



F.No.23-203/2018-IA.III(V)
Government of India
Ministry of Environment, Forest and Climate Change
Impact Assessment Division



Indira Paryavaran Bhawan
Jor Bagh Road, Aliganj
New Delhi-110 003

Date: 9th April, 2021

To

M/s. Tamil Nadu Minerals Limited
No.31, Kamarajar Salai, Chepauk
Chennai- 600 005, Tamil Nadu

Sub: Mining of 1003 m³/annum of black granite in ML Area 166.920 Ha, located at Survey No. 917(Part) & 921(Part), village Mahimandalam, Katpadi Taluk, District Vellore, Tamil Nadu by M/s Tamil Nadu Minerals Limited - Environmental Clearance- reg.

Sir,

This has reference to proposal no.IA/TN/MIN/112499/2017 for environmental clearance for mining of 1003 m³/annum of black granite in ML area 166.920 ha located at S.No.917(Part) & 921(Part), village Mahimandalam, Katpadi Taluk, District Vellore, Tamil Nadu by M/s Tamil Nadu Minerals Limited (TAMIN). TAMIN is operating Black granite quarry at survey No. 917 part and 921 part, Mahimandalam Village, Katpadi Taluk, Vellore District, TamilNadu for the production capacity of 1003 m³ over an extent of 166.92 ha. This proposal comes under Category A, as the mining lease area is more than 100 ha.

2. The entire mine lease area of 166.92 ha is govt. poramboke land. The project site is comes under Toposheet No.57 P1, 57 P/5, 57 O/4 and 57 O/8 and lies between the GPS coordinates of 13°04'56.04"N to 13°05'32.85"N and 79°12'04.53"E to 79°13'58.55"E. The topography of the lease area is hilly terrain. The elevation of the lease area is varies from 240 m to 340 m above MSL.

3. The proposal for grant of ToR was considered in the 33rd meeting of the reconstituted EAC (non-coalmining) held on 15th may, 2015, in the 11th EAC meeting proposal involving in Violation category with Exemption of Public Hearing and one season baseline studies held on 01.08.2018. The proposal was considered in the 36th EAC meeting held on 22.09.2020 and deferred for want of additional information.

M/s Tamil Nadu Minerals Limited, Tamil Nadu

4. The project site is connected through Ramapuram road which is located at a distance of 0.19 km in south direction and which is connecting SH - 124 at a distance of 4.06 km (E). The nearest railway station is Ramapuram railway station about 2.57km (WNW) from the Quarry. Chittoor - Walajapet Road (NH4) is located approximately 4.77Km (SW).

5. PP submitted that, quarry lease was granted over an extent of 373.36.5 ha in S.F.No.917 part and 927 part of Mahimandalam village, Katpadi Taluk, Vellore District, Tamil Nadu for 20 years vide G.O. MS. No. 300 Industries (MME- I) Department, dated 26.06.1991, valid up to 22.11.2001 and subsequently in the year 1998 and 2002, TAMIN has surrendered an extent of 126.36.5 ha, and 80.08 ha respectively, accordingly scheme of mining for 166.92 ha with production capacity of 1003 m³ was prepared and submitted commissioner of geology and mining in 2012. By taking into consideration of deemed approval of the above Mining Scheme-I & II under Rule 18(5) of GCDR, 1999, the present Scheme of Mining-III for this area pertaining to the years 2016-2017 to 2020-2021 is prepared and submitted under Rule 18 of GCDR 1999 and approved by Director of Geology and Mining Letter RC. No. 2675/MM4/2020 dated 03.07.2020.

6. PP submitted that, opencast semi-mechanized method shall be used for quarrying for 1003 m³ per annum.

7. PP submitted that, land use pattern of the lease area as per approved mine plan dated 16.11.2001 is as follows:

S.No.	Particulars	Extent in ha	End of mine life
1	Mine Pit area	8.86	53.0
2	Road	1.46	4.06
3	Afforestation	1.00	21.75
4	Office Building	0.75	-
5	Existing Waste Dump	5.0	2.25
6	Proposed Waste Dump	3.11	72.84
7	Unmined area	146.74	13.02
Total Mine Lease area		166.92	166.92

8. Mining Plan with mine closure plan was approved by Director of Geology and Mining Letter RC.No.14624/MM2/2001 dated 16.11.2001 and was valid up to 2006. Scheme of mining-I vide Letter No.8301/ML3/2007 dated.17.04.2007 (deemed to be approved), Scheme of Mining-II Letter No.2366/ML2/2012 dated 21.02.2012 (deemed to be approved) and Scheme of mining III vide letter No.2675/MM4/2020 dated 03.07.2020.

9. PP submitted that the thickness of weathered zone varies from less than a meter to about 15 m in the area depending on the topography. Potential aquifer zones are also developed in these rocks by fractures persisting to depths, particularly along lineaments and their inter sections. The depth of dug wells in crystalline formations

varies from 8 – 19.5 m BGL. Fracture zones have been encountered in the well down to a depth of 116 m bgl in the borehole drilled by CGWB. The nearest river is Ponnai River is about 4.18 km towards E direction. The thickness of alluvium along the course of Palar River ranges from 8 – 12 m.

10. PP submitted that the Total geological reserve is 86, 14,000m³ , Mineable reserve is 84, 19,563 m³.

11. PP submitted that the total estimated water requirement is 12.0 KLD and shall be collected from panchayat. The thickness of weathered zone varies from less than a meter to about 15 m in the area depending on the topography. Potential aquifer zones are also developed in these rocks by fractures persisting to depths, particularly along lineaments and their inter sections. The depth of dug wells in crystalline formations varies from 8 – 19.5 m BGL. Fracture zones have been encountered in the well down to a depth of 116 m BGL in the borehole drilled by CGWB.

12. PP submitted that the thickness of alluvium along the course of Palar River ranges from 8 – 12 m. Maximum proposed mine depth – 25 m above Ground level. Due to less transmissivity, hydraulic discontinuity, occurrence of saturated water table mostly beyond 116m, no intersection of ground water table is envisaged.

13. PP submitted that the ambient air quality seasonal data: Monitoring was carried out during Post Monsoon season (December 2018 to February 2019). All monitored values were found to be well within the prescribed limits.

14. PP submitted that the existing dump area is 5.0 ha and proposed waste dump area in the beginning of scheme III is 3.11 ha and during end of the life of the mine is 75.09 ha. The unsold blocks are kept within the boundary on the country rock area. The dumps will be maintained not exceeding 5m height and the angle of slope of dumps will be at 45° from horizontal.

Details of O.B	
External OB dumps	: Nil
No of OB dumps	: Single
Area of dump area	: 75.09 ha (Within the lease area)
Height of each dump	: 5.0 m
Quantity (in MCm) of OB in each dump	: -
Year of back filling	: No back filling
No. of OB dumps reclaimed	: Nil
If garland drains and settlement facility for runoff created	: Nil
Whether runoff water being utilized	: Yes
Details of Internal Dumps	
Number of internal dumps	: Nil
Area of each dump	: 5.0 ha
Height of each dump	: 5m height and the angle of slope of dumps will be at 45°

Quantity of wastes generation	:	150419m ³ . Proposed during SOM-III: 2016-2017 to 2020-2021) No backfilling envisaged now
Utilization potential of wastes		
Within the mines	:	75.09 ha
Outside mines	:	Nil
Efforts made by proponent	:	Nil

15. The project proponent informed that there are no Schedule I species in the mine lease area.

16. The project proponent submitted that the total capital Cost is Rs. 100 lakhs, CER cost is Rs.2.0 Lakhs (Since it is a violation project 2% of the project cost is considered for CER and Cost for implementing EMP is Rs. 20.45 Lakhs (18.0 Lakhs Capital and 2.45 Lakhs for Recurring cost).

17. Details of villages/habitation in mine lease area:

S.No.	Name of the Villages	Approximate distance & direction from project site	Population (Census 2011)
1	Bodinattam village (in m)	56 (S)	200
2	Ammavaripalli(in Km)	1.35 (SE)	1000
3	Perumalkuppam (in Km)	1.89 (NE)	1300
4	Vallimalai (in Km)	3.7 (NE)	1000

18. Details of transportation of mineral:

In pit	:	by Tippers
Surface to siding	:	NA
Siding to loading	:	NA
Quantity being transported by Road/Rail/conveyer /ropeway	:	by road
Proposed change in transportation means if any, give details	:	NA

19. Details of reclamation: Afforestation shall be done covering an area of 21.75 ha at the end of mining and the density of tree plantation (in no of plants) is 32625.

20. The project proponent informed that there are no court cases or litigations against the project.

21. Details of actual production vis-à-vis sanctioned capacity since the inception of mine since 1993-94: Quarry is in operations without EC from 1995-96 to 2016-17. Now the

proposal is applied for getting Environmental Clearance and year wise production since year 1995 for black granite are shown below in tones:

Year	Proposed	Actual
	ROM	ROM
1995-1996	0	643
1996-1997	0	0
1997-1998	0	5183
1998-1999	0	13078
1999-2000	0	17266
2000-2001	0	12993
2001-2002	37590	15977
2002-2003	36432	25985
2003-2004	37944	18128
2004-2005	37080	13489
2005-2006	37944	15301
2006-2007	26880	16733
2007-2008	26640	15333
2008-2009	26640	8200
2009-2010	26880	23433
2010-2011	26880	39933
2011-2012	33435	24267
2012-2013	33301	29133
2013-2014	33419	25,167
2014-2015	33321	11333
2015-2016	33409	14933
2016-2017	33,386	30267
2017-2018	31,373	0
2018-2019	33,432	0
2019-2020	33,415	0
2020-2021	33,430	0

22. The public hearing for this project was conducted on 02.12.2016 (11.00 A.M) at Sri Srinivasan Marriage Hall, 264, Thavapeedam Road, Vallimalai Post, Katpadi Taluk, Vellore District. Following were present.

Thiru.K. Manivannan District Revenue Officer, Vellore District.
 Thiru.M. Pannirselvam District Environmental Engineer
 Thiru. E. Ganesan Deputy Manager, M/s. TamilNadu Minerals Ltd.,
 Thiru. K. Sakthivel Manager, M/s. TamilNadu Minerals Ltd.,
 And Public

Out of 70 public participants, 7 participants were raised questions and their views and reply by proponent were recorded as minutes of the public hearing.

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 M/s.Tamil Nadu Minerals Limited, Tamil Nadu

23. Hubert Enviro Care Systems (P) Ltd. Chennai (NABET/EIA/1619/RA 0083 validity 29.09.2020) is EIA consultant for preparation of EIA/EMP report.

24. EAC in the 36th EAC meeting held on 21st -22nd September, 2020, deliberated on the information as presented and submitted by the PP. EAC further deliberated on the damage cost and remediation, NRAP and CRAP plan cost assessed by the PP. EAC also deliberated on the activities proposed under the plans. EAC after detailed deliberation deferred the proposal for want of following information:

1. Revised AAQ impact with and without control measures.
2. Revised damage assessment plan and accordingly the remediation and NRAP and CRAP considering specifically Air, Water, and Land use and also it should consider economic benefits accrual and savings on EMP during the violation period.
3. Proposed mitigation and management measures for the old dumps numbering 12.
4. Status of credible action.
5. Details of green belt/compensatory afforestation in the mining lease area based on impact prediction/mitigation measures, to be submitted.

25. Project proponent submitted the above information to the Ministry vide dated 07.12.2020. Accordingly, proposal was taken to the EAC for deliberation.

26. The project proponent along with the consultant made the detailed presentation before the EAC on the information sought in the earlier meeting. After detailed presentation by the PP, EAC noted that compliance submitted still needs to be revised on the damage assessment aspect for Air, Water etc, Mitigation and Management measures for the old dumps numbering, Details of green belt. EAC advised PP to rework on these aspects and submit to EAC members through email before finalization of minutes. As per the advice of EAC, PP reworked on the above issues and submitted the information to the EAC through email. EAC noted that PP has now revised the damage assessment by computing on annual basis for air, water and other attributes and has reworked the assessment of damage and has worked out the Remediation cost, natural and community resources augmentation plan apart from 1% of the capital cost towards community development activity. Initially PP had submitted for a total amount of around 21.30 lakhs and now with the due corrections as suggested by us, the total amount towards RP, NRAP, CRAP submitted is now 61.40 lakhs.

27. The EAC in its meeting held on 31st December, 2020 after detailed deliberation on the information submitted by the PP (EIA/EMP report, FH issues, Compliance report, Form 2, Additional information, Annexures etc), recommended the proposal for grant of Environmental Clearance to Tamil Nadu Minerals Limited for the production capacity of 1003 m³ over an extent of 166.92 Ha, subject to the compliance of following Specific conditions in addition to all Standard conditions applicable for such projects.

28. The Ministry has examined the proposal in accordance with the Environmental Impact Assessment Notification, 2006 and further amendments thereto; and after accepting the recommendation of EAC in its meeting held on 31st December, 2020 hereby decided to accord the environmental clearance under the provisions thereof to the above mentioned proposal for mining of 1003 m³/annum of black granite in ML area

166.920 ha located at Survey No. 917(Part) & 921(Part), village Mahimandalam, Katpadi Taluk, District Vellore, Tamil Nadu by M/s Tamil Nadu Minerals Limited with the following Specific conditions and Standard conditions subject to compliance of the followings terms and conditions and environmental safeguards mentioned below:

A. Specific conditions

- i. EAC recommended for an amount of Rs.61.40 lakhs towards Remediation plan and Natural and Community Resource Augmentation plan to be spent within a span of three years. The details of Remediation plan, Natural resource Augmentation plan and Community Resource Augmentation plan with budgetary provision are mention below:

S.No.	Activity	Remediation plan proposed Remediation Measures	Cost Allocation (INR)
1	Land Environment	Developing greenbelt at Mahimandalam village and Bodinatham village	<ul style="list-style-type: none"> • 200 No. of Trees (Each village 100 Nos & Cost of Plant 500/-) =1,00,000 (Additional 1500 Nos are also planned under Greenbelt compensation at Mahimandalam, Bodinatham & Vallimalai villages cost will be 750000 lakhs will be spend under EMP)
		Awareness among Mahimandalam and Bodinatham villages in the neighbourhood shall be provided for collection and segregation of solid waste.	For printing & distribution of leaflets =10,000/-
		Dispensing of knowledge of proper segregation (degradable and non-degradable) at source. • Waste collection centre shall be provided in villages	<ul style="list-style-type: none"> • Waste segregation awareness programmes (one time) =10,000/- • 2 bins for 3 villages (1 bin for each) (Mahimandalam, Bodinatham & Vellamalai villages) 3 x 40000 = 1,20,000/-
Total Cost of Remediation Measures for Land Environment Sub Total 2,40,000/-			
2	Air Environment	Suppression of dust by sprinkling of water through water tankers on haul roads, and dust deposited areas including	<ul style="list-style-type: none"> • Dust sprinkling system (Tractor with fabricated water storage tank along with Sprinkling arrangements) Refurbished Tractor (1No) Rs.

		neighbourhood's areas.	6,00,000/- Water Storage /tank Rs.50,000/- Maintenance per Year Rs. 1,00,000/- = 7,50,000/-
		Plantation / Provision of Green Belt development in nearby villages.	<ul style="list-style-type: none"> • Already considered in Land Environment • (200 Nos for Mahimandalam village and Bodinatham village under Remediation measures and 1500 Nos of trees under EMP(Greenbelt compensation)
		<ul style="list-style-type: none"> • Plantation of trees at SH24 (2 sides of the road & 4 km length) which is located at ~4 km (E) collaboration of NHA/Forest Dep't. • Monitoring of Ambient Air Quality (3 Samples, twice a year) in nearby villages (Mahimandalam and Bodinatham villages) 	<ul style="list-style-type: none"> • No. of trees 500 x 500/- (cost of each plant 500Nos) =2,50,000 • AAQ monitoring twice in a year for 2 villages (Bodinatham and Mahimandalam villages) <p>AAQ Monitoring 2 times in a Year/ for 2 Villages. Each Monitoring cost: 5000/- = 40,000</p>
		<ul style="list-style-type: none"> • Health camps for neighbourhoods (Mahimandalam and Bodinatham villages) are considered in point S. No.7 	Already considered Each General Health camp= 20,000/- per Village (2 Nos Mahimandalam Village and Bodinatham Village)
Total Cost of Remediation Measures for Air Environment Sub Total 10,40,000/-			
3	Water Environment		
	a) Surface Water	<ul style="list-style-type: none"> • Maintenance of existing garland/ and diversion to nearby water bodies located at Bodinatham and Mahimandalam Village. • Refurbishment of abandoned public well (Bodinatham and Mahimandalam Village) 	<p>For each village for Garlands/diversion of rainwater to nearby water bodies 1,00,000/- (1,00,000 x 2 Villages) = 2,00,000/-</p> <p>For each bore well 40,000/- Total 2 Nos of Bore wells(40,000 x 2 Nos) =80,000/</p>
	b) Ground Water	<ul style="list-style-type: none"> • Construction of recharge pits for (Mahimandalam village and Bodinatham village and Vellamalai 	5 Nos of pits for Each village (Each pit cost 10,000/-) = 1,50,000/-

		village)	
Total Cost of Remediation Measures for Water Environment Sub Total 4,30,000/-			
4	Noise & Vibration Environment	<ul style="list-style-type: none"> Controlled blasting & Drilling methods Providing in-built mechanism for reducing sound emissions 	<ul style="list-style-type: none"> Rs. 5,000/Month x 12 Months. = 60,000/
		<ul style="list-style-type: none"> Deaf and Dumb specialist Health camps and primary treatment at Mahimandalam and Bodinatham village 	<ul style="list-style-type: none"> 2 Deaf and Dumb Health Camps for 2 villages (2 x 25,000). = 50,000/-
Total Cost of Remediation Measures for Noise & Vibration Sub Total 1,10,000/			
5	Ecological Environment	<ul style="list-style-type: none"> Compensatory additional plantation outside the mine lease 	200 Nos for Mahimandalam village and Bodinatham village under Remediation measures already considered Land Environment and 1500 Nos of trees under EMP(7,50,000/-) as Greenbelt compensation.
		<ul style="list-style-type: none"> Development of green belt along the boundary of water bodies away from the lease boundary 	
		<ul style="list-style-type: none"> Avenue plantation on external road 	Already considered in air environment (Plantation of trees at SH24 (2 sides of the road & 4 km length) which is located at ~4 km (E) collaboration of NHAI/Forest Department) No. of trees 500 x 500/- (cost of each plant 500Nos=2, 50,000)
		<ul style="list-style-type: none"> Distribution of tree seedling to peripheral villagers preferably native plants 	=50,000/-
Total Cost of Remediation Measures for Ecological Environment Sub Total 50,000/			
6	Socio-Economic Environment	<ul style="list-style-type: none"> Providing Health Camps to community. 	Health camps are considered in above section Air Environment. (i.e. Already considered Each General Health camp= 20,000/- per Village (2 Nos Mahimandalam Village and Bodinatham Village))
		<ul style="list-style-type: none"> Provision of ambulance for transportation of injured labour 	Ambulance is already available at site.

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		<ul style="list-style-type: none"> Community based rehabilitation of differently abled persons in Mahimandalam village and Bodinatham village 	Each Village = 25000/- (2 x 25,000) = 50,000/-
		<ul style="list-style-type: none"> Solar street lamps to community (Bodinatham villages) 	Solar street lamps installation for Bodinatham village 10 Nos (Each Solar LED street lamp with pole = 10000/-). = 1,00,000
Total Cost of Remediation Measures for Socio Economic			Sub Total 1,50,000/-
7	Occupational Health and safety	<ul style="list-style-type: none"> General Health camps for neighbourhoods (Mahimandalam and Bodinatham villages) 	Each General Health camp= 20,000/- per Village (2 Nos Mahimandalam Village and Bodinatham Village) 2 x 20000/- =40,000/-
		<ul style="list-style-type: none"> Self-employment training programme to educated persons. neighbourhood villages (Mahimandalam and Bodinatham village) 	Self-employment training programme for Mahimandalam and Bodinatham village educated persons. 2 Nos Programmes/Year/per village (Each Programme 25,000/-) 1,00,000/-
Total Cost of Remediation Measures for Occupational Health & Safety			Sub Total 1,40,000/-
Grand Total(INR)			21,60,000/-

Natural Resources Augmentation Plan and Budgetary provisions

S.No.	Activity	Year wise Implementation and Budgetary provision (INR)		Total Cost (INR)
		Year-1(2021)	Year-2(2022)	
1	Development of Greenbelt at connectivity road side of Chalicheemala Palli village (500 Nos of trees x 500/-)	--	2,50,000	2,50,000
2	Renovation/Desilting of water bodies located in Mahimandalam village, Bodinatham village and Vellamalai village(3 Water	--	3,00,000	3,00,000

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	bodies each 1,00,000/-)			
3	Rainwater conservation measures Roof top rain water harvesting implantation at Govt. Schools for 3 Villages (Mahimandalam village Bodinatham village and Vellamalai village, (Each Harvesting System=50,000/-)	1,50,000	--	1,50,000
Total				7,00,000

Community Resource Augmentation Plan and Budgetary Provisions

S.No.	Activity	Year wise Implementation and Budgetary provision (INR)		Total Cost (INR)
		Year-1(2021)	Year-2(2022)	
1	Construction/Renovation of Mahimandalam & Bodinatham Village Main connectivity road.	2,00,000	2,00,000	4,00,000
2	Construction of Sanitation facilities (5 no. of Toilets for each village) for Govt. primary school at Bodinatham village & Mahimandalam Village.	2,00,000	2,00,000	4,00,000
3	Technical skill development programmes to the children of farmers/poor people (2 Programmes/Year/2 villages (Bodinatham village & Mahimandalam Village (Each programme 20000/-).	80,000	80,000	1,60,000
4	Solar lights with pole 5Nos/Villages(Each unit 20,000)	2,00,000	2,00,000	4,00,000
5	Smart Screen (CPU&Monitor-80,000/-) for Primary and Secondary Govt schools for Online Classes (Bodinatham village & Mahimandalam Village) 2 Screen/per village	1,60,000	1,60,000	3,20,000
6	Sanitary Napkin Dispenser/Vending Machine for Primary and Secondary Govt schools. (2 Nos/Villages) each unit: 20000/-.	60,000	60,000	1,20,000
7	Providing trolleys to Local Panchayat for transport of Municipal Solid Waste for 2	1,00,000	1,00,000	2,00,000

	villages (Each Rs. 50,000/-).			
8	Providing Medical equipment for primary health centre for 2 Villages (Each Rs. 50,000/-).	1,00,000	1,00,000	2,00,000
9	Common Community Hall for Bodinatham village & Mahimandalam Village	-	10,80,000	10,80,000
			Total	32,80,000

Summary

S.No.	Name of the area	Budget (INR)
1	Estimation cost for remediation plan based on the Damage Assessment due to violation	21,60,000
2	Community Resource Augmentation Plan	32,80,000
3	Natural Resource Augmentation Plan	7,00,000
Grand total		61,40,000

- ii. Remediation plan shall be completed in 3 years whereas bank guarantee shall be for 5 years. The bank guarantee will be released after successful implementation of the remediation plan and Natural and Community Resource Augmentation Plan, and after the recommendation by regional office of the Ministry, Expert Appraisal Committee and approval of the Regulatory Authority.
- iii. Approval/permission of the CGWA/SGWA shall be obtained before drawing ground water for the project activities, if applicable. State Pollution Control Board (SPCB) concerned shall not issue Consent to Operate (CTO) till the project proponent obtains such permission.
- iv. Wild life Conservation plan for Schedule I species, if any, shall be prepared and implemented with the approval of the concerned CWLW.
- v. The Environmental Clearance will not be operational till such time the Project Proponent complies with all the statutory requirements and 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 and Ors.
- vi. State Government concerned shall ensure that mining operation shall not commence 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 the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.
- vii. Effective dust suppression system shall be adopted at the transportation site and in the other parts of the mining lease to arrest the fugitive dust emission.

- viii. Project proponent shall take necessary/ other clearances/permissions under various Acts and Rules if any, from the respective authorities / department.
- ix. The mining lease holder shall, after ceasing mining operations, under take re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to condition which is fit for growth of fodder, flora and fauna etc.
- x. Dump stability and reclamation shall be done pari passu with mining activity at railway siding, corridors, avenues, crushers etc.
- xi. Activities proposed under CER and concerned raised during public hearing shall be made part of EMP as per Ministrys OM dated 30.09.2020 and to be completed within three years.
- xii. Credible action to be initiated and Court case shall be filed by the concerned SPCB against the Project Proponent u/s 19 of the E(P) Act. 1986.
- xiii. The lease is valid upto 22/11/2022 and hence the EC will be valid upto that period.

B. Standard conditions

- I. **Statutory compliance**
 - (1) This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.
 - (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) This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEF&CC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project.

- (5) This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, if applicable to the Project.
- (6) Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate from the concerned State Pollution Control Board/Committee.
- (7) The PP shall adhere to the provision of the Mines Act, 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. PP shall adhere to various circulars issued by Directorate General Mines Safety (DGMS) and Indian Bureau of Mines from time to time.
- (8) The Project Proponent shall obtain consents from all the concerned land owners, before start of mining operations, as per the provisions of MMDR Act, 1957 and rules made there under in respect of lands which are not owned by it.
- (9) 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".
- (10) The Project Proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and from CGWA for withdrawal of ground water for the project.
- (11) 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.
- (12) 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.
- (13) 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.

- (4) The Project Proponent shall inform the MoEF&CC for any change in ownership of the mining lease, as per the provisions of the para 11 of EIA Notification, 2006 as amended from time to time.

II. Air quality monitoring and preservation

- (1) 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/PC/II, 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.
- (2) 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

- (1) 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.
- (2) Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision

for regular monitoring of water table in open dug well located in village should be incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.

- (3) 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 six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
- (4) 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 and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. 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.
- (5) 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 (TSS), 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.

- (6) 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.
- (7) 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.
- (8) 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

- (1) The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.
- (2) 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.
- (3) 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

- (1) The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter

burden and top soil etc.. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management, O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form to Short Term Permit (STP), Query license or any other name.

- (2) The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining & Geology as required under the Provision of the MMDR Act, 1957 and Rules/Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change for record and verification.
- (3) The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life 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

- (1) The Overburden (O.B.) 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 dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by D.G.M.S w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of top soil/OB dumps. The topsoil shall be used for land reclamation and plantation.
- (2) The reject/waste generated during the mining operations shall be stacked at earmarked waste dump site(s) only. The physical parameters of the waste dumps like height, width and angle of slope shall be governed as per the approved Mining Plan as per the guidelines/circulars issued by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of waste dumps.
- (3) The reclamation of waste dump sites shall be done in scientific manner as per the Approved Mining Plan cum Progressive Mine Closure Plan.

- (4) 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 geotextiles/ geo-membranes / clay liners / Bentonite etc. shall be undertaken for stabilization of the dump.
- (5) The Project Proponent shall carry out slope stability study in case the dump height is more than 30 meters. The slope stability report shall be submitted to concerned regional office of MoEF&CC.
- (6) 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.
- (7) 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.
- (8) The top soil, if any, shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines framed by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of dumps. The topsoil shall be used for land reclamation and plantation purpose.

VII. Transportation

- (1) 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.

- (2) 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

- (1) 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.
- (2) 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.
- (3) 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.

- (4) The Project Proponent shall undertake all precautionary measures for conservation and protection of endangered flora and fauna and Schedule-I species during mining operation. A Wildlife Conservation Plan shall be prepared for the same clearly delineating action to be taken for conservation of flora and fauna. The Plan shall be approved by Chief Wild Life Warden of the State Govt.
- (5) And implemented in consultation with the State Forest and Wildlife Department. A copy of Wildlife Conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry.

IX. Public hearing and human health issues

- (1) The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the workers engaged in the mining activities, as per the DGMS guidelines. The records shall be maintained properly. PP shall also carryout Occupational health check-ups in respect of workers which are having ailments like BP, diabetes, habitual smoking, etc. The check-ups shall be undertaken once in six months and necessary remedial/ preventive measures be taken. A status report on the same may be sent to MoEFCC Regional Office and DGMS on half-yearly basis.
- (2) The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers and nearby community. The proponent shall maintain accurate and systematic records of the HRA. The HRA for neighborhood has to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, Diarrhoea in children under five, respiratory infections due to bio mass cooking. The proponent shall also create awareness and educate the nearby community and workers for Sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and thereafter every five years.
- (3) The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest;

For Noise Audiometric; for Lead Exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Manganese (Mn) Estimation in Blood; For Inorganic Chromium- Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of the records including X-Ray. Only conventional X-Ray will be accepted for record purposes and not the digital one). X-Ray must meet ILO criteria (17 x14 inches and of good quality).

- (4) The Proponent shall maintained a record of performance indicators for workers which includes (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 -24.9, (b) the Final Chest X-Ray compared with the base line X-Ray should not show any capacities ,(c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one second (FEV1), Forced Vital Capacity (FVC), and the ratio) unless they are smokers which has to be adjusted, and the effect of age, (d) their hearing should not be affected. As a proof an Audiogram (first and last need to be presented), (e) they should not have developed any Persistent Back Pain, Neck Pain, and the movement of their Hip, Knee and other joints should have normal range of movement, (f) they should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office, MoEFCC annually along with details of the relief and compensation paid to workers having above indications.
- (5) The Project Proponent shall ensure that Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.
- (6) 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.

- (7) The activities proposed in Action plan prepared for addressing the issues raised during the Public Hearing shall be completed as per the budgetary provisions mentioned in the Action Plan and within the stipulated time frame. The Status Report on implementation of Action Plan shall be submitted to the concerned Regional Office of the Ministry along with District Administration.

X. Corporate Environment Responsibility (CER)

- (1) 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.
- (2) Project Proponent shall keep the funds earmarked for environmental protection measures in a separate account and refrain from diverting the same for other purposes. The Year wise expenditure of such funds should be reported to the MoEF&CC and its concerned Regional Office.

XI. Miscellaneous

- (1) 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.
- (2) 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.
- (3) The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MOEF&CC & its concerned Regional Office, Central Pollution Control Board and State Pollution Control Board.
- (4) 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, MoEF&CC.
- (5) The concerned Regional Office of the MoEF&CC 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.

29. The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.

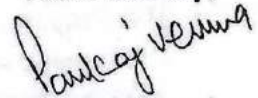
30. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above, may result in withdrawal of this clearance and attracts action under the provisions of Environment (Protection) Act, 1986.

31. 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 of Chhattisgarh and any other Court of Law relating to the subject matter.

32. 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.

33. This issues with the approval of Competent Authority.

Yours faithfully,

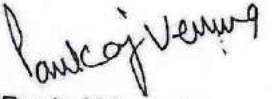


(Pankaj Verma)
Scientist E

Copy to

- (1) The Secretary, Ministry of Mines, Government of India Shastri Bhawan, New Delhi.
- (2) The Secretary, Department of Environment, Government of Tamil Nadu, Chennai.
- (3) The Secretary, Department of Forests, Government of Government of Tamil Nadu, Chennai
- (4) The Secretary, Department of Mines and Geology, Government of Tamil Nadu, Chennai
- (5) The Chief Conservator of Forests, Regional Office (C), Ministry of Env., Forest and Climate Change, Regional Office (SEZ), 1st and IInd Floor, Handloom Export Promotion Council, 34, Cathedral Garden Road, Nungambakkam, Chennai – 34.
- (6) The Chairman, Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai- 600 032, Tamil Nadu.
- (7) The Member Secretary, Central Pollution Control Board, Parivesh Bhavan, CBD cum- Office complex, East Arjun Nagar, New Delhi-1100032.

- (8) The Member Secretary, Central Ground Water Authority, 18/11, Jam Nagar House, Man Singh Road, New Delhi-110011.
- (9) The Controller General, Indian Bureau of Mines, Indira Bhavan, Civil Lines, Nagpur-440 001.
- (10) The District Collector, Vellore.
- (11) Guard File.
- (12) PARIVESH PORTAL.


(Pankaj Verma)
Scientist E

