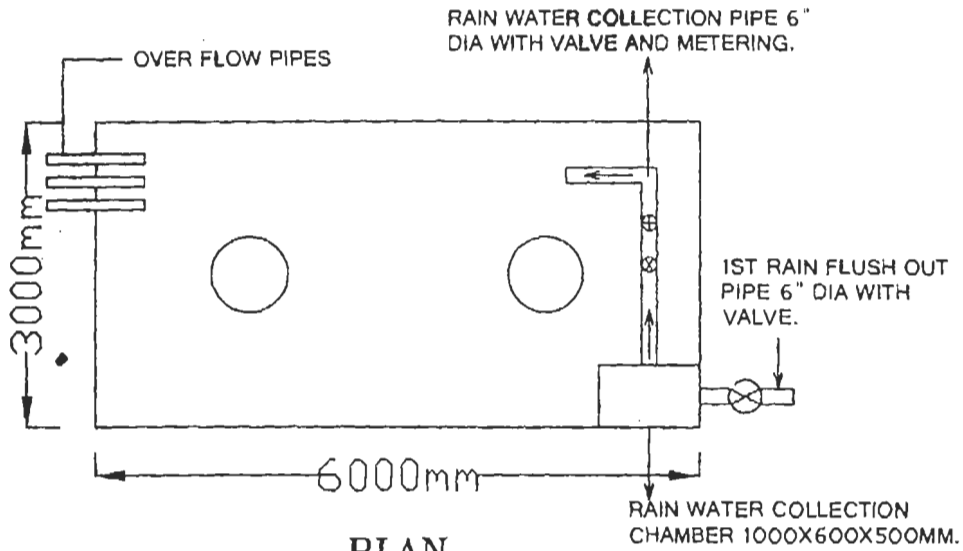
Details of Storage tank along with roof area, roof materials, volume of rain water and number of recharge structures on Rain water Harvesting measures implemented by M/s Meghalaya Cements Limited at Village- Thangskai, Po- Lumshnong, Dist- East Jaintia Hills, Meghalaya to comply the EC stipulation of 2600 TPD Cement Plant & 31.05 Ha Limestone Mines: -

SL. No.	Queries	Reply or Clarification
1	What is the total roof area of the entire site?	Raw Material Shed area- 31557.42 sqmtr & Residential Colony building roof area- 4777.194 sqmtr Total roof area is 36334.614 sqmtr.
2	How many sectors are in the project area and name? (i.e., raw material yard, colony building, etc.)	There are two sectors i.e raw material yard and colony building.
3	What is the roof area in each sector and what is the roof of materials?	Raw Material Shed area- 31557.42 sqmtr Residential Colony building roof area- 4777.194 sqmtr. CGI Sheets are used for Raw Material Shed and RCC for Colony building.
4	What is the volume of rain water in each sector and how many storage tanks you have already built in each sector?	Volume of rain water For Raw Material Shed area = 31557.42 $*6.683*0.80= 168718.6 \text{ m}^3$ For Residential Colony building= 4777.194 $*6.683*0.80= 25540.79 \text{ m}^3$ 01 storage tank has made for Raw Material Shed area and 02 storage tanks has made for Colony building. Additional 2 storage tanks constructed newly at WHRS Area.
5	How many storage tanks you planned to construct to capture the entire volume of rain water in how many days?	So far total 05 nos. of Storage tank start functioning to capture the entire volume of rain water.

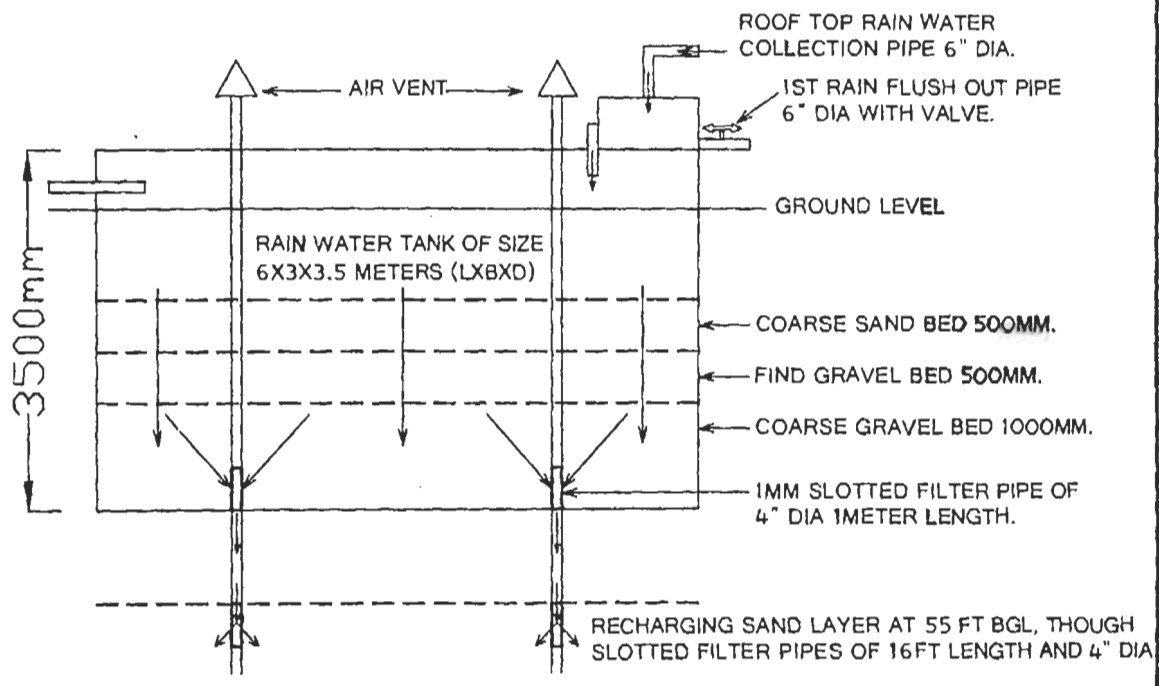


6	How many recharge structures you have constructed to recharge what volume of water?	05 no. of recharge structures with total 1863.49 m ³ capacity have been constructed to recharge the water. All are operational. Collected rain water is being used in process.
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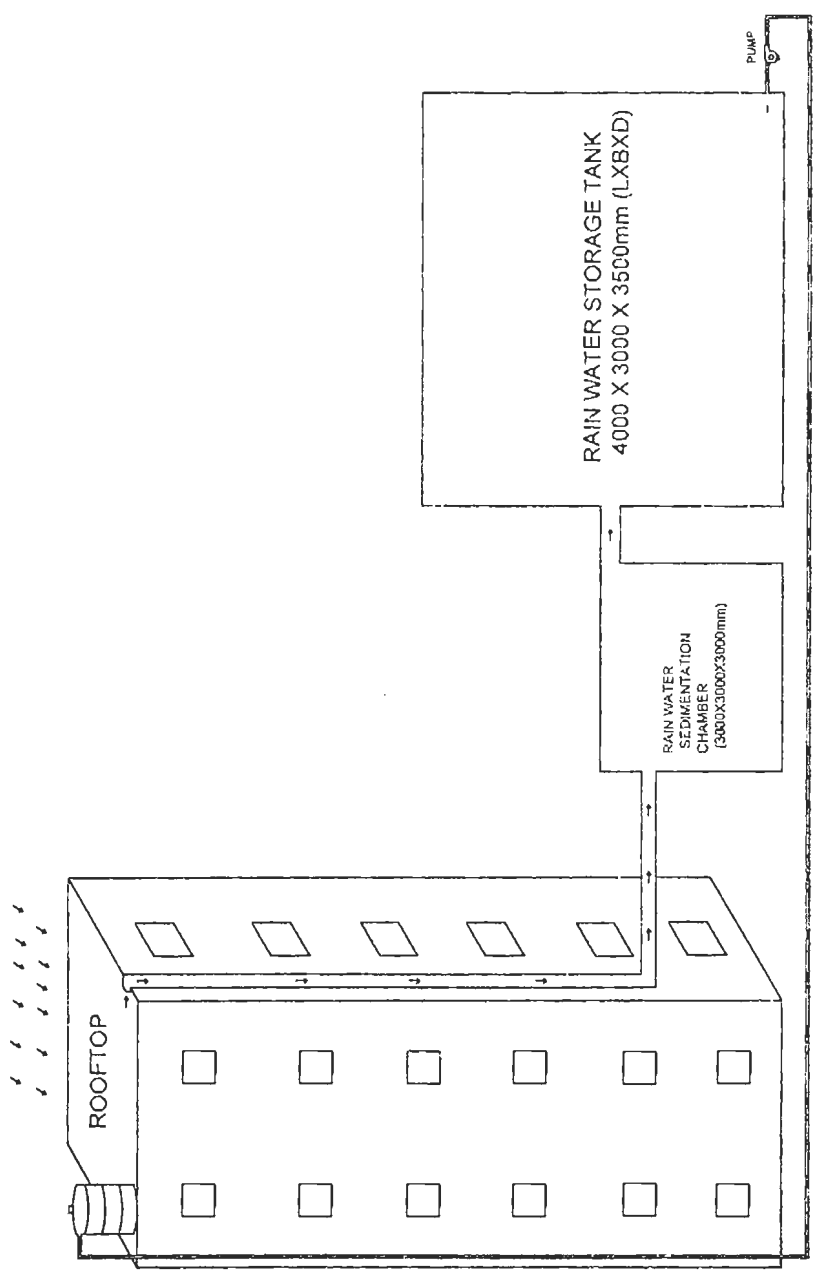
PLAN




ELEVATION

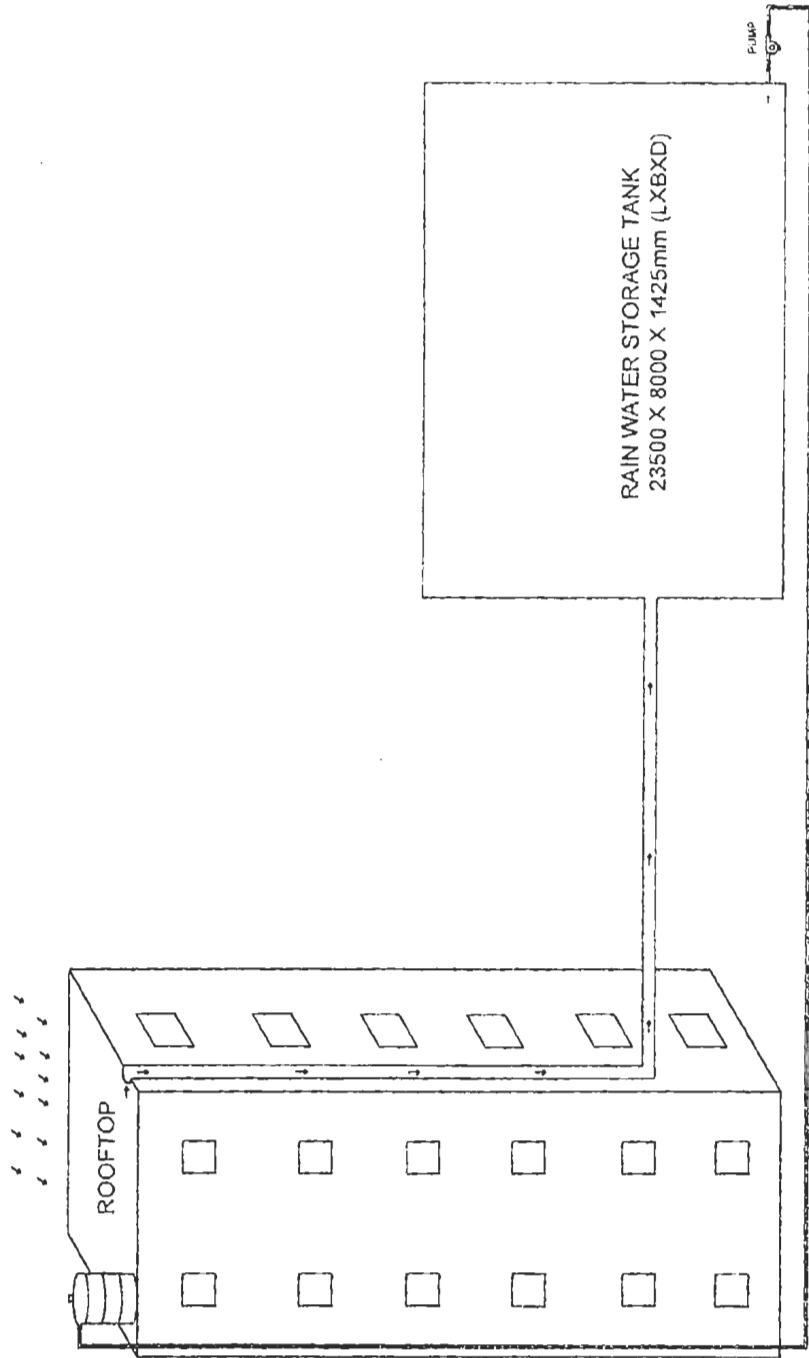


RAIN WATER HARVESTING SYSTEM					
		MEGHALAYA CEMENTS LIMITED			
SCALE NTS	DRAWN BY K.A.	DATE 06.02.16	CHKD. BY	APPD. BY	
DRG. NO. MCL/LAYOUT/RWHS/001				REV 0	



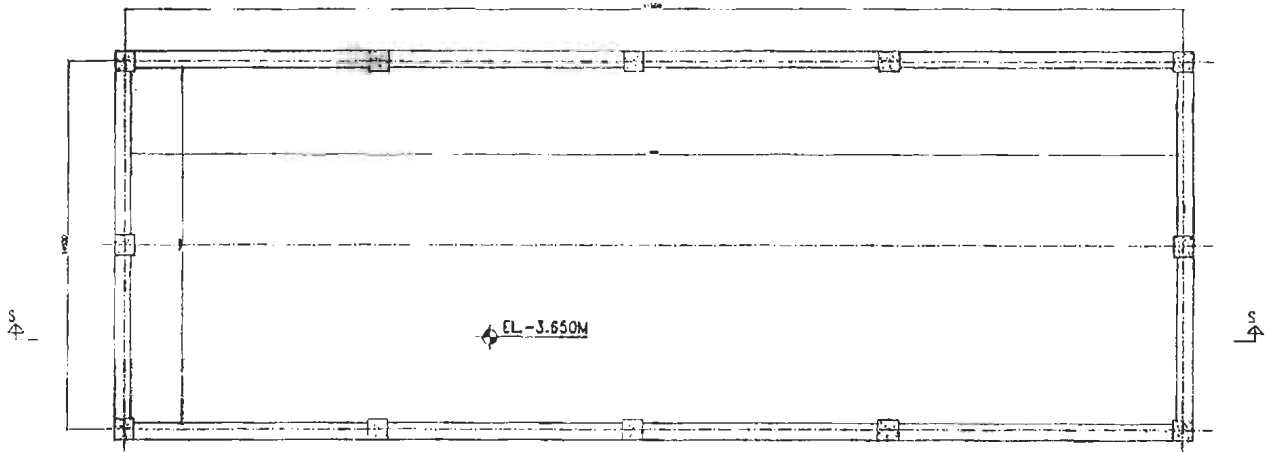
RAIN WATER HARVESTING SYSTEM-E BLOCK					
 MEGHALAYA CEMENTS LIMITED					
Scale	Date	Drawn	Ch. By	App. By	Rev. No.
NTS	25.09.22	V.M	K.A		0
Dwg. No. MCLAY/MISC.002					



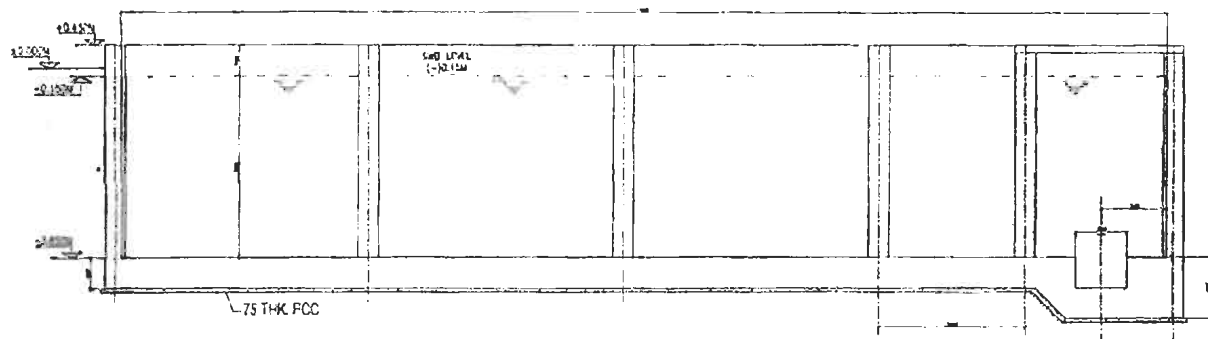


RAIN WATER HARVESTING SYSTEM TOPCEM COLONY		MEGHALAYA CEMENTS LIMITED		App By	Rev.No.
Scale	Date	Drawn	Ch By		
NTS	26.09.22	V.M	K.A		
Dwg. No.	MCL/LAY/MISC/J003				





TANK BOTTOM PLAN



Elevation view (S-S)



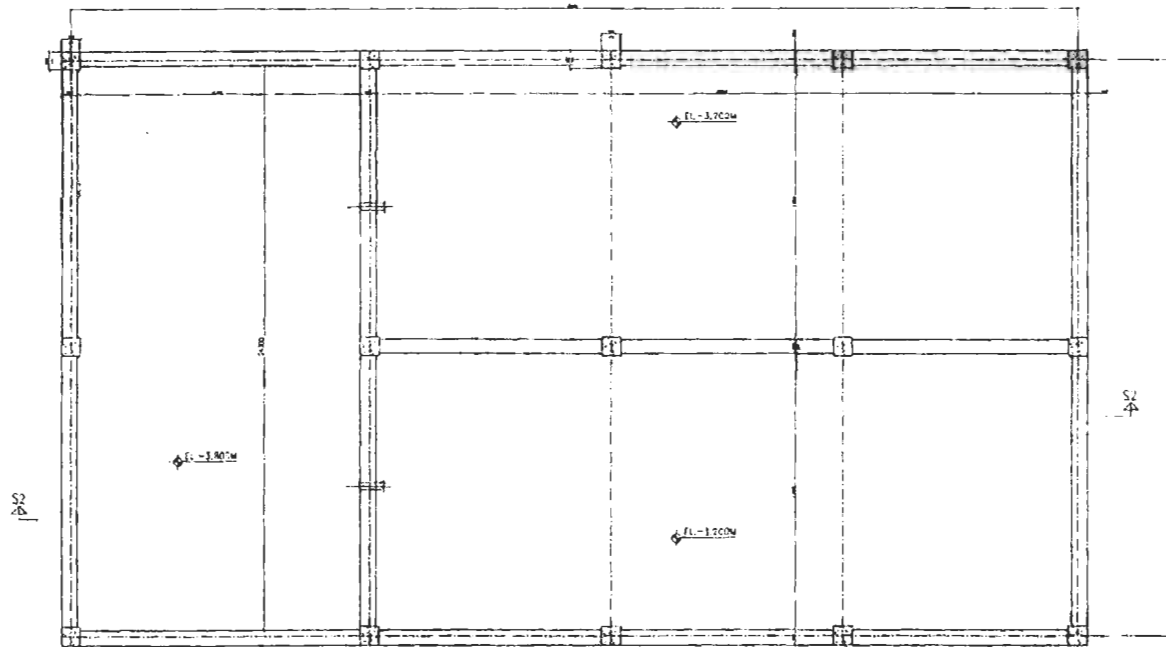
WATER STORAGE TANK
CAPACITY - 500 CUM

CT BLOWDOWN WATER STORAGE TANK

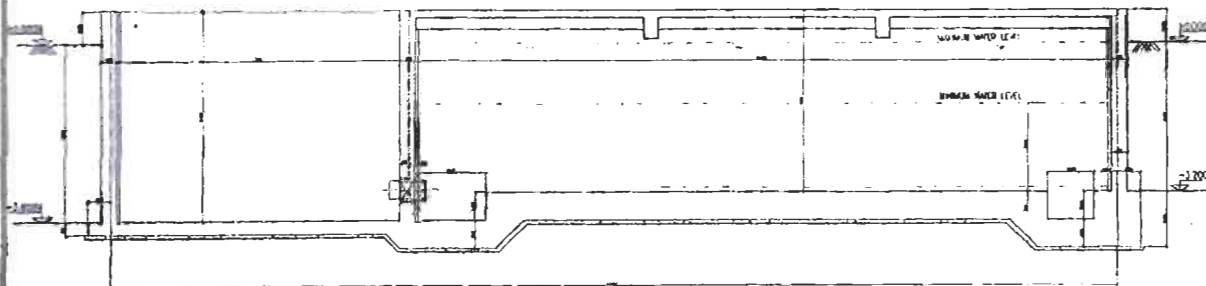


MEGHALAYA
CEMENTS LIMITED

SCALE N.T.S.	DRAWN BY G.K.	CH. BY U.A.	APPD. BY
DATE 14.03.2024			
DRG. NO - MCL/MISC/C.T.B/W.TANK-001			REV 0




TANK BOTTOM PLAN



Elevation view(S2-S2)



WATER STORAGE TANK
CAPACITY- 990.59 CUM

RAW WATER STORAGE TANK			
 MEGHALAYA CEMENTS LIMITED			
SCALE N.T.S	DRAWN BY G.K	CH. BY U.A	APPD. BY
DATE 14.03.2024			
DRG. NO - MCL/MISC/RAW/W TANK-002			REV 0

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सरकारी उपयोग के लिए केवल

Technical series



Central Ground Water Board

केंद्रीय भूमिजल बोर्ड

Ministry Of Water Resources, River Development & Ganga Rejuvenation

जलसंसाधन, नदी विकास और गंगा संरक्षण मंत्रालय

GOVERNMENT OF INDIA

भारत सरकार

REPORT ON RAIN WATER HARVESTING MEASURES IMPLEMENTED
BY M/s MEGHALAYA CEMENTS LIMITED AT VILLAGE- THANGSKAI,
SOUTH KHLIEJHARI, PO-LUMSHNONG,
DIST-EAST JAINTIA HILLS, MEGHALAYA

State Unit Office

राज्य इकाई कार्यालय

Shillong

शिलांग

December, 2023



REPORT ON RAIN WATER HARVESTING MEASURES IMPLEMENTED BY M/s MEGHALAYA CEMENTS LIMITED AT VILLAGE- THANGSKAI, SOUTH KHLIEJHARI, PO-LUMSHNONG, DIST-EAST JAINTIA HILLS, MEGHALAYA

A request had been received from Meghalaya Cements Limited, Thangskai, East Jaintia Hills district vide letter No MCL/ENV/CGWB/Comm/2022-23/31 dated 7th November, 2022 to approve the Rainwater Harvesting scheme/project being carried out in their campus. The Regional Director, Central Ground Water Board, North Eastern Region, deputed officers of SUO, Shillong to carry out the inspection of the above mentioned ongoing project. Accordingly, the inspection had been carried out in a reason 25th April, 2023.

Inspection Team : Ms. Dakshina Rabha, Scientist-D(HG)
Ms. Anenuo Pienyu, Scientist-C (HG)

Location details : **Meghalaya Cements (Topcem Cement).**
Village -Thangskai
District -East Jaintia Hills
State -Meghalaya

Co-ordinates : 25°12'12.60" North Latitude
92°22'47.83" East Longitude

Altitude : 798m.

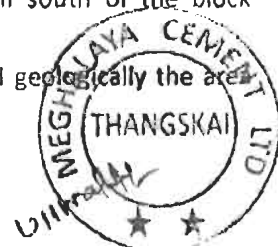
Introduction

The Meghalaya Cement Company wants expansion of cement plant by increasing its production capacity from existing 900 TPD to 2600 TPD along with 18MW Captive Power Plant at Thangskai, East Jaintia Hills district, Meghalaya. For this it requests amendment of Environmental Clearance relating to reduction of existing land area. On accepting the proposal of the company, State Environment Impact Assessment Authority impose some conditions for protecting the environment by developing green belt, restricting ground water extraction and recharging aquifer, recycling and reusing waste water, etc.

Scope of the Survey: State Environment Impact Assessment Authority in its environmental clearance report specifically instructed the company to practice rain water harvesting. It advised the company to prepare a detailed scheme for rain water harvesting to recharge the GW aquifer in consultation with CGWA/state GW Board within six months of receipt of Environmental Clearance. Accordingly this study was undertaken to examine the scope of rain water harvesting as well as possibility of recharging aquifer.

Location: M/s Meghalaya Cement Limited is located at village Thangskai, PO- Lumshnong, Dist- East Jaintia Hills, Meghalaya. Its distance from the state capital Shillong is 104 Kms on the National Highway number 44 connecting the capital and the eastern part of Assam passing through the district. The study area is located at a distance of 18 km south of the block headquarters Khliehriat.

M/s Meghalaya Cements Limited is located (in an undulatory terrain and geologically the area



predominantly consists of Jaintia Group (Age: Paleocene-Eocene) of rocks which is comprised of Sandstone and Limestone of Shella Formation. The depth of weathered zone is 1-2 m followed by hard massive rocks.



Fig.1: Location of M/s Meghalaya Cement Limited.

At present the total population of the premises are 2214 (Office: 1358, Residential Quarter: 843, Floating Population, Guest House: 13). There is no groundwater abstraction structure in the campus to cater domestic need. The company does not have any plan to construct any groundwater structure in the campus.

At present the water supply in the campus, is provided from a nearby stream. Water harvested from rooftop of buildings is also used for domestic purposes which are collected in storage tanks and recharge pits. One depression spring is located in the campus. The spring water is collected in a tank and utilized for electricity generation.

Rain water harvesting scheme: To comply conditions of State Environment Impact Assessment Authority, the company compiled following data for preparations of rainwater harvesting schemes.

- (i) **Rainfall data:** The company collected rainfall data of Shillong rain gauge station for last 5 years due to non-availability of continuous time series data of nearby Jowai station (Table 1). The average annual rainfall is 6683mm while average monsoon rainfall is 4758mm.

Table1: 5 years rainfall data of IMD, Shillong station.

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
2016	13.7	8.8	83.7	1026.9	661.2	796.4	2603.8	318.6	644.4	335.6	25.7	7.5
2017	0.6	214.4	313.4	887.4	395.9	1537.9	1433	1523.6	854	471.9	11.8	35.8
2018	3.6	18.1	67.7	264.6	691.5	1129.7	1431.7	746.6	617.5	73.9	6.1	14.9
2019	0.1	28.9	22.5	271.9	913.5	1474.5	2210.6	731.3	1016.6	508.3	25.8	3.3
2020	28.1	14.9	31.2	265.1	1533.2	1465.5	1668.2	224.2	1361.4	327.7	17.2	0.0

- (ii) **Roof area:** The entire area is divided into two sectors, viz., Raw Material Shed and Residential Colony building. The roof area, roof materials, volume of rain water available and storage tank constructed of each sectors are as follows:



Sector	Roof materials	Roof area (Sq.m)	volume of rain water (m3)	Storage tank constructed	Capacity of storage tanks (m3)
Raw Material Shed	Tin	31557.42	168718.6	1	42
Residential Colony building	RCC	4777.194	25540.79	2	267.9x2=535.8

(iii) Recharge structure: The company constructed only one recharge structure to recharge 63m³ of water.



Fig.2:Raw Material Yard



Fig.5: Residential Quarters

Observation on compliance of State Environment Impact Assessment Authority conditions pertaining to Central Ground Water Board:

State Environment Impact Assessment Authority besides other conditions instructed the company for compliance of following conditions:

- (1) Special conditions no. vi) debarred the company from use of groundwater for power productions.

Observations of CGWB: At present the company is not extracting groundwater from bore well or dug well. However, spring water is utilized for power production. Spring water is in fact is groundwater oozing out due to intersection of water table with topographic contour.



Fig.2: Spring water collection tank with power generation chamber.

- (2) The company has prepared and implemented roof top rain water harvesting and recharging plan as mentioned earlier. However, the scheme is flawed due to use of excess rainfall data and choosing of wrong runoff coefficient. If IMD rainfall data of Jowai station was not available then they should use IMD grid data of Jaintia Hills. The IMD Grid data of Jaintia Hills for 10 years (2013-2022) is shown in Table: 3.

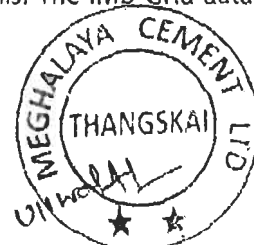


Table 3: Rainfall (mm) data of Jaintia Hills District, Meghalaya (source: India WRIS)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	0	10.12	60.41	98.51	440.32	210.86	299.4	282.57	194.63	120.77	0	1.9
2014	0.08	21.17	32.07	53.51	301.87	245.43	429.09	292.69	339.86	21.76	0.18	0.09
2015	16.14	15.36	28.64	258.55	214.52	357.91	290.41	333.3	266.12	53.93	19.21	4.78
2016	18.19	32.61	48.38	433.52	498.54	189.49	295.96	147.23	277.01	85.63	127.98	7.98
2017	0.25	48.43	237.77	444.39	261.56	426.47	299.33	341.97	319.22	280.34	18.38	55.23
2018	11.33	13.41	78.47	115.34	205.11	419.98	211	256.86	212.03	61.11	9.36	46.92
2019	0.12	18.61	37.16	137.79	291.51	291.2	366.88	220.35	211.67	231.89	25.66	0.68
2020	8.89	2.83	26.73	135.28	269.95	437.56	226.83	172.83	261.52	169.24	26.26	0.34
2021	2.07	0.21	66.45	120.33	200.05	244.69	230.54	315.36	109.11	185.47	0.05	21.66
2022	25.47	47.54	97.87	395.75	672.53	700.2	258.65	126.45	134.6	126.96	0.36	7.09

Runoff coefficient of tin and R.C.C. are 0.9 and 0.7 respectively (Source: Manual of Artificial Recharge of Groundwater (2007 & page: 118). With these data the total rain water volume available in the two sectors are as follows:

Sector	Roof materials	Runoff coefficient	Roof area (Sq.m)	volume of rain water (m ³)
Raw Material Shed	Tin	0.9	31557.42	55423.55
Residential building Colony	RCC	0.7	4777.194	6525.61

The storage tanks that are currently being built and those that are planned will collect approximately 1% of the total amount of rainwater that can be collected from the roof (61949.16 m³). If the volume of rainwater is not stored in toto, it may flow as surface runoff and breach the restrictions set forth in special condition number xxi.

(3) The total quantity of run-off that is generated in the site is 185826.56 m³ (Table: 4)

Table 4: Quantum of runoff available through Rainwater harvesting (within premises) for 2600 TPD Cement Plant

S. N.	Particulars	Area (Sqm) (To be filled)	Rainfall (m) (To be filled)	Runoff Coefficient*	Quantum of runoff available (Cum/Year)
	1	2	3	4	5(2*3*4)
1	Roof Top of building/Shed	36334.6	1.95142	0.85	60268.41682
2	Road/Paved area	49560	1.95142	0.65	62862.97945
3	Open Land (Rest of Area)	29540	1.95142	0.20	11528.97754
4	Green Belt (Plantation)	174800	1.95142	0.15	51166.17996
	Total (Sqm)	477825	Total Quantum of available runoff (Cum/Year)		185826.55

It is necessary to manage 70% of the non-committed run-off after classifying 30% as committed run-off (committed to fill roof top rainwater harvesting structure). 10% of the total non-committed run-off can be considered to be infiltrated by natural process. So at least half of the remaining 60% non-committed run-off needs to be managed either by recharge or storage. In either case recharging 63m³ of surface run-off is too small amount

and it will not serve any purpose.

Before recharging, water level condition of the site needs to be measured periodically. The general criteria of recharge is that if post-monsoon water level is deeper than 5 mbgl (metre below ground level) then only the artificial recharge technique can be applied. Since there is no mechanism to measure groundwater level in the site, the company should construct some ground water monitoring wells (preferably piezometers that can tap the sandstone aquifer) and measure the water level periodically as mentioned in the environmental clearance letter. After that only artificial recharge plan should be prepared. However, some ponds/tanks of appropriate dimensions should be constructed to conserve the non-committed surface run-off.

CONCLUSION AND RECOMMENDATION:

The rain water harvesting schemes is prepared with flawed data set. The constructed as well as proposed storage tanks will store nearly one percent of available rooftop rain water. It is determined that the 63m³ of rainwater intended for recharge is insufficient when taking into account of the volume of non-committed run-off.

Recommendations:

- i. Appropriate numbers of storage tanks need to be constructed to catch the roof top rain water.
- ii. Dug wells/piezometer networks should be establish to monitor GW level and quality as per directions issued by ENVIRONMENTAL CLEARANCE letter (No.SEIAA/(PR-19/2012)/PT/PR-05/2015/444 dated Shillong the 9th June 2017)
- iii. Artificial recharge plan should be prepared to recharge the aquifer if the post-monsoon water level is deeper than 5 mbgl.
- iv. Tanks/ponds with appropriate dimensions connected with storm water drains should be constructed to conserve the non-committed run-off.

Acknowledgement

The authors gratefully acknowledge Sh. Ujjal Anurag, Dy. Manager (Env.) and other senior officers of M/s Meghalaya Cements Limited for their kind co-operation during the course of the site inspection.



**GOVERNMENT OF MEGHALAYA
DEPARTMENT OF IRRIGATION
OFFICE OF THE EXECUTIVE ENGINEER (IRRIGATION)
JAINTIA HILLS DIVISION, JOWAI**

No AHD(J)223/2007-2008/

Dated Jowai, the 24th March, 2008

NO OBJECTION CERTIFICATE.

The Executive Engineer Irrigation Jaintia Hills Jowai after due consideration of all formalities relating to the issue of N.O.C. to Meghalaya Cement Limited for drawal of water from the River Chynryntong - Umparti near Thangskai village for its Cement Plant with its Captive Power Plant at Thangskai village, subject to N.O.C. issued by District Administration of Jaintia Hills District, Jaintia Hills Autonomous District Council, Jowai, Durbar Elaka Narpuh, Durbar Shnong Thangskai, Narpuh, the undersigned is pleased to grant this NO OBJECTION CERTIFICATE to the Meghalaya Cement Limited for the drawal of water from Chynryntong - Umparti River to the proposed Cement Plant and Captive Power Plant of Meghalaya Cement Limited at Thangskai village subject to the following condition:-

1. The Company will not claim any right over the river nor shall refrain any other agency from utilizing the water from Chynryntong-Umparti River as and when required.
2. The Company is to draw only the required quantity of water of 0.04 Cumecs and extra requirement should be obtained prior permission from the undersigned before drawal of the water from Chynryntong - Umparti River
3. To prevent pollution of river/stream/s, the company is to ensure that no liquid effluent should flow from the factory to any stream or river by construction of Treatment plants/soak pits.
4. The company should pay royalty/Cess as and when required as per the rule and regulation laid by the Government.
5. Regular monitoring as to the observance of the terms and condition to be done by the representative of the Department and the company on half yearly basis.



Cont. . P/2

6. The company should obtained No Objection Certificate for setting up plant from the Jaintia Hills Autonomous District Council including Trading Licence.
7. The company must follow the above terms and condition otherwise the legal action should be taken against the company.

S.D.P.
Shri.K.D. Phawa
Executive Engineer(Irrigation)
Jaintia Hills Division, Jowai

Memo.No.AID(J)223/2007-2008/ 1145 E,

Dated Jowai,the 24th March 2008.

Copy:

1. The Deputy Commissioner,Jaintia Hills District,Jowai - for favour of information.
2. The Chief Engineer(Irri), Meghalaya,Shillong - for favour of information as per technical approval vide letter no Agri/IRRI-1308/2007-02/242 dt Shillong 20th March 2008.
3. The Superintending Engineer(I) Meghalaya, Shillong Circle for favour of information.
4. ✓ Shri. Gopal Sharma, Authorised Signatory of Meghalaya Cement Ltd. Thangskai for favour of information.

S.D.P.
Shri.K.D. Phawa
Executive Engineer(Irrigation)
Jaintia Hills Division, Jowai



**GOVERNMENT OF MEGHALAYA
OFFICE OF THE DEPUTY COMMISSIONER JAINTIA HILLS DISTRICT
JOWAI**

No. GEN/MCL-4/81/140 - This is to certify that there is NO Objection to Shri Gopal Sharma, Authorized Signatory of MEGHALAYA CEMENTS LIMITED for drawing water from Wah Shyntong River to use of their Plant as well as for Power Plant. This certificate is issued on the basis of the N.O.Cs issued by the District Council/ Headman Mynkie/ Dolo of Ekka.

[Signature]
Deputy Commissioner,
Jaintia Hills District, Jowai

No GEN/MCL-4/81/140-A

Dated Jowai the 21st November 2006

Copy to

1. The Superintendent of Police, Jaintia Hills District Jowai for information
2. The Secretary, Jaintia Hills Autonomous District Council Jowai for information and necessary action.
3. Shri Gopal Sharma, Authorized Signatory Meghalaya Cements Limited for information and necessary action.

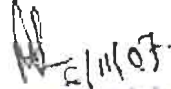
[Signature]
Deputy Commissioner,
Jaintia Hills District, Jowai



OFFICE OF THE DOLLOI ELAKA NARPUH
Jaintia Hills District, Meghalaya

NO OBJECTION CERTIFICATE

I, Shri Manbha Kyndoh, Dolloi of Narpuh Elaka, Jaintia Hills District, Meghalaya, hereby certify that I have no objection in drawing water from Wah Shyrtong river by M/s Meghalaya Cements Limited for their use and for power plant purpose.


Shri Manbha Kyndoh
Dolloi
Elaka Narpuh

Date:

Place:

Thangskai.
3/9/07.

Shri Manbha Kyndoh
Dolloi of Narpuh Elaka



OFFICE OF THE JAINTIA HILLS AUTONOMOUS DISTRICT COUNCIL, JOWAI.

: : : : :

NO. JHADC/WR/22/04/13/8

Dated Jowai, the 5-6-2007.

To,

✓ M/s Meghalaya Cement Limited,
Thangkai, Jaintia Hills District.

Subject :- No-objection certificate.

Reference :- Your letter dt. 03.05.07.

With reference to your petition above, I am directed to inform you that this Office have no objection for your drawl of water from Wah Chynryntang to the Cement Plant site on the following conditions.

1. This N.O.C is valid for drawl of water only.
2. The number and size of trees to be felled during the course of pipeline connection should be reported to this Office for necessary action.
3. The company shall have to reclaim out of its own cost any damage caused during the time of drawing of water from the river source.
4. It shall be the prime responsibility of the company that the nearby population crops, orchards etc. shall not be effected due to the drawl of water.
5. Non observance and violation of the above conditions this No-objection certificate is liable to be cancelled.


[Signature]
By, Chief Forest Officer,
Jaintia Hills Autonomous District Council,
Jowai.



/////

MEGHALAYA CEMENTS LIMITED

Six Monthly Reports: Stack Emission Report, 2024-2025

Chimney		<u>Suspended Particulate Matter (PM):mg/Nm³</u>							MoEF notification G.S.R 826(E), dated 16.11.2009, Concentration not to exceed,
		Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Avg.	
Pr. Crusher		17	16	17	14	19	19	17	30
Sec. Crusher		19	20	21	13	21	22	19.33	30
Coal mill 1		23	24	22	20	27	26	23.66	30
Coal mill 2		21	22	13	23	24	24	21.17	30
RABH 1	PM	24	21	23	19	21	24	22	30
	SO ₂	659	611	601	638	641	667	636.16	1000 (Based on pyritic sulphur presence in limestone)
	NO _x	289	205	334	355	331	362	312.16	600
RABH 2	PM	22	22	25	17	23	23	22	30
	SO ₂	661	574	632	655	625	669	636	1000 (Based on pyritic sulphur presence in limestone)
	NO _x	288	214	272	347	318	359	299.66	600
ESP 1		27	26	27	24	27	28	26.50	30
ESP 2		29	27	26	27	27	26	27	30
Cement Mill No-1		23	25	24	27	24	24	24.50	30
Cement Mill No-2		25	23	26	25	22	22	23.83	30
Packing House-1		24	23	26	23	26	23	24.17	30
Packing House-2		26	25	24	21	23	20	23.17	30
Prepared by <i>Abhigyan</i> Abhigyan Gautam							Checked & Verified by <i>Ujjwal</i> Ujjwal Anurag		

MEGHALAYA CEMENTS LIMITED

Six Monthly Report: Ambient Air Quality Report, 2024-2025

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,
		Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Avg.	
Near CCR Building	PM ₁₀	63.2	64.3	66.1	59.2	84.6	88.5	70.98	100
	PM _{2.5}	36.2	37.8	39.5	34.7	50.6	46.1	40.87	60
	SO ₂	5.3	5.5	5.7	6.5	8.7	8.9	6.76	80
	NO _x	6.5	6.9	7.1	7.1	9.8	9.8	7.86	80
Guest House	PM ₁₀	57.6	53.7	66.9	58.2	80.2	86.30	67.15	100
	PM _{2.5}	27.6	29.8	33.6	30.6	49.6	48.21	36.56	60
	SO ₂	6.2	7.2	6.6	6.2	7.5	10.28	7.33	80
	NO _x	7.6	5.3	7.1	6.4	7.9	17.52	8.63	80
Crusher	PM ₁₀	72.6	74.7	77.3	62.2	87.3	88.5	77.10	100
	PM _{2.5}	41.3	42.5	44.7	34.6	53.4	46.1	43.76	60
	SO ₂	7.5	5.5	7.8	8.2	14.5	8.9	8.73	80
	NO _x	8.2	6.9	8.6	9.1	11.8	9.8	9.06	80
DG House (Downwind direction)	PM ₁₀	43.8	52.9	47.4	53.7	63.8	91.3	58.82	100
	PM _{2.5}	23.1	32.4	28.9	30.4	32.4	52.8	33.33	60
	SO ₂	5.8	7.8	5.3	6.9	6.3	13.9	7.67	80
	NO _x	7.2	8.1	6.2	8.3	7.6	16.4	8.97	80

Prepared by


 Abhigyan Gautam


Checked & Verified by


 Ujjwal Anurag

MEGHALAYA CEMENTS LIMITED

Six Monthly Reports: Noise Intensity and Water Consumption, 2024-2025

Location		Noise Intensity: dB (A) Leq							Noise Level not to exceed, in dB (A) Leq
		Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Avg.	
Captive Power Plant	Day	68.5	68.5	69.7	64.1	69.1	40.1	63.33	75
	Night	64.8	64.8	66.3	61.2	64.4	35.3	59.46	70
DG House	Day	41.7	41.7	43.6	70.2	42.9	69.5	51.60	75
	Night	36.6	36.6	38.8	66.8	39.2	64.5	47.08	70
Guest House	Day	40.7	40.7	42.9	42.9	45.3	42.8	42.55	75
	Night	42.8	42.8	40.9	37.3	40.4	37.8	40.33	70
Crusher	Day	70.9	70.9	71.6	67.9	72.4	72.4	71.01	75
	Night	65.9	65.9	66.4	63.4	39.2	67.6	61.40	70

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

Location	Water Consumption(Monthly) : M ³							Water Consumption not exceed
	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Avg. (m ³ /Day)	
Domestic (m ³)	5141	6092	6123	5095	6092	4498	181.54	1236 m ³ /Day
Industrial Cement Plant (m ³)	12521	15582	16464	13601	15582	12071	471.54	
Industrial WHRS (m ³)	8658	7505	7846	7881	7505	7232	256.19	



MEGHALAYA CEMENTS LIMITED


Six Monthly Reports (CPP): PM & AAQ Report, 2024-2025

Chimney : CPP		Suspended Particulate Matter (PM) & Gaseous Emission:mg/Nm ³								
			Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Avg.	Concentration not to exceed, in mg/Nm ³
		PM	44	42	44	44	44	43	43.50	50
		SO ₂	408	416	422	320	546	409	420.16	600
		NO _x	178	194	187	164	209	194	187.66	300
		Hg	-	-	-	0.015	<0.001	-	0.008	0.03
Location: CPP		Ambient Air Quality (AAQ):µg/m ³								
		Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Avg.	MoEF notification G.S.R 826(E), dated 16.11.2009, Concentration not to exceed,	
S↔E	PM ₁₀	76.7	78.1	79.6	55.1	52.9	91.3	72.28	100	
	PM _{2.5}	44.8	45.9	48.2	26.2	34.7	52.8	42.10	60	
	SO ₂	8.6	8.8	8.9	8.3	8.8	13.9	9.55	80	
	NO _x	9.7	9.9	10.2	9.6	7.2	16.4	10.50	80	
S↔W	PM ₁₀	57.8	65.8	58.3	67.8	45.9	80.1	62.61	100	
	PM _{2.5}	35.1	31.56	33.58	36.9	31.2	49.51	36.30	60	
	SO ₂	6.3	7.8	6.8	8.7	6.2	9.45	7.54	80	
	NO _x	7.5	8.6	7.3	10.2	5.9	5.82	7.55	80	
N↔E	PM ₁₀	61.4	62.3	66.9	59.3	53.2	75.69	63.13	100	
	PM _{2.5}	33.6	29.8	37.9	29.8	29.2	41.02	33.55	60	
	SO ₂	7.9	8.3	8.3	7.3	9.7	11.58	8.84	80	
	NO _x	8.3	9.4	9.2	6.8	8.4	7.85	8.32	80	
Prepared by		Checked & Verified by								
Abhigyan Gautam		Ujjwal Anurag								

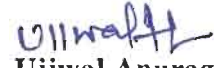
MEGHALAYA CEMENTS LIMITED

Location: CPP	<u>Water Consumption(Monthly) :M³</u>							
	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Avg. (M ³ /Day Cons.)	Water Consumption not exceed
	15734	16833	16663	17164	16212	18961	475.64	2000 m ³ /Day

Location		<u>Meteorological Data (Monthly Avg.)</u>					
		Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025
Temperature	Min	15.44	10.33	8.85	7.68	8.47	12.15
	Max	28.66	30.08	27.07	24.55	25.59	28.26
	Avg.	20.27	18.97	15.75	14.94	16.06	18.84
Humidity	Min	52.01	27.83	14.49	31.48	23.40	20.66
	Max	95.68	96.35	94.26	93.54	95.68	95.77
	Avg.	84.21	71.75	67.05	68.61	59.85	64.55
Rain Fall	MTD	160	5.50	0.00	0.00	0.00	37
	YTD	7567.50	7573	7573	7573	7573	7610

Prepared by

 Abhigyan Gautam



Checked & Verified by

 Ujjwal Anurag



PERIODIC MEDICAL EXAMINATION MEGHALAYA CEMENTS LTD



NAME KRIPA SHANKAR VERMA DATE OF EXAMINATION 02/03/20

DESIGNATION DY. MANAGER DEPARTMENT CDP

AGE/SEX 48/M BLOOD GROUP O (+ve) BLOOD SUGAR (F) 103 mg/dl EMPLOYEE CODE 2032

IDENTIFICATION MARK Brown birkmanle Rt. upper cheek Mobile No 9862469405

ANY COMPLAINTS None

PERSONAL HISTORY None

ANY HISTORY OF ALCOHOL / SMOKING / TOBACCO None

FAMILY HISTORY OF ANY DISEASE None

GENERAL EXAMINATION: HEIGHT 165 cm, Wt 69.7 kgs BP 126/80 mm/Hg PULSE 85 /min RESP RATE 16 /min

CHEST MEASUREMENT: FULL INSPIRATION 96 cm. EXPIRATION 90 cm

EYE: Right Left

DISTANT VISION (WITH/WITHOUT GLASSES) G/G G/G

NEAR VISION (WITH/WITHOUT GLASSES) N/G N/G

ANY COLOUR BLINDNESS/ NIGHT BLINDNESS/SQUINT/EYE DISEASES None

PALLOR / CYANOSIS / ICTERUS / CLUBBING / LYMPHADENOPATHY / OEDEMA None

EARS, HEARING: RIGHT WNL LEFT WNL ANY ORGANIC DISEASE None

AUDIOMETRY WNL

EVS S1 + S2 + ANY OTHER SOUNDS None (R) study

JVP RAISED / NOT RAISED VEINS (R) tone

RESPIRATORY SYSTEM BREATH SOUNDS Y of clear TRACHEA midline

ANY CREPITS/RONCHI WNL SPIROMETRY WNL

GI SYSTEM ABDOMEN Soft, N/C LIVER/SPLEEN Not palpable

GENITOURINARY SYSTEM: EXTERNAL GENITILIA (N) HERNIA/HYDROCELE None

CNS: ANY FITS/SEIZURE/PARALYSIS/WEAKNESS None

REFLEXES: PUPILLARY N KNEE JERK N ANKLE JERK N BABINSKI SIGN neg

GAIT (N) TREMORS None ROMBERG TEST neg FINGER NOSE TEST (N)

MENTAL HEALTH Good FITNESS STATUS Fat

REMARKS :-

(1) Avoid sugar, potatoes, sweets.

Signature of Doctor

Medical Officer
Meghalaya Cements Ltd



DR. LANU AKASHIMOL
RMC Regd. No. 31851
*18BS, SPMC, Bikaner (Raj.)

Name & Regd. No.



Occupational Health Centre, MCL.

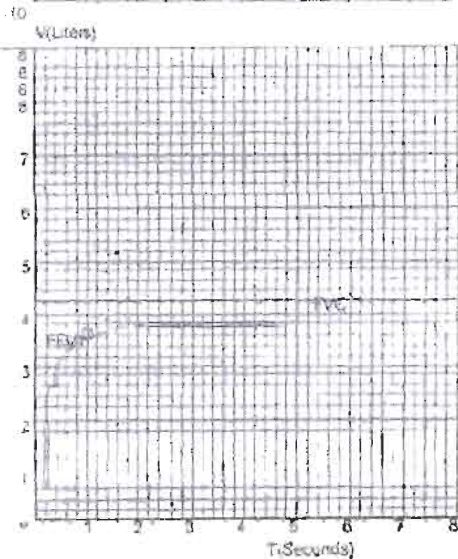
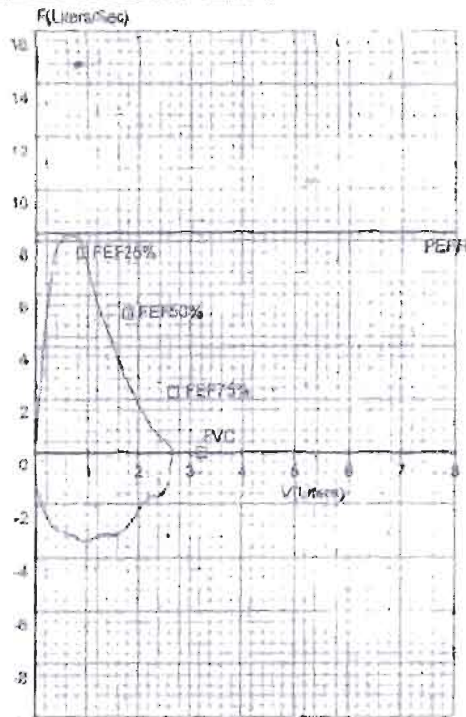
Vill-Thangskai, P.O-Lumshnong, Dist-East Jaintia Hills, Meghalaya-793210

2032 - KRIPA SHANKAR VERMA
48 Years / Male / Ht 165 Cms / 69 Kgs / Non-Smoker

FVC TEST
Date 02-03-2025 (T2)

Pred Spn : CLARITY
Ref By : NONE

EtH Corr: 100 Temp 37C



Pre Medication Report:

Spirometry within Normal range as FVC% ≥ 80 And
FEV1/FVC% > 70

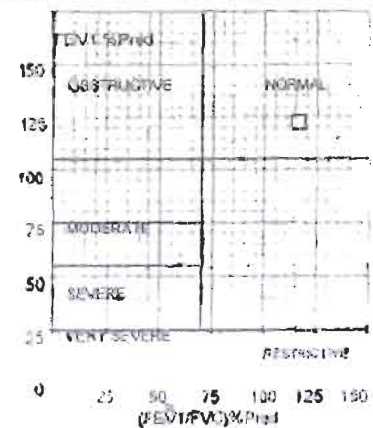
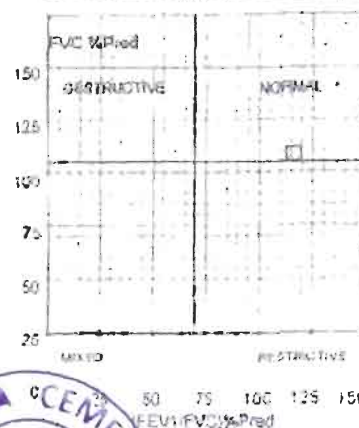
Pre COPD Severity Report:

COPD Severity within Normal range

Doctor's Comments:

WNL.

Parameter	Pred	Pre	Pre%	Post	Post%	Shp%
FVC	[L]	3.15	2.63	93	--	--
FEV1	[L]	2.53	2.48	98	--	--
FEV5	[L]	--	2.13	--	--	--
FEV3	[L]	3.11	2.45	78	--	--
FEV6	[L]	--	--	--	--	--
PEFR	[L/s]	8.36	8.35	104	--	--
FEF25-75	[L/s]	3.45	5.11	143	--	--
FEF75-85	[L/s]	--	1.35	--	--	--
FEF2-12	[L/s]	6.11	7.16	119	--	--
FEF25%	[L/s]	7.61	9.39	124	--	--
FEF50%	[L/s]	5.27	5.45	109	--	--
FEF75%	[L/s]	2.28	1.73	77	--	--
FEV5/FVC	[%]	--	78.62	--	--	--
FEV1/FVC	[%]	79.13	91.85	116	--	--
FEV3/FVC	[%]	97.90	91.83	97	--	--
FEV6/FVC	[%]	--	--	--	--	--
FEV1/FEV5	[%]	--	--	--	--	--
FEV	[S]	--	4.64	--	--	--
ExpTime	[S]	--	0.13	--	--	--
LungAge	[Y]	50.00	62.04	102	--	--
FVC	[L]	--	2.74	--	--	--
PEFR	[L/s]	--	3.37	--	--	--
FIF25%	[L/s]	--	9.41	--	--	--
FIF50%	[L/s]	--	5.99	--	--	--
FIF75%	[L/s]	--	2.13	--	--	--
FIV5	[L]	--	0.96	--	--	--
FIV1	[L]	--	2.45	--	--	--
FIV3	[L]	--	--	--	--	--
FIV5/FVC	[%]	--	33.33	--	--	--
FIV1/FVC	[%]	--	88.15	--	--	--
FIV3/FVC	[%]	--	--	--	--	--



DR. LANU AKASHAI MOL
RMC Regd. No. 31851
MBBS, SPMG, Bikaner (Raj.)
Medical Officer
Meghalaya Cement Ltd.



OCCUPATIONAL HEALTH CENTER

MEGHALAYA CEMENT LTD, THANGSKAI

X-Ray Report

Name Of Patient	KRIPA SINGHAR VERMA
Age/Sex	48/Male
Department	OPD
Date	02/08/25

Trachea :	Midline
Lungs Field :	B/L Clear. No infiltrates
Cardiac Field :	
Aortic Knuckle :	
Diaphragm :	
CP Angle :	
Ribs & Other osseous structure :	
Soft Tissue :	No acute findings

(N) Study



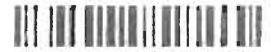
Signature of
 DR. LANUJAM
 RMC Regd. No. 3185
 MBBS, SPMC, Bikaner (Raj.)
 Medical Officer
 Meghalaya Cements Ltd

Annexure - VI



OCCUPATIONAL HEALTH CENTRE

MEGHALAYA CEMENTS Ltd., Vill - Thangskai, PO - Lumshnong,
East Jaintia Hills, Meghalaya, India, 793210



Name: MR. KRIPA SHANKAR VERMA(3032)

Invoice No: 740

Case No: M750

Age/Sex: 48 Years / Male

Registered On: 02-03-2025 11:37 AM

Referrer: DR. LANU AKASH AIMOL

Type/Remark: Healthy Patient

Haematology

TEST	RESULT	UNIT	REFERENCE RANGE
Hemoglobin	14.3	g/dL	13 - 17



Sankar Singha
Lab Technician OHC MCL



Medical Officer
Meghalaya Cements Ltd.
Dr. Lanu Akash Aimol
RMO OHC MCL

**OCCUPATIONAL HEALTH CENTRE**MEGHALAYA CEMENTS Ltd., Vill - Thangskai, PO - Lumshinong,
East Jaintia Hills, Meghalaya, India, 793210

Name: MR. KRIFA SHANKAR VERMA(3032)

Invoice No: 740

Case No: M750

Age/Sex: 48 Years / Male

Registered On: 02-03-2025 11:37 AM

Referrer: DR. LANU AKASH AIMOL

Type/Remark: Healthray Patient

Biochemistry

TEST	RESULT	UNIT	REFERENCE RANGE
FASTING BLOOD SUGAR			
Fasting Blood Sugar	H 103.0	mg/dl	70-100

Sankar Singha
Lab Technician OHC MCLMedical Officer
Meghalaya Cements Ltd.
Dr. Lanu Akash Aimol
RMO OHC MCL



OCCUPATIONAL HEALTH CENTRE

MEGHALAYA CEMENTS Ltd., Vill - Thangskai, PO - Lumshnong,
East Jaintia Hills, Meghalaya, India, 793210



Name: MR. KRIPA SHANKAR VERMA(3032)

Invoice No: 740

Case No: M750

Age/Sex: 48 Years / Male

Registered On: 02-03-2025 11:37 AM

Referrer: DR. LANU AKASH AIMOL

Type/Remark: Healthy Patient

Haematology

LIVER FUNCTION TEST (LFT)

TEST	RESULT	UNIT	REFERENCE RANGE
TOTAL BILIRUBIN	0.63	mg/dl	0.3 - 1.2
SGOT (AST)	19.4	U/l	15 - 40
SGPT (ALT)	22.8	U/L	10 - 49
S. Alkaline Phosphatase	110	U/L	30 - 120
SERUM PROTEIN			
Total Protein	7.89	g/dL	5.7 - 8.2
Albumin	3.90	g/dL	3.2 - 4.8
Globulin	H 3.94	g/dL	2.5 - 3.4
A/G Ratio	1.00		0.9 - 2

Interpretation:

Note:

1. In an asymptomatic patient, Non-alcoholic fatty liver disease (NAFLD) is the most common cause of increased AST & ALT levels. NAFLD is considered as hepatic manifestation of metabolic syndrome.
2. In most types of liver disease, ALT activity is higher than that of AST; exception may be seen in Alcoholic Hepatitis, Hepatic Cirrhosis, and Liver neoplasia.
3. In a patient with Chronic liver disease, AST: ALT ratio >1 is highly suggestive of advanced liver fibrosis



Sanker Singha
Lab Technician OHC MCL



Dr. Lanu Akash Aimol
RMO OHC MCL



OCCUPATIONAL HEALTH CENTRE

MEGHALAYA CEMENTS Ltd., Vill - Thangskai, PO - Lumshnong,
East Jaintia Hills, Meghalaya, India, 793210



Name: MR. KRIPA SHANKAR VERMA(3032)

Invoice No. 740

Case No. M750

Age/Sex: 48 Years / Male

Registered On: 02-03-2025 11:37 AM

Referrer: DR. LANU AKASH AIMOL

Type/Remark: Healthray Patient

Biochemistry

LIPID PROFILE

TEST	RESULT	UNIT	REFERENCE RANGE
TOTAL CHOLESTEROL	140.8	mg/dl	< 200
TRIGLYCERIDE	96.3	mg/dl	<150
HDL Cholesterol	48.0	mg/dl	40 - 60
LDL / HDL Ratio	2.17		1.5 - 3.5
LDL Cholesterol	H 104.2	mg/dl	< 100
VLDL	19.26	mg/dl	0 - 30
CHOL./HDL Chol. Ratio	L 2.93		3 - 5
TGL / HDL Ratio	2.0		<3.12



Sankar Singha
Lab Technician OHC MCL



Dr. Lanu Akash Aimol
RMO OHC MCL



OCCUPATIONAL HEALTH CENTER
Unit - Meghalaya Cements Limited

Name :-

KRIFA SYAMRAJ DEB

Age :-

45

Sex :-

Male

Department :-

CRP

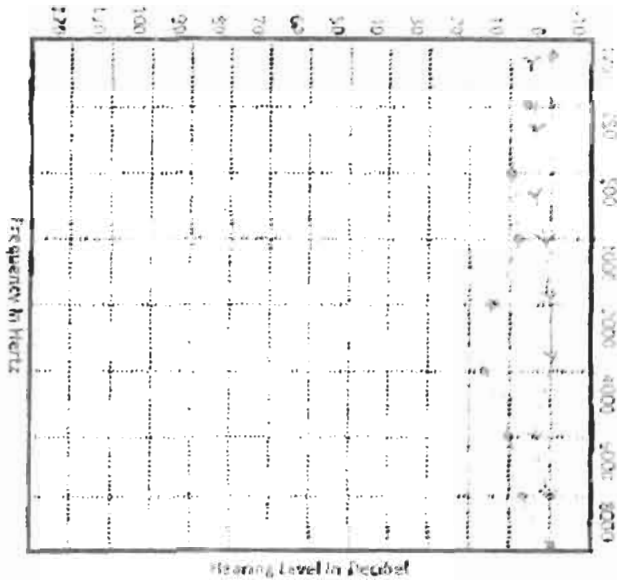
Employee code :-

2032

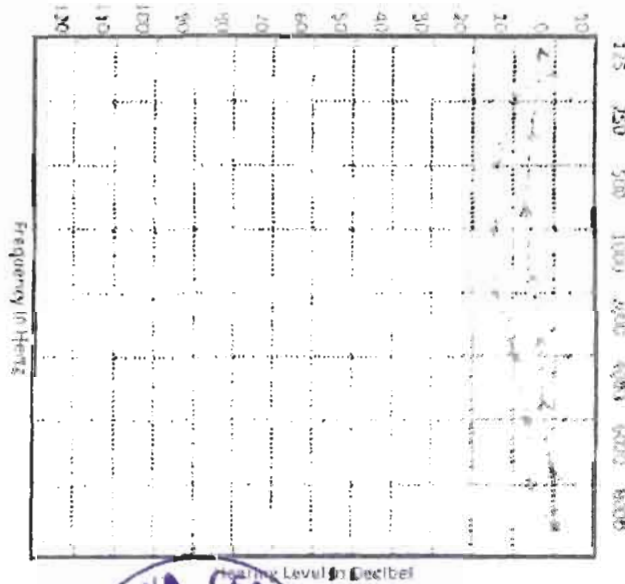
Date :-

02/03/20

RIGHT



LEFT



Complaints	Deafness, Over noise, Tinnitus, Headache
Examination	ENT, Otolaryngology, Audiometry, Speech, Hearing, etc.
Diagnosis	ENT, Otolaryngology, Audiometry, Speech, Hearing, etc.
Recommendations	ENT, Otolaryngology, Audiometry, Speech, Hearing, etc.

Source	ENT, Otolaryngology, Audiometry, Speech, Hearing, etc.
Observation	ENT, Otolaryngology, Audiometry, Speech, Hearing, etc.
Remarks	ENT, Otolaryngology, Audiometry, Speech, Hearing, etc.

AC	BC
AC	BC
AC	BC
AC	BC

AC: Air Conduction
BC: Bone Conduction
AC: Ring Colour
BC: Blue Colour

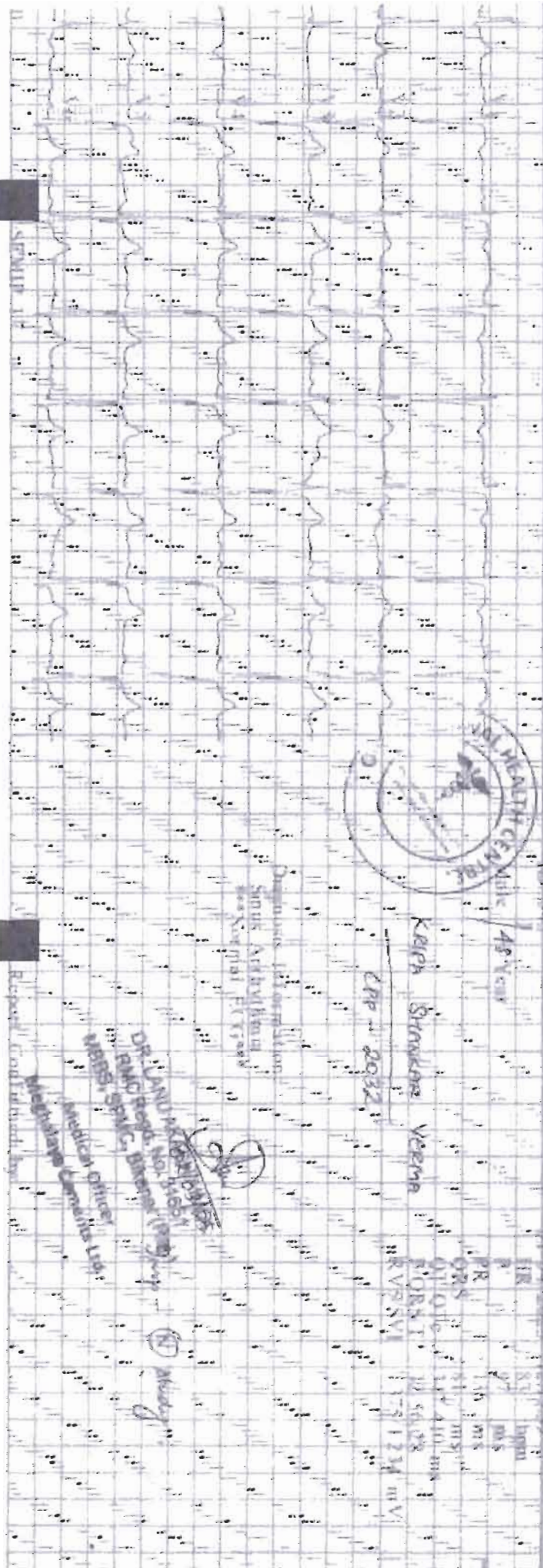
Remarks:

ENT, Otolaryngology, Audiometry, Speech, Hearing, etc.

Place: Mel.

Date: 02/03/20

DR. L. K. ANANDAN
MBBS, DPM, DLO, DNB (ENT)
Medical Officer
Meghalaya Cement Ltd.



45 Year

Kern Shukla Verna

CP - 2032

HR 75 bpm
PR 160 ms
QRS 80 ms
QT 340 ms
QTc 38 ms
RV SV 1.5 1.2 mV

Diagnosis: Normal ECG

Dr. V. V. V. V. V.

Dr. V. V. V. V. V.

Report generated by
Medical Center Ltd.
RMS, Spine, Borealis (Pvt) Ltd.
Dr. V. V. V. V. V.





PERIODIC MEDICAL EXAMINATION MEGHALAYA CEMENTS LTD



NAME PAWAN KUMAR PAL DATE OF EXAMINATION 02/03/25

DESIGNATION SR. FITTER DEPARTMENT CRP

AGE/SEX 48/M BLOOD GROUP AB (IVE) BLOOD SUGAR (F) 90 mg/dl EMPLOYEE CODE 2067

IDENTIFICATION MARK Black mole Back of neck (L) side Mobile No. 9248958503

ANY COMPLAINTS None

PERSONAL HISTORY None

ANY HISTORY OF ALCOHOL / SMOKING / TOBACCO Occ

FAMILY HISTORY OF ANY DISEASE None

GENERAL EXAMINATION: HEIGHT 170 cm, Wt. 65.9 kg, BP 138/86 mm/Hg PULSE 72 /min RESPIRATE 16 /min

CHEST MEASUREMENT: FULL INSPIRATION 94 cm, EXPIRATION 88 cm.

EYE: Right Left

DISTANT VISION (WITH/WITHOUT GLASSES) 6/6 6/6

NEAR VISION (WITH/WITHOUT GLASSES) N/G N/G

ANY COLOUR BLINDNESS/ NIGHT BLINDNESS/SQUINT/EYE DISEASES None

PALLOR / CYANOSIS / ICTERUS / CLUBBING / LYMPHADENOPATHY / JEDEMA None

HEARING: RIGHT WNL LEFT WNL ANY ORGANIC DISEASE None

AUDIOMETRY WNL

CVS S1 + S2 + ANY OTHER SOUNDS None ECG (N) Study

IVP RAISED / NOT-RAISED VEINS (N) fair

RESPIRATORY SYSTEM: BREATH SOUNDS 191 (low) TRACHEA Central

WET CREPITS/RONCAL WNL SPIROMETRY WNL

GIT SYSTEM: ABDOMEN Soft, S (F) LIVER/SPLEEN not palpable

GENITOURINARY SYSTEM: EXTERNAL GENITULIA (N) HERNIA/HYDROCELE None

CNS: ANY FITS/SEIZURE/PARALYSIS/WEAKNESS None

REFLEXES: PUPILARY N KNEE JERK N ANKLE JERK N BABINSKI SIGN neg

GAIT N TREMORS None ROMBERG TEST neg FINGER NOSE TEST (N)

MENTAL HEALTH Good FITNESS STATUS Moderate

REMARKS :-

(1) Avoid oily fatty foods & sugar

Signature of Doctor

Medical Officer
Meghalaya Cements Ltd



DR. LANU AKASH AIMOL
RMC Regd. No. 31851
SPRS. SPMC, Bikaner (Raj.)
Name & Regd. No.

Annoyerre - VI



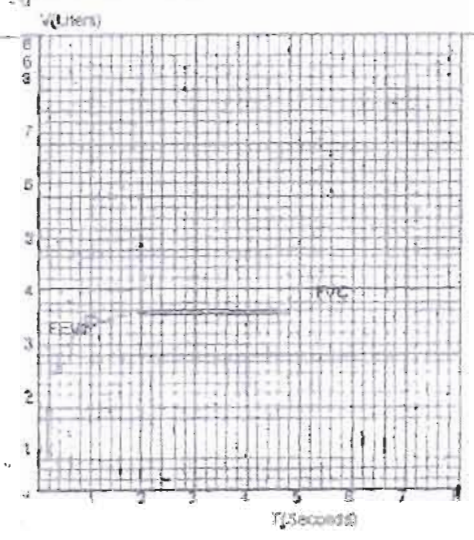
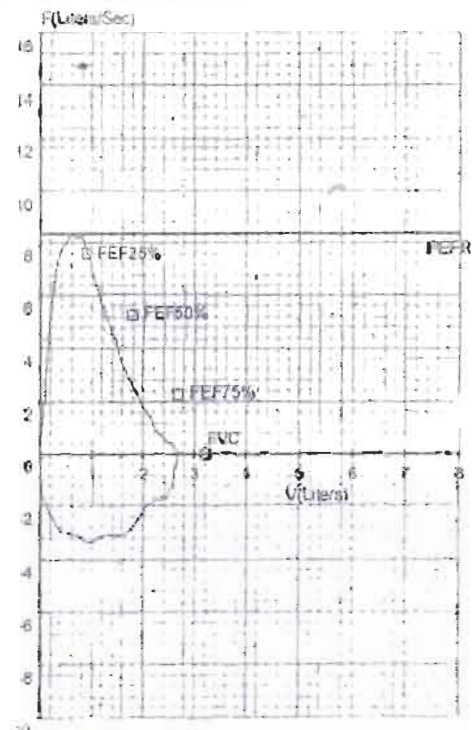
Occupational Health Centre, MCL.

Vill-Thangskai, P.O-Lumshong, Dist-East Jaintia Hills, Meghalaya-791210

2067 - PAWAN KUMAR PAL
48 Years / Male / Ht 170 Cms / 65 Kgs / Non-Smoker

FVC TEST
Date: 02-03-2025 (T2)

Prad Eqn: CLARITY, Ein Coll: 100 Temp: 30°C
Ref By: NONE

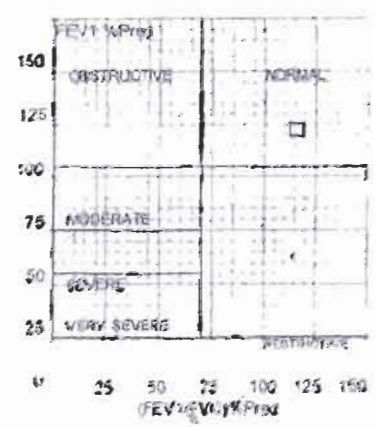
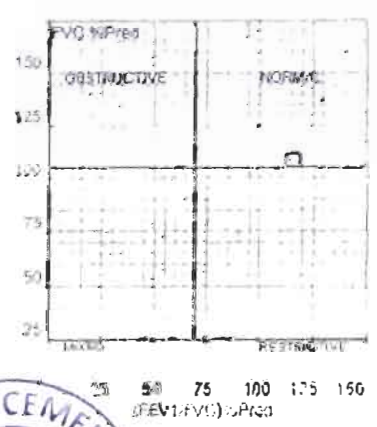


Parameter	Unit	Pred	Pre	Pre%	Post	Post%	Imp%
FVC	[L]	3.20	2.64	91	-	-	-
FEV1	[L]	2.56	2.45	95	-	-	-
FEV.5	[L]	-	2.12	-	-	-	-
FEV3	[L]	3.11	2.48	77	-	-	-
FEV6	[L]	-	-	-	-	-	-
PEFR	[L/s]	8.38	8.38	101	-	-	-
FEF25-75	[L/s]	3.45	5.12	147	-	-	-
FEF75-85	[L/s]	-	1.36	-	-	-	-
FEF.2-12	[L/s]	6.11	7.14	118	-	-	-
FEF25%	[L/s]	7.61	9.37	125	-	-	-
FEF50%	[L/s]	5.27	5.45	106	-	-	-
FEF75%	[L/s]	2.28	1.74	77	-	-	-
FEV3/FVC	(%)	-	78.61	-	-	-	-
FEV1/FVC	(%)	79.13	91.85	117	-	-	-
FEV3/FEV5	(%)	97.00	91.86	96	-	-	-
FEV6/FVC	(%)	-	-	-	-	-	-
FEV1/FEV6	(%)	-	-	-	-	-	-
FET	[S]	-	4.68	-	-	-	-
ExpiTime	[S]	-	0.12	-	-	-	-
LungAge	[Y]	50.00	51.00	106	-	-	-
FVC	[L]	-	2.79	-	-	-	-
PIFR	[L/s]	-	2.38	-	-	-	-
FIF25%	[L/s]	-	3.43	-	-	-	-
FIF50%	[L/s]	-	5.97	-	-	-	-
FIF75%	[L/s]	-	2.19	-	-	-	-
FIV.5	[L]	-	0.92	-	-	-	-
FIV1	[L]	-	2.47	-	-	-	-
FIV3	[L]	-	-	-	-	-	-
FIV.5/FVC	(%)	-	33.31	-	-	-	-
FIV1/FVC	(%)	-	88.15	-	-	-	-
FIV3/FVC	(%)	-	-	-	-	-	-

- Pre Medication Report
Spirometry within Normal range as FVC% = 80 And
FEV1/FVC% = 70

- Pre COPD Severity Report:
COPD Severity within Normal range

- Doctor's Comments:
INNUL



DR. LAKSHY KASHI MOOL
RMC Regd. No. 31851
MBBS, SPMG, Bilaner (Raj)
Medical Officer
Meghalaya Cement Ltd



OCCUPATIONAL HEALTH CENTER

MEGHALAYA CEMENT LTD, THANGSKAI

X-Ray Report

Name Of Patient

PANAM KUMAR PAL

Age/Sex

48/M

Department

OPD

Date

03/03/25

Trachea :

Midline

Lungs Field :

R/L lung fields clear of effusion/pneumothorax

Cardiac Field :

Cardiomediastinal silhouette within normal limits.

Aortic Knuckle

N/A

Diaphragm :

CP Angle :

not obliterated

Ribs & Other osseous structure :

XN study

Soft Tissue :

XN study



Signature of Medical Officer
 DR. LANJAKASH
 RMC Regd. No. 31851
 MBBS, SPMC, Bikaner (Raj.)
 Medical Officer
 Meghalaya Cements Ltd

**OCCUPATIONAL HEALTH CENTRE**

MEGHALAYA CEMENTS Ltd., Vill - Thangskai, PO - Lumshnong,
East Jaintia Hills, Meghalaya, India, 793210



Name: MR. PAWAN KUMAR PAL(2067)

Invoice No: 743

Case No: M753

Age/Sex: 48 Years / Male

Registered On: 02-03-2025 12:09 PM

Referrer: DR. LANU AKASH AIMOL

Type/Remark: Healthy Patient

Haematology

TEST	RESULT	UNIT	REFERENCE RANGE
Hemoglobin	16.0	g/dL	13 - 17



Sankar Singha
Lab Technician OHC MCL



Dr. Lanu Akash Aimol
RMO OHC MCL

**OCCUPATIONAL HEALTH CENTRE**

MEGHALAYA CEMENTS Ltd., Vill - Thangskai, PO - Lumshinong,
East Jaintia Hills, Meghalaya, India. 793210



Name: MR. PAWAN KUMAR PAL(2067)

Invoice No: 743

Case No: M753

Age/Sex: 48 Years / Male

Registered On: 02-03-2025 12:09 PM

Referrer: DR. LANU AKASH AIMOL

Type/Remark: Healthray Patient

Biochemistry

TEST	RESULT	UNIT	REFERENCE RANGE
FASTING BLOOD SUGAR			
Fasting Blood Sugar	90	mg/dl	70 - 100



Sankar Singha
Lab Technician OHC MCL



Dr. Lanu Akash Aimol
RMO OHC MCL



OCCUPATIONAL HEALTH CENTRE

MEGHALAYA CEMENTS Ltd., Vill - Thangskai, PO - Lumshnong,
East Jaintia Hills, Meghalaya, India, 793210



Name: MR. PAWAN KUMAR PAL(2067)

Invoice No: 743

Case No: M753

Age/Sex: 48 Years / Male

Registered On: 02-03-2025 12:09 PM

Referrer: DR. LANU AKASH AIMOL

Type/Remark: Healthy Patient

Haematology

HbA1c

TEST	RESULT	UNIT	REFERENCE RANGE
Glycosylated Hemoglobin (HbA1c)	5.56	%	4 - 5.6

Interpretation :

HbA1c result is suggestive of non diabetic adults (≥ 18 years) / well controlled Diabetes in a known Diabetic.
Interpretation as per American Diabetes Association (ADA) Guidelines

Reference Group	Non-diabetic adult ≥ 18 yrs	At risk (Prediabetes)	Diagnosing Diabetes	Therapeutic goals for glycemic control
HbA1c in %	4.0-5.6	5.7-6.4	≥ 6.5	< 7.0

Interpretation :

< 5.6 - Normal

HbA1c % 5.7-6.5 - At Risk for Diabetes

≥ 6.5 - Diabetes



Sankar Singha
Lab Technician OHC MCL



Dr. Lanu Akash Aimol
RMO OHC MCL



OCCUPATIONAL HEALTH CENTRE

MEGHALAYA CEMENTS Ltd., Vill - Thangskai, PO - Lumshnong,
East Jaintia Hills, Meghalaya, India, 793210



Name: MR. PAWAN KUMAR PAL(2067)

Invoice No: 743

Case No: M753

Age/Sex: 49 Years / Male

Registered On: 02-03-2025 12:09 PM

Referrer: DR. LANU AKASH AIMOL

Type/Remark: Healthy Patient

Haematology

LIVER FUNCTION TEST (LFT)

TEST	RESULT	UNIT	REFERENCE RANGE
TOTAL BILIRUBIN	1	mg/dl	0.3 - 1.2
SGOT (AST)	58.6	U/L	15 - 40
SGPT (ALT)	4.6	U/L	10 - 49
S. Alkaline Phosphatase	114	U/L	30 - 120
SERUM PROTEIN			
Total Protein	6.33	g/dL	5.7 - 8.2
Albumin	4.17	g/dL	3.2 - 4.9
Globulin	L 2.06	g/dL	2.5 - 3.4
A/G Ratio	H 2.07		0.9 - 1.1

Interpretation :

Note :

1. In an asymptomatic patient, Non-alcoholic fatty liver disease (NAFLD) is the most common cause of increased AST & ALT levels. NAFLD is considered as hepatic manifestation of metabolic syndrome.
2. In most types of liver disease, ALT activity is higher than that of AST; exception may be seen in Alcoholic Hepatitis, Hepatic Cirrhosis, and Liver neoplasia.
3. In a patient with Chronic liver disease, AST: ALT ratio >1 is highly suggestive of advanced liver fibrosis.



Sankar Singha
Lab Technician OHC MCL

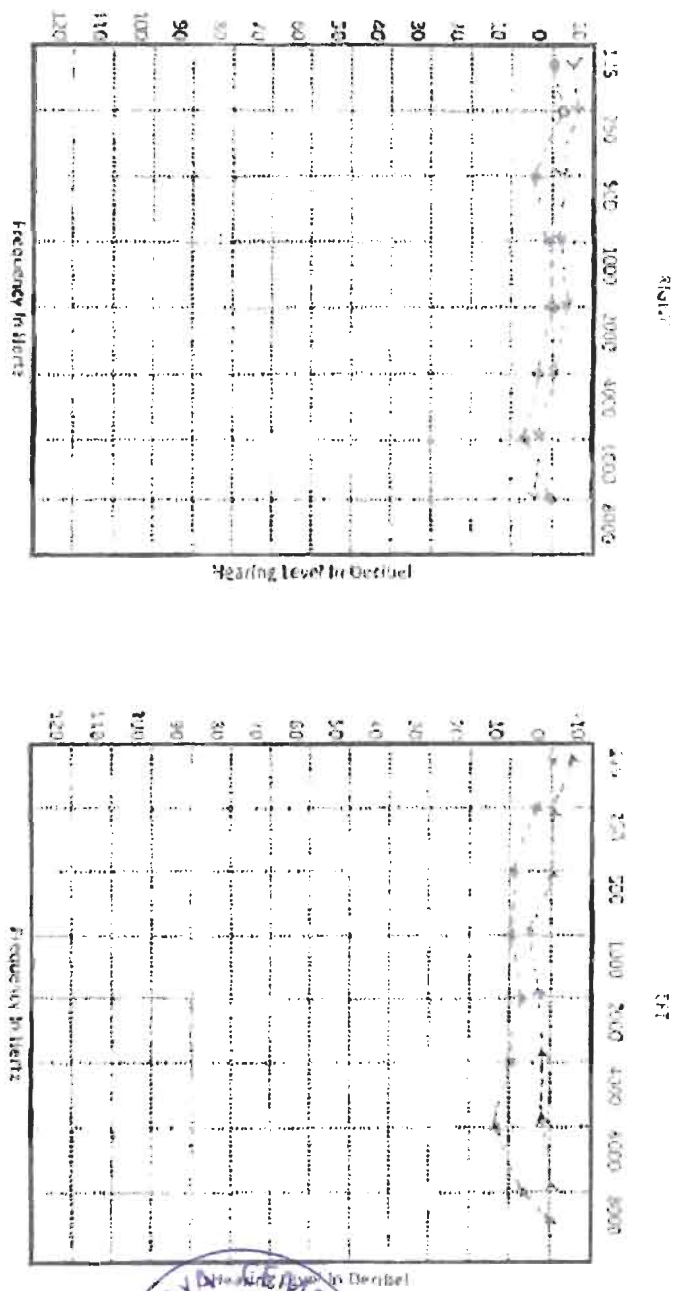


Dr. Lanu Akash Aimol
RMQ OHC MCL



Name: Arum Kumar Age: 48 Sex: Male

Department: MT Employee code: 2067 Date: 02/03/15



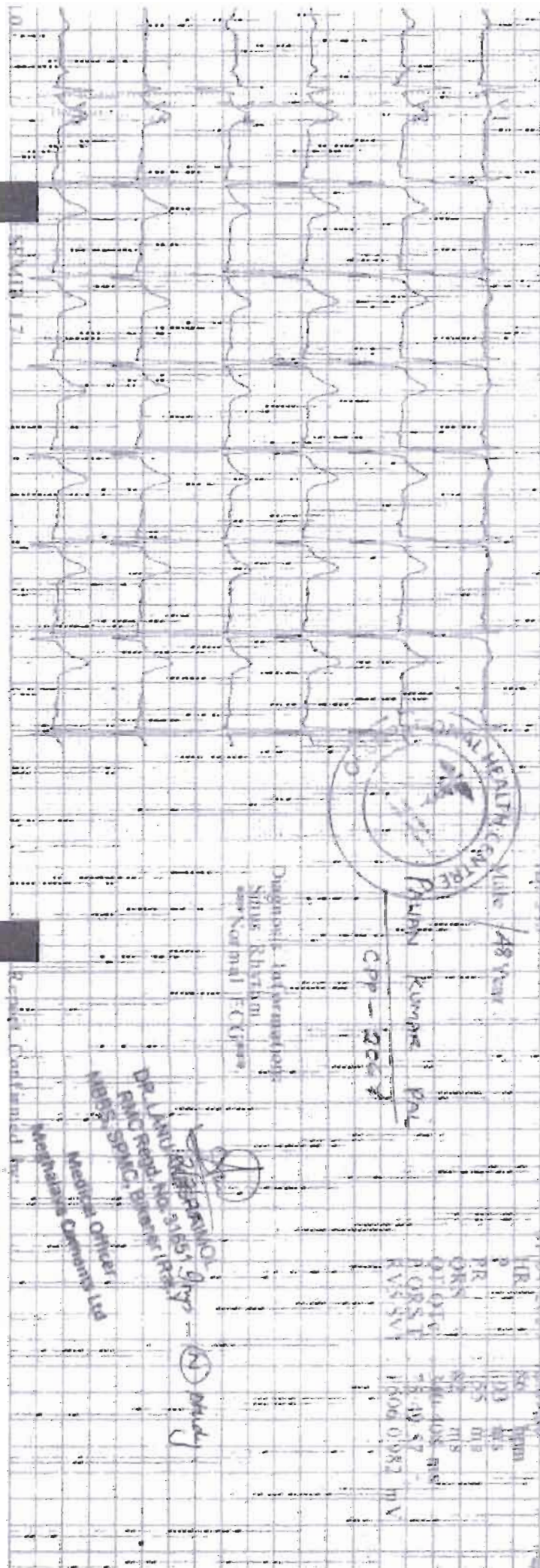
Complaints	History/Previous/Current Illness
Present Illness	History/Previous/Current Illness/Ventilation
Previous Illness	History/Previous/Current Illness/Ventilation
Medication	Source

AC	BC
Right	Left

AC: Air Conduction
BC: Bone Conduction
NC: Pure Tone
M: Mask

Remarks: OK Hearing Sensory loss

Signed: [Signature]
Dr. Lakshmi KASHANMOL
MBBS, SpMRC, Bikerani (Ret.)
Medical Officer
Meghalaya Cement Ltd



Signs Rhythm
Normal ECG

CP-2007

Page 25

DR. VINOD K. BHARGAVA
FAC. MED. COL. 2165, 9th
WING, SPIC, BANGALORE
Medical Officer
Bangalore

② Prüfung

IR	50	mm
P	100	ms
PR	105	ms
OR	115	ms
OT	125	ms
OST	135	ms
RS	145	ms
RSV	155	ms



Six Monthly Reports:PROCESS FUGITIVE EMISSION TEST RESULTS

From Oct'2024 to March'2025

Location	<u>Fugitive Emission Results for SPM ($\mu\text{g}/\text{m}^3$)</u>							
	Oct 2024	Nov 2024	Dec 2024	Jan 2025	Feb 2025	Mar 2025	Avg.	As per standard limit ($\mu\text{g}/\text{m}^3$)
Lime stone Storage Area	1142	1842	1764	1157	1287	1329	1420.16	5000
Coal Storage Area	1185	1538	1629	1014	934	1023	1220.50	2000
Clinker Loading Area	1935	2105	2237	2351	2147	2254	2171.50	5000
Cement Loading Area	2351	2535	2685	1964	1863	2145	2257.16	5000
Coal Storage Area (CPP)	1334	1134	1019	917	984	835	1037.16	2000
Fly Ash Silo Area (CPP)	989	1215	1374	1125	987	927	1102.83	2000

Prepared by


 Abhigyan Gautam


Checked & Verified by


 Ujjwal Anurag

Meghalaya State Pollution Control Board

Forests & Environment Department, Government of Meghalaya
'ARDEN' Lumpyngngad, Shillong - 793014
Website : <http://megspcb.gov.in>



No.MPCB/TB-CON-143-2007/2023-24/31

Dated Shillong the 26th February 2024

To,

M/s MEGHALAYA CEMENT LIMITED
C/o. The Director
Village, Thangskai,
P.O Lumshnong,
East Jaintia Hills District

Subject: - APPROVAL FOR THE NEUTRALIZATION TANK

Sir,

With reference to the Subject cited above, this is to informed you that the Plan (Drawing) of Neutralization tank along with the Garland Drain at coal storage area submitted by you has been scrutinized by the Board and as per the inspection carried out by the board official, it was observed that the plan has been executed on site as per the drawing and seems to functioning effectively and meeting the requirements.

In line with maintaining Environmental compliance and ensuring the continued effectiveness of your Neutralization tank you are hereby kindly directed to submit a monthly analysis report for the neutralization tank to this Board failing which this approval maybe 'REVOKED'.

Yours Faithfully,

Dr. G.H Chyrmang, MFS
MEMBER SECRETARY

Meghalaya State Pollution Control Board,
Shillong





MEGHALAYA CEMENTS LIMITED

CIN-U26942ML2003PLC007125



To,

Date: 21.11.2024

The Member Secretary,
Meghalaya State Pollution Control Board,
'Arden' Lumpyngngad,
Shillong, Meghalaya.

Subject: - Water Analysis report for Coal Neutralizing Tank.

Ref. - MPCB/TB-CON-143-2007/2023-24/24, Dated Shillong the 26th February 2024.


Dear Sir,

We are herewith submitting the Water Analysis report for Coal Neutralizing Tank for the Period of June-2024 to October-2024 for Cement Plant & Captive Power Plant located at Thangskai Village, East Jaintia Hills.

Thanking you Sir,

Yours faithfully,

For MEGHALAYA CEMENTS LIMITED


Authorized Signatory



Sales & Marketing Office :
Mega Plaza, 4th Floor, Christian Basti
G.S. Road, Guwahati - 781 005
Tel. : 0361 2345421/22/23, Fax : 0361 2345419
E-mail : guwahati@tcpem.in

Kolkata :
BE-77, Salt Lake City
Sector-1, Kolkata - 700 064
Tel. : 033 2334 0666 / 0004
Fax : 033 2334 0505

Registered Office :
Village: Thangskai, P.O. & P.S. Lumshnong
District: East Jaintia Hills, Meghalaya, PIN: 793210
Tel. : 03655 278324 / 363 / 364
Fax : 03655 278327



Meghalaya Cements Limited

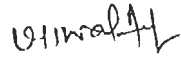
Water Analysis Report for Coal Neutralizing Tank

Sl. No.	Parameters	Obtained Value					Permissible Limit
		Jun-2024	Jul-2024	Aug-2024	Sep-2024	Oct-2024	
1	pH	6.67	6.96	7.01	6.55	6.73	6.5 – 8.5
2	Dissolved Oxygen (mg/lit)	8.9	13.1	11.7	15	15.6	-
3	Total Dissolve Solids (mg/Lit)	189	155	134	166	142	<500
4	Conductivity (mg/Lit)	250	198	185	197	193	-
5	Total Hardness (mg/Lit)	51	76	85	59	81	<300
6	Calcium (mg/Lit)	34	42	56	36	49	<200
7	Magnesium (mg/Lit)	17	34	29	23	32	<100
8	Alkalinity (mg/Lit)	80	56	55	71	48	<200

Prepared BY


 Abhigyan Gautam


Verified By


 Ujjwal Anurag

Annexure - IX

Meghalaya cements limited

Thangskai, Meghalaya

DOWNSTREAM WATER ANALYSIS REPORT FOR THE YEAR 2024-25**01.04.2025**

Sl. No.	Parameters	Obtained Values in						Average	Permissible Limit
		Oct'2024	Nov'2024	Dec'2024	Jan'2025	Feb'2025	Mar'2025		
1	pH	6.63	6.76	6.71	6.71	6.55	6.78	6.690	6.5 – 8.5
2	Dissolved Oxygen (mg/lit)	6.9	9.74	6.5	7.2	5.9	9.53	7.628	-
3	Total Dissolved Solids (mg/Lit)	143	136	81	128	88	42	103.000	<500
4	Conductivity (mg/Lit)	190	212	152	205	176	149	180.667	-
5	Total Hardness (mg/Lit)	39	31	23	19	28	36	29.333	<300
6	Calcium (mg/Lit)	29	19	21	15	17	22	20.500	<200
7	Magnesium (mg/Lit)	10	12	2	4	6	14	8.000	<100
8	Alkalinity (mg/Lit)	47	56	39	53	48	39	47.000	<200
9	Cr+6 (mg/t)	0.0267	0.0243	0.0248	0.0231	0.0259	0.0236	0.0247	<0.05

Prepared By

Abhigyan Gautam

Checked & Verified By

Ujjwal Anurag



YEAR WISE PLANTATION DETAILS
M/s MEGHALAYA CEMENTS LIMITED
 Plant area - 52.949 Ha

As on Dated 31/03/2025

Year	Saplings planted (Nos.)	Area covered (Hect.)	Saplings Survive (Nos.)	Survival Rate	Remarks
2009-20	79900	19.1898	61195	76.59%	Planted at different locations such as Northern, Northeastern and eastern side of the project area, CPP campus, Lawn of residential blocks & Topcem Public School Campus, Interspaces in plant boundary, road & internal road side, Children park etc. before the amendment of reduction of existing of plant area from 59.269 Ha to 52.949 Ha vide letter no-SEIAA/PROJECT-2/2007/8/1818 dated Shillong, the 30th September, 2020.
2020-21	3475	0.2185	2955	85.04%	Planted CPP back side and interspaces along plant boundary.
2021-22	10548	0.5170	8697	82.45%	Planted LS Reclaimer back side, CPP back side, Topcem Public School Campus, Mazagine Area, Clay Shed back side, Cricket Ground road side and interspaces along plant boundary.
2022-23	6693	Nil (Gap filling)	5340	79.78%	Gap filling at Green Colony side, Old Transport Colony, Approach Road, Near By Topcem School, Nursery, CPP back side, Down Colony, Near Clay Shed, Near Cricket Ground, Near E-Block etc.
2023-24	22529	Nil (Gap filling)	16194	71.88%	Gap filling at near CPP Magazine, E-Block, Pink Colony, Near Cricket Ground, Down Colony, Raw material Yard, Plant Approach road, Nursery, CPP side, Near Gate-01, Gate-02, HEMM Workshop, Community Hall, Guest House & Temple side etc.
2024-25	2553	Nil (Gap filling)	2085	81.67%	Gap filling at near E-Block, Nursery, Pink Colony, Near Cricket Ground, Down Colony, Raw material Yard, Plant Approach road, Gate-02, Community Hall & Temple side etc.
Total	125698	19.9253	96466	76.74%	



Occupational Health Center Details

MCL OHC Staff Details			
Sl.No.	Name of Staff	Course	Designation
1	Dr. LanuAkashAimol	MBBS	Medical Officer
2	Dr. FedelisLungdin	BDS	Dental Officer
3	Sabir Hussain	GNM	Male Nurse
4	Shilpi Nath	ANM	Female Nurse
5	Wanpali	ANM	Female Nurse
6	TariniBezburah	RMP	Compounder
7	Shankar Kumar Singha	MLT	Lab Technician
8	JyotishmanKashyap	Certificate Course	X-ray Technician
9	DeimonmiSuiam	10th	Dresser
10	GenevolinLamare	10th	Office Assistant
Hospital Equipment & Services			
Sl. No.	Hospital Equipments	Quantity	Remarks
1	ECG Machine	1	
2	Audiometry Machine	1	
3	Spirometry Machine	1	
4	Nebulizer machine	2	
5	Suction Machine	2	
6	AUTOMATIC EXTERNAL DEFIBRILLATOR	1	
7	Multipara monitor	2	
7	Multipara monitor-2	2	
8	Manual BP Machine -2	2	
9	Digital BP machine-2	2	
10	Minor OT light-2	2	
11	Hospital Bed (Fowler, Semi fowler, Plain)	10	
12	Bedside curtain screen	3	
13	Auto-clave Machine	2	
14	Digital otoscope	1	
15	Instrument Boiler	1	
16	Needle Cutter	1	
17	Foldable Stretcher	5	
18	Wheel Chair	3	
19	Steel Stretcher Trolley	1	
20	B-Type Oxygen Cylinder	6	
21	D-Type Oxygen Cylinder	5	
22	C-PAP	1	
Dental Equipment's			
1	Dental Chair	1	
2	UV STERILIZER	1	
3	Dental air compressor	1	
4	Dental Scalers Set		



5	Dental Glass Bead Sterilizer	1	
X-Ray Equipment's			
1	X-RAY machine	1	
2	Radiography CR system	1	
3	Xray Lead Barrier	1	
4	Lead thyroid collar	1	
5	Lead Vest	1	
Ambulance Service @ 24x7			
1	BLS Ambulance	1	
2	Mini Ambulance	1	
Lab Equipment details			
Sl. No.	Name of Equipments	Quantity	Remarks
1	Microscope	2	
2	Centrifuge Machine	2	
3	Semi Auto Analyzer	1	
4	Fully Automatic Hematology Analyzer	1	
5	Fully Automatic Immunofluorescence Quantitative Analyzer	1	
6	Fully Automatic Electrolyte Analyzer	1	
7	Haemo Meter	2	
8	Blood Glucose Meter	2	
9	Micropipette 100-1000 Micro Litre	1	
10	Micropipette 5-50 Micro Litre	1	
11	Incubator	1	
12	Blood cell Counter	1	
13	Haemocyto Meter	1	
14	Test Tube Rack	3	
15	ESR Stand	1	
Lab Testing Facility			
Sl. No.	Lab Testing Facility		
1	Blood Glucose:- Fasting, Random & PP		
2	COMPLETE BLOOD COUNT (CBC)		
3	ESR		
4	KIDNEY FUNCTION TEST (KFT)		
5	LIVER FUNCTION TEST (LFT)		
6	LIPID PROFILE		
7	SERUM ELECTROLYTES		
8	THYROID PROFILE		
9	HbA1C		
10	C-Reactive Protein Latex Test		
11	R.F. (Latex Test)		
12	VDRL		
13	HBsAg (Hepatitis-B)		
14	HCV (Hepatitis-C)		



15	A.B.O. Grouping
16	Rh Type
17	Malaria Test
18	Widal Test
19	Dengue Kit
20	Serum Uric Acid
21	HCG
22	ECG
23	SPIROMETRY (PFT)
24	AUDIOMETRY
25	Trop-T
26	ASO
27	CKMB
28	CARDIAC TROP I
29	PROCALCITONIN
30	MICROALBUMIN
31	SERUM TOTAL CALCIUM
32	Urine Routine Examination
33	Stool Routine Examination
Hospital Emergency Services	
1	24 X 7 Doctor Availability
2	24 X 7 BLS Ambulance Service
3	24 X 7 Mini Ambulance Service



SALARY DETAILS OF CLEANER FOR THE MONTH OF MARCH'25

S.N.	NAME	CODE NO.	SEX	D.O.J.	GRADE	DEPT	DESIG	SALARY
1	DISWONLANG BAREH	2260	FEMALE	01.04.2011	Workmen	HR&A	CLEANER	20025
2	SABINA SYIH	2262	FEMALE	01.04.2011	Workmen	HR&A	CLEANER	17329
3	KHALMISS SUTING	2263	FEMALE	01.04.2011	Workmen	HR&A	CLEANER	19644
4	PHINIAL DHAR	2264	FEMALE	01.04.2011	Workmen	HR&A	CLEANER	16163
5	IBASHISHA KHARSATI	2267	FEMALE	01.04.2011	Workmen	HR&A	CLEANER	18404
6	PHIMAI SUTNGA	2271	FEMALE	01.04.2011	Workmen	HR&A	CLEANER	19210
7	LILY POHBAN	2273	FEMALE	01.04.2011	Workmen	HR&A	CLEANER	14071
8	KYRSOI SYIH	2275	FEMALE	01.04.2011	Workmen	HR&A	CLEANER	18660
9	PHYRNAI SYRTI	2276	FEMALE	01.04.2011	Workmen	HR&A	CLEANER	13913
10	RIDAMON SUCHEN	2277	FEMALE	01.04.2011	Workmen	HR&A	CLEANER	14953
11	SPELBHA SUCHIANG	2322	FEMALE	01.04.2011	Workmen	HR&A	CLEANER	14204
12	WONDERFUL PALE	2330	FEMALE	01.04.2011	Workmen	HR&A	CLEANER	12761
13	RANSHI PUSEIN	2343	FEMALE	01.04.2011	Workmen	HR&A	CLEANER	13911
14	SAPHA SIANGSHAI	2344	FEMALE	01.04.2011	Workmen	HR&A	CLEANER	13657
15	EMLI DHAR	2345	FEMALE	01.04.2011	Workmen	HR&A	CLEANER	13783
16	TALITHA RYMBAI	2349	FEMALE	01.04.2011	Workmen	HR&A	CLEANER	13533
17	SHANIAH SHYLLA	2352	FEMALE	01.04.2011	Workmen	HR&A	CLEANER	14490
18	CHEBARIMA BAREH	2362	FEMALE	02.06.2011	Workmen	HR&A	CLEANER	17000
19	MINA KHONGLAH	2269	FEMALE	01.04.2011	Workmen	HR&A	CLEANER	16184
20	NILDIS KHLUNG	3288	FEMALE	07.08.2012	Workmen	HR&A	CLEANER	13846
21	LUTMON LAMARE	3030	FEMALE	03.08.2012	Workmen	HR&A	CLEANER	12560
22	SHIDA SUTNGA	3316	FEMALE	01.07.2013	Workmen	HR&A	CLEANER	13721
23	HEL PAJAT	3244	FEMALE	03.08.2013	Workmen	HR&A	CLEANER	14037
24	PALDIS SUTING	3247	FEMALE	01.08.2013	Workmen	HR&A	CLEANER	14037
25	SABITRY KHONGLAH	3248	FEMALE	03.10.2013	Workmen	HR&A	CLEANER	13881
26	MARTHA CHALLAM	4051	FEMALE	04.05.2015	Workmen	HR&A	CLEANER	15500
27	SUMAR RYMBAI	4057	FEMALE	06.05.2015	Workmen	HR&A	CLEANER	13880
28	SABITRY LALOO	4086	FEMALE	12.06.2015	Workmen	HR&A	CLEANER	13568
29	SHELA SUTING	5088	FEMALE	17.05.2016	Workmen	HR&A	CLEANER	13880
30	HASINA SYRTI	5085	FEMALE	16.05.2016	Workmen	HR&A	CLEANER	11816
31	KYNJAILANG SYMPLI	5430	FEMALE	02.07.2018	Workmen	HR&A	CLEANER	13973
32	KMENLANG GYPAD	5422	FEMALE	02.07.2018	Workmen	HR&A	CLEANER	13973
33	ISKAPAIA LAMARE	5429	FEMALE	02.07.2018	Workmen	HR&A	CLEANER	13595
34	KEEPHIM SYMPLI	5436	FEMALE	13.08.2018	Workmen	HR&A	CLEANER	13881
35	SOMLY SURONG	5589	FEMALE	17.08.2019	Workmen	HR&A	CLEANER	13177
36	HEIJINGMIAT RYMBAI	5587	FEMALE	17.08.2019	Workmen	HR&A	CLEANER	13177
37	SONITA RYMBAI	5590	FEMALE	17.08.2019	Workmen	HR&A	CLEANER	13115

01/04/25

SALARY DETAILS OF CLEANER FOR THE MONTH OF MARCH'25

S.N.	NAME	CODE NO.	SEX	D.O.J.	GRADE	DEPT	DESIG	SALARY
38	DARI PUSEIN	5697	FEMALE	15.03.2021	Workmen	HR&A	CLEANER	11923
39	SYNDONG SYRTI	5703	FEMALE	18.03.2021	Workmen	HR&A	CLEANER	11870
40	MUNI SUTING	5706	FEMALE	19.03.2021	Workmen	HR&A	CLEANER	11708
41	RIMAIA SHADAP	4014	FEMALE	01.04.2022	Workmen	HR&A	CLEANER	10989
42	JUDICIAL RYMBAI	5834	FEMALE	04.07.2022	Workmen	HR&A	CLEANER	10989
43	SHEBA SHADAP	5835	FEMALE	04.07.2022	Workmen	HR&A	CLEANER	10989
44	ONJOLY PDANG	5836	FEMALE	04.07.2022	Workmen	HR&A	CLEANER	10989
45	WADLANG SYRTI	5846	FEMALE	05.08.2022	Workmen	HR&A	CLEANER	10791
46	MARGRED KHONGLAH	5847	FEMALE	08.08.2022	Workmen	HR&A	CLEANER	10791
47	PYNTNGEN SYRTI	5848	FEMALE	08.08.2022	Workmen	HR&A	CLEANER	10791
48	BARMON KHONGIONG	5448	FEMALE	01.04.2013	Workmen	HR&A	CLEANER	14037
49	MILAN BIAM	5915	FEMALE	11.04.2023	Workmen	HR&A	CLEANER	9810
50	THIANGMON PALIPAI	5918	FEMALE	11.04.2023	Workmen	HR&A	CLEANER	9810
51	EDEN DHAR	6035	FEMALE	01.02.2024	Workmen	HR&A	CLEANER	9000
52	NANGBUN SYRTI	6050	FEMALE	01.03.2024	Workmen	HR&A	CLEANER	9000
53	MERCIFUL SUTING	6076	FEMALE	02.05.2024	Workmen	WHRS	CLEANER	9000
54	SPARLY SUTING	6077	FEMALE	02.05.2024	Workmen	WHRS	CLEANER	9000
55	SARMON KHONGIONG	6078	FEMALE	02.05.2024	Workmen	WHRS	CLEANER	9000
56	HAPMON MUKHIM	6079	FEMALE	02.05.2024	Workmen	WHRS	CLEANER	9000
57	RIBIKA LAMARE	6156	FEMALE	03.12.2024	Workmen	HR&A	CLEANER	9000
58	IAISHAH SYMPLI	6163	FEMALE	01.02.2025	Workmen	HR&A	CLEANER	9000
59	ARKI SUTNGA	6164	FEMALE	01.02.2025	Workmen	HR&A	CLEANER	9000
60	LEM MUKHIM	6165	FEMALE	01.02.2025	Workmen	HR&A	CLEANER	9000
61	MILI ROY	2282	FEMALE	01.04.2011	WKM	HR&A	CLEANER	11979
62	BABLI ROY	2284	FEMALE	01.04.2011	WKM	HR&A	CLEANER	14174
63	MEENATI MALAKAR	2328	FEMALE	01.04.2011	WKM	HR&A	CLEANER	14174



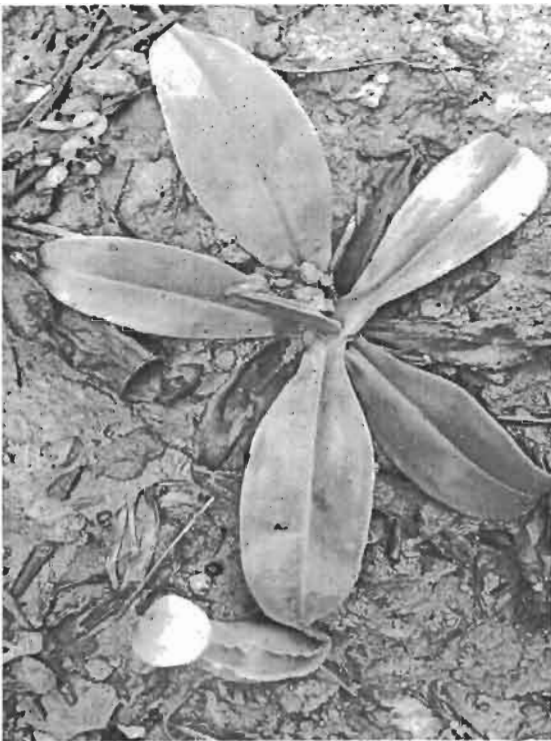
SALARY DETAILS OF CLEANER FOR THE MONTH OF SEPTEMBER'2024

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	11979
2	BABLI ROY	2284	01.04.2011	FEMALE	WKM	HR&A	CLEANER	14174
3	MEENATI MALAKAR	2328	01.04.2011	FEMALE	WKM	HR&A	CLEANER	14174



Photographs of several endemic species

Nepenthes Khasiana, Nepenthaceae

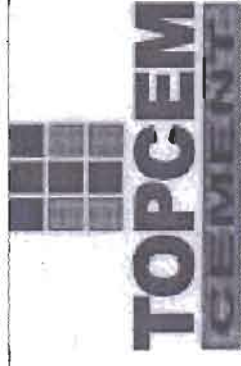
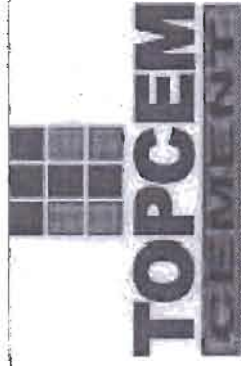


Begonia rubrovenia, Begoniaceae



Ceologyne ovalis, Orchidaceae





PRESENTATION

ON

CSR & WELFARE ACTIVITIES

FROM

OCTOBER' 2024 TO MARCH' 2025

ORGANIZED BY

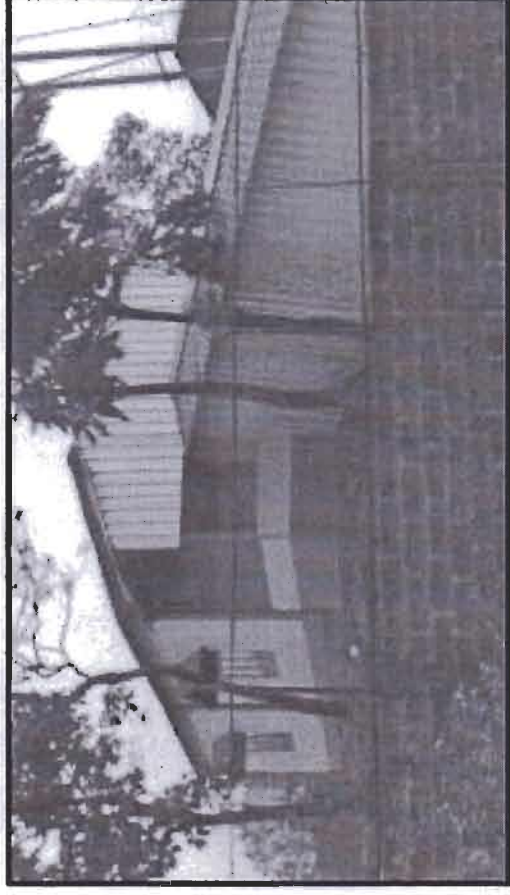
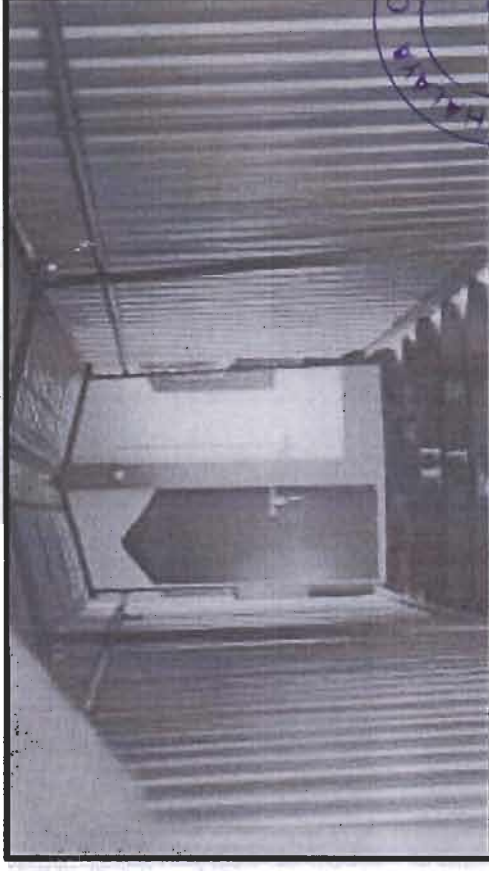
MEGHALAYA CEMENTS LIMITED,

THANGSKAI



Annexure - d'iv

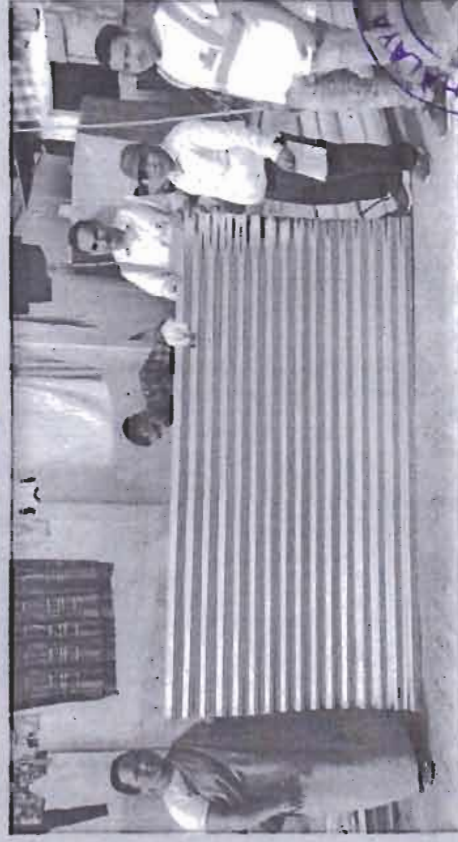
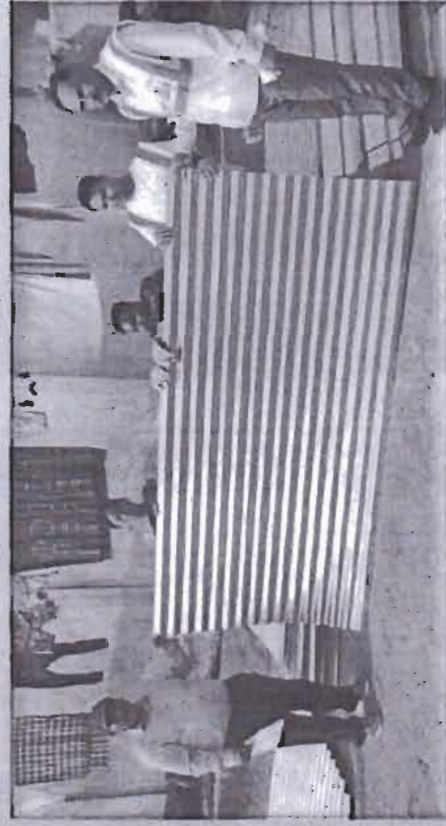
**CONSTRUCTED CHURCH AT COMPANY PREMISES FOR LOCAL
COMMUNITIES.
-(APL'2024)**



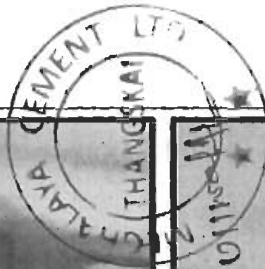
**DUSTBIN DISTRIBUTION TO WAHAJER, THANGSKAI & CHIEHRUPHI VILLAGE (20 NOS. FOR EACH VILLAGE).
-(APRIL'2024).**



CGI SHEET DISTRIBUTION TO THE NEEDY VILLAGERS OF WAHIAJER
VILLAGE, WHO WERE AFFECTED BY THE DEVASTATING HAILSTORM
CAUSED BY CYCLONE REMEL.
- (11th JUNE 2024)



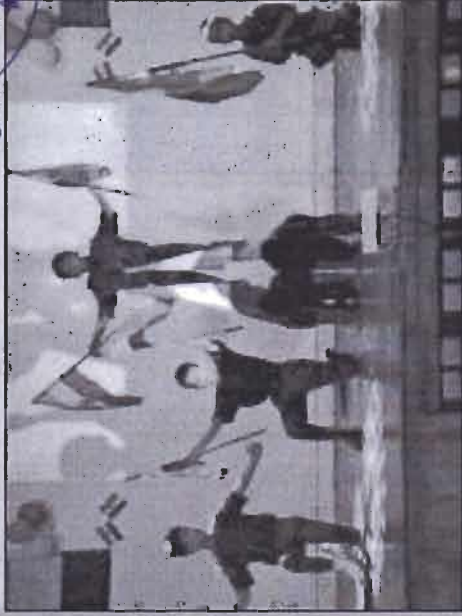
FOOTBALL BOOT DISTRIBUTION TO THREE VILLAGE THANGSKIA,
WAHIAJER & CHIEHRUPHI CHILDREN (JUNE 2024)



PROVIDED BARRICADES & SIGN BOARD TO THE THE UMTRA INFILTRATION CHECK POST, MEGHALAYA (JULY 2024)



Honoring Freedom with Unity and Pride: A Tribute to the Nation by Topcem Public School Students. -(15th AUG'2024)



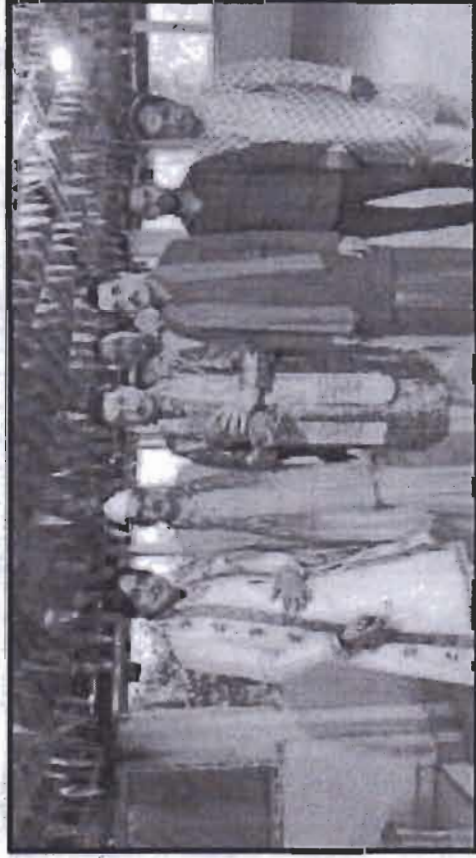
Meghalaya Cements Limited (Topcem Cement) Officials, along with Headman, Assistant Headman, Secretary and other people of **Wahiajer Village** joined hands to initiate a **Plantation Drive**, fostering a sense of community and environmental responsibility.

-(20th Aug'2024)



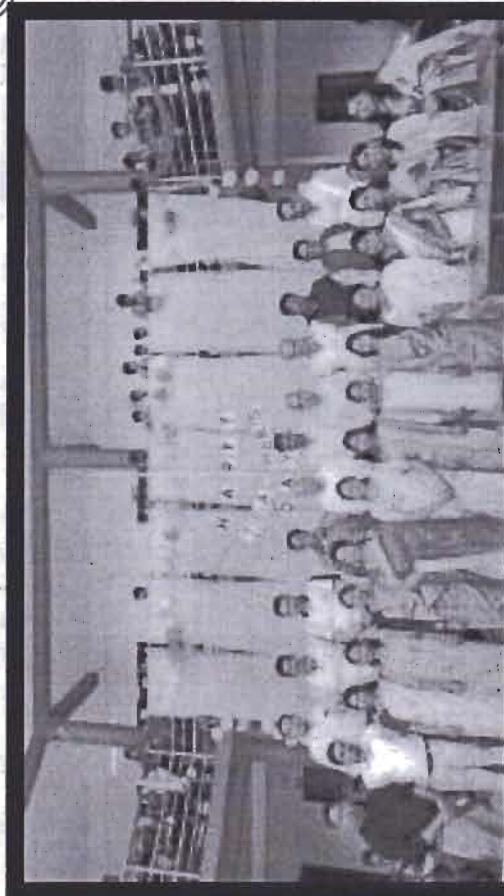
Organized a Rudrabhishek ceremony at our MCL Plant Temple, bringing our team together in a shared moment of devotion and gratitude. Wishing peace, prosperity, and success for all.

-(20th AUG'2024)



On the auspicious Teacher's Day, we honors the dedication and passion of educators with the inauguration of two pioneering facilities at Topcem Public School: 1. Art & Music Class & 2. Advanced Computer Laboratory.

-(05th Sept'2024)



Inaugurated X-ray and Laboratory Facility at the MCL Occupational Health Center, to deliver top-quality healthcare services to both our employees and the surrounding community.



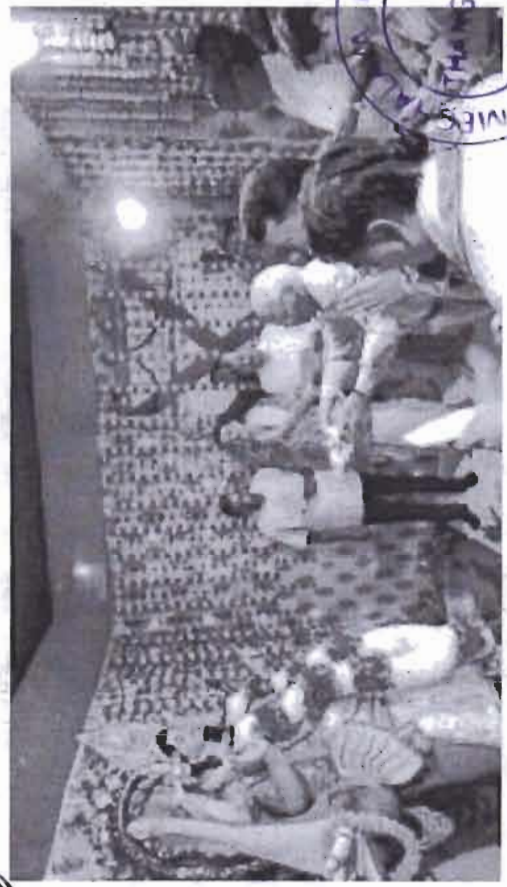
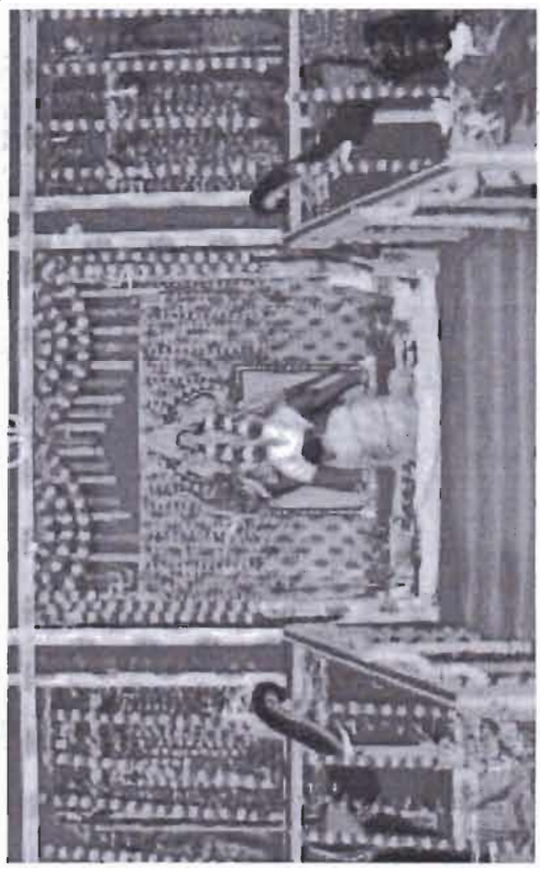
Celebrates the achievements of students from Thangskai, Wahiajer & Chiehruphi with the SSLC Awards 2023 & 2024 for their stellar performance in the SSLC exams of 2023 & 2024. We extend financial assistance to these bright young minds, supporting their educational journey and also provide the financial assistance to poor students to pursue their education.

-(14 SEPT'2024)



CEMENT
THANGSKAI
WAHIAJER
CHIEHRUPHI

Vishwakarma Puja is a significant day of celebration, dedicated to Lord Vishwakarma, the divine architect and engineer of the universe.
-(17 Sept'24)



**PEST CONTROL SERVICE AT THANGSKAI, WAHIAJER &
CHIEHRUPHI VILLAGE. -(Sept'2024)**



ORGANIZED WEEKLY CLEAN DRIVE PROGRAMME FOR THREE VILLAGE
(THANGSKAI, WAHIAJER & CHIEHRUPHI).
-(Sept'2024 to till date)



NAVRATRI & DURGA PUJA AT MCL CAMPUS (TOPCEM RECREATION CLUB)
- (03rd - 12th Oct'2024)



SWACHH BHARAT ABHIYAN AT COMPANY CAMPUS AND THREE VILLAGES
(THANGSKAI, WAHIAJER & CHIEHRUPHI VILLAGE) -(02nd Oct'2024)



**FOOTBALL GROUND DEVELOPMENT WORK PROGRESS AT
CHIEHRUPHI VILLAGE.
-(Oct'2024)**



**Orgnized a free Medical Health checkup camp at Thangskai village.
-(Nov'2024)**



**Orgnized a free Medical Health checkup camp at Wahiajer village.
-(Dec'2024)**



Annexure - Fiv

**Orgnized a free Medical Health checkup camp at Chiehruphi village.
-(Dec'2024)**

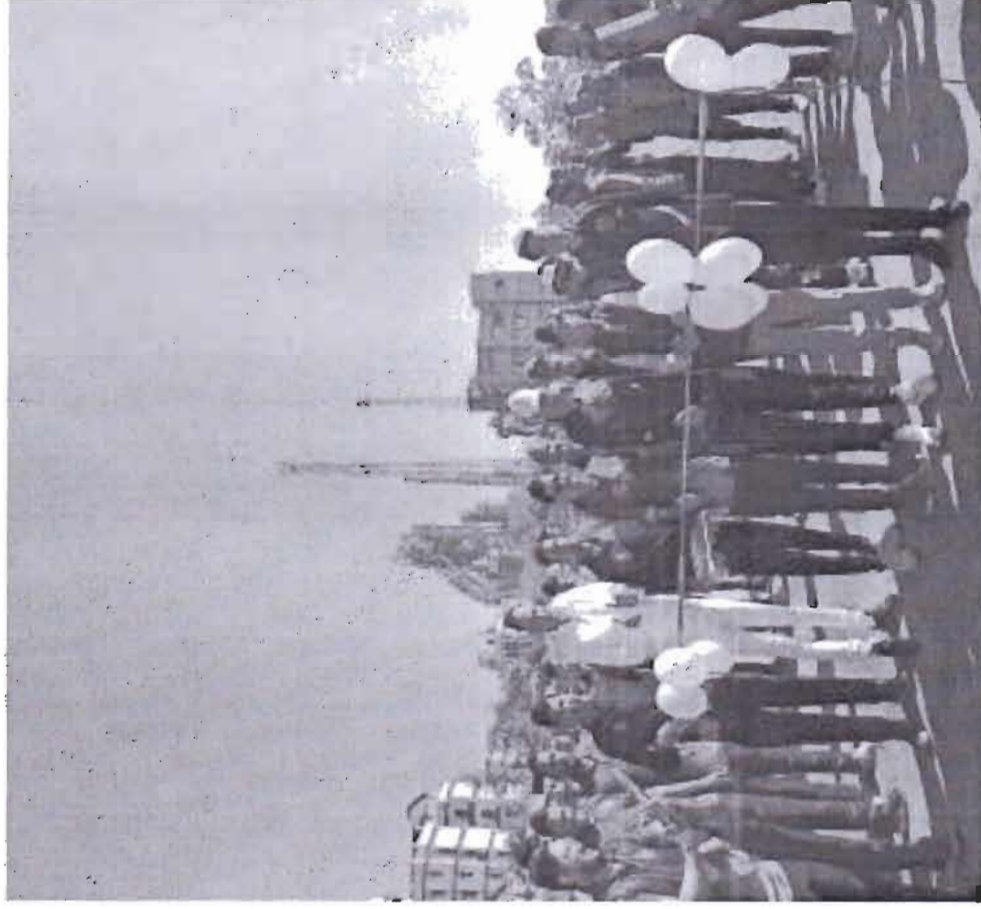


Topcem Christian Fellowship has been celebrated Advance Christmas.
-(Dec'2024)



MEGHALAYA CEMENT LTD
THANGSAI
Dillweh

**Inaugural ceremony of the Topcem Premier League session 2024 -25.
- (Dec' 2024)**



Maha Shivratri Puja has been celebrated at MCL Temple.
- (Feb' 2025)



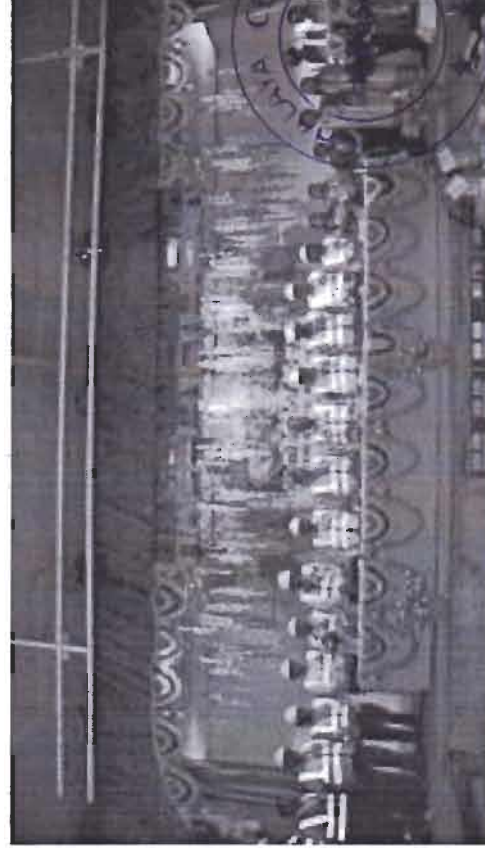
organized a free Medical camp and emergency Ambulance service at
Chiehruphi village jingiaseng samla KJP synod mihngi.

- (Mar' 2025)



Celebrated the "National Safety Day/Week campaign program inside
our Plant premise along with whole Nation.

- (Mar' 2025)



DONATED TIMBER & C.G.I FOR REPAIRING THE SCHOOL.
- (Mar' 2025)



- (Mar' 2025)



EMPHASIS ON EDUCATION (April 2024 to March 2025)



- Monthly Salary for 01 TEACHER OF Chiehruphi Higher Secondary School.
- Rs. 31000/- per month
- October'24 to March'25 (06 month X 31000/-)
- Total Rs. = 186000/-



Expenditure Incurred for Socio-Economic Development under CSR (From 01.10.2024 to 31.03.2025)



SL.NO.	HEADING	AMOUNT
1	Emphasis on Education	1,01,500
2	Sports Activity	64,500
3	Encouraging/Felicitation prog. For Students.	45,000
4	Polio Immunization Camps, Family planning, etc.	4,86,816
5	Infrastructure development of Hospitals/Schools	21,000
6	Cement Distribution Programme.	43,15,186
7	Plant Distribution Programme.	983
8	Donation to Churches, Road & House Repairing etc.	1,49,250
9	Community Feast	71,778
9	Drinking water supplying scheme.	3,30,320
10	Village Development Funds.	3,12,500
	Total (In Rs.)	58,98,833



THANK
YOU



Meghalaya Cements Ltd.

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

Environment Management Cell DetailsDept: Environment

Doc. No: MCL/IMS /PA/MR/DS

Sl. No.	Equipments Name	Model	Range	Make
1	B.O.D Incubator -1	BTI - 06 / 73514, Bio Technique India	Site -6 Cu.Ft, Temp. Range - 5° to 60°C., Accuracy - $\pm 0.5^\circ\text{C}$.	Innovative Instruments & Controls CLP,
2	Stack Sampler	VSS - 1 - PLS / 01-DTH-2016 / Vayubodhan Envirotech Instrumentation	0 to 60 LPM & 0-to 3 LPM	Envirotech Instruments Pvt. Ltd
3	Stack Sampler	APM -620 / 797- DTI-05 / Vayubodhan Envirotech Instrumentation	0 to 60 LPM & 0-to 3 LPM	Envirotech Instruments Pvt. Ltd
4	Stack Velocity Monitor	APM -602 / 835 DTJ -05 / Vayubodhan Envirotech Instrumentation	0 to 60 LPM & 0-to 3 LPM	Envirotech Instruments Pvt. Ltd
5	Fine Particulate Sampler (03 Nos.)	APM-550 / 583 - DTK-2010, 586-DTK-2010, 563-DTK-2010 / Envirotech Instrumentation	Range of flow Rate - 16.54-16.50, 16.56-16.48, 16.54-16.52	Envirotech Instruments Pvt. Ltd.
6	Gaseous Pollutant Sampler (02 Nos.)	APM-433 / 1.146 - DTK-2010, 2.150-DTK-2010 / Envirotech Instrumentation	Range -0 to 3 LPL	Envirotech Instruments Pvt. Ltd.
			Range -0 to 10 Micro meter in Diameter.	
7	High Volume Sampler (03 Nos.)	APM-430 / 1.640-DTL-05, 2.641-DTL-05, 3.642-DTL-05 / Vayubodhan Envirotech Instrumentation	Range of Flow rate - 1.1 to 1.7 Cu M ³ /mn	Envirotech Instruments Pvt. Ltd.
8	COD- Digestion	Cat No. CE-HC-011 / 11007 / Commercial	Up to 15°C., Least Count-1°C	Commercial
9	Hot Air Oven	Internal ID-MCL/Env/HAO-1	Up to 250°C., Least Count-0.1°C	Commercial
10	Digital Balance	/ 4114676 / Cy.304 CE	0 to 220 grms	Indian Calibration Services
11	S Type Pitot Tube	For Flow measurement	03 to 30 m/s	Envirotech Instruments Pvt. Ltd.
12	L Type Pitot Tube	For Flow measurement	03 to 30 m/s	Envirotech Instruments Pvt. Ltd.
13	Flue Gas Analyzer	Model No. 054218002	For SO ₂ , Nox, Co, Co ₂ & O ₂ measurement in Flue gas	Make - KANE

HOD

Annexure - XV

Meghalaya Cements Ltd.

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

Environment Management Cell Details

Dept: Environment

Doc. No: MCL/IMS /PAMR/DS

14	Respirable dust samplers	Serial No. 640-DTL-2005, . 641-DTL-2005, . 642-DTL-2005	For Measurement of PM 10 & PM 2.5	Make- Envirotech Inst. (P) Ltd.
15	Automatic station for recording of micrometeorological parameter	DT-	For Rain fall, temperature, RH & wind speed measurement	AIMIL LTD
16	Sound pressure level meter	Model No. 05D101013	For noise level monitoring	Make- Raytheon Tech.
17	Stack monitoring kits	01-DTH-2016	For Measurement of Dust emission form Stacks	Make- Envirotech Inst. (P) Ltd.
19	Automatic station for recording of Ambient Quality Monitoring	Installed near gate no. 03	Form real time monitoring of Ambient air quality	Supplied Swan Environmental
20	Automatic station for recording of Stack Emission Monitoring	For RABH, Cooler ESP, Cement Mills and CPP stack emission monitoring	Form real time monitoring of stack emission	Supplied by Glens
21	Portable Air Quality Analyzer	For Real time Ambient air quality monitoring	Form real time monitoring of stack emission	Supplied by M/s. Swan Environmental
23	Temperature Gun	Model No. IRX-63	Range (-) 50°C to 1850°C	Make- HTC
24	pH Meter	Sl. No, 361/7928	Range 0 to 14	Systronics
25	Nephlo Meter	Sl. No, 1307138	Range 0 to 200 NTU	
26	Conductivity	Sl. No. S/6117-01-17		
27	CHROMIUM VI CHEMICAL TEST KIT	-----	Chromium, Hexavalent Range: 0.0 to 1.0 mg/L Chromium, Hexavalent Resolution: 02. mg/L	HANNA EQUIPMENTS (INDIA) PVT. LTD.



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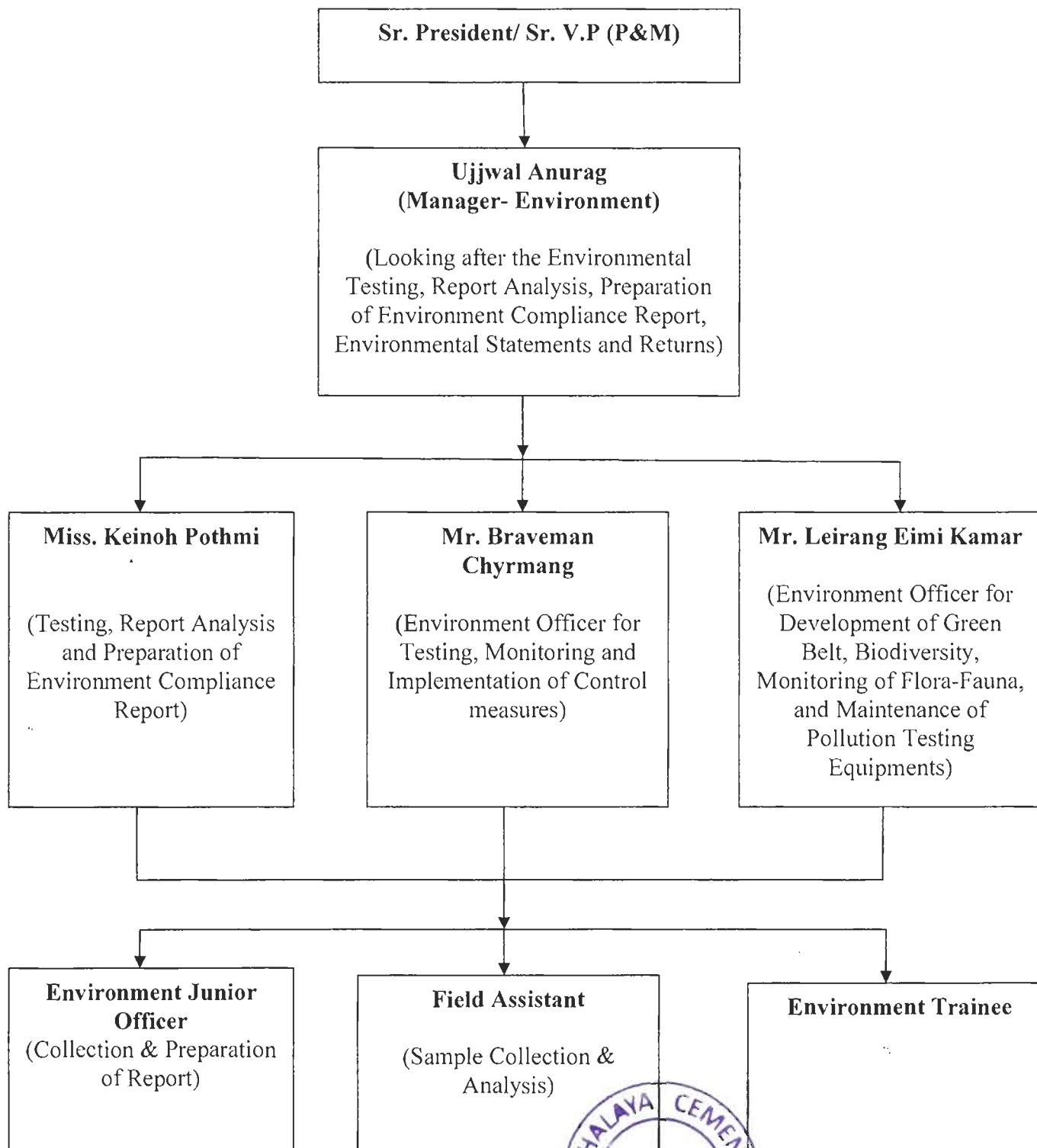
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Meghalaya Cements Ltd.

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

Environment Management Cell DetailsDept: Environment

Doc. No: MCL/IMS /PA/MR/DS



Ujjwal Anurag

HOD