F. No. J-11015/07/2018-IA. II (M) Government of India Ministry of Environment, Forest and Climate Change (Impact Assessment Division)

3rd Floor, Vayu Block Indira Paryavaran Bhavan, Jor Bagh Road, Aliganj New Delhi-110 003

Dated: 27th August, 2020

To.

M/s. Shree Cements Ltd.

P.O. No. 33, Bangur Nagar, Andheri Deori, Beawar, District – Ajmer, Rajasthan - 305901 Email Id: <u>bhargavr@shreecementltd.com</u>

Subject: Expansion of Limestone Mine from 8.6 Million TPA to 11.06 Million TPA Limestone Production limited to the total excavation of 14.72 MTPA which inter-alia include 11.06 MTPA of limestone (ML No. 38/2007, ML. Area 531.26 ha) and crushers (Primary: 2 x 1200 TPH & Secondary: 2 x 450 TPH) by M/s. Shree Cement Limited at Villages: Bharuwadih & Semarodih, Tehsil Balodabozar in District Bolodabozor-Bhataporo, Chhattisgarh – EC regarding.

Sir,

This has reference to online proposal No. IA/CG/MIN/93467/2017 of M/s Shree Cement Ltd. for environmental clearance for expansion of Limestone Mine from 8.6 Million TPA to 11.06 Million TPA Limestone Production with total excavation of 15.44 MTPA (11.06 MTPA Limestone, 3.42 Million TPA, Inter burden& Over-burden and 0.96 Million TPA Top Soil) from (ML No. 38/2007, ML. Area 531.126 ha) and installation of crushers (Primary: 2 x 1200 TPH & Secondary: 2 x 450 TPH) by M/s. Shree Cement Limited at Villages: Bharuwadih & Semarodih, Tehsil Balodabozar in District Bolodabozor- Bhataporo, Chhattisgarh. But the proposal was considered by the Ministry for the total excavation of 14.72 MTPA which *inter-alia* include 11.06 MTPA of limestone, as per the approved Terms of Reference. The mine lease area is bounded between latitudes of 21°34'36" N to 21° 37' 06" N and longitudes of 82° 03' 12" E to 82° 06' 12" E on Survey of India Topo-sheet No. F44Q2 & F44P14. The project is located in Seismic zone-II.

- 2. As per EIA Notification dated 14th September, 2006 as amended from time to time, the project falls under Category "A", Project or Activity 1(a) as the Mining lease area is more than 100 Ha.
- 3. The PP submitted that the Ministry has accorded environmental clearance to M/s. Shree Cement for the mine lease area of 531.126 ha vide letter no. J-11015/159/2014-IA-II (M) dated 30th March 2017 for limestone production with capacity from 4.8 MTPA to 8.6 MTPA. PP then applied for ToR vide proposal No IA/CG/MIN/71839/2017 dated 26.12.2017 for expansion in production capacity from 8.6 MTPA to 11.06 MTPA and submitted Form-1 & PFR. The proposal of TOR was recommended by Expert Appraisal Committee in its meeting held during January 18-19, 2018 and TOR letter was issued by the Ministry vide letter no. J-11015/07/2018-IA-

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- II (M) dated 6th February 2018. The PP after conducting Public Hearing applied in Form-II for EC, vide Proposal No: IA/CG/MIN/93467/2017 dated 14.03.2019 and submitted the EIA/EMP Report online to the Ministry. The proposal was placed in EAC meeting held during April 23-24, 2019 wherein the Committee deferred the proposal for want of requisite information. PP submitted the information online on 30.06.2020 and the proposal was placed in EAC meeting held during 22-24 July, 2020 wherein the Committee recommended the proposal for EC.
- The PP submitted that the mine lease over an area of 531.126 ha was granted 4. in favor of Shree Cement Limited vide the Government order no. F2/32/2003/12 (3) dated 25.03.2008. The lease was executed on 11.01.2011 for a period of thirty years from 11.01.2011 to 10.01.2041. In pursuant MMDR Amendment Ordinance dated 12.01.2015 the validity of the lease was extended till 10.01.2061 and the amendment to the mining lease agreement dated 11.01.2011 has been made on 14.07.2016 in Non-Judicial e-stamp paper bearing Certificate No. IN-CG035252674388710 dated 21.06.2016 followed by India non judicial stamp vide Certificate No. H 655113 - H 655115. PP vide its letter No. SCL/EC/Bharuwadih & Semradih/2020-21 dated 30.06.2020 submitted that the total Mining lease area is 531.126 ha which falls at villages Semradih and Bharuwadih. Out of total mining lease area of 531.126 ha, 78.722ha is Government land. The State Government has allotted 52.274 ha for mining purpose to the PP. In the rest 452.404 ha area, 449.846 ha is the land owned by SCL (PP) for mining activity while 2.558 ha is private agriculture land which will be acquired by company in due course. PP also submitted the order of Commissioner, Raipur dated 17.06.2020 wherein the order dated 21.01.2019 of Collector was cancelled and allowed the mining on entire government land. The PP further submitted that the total mining lease is divided into 4 blocks; Block 1, 2 & 3 falls under excavated area and block 4 which is non-mineralised which covered under Township & Plantation area.
- 5. PP submitted that the modified mining plan with progressive mine closure plan has been approved by Regional Controller of Mines (Raipur Region), IBM, Raipur vide letter no. Balodabazar/Chup/MP-1125/2017/777-Raipur dated 30/11/2017. The land use pattern as per the approved mining plan at the ultimate period will comprise of 389.2 ha area under excavation, 21 ha area under plantation on overburden dumps, 22 ha under township area and 21.126 ha will remain undisturbed. Further, after reclamation the land use at conceptual stage will be total excavated area will be 389.2 ha out of which 319.2 ha area will be converted into water body and 70 ha area will be backfilled. About 21 ha area will be covered under waste dump and total greenbelt/Plantation will be done on 176 ha (70 ha on backfilled area and 21 ha area on waste dump, 7.2 ha in colony area, 9.3 ha on 7.5 m barrier zone & 68.5 ha on virgin area). Total 21.126 ha will remain undisturbed.
- 6. PP submitted that the mining operations are being carried out by mechanized opencast mining method i.e. by combination of shovel and dumper with drilling and blasting. Bench height and bench width is being maintained at 12 m and 30 m (working width) respectively. Drilling is being carried out by crawler mounted DTH hammer Drill machine. Conventional blasting is being done using ANFO and high explosives with use of shock tube detonator. Loading is being done by hydraulic excavators and transport of limestone and OB/IB is being done by dumper to crusher (located in mining lease area). The crushed limestone is being transported from the mine site to cement plant by covered conveyor belt. The same mining method will be used in future for the proposed expansion in mining project. The PP further submitted that two crushers of 1200 TPH production capacity has already been installed within the mine Lease area of 531.126 ha. Secondary crusher of 2x450 TPH will be installed. In the crusher feed size of the mineral will be 1.25 m and output size of the mineral will be -90 mm. PP has



mentioned about the use of wobbler but the application was only made in schedule 1(a) 'Mining of Minerals,' therefore beneficiation activities is not permitted. The PP submitted that the total minable reserves for are 208.9 Million tonne. Life of mine will be 20 years. At the end of life of mine, total 79.29 Million tonnes waste will be generated. Maximum amount of waste will be backfilled in the excavated area and plantation will be done over it after spreading top soil over it and remaining waste will be dumped which will be stabilized by plantation later. PP further submitted that there will be no overburden dump outside mining lease area. Further, PP vide its letter dated 22.07.2020 mentioned that the limestone at the Shree Limestone Mine is of sedimentary origin. The Compressive strength of this limestone is in the range of 25 MPa to 45 MPa which is medium hard In nature. The Limestone of this compressive strength can be excavated by deploying Non-Conventional Mining methods which break the rock without use of blasting. PP submitted that Non-Conventional Mining methods such as i) Primary Breaking through Rock Breaker and Terminator, ii) Ripper attached to excavator and separate giant ripper & iii) Use of Surface Miner etc. are available which can be used for breaking and excavation of mineral. Out of these method, surface Miner is successful in soft to less hard rocks while other two methods are used in medium to hard rocks. Therefore, use of Primary Breaker and Giant Rippers is ideal for the type of limestone occurring in this mine. PP had proposed to use non-conventional method of mining within 100 meters of the habitation.

- The PP further submitted that the proposed raw water requirement for the mine project is 300 KLD [Dust Suppression (250 KLD), Drinking & Utility (15 KLD), HEMM Washing (35 KLD) and Green belt/plantation (From Colony STP)] for mine and 500 KLD for colony, which will be sourced from ground water (for drinking purpose) and from mine pit (for other activities). PP has submitted that According to groundwater monitoring Water level in core zone varies from 262 to 257 m AMSL (5 to 10 mbgl) in Pre Monsoon and 264 to 268 m AMSL (8 to 4 mbgl) and 264 to 262 m AMSL (3 to 5 mbgl) in Post Monsoon season. Present working depth of mining is 242 AMSL (30 mbgl) and Ultimate working depth of the mining operation will be 192 m AMSL (80 mbgl). PP has submitted that as per the mining details, water table has already been intersected due to the mining activities and permission for the same has already been obtained from CGWA vide letter no. 21-4(36)/NCCR/CGWA/2008-569 dated: 08.04.2015 & amended vide letter no. 21-4 (36)/ NCCR/CGWA/2008-1270 dated 06.08.2015. Renewal of NOC has been received from CGWA Department vide letter no. 21-4(36)/NCCR/CGWA/2008-2079 dated: 24.10.2018. The renewed NOC is valid from 08.04.2018 to 07.04.2023. PP submitted that no waste water is being / will be generated from the mining activities. Septic tanks and soak pit is being / will be provided for the disposal of domestic waste water generated from mine office. Waste water generated from washing of HEMM is being / will be used in crusher for dust suppression after oil and grease separation. Garland drains along with Retaining walls having water holes at the toe of temporary dumps are being / will be constructed to avoid the soil wash out & around the mine pit to prevent surface run off entering into the mine pit. Domestic wastewater from colony will be treated in already proposed STP at plant site of capacity 500 KLD and treated water will be used in plantation. Periodical Ground water level & quality monitoring is being / will be carried out.
- 8. PP vide its letter dated 30.06.2020 submitted that till May, 2020, a total of 180686 saplings have been planted on 72.95 ha area along boundary wall Near Semradih / Champa & Bharuwadih villages, near Canal area, Line-II Crusher area, BC 06 & 07 area. PP has submitted that at the end of life of mine, plantation will be done on 176.0 ha (70 ha on backfilled area and 21 ha area on waste dump, 7.2 ha in colony area & 77.8 ha on virgin area). Saplings will be planted @ 2500 saplings per hectare of

land. The Species selected for green belt/plantation have been/will be Babul (Acacia Safed siris (Albizziaprocers), Sisam (Dalbergialatifolia), (Azadirachtaindica). Gulmohar (Delonixregia), Subabul (Laucaenaleucocephala), Cassia semiya, Copperpod (Peltaphorum), Karanj (Derris indica), Mahaneem (Maliaazedarachta), Bamboo plant (Bambusadendrocalmus), Humata Grass. In addition to this, PP has submitted a cumulative plantation plan wherein during the period from 2020 to 2025, PP has proposed to plant a total of 47500 saplings in an area of 19 ha [Virgin Area (5000 saplings in 2 ha), Backfilled Area (37500 saplings in 15 ha), Waste Dumps (Nil), Township Area (5000 saplings in 2 ha)]. During the period from 2025 to 2030, it has been proposed to plant a total of 42500 saplings in an area of 17 ha [Virgin Area (5000 saplings in 2 ha), Backfilled Area (37500 saplings in 15 ha), Waste Dumps (Nil), Township Area (Nil)]. During the period from 2030 to 2035, it has been proposed to plant a total of 55000 saplings in an area of 22 ha [Virgin Area (5000 saplings in 2 ha), Backfilled Area (50000 saplings in 20 ha), Waste Dumps (Nil), Township Area (Nil)]. Further, during the period from 2035 to end of mine, it has been proposed to plant a total of 114314 saplings in an area of 45.05 ha [Virgin Area (3814 saplings in 0.85 ha), Backfilled Area (50000 saplings in 20 ha), Waste Dumps (52500 saplings in 21 ha), Township Area (8000 saplings in 3.2 ha)]. Thus, as per the plan submitted by PP, during total life of mine a total of 440000 saplings in an area of 176 ha [Virgin Area (194500 saplings in 77.8 ha), Backfilled Area (175000 saplings in 70 ha), Waste Dumps (52500 saplings in 21 ha), Township Area (18000 saplings in 7.2 ha)] is proposed to be planted. PP also submitted the greenbelt details along the periphery of the ML Boundary block-wise. The submission includes plantation of total of 32625 saplings covering an area of 13.05 ha [Block 1 (4250 saplings in 1.7 ha), Block 2 (1625 saplings in 1.7 ha), Block 3 (21000 saplings in 8.4 ha) and Block 4 (5750 saplings in 2.3 ha)]. SCL has covered 13.05 ha out of the total 18.04 ha under the greenbelt development along the periphery of the ML boundary. SCL has a planning to cover the remaining area of 5.07 ha (periphery) under greenbelt within 1 year i.e. 2020-2021. The plan for 2020-21 involves plantation of total of 12675 saplings covering an area of 5.07 ha [Block 1 (4250 saplings in1.7 ha), Block 2 (1625 saplings in 0.65 ha), Block 3 (5300 saplings in 2.12 ha) and Block 4 (1500 saplings in 0.6 ha)]. The budget proposed for Green belt (Mine & Colony) includes total Capital cost of Rs. 85 Lakhs and annual recurring cost of Rs. 15 Lakhs.

- 9. PP submitted that there is no forest land involved, however, Dhabadih Reserved Forest is 0.25 Km (250 m) in the north direction. Letter reg. the same has been obtained from Principal Chief Conservator of Forest, Govt. of Chhattisgarh vide letter SL. No. Wildlife/Management-379/ 2291 dated 17.06.2020. PP submitted that there is No National Parks, Sanctuaries, Biosphere Reserves, Wildlife corridors, Tiger Reserves, exists within the study area (10 km radius from the lease boundary). Letter reg. the same has been obtained from forest department vide No /a . a . y . / □□□□ /1342 dated 17.04.2018.

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Conservator) cum Chief Wildlife Warden, Chhattisgarh vide letter SL. No./WL/MGMT379/19/3451 dated on 21.06.2019. The budgetary allocation for the same is estimated as Rs 36.30 lakhs for 3 years is also approved in the above mentioned letter.

- The PP submitted that the baseline environment data on various components of environment in the study area were collected during post monsoon season (October 2017 to December 2017). The monitoring results of ambient air, surface water, soil, ambient noise and ground water have been reported and no major divergence was observed with respect to concentration values of various parameters of collected samples. The soil quality was observed to be slightly alkaline in nature. The air quality sampling was done continuously for 24 hours for SO2, NOx, PM10, PM2.5 and CO with a frequency of twice a week for three months (26 observations for one location) at 15 locations which includes Plant Site, Mine Site, 500 m SW Direction from Plant Site and nearby villages. Sampling locations were selected for AAQ Monitoring keeping in view the pre-dominant wind direction prevailing in the area during the study period. It is observed from the wind rose diagram that the dominant wind direction prevailing in the area during the study period was North-East direction. The same 15 locations were selected for noise level monitoring. There are 8 surface water bodies present in the study area. Surface water samples were collected from 6 locations to know the surface water quality of the area; as remaining 3 are found dry during the study period. The ground water samples were collected and tested from 10 different sites. PP submitted that the main cause for generation of vibrations is blasting. Blasting is essentially required to excavate limestone. In Shree Limestone Mine, limestone is found in compact, hard layers. Controlled Blasting is being/ will be done using ANFO and high explosives with use of milli second delay detonators/NONEL to limit the blast induced vibrations fly rocks and noise. The oversized boulder generated during primary blasting is being/ will be broken up by hydraulic rock breaker. Blasting will be done during once in day time. PP has submitted the control and mitigation measures w.r.t. blasting, air quality management and noise quality management.
- Public Hearing for the Environmental Clearance of proposed project was conducted on 04th August, 2018, Saturday, from noon 2:00 pm at Village -Chandi (Near ground of panchayat Bhawan), Tehsil Sigma District - Balodabazar - Bhatapara by Additional District Collector, Balodabazar. Shri P.K. Rabde, Scientist in Regional office of C.G. Environmental Conservation Board, Raipur. Shri Ravi Tiwari Industry Representative, Shri R.K. Vijay (Unit Head), Shri Rakesh Bhargava (E nvironmentlist), Sarpanchs of Karhi, Bharuwadih, Khapradih & Chandi Gram Panchayats, nearby Village farmers & About 500 people etc. were present during public hearing. The advertisement for Public Hearing was published on 1st July, 2018 in "Dainik Bhaskar, Raipur" and "Hindustan Times." The major issues raised were related to Socio-Economic Development of nearby area, employment, health, water and environment etc. The PP during the PH committed that an amount of Rs 169.2 Lakh shall be spent under CER for 15 years, Rs 9.45 Lakh for development of sport facility, Rs 7.0 Lakh for water arrangement, Rs 0.25 Cr (Capital) & Rs 0.1 Cr (recurring) for EMP, Rs 9.45 Lakh for vocational training, promoting the farming work, self-employment work, and village based work, Rs 34 Lakh for construction of drainage & water tank. PP shall comply with the commitment made in a time bound manner. Further, PP mentioned that presently SCL is utilising the mine sump water to the integrated cement plan and for feeding cattle to the nearby villages. SCL, has a planning for distribution of surplus (to the tune of 805 KLD) mine pit water to the nearby villages such as Semaradih, Khapradih and Bharwadih etc. for irrigation purposes through pipelines for onwards for gainful use after 15 years onwards. Since, the mine is already in operation since 2015, therefore the

Ministry advises that necessary provision for surplus water shall be created within a time frame of 5 years.

- The Proponent submitted that total project cost will be Rs. 67.68 Crore and the total requirement of manpower for proposed project will be 215 persons. The PP submitted that the existing cost of the project including land cost is Rs 335.82 Crore and CER comes out to be Rs 2.77 Crore. PP submitted that M/s SCL has already spent Rs 2.77 Crore for development activities in the nearby area of the project since 2010-11 till 2019. The project cost for the proposed expansion is Rs 67.68 Crore and CER cost comes out to be Rs 0.67 Crore as per MoEF&CC O.M. dated 1st May 2018. However, Rs 1.69 Cr @ of 2.5 % of total cost has already been proposed for CER activities towards social development activities under CER for the period of 15 years which is 2.5 % of the total project cost of Rs. 67.68 Cr. This includes: 1) Education Promotion Programs Rs. 36.15 Lakhs, 2) Health and welfare programme (Rs. 18.85 Lakhs), 3) Women Empowerment & Development Programme Rs. 8.95 Lakhs, 4) Contribution in Religious & Social Programmes Rs. 1.94 Lakhs and 5) Community Infrastructure Development Rs. 103.33 Lakhs. The programs and activities are defined in the proposed Action Plan under each above-mentioned head and the budget is planned to be spent in a time-bound period of 15 years.
- 14. The Project Proponent submitted that existing budget under EMP is Rs 2.4 Lakh (Capital) & Rs 0.43 Lakh (recurring). The additional budget proposed for environmental protection measures due to expansion is Rs 1.1 Crores (Capital) and Rs 0.25 Crore (recurring cost). Therefore, the total budget under EMP is Rs 3.5 Cr (Capital) Cost) & Rs 0.68 (recurring) cost which includes 1) Pollution Control Rs 45 Lakh (Capital) [Rs 40 Lakh existing & Rs 5 Lakh for expansion] & Rs 23 Lakh (recurring) [Rs 20 Lakh existing & Rs 3 Lakh for expansion], 2) Pollution Monitoring Rs 100 Lakh (Capital) for existing & Rs 5 Lakh (Recurring) for existing, 3) Occupational Health (Capital Rs. 5 Lakhs & Recurring/annum Rs. 2 Lakhs), 4) Green Belt Mine & Colony (Capital Rs. 85 Lakhs & Recurring/annum Rs. 15 Lakhs) and 5) Others (Water Spray etc.) (Capital Rs. 10 Lakhs & Recurring/annum Rs. 2 Lakhs).
- 15. PP has submitted that in order to ensure adequate implementation of the OHS measures suggested, SCL have adhered to / will adhere to the pre & periodical medical examination program. The medical records of the employees are being/ will be maintained. Under initial vocational training, the workers are being/ will be given training related to all safety and health aspects pertaining to their vocation and thereafter, special training courses/ awareness programme for Malaria eradication, STDs and health effects on exposure to mineral dust are being/ will be organized regularly for employed persons as well as for nearby villagers. Frequency of Medical Examination a) Pre Placement Medical examination: Prior to joining and b) Periodical Medical examination-1) Age of workers < 45 years: After every 5 years and 2) Age of workers > 45 years: After every 3 years. The budget proposed for occupational health includes total Capital cost of Rs. 5 Lakhs and annual recurring cost of Rs. 2 Lakhs.
- 16. PP submitted the there is no litigation pending against the project and/or land in which the project is proposed to be set up.
- 17. PP submitted the compliance report from RO MoEF&CC, Nagpur vide letter No: EC-353/RON/2017-NGP/ dated 31.07.2018 & Closure Report vide letter No: EC-353/RON/2017-NGP/4384 dated 01.10.2018. PP shall further ensure that EC Conditions to be complied within without fail.



- PP submitted that Mining Lease was executed on 11.01.2011 and Mining operations were commenced on 12.03.2015. PP submitted the letter No. 1467/तीन-6/खनिपट्टा नंबर 38/2007 dated 19.12.2017 & letter No. 3173/तीन-6/खनिपट्टा नंबर 38/2007 dated 14.10.2018 issued by Mining department of collector office wherein it has mentioned that production from the mines was started from April 2015 and the production during 2015-16 was 1979059 Tone, during 2016-17 was 2993943 Tone and during 2017-18 was 4112837 Tone. In addition to this PP also submitted the letter No. 396/तीन-6/खनिपट्टा नंबर 38/2007 dated 22.06.2020 as per which Limestone production during 2019-20 is 5739914 Tonnes. PP submitted the copy of CTO vide no. 7892/TS/CECB/2019 dated 05.12.2019 which is valid up to 30.11.2020. PP vide its letter dated 24.07.2020 submitted that duly filled Annexure-III as per which production is well within the EC capacity and there is no violation of Common Cause Judgment dated 2.08.2017 & S.O. 804(E) dated 14.03.2017. PP also submitted the affidavit dated 19.04.2019 in pursuant to Ministry's O.M. dated 30.05.2018, to comply with all statutory requirements & judgment of Hon'ble Supreme Court dated the 2nd August 2017 in writ petition (civil) no. 114 of 2014 in the matter of common cause versus Union of India & Ors.
- PP has further submitted an undertaking in EIA Report dated 30.01.2019 to the effect that the conditions laid down in TOR prescribed by MoEF&CC, New Delhi vide letter dated 06.02.2018 for the said project have been complied with. The data submitted and the information presented in the EIA/EMP Report are factually correct. Also, a declaration has been submitted by Head of the accredited Consultant Organisation i.e. JM EnviroNet Pvt. Ltd. that the experts prepared the EIA/EMP Report for Expansion of Shree Limestone Mine from 8.6 Million TPA to 11.06 Million TPA Limestone Production and 3.42 Million TPA Inter-burden & Over-burden and 0.95 Million TPA Top Soil (MI no. 38/2007, ML. Area: 1;31.126 ha) and crushers (Primary: 2x12oo TPH & Secondary: 2x 450TPH) at Villages: Bharuwadih & Semaradih, Tehsil-Balodabazar in District Balodabazar-Bhatapara (Chhattisgarh) by Shree Cement Limited. They also confirm that the consultant organization shall be fully accountable for any mis-leading information mentioned in this statement. Further, PP has given undertaking in Form-2 that hereby give undertaking that the data and information given in the application and enclosures are true to be best of his knowledge and belief. And he is aware that if any part of the data and information found to be false or misleading at any stage, the project will be rejected and clearance given, if any to the project will be revoked at their risk and cost.
- 20. Based on the documents submitted and discussion held the Committee **recommended** the proposal of M/s Shree Cement Ltd for grant of EC for expansion of limestone production from 8.6 Million TPA to 11.06 Million TPA with total excavation of 14.72 MTPA, inter-alia, including 11.06 MTPA of limestone from (ML No.38/2007, ML. Area 531.126 ha) and installation of crushers (Primary: 2 x 1200 TPH & Secondary: 2 x 450 TPH) by M/s. Shree Cement Limited at Villages: Bharuwadih & Semarodih, Tehsil Balodabozar in District Bolodabozor-Bhataporo, Chhattisgarh. The Committee is of the view that Ministry is in process of standardising the standard EC Conditions issued by O.M. No. No. 22-34/2018-IA.III dated 08.01.2019 & 16.01.2020. Therefore, in addition to following specific conditions (SI. No. 21 A), the standard EC conditions (as amended) is applicable for this project.
- 21. The Ministry of Environment, Forest & Climate Change has examined the proposal in accordance with the Environmental Impact Assessment Notification, 2006 and further amendments thereto and hereby accords the Environmental Clearance under the provisions thereof to the above mentioned proposal of M/s Shree Cement Ltd for expansion of limestone production from 8.6 Million TPA to 11.06 Million TPA with

total excavation of 14.72 MTPA, inter-alia, including 11.06 MTPA of limestone from (ML No.38/2007, ML. Area 531.126 ha) and installation of crushers (Primary: 2 x 1200 TPH & Secondary: 2 x 450 TPH) by M/s. Shree Cement Limited at Villages: Bharuwadih & Semarodih, Tehsil Balodabozar in District Bolodabozor-Bhataporo, Chhattisgarh subject to compliance of the terms & conditions and the environmental safeguards mentioned below: -

A. Specific Conditions:

- The PP shall provide adequate safety barrier against the villages, inter alia, including, control basting with necessary permission from the Director General of Mines Safety within 300 m from the village / Habitation boundary, mining with non-conventional methods such as ripper dozer or other mechanical means by avoiding the blasting within 100 m from the village / Habitation boundary. Thick plantation with native and broad leaved species shall be developed, within one year from the commencement of mining operations, in the safety barrier left against the Habitations.
- The ground induced blasting vibrations shall be monitored regularly for every blast performed and the values of "peak particle velocity" and "Air Over Pressure" shall be maintained below the permissible values prescribed by the DGMS, from time to time.
- 3) The total excavation shall not be exceeded to 14.72 MTPA, inter alia, including 11.06 MTPA Lime stone.
- PP shall implement the plantation program viz. from 2020 to 2025 [planting of total of 47500 saplings in an area of 19 ha (Virgin Area- 5000 saplings in 2 ha, Backfilled Area- 37500 saplings in 15 ha, Township Area- 5000 saplings in 2 ha], During the period from 2025 to 2030 [planting a total of 42500 saplings in an area of 17 ha (Virgin Area-5000 saplings in 2 ha, Backfilled Area- 37500 saplings in 15 ha)]. During the period from 2030 to 2035, [planting a total of 55000 saplings in an area of 22 ha (Virgin Area- 5000 saplings in 2 ha, Backfilled Area-50000 saplings in 20 ha)]. During the period from 2035 to end of mine, [plant a total of 114314 saplings in an area of 45.05 ha (Virgin Area- 3814 saplings in 0.85 ha, Backfilled Area- 50000 saplings in 20 ha, Waste Dumps- 52500 saplings in 21 ha, Township Area- 8000 saplings in 3.2 ha)]. Thus, as per the plan submitted by PP, during total life of mine [planting a total of 440000 saplings in an area of 176 ha (Virgin Area -194500 saplings in 77.8 ha, Backfilled Area-175000 saplings in 70 ha, Waste Dumps- 52500 saplings in 21 ha, Township Area-18000 saplings in 7.2 ha)] is proposed to be planted. PP should annually submit the audited statement of expenditure along with proof of activities viz. photographs (before & after with geolocation date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
- The plantation on the remaining area at the lease boundary corresponding to 5.07 ha shall be completed within one year i.e. 2020-2021 which includes plantation of total of 12675 saplings covering an area of 5.07 ha [Block 1 (4250 saplings in1.7 ha), Block 2 (1625 saplings in 0.65 ha), Block 3 (5300 saplings in 2.12 ha) and Block 4 (1500 saplings in 0.6 ha)].



- 6) The approved conservation plan prepared for 2 species of Schedule- I viz. Indian Rock Python (Pythodmolurus) & Indian Monitor Lizard (Varanus bengalensis) shall be implemented. The approved budget of Rs 36.30 lakhs (for 3 years) shall be deposited in the government account.
- The PP shall fulfil the Commitment made during Public Hearing which inter-alia include activities proposed under CER such as development of sport facility; water arrangement; vocational training; promoting the farming work; self-employment work; and village based work; construction of drainage & water tank; etc. In addition to this provision for distribution of surplus (to the tune of 805 KLD) mine pit water, to the nearby villages such as Semaradih, Khapradih and Bharwadih etc. for irrigation purposes through pipelines for onwards for gainful use shall be made within 5 years. PP should annually submit the audited statement along with proof of activities carried to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year. The CER shall be followed as per the OM dated 1st May, 2018.
- All the mitigation measures committed / envisaged in the EIA/EMP report and subsequent submission shall be implemented. PP should annually submit the audited statement along with proof of activities carried to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.
- 9) PP shall use the ground water only after obtaining approval from CGWA and State Pollution Control Board (SPCB) concerned shall not issue Consent to Operate (CTO) for expansion proposal after 07.04.2023, till the project proponent obtains such permission.
- 10) PP shall implement the topsoil management plan as submitted to the Ministry.
- 11) In pursuant to Ministry's O.M No 22-34/2018-IA.III dated 16.01.2020 to comply with the direction made by Hon'ble Supreme Court on 8.01.2020 in W.P. (Civil) No 114/2014 in the matter Common Cause vs Union of India, the mining lease holder shall after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to other mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.

B. Standard Conditions:

I. Statutory compliance

- 1) The EC granted to the project is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/ construe to approvals/ consent/ permissions, etc. required to be obtained under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project.
- 2) The Project proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2nd August,2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors before commencing the mining operations.
- 3) The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict

compliance of Judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India &Ors.

- 4) The Project Proponent shall follow the mitigation measures provided in MoEFCC's Office Memorandum No. Z-11013/57/2014-IA. II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".
- 5) A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.
- 6) State Pollution Control Board/Committee shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.
- 7) The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the State Pollution Control Board/Committee and web site of the Ministry of Environment, Forest and Climate Change (www.parivesh.nic.in). A copy of the advertisement may be forwarded to the concerned MoEFCC Regional Office for compliance and record.
- 8) The Project Proponent shall inform the MoEF&CC for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.

II. Air quality monitoring and preservation

- 9) The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM10, PM2.5, NO2, CO and SO2 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.
- 10) Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust

control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEFCC/ Central Pollution Control Board.

III. Water quality monitoring and preservation

- 11) In case, immediate mining scheme envisages intersection of ground water table, then Environmental Clearance shall become operational only after receiving formal clearance from CGWA. In case, mining operation involves intersection of ground water table at a later stage, then PP shall ensure that prior approval from CGWA and MoEFCC is in place before such mining operations. The permission for intersection of ground water table shall essentially be based on detailed hydro-geological study of the area.
- 12) Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on sixmonthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
- 13) The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease including upstream and downstream. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. The parameters to be monitored shall include their water quality vis-à-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEFCC. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.
- 14) Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J- 20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.
- 15) Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office MoEFCC annually.
- 16) Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards prescribed

from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.

17) The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board/Committee.

IV. Noise and vibration monitoring and prevention

- 18) The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.
- 19) The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day /night hours.
- 20) The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The workers engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

V. Mining plan

- 21) The Project Proponent shall adhere to approved mining plan, inter alia, including, total excavation (quantum of mineral, waste, over burden, inter burden and top soil etc.); mining technology; lease area; scope of working (method of mining, overburden & dump management, O.B& dump mining, mineral transportation mode, ultimate depth of mining, concurrent reclamation and reclamation at mine closure; land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life; etc.).
- 22) The shall be governed as per the approved Mining Plan. The excavation vis-à-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self-sustaining. The compliance status shall be submitted half-yearly to the MoEFCC and its concerned Regional Office.

VI. Land reclamation

23) The Overburden (O.B.), waste and topsoil generated during the mining operations shall be stacked at earmarked OB dump site(s) only and it should not be kept active for a long period of time. The physical parameters of the OB / waste dumps / topsoil dump like height, width and angle of slope shall be governed as per the approved Mining Plan and the guidelines/circulars issued by D.G.M.S. The topsoil shall be used for land reclamation and plantation.



- 24) The slope of dumps shall be vegetated in scientific manner with suitable native species to maintain the slope stability, prevent erosion and surface run off. The selection of local species regulates local climatic parameters and help in adaptation of plant species to the microclimate. The gullies formed on slopes should be adequately taken care of as it impacts the overall stability of dumps. The dump mass should be consolidated with the help of dozer/ compactors thereby ensuring proper filling/ leveling of dump mass. In critical areas, use of geo textiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.
- 25) Catch drains, settling tanks and siltation ponds of appropriate size shall be constructed around the mine working, mineral yards and Top Soil/OB/Waste dumps to prevent run off of water and flow of sediments directly into the water bodies (Nallah/River/ Pond etc.). The collected water should be utilized for watering the mine area, roads, green belt development, plantation etc. The drains/ sedimentation sumps etc. shall be de-silted regularly, particularly after monsoon season, and maintained properly.
- Check dams of appropriate size, gradient and length shall be constructed around mine pit and OB dumps to prevent storm run-off and sediment flow into adjoining water bodies. A safety margin of 50% shall be kept for designing of sump structures over and above peak rainfall (based on 50 years data) and maximum discharge in the mine and its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the corners of the garland drains.

VII. Transportation

- 27) No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a 'bypass' road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load. The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers. [If applicable in case of road transport]
- 28) The Main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.

VIII. Green Belt

- 29) The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.
- 30) The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees.
- 31) The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.

IX. Public hearing and human health issues

32) Project Proponent shall make provision for the housing for workers/labors or shall construct labor camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.

X. Corporate Environment Responsibility (CER)

33) The activities and budget earmarked for Corporate Environmental Responsibility (CER) as per Ministry's O.M No 22-65/2017-IA. II (M) dated 01.05.2018 or as proposed by EAC should be kept in a separate bank account. The activities proposed for CER shall be implemented in a time bound manner and annual report of implementation of the same along with documentary proof viz. photographs, purchase documents, latitude & longitude of infrastructure developed & road constructed needs to be submitted to Regional Office MoEF&CC annually along with audited statement.

XI. Miscellaneous

- 34) The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.
- 35) The Project Authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.



- 36) The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MOEFCC &its concerned Regional Office, Central Pollution Control Board and State Pollution Control Board.
- 37) A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEFCC.
- 38) The concerned Regional Office of the MoEFCC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEFCC officer(s) by furnishing the requisite data / information / monitoring reports.
- 39) In pursuant to Ministry's O.M No 22-34/2018-IA.III dated 16.01.2020 to comply with the direction made by Hon'ble Supreme Court on 8.01.2020 in W.P. (Civil) No 114/2014 in the matter Common Cause vs Union of India, the mining lease holder shall after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to other mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.
- 22. The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
- 23. Concealing factual data failure to comply with any or submission of false/fabricated data and of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- 24. The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/ High Court and any other Court of Law relating to the subject matter.
- 25. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

26. This issues with the approval of the Competent Authority.

Yours faithfully,

(Sharath Kumar Pallerla)
Director/Scientist 'F'

Email: sharath.kr@gov.in Phone/Fax: 011-24695325

Copy to:

- 1). The Secretary, Ministry of Mines, Government of India, Shastri Bhawan, New Delhi
- 2). **The Secretary**, Mineral Resource Department, Govt. of Chhattisgarh Indravati Bhavan, Block-4, Second Floor, Nawa Raipur Atal Nagar, Chhattisgarh. E-mail Address: dgm.cg@nic.in
- 3). The Prl. Chief Conservator of Forests (HoFF), Chhattisgarh Forest Department, Jai Raod, Aranya Bhawan Raipur (C.G.)- 492 007 Email:apccfadmi365@gmail.com
- 4). **The Prl. Chief Conservator of Forests (WL)**, Sector-19, North Block, Aranya Bhavan, 1st Floor (F.R.) Atal Nagar, Raipur, Chhattisgarh **Email:**cwlwcg@gmail.com
- The Additional Principal Chief Conservator of Forests, Ministry of Environment, Forest and Climate Change, Regional Office(WCZ), Ground Floor East Wing, New Secretariat Building, Civil Lines, Nagpur-440001.
 Email: apccfcentral-ngp-mef@gov.in
- 6). **The Chairman**, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
- 7). **The Chairman**, Chhattisgarh Environment Conservation Board ,Paryavas Bhavan, North Block Sector-19,Naya Raipur(C.G.) Email: hocecb@gmail.com
- 8). **The Member Secretary**, Central Ground Water Authority, A-2, W3, Curzon Road Barracks, K.G. Marg, New Delhi-110001.
- 9). **The Controller General**, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur-440 001.
- The Director General of Mines Safety, DGMS Head Office, Sardar Patel Nagar, Dhanbad, Jharkhand 826001
- 11). The District Collector, District Balodabazar-Bhatapara, State of Chhattisgarh.
- 12). Guard File
- 13). MoEFCC website (Parivesh Portal)

(Sharath Kumar Pallerla) Director/Scientist 'F'