



SHREE CEMENT LIMITED

(UNIT-SHREE RAIPUR CEMENT PLANT)

Village: Khaparadih, Tehsil: Simga
Distt. Baloda Bazar (C.G) Pin: 493332, Ph.:07727-203101
CIN NO.:L26943RJ1979PLC001935



SRCP/BB/ 2018-19/84

Date: - 01/11/2018

To,

The Director

Ministry of Environment, Forests and Climate Change,
West Central Regional Office,
Ground Floor, Eastern Wing,
New Secretariat Building-Opposite Old VCA Stadium,
Civil Lines, Nagpur – 440001, (M.H)

Sub:- Regarding compliance for the period April, 2018 to September, 2018 to the conditions of Environment Clearance for Expansion of Integrated Cement Plant (Shree Raipur Cement Plant): 2*1.5 to 2*2.6 Million TPA Clinker, 2*2.6 to 2*3.0 million TPA Cement, 15 to 30 MW Waste Heat Recovery Power Plant, 25 MW Captive Power Plant along with Synthetic Gypsum Unit (65 TPH) and DG Sets [2000 KVA (size 1000/500/250/125)] near Village Khaparadih, Tehsil – Simga in District – Baloda Bazar - Bhatapara (Chhattisgarh) by Shree Raipur Cement Plant (A unit of Shree Cement Limited).

Ref: - Environment Clearance Letter No. J-11011/235/2008- IA II (I) dated 5th September 2016.

Dear Sir,

In reference to the above subject matter & reference letter, it is submitted herewith the point wise Half Yearly compliance status for the period of April, 2018 to September, 2018 is enclosed herewith for your kind perusal please.

Hope you will find this in order.

Thanking you.

Yours faithfully

For Shree Raipur Cement Plant.
(A unit of Shree Cement Ltd.)


R. K. Vijay
Joint VP (Operations)

Enclosures: Compliance status Report period April-2018 to September-2018.

Cc to:-

- 1) The In charge (Zonal Office), Central Pollution Control Board (CPCB), 3rd floor, Sahkar Bhawan, North T.T. Nagar, Bhopal – 462003 (M.P.).
- 2) The Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas Bhavan, North Block, Sector-19 Naya Raipur (C.G)

Compliance Status of Environment Clearance

Period from April-2018 to September -2018

Name of Project: Shree Raipur Cement Plant (A unit of Shree Cement Ltd)

Capacity & Location: 2*1.5 to 2*2.6 Million TPA Clinker, 2*2.6 to 2*3.0 million TPA Cement, 15 to 30 MW Waste Heat Recovery Power Plant, 25 MW Captive Power Plant along with Synthetic Gypsum Unit (65 TPH) and DG Sets [2000 KVA (size 1000/500/250/125)]

Location: Village Khapradih, Tehsil-Simga, Distt.- Baloda Bazar - Bhatapara (Chhattisgarh)

EC letter No. J-11011/235/2008- IA II (I) dated 5th September 2016.

A. Specific Conditions:

| Sr. No. | Condition | Compliance Reported |
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| I | The project proponent should install 24x7 air monitoring devices to monitor air emissions, as provided by the CPCB and submit report to Ministry and its Regional Office. | Opacity meters have been installed in unit – I & Unit-II for the continuous monitoring of dust particulate matter at the stack of Raw mill& kiln, cement mill (Unit-I), coal mill and clinker cooler. Continuous emission monitoring system (CEMS) at Raw mill & kiln stack has been also installed in Unit-I & II for on line measurement of SO ₂ & NO _x . Data of emission report being submitted to Ministry and its Regional Office on regular basis. Unit-I & II on line data is continuously transmitting to CPCB & CECB Servers. Data monitored by installed emission monitoring devices are enclosed as Annexure – 1. |
| II | The Standards issued by the Ministry vide G.S.R. No. 612 (E) dated 25th August, 2014 and subsequent amendment dated 9th May, 2016 and 10th May, 2016 regarding cement plants with respect to particulate matter, SO ₂ and NO _x , shall be followed. | Data of AAQMS report enclosed as Annexure – 2. |
| III | Continuous stack monitoring facilities to monitor gaseous emissions from the process stacks shall be provided. After expansion, limit of PM shall be controlled to meet prescribed standards by installing adequate air pollution control viz Electrostatic precipitators to clinker cooler, bag house to raw mill/kiln | Opacity meters have been installed in unit – I & Unit-II for the continuous monitoring of dust particulate matter at the stack of Raw & kiln, cement mill (Unit-I), coal mill and clinker cooler. Continuous emission monitoring system (CEMS) at Raw mill & kiln stack has been also installed in Unit-I & II for on line measurement of SO ₂ & NO _x . Data of emission report being submitted to |

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| | and bag filters to coal mill and cement mill. Low NOx burners shall be provided to control NOx emissions. Regular calibration of the instruments must be ensured. | <p>Ministry and its Regional Office regular basis.</p> <p>Unit-I & II on line data is continuously transmitting to CPCB & CECB Servers.</p> <p>Data monitored by installed emission monitoring devices are enclosed as Annexure – 1.</p> <p>Calibration of the instruments is being done on regular basis.</p> <p>Highly efficient bag filters; ESP and Low NOx burners have been installed to control emissions.</p> | | | | | | | | | | | | | | | | | | | | | |
|--------|---|--|--------|--------|----------------------------|----|----------------|-------------------------|----|---------------------|--|----|-------------------------|-----------------------------|----|-----------------|------|----|----------------|------------|----|------------------------|------------|
| IV | Efforts shall be made to achieve power consumption of 70 units/tonne for Portland Pozzolona Cement (PPC) and 95 units/tonne for Ordinary Portland Cement (OPC) production and thermal energy consumption of 670 Kcal/Kg of clinker. | <p>Efforts are being done for reduction of electrical & thermal energy consumption for cement production.</p> <p>From April-18 to Sept-18, power consumption for cement production was 62.76 units/ton & thermal energy consumption was 753 Kcal/Kg of clinker.</p> | | | | | | | | | | | | | | | | | | | | | |
| V | The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16 th November, 2009 shall be followed. | <p>4 numbers of AAQMS have been installed at the common boundary of plant and mine for the measurement of PM2.5, PM10, SO2 and NOx level.</p> <p>Data of AAQMS report enclosed as Annexure – 2.</p> | | | | | | | | | | | | | | | | | | | | | |
| VI | AAQ Modelling shall be carried out based on the specific mitigative measures taken in the existing project and proposed for the expansion project to keep the emissions well below prescribed standards. | Environment Management plan including mitigation measures are enclosed as Annexure-3 . | | | | | | | | | | | | | | | | | | | | | |
| VII | Secondary fugitive emissions shall be controlled and shall be within the prescribed limits and regularly monitored. Guidelines/Code of Practice issued by the CPCB in this regard shall be followed. | <p>Following measures have been taken for control of fugitive emission:</p> <table border="1"> <thead> <tr> <th>S. No.</th><th>Source</th><th>Pollution Control Measures</th></tr> </thead> <tbody> <tr> <td>1.</td><td>Coal Unloading</td><td>Covered Unloading point</td></tr> <tr> <td>2.</td><td>Limestone Unloading</td><td>Covered unloading and water spray at crusher</td></tr> <tr> <td>3.</td><td>Material Transfer Point</td><td>Cover shed & Dust Collector</td></tr> <tr> <td>4.</td><td>Fly Ash Storage</td><td>Silo</td></tr> <tr> <td>5.</td><td>Gypsum Storage</td><td>Cover shed</td></tr> <tr> <td>6.</td><td>Petcoke / Coal Storage</td><td>Cover shed</td></tr> </tbody> </table> | S. No. | Source | Pollution Control Measures | 1. | Coal Unloading | Covered Unloading point | 2. | Limestone Unloading | Covered unloading and water spray at crusher | 3. | Material Transfer Point | Cover shed & Dust Collector | 4. | Fly Ash Storage | Silo | 5. | Gypsum Storage | Cover shed | 6. | Petcoke / Coal Storage | Cover shed |
| S. No. | Source | Pollution Control Measures | | | | | | | | | | | | | | | | | | | | | |
| 1. | Coal Unloading | Covered Unloading point | | | | | | | | | | | | | | | | | | | | | |
| 2. | Limestone Unloading | Covered unloading and water spray at crusher | | | | | | | | | | | | | | | | | | | | | |
| 3. | Material Transfer Point | Cover shed & Dust Collector | | | | | | | | | | | | | | | | | | | | | |
| 4. | Fly Ash Storage | Silo | | | | | | | | | | | | | | | | | | | | | |
| 5. | Gypsum Storage | Cover shed | | | | | | | | | | | | | | | | | | | | | |
| 6. | Petcoke / Coal Storage | Cover shed | | | | | | | | | | | | | | | | | | | | | |

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| | | <table> <tr><td>7.</td><td>Limestone Storage</td><td>Cover shed</td></tr> <tr><td>8.</td><td>Clinker Storage</td><td>Silo</td></tr> <tr><td>9.</td><td>Conveyor Belt</td><td>Covered</td></tr> <tr><td>10.</td><td>Clinker Cooler-I</td><td>ESP</td></tr> <tr><td>11.</td><td>Raw Mill & Kiln-I</td><td>RABH</td></tr> <tr><td>12.</td><td>Coal Mill-I</td><td>Bag House</td></tr> <tr><td>13.</td><td>Clinker Cooler-II</td><td>ESP</td></tr> <tr><td>14.</td><td>Raw Mill & Kiln-II</td><td>RABH</td></tr> <tr><td>15.</td><td>Coal Mill-II</td><td>Bag House</td></tr> <tr><td>13.</td><td>Cement Mill</td><td>Bag House</td></tr> <tr><td>14.</td><td>All Silo</td><td>Dust Collector for silo venting</td></tr> </table> <p>For Unit – 1, 72 numbers of bag filter have been installed in clinkerization, cement and CPP section. For unit – 2, 35 numbers of bag filters have been installed in clinkerization section to control the fugitive emission.</p> | 7. | Limestone Storage | Cover shed | 8. | Clinker Storage | Silo | 9. | Conveyor Belt | Covered | 10. | Clinker Cooler-I | ESP | 11. | Raw Mill & Kiln-I | RABH | 12. | Coal Mill-I | Bag House | 13. | Clinker Cooler-II | ESP | 14. | Raw Mill & Kiln-II | RABH | 15. | Coal Mill-II | Bag House | 13. | Cement Mill | Bag House | 14. | All Silo | Dust Collector for silo venting |
| 7. | Limestone Storage | Cover shed | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8. | Clinker Storage | Silo | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9. | Conveyor Belt | Covered | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10. | Clinker Cooler-I | ESP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11. | Raw Mill & Kiln-I | RABH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12. | Coal Mill-I | Bag House | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13. | Clinker Cooler-II | ESP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14. | Raw Mill & Kiln-II | RABH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15. | Coal Mill-II | Bag House | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13. | Cement Mill | Bag House | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14. | All Silo | Dust Collector for silo venting | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| VIII | A statement on carbon budgeting including the quantum of equivalent CO ₂ being emitted by the existing plant operations, the amount of carbon sequestered annually by the existing green belt and the proposed green belt and the quantum of equivalent CO ₂ that will be emitted due to the proposed expansion shall be prepared by the project proponent and submitted to the Ministry and the Regional Office of the Ministry. This shall be prepared every year by the project proponent. The first such budget shall be prepared within a period of 6 months and subsequently it should be prepared every year. | <p>1171.15 Ton of CO₂ sequestered by the trees plantation till June 2018</p> <p>CO₂ generation from the existing operation is 25,13,642 Tons/ Annum and carbon sequestration till June 2018 is 1171.15 Ton.</p> <p>Details of CO₂ generation and Carbon sequestration report- June-18 is enclosed as Annexure-4.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| IX | For the employees working in high temperature zones falling in the plant operation areas, the total shift duration would be 4 hrs or less per day where the temperature is more than 50°C. Moreover, the jobs of these employees will be alternated in such a way that no employee is subjected to working in high temperature area for more than 1 hr continuously. Such employees would be invariably provided with proper protective | All employees working in high temperature area are provided personal protective equipment's like Safety helmets, goggles, Safety Shoes, Gloves etc. and there is proper arrangement for drinking water at the site to prevent dehydration. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| | equipments, garments and gears such as head gear, clothing, gloves, eye protection etc. There should also be an arrangement for sufficient drinking water at site to prevent dehydration etc. | | | | | | | | | | | | | | | | | | | | | |
| X | Arsenic and Mercury shall be monitored in emissions, ambient air and water. | Analysis report of Hg in ambient air & water is as under :- <table><tr><td>Unit</td><td>Parameter</td><td>Norms</td><td>Value</td></tr><tr><td>CPP</td><td>Hg, mg/nm3</td><td>0.03</td><td>0.016</td></tr><tr><td>Ambient Air</td><td>As, mg/nm3</td><td>6.0</td><td><0.1</td></tr><tr><td>Ground Water</td><td>Hg, mg/nm3</td><td>0.001</td><td>ND</td></tr><tr><td></td><td>As, mg/nm3</td><td>0.01</td><td><0.01</td></tr></table> | Unit | Parameter | Norms | Value | CPP | Hg, mg/nm3 | 0.03 | 0.016 | Ambient Air | As, mg/nm3 | 6.0 | <0.1 | Ground Water | Hg, mg/nm3 | 0.001 | ND | | As, mg/nm3 | 0.01 | <0.01 |
| Unit | Parameter | Norms | Value | | | | | | | | | | | | | | | | | | | |
| CPP | Hg, mg/nm3 | 0.03 | 0.016 | | | | | | | | | | | | | | | | | | | |
| Ambient Air | As, mg/nm3 | 6.0 | <0.1 | | | | | | | | | | | | | | | | | | | |
| Ground Water | Hg, mg/nm3 | 0.001 | ND | | | | | | | | | | | | | | | | | | | |
| | As, mg/nm3 | 0.01 | <0.01 | | | | | | | | | | | | | | | | | | | |
| XI | The coal yard shall be lined and covered. | Coal and pet coke is stored in covered shed. | | | | | | | | | | | | | | | | | | | | |
| XII | The project proponent shall prepare a report on impact of project on surrounding reserve forests within six months and will get it approved from the State Forest Department. A copy of the same should be submitted to the Ministry and its Regional Office. | Letter from forest Department showing “No impact of project on Dhabadih Reserved Forest” is enclosed as Annexure-5 . | | | | | | | | | | | | | | | | | | | | |
| XIII | The project proponent shall take all precautionary measures for conservation and protection of wild fauna found in the study area. A Wildlife Conservation Plan specific to this project site shall be prepared in consultation with the State Forest and "Wildlife Department. A copy of the Conservation plan shall be submitted to the Ministry and its Regional Office. | There is no schedule-1 fauna found in core and buffer zone of project. | | | | | | | | | | | | | | | | | | | | |
| XIV | The project proponent will also provide the latest status of the environmental compliances in respect of its existing plant. | Regularly submitting half yearly Compliance report. An earlier Half yearly Compliance status report period from – Oct-17 to March-18, has been sent thru Mail as well as courier on dated 08.05.2018 & dated 10.05.2018 respectively. Courier receipt is enclosed as Annexure - 6 . | | | | | | | | | | | | | | | | | | | | |
| XV | Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land by the use of conveyors/rail mode of transport wherever feasible. The company shall have separate truck parking area. Vehicular emissions shall be regularly monitored. | <ul style="list-style-type: none">▪ Transportation of fly ash is being done in closed trucks / bulkers.▪ All conveyor belts are covered▪ PUC certified vehicles are used for the transportation of raw material and product.▪ Land acquisition for the railway line is under process. | | | | | | | | | | | | | | | | | | | | |

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| XVI | Efforts shall be made to further reduce water consumption by using air cooled condensers. All the treated wastewater shall be recycled and reused in the process and/or for dust suppression and green belt development and other plant related activities etc. No process wastewater shall be discharged outside the factory premises and 'zero' discharge shall be adopted. | <ul style="list-style-type: none"> Unit is ZLD. Captive power plant is based on the air cooled condenser technology. Domestic waste water is being treated in sewage treatment plant of capacity 2*40 KLD and treated water being used for green belt and plantation. RO reject water is being used for mill spray. |
| XVII | Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources. | <ul style="list-style-type: none"> Earthen pit of 2*1.0 Lakh KL capacity have been developed in plant area for storage of rain water. Mining pit of capacity 2.5Lakh KL and one pond in mine area of 2.5Lakh KL has been developed to collect rain water and recharge of ground water. Further in residential colony one pond of 20K KL is proposed. In addition, we have maintained the ponds by cleaning and deepening at Village Chandi, Karhi and Khapradih. <p>Details is enclosed as Annexure-7.</p> |
| XVIII | Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the Environment (Protection) Act, 1986. | <ul style="list-style-type: none"> No waste water is being discharged from Cement Plant as dry process technology is being used for cement manufacturing and maintaining the zero liquid discharge. Domestic waste water is being treated in STP and treated water is used for plantation. RO reject water is being used for mill spray. <p>Water quality report of STP treated water & ground water of surrounding area is enclosed as Annexure-8.</p> |
| XIX | All the bag filter dust, raw mill dust, coal dust, clinker dust and cement dust from pollution control devices shall be recycled and reused in the process and used for cement manufacturing. Spent oil and batteries shall be sold to authorized recyclers / re-processors only. | <p>Dust collected in bag filters is being recycled in process.</p> <p>Used oil / Spent oil and used batteries are being sold to authorized recyclers / re-processors only.</p> |
| XX | The kiln shall be provided with a flexible fuel feeding system to enable use of hazardous wastes and other wastes including biomass, etc. | Flexible fuel feeding system has been provided with kiln. Authorization for co-processing of Acid-Tar sludge has been issued by CECB Raipur on 04.09.17. |

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| XXI | The proponent shall examine and prepare a plan for utilization of high calorific wastes such as chemical wastes, distillation residues, refuse derived fuels, etc as alternate fuels based on availability and composition. For this, the proponent shall identify suitable industries with such wastes and enter into an MOU for long-term utilization of such wastes as per the Environment (Protection) Rules, 1986 and with necessary approvals. | Authorization for co-processing of Acid-Tar sludge has been obtained from CECB. Copy enclosed as Annexure- 9 . It is generated by M/s Bhilai Steel Plant Durg/ Similar industries/ Sectors. Presently no additional material is available. |
| XXII | Efforts shall be made to use the high calorific hazardous waste in the cement kiln and necessary provision shall be made accordingly. The PP shall enter into an MOU with units with potential for generating hazardous waste and in accordance with Hazardous Waste Regulations and prior approval of the CECB. | Authorization for co-processing of Acid-Tar sludge has been issued by CECB Raipur on 04.09.17. |
| XXIII | Green belt over 33% of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area and along road sides etc. by planting native and broad leaved species in consultation with local DFO, local community and as per the CPCB guidelines. | Presently 94159 saplings have been planted within plant premises. Under Hariyar Chhattisgarh project we have planted 15000 trees near School of Bharuwadih, Semradih, Khapradih, Chandi, Karahi & Parkidih villages with about 10 KM of both side of road plantation from Bharuwadih to chandi village and we have also planted about 15050 trees at Bhatapara. Apart from that, 5000 tree sapling have been also done in Railway siding. |
| XXIV | The project proponent shall provide for solar light system for all common areas, street lights, villages, parking around project area and maintain the same regularly. | Solar lights installed in plant area and is proposed in colony area. |
| XXV | The project proponent shall provide for LED lights in their offices and residential areas. | LED lights have been provided in offices in the plant. |
| XXVI | All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Cement plants shall be implemented. | All actions have been taken to comply with CREP recommendation. |

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| | S. No. | CREP Condition | Action Plan |
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| | 1. | The new cement kiln to be accorded NOC/ Environmental Clearance w.e.f 1/4/03 will meet the limit of 50 mg/Nm ³ for particulate matter emission. | PM emission level is < 30 mg/Nm ³ . |
| | 2. | The cement industries will control fugitive emission from all raw material and product storage and transfer points by December 2003. However, the National Task Force will decide the feasibility for the control of fugitive emission from limestone and coal storage areas. The NTF shall submit its recommendations within months. | Following measures have been taken: <ul style="list-style-type: none"> • Silos for Clinker and Fly Ash and covered shed for Gypsum. • Water spray arrangement at raw materials like limestone, coal and pet coke. • Bag filters at all material transfer points. • Covered conveyor belts. • Cemented roads and three vacuum sweeping machines for road cleaning. |
| | 3. | Industries will submit the target date to enhance the utilization waste material by April 2003. | Use of fly ash for making of PPC. |
| | 4. | NCBM will carry out a study on hazardous waste utilization in cement kiln by December 2003. | Authorization for co-processing of Acid-Tar sludge has been issued by CECB Raipur on 04.09.17. |
| | 5. | Cement industries will carry out feasible study and submit target dates to CPCB co-generation of power by July-2003. | Waste heat recovery system has been installed |
| XXVI I | At least 2.5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues, locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured by constituting a Committee comprising of the proponent, representatives of village Panchayat and District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office. | | All commitments made during the public hearing have been incorporated in CSR activities. An amount Rs 60.16 lakh rupees has been incurred on socio-economic activities from April- 2018 to Sept-2018. Details enclose for CSR expenses as given in Annexure- 10. |
| XXVI II | In addition to the above provision of ESC, the proponent shall prepare a detailed ' CSR | | A dedicated CSR dept. doing socio-economic development activities in the surrounding villages |

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| | <p>Plan for the next 5 years including annual physical and financial targets for the existing-cum-expansion project, which includes village-wise, sector-wise (Health, Education, Sanitation, Skill Development and infrastructure etc) activities in consultation with the local communities and administration. The CSR Plan will include the amount of 2% retain annual profits as provided for in Clause 135 of the Companies Act, 2013 which provides for 2% of the average net profits of previous 3 years towards CSR activities for life of the project. A separate budget head shall be created and the annual capital and revenue expenditure on various activities of the Plan shall be submitted as part of the Compliance Report to RO. The details of the CSR Plan shall also be uploaded on the company website and shall also be provided in the Annual Report of the company.</p> | <p>like community development programs, educational programs, drinking water supply and health care, sanitation, skill development and infrastructure etc.</p> <p>A five year CSR plan along with budgetary allocation is enclosed as Annexure- 11.</p> |
| XXIX | <p>A Risk Assessment Study and Disaster Preparedness and Management Plan along with the mitigation measures shall be prepared with a focus of Disaster Prevention and a copy submitted to the Ministry's Regional Office, SPCB and CPCD within 3 months of issue of environment clearance letter.</p> | <p>Submitted along with EIA / EMP report.</p> |
| XXX | <p>To educate the workers, all the work places where dust may cause a hazard shall be clearly indicated as a dust exposure area through the use of display signs which identifies the hazard and the associated health effects.</p> | <p>Complying with</p> |
| XXXI | <p>Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.</p> | <p>Housing, fuel, toilets with soak pits & septic tank, safe drinking water, medical healthcare etc. have been provided to construction labors.</p> |

| B. General Conditions: | | |
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| i. | The project authorities must strictly adhere to the stipulations made by the Chhattisgarh Environment Conservation Board and the State Government. | Complying with. |
| ii. | No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC). | Agreed. No further expansion in the plant will be done without prior approval of the Ministry of Environment, Forests and Climate Change (MoEFCC). |
| iii. | At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM10, PM2.5, SO ₂ and NO _x are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Nagpur and the SPCB/CPCB once in six months. | 4 numbers of AAQMS have been installed for the measurement of PM2.5, PM10, SO ₂ and NO _x level. Data on ambient air quality and stack emissions being submitted to MoEF &CC Regional Office and SPCB / CPCB once in six months and monitored data is enclosed as Annexure 2 . |
| iv. | Industrial wastewater shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. The treated wastewater shall be utilized for plantation purpose. | Two STP capacity 40 KL/day each, have been installed & being operated. Treated effluent being used in green belt development. Treated effluent analysis data sheet is enclosed as Annexure 8 . RO reject water being reused for cement mill spray |
| v. | The overall noise levels in and around the plant area shall be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime). | Turbines, compressors and DG set have been installed in closed building. Plantation has been done all around the plant boundary. Proper maintenance and lubrication is being done of all machines to maintain the noise level. Noise monitoring report being submitted to board regularly. Noise Monitored data is enclosed as Annexure 12 . |
| vi. | Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act. | Occupational health programs are conducted on regular basis and records being maintained by the Occupation Health Center (OHC). Quantitative statistics and number of individual screened for occupational health surveillance from April-18 to Sept-18 is enclosed as Annexure-13 . |



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| vii. | The company shall develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table. | <ul style="list-style-type: none"> ▪ Earthen pit of 2*1.0 Lakh KL capacity have been developed in plant area for storage of rain water. ▪ Mining pit of capacity 2.5L KL and one pond in mine area of 2.5L KL has been developed to collect rain water and recharge of ground water. ▪ Further in residential colony one pond of 20K KL is proposed. ▪ In addition, we have maintained the ponds by cleaning and deepening at Village Chandi, Karhi and Khapradih. ▪ Details is enclosed as Annexure-7. |
| viii. | The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA/EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programs, educational programs, drinking water supply and health care etc. | <p>Environmental protection measures and safeguards recommended in the EIA/EMP report have been / will be implemented.</p> <p>A dedicated CSR dept. is doing socio-economic development activities in the surrounding villages like community development programs, educational programs, drinking water supply and health care, Sanitation, Skill Development and infrastructure etc. An amount Rs 60.16 lakh rupees has been incurred on socio-economic activities from April- 2018 to Sept-2018. Details enclose for CSR expenses as given in Annexure- 10.</p> |
| ix. | Requisite funds shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change (MoEFCC) as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of the Ministry at Nagpur. The funds so provided shall not be diverted for any other purpose. | Details of expenses on environmental protection measures is enclosed as Annexure-14 . |
| x. | A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the | <p>Copy of environment clearance letter has been sent on 16.9.2016 to the followings:-</p> <ol style="list-style-type: none"> 1. Gram Panchayat, Khapradih. 2. Jila Panchayat, Balodabazar 3. Nagar Palika, Balodabazar <p>EC letter has been put on our web site:- www.shreecement.in</p> |

AS

| | | |
|-------|---|---|
| | proponent. | |
| xi | The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEFCC at Nagpur. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM 10, SO ₂ , NO _x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain. | <p>Last six monthly EC compliance status report for the period of Oct-17 to March-18 has been uploaded on company website. We are regularly submitting half yearly Compliance reports. An earlier Half yearly Compliance status report period from – Oct-17 to March-18, has been sent thru Mail as well as courier on dated 08.05.2018 & dated 10.05.2018 respectively. Courier receipt is enclosed as Annexure - 6.</p> <p>The criteria pollutant levels namely; PM 10, SO₂, NO_x (ambient levels) and PM, SO₂ & NO_x (stack emissions) are continuously displayed on the display board at the main gate of the plant.</p> |
| xii. | The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEFCC, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Nagpur / CPCB / SPCB shall monitor the stipulated conditions. | Last six monthly EC compliance status report for the period of Oct-17 to March-18 has been uploaded on company website. We are regularly submitting half yearly Compliance reports. An earlier Half yearly Compliance status report period from – Oct-17 to March-18, has been sent thru Mail as well as courier on dated 08.05.2018 & dated 10.05.2018 respectively. Courier receipt is enclosed as Annexure - 6 . |
| xiii. | The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Office of the MOEFCC at Nagpur by e-mail. | Environmental statement for year-2017-18 has been submitted to the Chhattisgarh Environment Conservation Board (CECB) Raipur on 03.09.2018. Environment Statement and EC compliance has been uploaded on our web site: www.shreecement.in |
| xiv. | The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry | Advertised in two local newspapers widely circulated in the region namely, Hari Bhumi and Navbharat on 11/9/2016. Copy of the same is already sent to the Regional Office MoEF & CC |



| | | |
|-----|--|--|
| | and copies of the clearance letter are available with the SPCB and may also be seen at Website of the Ministry of Environment, Forests and Climate Change (MoEFCC) at http://envfor.nic.in . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office at Nagpur. | Nagpur. Copy of newspapers cutting enclosed as Annexure-15 |
| xv. | Project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work. | <ol style="list-style-type: none"> 1st clinker unit (Pyro processing) enhanced capacity from 1.5 Million TPA to 2.6 Million TPA started on 04/02/2017. 2nd clinker unit (Pyro processing) having capacity of 2.6 Million TPA started on 13/12/2017. 1st clinker grinding unit enhanced capacity from 2.6 Million TPA to 3.0 Million TPA started on 04/02/2017. Waste heat power plant commissioning & generation on 23.07.2015. Captive Power Plant (CPP) enhanced capacity from 15 MW to 25 MW has been started on 12/02/2017. Three DG sets capacity 250 KVA each has been installed. |

For Shree Raipur Cement Plant
(A unit of Shree Cement Ltd.)


R K Vijay
Joint VP (Operations)

Enclosed: - As above


A3

Annexure - 1

**Shree Raipur Cement Plant
(A Unit of Shree Cement Ltd)**

Stack Emission Report (PM All values in mg/Nm³)

| S. No. | Month | Cement Mill | Coal Mill Stack-I | Coal Mill Stack-II | Clinker Cooler Stack-I | Clinker Cooler Stack-II | Raw Mill & Kiln Stack -I | | | Raw Mill & Kiln Stack -II | | | Captive Power plant Stack | | |
|--------|--------|-------------|-------------------|--------------------|------------------------|-------------------------|--------------------------|-----------------|-----------------|---------------------------|-----------------|-----------------|---------------------------|-----------------|-----------------|
| | | PM | PM | PM | PM | PM | PM | SO ₂ | NO _x | PM | SO ₂ | NO _x | PM | SO ₂ | NO _x |
| 1 | Apr-18 | 11.41 | 7.64 | NA | 6.55 | NA | 5.33 | 7.26 | 175.24 | NA | NA | NA | 31.35 | 316.15 | 219.64 |
| 2 | May-18 | 10.90 | 10.34 | 17.36 | 9.38 | 4.57 | 7.51 | 6.37 | 234.21 | 13.68 | 13.06 | 250.17 | 23.54 | 283.09 | 195.09 |
| 3 | Jun-18 | 12.79 | 7.59 | 18.65 | 6.81 | 5.51 | 4.98 | 41.24 | 293.39 | 11.71 | 23.94 | 256.52 | 25.61 | 262.89 | 241.66 |
| 4 | Jul-18 | 8.69 | 9.01 | 12.08 | 7.42 | 10.21 | 5.93 | 5.65 | 199.89 | 15.08 | 6.76 | 388.88 | 20.01 | 311.58 | 234.87 |
| 5 | Aug-18 | 6.16 | 12.52 | 5.66 | 9.18 | 13.25 | 7.48 | 4.60 | 303.01 | 6.86 | 4.94 | 153.92 | 23.42 | 277.60 | 219.57 |
| 6 | Sep-18 | 7.27 | 12.20 | 9.10 | 8.95 | 4.75 | 6.82 | 15.10 | 421.24 | 8.80 | 9.59 | 342.52 | 27.79 | 214.24 | 191.67 |



Annexure - 2

**Shree Raipur Cement Plant
(A Unit of Shree Cement Ltd)**

AMBIENT AIR QUALITY MONITORING STATION DATA

| Location | Parameters | Unit | Apr-18 | May-18 | Jun-18 | Jul-18 | Aug-18 | Sep-18 |
|--|------------|--------------------------|--------|--------|--------|--------|--------|--------|
| AAQMS 1 (Mines boundary towards village Bharuwadih) | PM 10 | $\mu\text{g}/\text{m}^3$ | 40.69 | 47.45 | 41.92 | 36.31 | 35.23 | 55.93 |
| | PM 2.5 | | 19.29 | 24.03 | 17.7 | 17.09 | 12.77 | 19.77 |
| | SO2 | | 2.76 | 2.96 | 2.91 | 2.71 | 7.29 | 5.35 |
| | NO2 | | 3.01 | 2.3 | 2.33 | 2.33 | 2.99 | 1.87 |
| AAQMS 2 (Mines boundary towards village Semradih) | PM 10 | | 47.62 | 55.91 | 43.44 | 35.42 | 41.9 | 49.56 |
| | PM 2.5 | | 21.86 | 21.99 | 16.47 | 12.7 | 13.88 | 22.48 |
| | SO2 | | 3.23 | 3.67 | 4.07 | 3.8 | 3.8 | 4.75 |
| | NO2 | | 4.4 | 4.58 | 4.61 | 4.63 | 4.63 | 2.37 |
| AAQMS 3 (Plant Boundary towards South Diction) | PM 10 | | 49.27 | 47.67 | 43.24 | 47.74 | 35.92 | 46.45 |
| | PM 2.5 | | 27.07 | 23.97 | 21.9 | 22.35 | 17.64 | 20.49 |
| | SO2 | | 4.15 | 3.42 | 8.06 | 12.54 | 13.82 | 11.55 |
| | NO2 | | 5.6 | 4.04 | 5.7 | 5.39 | 4.1 | 4.12 |
| AAQMS 4 (Plant Boundary towards village Khapradih) | PM 10 | | 45.89 | 50.54 | 42.7 | 39.93 | 31.17 | 41.02 |
| | PM 2.5 | | 18.57 | 21.24 | 16.99 | 16.77 | 15.09 | 28.67 |
| | SO2 | | 6.28 | 6.32 | 6.91 | 6.35 | 5.41 | 5.27 |
| | NO2 | | 7.13 | 6.88 | 6.8 | 7.42 | 8.15 | 8.05 |

AB

**MITIGATIVE MEASURES TAKEN FOR ENVIRONMENTAL
IMPROVEMENT AT PLANT.**

1. Installed 4 numbers of online Ambient Air Quality Monitoring Stations and Continuous Emission Monitoring System at raw mill, kiln stack.
2. Real time on line data of AAQMS & CEMS are transmitting to State and Central Pollution Control Board on continuous basis.
3. In house manual monitoring of stack emission and ambient air emission, fugitive emission and water quality is being done regularly.
4. Monitoring of stack emission and ambient air emission, water quality is being done regularly through NABL approved lab.
5. Opacity meters have been installed at the stack of Kiln, Coal mill, clinker cooler and cement mill for continuous online stack emission monitoring.
6. Monitoring of SO₂ & NO_x, O₂. Gas emission is being measured through Flue gas Portable analyzer (Testo 340) on regularly basis.
7. 72 numbers of Bag filters have been installed and covered with shed at various material transfer points for control of fugitive emission.
8. Cement being manufacturing in dry process and there is no any effluent generated from the process hence maintaining Zero Effluent Discharge.
9. Waste heat recovery system has been installed.
10. Concreting at near raw mill, coal mill, cooler, cement mill, packing plant and TG building has been done.
11. Fly ash is being transported in the closed containers and bulkers.
12. Constructed two Clinker silo with fully covered tin shed to avoid fugitive dust emission.



13. All Storage Silo installed with Bag filter for controlling dust emission
14. Maintenance department is doing regular checking and scheduled maintenance of all the pollution control devices.
15. Civil department taking care for of House keeping with the help of two road sweeping machines.
16. Domestic waste water generated by unit being treated in Movable Bed Bio reactor (MBBR) based sewage treatment plant (STP). Treated STP water being used for plantation/ greenery development.
17. Horticulture Department is taking care of tree plantation and green belt development.
18. Applicable best available control measures has been adopted to minimize the fugitive dust emission from each fugitive dust source type within active operation
19. All Belt Conveyor fully covered with tin sheet
20. Constructed cover shed for storage of raw material including Coal to avoid fugitive dust emission.
21. Developed 2 Nos of Rain water harvesting Pond capacity about 1 L KL each in plant premises & mining pit of capacity 2.5L KL and one pond in mine area of 2.5L KL in mine area to collect rain water and recharge of ground water.

AB

Carbon sequestration estimation for Shree Raipur cement Plant (A Unit of Shree Cement Ltd.)

2017 - 2018



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List of abbreviations

| | |
|--------|---|
| AGB | Above Ground Biomass |
| dbh | diameter at breast height |
| GHG | Greenhouse Gas |
| MoEFCC | Ministry of Environment, Forests and Climate Change |

1 Background

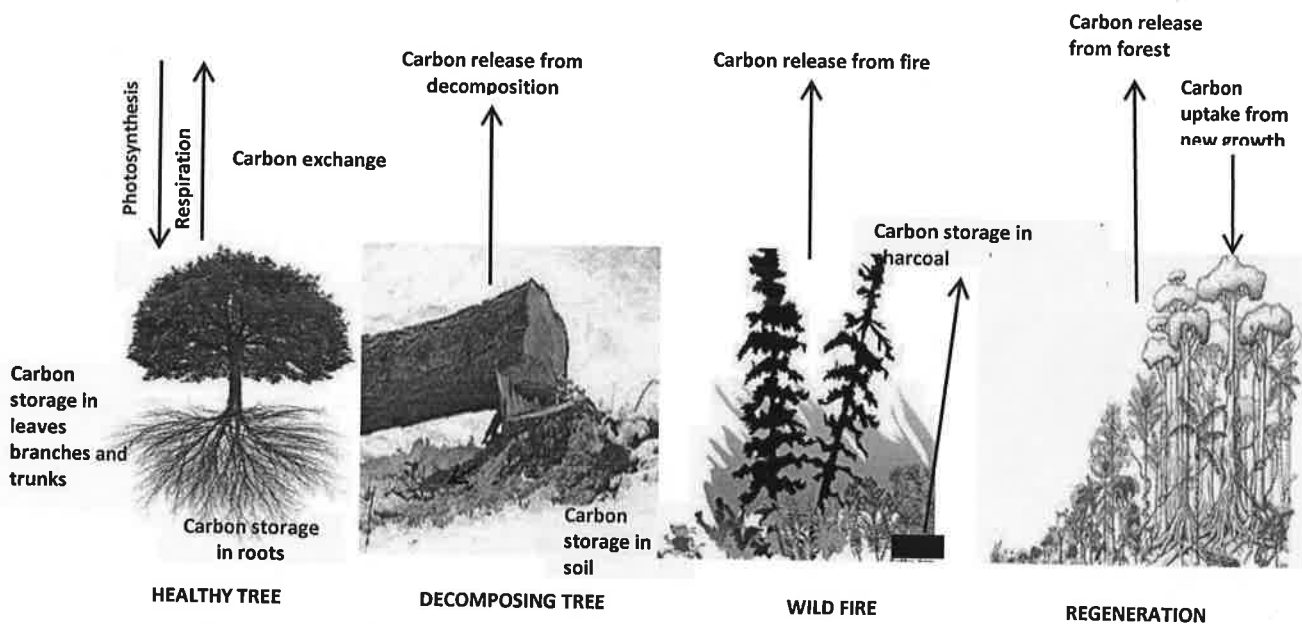
1.1 Carbon and trees

It is acknowledged that forests and planted areas contribute to combatting climate change. They play an important role as carbon sinks and sources, thereby maintaining the global carbon balance. Trees sequester and store carbon through the process of photosynthesis, contributing to creation of five carbon pools in the form of living biomass of trees, and under story vegetation and dead mass of litter, woody debris and soil organic matter as illustrated in Figure 1.

Figure 1: Carbon pools in planted areas

Source: Forest Carbon Report of India (2013)

These pools necessitate the growing need to quantify the stocks, sources and sinks of carbon



and other greenhouse gases (GHGs) in the context of anthropogenic impacts due to the global climate.

The carbon stored in the above ground biomass of trees is typically the largest pool, with young trees sequestering carbon at a faster rate because of their growth rate and the mature trees acting as storehouses of carbon. Thus, the forests and planted areas act as carbon sinks and when any forest fire occurs the stored carbon is released back in to the atmosphere as carbon dioxide. Furthermore, the bigger (and older) the trees, the higher is their ability to cycle and sequester carbon (Morris Bishop, 1998). This growth rate is a function of species planted the physiographic region which directly affects the decomposition rates, periods of photosynthesis.

It is interesting to note that even within a given area, carbon stocks will vary with elevation, rainfall and soil type. Due to which, a same species tree like Neem will not have same carbon stocking if grown in two different physiographic regions.

The areas which provide faster growing conditions to its vegetation will be more suitable for carbon stocking. For this reason tropical and sub-tropical forests have very fast growth rates giving higher productivity per unit of area and time with consequently higher potential of carbon sequestration per unit of area. However, due to unscientific management of these areas the forests/plantations may act as carbon sources only (Chaturvedi, 1994).

1.1.1 Biomass

Tree biomass assessment is used to estimate the quantity of timber, fuel and fodder components in the tree (Brown, 1997). Tree biomass is defined as the net organic matter resulting from primary production through photosynthesis, out of which approximately 50% of dry forest biomass comprises of carbon (Westlake, 1966). Furthermore, biomass assessments provide information on the amount of carbon that may be lost or sequestered under different forest management regimes and plantations. The carbon in the tree biomass can be converted to carbon dioxide by multiplying the ratio of the molecular weight of CO₂ to the atomic weight of carbon.

1.1.2 Above-ground biomass

The AGB carbon pool consists of all living biomass broadly categorised as trees and understory. There are various approaches established to estimate the carbon, the most comprehensive of which is the destructive sampling. This method includes harvesting vegetation, drying to a constant mass and establishing wet-to-dry biomass ratio. It is an expensive approach and non-intuitive for promoting carbon sequestration. More commonly applied approach includes estimating biomass through regressing equations. The default biomass regression equations have been stratified by rainfall regime and region (Brown, 1997; IPCC, 2003). These default equations are based on a large sample of trees. Their application however, tends to reduce the accuracy of the biomass estimate.

1.2 Objective of the study

Understanding the critical role played by trees in carbon uptake from the atmosphere and the creation of carbon sinks as a mitigation strategy, Shree Cement Limited has undertaken plantation activity at Raipur, Chhattisgarh, since 2012. This study focusses on estimating the current carbon stock of above ground biomass at Shree Raipur Cement Plant (A Unit of Shree Cement Limited) plantation site situated at Balodabazar- Bhatapara district in Chattisgarh state.

2 Methodology

Biomass is an indicator to carbon sequestered. There are numerous ways to estimate the biomass in tress/ saplings. The table below presents the estimation method that has been used for localized carbon sequestration estimation in planted areas in India.

Table 1: Methods to estimate carbon sequestered in planted areas in India.

| Study Area | Estimation method | References |
|---|--|---|
| Himalayan region of Uttar Pradesh in India | Aerial photographs and ground survey data. | Tiwari and Singh, 1984 |
| Western Ghats | Harvesting method | Rai and Proctor, 1986 |
| Tropical deciduous forests of India | Forest inventory, Remote sensing estimate | Haripriya, 2000 |
| Northern Haryana | Remote sensing and Regression models | Ravikumar et al. 2011 |
| Different forest types in Kolli hills, Tamil Nadu | Linear regression | Mani and Parthasarathy 2007, Mohanraj et al. 2011 |
| Western Ghats Maharashtra | Spectral modeling | Das & Singh, 2014 |

Source: Adapted from Das & Singh (2012)

The choice of the method is subject to access to technology like remote sensing, aerial photography, trained personnel to collect inventory data, and time.

The methodology applied in this study is based on the biomass regression models developed by Chave et al (2005). Chave et al (2005) has developed two models, Model I and Model II, based on the measurement parameters such as specific wood density, diameter, height and forest type - Model I uses diameter, height and forest type while Model II uses only diameter and forest type as dependent variables to estimate biomass. Here, Model II has been applied for estimating biomass of the plantation species. This equation is specific to tropical forests types namely dry, moist and mangroves; Raipur plantation sites fall under dry forest type. The step wise enumeration of carbon sequestration estimation is presented below:

1. Measuring girth (circumference) in m/inch at diameter breast height (dbh) which is 1.37m based on forest measurement principles, using measuring tape.
2. Converting girth into diameter in cm.
3. Obtaining specific wood density for species through literature review. For species where wood density has not been calibrated and published in literature, generalized wood density of 0.61gm/cm³ applicable for India has been used.
4. Estimating the biomass in kg of species by applying dry forest biomass regression equations of Model II (Chave et al, 2005). The equation is:

$$\text{Above ground biomass (dry forest type)} = \rho * e^{-0.667+1.784(\ln(D))+0.207(\ln(D*D))-0.0281(\ln(D*D*D))}$$

Where:

ρ is the wood density of the species in gm/cm³

D is the diameter of the sapling/tree in cm

5. Estimating the carbon sequestered in Tonnes in a sapling/tree from the product of biomass (kg) with carbon factor (50% or 0.50).
6. Estimating the carbon sequestered in Tonnes of carbon dioxide from the product of carbon sequestered in tonnes with molar value of carbon dioxide (3.67).

Sample estimation:

At site species of maximum abundance for instance Babul has been selected for illustrative estimation presented below in table 1.

Table 1: Illustrative estimation

| Site | Species name (common) | Species name (scientific) | Diameter (cm) | Specific density (gm/cm ³) | Biomass (kg) | Carbon sequestered (Tonnes) (Biomass*0.50/1000) | Number of saplings (same species) | Total carbon Sequestered (Tonnes) | Total carbon sequestered (Tonnes of CO ₂) (Carbon sequestered in Tonnes * 3.67) |
|--------|-----------------------|---------------------------|---------------|--|--------------|---|-----------------------------------|-----------------------------------|---|
| RAIPUR | Babul | <i>Acacia arabica</i> | 4.85 | 0.70 | 2.56 | 0.005 | 3170.00 | 14.31 | 52.51 |

3 Data collection

The above elaborated methodology uses field data collected by us. Data collection includes sampling as complete enumerations are subject to availability of resources such as time, trained field experts and other resources. By definition, sampling infers information about an entire population by observing only a fraction of it.

3.1 Data from field sampling

This study includes plantation data for one time data point i.e., 2018, and the field data that has been collected covers 100% sampling, due to availability of time and resources. The sampling design for estimating the carbon of the standing stock for the plantation sites of Shree Cement Plant are:

- 1 Plant area, Raipur, Chhattisgarh
- 2 Mines area, Raipur, Chhattisgarh
- 3 Harihar C.G. Plantation, Raipur, Chhattisgarh

At each site, the following data parameters were collected by the SRCP team:

- 1 Location of the plantation
- 2 Type of plantation (Block / line/ sporadic)
- 3 Species name (common)
- 4 Species name (scientific)
- 5 Age (years)
- 6 Girth at 1.37m (Inch/cm)
- 7 Number of saplings (same species)
- 8 Area of plantation

Equipped with this knowledge, the field team comprised of expert persons from Environment, Personnel and Administration, Land and Horticulture department who were further briefed before proceeding for data collection.

Measurements: Extensive exercise of field measurements was carried out at the plantation sites. The measured tree species were marked with colour codes in the sampling area.

Sampling: A field survey in the presence of the land surveyor was completed before the start of the sampling. Tree species were selected on the basis of canopy cover, foliage cover, height of the tree species, age of the tree species, and health of the tree species. A complete classification of the planted species was prepared.

The field area was segregated as per the density of the plantation area and was marked and boundary of the plantation area was fixed. For measurement of the girth a height of 1.37 meter from the ground level was considered.

Table 2: Plantation site specific data collection details

| Field data collection parameter | Raipur, Chhattisgarh |
|---|---|
| Team - qualified team of expert persons from Environment and Horticulture department | 4 members |
| Measurement time period | 2 weeks |
| Sampling selection criteria | Min. age 1 year Max. age 4.3 year |
| Tools used | measuring tapes, calipers along with the plastic scales |
| Total area sampled (in ha) – inclusive of all sub-sites | 121.58 |

Plate 1: Data collection

Key highlights

- Maximum girth measured 6.2 inch
- Minimum girth measured 1.0 inch
- Factory plantation area of 37.1 ha comprises of 91659 no of trees
- Mining plantation area is 56.51 ha comprises of 139586 no of trees
- Hariyar plantation area is 28 ha comprises of 28050 no of trees



Plant site- Near Stacker reccaimer



Plant site- Near STP-1



Mines site- near crusher-1



Mines site- near pipe conveyor belt

Measurement of girth in instances of forking and bend in pole (respectively)



Harihar project- road side



Harihar project- road side

4 Results

A high level summary of site-wise estimation of carbon sequestered in the standing stock (above ground biomass) for the plantations is presented as below:

| Carbon estimation for above ground biomass* | | | | |
|---|--------------------|----------------------|------------------------------|--------------------------------------|
| Plantation location | Type of plantation | No of saplings/trees | Tonnes of carbon sequestered | Tonnes of carbon dioxide sequestered |
| Plant area | Block & line | 91659 | 97.04 | 356.12 |
| Mines area | Block & line | 139586 | 190.7 | 699.87 |
| Harihar C.G. Plantation | Block & line | 28050 | 31.38 | 115.16 |
| Total | | 259295 | 319.11 | 1171.15 |
| Error percentage | 5% (+ -) | | | |
| Standard error | 19.50% | | | |

*This estimation excludes bamboo

Table 3: Age profile of plantations

| Age profile of saplings/trees | |
|-------------------------------|-----------------------------------|
| age (years) | number of saplings (same species) |
| 1 | 79052 |
| 2.0 | 117782 |
| 2.2 | 20878 |
| 3.0 | 20850 |
| 3.3 | 13733 |
| 4.3 | 7000 |
| Total | 259295 |

Remarks: Tonnes of carbon dioxide sequestered was **473.91** in **2016-17** and it is increased from the 473.91 MT to **1171.15 MT** in **2017-18** due to increase in total no. of trees & their diameter.

4.1 Quality assurance

The biomass regression equations and other parameters like specific wood density of species and carbon factor used in this study are based on secondary literature published and accepted in the research domain.-which is known to have a high reliability

4.2 Conclusion

During FY 2017-18 a total of **319.11** Tonnes of carbon and **1171.15** Tonnes of CO₂ eq. has been sequestered in the standing stock (above ground biomass) at the SRCP site.

5 References

Appendix 1 -List of wood densities for tree species from tropical America, Africa, and Asia.:

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Morris Bishop, Ellen, (1998). Monitoring the Forest's Breath. *The Columbian*, 7/22/98.

Westlake, D. F. (1966). The biomass and productivity of *glyceria maxima*: I. Seasonal changes in biomass *J. Ecol.* 54 745–53

Wood density <http://www.ankurpatwardhan.com/carbonsequestration.pdf>

Wood density database: <http://db.worldagroforestry.org/wd/genus/>

6 Annexures

5.1 Plantation data:-

SHREE RAIPUR CEMENT PLANT

| Sr no | Site name | Type of plantation (Block / line/ sporadic) | Area of plantation | Species name (Common) | Species name (scientific) | number of saplings (same species) | Age (years) | girth * (Inch) |
|-------|------------|---|--------------------|---------------------------|---------------------------|-----------------------------------|-------------|----------------|
| 1 | PLANT SITE | Block & Line | 0.72 | Peltaphorum | copper pod | 1800 | 4.3 | 5.5 |
| 2 | | | 0.68 | Karanj | Pongamia Pinnata | 1700 | 4.3 | 5.5 |
| 3 | | | 0.56 | bougainvillea (red color) | bougainvillea spectabilis | 1400 | 4.3 | 6.5 |
| 4 | | | 0.4 | Moulshree | Mimusops elengi | 1000 | 4.3 | 5.5 |
| 5 | | | 0.32 | Amaltas | cassia fistula | 800 | 4.3 | 6 |
| 6 | | | 0.12 | Cassia Siamea | senna siamea | 300 | 4.3 | 6.5 |
| 7 | | | 0.32 | Peltaphorum | copper pod | 800 | 3.3 | 4.5 |
| 8 | | | 0.36 | Karanj | Pongamia Pinnata | 900 | 3.3 | 4.2 |
| 9 | | | 0.24 | bougainvillea (red color) | bauhinia verigeta | 600 | 3.3 | 5 |
| 10 | | | 0.4 | Moulshree | Mimusops elengi | 1000 | 3.3 | 4 |
| 11 | | | 0.48 | Amaltas | cassia fistula | 1200 | 3.3 | 4.5 |
| 12 | | | 0.16 | Cassia Semiya | senna siamea | 400 | 3.3 | 4.5 |
| 13 | | | 0.088 | Neem | Azadirachta indica | 220 | 3.3 | 4.5 |
| 14 | | | 0.8 | Kachnar | bauhinia blakeana | 2000 | 3.3 | 4.5 |
| 15 | | | 0.8 | Gulmohar | Délonix regia | 2000 | 3.3 | 5 |

| | | | | | | | | |
|----|--|--|--------|-----------------------|----------------------|-------|-----|-----|
| 16 | | | 1 | Tecoma (yellow color) | Tecoma Stans | 2500 | 3.3 | 5.2 |
| 17 | | | 0.6516 | Kadam | Neolamarchia cadamba | 1629 | 3.3 | 5.5 |
| 18 | | | 0.0656 | Royal Palm | | 164 | 3.3 | 9 |
| 19 | | | 0.128 | Ficus Black (Panda) | ficus benamina | 320 | 3.3 | 5.5 |
| 20 | | | 0.16 | Peltaphorum | copper pod | 400 | 2.2 | 4 |
| 21 | | | 0.8632 | Karanj | Pongamia Pinnata | 2158 | 2.2 | 3.5 |
| 22 | | | 0.4 | Moulshree | Mimusops elengi | 1000 | 2.2 | 2.5 |
| 23 | | | 0.4 | Amaltas | cassia fistula | 1000 | 2.2 | 3 |
| 24 | | | 2.92 | Cassia semiya | senna siamea | 7300 | 2.2 | 3 |
| 25 | | | 1.968 | Neem | Azadirachta indica | 4920 | 2.2 | 3.5 |
| 26 | | | 0.4 | Kachnar | bauhinia blakeana | 1000 | 2.2 | 2.5 |
| 27 | | | 0.44 | Gulmohar | Delonix regia | 1100 | 2.2 | 3 |
| 28 | | | 0.4 | Tecoma | Tecoma Stans | 1000 | 2.2 | 3.5 |
| 29 | | | 0.4 | Kadam | Neolamarchia cadamba | 1000 | 2.2 | 3 |
| 30 | | | 2.414 | Mahaneem | | 6035 | 1 | 1.5 |
| 31 | | | 0.5912 | Sisam | Dalbergia latifolia | 1478 | 1 | 2 |
| 32 | | | 0.4 | Amaltas | | 1000 | 1 | 1.5 |
| 33 | | | 17.014 | Cassia semiya | | 41535 | 1 | 1.5 |
| | | | 37.1 | | | 91659 | | |

| | | | | | | | | |
|----|------------|--------------|-----------|----------------|--------------------------|--------|---|-----|
| 1 | Mines Area | Block & Line | 1.2834008 | Babul | Acacia Arabica | 3170 | 3 | 6 |
| 2 | | | 0.57 | Safed siris | Albizzia procera | 1420 | 3 | 5.5 |
| 3 | | | 0.57 | Sisam | Dalbergia latifolia | 1420 | 3 | 6 |
| 4 | | | 0.57 | Neem | Azadirachta indica | 1420 | 3 | 5.5 |
| 5 | | | 0.57 | Gulmohar | Delonix regia | 1420 | 3 | 6.2 |
| 6 | | | 0.809 | Subabul | laucaena laucocephala | 2000 | 3 | 5.2 |
| 7 | | | 2.78 | Babul | Acacia Arabica | 6880 | 2 | 3.5 |
| 8 | | | 3.23 | Safed siris | Albizzia procera | 8000 | 2 | 4 |
| 9 | | | 3.54 | Sisam | Dalbergia latifolia | 8780 | 2 | 3.5 |
| 10 | | | 4.75 | Neem | Azadirachta indica | 10758 | 2 | 3.5 |
| 11 | | | 4.75 | Gulmohar | Delonix regia | 11754 | 2 | 4 |
| 12 | | | 4.83 | Subabul | Laucaena Leucocephala | 11932 | 2 | 3.5 |
| 13 | | | 6.91 | Cassiya semiya | senna siamea | 17072 | 2 | 3.5 |
| 14 | | | 5.8 | Peltaphorum | copper pod | 14350 | 2 | 4 |
| 15 | | | 6.37 | Karanj | Pongamia Pinnata | 15756 | 2 | 3.5 |
| 16 | | | 3.5 | Bamboo plants | Bambusa arundinaceae | 9500 | 2 | 2.5 |
| 17 | | | 4.32 | Cassiya semiya | senna siamea | 10554 | 1 | 2 |
| 18 | | | 0.4 | Peltaphorum | copper pod | 1000 | 1 | 2 |
| 19 | | | 0.4 | Mahaneem | Azadirachta indica | 1000 | 1 | 1.5 |
| 20 | | | 0.56 | Bamboo plants | Bambusa arundinaceae | 1400 | 1 | 1.5 |
| | | | 56.51 | | | 139586 | | |

| | | | | | | | | |
|----|-------------------------|------|-----------|---------------|----------------------|--------------|---|-----|
| 1 | Hariyar C.G. plantation | Line | 2 | Neem | Azadirachta indica | 2000 | 3 | 4.5 |
| 2 | | | 2.5 | Kadam | Neolamarchia cadamba | 2500 | 3 | 5 |
| 3 | | | 2 | Karanj | Pongamia Pinnata | 2000 | 3 | 4 |
| 4 | | | 2 | Cassia Samiya | senna siamea | 2000 | 3 | 5.5 |
| 5 | | | 1.5 | Peltaphorum | copper pod | 1500 | 3 | 4.5 |
| 6 | | | 1 | Neem | Azadirachta indica | 1000 | 2 | 3.5 |
| 7 | | | 0.7 | Karanj | Pongamia Pinnata | 700 | 2 | 3.5 |
| 8 | | | 1.3 | Cassia Samiya | senna siamea | 1300 | 2 | 3 |
| | | | 13 | | | 13000 | | |
| 1 | Hariyar C.G. plantation | Line | 0.8 | Sisam | Dalbergia latifolia | 800 | 1 | 1 |
| 2 | | | 3.1 | Peltaphorum | copper pod | 3034 | 1 | 1.5 |
| 3 | | | 3.35 | Cassia Samiya | senna siamea | 3325 | 1 | 1 |
| 4 | | | 1.85 | Arjun | Terminalia arjuna | 1894 | 1 | 1 |
| 5 | | | 1.15 | Neem | Azadirachta indica | 1297 | 1 | 1 |
| 6 | | | 0.41 | Rain tree | Albizia Saman | 400 | 1 | 1 |
| 7 | | | 0.85 | Kachnar | baubhinia blakeana | 850 | 1 | 1.5 |
| 8 | | | 1.4 | Gulmohar | Delonix regia | 1400 | 1 | 1.5 |
| 9 | | | 0.55 | Pangara | Erythrina variegata | 550 | 1 | 1.5 |
| 10 | | | 1 | Karanj | Pongamia Pinnata | 1000 | 1 | 1 |
| 11 | | | 0.2 | Amaltas | cassia fistula | 200 | 1 | 1.5 |
| 12 | | | 0.34 | Moulshree | Mimusops elengi | 300 | 1 | 1.5 |
| | | | 15 | | | 15050 | | |

Thank you



क्रमांक / व.त.अ. / खनिज / 3078

बलौदाबाजार, दिनांक 06/08/2018

प्रति,

संयंत्र प्रमुख

श्री रायपुर सीमेंट प्लांट

(A unit of Shree Cement Limited)

ग्राम- खपराडीह, तह. सिमगा,

जिला- बलौदाबाजार-भाटापारा (छ.ग.)

विषय :- To issue letter regarding that there is no significant impact predict in surrounding Reserve Forest due to project establishment near Village Khapradih, Tehsil- Simga in District- Baloda Bazar-Bhatapara (Chhattisgarh) by Shree raipur Cement Plant (A unit of Shree Cement Limited)

संदर्भ :- आपका पत्र क्रमांक / SRCP/BB/2017-18/59 दिनांक 07.07.2017

— 00 —

उपरोक्त विषयांतर्गत संदर्भित पत्र के तारतम्य में यह प्रमाणित किया जाता है कि ग्राम खपराडीह में संचालित श्री रायपुर सीमेंट प्लांट (A unit of Shree Cement Limited) एवं ग्राम भरुवाडीह-सेमराडीह में श्री लाईम स्टोन माईन के संचालित गतिविधियों से संयंत्र एवं माईन्स के आस-पास स्थित आरक्षित वन क्षेत्र एवं वन्य जीव-जन्तुओं पर किसी प्रकार का कोई दुष्प्रभाव पड़ने की संभावना नहीं है।

वनमण्डलाधिकारी

बलौदाबाजार वनमण्डल, बलौदाबाजार

बलौदाबाजार, दिनांक 06/08/2018

पृ० क्रमांक / व.त.अ. / खनिज / 3580

प्रतिलिपि :-

उप वनमण्डलाधिकारी बलौदाबाजार की ओर उनके पत्र क्रमांक / 1088 दिनांक 31-8-2018 के संदर्भ में सूचनार्थ अग्रेषित।

वनमण्डलाधिकारी

बलौदाबाजार वनमण्डल, बलौदाबाजार

Avnessh chauhan

From: Avnessh chauhan <chauhanak@shreecementltd.com>
Sent: 08 May 2018 18:13
To: 'apccfcentral-ngp-mef@gov.in'; 'cpcb.bhopal@gmail.com' (cpcb.bhopal@gmail.com); 'hocecb@gmail.com' (hocecb@gmail.com)
Cc: R Bhargava (BhargavaR@shreecementltd.com); 'R K Vijay' (vijayrk@shreecementltd.com); 'Anil Jain' (environment@shreecementltd.com)
Subject: Six Monthly MoEF&CC Compliance Report (period- October 17-March 18)- by Shree Raipur Cement Plant-Balodabar- Bhatapara (Chhattisgarh)
Attachments: Half yearly EC Compliance Report (Oct-17 to Mar-18)-Plant.pdf

Dear Sirs,

Please find enclosed herewith MoEF & CC Six Monthly Compliance Report of plant Expansion- period from October-2017 to March-2018. As per given Environment Clearance to us vide letter No.- F. No. J-11011/235/2008-IA II (I) dated 05.09.2016

Hard copy of this MoEF & CC Six Monthly Compliance report being send to all thru courier.

Hope your will find this is in order.

Thanks & Regards

Avneesh Kumar Chauhan
Manager- Environment Dept.
Shree Raipur Cement Plant
(A unit of Shree Cement Ltd.)
Village- khaparadih, Tehsil – Simga
Dist.- Baloda Bazar- Bhatapara (C.G.)
Mobile no - 7024260999

भारतीय डाक



India Post

SP. BULGE BAGGER (1973555)
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ST. BABA SWAM 707132
6581 101 2244304520125
ET 004051 545 5 11
Counter No: 14, P-Code: 14
for DADARCE, CENTRAL COLLECTION
MUMBAI, PIN: 400 003

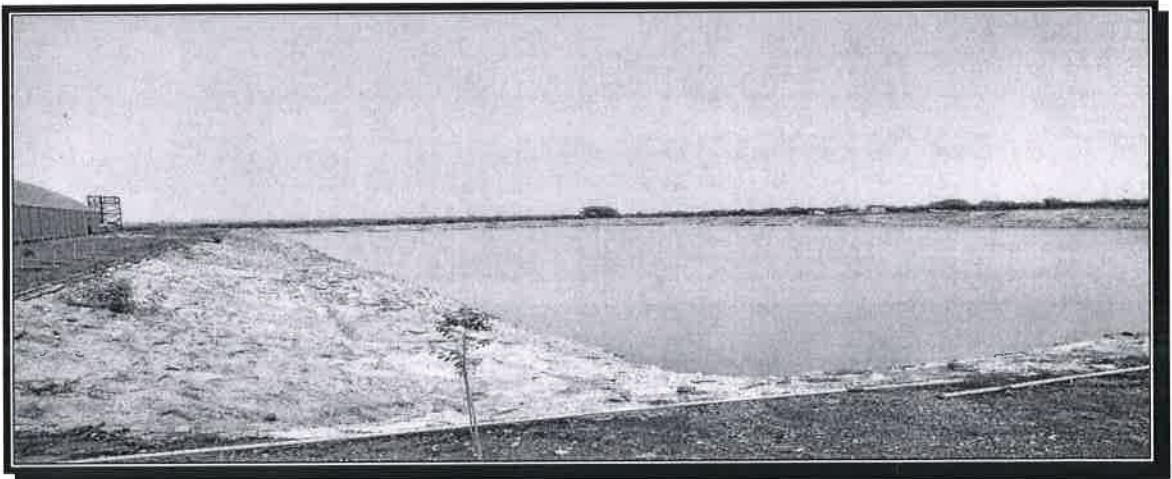
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Photographs of Rain water Harvesting Ponds.



Rain Water Harvesting Pond Near New CCR of 1 Lac. KI Capacity.



Rain Water Harvesting Pond Near Reclaiimer of 1 Lac KL Capacity.

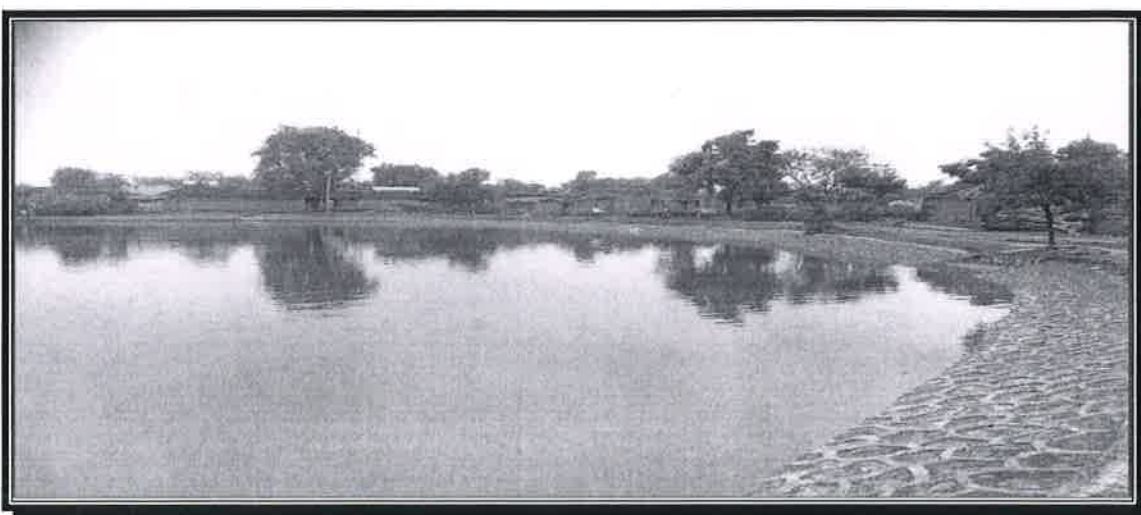


Rain Water Harvesting Pond in Mines of 2.5 Lac KI capacity

✓
AS



Rain Water Harvesting Pit in Mines of 2.5 Lac KI capacity



Pond bund development at Village- Karhi



Pond cleaning at Khapradih

AS



Pond deeping at Chandi village

AB

STP treated water analysis report

| Parameter | Apr-18 | | May-18 | | Jun-18 | | Jul-18 | | Aug-18 | | Sep-18 | |
|------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | STP -1 | STP -2 | STP -1 | STP -2 | STP -1 | STP -2 | STP -1 | STP -2 | STP -1 | STP -2 | STP -1 | STP -2 |
| pH | 7.83 | 7.74 | 7.74 | 7.71 | 7.79 | 7.64 | 7.82 | 7.64 | 7.67 | 7.48 | 7.13 | 7.03 |
| BOD (3 day at 27 deg), mg/l | 9.4 | 7.2 | 8.6 | 6.1 | 7.6 | 5.7 | 7.3 | 5.7 | 6.2 | 5.8 | <2 | 3.85 |
| COD, mg/l | 27.9 | 21.7 | 26.4 | 18.6 | 21.9 | 16.3 | 23.8 | 16.3 | 18.3 | 17.3 | less than 4 | 12.2 |
| Total Suspended Solids, mg/l | less than 10 | less than 10 | less than 10 | less than 10 | less than 10 | less than 10 | less than 10 | less than 10 | less than 10 | less than 10 | less than 10 | less than 10 |
| Oil & Grease, mg/l | less than 4 | less than 4 | less than 4 | less than 4 | less than 4 | less than 4 | less than 4 | less than 4 | less than 4 | less than 4 | less than 4 | less than 4 |





TEST REPORT

ANACON LABORATORIES PVT. LTD.

ISO 9001:2008, ISO 14001:2004, OHSAS 18001 Certified Organization,
Recognized By Ministry of Environment & Forests (MoEF), New Delhi
Accredited By Quality Council of India by NABET - Environment Impact Assessment Studies
Authorised by Food Safety & Standards Authority of India Under FSS Act
Approved by Bureau of Indian Standards (BIS)

Test Report No. : ALPL/17082018/227-3

Page 1 of 2

| | | | | | |
|--|--|---|--|---|--|
| Issued To : M/s SHREE RAIPUR CEMENT PLANT (A Unit of M/s Shree Cement Ltd.) Village:-Khapradih, Dist:-Baloda Bazar-Bhatapara, Raipur(C.G)-493 332. | | Sample Inward No. 1819/Mon-160-GW-3 | | Analysis Start 13.08.2018 | |
| | | Inward Date 13.08.2018 | | Analysis End 17.08.2018 | |
| | | Reference No. SCL/SRCP/BB/ 17-18/303 | | Report Issue Date 17.08.2018 | |
| | | Reference Date 26.10.2017 | | Sample Category Water | |
| Sample Name Ground Water | | Sample Collected By Anacon Representative | | Sample Source Piezometer | |
| | | | | Quantity Received 5 L & 250ml | |
| Sampling Location Piezometer Station -Near Khapradih Gate | | Sampling Date 10.08.2018 | | Sampling Time 11.45 A.M. | |

TEST RESULTS

| Sr. No. | Test Parameter | Measurement Unit | Test Method | As per IS 10500 : 2012 (Drinking Water - Specification) | | Test Result |
|---------|--|------------------|-------------------|--|-----------------------|--------------|
| | | | | Acceptable Limit | *Permissible Limit | |
| 1. | pH value | - | IS 3025 (Part 11) | 6.5 to 8.5 | No relaxation | 8.03 at 25°C |
| 2. | Turbidity | NTU | IS 3025 (Part 10) | 1 | 5 | 0.7 |
| 3. | Colour | Hazen units | IS 3025 (Part 4) | 5 | 15 | 1 |
| 4. | Odour | - | IS 3025 (Part 5) | Agreeable | Agreeable | Agreeable |
| 5. | Taste | - | IS 3025 (Part 8) | Agreeable | Agreeable | Agreeable |
| 6. | Iron (as Fe) | mg/l | IS 3025 (Part 2) | 1.0 | No relaxation | 0.24 |
| 7. | Free residual chlorine | mg/l | IS 3025 (Part 26) | Min. 0.2 | Min. 1 | < 0.1 |
| 8. | Total dissolved solids | mg/l | IS 3025 (Part 16) | 500 | 2000 | 308 |
| 9. | Fluoride (as F) | mg/l | IS 3025 (Part 60) | 1.0 | 1.5 | 0.26 |
| 10. | Cyanide (as CN) | mg/l | IS 3025 (Part 27) | 0.05 | No relaxation | < 0.005 |
| 11. | Chloride (as Cl) | mg/l | IS 3025 (Part 32) | 250 | 1000 | 152.94 |
| 12. | Total Alkalinity (as CaCO ₃) | mg/l | IS 3025 (Part 23) | 200 | 600 | 112.62 |
| 13. | Total hardness (as CaCO ₃) | mg/l | IS 3025 (Part 21) | 200 | 600 | 193.53 |
| 14. | Calcium (as Ca) | mg/l | IS 3025 (Part 40) | 75 | 200 | 58.29 |
| 15. | Magnesium (as Mg) | mg/l | IS 3025 (Part 46) | 30 | 100 | 11.64 |
| 16. | Sulphate (as SO ₄) | mg/l | IS 3025 (Part 24) | 200 | 400 | 62.81 |
| 17. | Nitrate (as NO ₃) | mg/l | APHA Method | 45 | No relaxation | 12.68 |
| 18. | Copper (as Cu) | mg/l | IS 3025 (Part 2) | 0.05 | 1.5 | < 0.03 |
| 19. | Manganese (as Mn) | mg/l | IS 3025 (Part 2) | 0.1 | 0.3 | < 0.05 |
| 20. | Mercury (as Hg) | mg/l | IS 3025 (Part 48) | 0.001 | No relaxation | ND |
| 21. | Cadmium (as Cd) | mg/l | IS 3025 (Part 2) | 0.003 | No relaxation | < 0.001 |
| 22. | Selenium (as Se) | mg/l | IS 3025 (Part 56) | 0.01 | No relaxation | < 0.001 |
| 23. | Arsenic (as As) | mg/l | IS 3025 (Part 37) | 0.01 | 0.05 | < 0.01 |
| 24. | Aluminium (as Al) | mg/l | IS 3025 (Part 2) | 0.03 | 0.2 | < 0.005 |
| 25. | Lead (as Pb) | mg/l | IS 3025 (Part 2) | 0.01 | No relaxation | < 0.001 |
| 26. | Zinc (as Zn) | mg/l | IS 3025 (Part 2) | 5 | 15 | 1.6 |

NOTES : • Please see watermark 'Original Test Report' in blue color to confirm the authenticity of this report. • Results shall be referred to tested sample(s) and applicable to tested parameters only. • Test report shall not be reproduced except in full without prior written approval of Anacon Labs. • Liability of Anacon Labs is limited to invoiced amount only. • Non-perishable and perishable sample(s) shall be disposed off after 90 days and 15 days respectively from the date of issue of Test Report, unless specified otherwise. • *Permissible limit in absence of an alternate source for drinking water. • MPN indicates most probable number. • 'cfu' indicates colony forming units. • 'mg/l' is equivalent to 'ppm'. • 'µg/l' is equivalent to 'ppb'. • '<' indicates detection limit of instrument/method and shall be considered as 'absent'. • Result for test no. 7 is not relevant. • 'NT' indicates not tested as sample failed to establish safety concerns. • ND-Not Detected.

Verified by

For ANACON LABORATORIES PVT. LTD.

Authorized Signatory

Ms. Roshani Thakur

Head Office : 50, Rajprabhu Nagar, Nagpur - 440033 India. Ph. No. (0712) 2242077, 9372404924. Email : ngn@anacnlabs.com

Dr. (Mrs.) S.D. Garway



TEST REPORT

ANACON LABORATORIES PVT. LTD.

ISO 9001:2008, ISO 14001:2004, OHSAS 18001 Certified Organization,
Recognized By Ministry of Environment & Forests (MoEF), New Delhi
Accredited By Quality Council of India by NABET - Environment Impact Assessment Studies
Authorised by Food Safety & Standards Authority of India Under FSS Act
Approved by Bureau of Indian Standards (BIS)

Test Report No. : ALPL/17082018/227-3

Page 2 of 2

| | | | | | |
|--|---|---------------------|---------------------------|-------------------|-------------|
| Issued To : M/s SHREE RAIPUR CEMENT PLANT (A Unit of M/s Shree Cement Ltd.) Village:-Khapradih, Dist:-Baloda Bazar-Bhatapara, Raipur(C.G)-493 332. | | Sample Inward No. | 1819/Mon-160-GW-3 | Analysis Start | 13.08.2018 |
| | | Inward Date | 13.08.2018 | Analysis End | 17.08.2018 |
| | | Reference No. | SCL/SRCP/BB/ 17-18/303 | Report Issue Date | 17.08.2018 |
| | | Reference Date | 26.10.2017 | Sample Category | Water |
| Sample Name | Ground Water | Sample Collected By | Anacon Representative | Sample Source | Piezometer |
| Sampling Location | Piezometer Station -Near Khapradih Gate | Sampling Date | 10.08.2018 | Quantity Received | 5 L & 250ml |
| | | | | Sampling Time | 11.45 A.M. |

TEST RESULTS

| Sr. No | Test Parameter | Measurement Unit | Test Method | As per IS 10500 : 2012 (Drinking Water - Specification) | | Test Result |
|--------|---|------------------|-------------------------|--|--------------------|-------------|
| | | | | Acceptable Limit | *Permissible Limit | |
| 27. | Nickel (as Ni) | mg/l | IS 3025 (Part 2) | 0.02 | No relaxation | < 0.01 |
| 28. | Total Chromium (as Cr) | mg/l | IS 3025 (Part 2) | 0.05 | No relaxation | < 0.03 |
| 29. | Barium (as Ba) | mg/l | Annexure F of IS 13428 | 0.7 | No relaxation | < 0.01 |
| 30. | Ammonia (as N) | mg/l | IS 3025 (Part 34) | 0.5 | No relaxation | < 0.1 |
| 31. | Sulphide (as H ₂ S) | mg/l | IS 3025 (Part 29) | 0.05 | No relaxation | < 0.03 |
| 32. | Chloramines (as Cl ₂) | mg/l | APHA 4500-Cl/G | 4.0 | No relaxation | < 0.01 |
| 33. | Molybdenum (as Mo) | mg/l | IS 3025 (Part 2) | 0.07 | No relaxation | < 0.001 |
| 34. | Silver (as Ag) | mg/l | Annexure J of IS 13428 | 0.1 | No relaxation | < 0.001 |
| 35. | Polychlorinated Biphenyls (PCB) | µg/l | USEPA 508 | 0.5 | No relaxation | < 0.03 |
| 36. | Boron (as B) | mg/l | IS 3025 (Part 2) | 0.5 | 1.0 | < 0.1 |
| 37. | Mineral Oil | mg/l | IS 3025 (Part 39) | 0.5 | No relaxation | < 0.001 |
| 38. | Tri Halo Methane | mg/l | APHA 6232 | 0.1 | No relaxation | Absent |
| | a. Bromoform | | | 0.1 | No relaxation | Absent |
| | b. Dibromochloromethane | | | 0.06 | No relaxation | Absent |
| | c. Bromodichloromethane | | | 0.2 | No relaxation | Absent |
| 39. | Phenolic compounds (as C ₆ H ₅ OH) | mg/l | IS 3025 (Part 43) :1001 | 0.001 | 0.002 | < 0.001 |
| 40. | Anionic detergents (as MBAS) | mg/l | IS 13428:2005 (Annex K) | 0.2 | 1.0 | < 0.01 |
| 41. | Polynuclear aromatic hydrocarbon (PAH) | µg/l | USEPA : 550 | 0.1 | No relaxation | < 0.03 |
| 42. | Total coliform | MPN/100 ml | IS 1622 | — | — | < 2 |
| 43. | Escherichia coli | Per100 ml | IS 1622 | Absent | Absent | Absent |

NOTES : • Please see watermark "Original Test Report" in blue color to confirm the authenticity of this report. • Results shall be referred to tested sample(s) and applicable to tested parameters only. • Test report shall not be reproduced except in full without prior written approval of Anacon Labs. • Liability of Anacon Labs is limited to invoiced amount only. • Non-perishable and perishable sample(s) shall be disposed off after 90 days and 15 days respectively from the date of issue of Test Report, unless specified otherwise. • *Permissible limit in absence of an alternate source for drinking water. • MPN indicates most probable number. • 'cfu' indicates colony forming units • 'mg/l' is equivalent to 'ppm'. • 'µg/l' is equivalent to 'ppb'. • '-' indicates detection limit of instrument/method and shall be considered as 'absent'. • Result for test no. 7 is not relevant. • 'NT' indicates not tested as sample failed to establish safety concerns. • ND-Not Detected.

REMARKS: Based upon request of the party, sample was tested for above mentioned parameters only. Sample complies with IS:10500:2012, for test conducted, indicating that it is fit for drinking purpose with respect to tested parameters.

Verified by

For ANACON LABORATORIES PVT. LTD.

Ms. Roshani Thakur

Authorized Signatory

Dr. (Mrs.) S.D. Garway



TEST REPORT

ANACON LABORATORIES PVT. LTD.

ISO 9001:2008, ISO 14001:2004, OHSAS 18001 Certified Organization,
Recognized By Ministry of Environment & Forests (MoEF), New Delhi
Accredited By Quality Council of India by NABET - Environment Impact Assessment Studies
Authorised by Food Safety & Standards Authority of India Under FSS Act
Approved by Bureau of Indian Standards (BIS)

Test Report No. : ALPL/17082018/227-8

Page 1 of 2

| | | |
|---|---|---|
| Issued To : M/s Shree Raipur Cement Plant (A Unit of M/s Shree Cement Ltd.) Village:-Khapradih, Dist. Baloda Bazar-Bhatapara, Raipur (C.G)-493 332.) | Sample Inward No. 1819/Mon-160-GW-8 Inward Date 13.08.2018 Reference No. SCL/SRCP/BB/ 17-18/303 Reference Date 26.10.2017 | Analysis Start 13.08.2018 Analysis End 17.08.2018 Report Issue Date 17.08.2018 Sample Category Water |
| Sample Name Ground Water | Sample Collected By Mr. Avinash Ishwarkar | Sample Source Dug-Well |
| Sampling Location Khapradih Village | Sampling Date 10.08.2018 | Quantity Received 5 L & 250ml Sampling Time 2.40 PM. |

TEST RESULTS

| Sr. No. | Test Parameter | Measurement Unit | Test Method | As per IS 10500 : 2012 (Drinking Water - Specification) | | Test Result |
|---------|--|------------------|-------------------|--|--------------------|--------------|
| | | | | Acceptable Limit | *Permissible Limit | |
| 1. | pH value | - | IS 3025 (Part 11) | 6.5 to 8.5 | No relaxation | 6.72 at 25°C |
| 2. | Turbidity | NTU | IS 3025 (Part 10) | 1 | 5 | 0.6 |
| 3. | Colour | Hazen units | IS 3025 (Part 4) | 5 | 15 | 1 |
| 4. | Odour | - | IS 3025 (Part 5) | Agreeable | Agreeable | Agreeable |
| 5. | Taste | - | IS 3025 (Part 8) | Agreeable | Agreeable | Agreeable |
| 6. | Iron (as Fe) | mg/l | IS 3025 (Part 2) | 1.0 | No relaxation | 0.24 |
| 7. | Free residual chlorine | mg/l | IS 3025 (Part 26) | Min. 0.2 | Min. 1 | < 0.1 |
| 8. | Total dissolved solids | mg/l | IS 3025 (Part 16) | 500 | 2000 | 267 |
| 9. | Fluoride (as F) | mg/l | IS 3025 (Part 60) | 1.0 | 1.5 | 0.28 |
| 10. | Cyanide (as CN) | mg/l | IS 3025 (Part 27) | 0.05 | No relaxation | < 0.005 |
| 11. | Chloride (as Cl) | mg/l | IS 3025 (Part 32) | 250 | 1000 | 128.76 |
| 12. | Total Alkalinity (as CaCO ₃) | mg/l | IS 3025 (Part 23) | 200 | 600 | 94.17 |
| 13. | Total hardness (as CaCO ₃) | mg/l | IS 3025 (Part 21) | 200 | 600 | 194.30 |
| 14. | Calcium (as Ca) | mg/l | IS 3025 (Part 40) | 75 | 200 | 62.51 |
| 15. | Magnesium (as Mg) | mg/l | IS 3025 (Part 46) | 30 | 100 | 9.26 |
| 16. | Sulphate (as SO ₄) | mg/l | IS 3025 (Part 24) | 200 | 400 | 112.58 |
| 17. | Nitrate (as NO ₃) | mg/l | APHA Method | 45 | No relaxation | 7.26 |
| 18. | Copper (as Cu) | mg/l | IS 3025 (Part 2) | 0.05 | 1.5 | < 0.03 |
| 19. | Manganese (as Mn) | mg/l | IS 3025 (Part 2) | 0.1 | 0.3 | < 0.05 |
| 20. | Mercury (as Hg) | mg/l | IS 3025 (Part 48) | 0.001 | No relaxation | ND |
| 21. | Cadmium (as Cd) | mg/l | IS 3025 (Part 2) | 0.003 | No relaxation | < 0.001 |
| 22. | Selenium (as Se) | mg/l | IS 3025 (Part 56) | 0.01 | No relaxation | < 0.001 |
| 23. | Arsenic (as As) | mg/l | IS 3025 (Part 37) | 0.01 | 0.05 | < 0.01 |
| 24. | Aluminium (as Al) | mg/l | IS 3025 (Part 2) | 0.03 | 0.2 | < 0.005 |
| 25. | Lead (as Pb) | mg/l | IS 3025 (Part 2) | 0.01 | No relaxation | < 0.001 |
| 26. | Zinc (as Zn) | mg/l | IS 3025 (Part 2) | 5 | 15 | < 0.1 |

NOTES : • Please see watermark "Original Test Report" in blue color to confirm the authenticity of this report. • Results shall be referred to tested sample(s) and applicable to tested parameters only. • Test report shall not be reproduced except in full without prior written approval of Anacon Labs. • Liability of Anacon Labs is limited to invoiced amount only. • Non-perishable and perishable sample(s) shall be disposed off after 90 days and 15 days respectively from the date of issue of Test Report, unless specified otherwise. • *Permissible limit in absence of an alternate source for drinking water. • MPN indicates most probable number. • 'cfu' indicates colony forming units • 'mg/l' is equivalent to 'ppm'. • 'µg/l' is equivalent to 'ppb'. • '<' indicates detection limit of instrument/method and shall be considered as 'absent'. • Result for test no. 7 is not relevant. • 'NT' indicates not tested as sample failed to establish safety concerns. • ND-Not Detected.

Verified by

For ANACON LABORATORIES PVT. LTD.

Authorized Signatory

Head Office: 60, Baliprabhu Nagar, Nagpur - 440033 India, Ph. No. (0712) 2242077, 9372404924, Email : ngp@anacn.in



TEST REPORT

ANACON LABORATORIES PVT. LTD.

ISO 9001:2008, ISO 14001:2004, OHSAS 18001 Certified Organization,
Recognized By Ministry of Environment & Forests (MoEF), New Delhi
Accredited By Quality Council of India by NABET - Environment Impact Assessment Studies
Authorised by Food Safety & Standards Authority of India Under FSS Act
Approved by Bureau of Indian Standards (BIS)

Test Report No. : ALPL/17082018/227-8

Page 2 of 2

| | | | | | |
|--|-------------------|---------------------|---------------------------|-------------------|-------------|
| Issued To : M/s Shree Raipur Cement Plant (A Unit of M/s Shree Cement Ltd.) Village:-Khapradih, Dist:-Baloda Bazar-Bhatapara, Raipur (C.G)-493 332.) | | Sample Inward No. | 1819/Mon-160-GW-8 | Analysis Start | 13.08.2018 |
| | | Inward Date | 13.08.2018 | Analysis End | 17.08.2018 |
| | | Reference No. | SCL/SRCP/BB/ 17-18/303 | Report Issue Date | 17.08.2018 |
| | | Reference Date | 26.10.2017 | Sample Category | Water |
| Sample Name | Ground Water | Sample Collected By | Mr. Avinash Ishwarkar | Sample Source | Dug-Well |
| Sampling Location | Khapradih Village | Sampling Date | 10.08.2018 | Quantity Received | 5 L & 250ml |
| | | | | Sampling Time | 2.40 PM. |

TEST RESULTS

| Sr. No | Test Parameter | Measurement Unit | Test Method | As per IS 10500 : 2012 (Drinking Water - Specification) | | Test Result |
|--------|---|------------------|-----------------------------|--|-------------------|-------------|
| | | | | Acceptable Limit | Permissible Limit | |
| 27. | Nickel (as Ni) | mg/l | IS 3025 (Part 2) | 0.02 | No relaxation | < 0.01 |
| 28. | Total Chromium (as Cr) | mg/l | IS 3025 (Part 2) | 0.05 | No relaxation | < 0.03 |
| 29. | Barium (as Ba) | mg/l | Annexure F of IS 13428 | 0.7 | No relaxation | < 0.01 |
| 30. | Ammonia (as N) | mg/l | IS 3025 (Part 34) | 0.5 | No relaxation | < 0.1 |
| 31. | Sulphide (as H ₂ S) | mg/l | IS 3025 (Part 29) | 0.05 | No relaxation | < 0.03 |
| 32. | Chloramines (as Cl ₂) | mg/l | APHA 4500-Cl ₂ G | 4.0 | No relaxation | < 0.01 |
| 33. | Molybdenum (as Mo) | mg/l | IS 3025 (Part 2) | 0.07 | No relaxation | < 0.001 |
| 34. | Silver (as Ag) | mg/l | Annexure J of IS 13428 | 0.1 | No relaxation | < 0.001 |
| 35. | Polychlorinated Biphenyls (PCB) | µg/l | USEPA 508 | 0.5 | No relaxation | < 0.03 |
| 36. | Boron (as B) | mg/l | IS 3025 (Part 2) | 0.5 | 1.0 | < 0.1 |
| 37. | Mineral Oil | mg/l | IS 3025 (Part 39) | 0.5 | No relaxation | < 0.001 |
| 38. | Tri Halo Methane | | | | | |
| | a. Bromoform | mg/l | APHA 6232 | 0.1 | No relaxation | Absent |
| | b. Dibromochloromethane | | | 0.1 | No relaxation | Absent |
| | c. Bromodichloromethane | | | 0.06 | No relaxation | Absent |
| | d. Chloroform | | | 0.2 | No relaxation | Absent |
| 39. | Phenolic compounds (as C ₆ H ₅ OH) | mg/l | IS 3025 (Part 43) :1001 | 0.001 | 0.002 | < 0.001 |
| 40. | Anionic detergents (as MBAS) | mg/l | IS 13428:2005 (Annex K) | 0.2 | 1.0 | < 0.01 |
| 41. | Polynuclear aromatic hydrocarbon (PAH) | µg/l | USEPA : 550 | 0.1 | No relaxation | < 0.03 |
| 42. | Total coliform | MPN/100 ml | IS 1622 | — | — | < 2 |
| 43. | Escherichia coli | Per100 ml | IS 1622 | Absent | Absent | Absent |

NOTES : • Please see watermark "Original Test Report" in blue color to confirm the authenticity of this report. • Results shall be referred to tested sample(s) and applicable to tested parameters only. • Test report shall not be reproduced except in full without prior written approval of Anacon Labs. • Liability of Anacon Labs is limited to invoiced amount only. • Non-perishable and perishable sample(s) shall be disposed off after 90 days and 15 days respectively from the date of issue of Test Report, unless specified otherwise. • *Permissible limit in absence of an alternate source for drinking water. • MPN indicates most probable number. • 'cfu' indicates colony forming units • 'mg/l' is equivalent to 'ppm'. • 'µg/l' is equivalent to 'ppb'. • '<' indicates detection limit of instrument/method and shall be considered as 'absent'. • Result for test no. 7 is not relevant. • 'NT' indicates not tested as sample failed to establish safety concerns. • ND-Not Detected.

REMARKS: Based upon request of the party, sample was tested for above mentioned parameters only. Sample complies with IS:10500:2012, for test conducted, indicating that it is fit for drinking purpose with respect to tested parameters.

Verified by

R. Thakur
Ms. Roshani Thakur
(Chemist)

For ANACON LABORATORIES PVT. LTD.

Authorized Signatory

S. D. Garway
Dr. (Mrs.) S.D. Garway
(Director - Labs)



छत्तीसगढ़ पर्यावरण संरक्षण मंडल, रायपुर
CHHATTISGARH ENVIRONMENT CONSERVATION BOARD, RAIPUR

No. 3143 /HO/HSMD/CECB/2017

Naya Raipur, Date 4-9 / 2017

To,

✓ M/s Shree Raipur Cement Plant,
(Unit of Shree Cement Limited)
Village-Khapradih, Tehsil-Simga,
Distt.-Balodabazar Bhatapara (C.G.)

Sub:- Grant of authorization under the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.

Ref:- Your Online application no. 286786 dated 14/09/2016 & Subsequent correspondence ending dated 05/07/2017.

-----:00:-----

The authorization under the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 is hereby granted for **Five Years** from date of issue of this letter. The terms & conditions of the authorization are given in the enclosed authorization letter.

Please acknowledge the receipt of this letter

Encl :-As above


Member Secretary


C.G. Environment Conservation Board
Naya Raipur (C.G.)

Endt. No. /H.O./HSMD/CECB/2017

Naya Raipur, Date / / 2017

Copy to :-

1. HSMD Section, Chhattisgarh Environment Conservation Board, H.O. Raipur (C.G.).
2. Regional Officer, Regional office, Chhattisgarh Environment Conservation Board, Raipur (C.G.) please ensure compliance and report, if any condition/conditions are violated by the industry.


Member Secretary

C.G. Environment Conservation Board
Naya Raipur (C.G.)

FORM 2
[See rule 6 (2)]

FORM FOR GRANT OR RENEWAL OF AUTHORISATION BY STATE POLLUTION CONTROL BOARD TO THE OCCUPIERS, RECYCLERS, REPROCESSORS, REUSERS, USER AND OPERATORS OF DISPOSAL FACILITIES

1. Number of authorization 167 HO/HSMD/CECB/RAIPUR and date of issue 01/09/2017
2. Reference of Online application no. **286786** dated **14/09/2016** & Subsequent correspondence ending dated **05/07/2017**.
3. The operator of facility i.e. occupier **M/s Shree Raipur Cement Plant, (Unit of Shree Cement Limited), Village-Khapradih, Tehsil-Simga, Distt.-Balodabazar Bhatapara (C.G.)** is hereby granted an authorization based on the enclosed signed inspection report for collection, storage, transport & co-processing of hazardous wastes in the premises situated at **Village-Khapradih, Tehsil-Simga, Distt.-Balodabazar Bhatapara (C.G.)**.

Detail of Authorisation

| S.No. | Category of Hazardous Waste as per the Schedules I, II and III of these rules | Authorised mode of disposal or recycling or utilization or co-processing etc. | Quantity (Tonnes/Annum) |
|-------|---|---|-------------------------|
| 1. | Acid Tar Sludge (M/s Bhilai Steel Plant, Durg) / Similar industries/ Sectors | co-processing | 2000 MT/Year |

- (1) The authorization shall be valid for a period of **Five Years** from date of issue of this letter.
- (2) The authorization is subject to the following conditions.

TERMS & CONDITIONS OF AUTHORIZATION

1. The authorization shall comply with the provisions of Environment (protection) Act, 1986 and the rules made there-under.
2. The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the Chhattisgarh Environment Conservation Board.
3. The person authorized shall not rent, lend, sell transfer or otherwise transport the hazardous wastes without obtaining prior permission of the Chhattisgarh Environment Conservation Board.
4. Any unauthorized change in personnel, equipment, or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorization.
5. The person authorised shall implement Emergency Response Procedure (ERP) for which this authorisation is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time.
6. The person authorised shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty".
7. It is the duty of the authorized person to take prior permission of the Chhattisgarh Environment Conservation Board to close down the facility.




छत्तीसगढ़ पर्यावरण संरक्षण मंडल, रायपुर

CHHATTISGARH ENVIRONMENT CONSERVATION BOARD, RAIPUR

8. The record of consumption and fate of the imported hazardous and other wastes shall be maintained.
9. The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilisation of imported hazardous or other wastes shall be treated and disposed of as per rule. Flue gas dust and other particulates and process residue shall be sold to only authorized reprocessing units. Failing which this authorization shall be treated as cancelled.
10. An application for the renewal of an authorisation shall be made as laid down under these Rules.
11. Annual return in form IV shall be filed by June 30th for the period ending 31st March of the previous year.
12. The wastes shall be collected and stored properly with adequate safety measures as per rule.
13. Authorized person shall comply with the provisions of rule 17, 18 and 19 for packing, labeling and transport of Hazardous Waste.
14. The authorized person should maintain the record of Hazardous Waste as per Form-3 of Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.
15. The occupier shall follow the guidelines of Central Pollution Control Board & MoEF & CC issued from time to time for management of Hazardous and other waste.
16. The industry shall display data out side factory gate on quantity and nature of hazardous chemicals and wastes being used in the plant, water and air emissions and solid wastes generated within the factory premises.
17. Industry shall comply all the provision incorporated in the guideline for pre-processing and co-processing of Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 published in july 2017.
18. Industry shall comply the stack emission norms prescribed in the notification G.S.R. 497 (E) dated 10 May 2016 issued by MoEF & CC for cement industry.
19. The waste must be given thermal/biological/physico-chemical treatment; the waste should be completely dewatered, detoxified, and proper conditioned and any possible recovery is made before their disposal.
20. The industry should constitute a hazardous waste management cell to take care of the management aspect of the hazardous waste generated in the plant.
21. An on-site storage of the hazardous wastes for a maximum period of 90 days should be provided and it shall be ensured that there is no leakage or seepage from the surrounding walls or bottom. The site should be covered and properly protected to prevent the entry of rain water in storage area.
22. At least four nos. of peizometric points should be provided around the storage site of H.W. to monitor the leaching of the waste. Each type of waste shall be stored in a separate storage cell.
23. The discarded containers of Hazardous waste and chemical shall not be used for storage of food grade products. At the storage site "Hazardous waste storage site & danger signboard" shall be provided with all safety devices.

8

24. Industry shall give priority for co-processing of hazardous waste generated within the Chhattisgarh State as mentioned in the authorization.
25. In the event of any accident due to handling of hazardous waste the authorized person must inform immediately to the Concerned Regional Office and H.O. Raipur of the Board by fax/telephone or by E-mail about the incident and details report be sent in form no. 11 [see rule 22].
26. The authorization obtained by the Chhattisgarh Environment Conservation Board should be prominently displayed.
27. Used batteries shall be disposed of as per the Batteries (Management & Handling) Rules, 2001.
28. Board reserves the right to cancel/amend the above condition and add new conditions as and when deemed necessary.


Member Secretary
C.G. Environment Conservation Board
Naya Raipur (C.G.)

Annexure-10
Shree Raipur Cement Plant
(A unit of Shree Cement Limited), Khapradih, Distt- Balodabazar
CSR Work Done (April 2018 to September 2018)

| S No | | Particulars of CSR activity undertaken | Expenditure (in Rupees) |
|----------|------------|--|----------------------------|
| A | | Eradicating hunger, poverty and malnutrition, promoting preventive health care and sanitation and making available safe drinking water | |
| | A1A | Arranging health camps and provisions of medicines and other facilities including financial assistance for arranging health camps | 16,388 |
| | A3A | Arrangement of Surgical bed, surgical instruments, weight machines, glucometer, dustbins at Village- Khapradih | 39,111 |
| | A8A | Arranging supply of drinking water through installation of water tanks and water huts and construction/ repairing of existing water systems | 7,090 |
| | A | TOTAL EXPENDITURE (SUB-HEAD- A)-CSR001 | 62,589 |
| B | BA | Promoting education, including special education and employment enhancing vocation skills specially among children, women, elderly and the differently abled and livelihood enhancement projects (inc. consumer education and awareness) | |
| | B3A | Scholarship and financial support to needy and meritorious students for undertaking/ continuing technical and professional courses under Shree Shiksha Protsahan Yojna | 36,000 |
| | B4A | Celebration of Republic day/ Independence Day 2018 | 38,000 |
| | B5A | Ceiling fans to schools at nearby villages | 32,400 |
| | B7A | School Bags for students of nearby schools | 1,65,000 |
| | B8A | Supply of Bench-Desk, Office table, dari, wall clock etc to schools at nearby Villages. | 2,63,751 |
| | A | TOTAL EXPENDITURE (SUB-HEAD- B)-CSR002 & 007 | 5,35,151 |
| C | CA | Promoting gender equality, empowering women, setting up homes and hostels for women and orphans; setting up old age homes, day care centers and such other facilities for senior citizens and measures for reducing inequalities faced by socially and economically backward groups | |
| | C8A | Construction of Vrudhashram (old age home) at Balodabazar | 2,06,307 |
| | A | TOTAL EXPENDITURE (SUB-HEAD - C)-CSR003 | 2,06,307 |
| D | DA | Ensuing environmental sustainability, ecological balance, protection of flora and fauna, animal welfare, agroforestry, conservation of natural resources and maintaining quality of soil, air and water | |
| | D1A | Expenses on purchase of saplings/ plants for distribution to villagers/ nearby localities / schools for plantation with tree quards and labour expenses. | 8,78,254 |
| | A | TOTAL EXPENDITURE (SUB-HEAD - D)-CSR006 | 8,78,254 |
| E | EA | Protection of national heritage, art and culture including restoration of buildings and: sites of historical importance and works of art; setting up public libraries; promotion and development of traditional arts and handicrafts: | |
| | E8A | Other Expenses on promotion of Art and Culture by associating with various agencies by sponsorship, support, contribution, etc. | 93,000 |
| | A | TOTAL EXPENDITURE (SUB-HEAD - E)-CSR013 | 93,000 |
| F | FA | Training to promote rural sports, nationally recognized sports, Paralympic sports and Olympic sports | |
| | A | TOTAL EXPENDITURE (SUB-HEAD - F)-CSR012 | - |
| G | GA | Rural development projects | |
| | G1A | Construction of community halls and muktidhams at nearby villages | 1,74,828 |
| | G2A | Construction and leveling of CC/Murum roads of nearby villages | 4,70,419 |
| | G3A | Construction of Mangal Bhawan | 2,17,025 |
| | G4A | Construction of retaining boundary of pond ladder, pond cleaning | 54,000 |
| | G5A | Construction of various structures like boundary walls, school boundary, toilets, stay rooms, street lights etc. in nearby villages | 85,791 |
| | G6A | Construction of Waiting Sheds | 4,73,155 |
| | G8B | Borewell digging & casing on pond & intake well | 62,911 |
| | A | TOTAL EXPENDITURE (SUB-HEAD - G)-CSR008 | 15,38,129 |
| H | HA | Overheads related to CSR activities (maximum upto 5% of total CSR expenses) | |
| | H1A | Salaries paid to employees engaged in CSR work | 27,02,206 |
| | | TOTAL EXPENDITURE (SUB-HEAD - H)-CSR010 | 27,02,206 |
| | | Total Amount (Rs.) | 60,15,635 |

AB

Shree Raipur Cement Plant
Five Year Proposed Budget of CSR Activities

| S.no. | Proposed Areas | Budget in Lakh | | | | |
|-------|---|----------------|---------------|---------------|---------------|---------------|
| | | 2018-19 | 2019-20 | 2020-21 | 2021-22 | 2022-23 |
| 1 | Eradicating hunger, poverty and malnutrition, promoting preventive health care and sanitation and making available safe drinking water | 10.00 | 11.00 | 12.10 | 13.31 | 14.64 |
| 2 | Promoting education, including special education and employment enhancing vocation skills especially among children, women, elderly, and the differently able and livelihood enhancement projects | 8.00 | 8.80 | 9.68 | 10.65 | 11.71 |
| 3 | Promoting gender equality, empowering women, setting up homes and hostels for women and orphans; setting up old age homes, day care centres and such other facilities for senior citizens and measures for reducing inequalities faced by socially and economically backward groups | 3.00 | 3.30 | 3.63 | 3.99 | 4.39 |
| 4 | Ensuring environmental sustainability, ecological balance, protection of flora and fauna, animal welfare, agro forestry, conservation of natural resources and maintaining quality of soil, air and water | 40.00 | 44.00 | 48.40 | 53.24 | 58.56 |
| 5 | Protection of national heritage, art and culture including restoration of buildings and: sites of historical importance and works of art; setting up public libraries; promotion and development of traditional arts and handicrafts. | 5.00 | 5.50 | 6.05 | 6.66 | 7.33 |
| 6 | Training to promote rural sports, nationally recognized sports, Paralympics sports and Olympic sports | 7.00 | 7.70 | 8.47 | 9.32 | 10.25 |
| 7 | Rural Development Projects | 130.00 | 143.00 | 157.30 | 173.03 | 190.33 |
| | Grand Total in Lakh | 203.00 | 223.30 | 245.63 | 270.19 | 297.22 |



Annexure-12
Shree Raipur Cement Plant
(A unit of Shree Cement Ltd)
Noise Monitoring Report

| Sr. No | Location | Apr-18 | | May-18 | | Jun-18 | | Jul-18 | | Aug-18 | | Sep-18 | |
|--------|---|----------|------------|----------|------------|----------|------------|----------|------------|----------|------------|----------|------------|
| | | Day Time | Night Time | Day Time | Night Time | Day Time | Night Time | Day Time | Night Time | Day Time | Night Time | Day Time | Night Time |
| 1 | AAQMS-1 (Near Bharuadih) (SE) | 55.1 | 47.0 | 55.4 | 50.7 | 45.3 | 38.7 | 53.1 | 47.0 | 56.3 | 48.1 | 52.0 | 46.6 |
| 2 | AAQMS-2 (Near Semaradih) (NE) | 48.1 | 41.8 | 53.2 | 45.2 | 48.7 | 43.0 | 54.5 | 47.1 | 49.4 | 43.0 | 52.4 | 47.0 |
| 3 | AAQMS-3 (Near RMS) (SE) | 46.7 | 41.1 | 51.2 | 44.2 | 48.0 | 41.6 | 56.3 | 50.7 | 53.9 | 45.9 | 51.3 | 45.9 |
| 4 | AAQMS-4 (Near Kharpradih) (SW) | 57.5 | 51.0 | 55.8 | 49.7 | 52.7 | 46.6 | 56.0 | 47.6 | 56.5 | 49.4 | 52.8 | 47.4 |
| 5 | Near Store office | 70.3 | 63.9 | 64.2 | 59.7 | 60.9 | 54.3 | 66.1 | 60.0 | 64.3 | 58.2 | 64.0 | 58.6 |
| 6 | Near Raw Mill | 73.0 | 68.2 | 73.1 | 66.3 | 72.2 | 64.8 | 70.5 | 63.4 | 72.7 | 66.1 | 67.1 | 61.8 |
| 7 | kiln area (Infront of Mechanical Office) | 72.6 | 66.9 | 72.5 | 66.0 | 73.3 | 66.3 | 71.1 | 62.8 | 71.6 | 66.5 | 70.1 | 64.7 |
| 8 | Near Cooler Stack | 70.5 | 65.3 | 69.3 | 64.7 | 71.8 | 64.6 | 69.6 | 63.1 | 69.6 | 63.5 | 70.4 | 65.0 |
| 9 | Near Fly Ash Silo | 68.8 | 64.3 | 68.8 | 63.2 | 70.1 | 63.0 | 69.7 | 62.8 | 69.5 | 64.3 | 67.8 | 62.4 |
| 10 | Near Truck Loading area (Packing plant) | 65.0 | 62.0 | 69.8 | 62.9 | 68.6 | 61.8 | 69.1 | 62.2 | 69.4 | 62.3 | 66.0 | 60.6 |
| 11 | Near Turbine (GPP Plant) | 73.3 | 67.3 | 72.4 | 66.2 | 71.9 | 65.8 | 72.6 | 64.9 | 71.9 | 65.4 | 69.6 | 64.2 |
| 12 | Near Lime stone Stacker | 67.7 | 61.4 | 70.6 | 63.8 | 62.8 | 54.6 | 71.6 | 63.0 | 69.2 | 61.3 | 67.1 | 61.8 |
| 13 | In front of CCR Building | 66.7 | 61.3 | 63.6 | 56.3 | 57.0 | 51.1 | 68.6 | 60.7 | 65.3 | 57.4 | 62.1 | 56.7 |
| 14 | Near Main Gate | 65.0 | 57.4 | 60.62 | 54.38 | 60.4 | 53.7 | 70.0 | 61.1 | 67.0 | 58.4 | 63.2 | 58.0 |
| 15 | Near Truck Parking (Logistic Office) | 66.1 | 60.5 | 64.5 | 57.4 | 61.2 | 51.9 | 71.9 | 65.4 | 67.7 | 59.7 | 69.5 | 64.1 |
| 16 | Near Mine Work shop | 66.7 | 60.1 | 64.2 | 56.7 | 60.8 | 53.8 | 72.2 | 63.7 | 65.2 | 59.5 | 67.6 | 62.2 |
| 17 | Near Crusher Area (Mines) | 68.9 | 62.5 | 66.5 | 61.1 | 69.0 | 54.8 | 71.7 | 62.3 | 68.5 | 61.8 | 68.9 | 63.5 |
| 18 | Near Open Cast mines | 68.4 | 62.5 | 67.0 | 61.3 | 63.2 | 54.6 | 69.6 | 62.6 | 68.5 | 60.1 | 68.7 | 63.3 |
| 19 | DG Set 1(Near Kiln area) | 72.3 | 65.0 | 73.2 | 64.8 | 74.8 | 68.4 | 71.5 | 60.2 | 73.6 | 63.3 | 69.9 | 64.7 |
| 20 | DG Set 2 (Near ACC Building) | 74.5 | 67.2 | 73.9 | 65.9 | 73.3 | 65.6 | 71.3 | 61.6 | 72.3 | 66.0 | 71.2 | 66.0 |

| Year-2018-19 (Up to Sep-18) | | | | | | | |
|------------------------------|------------------------------|--------------|--------|--------------|--------------|-----------------|-----------------|
| Spirometry | | | | | | | |
| Name of Dept. | Total Employees | FVC (litres) | FEV 1 | FEV 1/ FVC % | PEFR | Conclusi on | Chest X- Ray |
| | | | | | (litres/sec) | | |
| Civil | Will be done as per schedule | | | | | | |
| Commercial | 1 | WNL | WNL | WNL | WNL | WNL | WNL |
| Process | 3 | WNL | WNL | WNL | WNL | WNL | WNL |
| Drawing & Design | Will be done as per schedule | | | | | | |
| Electrical | Will be done as per schedule | | | | | | |
| Techno-commercial | 2 | | | | | | |
| Lab and QC | 2 | WNL | WNL | WNL | WNL | WNL | WNL |
| Medical | Will be done as per schedule | | | | | | |
| Instrumentation | Will be done as per schedule | | | | | | |
| Mines | 176 | WNL | WNL | WNL | WNL | WNL | WNL |
| Mechanical | Will be done as per schedule | | | | | | |
| P & A | Will be done as per schedule | | | | | | |
| Total No. of employees | 184 | Normal | Normal | Normal | Normal | 100 % Normal | 100 % Normal |

Note :- Total man power is 683 Up to Sep-18. Health Checkup being done as per Schedule.

AB

| Year-2018-19 (Up to Sep-18) | | | |
|------------------------------|------------------------------|-----------|----------|
| Audiometry | | | |
| Name of Dept. | Total Employees | Right Ear | Left Ear |
| Civil | Will be done as per schedule | | |
| Commercial | 1 | WNL | WNL |
| Process | 3 | WNL | WNL |
| Drawing & Design | Will be done as per schedule | | |
| Electrical | Will be done as per schedule | | |
| Techno-commercial | 2 | | |
| Lab and QC | 2 | WNL | WNL |
| Medical | Will be done as per schedule | | |
| Instrumentation | Will be done as per schedule | | |
| Mines | 176 | WNL | WNL |
| Mechanical | Will be done as per schedule | | |
| P & A | Will be done as per schedule | | |
| Total No. of employees | 184 | Normal | Normal |

Note :- Total man power is 683 Up to Sep-18. Health Checkup being done as per Schedule.

AB

| Year-2018-19 (Up to Sep-18) | | | | | | |
|---|------------------------------|-------------|--------|--------|---------|--------|
| Biochemical parameter (Urine) | | | | | | |
| Name of Dept. | Total Employees | Sp. gravity | pH | RBC | Protein | Sugur |
| Civil | Will be done as per schedule | | | | | |
| Commercial | 1 | WNL | WNL | Nil | Nil | Nil |
| Process | 3 | WNL | WNL | Nil | Nil | Nil |
| Drawing & Design | Will be done as per schedule | | | | | |
| Electrical | Will be done as per schedule | | | | | |
| Techno-commercial | 2 | | | | | |
| Lab and QC | 2 | WNL | WNL | Nil | Nil | Nil |
| Medical | Will be done as per schedule | | | | | |
| Instrumentation | Will be done as per schedule | | | | | |
| Mines | 176 | WNL | WNL | Nil | Nil | Nil |
| Mechanical | Will be done as per schedule | | | | | |
| P & A | Will be done as per schedule | | | | | |
| Total No. of employees | 184 | Normal | Normal | Normal | Normal | Normal |
| Note :- Total man power is 683 Up to Sep-18. Health Checkup being done as per Schedule. | | | | | | |

AB

| Year-2018-19 (Up to Sep-18) | | | | | | |
|-------------------------------|------------------------------|--------|---------------|---------------|---------------------|-------------|
| Biochemical parameter (Blood) | | | | | | |
| Name of Dept. | Total Employees | CBC | Lipid Profile | Renel Profile | Liver Function Test | Blood Sugar |
| Civil | Will be done as per schedule | | | | | |
| Commercial | 1 | WNL | WNL | WNL | WNL | WNL |
| Process | 3 | WNL | WNL | WNL | WNL | WNL |
| Drawing & Design | Will be done as per schedule | | | | | |
| Electrical | Will be done as per schedule | | | | | |
| Techno-commercial | 2 | | | | | |
| Lab and QC | 2 | WNL | WNL | WNL | WNL | WNL |
| Medical | Will be done as per schedule | | | | | |
| Instrumentation | Will be done as per schedule | | | | | |
| Mines | 176 | WNL | WNL | WNL | WNL | WNL |
| Mechanical | Will be done as per schedule | | | | | |
| P & A | Will be done as per schedule | | | | | |
| Total No. of employees | 184 | Normal | Normal | Normal | Normal | Normal |

Note :- Total man power is 683 Up to Sep-18. Health Checkup being done as per Schedule.

AD

Year-2018-19 (Up to Sep-18)

Circulatory system Vision

| Name of Dept. | Total Employees | Pulse | ECG | BP | Right Eye | Left Eye | Color Blindness | Squint |
|------------------------|------------------------------|--------|-----|--------|-----------|----------|-----------------|--------|
| Civil | Will be done as per schedule | | | | | | | |
| Commercial | 1 | Normal | WNL | Normal | Normal | Normal | Nil | Normal |
| Process | 3 | Normal | WNL | Normal | Normal | Normal | Nil | Normal |
| Drawing & Design | Will be done as per schedule | | | | | | | |
| Electrical | Will be done as per schedule | | | | | | | |
| Techno-commercial | 2 | | | | | | | |
| Lab and QC | 2 | Normal | WNL | Normal | Normal | Normal | Nil | Normal |
| Medical | Will be done as per schedule | | | | | | | |
| Instrumentation | Will be done as per schedule | | | | | | | |
| Mines | 176 | Normal | WNL | Normal | Normal | Normal | Nil | Normal |
| Mechanical | Will be done as per schedule | | | | | | | |
| P & A | Will be done as per schedule | | | | | | | |
| Total No. of employees | 184 | Normal | WNL | Normal | Normal | Normal | Nil | Normal |

Note :- Total man power is 683 Up to Sep-18. Health Checkup being done as per Schedule.

AD

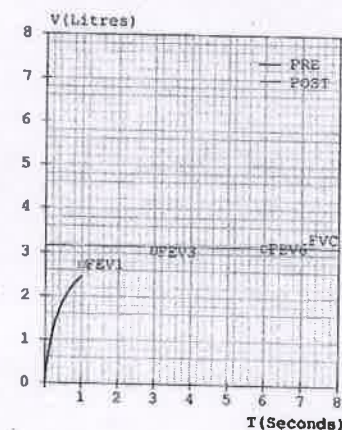
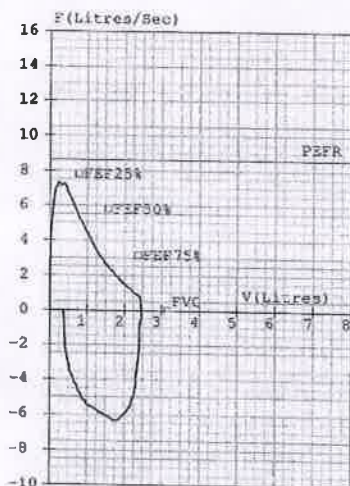
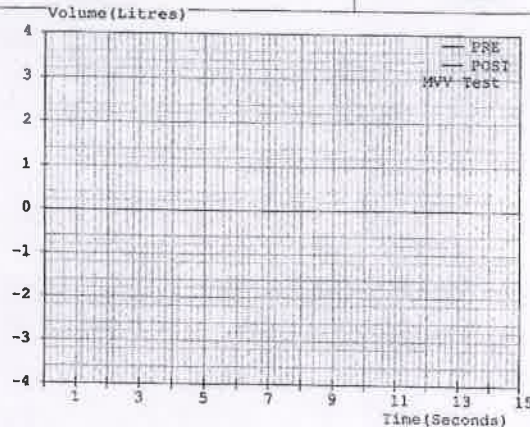
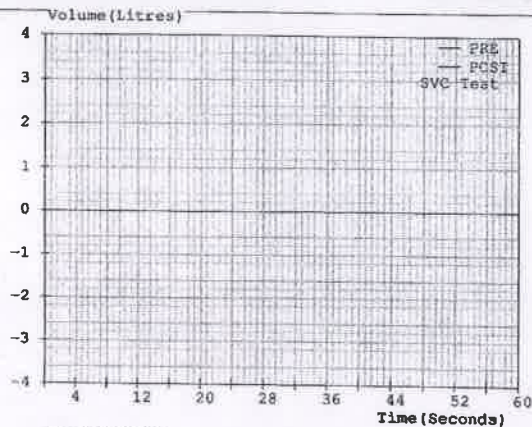
SHREE RAIPUR CEMENT PLANT

KHAPARADIH, BALODA BAZAR

Patient: Narendra Verma
Refd. By:
Pred. Eqns: RECORDERS
Date : 15-Oct-2018 12:59 PM

Age : 26 Years
Height : 160 Cms
Weight : 43 Kgs
ID: 20760

Gender : Male
Smoker : No
Eth. Corr: 100
Temp :



| Spirometry Results | | | | | | |
|--------------------|-------|--------|-------|--------|-------|------|
| Parameter | Pred | M.Pre | %Pred | M.Post | %Pred | %Imp |
| FVC (L) | 03.15 | 02.46 | 078 | | | |
| FEV1 (L) | 02.72 | 02.45 | 090 | | | |
| FEV1/FVC (%) | 86.35 | 99.59 | 115 | | | |
| FEF25-75 (L/s) | 04.38 | 03.24 | 074 | | | |
| PEFR (L/s) | 08.63 | 07.23 | 084 | | | |
| FIVC (L) | | 02.11 | | | | |
| FEV.5 (L) | | 01.90 | | | | |
| FEV3 (L) | 03.05 | 02.46 | 081 | | | |
| PIFR (L/s) | | 06.29 | | | | |
| FEF75-85 (L/s) | | 01.46 | | | | |
| FEF.2-1.2 (L/s) | 07.33 | 05.34 | 073 | | | |
| FEF 25% (L/s) | 07.81 | 06.13 | 078 | | | |
| FEF 50% (L/s) | 05.78 | 03.49 | 060 | | | |
| FEF 75% (L/s) | 03.15 | 01.82 | 058 | | | |
| FEV.5/FVC (%) | | 77.24 | | | | |
| FEV3/FVC (%) | 96.83 | 100.00 | 103 | | | |
| FET (Sec) | | 01.02 | | | | |
| ExptTime (Sec) | | 00.03 | | | | |
| Lung Age (Yrs) | 026 | 029 | 112 | | | |
| FEV6 (L) | 03.15 | | | | | |
| FIF 25% (L/s) | | 04.53 | | | | |
| FIF 50% (L/s) | | 06.29 | | | | |
| FIF 75% (L/s) | | 05.63 | | | | |
| SVC (L) | | | | | | |
| ERV (L) | 01.45 | | | | | |
| IRV (L) | | | | | | |
| VE (L/min) | | | | | | |
| RI (l/min) | | | | | | |
| Ti (sec) | | | | | | |
| Te (sec) | | | | | | |
| VI (L) | | | | | | |
| VT/Ti | | | | | | |
| Ti/Ttot | | | | | | |
| IC (L) | | | | | | |
| MVV (L/min) | 132 | | | | | |
| MRE (l/min) | | | | | | |
| MVT (L) | | | | | | |

Pre Medication Report Indicates
Mild Restriction as (FEV1/FVC)%Pred >95 and FVC%Pred <80

Factory Medical Officer

The contents of this report require clinical co-relation before any clinical action.

<http://www.rmsindia.com> © RMS Spirometer (Helios_v3.1.05)

AB

SHREE RAIPUR CEMENT PLANT

(A UNIT OF SHREE CEMENT LTD)

KHAPRA DIH DIST BALODABAZAR -BHATAPARA (C.G.)

Sr. No.

PATIENT NAMEMR. NARENDRA VERMA

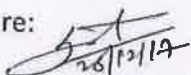
AGE/SEX 26 YRS /MALE

X-RAY CHEST PA VIEW

- Both the lung fields are clear
- Trachea central in position
- Both costo-phrenic angles are clear
- The cardiac shadow is within normal limits
- The bony thorax is normal

OPINION:- NORMAL STUDY

Signature:



(DR. SANTOSH KUMAR)

Sr. Manager (Health Services)



DOCTOR / AUDIOLOGIST

AUDIOGRAM



Name: _____

Address: S. R. P.

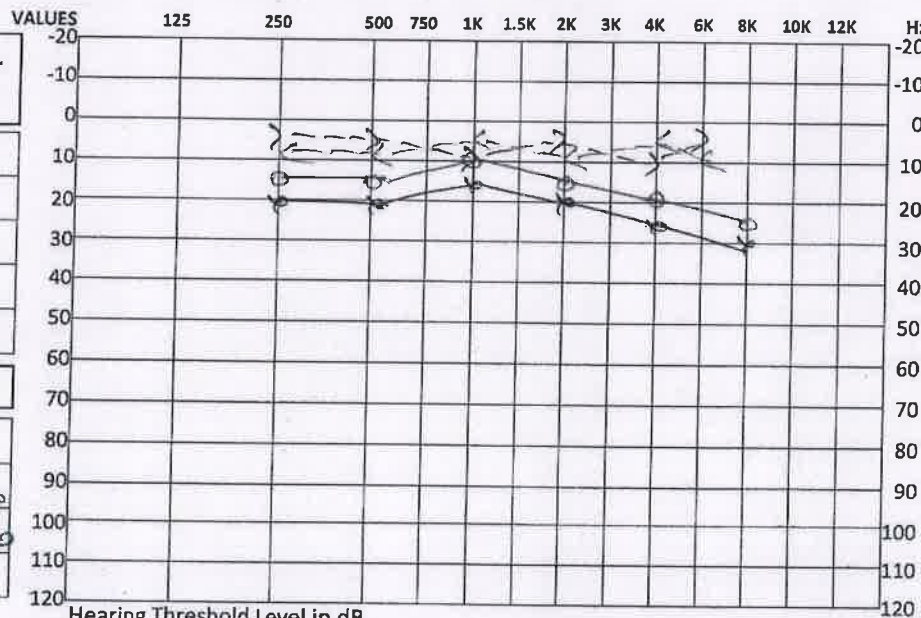
PATIENT NAME: Narendran Venug

SEX: M AGE: 26 Yrs.

ADDRESS: _____ DATE: 11/10/18

| | 1964 | ISO |
|---------------------|-----------------|-----------------|
| TEST | Right Ear (Red) | Left Ear (Blue) |
| AIR | O - O | X - X |
| AIR OPP EAR MASKED | D - D | □ - □ |
| NO RESPONSE | <u>O</u> | <u>X</u> |
| BONE | < | > |
| BONE OPP EAR MASKED | [|] |

| HEARING EVALUATION | | |
|--------------------|------|---------|
| AVE P.T. | | |
| SRT | RE = | 13.3 db |
| PB% CORRECT | LE = | 18.3 db |
| MCL | NO | |



| TEST | Right Ear | Left Ear |
|--------|-----------|----------|
| RINNER | | |
| WEBER | | |
| BING | | |

| SPECIAL TEST | | |
|--------------|--|--|
| RECR-ITMENT | | |
| SISI | | |
| T.T.S. | | |

Remarks: B/L nasal hearing sensor

SA
FACTORY MEDICAL OFFICER

H. 4989 5013 3398 2005 - 01/09/15
D.D. - Hel 2008 - 01/01/1989
MO. 8223065376 CLC CLC00790



SHREE RAIPUR CEMENT PLANT

(A UNIT OF SHREE CEMENT LIMITED)
VIII. - Khapradih, Distt. : Baloda bazar-Bhatapara (C.G.)

Form - 21

(Prescribed Under Rule(19))

HEALTH REGISTER

(In respect of persons employed in occupations declared to be dangerous operation under section 87)

PRE-EMPLOYMENT & PERIODICAL MEDICAL EXAMINATION

NAME NARENDRA VERMA DATE 11/10/18
C/O SAHAT VERMA A/S/R 26
DEPARTMENT SHANKAR LAL BAGHEL (Horti)

1. GENERAL EXAMINATION

HEIGHT 160 (in cm) WEIGHT 43 (in KG) BMI 16.7
CHEST 81 (in cm) EXPIRATION 77 (in cm) ABSD - 75
INSPIRATION 81 (in cm)
BUILT : AVERAGE/STRONG/POOR
PALLOR + TONGUE + TONSILS +
ICTERUS + GUMS + THYROID +
CLUBBING + THROAT + SKIN +
OEDEMA + TEETH +
LYMPHNODES +

ADDITIONAL FINDINGS NA

2. CARDIO-VASCULAR SYSTEM

PULSE (per min.) 72 BP (mm of Hg) 110/70
HEART SOUND : Normal/Abnormal MURMUR, IF ANY +
ADDITIONAL FINDINGS, IF ANY NA

3. RESPIRATORY SYSTEM

SHAPE OF CHEST Bil. Sym./Asym. CHEST MOVEMENTS +
TRACHEA : Central/Deviated BREADTH SOUNDS : Normal/Abnormal
ANY ADDITIONAL SOUND NA

4. G.I SYSTEM

ANY ABDOMINAL LUMP : Yes/No
LIVER + KIDNEY + SPLEEN +

5. EXAMINATION OF EYES

EXTERNAL EXAM : + SQUINT +
NYSTAGMUS : +
COLOUR VISION : + NORMAL/ABNORMAL
FUNDUS + LEFT + RIGHT +
INDIVIDUAL COLOUR IDENTIFICATION : + NORMAL/DEFECTIVE
DISTANT VISION
(WITHOUT GLASS) RIGHT 6/6 LEFT 6/6
(WITH GLASS) RIGHT + LEFT +
NEAR VISION
(WITHOUT GLASS) RIGHT + LEFT +
(WITH GLASS) RIGHT + LEFT +
NIGHT BLINDNESS (NYCTALOPIA) +

6. EXAMINATION OF EAR, NOSE & THROAT :

EXTERNAL EXAM +

AD

7. GENITO URINARY SYSTEM

HERNIA : Present / Absent

CRYPTORCHIDISM : Y/N

VARICOSE VEN : Y/S

HYDROCOEL/VARICOCELE : Pre/Abs

PHIMOSIS :

SIGN OF STD :

OTHER EXAMINATION OF FEMALE

MENARCHY AT YRS

MESTRUAL HISTORY.....

OBSTETRICAL HISTORY : LMP.....

GRAVIDA..... PARA.....

INVESTIGATIONS

8. LAB INVESTIGATION

URINE : ALBUMIN : SUGAR : MICROSCOPY :
 HEMOGRAM : BLOOD GROUPING & RH TYPING..... HB% 16.9 gms.
 TLC 7.900 /mm³ DLC (%) P. 34 L 25 E 06 M 05 B. 02
 PLATELET COUNT 6.02.000 /mm³
 STOOL OVA/CYST..... MICROSCOPY :
 LIPID PROFILE
 SERUM CHOLESTROL : 131 HDL 49
 S. TRIGLYCERIDE LDL : 62 IDL 71.6
 HEPATIC PROFILE
 SGPT : 29 SGOT 24 ALKALINE PHOSPHATASE : 77
 RENAL PROFILE
 BLOOD UREA
 METABOLIC : 26 mg/dl S.CREATININE : 0.9 mg/dl
 BLOOD SUGAR
 FASTING : 70 mg/dl PP : RANDOM :
 S.URIC ACID :

9. OTHER INVESTIGATIONS

CHEST X-RAY 25/12/19
 ECG SHA 11 01/11/18
 ULTRASOUND WHOLE ABDOMEN

10. PULMONAY FUNCTION TEST

| | FVC | FEV1 | FEV1/FVC |
|----------------|------|-------|----------|
| PREDICTED | 3.15 | 02.72 | 06.35 |
| MEASURED | 2.46 | 02.45 | 99.59 |
| % OF PREDICTED | 078 | 090 | 115 |

11. AUDIOMETRY TEST

IMPRESSION

12. MEDICAL EXAMINATION OF CANTEEN STAFF

- (A) BLOOD EXAMINATION FOR VENEREAL DISEASE AND ROUTINE EXAMINATION OF BLOOD
 - (B) STOOL AND URINE EXAMINATION FOR WORM INFESTATION
 - (C) SCREENING FOR SKIN DISEASES(SCABIRS AND OTHERS)
 - (D) X-RAY AND ANOTHER TESTS FOR TB
- DETAILS OF OTHER SPECIFIC MEDICAL EXAMINATION CARRIED OUT AS MENTIONED IN THE

COMMENTS

SUGGESTIONS IF ANY

SIGNATURE

| Environment Expenditure | Yr-2018-19 (Apr-18-to Sep-18) |
|--------------------------------|--------------------------------------|
| Description | Amount (in Rs) |
| STP | 246668.00 |
| WTP | 3251903.21 |
| Technical Consultancy | 203510.00 |
| Air Pollution Maintenance | 3396000.00 |
| Public liability insurance | 25070.00 |
| Env. Monitoring | 211680.00 |
| Rates & Taxes | 194507.00 |
| Plantation | 4904956.72 |
| Plantation CSR | 878253.18 |
| Vacuum Sweeping m/c | 20300006.46 |
| Total | 33612554.57 |

A3

रायपुर, रविवार, 11 सितंबर 2016

मध्यांचल भूमि हरिभूमि 13

गणेशाय नमः

मेला

विख्यात रामायणी दाऊद खान को दी श्रद्धांजलि

मैनपुर। प्रखरत रामायणी दाऊद खान के निधन पर लहसील मुख्यालय मैनपुर में सद्भावना मंच द्वारा श्रद्धांजलि अर्पित की गई। मंच के सदस्यों ने कहा कि दाऊद खान साम्प्रदायिक सद्भाव की जीवी जायती निशान थे। रामायण के प्रचार-प्रसार में उनका योगदान अमूल्य था। उनके आगमन के साथ ही पूरे शहर के लोग श्रीराम कथा का विस्तृत वाचन कर सद्भाव का संदेश देते रहे। बहुत समय पहले उन्होंने मैनपुर में भी रामायण कथा का वाचन कर लोगों को संतुष्ट कर दिया था। दाऊद खान के निधन पर सद्भावना मंच के अध्यक्ष रोहतास खान, अध्यक्ष नैकेलल भुव, संस्थापक मंगल राजपूत, खन्ना रामदेव, कलाश मुख, रामकृष्ण मुख, आलीम अंसारी, जीवन सोनी, विभूजन पटेल, असीम राव, प्रदीप चामोडे, गुलाम मेहन, डोमेश पटेल प्रकाश, सुज साहू, रोशन पटेल, जगदीश नगेश राहुल नादव सहित बड़ी संख्या में लोगों ने श्रद्धांजलि अर्पित की।

मैसर्स श्री सीमेन्ट लिमिटेड

(श्री रायपुर सीमेंट फांट)

गांव-खपराडीह, लहसील-सिमरा
जिला-बलीचा बाजार-भाटापारा (छत्तीसगढ़)
सार्वजनिक सूचना

सर्व साधारण को सूचित किया जाता है कि मैसर्स श्री सीमेन्ट लिमिटेड को इन्टीग्रेटेड सीमेन्ट फांट का विस्तार लगभग 2 x 1.5 मिलियन टन से 2 x 2.6 मिलियन टन प्रतिवर्ष बढाकर, 2 x 2.6 मिलियन टन से 2 x 3.0 मिलियन टन प्रतिवर्ष सीमेन्ट, क्लिंकिंग बाल्स पावर फांट 25 मेगावाट, बेस्ट डीट रिक्वरी पावर फांट 10 मेगावाट से 30 मेगावाट सिन्थेटिक जिप्सम इकाई 85 टन प्रति घंटा तथा सी.सी. रोड्स 2000 KVA (साईज 1000/500/250/125) जो गांव-खपराडीह, लहसील-सिमरा जिला- बलीचाबाजार-भाटापारा, छत्तीसगढ़ में स्थापित किये जा रहे हैं, को भारत सरकार के पर्यावरण एवं वन मंत्रालय नई दिल्ली द्वारा पर्यावरणीय स्वीकृति पत्र क्रमांक F.No. J-11011/235/2008-IA II (I) दिनांक 05 सितम्बर 2016 के द्वारा दी गई है।

पर्यावरण स्वीकृति पत्र की प्रतिलिपि छत्तीसगढ़ पर्यावरण संरक्षण गण्डल, रायपुर पर उपलब्ध है तथा सर्वसाधारण एवं वन मंत्रालय भारत सरकार की वेबसाइट "www.envfor.nic.in" एवं श्री सीमेन्ट की वेबसाइट "www.shreecementlid.in" पर भी उपलब्ध है।

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- अनट्रेकेबल प्लास्टिक।
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- मल्टीपुस कंटेनर बाक्स।
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पैकेज में शामिल

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- बर्तन सेट (कढ़ाई, मिर्च घोल, फाई घोल, हांडी, बकल)
- एल्युमिनियम वाशलेट



ALUMA WARE

दिल्ली के समस्त भूतान करें।

SMS

8130104306

024389391

रायपुर जिला

पञ्चमः, सोमवारः ३१ मार्च २०१६

जयभारत

3

www.navabharat.org

फास्ट फारवर्ड

आधुनिक कृष्ण कथा का
आयोजन ११ को

राजिना, तब कहें कि तब से कांवे
राजिना के तब से कांवे
म किया कांवे का प्रयोग
उपराध कांवे का प्रयोग
तब से कांवे का प्रयोग
तब से कांवे का प्रयोग
तब से कांवे का प्रयोग
तब से कांवे का प्रयोग

कुंभ नगरी

को और अमरीका से
जुड़ा है, उन्होंने
साथ दे कर सत्ता में आ
गोंधी राष्ट्रीय दलकाय
अन्तर्गत कार्य करने

बाल्यों में मनाया गया शिक्षक दिव

दातक। कसणोव

समाये विद्यमान में सत्र-
दाय डॉ. सर्वपल्ली
निकेतन विश्वविद्यालय के अध्यक्ष
का सम्मान समारोह का
किया गया। कार्यक्रम का
मुख्य अतिथि फेलो समाज
का अध्यक्ष श्री नारायण फेलो,
श्री सचिव का कमलानन्द फेलो
निराकाश च. आर. शहदाय
श्री एच. डॉ. सर्वपल्ली
के सत्रोत्सव पर गुलाल
पुष्प-ज्वरीत किया गया।
श्री द्वारा प्रधानमन्त्री

एच.आर. सार्व, शिक्षक बो.पौ. पटेल,
शिक्षिकाएं प्रमोद माहू, रमा रमनकुमारी
अंजली घुष, नैकेलाल कैलाश आदि
को सम्मान किया गया. विद्यालय के
संस्थापक जामन राधाधाम पटेल ने कहा
कि विद्यालय प्रगति से है, उपलब्धियों
में नहीं. शिक्षक का कार्य उन्होंने शिरो
शिखर तक ले जाने परशु, क्ष से सम्मान
करने वाला एत क से कर्मजोय को पूरा
करने वाला बताया. विद्यालय के
प्रधानाध्यापक एच.आर. सार्व ने कहा
कि शिक्षा भी क्षेत्र में सफलता आपन
करने के लिए एक मार्गदर्शक की
आवश्यकता होती है जो शिक्षक से
बेहतर कोई नहीं हो सकता. कार्यक्रम

में हृदिता पेटल
आपका शोधन पेटल
पेटल, बसा पेटल,
रामप्रसाद पेटल आदि
आद बरदे निषण स
हरी में 5 सितंबर की
राधाकृष्णन के जन्मदि
पिलस के रूप में भूम
गया। धन-इन्धन-प्रेम
गुणाल सामग्रर रक्षा के
लक्ष्य में सद्यः सार्व
चादय, सौचित्य सार्व
मोहन कुमार पैकार, पुनर्
न्यायि, निरिषण साद, हो
का सम्मान किया गया

मैसर्स श्री सीमेन्ट लिमिटेड
(क) सामान्य

(श्री रायपुर सीमेंट प्लांट)

गांव—खपरडीह, तहसील—सिमरगा

जिला-बलीया बाजार-भाटाराच (छत्तीसगढ़)

सार्वजनिक सूचना

सर्व सामान को सूचित किया जाता है कि निम्नलिखित शी सोनेन्ट लिमिटेड के इन्टीग्रेटेड सोनेन्ट प्लांट का विस्तार क्षमता 2×1.5 मिलियन टन से 2×2.6 मिलियन टन प्रतिवर्ष विलकट, 2×2.6 मिलियन टन से 2×3.0 मिलियन टन प्रतिवर्ष सोनेन्ट, कैप्टिव बर्नर पावर प्लांट 25 मेगावाट, वेस्ट होट रिफ़ायरी पावर प्लांट 15 मेगावाट से 30 मेगावाट, शैथिलिक जलान इकाई 65 टन प्रति घंटा लकड़ी की जी. सेक्टर 2000 KVA (साईज 1000/500/250/125) जो गैर-ख़तरावाही सहस्र-ल-सिंगा जिला- अलीबाबाबाजार-पाटणारा, जयसिंगपुर में स्थापित किये जा रहे हैं, को भारत सरकार के पर्यावरण एवं गैर-मंत्रालय नई दिल्ली द्वारा पर्यावरणीय स्वीकृति प्रस्ताविका F.No. J-1101/235/2008-IA II (I) दिनांक 08 सितम्बर 2018 के द्वारा दी गई है।

पर्यावरण रक्षकता वन की प्रतिनिधि कस्तुरीकण्ड पर्यावरण संरक्षण मण्डल, रामपुर पर उपलब्ध है तथा पर्यावरण एवं वन मंत्रालय भारत सरकार की वेबसाइट "www.envfor.nic.in" एवं श्री शोमेन की वेबसाइट "www.shimecementtd.in" पर भी उपलब्ध है।