

In addition to the above, the proponent shall submit the following details:

1. The report for green belt developed with GPS Co-ordinates with necessary photographs shall be furnished.
2. The proponent shall furnish the photographs for fencing around the project site.
3. The proponent shall furnish the proposal for CER.
4. Contour map for the 1 Km radius surrounding the site, village map, FMB & A Register may be furnished.
5. The proponent furnish in affidavit undertaking inter-alia includes commitment of the Project Proponent not to repeat any such violation in future as follows as per MoEF & CC, Office Memorandum No. F.No.3-50/2017-IA.III(Pt.) dated:30.05.2018
6. "I/We, the applicant / the Project Proponent, commit to comply with all the statutory requirements and judgments of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No.114 of 2014 in the matter of the common cause versus Union of India and Ors. Before grant of ToR/ EC and I am also to commit, not to repeat any such violation in future. In case of any violation of the above the ToR/Environmental Clearances shall be liable to be terminated forthwith".

**Agenda No. 124-14:**

**F.No: 6689/2018**

Existing Lime Stone quarrying lease over an extent of 28.430 Ha. S.F.No.380, 381, 383-386, 388/1&3, 389-392, 510, 511, 513 & 514 of Ramayanpatti Village, Manur Taluk, Tirunelveli District, Tamil Nadu by M/s.

India Cements Ltd, under Activity 1(a) - Mining of major mineral - ToR to be issued under violation notification dated: 14.03.2017 & 14.03.2018 of MoEF & CC.

(SIA/TN/MIN/26407/2018)

The Proponent M/s. India Cements Ltd has applied for ToR for the existing Lime Stone quarrying lease over an extent of 28.430 Ha. S.F.No.380, 381, 383-386, 388/1&3, 389-392, 510, 511, 513 & 514 of Ramayanpatti Village, Manur Taluk, Tirunelveli District, Tamil Nadu on. 02.06.2018

The Ministry of Environment, Forest and Climate Change (MoEF&CC) Notification S.O. 804 (E) dated 14.03.2017 has stated that the cases of violations will be dealt strictly as per the procedure specified in the following manner:

*"In case the project or activities requiring prior Environmental Clearance under EIA Notification 2006 from the concerned Regulatory Authority are brought for Environmental Clearance after starting the construction work, or have undertaken expansion, modernization and change in product-mix without prior EC, these projects shall be treated as cases of violations and in such cases, even Category B projects which are granted Environmental Clearance by the SEIAA constituted under sub-section(3) section 3 of the Environment (Protection) Act 1986 shall be appraised for grant of Environmental Clearance only by the Expert Appraisal Committee and Environmental Clearance will be granted at the Central Level".*

Accordingly it was informed that the application for seeking Environmental Clearance after starting activity without prior EC for existing Lime Stone quarrying lease over an extent of 28.430 Ha. S.F.No.380, 381, 383-386, 388/1&3,

389-392, 510, 511, 513 & 514 of Ramayanpatti Village, Manur Taluk, Tirunelveli District, Tamil Nadu, could not be processed at SEIAA-TN and the proponent was requested to submit the proposal to MoEF&CC for Environmental Clearance stating the violations.

The MoEF&CC notification S.O.1030 (E) dated 08.03.2018 has stated that the cases of violations projects or activities covered under category A of the Schedule to the EIA Notification, 2006, including expansion and modernization of existing projects or activities and change in product mix, shall be appraised for grant of Environmental Clearance by the EAC in the Ministry and the Environmental Clearance shall be granted at Central level, and for category B projects, the appraisal and approval thereof shall vest with the State or Union territory level Expert Appraisal Committees and State or Union territory Environment Impact Assessment Authorities in different States and Union territories, constituted under sub-section (3) of section 3 of the Environment (Protection) Act, 1986.

The MoEF&CC office memorandum No. F.No.Z-11013/22/2017-IA.II(M) dated: 15.03.2018 have issued the following guidelines regarding implementation of Notification S.O.1030 (E)

- i. The proposals received up to 13th September, 2017 on the Ministry's portal, shall be considered by the EAC or the SEAC / SEIAA in the respective States / UTs, as the case may be, in order of their submission.
- ii. All the proposals of category 'B' projects / activities pertaining to different sectors, received within six months only i.e. up to 13th



September, 2017 on the Ministry's portal, but yet not considered by the EAC in the Ministry, shall be transferred online to the SEAC / SEIAAs in the respective States / UTs.

- iii. The proposals submitted directly for considering of EC (in place of ToR), shall also be considered on the same lines, in order of their submission on the Ministry's portal.
- iv. All the projects of category 'B' pertaining of different sectors, although considered by the EAC in the Ministry and accorded ToR, shall be appraised for grant of EC by the SEAC / SEIAA in the respective States / UTs.
- v. All projects / activities of all sectors, shall be required to adhere to the directions of Hon'ble Madras High Court vide order dated 13th October, 2017 while upholding the Ministry's Notification dated 14th March, 2017.

The MoEF&CC office memorandum No. F.No.Z-11013/22/2017-IA. II(M) dated: 16.03.2018 has issued the following directions regarding compliance of directions of Hon'ble Madras High Court order dated 14th March, 2018 in WMP Nos.3361, 3362 & 3721 of 2018 in WP.No.11189 of 2017.

1. The project proponent, who have not submitted the proposals within six months window i.e up to 13th September, 2017 in pursuance of the ministry's notifications.O.804(E) dated 14.03.2017, are required to submit the proposals within 30 days, to the EAC for category A projects or the SEAC/SEIAA in the respective States/UTs for category B projects.



2. The project proponent, who have submitted the proposals on the Ministry's portal after 13th September, 2017 are also required to submit the proposals within 30 days, to the EAC for category A projects or the SEAC/SEIAA in the respective States/UTs for category B projects

In view of the above directions, the project proponent, who have submitted the proposals within the stipulated time on 12.04.2018 i.e up to 15th April, 2018 in pursuance of the MoEF&CC office memorandum No. F.No.Z-11013/22/2017-IA. II(M) dated: 16.03.2018, has submitted the details of the proposal to the O/o SEIAA-TN for obtaining specific Terms of Reference for existing Lime Stone quarrying lease over an extent of 28.430 Ha. S.F.No.380, 381, 383-386, 388/1&3, 389-392, 510, 511, 513 & 514 of Ramayanpatti Village, Manur Taluk, Tirunelveli District, Tamil Nadu.

The proposal was placed in the 124<sup>th</sup> SEAC Meeting held on 04.01.2019. The project proponent made a presentation about the project proposal and informed that:

Mining lease operations for limestone in this area by the project proponent commenced right from the year 1962 onwards. Entire land is owned by the Proponent. As such, there are no habitations in this area.

The mining lease was originally granted during 1962 for a period of 20 years from 18.10.1962 which was valid up to 17.10.1982. The first renewal of mine lease was granted for a period up to 17.10.1987 and second renewal was granted vide G.O. MS. No. 813 dated 03-12-1987 for a period up to 17.10.1997. Subsequently the third renewal of the above lease was granted vide proceedings of the Director

of Geology and Mining vide Rc.No. 5143 / MM4/98 dtd 18-03-2005 for 20 years up to 17.10.2017. However the execution of mining lease renewal is kept pending on account of filing of suit in the High Court of Madras in the case related to payment of stamp duty. As per the MMDR Amendment Act 2015 the lease validity will be extended up to 31.03.2030.

Scheme of mining for the period 2013 to 2018 and was approved by IBM vide letter No - TN/TNL/LST/MS-871-SZ /1898, dated 06.11.2013.Review of mine plan (18.10.2017-31.03.2022) including Progressive Mine closure plan approved by IBM vide letter No. TN/TNL/LST/ROMP-1418.MDS dated 30.05.2017

The lease area falls between latitude N8° 47' 38.5" to N8° 47' 55.4" and Longitude from E77° 40' 32.5" to E77° 41' 01.7" and falls in Survey of India Toposheet No. 58 H/9.The elevation of the area is from +99 m to +117 m above M.S.L.

The lease area does not include any forest lands. Other than Gangaikondan Spotted Deer Sanctuary, no ecologically sensitive features like national parks, biospheres, elephant corridors, Tiger reserves, flight paths of migrating fauna, etc., occur in buffer area of the project. The area does not come under CRZ category.

The project site is easily approachable from SH-41 connecting Tirunelveli to Sankarankovil about 1.5 km away on the western side. Besides that the site is also approachable from NH - 44 (Previously NH-7) connecting Tirunelveli and Madurai on the eastern side through the dedicated road.The nearest railway station, Talaiyuthu is about 7.8 kms (by road) away from project.



There are no streams or water bodies within the lease area. In the 10km radius study area, major water body - Thamirabarani River - 7.2 km SE of the lease area. Talaiyuthu RF - 3.0 km (NE) & Gangaikondan PF - 8.2 km (NE) are located from the lease boundary.

The total limestone reserves available mining leases hold as on 01.04.2013 is 61.88 Lakhs Tonnes. The anticipated life of the mine is about 25 years. The peak limestone production from this lease would be 2.52 Lakh Tonnes per annum. Limestone from these mines are supplied to India Cement's Sankarnagar plant located about 6.2 km (By road), E from the mine site.

The total waste rock to be generated from this mine for the balance mine life is estimated to be 85.81 lakh tonnes.

The mine is Fully Mechanized Open Cast Limestone Mine. The mining is being carried out by conventional drilling and blasting method. The secondary breaking is done with hydraulic rock breakers & there is no secondary blasting in this mine. The blasted materials are handled with hydraulic excavators and loaded in to tippers for transporting to the factory and dumpers for dumping waste rocks in the waste dumps.

In the post mining stage, out of 28.43 Ha of lease area, 16.793 Ha will be the excavated area. External overburden dump will be 9.716Ha, Green belt creation will be 1.700 Ha, about 0.210 Ha will be road formation and about 0.011 Ha will remain undisturbed. The entire mined out area will be used for rain water harvesting and all waste rock dumps will be reclaimed with plantation / vegetation at the end of the life of the mine. Ultimately it is proposed to barricade the entire



water body periphery with wire fencing to prevent entry of animals and unauthorized persons.

The mining leases G.O No. 813, 526 are being worked contiguously and the direct manpower deployed is 20 numbers and indirectly more than 100 people derive benefit due to allied service sectors like transport, green belt development etc.,

Total combined water requirements for the ML operations (G.O No. 813, 526) of Nanjankulam Regrouped limestone mine will be about 27.5 KLD comprising Domestic - 1.5KLD, Water sprinkling/ dust suppression - 16.0KLD and Green belt development/plantation - 10.0KLD. Industrial water requirement like dust suppression, green belt, etc., will be met from mine sump water. Drinking water requirement will be met from bore well.

Common site services like mine office, first aid room, rest shelters, toilets, already existing in the mines. Licensed Magazine located at Ramayanpatti village is used commonly for Nanjankulam regrouped mines and Tenkulam mines for storage of explosives. There will not be any storage of explosives in the site.

ICL has already carried out various social welfare measures and peripheral developmental activities with a good social outreach, so as to enhance the life style, income generation opportunities and educational levels of the local community in a big way. It has been involved in developing health, education, skill development, environment and spiritual development of the society.

For various CSR activities, M/s. The India Cements Limited spent about Rs. 191.40 Lakhs in the period of 2010 - 2014. A combined budgetary provision of Rs.

20 lakhs per annum is allocated for CSR activities for the five mining leases of Nanjankulam Regrouped Limestone Mines.

**History of Environmental Clearance:**

M/s. The India Cements Ltd. applied for EC from MoEF&CC on 09.12.2013. While appraising the project to the Expert Appraisal Committee for Terms of Reference (ToR), it was observed by the MoEF, EAC Committee that, this is a case of violation of Environment (Protection) Act, 1986.

Ministry of Environment & Forests (MoEF) has taken action as per the OM dated 12.12.2012 & 27.06.2013. The mining activities in the mining lease area has been stopped as per the direction of MoEF vide their letter dated 04.04.2014. Further as directed by MoEF, Tamil Nadu Pollution Control Board had initiated credible action by way of filing a complaint vide CC No. 282 of 2014 under section 200 of Cr.P.C. for Offence U/s 15 r/w 16 & 19 (a) of the Environment (Protection) Act 1986 before the Hon'ble Judicial Magistrate-V Court, Tirunelveli. Vide letter dated 13.09.2014.

TOR for this project has been issued by MOEF by their letter No. J-11015/14/2014-IA.II(M) dated 08th October, 2014.

Based on the TOR issued , draft EIA / EMP report was prepared and Public Hearing / Consultation was conducted on 12.02.2015 at Meeting hall (2<sup>nd</sup> floor), District Collectorate, Tirunelveli, through District Collector- Tirunelveli, District Environmental Engineer- Tamil Nadu Pollution Control Board.

Final EIA/EMP report incorporating the public hearing proceedings was submitted to SEIAA, Tamil Nadu. This report was appraised in the SEAC meeting



held on 20<sup>th</sup> March, 2015 and 124<sup>th</sup> meeting of SEIAA held on 27<sup>th</sup> March 2015. Based on SEAC recommendation, in the 124<sup>th</sup> SEIAA meeting held on 27.03.2015, SEIAA-TN recommended the proposal for Final EC and stated EC can be given on the satisfaction of the following 2 conditions:

1. As it is a violation case, orders of the Hon'ble NGT (Principal Bench) are awaited on the procedure to deal with violations.
2. To obtain clearance from the standing committee of NBWL as the Gangaikondan spotted deer sanctuary was within 10km from mine site.

Nanjankulam (Regrouped) Limestone Mines projects were applied under violation category as per the MoEF notification S.O.804 (E) dated 14.03.2017. Being a violation case, application was submitted to MoEF&CC Delhi, for issue of Specific Terms of Reference for the project on assessment of Ecological damage, Remediation plan, and Natural and Community Resource Augmentation Plan for this project to enable us to prepare an independent chapter, in this regard for obtaining Environmental Clearance. However, they were transferred to SEIAA-TN based on the MoEF Gazzete notification S.O. 1030(E) dated 08.03.2018 Towards fulfilling condition (1) of 124<sup>th</sup> SEIAA meeting held on 27.03.2015 towards violation; Specific ToR towards issue of Environmental Clearance is requested.

As far as condition (2) of 124<sup>th</sup> SEIAA meeting held on 27.03.2015 regarding NBWL clearance is concerned, The Gangaikondan Spotted deer sanctuary lies at a distance of 8.2 Km from the lease area(i.e. beyond 5 Km from the mine). Application for NBWL clearance was submitted on 07.10.2015 for this project. In the mean time, MoEF&CC issued draft notification dated 05.11.2018, notifying an area of only 0.82km around the Gangaikondan spotted Deer sanctuary



as the Gangaikondan spotted Deer sanctuary Eco-sensitive zone. Hence, NBWL clearance may not be required. However application for NBWL is already made.

With this background, proponent requested for issue of Specific TOR towards preparation of Remediation plan, assessment of Ecological damage and Natural and Community Resource Augmentation Plan

The project attracts violation as per MoEF & CC gazette notification S.O No 804 (E) Dated 14.03.2017.

The project proponent has submitted the documents regarding the particulars of the lease and mining working. It was observed that mine was in operation without obtaining Environmental Clearance. As the case above stands affirmative, the project is being granted Terms of Reference for undertaking Environmental Impact Assessment and preparation of EMP. The SEAC recommends the Terms of Reference for the project for assessment of Ecological damage, remediation plan and natural & community resource augmentation plan to be prepared as an independent chapter in the Environment Impact assessment report by the Accredited consultant and also with collection and analysis of data for assessment of ecological damage, preparation of remediation plan and natural & community resource augmentation plan to be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, accredited by NABET or a laboratory of council of Scientific and Industrial research Institutions working in the field of environment. Three months data relating to the ecological parameters is to be submitted with analysis.

The project proponent besides above has to also submit the Affidavit/ No Objection certificate (NOC) in compliance of the orders of the Hon'ble Supreme

court to approach State Mines and Geology Department for certification regarding payment of 100% cost of illegally mined minerals to the State Government in terms of the Section 21(5) of the MMDR Act, 1957. The amounts so payable to the state government for the Lime stone would inter-alia, account for the mining operation in violation of the following:-

- Without Environmental Clearance (EC) or in excess of quantity approved in EC.
- Without consent to Operate (CTO) or in excess of quantity approved in CTO.
- Without mining plan/scheme of mining or in excess of quantity approved in mining plan/scheme of mining.
- Without forest clearance
- Any other violation.

The project proponent is hereby directed to furnish Affidavit as per the guidelines issued by MoEF & CC, in connection with the orders of the Hon'ble Supreme court and the annexure provided by SEIAA, while submitting EIA/EMP for consideration of EC.


Based on the presentation made by the proponent and the documents furnished, the committee decided to recommend for the grant of Standard ToR for mining projects as specified by MoEF & CC subject to the above conditions in addition to the Additional TOR specified by the SEAC to deal with the violation aspects of the mining projects. The public hearing shall be conducted as per the directions of Hon'ble High of Judicature at Madras.

In addition to the above, the proponent shall submit the following details:

1. The report for green belt developed with GPS Co-ordinates with necessary photographs shall be furnished.



2. The proponent shall furnish the photographs for fencing around the project site.
3. The proponent shall furnish the proposal for CER.
4. Contour map for the 1 Km radius surrounding the site, village map, FMB & A Register may be furnished.
5. The proponent furnish in affidavit undertaking inter-alia includes commitment of the Project Proponent not to repeat any such violation in future as follows as per MoEF & CC, Office Memorandum No. F.No.3-50/2017-IA.III(Pt.) dated:30.05.2018
6. "I/We, the applicant / the Project Proponent, commit to comply with all the statutory requirements and judgments of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No.114 of 2014 in the matter of the common cause versus Union of India and Ors. Before grant of ToR/ EC and I am also to commit, not to repeat any such violation in future. In case of any violation of the above the ToR/Environmental Clearances shall be liable to be terminated forthwith".

S.No	Name	Designation	Signature
1	Dr. S. Mohan	Chairman	
2	Thiru D. Sekar	Member Secretary	
3	Dr. S. Kanmani	Member	



## Annexure-I

### Part-I

#### 1(a) STANDARD TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY FOR NON-COAL MINING PROJECTS AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT

- 1) Year-wise production details since 1994 should be given, clearly stating the highest production achieved in any one year prior to 1994. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994.
- 2) A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
- 3) All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee.
- 4) All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/ topo sheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
- 5) Information should be provided in Survey of India Topo sheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water

bodies, streams and rivers and soil characteristics.

- 6) Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.
- 7) It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process/procedures to bring into focus any infringement/deviation/ violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at large, may also be detailed in the EIA Report.
- 8) Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.
- 9) The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine / lease period.
- 10) Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated.

Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.

- 11) Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.
- 12) A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.
- 13) Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.
- 14) Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
- 15) The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
- 16) A study shall be got done to ascertain the impact of the Mining Project on



wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.

- 17) Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/ Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.
- 18) A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey, clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.
- 19) Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance

certifications from the prescribed Authorities, such as the SPCB or State Mining Department should be secured and furnished to the effect that the proposed mining activities could be considered.

- 20) Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).
- 21) R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.
- 22) One season (non-monsoon) [i.e. March-May (Summer Season); October-December (post monsoon season) ; December-February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The

location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM<sub>10</sub>, particularly for free silica, should be given.

- 23) Air quality modelling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modelling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
- 24) The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
- 25) Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.
- 26) Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
- 27) Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.



- 28) Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.
- 29) Details of any stream, seasonal or otherwise, passing through the lease area and modification / diversion proposed, if any, and the impact of the same on the hydrology should be brought out.
- 30) Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and bgl. A schematic diagram may also be provided for the same.
- 31) A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.
- 32) Impact on local transport infrastructure due to the Project should be

indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.

- 33) Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
- 34) Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
- 35) Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
- 36) Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
- 37) Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.

- 38) Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.
- 39) Public Hearing points raised and commitment of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project.
- 40) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
- 41) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
- 42) A Disaster management Plan shall be prepared and included in the EIA/EMP Report.
- 43) Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
- 44) Besides the above, the below mentioned general points are also to be followed:-
  - a) Executive Summary of the EIA/EMP Report
  - b) All documents to be properly referenced with index and continuous page numbering.
  - c) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.



- d) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC / NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.
- e) Where the documents provided are in a language other than English, an English translation should be provided.
- f) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.
- g) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF&CC vide O.M. No. J-11013/41/2006-IA.II(I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.
- h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. process) will entail conducting the PH again with the revised documentation.
- i) As per the circular no. J-11011/618/2010-IA.II(I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.

- j) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area.

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## **PART-II**

### **Additional TOR specified by the SEAC to deal with the violation aspects of the mining projects**

#### **SECTION A**

As per the MoEF & CC Notification S.O. 1030 (E) dated: 08.03.2018,

1. "The cases of violations will be appraised by the Expert Appraisal Committee at the Central level or State or Union territory level Expert Appraisal Committee constituted under sub-section (3) of section 3 of the Environment (Protection) Act, 1986 with a view to assess that the project has been constructed at a site which under prevailing laws is permissible and expansion has been done which can run sustainably under compliance of environmental norms with adequate environmental safeguards, and in case, where the findings of Expert Appraisal Committee for projects under category A or State or Union territory level Expert Appraisal Committee for projects under category B is negative, closure of the project will be recommended along with other actions under the law.

2. In case, where the findings of the Expert Appraisal Committee or State or Union territory level Expert Appraisal Committee on point at subparagraph (4) above are affirmative, the projects will be granted the appropriate Terms of Reference for undertaking Environment Impact Assessment and preparation of Environment Management Plan and the Expert Appraisal Committee or State or Union territory level Expert Appraisal Committee, will prescribe specific Terms of Reference for the project on assessment of ecological damage, remediation plan and natural and community resource augmentation plan and it shall be prepared as an independent chapter in the environment impact assessment report by the accredited consultants, and the collection and analysis of data for assessment of ecological damage, preparation of remediation plan and natural and community resource augmentation plan shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or a environmental laboratory accredited by the National Accreditation Board for Testing and Calibration Laboratories, or a laboratory of the Council of Scientific and Industrial Research institution working in the field of environment."

After the appraisal of the project, the SEAC decided that the Para No.2 stated above is applicable to the project. Hence, the proponent is directed to prepare appropriate reports as contained in the Para 2.

While complying with the specific aspects of the MoEF & CC directions as stated in the Para 2 above, the following steps should be followed:

Step 1: Enumerate the aspects of Violation:



- a) The proponent should enumerate the violations as applicable to the project.
- b) Furnish a description of each violation with quantitative and qualitative data.
- c) Violation categories are to be decided taking into consideration the stage at which the project execution stands.

Step 2: Ecological Damage Assessment:

- a) For each aspect of violation enumerated in step (1), identify the resultant environmental damage that may have been caused.
- b) Furnish a description of the environmental damages with quantitative and qualitative data.

Step 3: Remediation Plan:

- a) For the Environmental damage(s) identified in the step (2) above, prepare the remediation plan for the each or combination of damages.
- b) The remediation plan should essentially consists of problem statement, target to be achieved (quantity), standards, technology/procedure for remediation, equipment and machinery to be used, time schedule and remediation cost(direct and indirect cost, capital as well as O&M costs).

**SECTION B**

- 1. Natural resource Augmentation:

a) The resources that should be considered for augmentation should essentially consist of land, biota, air, water and other resources as applicable.

b) Proponent may choose one or more of the resource augmentation as applicable and provide a description of the augmentation proposal in detail for each resource.

c) The proponent should also furnish the cost for each augmentation scheme.

## 2. Community resource Augmentation:

a) The proponent should prepare a plan of action for addressing the needs of the community in terms of resources in the sectors of education, health and sports primarily and other such resources as applicable to the community in the vicinity of the project.

b) The community resource augmentation plan should consist of rehabilitation of houses and people, budget allocation and time schedule for completing the activity.

### SECTION C

The proponent should prepare content for the ecological damage assessment, remediation plan, natural resource augmentation and community resource augmentation separately in a chapter and include in the EIA / EMP report.

### SECTION D

a) After the appraisal of the EIA / EMP report submitted by the proponent, the SEAC will make a judgement of the quality of the content in the EIA / EMP report specifically with reference to the

chapter covering the ecological damage assessment, remediation plan, natural resource augmentation and community resource augmentation.

- b) In the judgement of SEAC, if the quality of the content in the chapter is not satisfactory, the SEAC may direct the proponent to further revise the chapter and resubmit the EIA/EMP report.
- c) If SEAC concludes that the technical part is satisfactory and the costing aspect is not satisfactory then the SEAC may revert to legal provisions, MoEF & CC guidelines and similar expert committee recommendations for finalizing the cost aspects or the SEAC may use its own expertise and experience in finalizing the cost.

#### **SECTION E**

The proponent is directed to furnish data as per the questionnaire appended. It will help the SEAC in arriving the ecological damage and the associated cost.

#### **SECTION F**

In compliance with the Supreme Court order stated in MoEF & CC letter F.No. 3-50/2017 IA.III-pt dated: 05<sup>th</sup> January 2018, the proponent is required to submit the Affidavit/ No Objection Certificate obtained from the Department of Geology and Mining, Government of Tamil Nadu regarding payment of 100% cost of illegally mined mineral under section 21(5) of MMDR Act 1957 which would account for mining operations in violation of the following:



- a) Without Environmental Clearance (EC), or in excess of the quantity approved in EC
- b) Without Consent to Operate (CTO) or in excess of the quantity approved in CTO and
- c) Without mining plan/scheme of mining or in excess of the quantity approved in mining plan / scheme of mining
- d) Without Forest Clearance
- e) Any other violation

List out the details of reserve forest and wildlife sanctuary nearby the project site (the details should also include other districts which are nearby the project site) and also furnish the detail of distance between the project site and reserve forests/wildlife sanctuary.

Whether the project site attracts the HACA clearance? If so, also furnish the HACA clearance for the mining from the competent authority.

The proponent is instructed to fill in the form contained in Annexure-1 to work out the details of the ecological damage during the violation period.

#### Annexure-1

##### Additional information for considering EC for mining projects

S.No.	Details to be provided	Page no.
1)	Name of the project lease & owner	
2)	Lease Extent	
3)	Lease Validity	

4)	Approved Mining Plan/Scheme - Review						
	a) Specify whether DSR is provided ( applicable in case of minor minerals only)						
5)	Specify - Nature and type of violation						
	I. Without EC or in excess of quantity approved in EC						
	II. Without CTO or in excess of quantity approved in CTO						
	III. Without mining plan/Scheme of mining or in excess of quantity approved in Mining plan/Scheme of mining.						
	IV. Without forest Clearance						
	V. Any other violation						
6)	Violation period						
	I. Number of months						
	II. Number of Years						
7)	Exploitation/Excavation quantity- Reserves proved through exploration by drilling						
8)	Give details of production from the date of execution of the lease deed / since 1994						
	Year and quantity	2010-2011*		2011-2012*		2012-2013*	
		Planned	Planned	Planned	Actual	Planned	Actual
	Ore/mineral/granite						

	blocks (tonnes)							
	Waste (tonnes/cu.m)							
	* year of mining operation							
9)	Quantity mined out during the violation period & if, yes indicate the violated quantity, in term of % of consented quantity.							
	Year and quantity mined out during the violation period	2010-2011		2011-2012		2012-2013		
		Planned	Planned	Planned	Actual	Planned	Actual	
	Ore/mineral/gr anite blocks (tonnes)							
	Waste excavation (tonnes/cu.m)							
10)	State illegal mining/encroachments outside the lease boundary? Percentage of quantity mined out outside the lease boundary.							
11)	Method of working							
	I. Category type: (a) Mechanised (b) Semi - Mechanised (c) Manual							
	II. Construction and design of haul roads							
	a) Dimension as per the statutory requirements which were followed or otherwise							



	<p>b) Number of vehicles plying on the main haul roads inside the mine and the approach road to the pit located outside the mine, if any.</p>	
	<p>c) Are any measures taken to minimise fugitive dust generated from mine haul roads? Does it comply with the CPCB/PCB Guidelines?</p>	
	<p>d) Is there a possibility that air pollutants emitted from the project area that do not comply with air quality standards as per CPCB/PCB?</p>	
12)	<p><b>Mechanized / Semi - Mechanized Method of Mining</b></p> <p>(i) Number of loading / excavating equipments as per approved mining plan and capacity.</p> <p>(ii) Number of loading / excavating equipments actually being deployed and capacity.</p> <p>(iii) Type and number of transporting equipments.</p> <p>(iv) Type of transporting system used - (a) trucks (b) Any other mode</p> <p>(v) Capacity and Number of trucks used as per approved mining plan</p> <p>(vi) Capacity and Number of trucks used actually in the mine.</p> <p>(vii) Number and capacity of loading equipments and trucks used not in line with approved mining plan.</p>	

			Capacity (m <sup>3</sup> )	Number s		
		Excavator				
		Trucks				
	(viii) Impact of excess deployment of loading equipments (excavators) and transporting equipments on environment. (a) Air pollutants (b) Water Quality (c) Land Quality (d) Noise level					
	(ix) Does the deployment of loading equipments (excavators) and trucks fulfil the statutory requirements as per MMR 1961, with respect to the site conditions?					
13)	Method of Rock Breaking/Material preparation for the excavation:					
	(i) Methodology adopted -					
	a) Drilling and blasting					
	b) Rock breakers					
	c) Rippers					
	d) Surface miners					
	e) Direct mucking by excavators					
	f) Manual means					
	g) Any other methods or combination of above					
	(ii) In case of drilling and blasting method:					
	(a) Type of blasting: short hole or deep hole					

	(b) Whether controlled blasting technique adopted? If yes, specify the technique with details of study, year of study	
	(c) Impacts due to blasting defined as per the studies, if any carried out previously as indicated	
	(d) Dust pollution	
	(e) Noise level (dB(A))	
	(f) Ground vibration studies and Fly rock projection	
	(iii) Impact of preparation of Ore and waste on environment-	
	a) Air Pollution	
	b) Noise Pollution	
	c) Water Pollution	
	d) Safety standards	
	e) Traffic density	
	f) Road Condition (vulnerability)	
	14) Construction and Design of Dumps.	
	a) Place/Location	
	b) Approach to Dump from the mine distance and safety standards.	
	c) Area of extent occupied	
	d) Dimension of Dump and No. of terrace with heights (benches)	



	e) Vegetation covered ; If yes, specify the details of plants	
15)	Construction and Design of Waste Dumps	
	(i) Numbers and Location of Dumps as per approved Mining Plan	
	(ii) Specify whether reject dumps are located within or outside mining lease	
	(iii) Area occupied in excess of the approval mining plan.	
	(iv) Dimension of Terracing, Light, shapes, etc., Dump as per approved Mining Plan	
	(v) Fresh/Existing Dimension Height, shape, width. etc., of Dumps in the mine.	
	(vi) Volume/Quantity added to Waste/Dump during the violated period.	
	(vii) Approach to the Dump-Dimension, distance.	
	(viii) Number of and type of equipments deployed in Dump.	
	(ix) Provision of Garland drains around the Dumps.	
	(x) Any vegetation made on the slopes.	
	(xi) Provision of safety standards.	
	(xii) Impact of Waste/Dumps on environment.	
	a) Air pollution	
	b) Water pollution	
	c) Dust pollution	
	d) Noise pollution	
	(xiii) Terracing	



16)	Construction and Design of Ore and sub grade ore/mineral Stacks:-	
	(i) Number and Location of Ore stacks.	
	(ii) Dimension of Ore/sub grade Stacks as per the Approved Mining Plan	
	(iii) Volume/Quantity added during the violation period.	
	(iv) Any Screening plant or any other loading equipment engaged during the violated period.	
	(v) Approach to Ore / sub grade stack -Distance, hazards.	
	(vi) Safety standards adopted while operation.	
	(vii) Impact of ore/sub grade on environment	
	a. Air pollution	
	b. Water pollution	
	c. Dust pollution	
	d. Noise pollution	
17)	Mine Pit Water	
	(i) Intersection of Ground water table, specify the measures taken.	
	(ii) Ground water table as per hydro geological Studies (Pumping test).	
	(iii) Provision of Garland drains around pit and dumps	
	(iv) Water pollution	
	(v) Management of mine water.	
	(vi) Ultimate pit limit, w.r.t Ground water intersection and management of drainage of ground water.	

18)	Diversion of General Drainage/River/Nallah course for mining	
19)	Clearing of vegetation before the commencement of mining operation- Number of trees (species wise)	
20)	Man Power	
	(a) Statutory management	
	(b) Regular (Non -statutory) Manpower	
21)	Occupational Health and Safety.	
	(a) Periodical monitoring of health standards of persons employed as per Mine Act, 1952.	
	(b) Failure to inform statutory bodies periodically, if any	
22)	Population (Nearby Habitation)	
	(i) Population/Significant Population/Dense Population within the buffer zone of 10 Kms.	
	(ii) People displacement due to mining activities	
	(iii) Location/ Existence of habitation near the river or any other historical/sensitive/ forest distance.	
	(iv) Impact of mining on Surrounding and habitation-Air, Water, Noise, Pollution.	
	(v) Socio Economic aspects of mining.	
23)	CSR	
	(a) Field ground Activities or studies. Actual amount spent towards CSR and the future proposal.	
24)	NOC from DMG for quantity clarification in respect of settlement of all the amount payable against identified violation.	

25)	Conceptual post mining land use/restoration	
26)	Litigation/court cases, if any pending	
27)	Disaster management plan for the mine	

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