State Expert Appraisal Committee (SEAC)

Minutes of 438th meeting of the State Expert Appraisal Committee (SEAC) held on 05.01.2024 (Friday) at SEIAA Conference Hall, 2nd Floor, Panagal Maligai, Saidapet, Chennai 600 015 for consideration of Mining projects.

Confirmation of Earlier Minutes

The minutes of the 437th SEAC meeting held on 04.01.2024 were circulated to the Members in advance and as there are no remarks, the Committee decided to confirm the minute.

Agenda No: 438-01

(File No: 10510/2023)

Proposed Black Granite (Dolerite) quarry lease over an extent of 2.02.5Ha at SF. No 652/2 of lyeppedu Village, Arakkonam Taluk, Vellore District, Tamil Nadu by Thiru. M.Mohameed Salarudeen - For Environmental Clearance.

(SIA/TN/MIN/449746/2023, Dated:26.10.2023)

The proposal was placed in 438th meeting of SEAC held on 05.01.2023. The details of the project furnished by the proponent are available in the website (parivesh.nic.in).

The SEAC noted the following:

- The Project Proponent, Thiru. M. Mohameed Salarudeen has applied for Environmental Clearance for the Proposed Black Granite (Dolerite) quarry lease over an extent of 2.02.5Ha at SF.No. 652/2 of lyeppedu Village, Arakkonam Taluk, Vellore District, Tamil Nadu.
- 2. The proposed quarry/activity is covered under Category "B2" of Item 1(a) "Mining Projects" of the Schedule to the EIA Notification, 2006.
- 3. Earlier EC Issued by DEIAA Vide Lr.No.DEIAA/TN/MIN/VLR, EC.No.85/2018

 Dated:10.12.2018. The Proposal shall undergo reappraisal process vide MoEF &

 CC OM dated 28.04.2023 which states that

"...the MoEF&CC has decided that all valid Environmental Clearances issued by the DEIAA shall be re-appraised through the SEACISEIAA in compliance to the order of this Tribunal in O.A. No.142 of 2022. In view

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of the above, it is hereby directed that all concerned SEACs shall reappraise the Environmental Clearances issued by the DEIAAs between 15.01.2016 and 13.09.2018 and all fresh Environmental Clearances in this regard shall be granted only by SEIAAs based on such appraisal...."

During the reappraisal of the project, based on the presentation & documents furnished by the PP, the SEAC noted the following features:

- The Koodalur Samathuvapuram habitation is situated at a distance of 90 m @ west direction from the lease boundary.
- The Koodalur Village is located at a distance of 130 m south & south-east direction in which a series of 100 houses with a population of more than 1000 people.
- There are considerable number of houses located nearby which will be disturbed due to the proposed quarrying activities in terms of dust, noise and water pollutions.
- The highly sensitive 'Government Higher Secondary School' is located at a distance of 280m which is existing within the danger zone as prescribed under MMR 1961.
- The quarrying operation is being carried out in an outcrop deposit, i.e., in the elevated ground condition, influenced by strong winds.
- 6. In the Approved Mining Plan submitted by the PP, it has been stated that the 'high explosives of Blasting Gelatine type along with Detonating Cord' initiation system are proposed in the quarrying operation which are acquainted with producing high level of ground vibration, dust and noise.
- 7. The quarry site is located in environmentally fragile area as a lake is situated at a distance of 520 m.
- 8. Further, SEAC observed the following legal provisions;

 The Rule 36 (1-A) of Tamil Nadu Minor Mineral Concession Rules, 1959 as amended appropriately later states:

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(a)"No lease shall be granted for quarrying stone within 300m from any inhabited site"

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(iii) "Inhabited site means a village site or town site or house site or layout approved by a local body or town or country or metropolitan planning authority where the said Body or Authority is located under a state and empowered to approve such an area as a house site or layout area....."

9. As per above order of NGT(PB), Ministry of Environment, Forest & Climate Change (MoEF&CC), Govt. of India vide Office Memorandum F.No. L-11011/175/2018-IA-II (M) dated 12-12- 2018, has directed to compliance the above direction of NGT. Besides this, NGT(PB) in its order dated 11.12.2018 in OA 520/2016 has suspended the activities of issuing EC by DEIAA/DEAC for minor minerals as per MOEF&CC Notification dated 15.1.2016 till a fresh notification is issued by ministry. Therefore, in compliance of MoEF&CC, GoI, OM dated 12-12-2018, it is decided that all mining cases of minor minerals having 0 to 5 ha area will be appraised by SEIAA-TN for Environmental clearance and hence all concerned Project Proponent shall apply in SEIAA-TN.

Hence, considering the above facts and environmental vulnerability of the site, the Committee decided not to recommend the proposal. Further, the SEAC has requested the SEIAA to invalidate the prior Environmental Clearance (EC) issued by the DEIAA dated 10.12.2018 with immediate effect.

Agenda No: 438-02

(File No: 10517/2023)

Proposed Rough stone quarry lease over an extent of 3.15.0Ha at SF.Nos. 659/1, 659/13, 659/14 & 659/15 of Athur Village, Manmangalam Taluk, Karur District, Tamil Nadu by Thiru.P.Kulandaisamy - For Environmental Clearance.

(SIA/TN/MIN/449847/2023, Dated:26.10.2023)

The proposal was placed in 438th meeting of SEAC held on 05.01.2024. The details of the project furnished by the proponent are available in the website (parivesh.nic.in).

The SEAC noted the following:

1. The Project Proponent, Thiru. P. Kulandaisamy has applied for Environmental Clearance for the Proposed Rough stone quarry lease over an extent of 3.15.0Ha

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at SF.Nos. 659/1, 659/13, 659/14 & 659/15 of Athur Village, Manmangalam Taluk, Karur District, Tamil Nadu.

- 2. The proposed quarry/activity is covered under Category "B2" of Item 1(a) "Mining Projects" of the Schedule to the EIA Notification, 2006.
- 3. Earlier EC Issued by SEIAA-TN Vide Lr.No.SEIAA-TN/F.No.5537/1(a)/ EC.No:3870/2016 dated:05.06.2017.

Based on the presentation and documents furnished by the project proponent, SEAC decided to call for the following additional details.

- 1. The PP shall submit Certified Compliance Report obtained from the office of the concerned DEE/TNPCB (or) IRO, MoEF & CC, Chennai and the PP shall furnish appropriate mitigating measures for the non-compliance items, if any.
- 2. The PP shall furnish a letter obtained from the concerned AD (Mines) and it shall include the following:
 - (i) Existence of boundary pillars with its coordinates.
 - (ii) Original pit dimension
 - (iii) Quantity achieved Vs EC Approved Quantity
 - (iv) Balance Quantity as per Mineable Reserve calculated.
 - (v) Mined out Depth as on date Vs EC Permitted depth
 - (vi) Details of illegal/illicit mining
 - (vii) Violation in the quarry during the past working.
 - (viii) Quantity of material mined out outside the mine lease area
 - (ix) Condition of Safety zone/benches existing currently.
- 3. The PP shall furnish the status of the green belt development and fencing installed details with a drone video images.

Hence, the proponent is advised to submit the additional documents/ information as sought above within a period of 30 days failing which your proposal will automatically get delisted from the PARIVESH portal.

Agenda No: 438-03 (File No: 10511/2023)

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Proposed Rough Stone and Gravel quarry over an extent of 4.95.0 Ha at S.F.No. 32(P) of Kadayamperumpathu Part-1 Village, Tenkasi Taluk, Tenkasi District, Tamil Nadu by Thiru. S. Shanavas – For Environmental Clearance. (SIA/TN/MIN/450530/2023, Dated: 01.11.2023)

The proposal was placed for appraisal in this 438th meeting of SEAC held on 05.01.2024. The details of the project furnished by the proponent are given in the website (parivesh.nic.in).

The SEAC noted the following:

- The project proponent, Thiru. S. Shanavas has applied for Environmental Clearance for the Proposed Rough Stone and Gravel quarry over an extent of 4.95.0 Ha at S.F.No. 32(P) of Kadayamperumpathu Part-1 Village, Tenkasi Taluk, Tenkasi District, Tamil Nadu.
- 2. The project/activity is covered under Category "B2" of Item 1(a) "Mining of Minerals Projects" of the Schedule to the EIA Notification, 2006.
- 3. The precise area communication was issued for the period of 10 years. The approved mining plan is for 5 Years. The annual peak production shall not exceed 1,67,960 m³ of Rough Stone and 41,952 m³ of Gravel for an ultimate depth of 32m (2m Gravel & 30m Rough Stone).

Based on the presentation and the documents furnished by the project proponent, SEAC noted that, the Kalakad Mundanthurai Tiger Reserve is located at a distance of 6.75 km and hence the PP shall obtain NBWL clearance, vide, MoEF&CC Office Memorandum no. FC-11/119/2020-FC dated 17th May, 2022.

On receipt of the above details, the SEAC would further deliberate on this project and decide the further course of action. Hence, the Proponent is advised to submit the additional documents/information as sought above within the period of 30 days failing which your proposal will automatically get delisted from the PARIVESH portal.

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Agenda No: 438-04

(File No: 10518/2023)

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CHAIRMAN SEAC- TN Proposed Rough Stone and Gravel quarry lease over an extent of 3.56.0 Ha at S.F.Nos. 6/4, 6/6C3(P), 11/1A, 11/2A1, 11/1B3, 11/2B1, 11/2B2, 11/2C1(P), 11/2C2, 11/3A1, 14/4A(P), 14/4B(P), 14/5A, 14/5B and 14/6 of Vadamavanthal Village, Vembakkam Taluk, Tiruvannamalai District, Tamil Nadu by Thiru. D. Nithyananthan – For Environmental Clearance. (SIA/TN/MIN/450714/2023, Dated: 31.10.2023)

The proposal was placed for appraisal in this 438th meeting of SEAC held on 05.01.2024. The details of the project furnished by the proponent are given in the website (parivesh.nic.in).

The SEAC noted the following:

- 1. The project proponent, Thiru. D. Nithyananthan has applied for Environmental Clearance for the Proposed Rough Stone and Gravel quarry lease over an extent of 3.56.0 Ha at S.F.Nos. 6/4, 6/6C3(P), 11/1A, 11/2A1, 11/1B3, 11/2B1, 11/2B2, 11/2C1(P), 11/2C2, 11/3A1, 14/4A(P), 14/4B(P), 14/5A, 14/5B and 14/6 of Vadamavanthal Village, Vembakkam Taluk, Tiruvannamalai District, Tamil Nadu.
- 2. The project/activity is covered under Category "B2" of Item 1(a) "Mining of Minerals Projects" of the Schedule to the EIA Notification, 2006.
- 3. The precise area communication was issued for the period of 10 years. The approved mining plan is for 5 Years. The annual peak production shall not exceed 51,540 m³ of Rough Stone (3rd year) and 32,500 m³ of Gravel (2nd year) for an ultimate depth of 42m below ground level (2m Gravel + 40m Rough Stone).
- 4. The salient features of the proposal are as follows:

	File No 10518 / 2023		10518 / 2023 Category			
SI. No		Salient Fea	atures of the Proposal			
1	Name of the	Name of the Owner/Firm		Thiru. D. Nithyanant S/o. K. Dhanchanam No.171, Gangaiyamn Venbakkam Village,	oorthy,	

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		Γ	Walajabad	d Taluk,				
			Kancheep	uram Distri	ict - 631 6	04.		
2	Type of quarrying (Ordinary		Rough Sto	one and Gr	avel			
	Stone/Sand/Granite/Limestone)		6/4, 6/6C3(P), 11/1A, 11/2A1, 11/1B3					
			6/4, 6/60	C3(P), 11/	IA. 11/2A	d, 11/1B3,		
3	S.F Nos. of the quarry site with	 :	11/2B1, 11/	/2B2, 11/2C	π(P), 11/20	C2, 11/3A1,		
	area break-up		14/4A(P),	14/4B(P),	14/5A, 1	14/5B and		
			14/6					
4	Village in which situated	:	Vadamava	anthal				
5	Taluk in which situated	:	Vembakka	am				
6	District in which situated	:	Tiruvanna	ımalai				
7	Extent of quarry (in ha.)	:	3.56.0 Ha					
8	Latitude & Longitude of all	:	12°46'38.37"N to 12°46'48.27"N					
	corners of the quarry site		79°38'24.90"E to 79°38'37.17"E					
9	Topo Sheet No.	:	57 – P/09					
10	Type of mining	:	Opencast Semi-Mechanized Mining					
	Life of Project	:	10 years					
11	Lease Period	:	10 years					
	Mining Plan Period	:	5 years					
	Mining Plan Details	ŀ	As per app	proved	As modi	fied by		
			Mining Pla	an	SEAC			
			Rough	Gravel	Rough	Gravel		
	Geological Resources m ³	:	Stone		Stone	0.0.0		
12	(RoM)		12,46,67	70,322	_	_		
			0 m³	m³				
			Rough	Gravel	Rough	Gravel		
	Minable Resources m³ (RoM)	 !	Stone		Stone			
	, , , , , , , , , , , , , , , , , , ,		4,11,265	55,174	-	A		
			m³	m³		111		

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	Annual Peak Production in m ³	:	Rough Stone 51,540 m ³	Gravel 32,500 m ³	Rough Stone	Gravel	
	Ultimate Depth in meters	:	42m below level (2m 40m Roug	Gravel +	-		
13	Depth of water table	;	57m belov	w ground l	evel		
14	Man Power requirement per day:	:	23 Nos.				
	Water requirement: 1. Drinking water		7.5 KLD 1.0 KLD				
15	2. Utilized water3. Dust suppression4. Green belt	3.5 KLD 3.0 KLD					
16	Power requirement	•	2,14,880 Liters of HSD				
	Precise area communication	_				2	
17		:	Na.Ka.No.207/Kanimam/2022, Dated:11.09.2023				
18	Mining Plan approved by Deputy Director, Department of G&M	•	Rc.No.207/Kanimam/2022, Dated:03.10.2023				
19	Department of G&M, Deputy Director 500m Cluster Letter	:	Rc.No.207/Kanimam/2022, Dated:03.10.2023				
20	VAO Certificate Regarding Structures within 300m Radius	:	Letter dated 07.10.2023				
21	Project Cost (excluding EMP cost)	:	Rs. 76,36,000/-				

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		:	Validity	30 years subject to the following upper limits.	
				Rough Stone	Gravel
22	EC Recommendation	:	Max Total RoM in m ³	the following upper limits. Rough Stone ax Total RoM in 2,57,1 55,174 00 m³ m³ natural Max RoM 51,540 32,500 m³ m³ 42m below ground level (2m Gravel + 40m Rough Stone) apital Cost - Rs. 38.79 lakhs	
		 :	Annual Max RoM in m ³		
		:	Ultimate Depth in mtrs	ground Gravel	level (2m + 40m
23	EMP cost (in Rs. Lakh).	:	,	Capital Cost - Rs. 38.79 lakhs Recurring Cost - Rs. 32.51 lakhs	
24	CER cost (in Rs. Lakh).	:	Rs. 10,00,000/-		

Based on the presentation and documents furnished by the project proponent. SEAC decided to recommend the proposal for the grant of Environmental Clearance for the annual peak production capacity of not exceeding 51,540 m³ of Rough Stone (3rd year) and 32,500 m³ of Gravel (2nd year) by maintaining the ultimate depth of mining upto 42m below ground level (2m Gravel + 40m Rough Stone) and subject to the standard conditions as per the Annexure 1 of this minutes & normal conditions stipulated by MOEF &CC, in addition to the following specific conditions:

- The prior Environmental Clearance granted for this mining project shall be valid
 for the project life including production value as laid down in the mining plan
 approved and renewed by competent authority, from time to time, subject to
 a maximum of thirty years, whichever is earlier, vide MoEF&CC Notification
 S.O. 1807(E) dated 12.04.2022.
- 2) The PP shall ensure that fencing and installation of garland drainage around the mine lease area with siltation tank which is directed towards the nearby

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- waterbodies/tanks, shall be completed before obtaining the CTO from the DEE/TNPCB.
- 3) The PP shall mark the DGPS reference pillars painted with blue & white colour indicating the safety barrier of 7.5 m to be left under the Rule 13 (1) of MCDR, 1988 within the lease boundary and protective bunds, before obtaining the CTO from the TNPCB.
- 4) The PP shall not employ any external agency for carrying out the blasting operation and he shall also install the temporary magazines approved by the concerned licensing authority before the execution of the lease, for storing the authorized explosives & detonators separately in accordance with the Explosive Rules, 2008.
- 5) Considering the village/highway roads are located within 400m from the lease boundary, the PP shall carry out the small scale blasting involving 30 to 40 holes in a round at a time with keeping the total aggregate explosive charge/round is limited to 2 kg only in accordance with the provisions of MMR 1961.
- 6) However, since the structures /village roads are situated at a distance of 380 m, the PP shall carry out the scientific studies within a period of one year from the commencement of quarrying operations with prior permission from the DMS/Chennai Region, to design the controlled blast parameters for reducing the blast-induced ground/air- vibrations and eliminating the fly rock from the blasting operations carried out in the quarry, by involving anyone of these reputed Research and Academic Institutions CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. A copy of such scientific study report shall be submitted to the SEIAA, MoEF, TNPCB, AD/Mines-DGM and DMS, Chennai as a part of Environmental Compliance without any deviation.
- 7) The PP shall furnish an affidavit indicating the Standard Operating Procedures (SoP) for carrying out the 'Best Mining Practices' in the areas of drilling, blasting excavation, transportation, and green belt development, in securing the safety

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- of the persons living within a radial distance of 500 m (danger zone) to the concerned AD (Mines) at the time of lease execution.
- 8) The PP shall ensure that the transportation of minerals shall not be carried out through the village road passing near the school premises.
- 9) The PP shall appoint a statutory Mine Manager possessing the 1 / II Class Mines Manager Certificate of Competency (R/UR) under MMR 1961 before executing the lease and a copy of such appointment shall be sent to the DMS/Chennai Region atleast 30 days before the commencement of the mining operations without fail.
- 10) The PP shall not carry out the deep hole larger diameter blasting and the secondary blasting of oversize fragments /boulders during the life of the lease period.
- 11) The PP shall only carry out the NONEL-based initiation system in the blasting operation for controlling the environmental impacts with keeping the security guards at either side of the Village road (@distance of 380 m) by ensuring that no vehicles are allowed to pass through the road and all persons within such area have taken proper shelter during the blasting.
- 12) For the safety of the persons employed in the quarry, the PP shall carry out the scientific studies to assess the slope stability of the working benches and existing quarry wall during the 4th year or when the depth exceeds 30m whichever is earlier, by involving any one of the reputed Research and Academic Institutions CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. A copy of such scientific study report shall be submitted to the SEIAA, MoEF, TNPCB, AD/Mines-DGM and DMS, Chennai as a part of Environmental Compliance without any deviation.
- 13) Since more water bodies are situated within 400 m from the lease boundary, as a part of Ground Water Management, the PP shall annually carry out the scientific studies to assess the existing hydrogeological condition and impacts of

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the quarrying operation on the ground water level present in the core zone, after the commencement of mining operations, by involving any one of the reputed Research and Academic Institution - CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NEERI/Chennai, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, University of Madras – Centre for Environmental Studies, and Anna University Chennai-Dept of Geology, CEG Campus. A copy of such scientific study report shall be submitted to the SEIAA, MoEF, TNPCB, AD/Mines-DGM and DMS, Chennai as a part of Environmental Compliance without any deviation.

- 14) The PP shall form a Disaster Management Cell (duly approved by the DMS/Chennai Region) headed by the Mine Manager involving a Geologist. Geotechnical/Mining Engineer and rescue team to deal with any emergencies faced during the quarrying operation.
- 15) As accepted by the Project Proponent the CER cost of Rs. 10 Lakhs and the amount shall be spent for the activities as committed towards Government Higher Secondary School, Randham, Vembakkam Taluk, Tiruvannamalai District, before obtaining CTO from TNPCB.

Agenda No: 438-05

(File No: 10525/2023)

Proposed Rough Stone and Gravel quarry over an extent of 2.31.0 Ha at S.F.Nos. 887/1 & 887/6 of Kendenahalli Village, Pennagaram Taluk, Dharmapuri District, Tamil Nadu by Thiru. K. Ravikumar – For Environmental Clearance. (SIA/TN/MIN/451421/2023, Dated: 07.11.2023)

The proposal was placed for appraisal in this 438th meeting of SEAC held on 05.01.2024. The details of the project furnished by the proponent are given in the website (parivesh.nic.in).

The SEAC noted the following:

1. The project proponent, Thiru. K. Ravikumar has applied for Environmental Clearance for the Proposed Rough Stone and Gravel quarry over an extent of

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2.31.0 Ha at S.F.Nos. 887/1 & 887/6 of Kendenahalli Village, Pennagaram Taluk, Dharmapuri District, Tamil Nadu.

2. The project/activity is covered under Category "B2" of Item 1(a) "Mining of Minerals Projects" of the Schedule to the EIA Notification, 2006.

During the meeting, the Committee noted that the project proponent was absent for the meeting. Hence the subject was not taken up for discussion. Further, SEAC decided that the proponent shall furnish the reason for absence.

Agenda No: 438-06

File No: 10512/2023

Existing Rough stone & gravel quarry lease over an extent of 1.22.5Ha (Patta Land) in S.F.Nos.111/2A(P), 115/1A, 115/1B & 115/2A, KalSirunagalur Village, Ulundurpet Taluk, Kallakurichi District, Tamil Nadu by Thiru. V. Prakasam-For Environmental Clearance. (Reappraisal).

(SIA/TN/MIN/446753/2023 Dt.26/10/2023)

The proposal was placed in 438th SEAC meeting held 05.01.2024. The details of the minutes are available in the website (parivesh.nic. in).

The SEAC noted the following:

- Earlier, the Project proponent has obtained EC from DEIAA vide Ir. No. DEIAA-TN/F.No.15210/EC.No.32/2018 Dt:04.1.2018 for the production quantity of 66815 m3 Rough Stone and 8680 m3 Earth & depth upto 17m BGL. PP obtained permit upto 15600 m3 of rough stone and 3600 m3 of gravel. Lease period from 25.11.2019 to 24.11.2024. Including Covid period validity is upto 24.11.2025.
- 2. The project proponent, Thiru. V. Prakasam has applied for Environmental Clearance for the Rough Stone & Gravel Quarry lease over an extent of 1.22.5Ha in S.F.Nos.111/2A(P), 115/1A, 115/1B & 115/2A, Sirunahalur village, Ulundurpet Taluk, Kallakurichi District, Tamil Nadu.
- 3. The project/activity is covered under category "B2" of Item 1 (a) "Mining of Minerals Projects" of the schedule to the EIA Notification, 2006.
- 4. Here, it has been observed that the Precise Area Communication has been granted on 15.11.2017. However, the proposal was placed only in the DEAC on

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- 21.06.2018 and approved in the following DEIAA meeting held on 04.12.2018 as the prior EC was granted on the same day (i.e., 04.12.2018).
- 5. The precise area communication was issued for the period of 5 years. The approved mining plan is for the period of 1st five years & production should not exceed66815m³ of Rough Stone and 8680m³ of gravel. The annual peak production is 14315m³ of Rough Stone (1st Year) and 6298m³ of gravel (2nd year). The depth of mining is 17m BGL.
- 6. The Proposal shall undergo reappraisal process vide MoEF & CC OM dated 28.04,2023 which states that

"...the MoEF&CC has decided that all valid Environmental Clearances issued by the DEIAA shall be re-appraised through the SEAC/SEIAA in compliance to the order of this Tribunal in O.A. No.142 of 2022. In view of the above, it is hereby directed that all concerned SEACs shall reappraise the Environmental Clearances issued by the DEIAAs between 15.01.2016 and 13.09.2018 and all fresh Environmental Clearances in this regard shall be granted only by SEIAAs based on such appraisal...."

Based on the presentation and documents furnished by the project proponent, SEAC noted that this is the case of reappraisal of the valid Environmental Clearance issued by DEIAA in compliance to the order of the Hon'ble NGT in OA No. 142 of 2022 and during the reappraisal, committee decided to defer seeking additional details as follows

- 1. The PP shall furnish CCR obtained from the IRO(SZ), MoEF&CC.
- 2. The PP shall furnish a letter obtained from the concerned AD (Mines) and it shall include the following:
 - (i) Existence of boundary pillars with its coordinates.
 - (ii) Original pit dimension
 - (iii) Quantity achieved Vs EC Approved Quantity
 - (iv) Balance Quantity as per Mineable Reserve calculated.
 - (v) Mined out Depth as on date Vs EC Permitted depth
 - (vi) Details of illegal/illicit mining

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- (vii) Violation in the quarry during the past working.
- (viii) Quantity of material mined out outside the mine lease area
- (ix) Condition of Safety zone/benches existing currently.

Hence, the proponent is advised to submit the additional documents/information as sought above within a period of 30 days failing which your proposal will automatically get delisted from the PARIVESH portal.

Agenda No: 438 - 07

(File No: 10519/2023)

Proposed Ordinary Earth quarry lease over an extent of 1.52.0Ha (patta land) S.F. No:32/IB(P) in Ervadi village, Killakarai Taluk, Ramanathapuram District, Tamil Nadu by Thiru. A. Mahendrakumar, -For Environmental Clearance.

(SIA/TN/MIN/451352/2023Dt.06/11/2023)

The proposal was placed in this 438th Meeting of SEAC held on 05.01.2024. The details of the project furnished by the proponent are available on the website (www.parivesh.nic.in).

The SEAC noted the following:

- The project proponent, Thiru. A. Mahendrakumar has applied for Environmental Clearance for the Proposed Ordinary Earth quarry lease over an extent of 1.52.0Ha at S.F. No:32/1B(P) in Ervadi village, Killakarai Taluk, Ramanathapuram District, Tamil Nadu.
- 2. The project/activity is covered under category "B2" of Item 1 (a) "Mining of Minerals Projects" of the schedule to the EIA Notification, 2006.
- 3. The precise area communication was issued for the period of 1 Years. The approved mining plan is for the period of 1 Years & production should not exceed 18,600 m³ of Ordinary Earth. The depth of mining is 2m BGL.

Si. No	Salient	Features o	of the Proposal	
1. Nan		Th	ru. A. Mahendrakumar,	
		i	. Angusamy,	
١.	Name of the Owner/Firm	: No	No-1/49, R.R. Sethupathi Nagar.	
		Ra	manathapuram District-628501	
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	Type of quarrying (Ordinary				
2.	Stone/Sand/Granite/Limestone)	:	Ordinary Earth		
3.	S.F Nos. of the quarry site with area break-up	:	32/1B(P)		
4.	Village in which situated	:	Ervadi		
5.	Taluk in which situated	:	Killakarai		
6.	District in which situated	:	Ramanathapuram		
7.	Extent of quarry (in ha.)	:	1.52.0Ha		
8.	Latitude & Longitude of all		09°13'01.19"N to 09°13'11.81"N		
0.	corners of the quarry site	•	78°41'07.71"E to 78°41'10.90"E		
9.	Topo Sheet No.	:	58-K/12		
10.	Type of mining	:	Opencast Semi-Mechanized mining		
	Life of Project	:	1 Year		
11.	Lease Period		1 Year		
	Mining Plan Period	:	1 Year		
	Mining Plan Details	:	As per approved Mining Plan		
	Geological Resources m ³		Ordinary Earth in m ³		
	(RoM)	•	30,400m3		
12.	Mineable Resources m³ (RoM)		Ordinary Earth		
'	Trinicable Resources III (Rolly)	•	18.600m³.		
	Annual Peak Production in m3		Ordinary Earth		
	Tunida reak riodaetton in ins	:	18,600 m3		
	Maximum Depth in meters	:	2.0m BGL		
13.	Depth of water table	:	25m		
14.	Man Power requirement per day:	:	7 Nos		

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15. 16.	Water requirement: 1. Drinking water 2. Utilized water 3. Dust suppression 4. Green belt Power requirement Precise area communication approved by the District	:	1.0KLD 0.3 KLD 0.4 KLD 0.3 KLD TNEB Na.Ka.No.231/G&M/2023, dt:
18.	Collector Mining Plan approved by Assistant Director, Department of G&M.	:	16.10.2023 Rc.No.231/G&M/2023, dt: 27.10.2023
19.	500m Cluster Letter from Assistant Director, Department of G&M,		Rc.No.231/G&M/2023, dt: 27.10.2023
20.	VAO Certificate Regarding Structures within 300m Radius		Dt: 27.10.2023
21.	Soil Test Report Letter		Dt: 02.11.2023, University of madras department of Geology, Guindy campus, Chennai.
22.	River, Streams adjoining the mining lease area Assistant Director, Department of G&M.		Dt:27.10.2023
23.	Ordinary Earth Letter by Assistant Director, Department of G&M.	: :	Rc.No.231/G&M/2023, dt: 03.01.2024
24.	Project Cost (excluding EMP cost)	:	Rs. 9,24,000/-
25.	EC Recommendation	:	As per approved mining plan

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				Ordinary Earth
		:	Max Total RoM in m ³	18,600 m3
		:	Annual Max RoM in m ³	18,600 m3
		:	Max Depth in mtrs	2m
26.	EMP cost (in Rs. Lakh).	:	Capital Cost - Rs.6.1 Recurring Cost - Rs.	
27.	CER cost (in Rs. Lakh).	:	Rs. 2 Lakhs	

Based on the presentation and documents furnished by the project proponent, SEAC decided to recommend the proposal for the grant of Environmental Clearance for the quantity of 18,600 m³ of Ordinary Earth and the annual peak production shall not exceed 18,600 m³ of Ordinary Earth by restricting the ultimate depth of mining up to 2m BGL and for the period 1 Year subject to the standard conditions as per the Annexure I of this minutes & normal conditions stipulated by MOEF &CC, in addition to the following specific conditions, in addition to the standard conditions & normal conditions stipulated by MOEF &CC:

- 1. The PP shall not carry out the drilling and blasting activities in the quarry.
- The proponent shall carryout plantation of 500 Nos. of tall saplings of native species within the proposed mining area as committed before obtaining CTO from TNPCB.
- 3. The PP shall install a Bio-toilet for the persons employed in the quarry before obtaining the CTO from the TNPCB.
- 4. As accepted by the Project proponent the CER cost is Rs.2 Lakhs and the amount shall be spent for the Govt. Primary School, Eravadi Village and in addition to that an amount of Rs. 1.00 lakh shall be contributed towards conservation measures for Gulf of Mannar Marine National Park as Committed and the same shall be included in the EMP, before obtaining CTO from TNPCB.

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Agenda No: 438-08.

:

File No: 10526/2023

Proposed Black Granite quarry lease over an extent of 2.61.0Ha at S.F. No:54/3, 54/4B (Part), 54/4C2, 55/2D(Part), 55/3, 55/4A (Part), 55/5A (Part), 55/5B (Part), 55/6A, 55/6B, 55/6C, 55/6D, 55/6E, 55/6F, 55/6G & 55/6H, SO. Kuppam Village, Gingee Taluk, Viluppuram District, Tamil Nadu by Tvl. Sri Senthur Granites – For Environmental Clearance. (SIA/TN/MIN/451793/2023 Dt. 08/11/2023).

The proposal was placed in this 438th Meeting of SEAC held on 05.01.2024. The details of the project furnished by the proponent are available on the website (www.parivesh.nic.in).

The SEAC noted the following:

- The project proponent, TvI. Sri Senthur Granites has applied for Environmental Clearance for the Proposed Black Granite quarry lease over an extent of 2.61.0Ha at S.F.No:54/3, 54/4B (Part), 54/4C2, 55/2D(Part), 55/3, 55/4A (Part), 55/5A (Part), 55/5B (Part), 55/6A, 55/6B, 55/6C, 55/6D, 55/6E, 55/6F, 55/6G & 55/6H, SO. Kuppam Village, Gingee Taluk, Viluppuram District, Tamil Nadu.
- 2. The project/activity is covered under category "B2" of Item 1 (a) "Mining of Minerals Projects" of the schedule to the EIA Notification, 2006.
- 3. The Mining Lease was issued for the period of 20 Years. The approved current scheme mining plan for the period of 5 Years & production should not exceed ROM of 74700m³ & 14940m³ of Black Granite (Recovery 20 %) & 258828m³ of Granite Waste (Reject 80%)], 59103 m³ of Weathered Rock, 71370 m³ of Side Burden, & Top Soil 41818 m³ of Top Soil. The annual peak production is ROM of 18000m³ &3600m³ of Black Granite (Recovery 20%) & 14400m³ of Granite Waste (Reject 80%)]. The depth of mining is 20m BGL.

SI. No	Salient Features of the Proposal					
1.	Name of the Owner/Firm	:	Tvl.Sri Senthur Granites, No.77-4/2-39E, 4th Cross, Sivaya Nagar, Salem District- 636016			

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Type of quarrying (Ordinary 2. Stone/Sand/Granite/Limesto : Black Granite ne) 54/3, 54/4B (Part 55/2D(Part), 55/3, 5 55/5A (Part), 55/5B (with area break-up 55/6B, 55/6C, 55/6D, 5	•			
ne) 54/3, 54/4B (Part 55/2D(Part), 55/3, 5 with area break-up 54/3, 54/4B (Part 55/2D(Part), 55/3, 5 55/5A (Part), 55/5B (•			
54/3, 54/4B (Part 55/2D(Part), 55/3, 5 5/5A (Part), 55/5B (with area break-up	•			
3. S.F Nos. of the quarry site with area break-up 55/2D(Part), 55/3, 5 5/5A (Part), 55/5B (•			
3. S.F Nos. of the quarry site : 55/5A (Part), 55/5B (with area break-up	5/44 (Part)			
3. : 55/5A (Part), 55/5B (Syare (ruit),			
with area break-up	Part), 55/6A,			
35/00, 35/00, 35/00,	55/6E, 55/6F,			
55/6G & 55/6H				
4. Village in which situated : SO. Kuppam	····			
5. Taluk in which situated : Gingee				
6. District in which situated : Villuppuram				
7. Extent of quarry (in ha.) : 2.61.0Ha	 Ha			
Latitude & Longitude of all 12°12'48.2400"N to 12'	12°12'48.2400"N to 12°12'55.2101"N			
8. corners of the quarry site : 79°18'45.0626"E to 79°1	79°18'45.0626"E to 79°18'52.5078"E			
9. Topo Sheet No. : 57- P/08	57- P/08			
10. Type of mining : Opencast- Semi Mecha	Opencast- Semi Mechanized Mining			
Method	Method			
Life of Project : 20 Years	20 Years			
11. Lease Period 20 Years				
Mining Plan Period : 5 Years				
As per approved schen	As per approved scheme of mining			
Mining Plan Details : plan				
Recovery	Reject			
Geological Resources m ³ ROM (m ³) 20%(m ³)	80%(m³)			
(RoM)	470880			
588600m³ 470880m³	m³			
Mineable Resources m ³ Recovery	Reject			
(RoM) : ROM (m³) (m³)	(m³)			

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			323535m³	64707m³	258828m	
	Annual Peak Production in		ROM (m³)	Recovery (m³)	Reject (m³)	
	m3	•	18000m3	3600 m3	14400 m3	
	Ultimate Depth in meters	:	50m BGL			
13.	Depth of water table	:	60m - 65m	•		
14.	Man Power requirement per day:	:	22 Nos			
15.	Water requirement: 5. Drinking water 6. Utilized water 7. Dust suppression 8. Green belt	:	3.3KLD 1.3 KLD 1.0 KLD 1.0 KLD			
16.	Power requirement		54160 liters of HSD			
17.	Approved Natural Resources (MMB.2) Department Secretariat, Chennai	•	Rc.No.5607 Dated: 03.1	7198/MMB.2/2 0.2023	023-1,	
18.	Approved Mining Plan by Commissioner, Department of G&M.	:	Rc.No.3588 03.11.2023.	3/MM4/2023,	Dated:	
19.	500m Cluster Letter by Deputy Director, Department of G&M, Viluppuram District.		Rc.No.B/G& 07.11.2023	M/02/2023	Dated:	

CHAIRMA SEAC TO

20.	VAO Certificate Regarding Structures within 300m Radius		Dt:08.11.20	23		
21.	Project Cost (excluding EMP cost)	:	Rs. 10,41,00	00		
22.	EC Recommendation EMP cost (in Rs. Lakh).		As per approved the securing Control of the securing C	ROM (m³) 323535 m³ 18000m 3 50 m c - Rs. 117.6 ost - Rs.3.8 % inflation	Reco very (m³) (20%) 6470 7m³ 3600 m3	Rejec t (m³) (80%) 2588 28m³ 1440 0 m3
	CER cost (in Rs. Lakh).	:	till life of mi	ine. 		

Based on the presentation and documents furnished by the project proponent, SEAC decided to recommend the proposal for the grant of Environmental Clearance for the annual peak production capacity of not exceeding 18000 m³ of ROM by restricting the ultimate depth of mining upto 50m BGL and subject to the standard conditions

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as per the Annexure I of this minutes & normal conditions stipulated by MOEF &CC, in addition to the following specific conditions:

- The prior Environmental Clearance granted for this mining project shall be valid
 for the project life including production value as laid down in the mining plan
 approved and renewed by competent authority, from time to time, subject to a
 maximum of thirty years, whichever is earlier, vide MoEF&CC Notification S.O,
 1807(E) dated 12.04.2022.
- The PP shall carry out the required number of plantations as committed in the EMP around the periphery of the lease boundary without deviation before the obtaining the CTO from the TNPCB.
- 3. The PP shall mark the DGPS reference pillars painted with blue & white colour indicating the safety barrier of 7.5 m to be left under the Rule 13 (1) of MCDR, 1988 within the lease boundary and protective bunds, before obtaining the CTO from the TNPCB.
- 4. The PP shall adopt only non-explosive technique (Rock Breaking Compounds) for the fracturing of granite blocks ensuring the eco-friendly mining operation in the proposed quarry.
- 5. To ensure the conditions of occupational safety, health & welfare status of persons working in the mine, the PP shall annually conduct occupational health survey to determine prevalence of Noise Induced Hearing Loss (NIHL) due to the operation of Diamond Wire Saw cutting & other HEMMs deployed in the mine and to prepare a plan for hearing conservation programme by involving anyone of the reputed institutes Regional Occupational Health Centre (Southern) of ICMR-National Institute of Occupational Health, Bengaluru, National Institute of Miners' Health, Nagpur and Anna University, Chennai.
- 6. The PP shall properly provide all the required welfare amenities near quarry such as Drinking water, Rest Shelter, Canteen, Toilets, etc for the persons to be employed in the proposed quarry before the execution of lease, in accordance with the provisions of the Mines Rules, 1955.

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- 7. For the safety of the persons employed in the quarry, the PP shall carry out the scientific studies to assess the slope stability of the working benches and existing quarry wall during the 4th year or when the depth exceeds 30m whichever is earlier, by involving any one of the reputed Research and Academic Institutions CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. A copy of such scientific study report shall be submitted to the SEIAA, MoEF, TNPCB, AD/Mines-DGM and DMS, Chennai as a part of Environmental Compliance without any deviation.
- 8. For securing the safety of persons employed in the mine, the PP shall carry out the scientific studies to assess the slope stability of the benches and quarry wall when the depth of the quarry touches 30 m (or) after the completion of 3 years of operation whichever is earlier, by involving anyone of the reputed Research and Academic Institutions CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM, IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus, etc. A copy of such scientific study report shall be submitted to the SEIAA, MoEF, TNPCB, AD/Mines-DGM and DMS, Chennai as a part of Environmental Compliance without any deviation.
- 9. The PP shall maintain a barrier of not less than 50 m along the boundary existing adjacent to the neighbouring quarry.
- 10. The PP shall strictly adhere with the safety provisions as laid for the operation of Diamond Wire Saw machines and use of Cranes vide DGMS Tech Circulars No: 02 of 29.11.2019 & No. 10 of 19.07.2002 respectively.
- 11. The PP shall ensure that the Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from soil. OB and mineral reject (Granite waste) dumps. The water so collected in such sump should be utilized for watering the mine area, roads, green belt development, etc. The drains should be regularly de-silted and maintained properly.

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12. As accepted by the Project Proponent the CER cost of Rs. 5 Lakhs and the amount shall be spent for the activities as committed towards Government Higher Secondary SChool, Sathyamangalam Village before obtaining CTO from TNPCB.

Agenda No: 438-09

(File No: 10506/2023)

Proposed Rough Stone and Gravel Quarry over an extent of 1.73.0 Ha at S.F.Nos. 208/3B, 208/3C, 213/2A1, 213/2A3, 213/2A4, 213/2B, 213/2C & 213/2E of Sothiyambakkam Village, Vembakkam Taluk, Thiruvannamalai District, Tamil Nadu by Thiru.K.Sankar - For Environmental Clearance. (SIA/TN/MIN/449707/2023, Dated:27.10.2023).

The proposal was placed in the 438th Meeting of SEAC held on 05.01.2024. The details of the project furnished by the proponent are available in the website (parivesh.nic.in). The SEAC noted the following:

- The Project Proponent, Thiru.K.Sankar has applied for Environmental Clearance for the Proposed Rough Stone and Gravel Quarry over an extent of 1.73.0 Ha at S.F.Nos. 208/3B, 208/3C, 213/2A1, 213/2A3, 213/2A4, 213/2B, 213/2C & 213/2E of Sothiyambakkam Village, Vembakkam Taluk, Thiruvannamalai District, Tamil Nadu.
- 2. The proposed quarry/activity is covered under Category "B2" of Item 1(a) "Mining Projects" of the Schedule to the EIA Notification, 2006.
- 3. The salient features of the proposed project as follows.

File	10506			"B2" l(a)	
No	SIA/TN/MIN/449707/2023, Dated:27.10.2023		Category	EC	
SI. No	Salient Features of the Proposal				
1.	Name of the Owner/Firm	:	Thiru.K.Sankar, S/o.Kannappan, No.04, Hospital I	Road,	

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			Periya Kancheepuram,		
			Kancheepuram District-631502.		
2.	Type of quarrying (Ordinary Stone/Sand/Granite/Limestone)	:	Rough Stone and Gravel Quarry		
3.	S.F Nos. of the quarry site with area break-up	:	208/3B, 208/3C, 213/2A1, 213/2A3, 213/2A4, 213/2B, 213/2C & 213/2E		
4.	Village in which situated	:	Sothiyambakkam	1	
5.	Taluk in which situated	:	Vembakkam		
6.	District in which situated	:	Tiruvannamalai		
7.	Extent of quarry (in ha.)	:	1.73.0Ha		
8.	Latitude & Longitude of all corners of the quarry site	:	12°44'05.01"N to 12°44'10.23"N 79°41'17.35"E to 79°41'23.14"E		
9.	Topo Sheet No.	:	57 - P/10		
10.	Type of mining	:	Opencast Semi mechanized Mining		
	Life of Project	:	5 years		
11.	Lease Period		5 years		
	Mining Plan Period	:	5 years		
	Mining Plan Details	•	As per approved Mining Plan	As modified by SEAC	
12.	Geological Resources m³ (RoM)	:	Rough Stone – 3.60,050 m ³ Gravel –	Rough Stone – 3,60,050 m ³ Gravel –	
:			28,804 m³	28,804 m³	
	Minable Resources m³ (RoM)	:	Rough Stone – 100100m³	Rough Stone – 100100m ³	
			Gravel –	Gravel –	

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			17412 m³	17412 m³	
			Rough Stone – 20480m³	Rough Stone – 20480m³	
	Annual Peak Production in m3	፡	Gravel – 9132 m³	Gravel – 9132 m³	
	Ultimate Depth in meters	:	27m BGL	L	
13.	Depth of water table	:	56m BGL		
14.	Man Power requirement per day:	:	23Nos.		
	Water requirement: 1. Drinking water &		5.0KLD 2.0KLD		
15.	Domestic 2. Dust suppression 3. Green belt		1.5KLD 1.5KLD		
16.	Power requirement		TNEB - 82.980 KL		
17.	Precise area communication approved by the Joint Director / Assistant Director(i/c), Department of Geology and Mining		Rc.No. 309/Kanimam/2023 Dated; 08.09.2023		
18.	Mining Plan approved by Joint Director / Assistant Director(i/c), Department of Geology and Mining	•	Rc.No. 309/Kanimam/2023 Dated; 29.09.2023		
19.	Joint Director / Assistant Director(i/c), Department of Geology and Mining, 500m Cluster Letter		Rc.No. 309/Kani Dated; 10.10.202	Ť	

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20.	VAO Certificate Regarding Structures within 300m Radius		Letter Dated: 25.	.09.2023	
21.	Project Cost (excluding EMP cost)	:	Rs. 64,88,000/-		
	EC Recommendation	:			subject to ving upper Gravel
22.		:	Max Total RoM in m ³	1,00,10 0 m³	17,412 m³
		:	Annual Max RoM in m³	20,480 m³	9,132m³
			Max Depth in mtrs	27m BGL	
23.	EMP cost (in Rs. Lakh).	:	Capital cost – Rs. recurring cost – F		
24.	CER cost (in Rs. Lakh).	:	Rs. 8,00,000 /- a	s accepted	by the PP

Based on the presentation and documents furnished by the project proponent, SEAC decided to recommend the proposal for the grant of Environmental Clearance for the annual peak production capacity of not exceeding 20,480 m³ of rough stone & 9,132 m³ of Gravel by maintaining the ultimate depth of mining upto 27m BGL and subject to the standard conditions as per the Annexure I of this minutes & normal conditions stipulated by MOEF &CC, in addition to the following specific conditions:

The prior Environmental Clearance granted for this mining project shall be valid
for the project life including production value as laid down in the mining plan
approved and renewed by competent authority, from time to time, subject to a

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maximum of thirty years, whichever is earlier, vide MoEF&CC Notification S.O. 1807(E) dated 12.04.2022.

2. The PP shall mark the DGPS reference pillars painted with blue & white colour indicating the safety barrier of 7.5 m to be left under the Rule 13 (1) of MCDR. 1988 within the lease boundary and protective bunds, before obtaining the CTO from the TNPCB.

3. The PP shall complete the tree plantation for the development of green belt in the school premises before obtaining the CTO from TNPCB.

4. Before obtaining the CTO from the TNPCB, the PP shall construct the Garland drains of width 2m, depth 1.5m and with proper gradient for maximum discharge of rainfall in the adjoining areas of the mine lease boundary with siltation/sedimentation tank with an objective of allowing the water to let out in the natural drainage system located nearby leading to the water tank/water body shall be completed.

5. The PP shall construct the Catch drains and siltation ponds of appropriate size to arrest silt and sediment flow from the working pit, soil and waste dumps. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should regularly be desilted particularly after monsoon and maintained properly such that the water tank/waterbody located in the downside of the lease shall not be polluted.

6. The PP shall not employ any external agency for carrying out the blasting operation and he shall also install the temporary magazines approved by the concerned licensing authority before the execution of the lease, for storing the authorized explosives & detonators separately in accordance with the Explosive Rules, 2008.

7. The PP shall furnish an affidavit indicating the Standard Operating Procedures (SoP) for carrying out the 'Best Mining Practices' in the areas of drilling, blasting excavation, transportation and green belt development, in securing the safety of the persons living within a radial distance of 500 m (danger zone) to the concerned AD (Mines) at the time of lease execution.

- 8. The PP shall appoint a First Class/Second Class Mine Manager for managing the quarrying operations before the execution of lease and a copy of the appointment shall be sent to the Director of Mines Safety. Chennai Region along with Notice of Opening of the Mine under the provisions of MMR 1961.
- 9. Since the structures are situated within a radial distance of 500 m, the PP shall carry out the scientific studies within a period of six months from the commencement of quarrying operations, to design the controlled blast parameters for reducing the blast-induced ground/air- vibrations and eliminating the fly rock from the blasting operations carried out in the quarry, by involving anyone of these reputed Research and Academic Institution such as CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. A copy of such scientific study report shall be submitted to the SEIAA, MoEF, TNPCB, AD/Mines-DGM and DMS, Chennai as a part of Environmental Compliance without any deviation.
- 10. For the safety of the persons employed in the quarry, the PP shall carry out the scientific studies to assess the slope stability of the working benches and existing quarry wall when the depth of mine touches 30 m or during the 4th year of quarrying operation whichever is earlier, by involving any one of the reputed Research and Academic Institutions CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. A copy of such scientific study report shall be submitted to the SEIAA, MoEF, TNPCB, AD/Mines-DGM and DMS, Chennai as a part of Environmental Compliance without any deviation.
- 11. The PP shall only carry out the NONEL-based (or) Electronic Detonator based blasting operation for controlling the environmental impacts with keeping the security guards at a radial distance of 500 m by ensuring that all persons within such area have taken proper shelter. Blasting operation should be carried out only during the daytime.

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- 12. The PP shall not carry out the deep hole larger diameter blasting and the secondary blasting of oversize fragments /boulders during the life of the lease period.
- 13. Plantation shall be raised in the surrounding area including green belt in an area of 1.00 Ha by planting native species around ML area, OB dumps, and roads etc. in consultation with local DFO/Agriculture Department. The density of the trees should be around 500 plant species per hectare.
- 14. The PP shall carry out the Regular monitoring of ground water level & quality by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring should be carried out four times in a year— pre-monsoon (April -May), monsoon (August), post monsoon (November) and winter (January) and the data thus collected may be sent regularly to MOEF, Central Ground Water Authority and Regional Director Central Ground Water Board with a copy forwarded to the DEE/TNPCB.
- 15. However, as a part of Ground Water Management, the PP shall annually carry out the scientific studies to assess the existing hydrogeological condition and impacts of the quarrying operation on the ground water level present in the core zone, by involving any one of the reputed Research and Academic Institution CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NEERI/Chennai, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, University of Madras Dept of Geology, and Anna University Chennai-Dept of Geology, CEG Campus. A copy of such scientific study report shall be submitted to the SEIAA, MoEF, TNPCB, AD/Mines-DGM and DMS, Chennai as a part of Environmental Compliance without any deviation.
- 16. The PP shall ensure that the higher benches of the excavated void/mine pit shall be adequately terraced and plantation completed to stabilize the slopes.
- 17. As accepted by the Project Proponent the CER cost of Rs. 8 Lakhs and the amount shall be spent for the activities as committed towards Government

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Higher Secondary School, Punnai Pudupalayam Village before obtaining CTO from TNPCB.

Agenda No: 438-10

(File No: 10513/2023)

Proposed Black Granite Quarry over an extent of 1.12.0 Ha at S.F.Nos.109/3B, 110/10 & 312/5 of Nagar Village, Marakkanum Taluk, Villupuram District, Tamil Nadu by M/s. Kamatchi Enterprises - Environmental Clearance.

(SIA/TN/MIN/443630/2023, Dated: 09.09.2023).

The proposal was placed in the 438th Meeting of SEAC held on 05.01.2024. The details of the project furnished by the proponent are available in the website (parivesh.nic.in). The SEAC noted the following:

- 1. The Project Proponent, M/s. Kamatchi Enterprises has applied for Environmental Clearance for the Proposed Black Granite Quarry over an extent of 1.12.0 Ha at S.F.Nos.109/3B, 110/10 & 312/5 of Nagar Village, Marakkanum Taluk, Villupuram District, Tamil Nadu.
- 2. The proposed quarry/activity is covered under Category "B2" of Item 1(a) "Mining Projects" of the Schedule to the EIA Notification, 2006.
- 3. The quarry lease was granted for a period of Twenty years. The quarry lease deed was executed on 05.04.2010 and the lease period is valid upto 04.04.2030.
- 4. The Mining plan was prepared and approved by the Commissioner, Department of Geology and Mining, Guindy, Chennai vide Lr.No.11673/MM5/2009 dated:10.03.2010.
- 5. The First Scheme of quarrying plan was not prepared (2015-16 to 2019-20).
- 6. Now, the second Scheme of quarrying plan is for the period of 05.04.2023 to 04.04.2025 & production should not exceed 4005 m³ of ROM & 400.5 m³ of Recovery@10% with an ultimate depth of mining 19m.
- 7. The salient features of the proposed project as follows

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File	10513 SIA/TN/MIN/443630/2023,			"B2" 1(a)	
No			Category	EC	
	Dated:09.09.2023				
SI. No	Salient Fea	ıt			
1.	Name of the Owner/Firm	:	M/s. Kamatchi Enterprises, Ashok Shrishti, No. 12/14, Ganapathy Colony, 1st Street, Gopalapuram, Chennai – 600 086		
2.	Type of quarrying (Ordinary Stone/Sand/Granite/Limestone)		Black Granite Quarry		
3.	S.F Nos. of the quarry site with area break-up	:	109/3B, 110/10 & 312/5		
4.	Village in which situated	:	Nagar		
5.	Taluk in which situated	:	Marakkanam		
6.	District in which situated	:	Villupuram		
7.	Extent of quarry (in ha.)	:	1.12.0 Ha		
8.	Latitude & Longitude of all corners of the quarry site	:	12°14'07.3097"N to 12°14'15.5041"N 79°51'03.2574"E to 79°51'06.8956"E		
9.	Topo Sheet No.	:	57 P/16		
10.	Type of mining	:	Opencast mechanized Mining		
	Life of Project	:	3.4 years		
11.	Lease Period		20 years (05.04.2010 to 04.04.2030)		
	Scheme of Mining Period	:	2 years (05.04.2023 to 04.04.2025)		
12.	Mining Plan Details	:	As per approved Mining Plan	As modified by SEAC	

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			ROM ROM		
			30,055 m³ 30,055 m³		
	Geological Resources m ³	:	Granite	Granite	
	(RoM)		Recovery@10	Recovery @10%	
			% 3,005.5	3,005.5 m3	
			m3		
			ROM	ROM	
		:	6935 m³	6935 m³	
	Minable Resources m³ (RoM)		Granite	Granite	
			Recovery	Recovery 50%	
			10% 693.5m³	693.5m³	
	Annual Peak Production in m3	:	ROM	ROM	
			2,035m³	2,035m³	
			Recovery	Recovery 10%	
			10% 203.5m³	203.5m³	
	Ultimate Depth in meters	:	19m		
13.	Depth of water table	;	53m BGL		
14.	Man Power requirement per day:	:	19 Nos.		
	Water requirement:		1.5 KLD		
15.	4. Drinking water		0.4 KLD		
'5.	5. Dust suppression	:	0.5 KLD		
	6. Green belt		0.6 KLD		
16.	Power requirement		TNEB		
	Tower requirement		57,136 liters of HSD		
17.	Precise area communication	:	G.O.3(D) No.16, Industries (MME.2		
,,,	approved	•	Date:18.03.2010		

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		Second Scheme of Mining Plan		Rc.No.3427/MM4/2023,		
	18.	approved by Commissioner of	:	Dated:19.05.2023		
		Geology & Mining.				
		Deputy Director, Dept. of		Rc.No.B/G&M/	52/2023	
	19.	Geology & Mining 500m		Dated: 26.05.20	023	
		Cluster Letter				
	20.	VAO Certificate Regarding		Letter Dated: 16.05.2023		
	20.	Structures within 300m Radius				
	21.	Project Cost (excluding EMP	:	: Rs. 1,49,81,000/-		
	21.	cost)	•	K3, 1,47,81,000/	,-	
		EC Recommendation			30 years subject to	
				Validity	the following upper	
			:		limits.	
					Black Granite	
			:	Max Total RoM in m³	4005 m³ of ROM &	
	22.				400.5 m³ of Granite	
	22.				Recovery @10%.	
			:		2,035 m³ of ROM &	
				Annual Max RoM in m ³	203.5 m³ Granite	
					Recovery 10%	
				Max Depth in	10m PCI	
			:	mtrs	19m BGL	
	23.	EMP cost (in Rs. Lakh).	:	Capital cost – Rs. 25,14,000/-		
	23.			recurring cost -	Rs. 10,77,940/-	
	24.	CER cost (in Rs. Lakh).	:	Rs. 5.0 Lakhs /- as accepted by the PP		
1						

Based on the presentation and documents furnished by the project proponent, SEAC decided to recommend the proposal for the grant of Environmental Clearance for the annual peak production capacity of not exceeding 2,035 m³ of ROM by restricting the ultimate depth of mining upto 19m BGL and subject to the standard conditions as

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per the Annexure I of this minutes & normal conditions stipulated by MOEF &CC, in addition to the following specific conditions:

- The prior Environmental Clearance granted for this mining project shall be valid
 for the project life including production value as laid down in the mining plan
 approved and renewed by competent authority, from time to time, subject to a
 maximum of thirty years, whichever is earlier, vide MoEF&CC Notification S.O,
 1807(E) dated 12.04.2022.
- The PP shall carry out the required number of plantations as committed in the EMP around the periphery of the lease boundary without deviation before the execution of the lease.
- 3. The PP shall ensure the safety provisions as stipulated in the DGMS Circular No:02, dated. 29.11.2019 while using the Diamond Wire Saw machines in the proposed quarry operation.
- 4. The PP shall adopt only non-explosive technique (Rock Breaking Compounds) for the fracturing of granite blocks ensuring the eco-friendly mining operation in the proposed quarry.
- 5. To ensure the conditions of occupational safety, health & welfare status of persons working in the mine, the PP shall annually conduct occupational health survey to determine prevalence of Noise Induced Hearing Loss (NIHL) due to the operation of Diamond Wire Saw cutting & other HEMMs deployed in the mine and to prepare a plan for hearing conservation programme by involving anyone of the reputed institutes Regional Occupational Health Centre (Southern) of ICMR-National Institute of Occupational Health, Bengaluru, National Institute of Miners' Health, Nagpur and Anna University, Chennai.
- 6. The PP shall properly provide all the required welfare amenities near quarry such as Drinking water, Rest Shelter, Canteen, Toilets, etc for the persons to be employed in the proposed quarry before the execution of lease, in accordance with the provisions of the Mines Rules, 1955.
- 7. For the safety of the persons employed in the quarry, the PP shall carry out the scientific studies to assess the slope stability of the working benches and existing

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8. As accepted by the Project Proponent the CER cost of Rs. 5 Lakhs and the amount shall be spent for the activities as committed towards Panchayat Union Primary School, Nagar Village before obtaining CTO from TNPCB.

Agenda No: 438-11

(File No: 10520/2023)

Proposed Rough Stone and Gravel Quarry over an extent of 1.12.0 Ha at S.F.Nos.255/5A & 255/5B of Thethurai Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu by M/s. Aarupadaiyappa Blue Metals -For Environmental Clearance. (SIA/TN/MIN/449795/2023, Dated: 27.10.2023).

The proposal was placed in the 438th Meeting of SEAC held on 05.01.2024. The details of the project furnished by the proponent are available in the website (parivesh.nic.in). The SEAC noted the following:

- The Project Proponent, M/s. Aarupadaiyappa Blue Metals has applied for Environmental Clearance for the Proposed Rough Stone and Gravel Quarry over an extent of 1.12.0 Ha at S.F.Nos.255/5A & 255/5B of Thethurai Village, Cheyyar Taluk, Tiruvannamalai District, Tamil Nadu.
- 2. The proposed quarry/activity is covered under Category "B2" of Item 1(a) "Mining Projects" of the Schedule to the EIA Notification, 2006.
- 3. The salient features of the proposed project as follows:

File	10520		"B2" 1(a)
No	SIA/TN/MIN/449795/2023,	Category	EC
10	Dated:27.10.2023		

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SI. No	Salient Features of the Proposal				
1.	Name of the Owner/Firm	:	M/s. Aarupadaiyappa Blue Metals, Partner Thiru.S.Gokulraj, No.3, Irattai Pillaiyar Koil Street, Pammal, Chennai-600075.		
2.	Type of quarrying (Ordinary Stone/Sand/Granite/Limeston e)	:	Rough Stone and Gravel Quarry		
3.	S.F Nos. of the quarry site with area break-up	:	255/5A and 255/5B		
4.	Village in which situated	:	Thethurai		
5.	Taluk in which situated	:	Cheyyar		
6.	District in which situated	:	Tiruvannamalai		
7.	Extent of quarry (in ha.)	:	1.12.0 Ha		
8.	Latitude & Longitude of all corners of the quarry site	:	12°36'40.30"N to		
9.	Topo Sheet No.	:	57-P/10		
10.	Type of mining	:	Opencast Semi m	nechanized Mining	
	Life of Project	:	10 years		
11.	Lease Period		10 years		
	Mining Plan Period	:	5 years		
12	Mining Plan Details	:	As per approved Mining Plan	As modified by SEAC	
12.	Geological Resources m ³ (RoM)	:	Rough Stone – 2,74,350 m ³ Gravel –	Rough Stone – 2.74,350 m³ Gravel –	

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			21,948 m³	21,948 m³
			Rough Stone –	Rough Stone -
	Minable Resources m³ (RoM)	:	84,950 m³	84,950 m³
			Gravel -	Grave! -
:			15,600 m³	15,600 m³
•			Rough Stone –	Rough Stone –
	Annual Peak Production in		12,470 m³	12,470 m³
	m3	•	Gravel –	Gravel –
			7,800 m³	7,800 m³
	Ultimate Depth in meters		27m BGL	
13.	Depth of water table	:	56m BGL	
14.	Man Power requirement per	:	22 Nos.	
	day:			
	Water requirement:		5.0KLD	
	7. Drinking water &		2.0KLD	
15.	· ·	;	1.5KLD	
	8. Dust suppression		1.5KLD	
	9. Green belt		TNED	
16.	Power requirement		TNEB	
	Densico prop communication	_	- 70.56 KL	2022
	Precise area communication		Rc.No.183/Kanin	
17.	approved by the Joint Director / Assistant		Dated; 21.08.202	<i>:</i> >
17.	Director(i/c). Department of	:		
	Geology and Mining			
	Mining Plan approved by		Rc.No.183/Kanin	nam/2022
	Joint Director / Assistant		Dated; 20.09.20	
18.	Director(i/c), Department of	:		 !
	Geology and Mining			$\bigcap \bigcap$
			1	

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	Joint Director / Assistant		Rc.No.183/Kanimam/2022		
10	Director(i/c), Department of		Dated; 20.09.20	23	
19.	Geology and Mining, 500m				
	Cluster Letter				
	VAO Certificate Regarding				
20.	Structures within 300m		Letter Dated: 05/	/10/2023	
	Radius				
21.	Project Cost (excluding EMP	_	Rs.51,22,000/-		
21.	cost)	•	K3.31,22,000/-		
	EC Recommendation			30 years subject to	
				the following upper	
			Validity	limits.	
				Rough	Gravel
				Stone	Graver
22.			Max Total	84,950	15 600m3
		:	RoM in m ³	m³	15,600m³
		_	Annual Max	12,470	7,800 m³
		٠	RoM in m ³	m³	7,800 111
		_	Max Depth in	27m BGL	
		:	mtrs	27111 BQL	
23	EMP cost (in Rs. Lakh).	:	Capital cost – Rs.	25.10 lakh:	5
23.	EIVIF LOSE (III KS. LAKII).	:	recurring cost – Rs.20.88 lakhs		
24.	CER cost (in Rs. Lakh).	:	Rs. 10,00,000 /-	as accepted	by the PP
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Based on the presentation and documents furnished by the project proponent, SEAC decided to recommend the proposal for the grant of Environmental Clearance for the annual peak production capacity of not exceeding 12,470 m³ of rough stone & 7,800m³ of Gravel by maintaining the ultimate depth of mining upto 27m BGL and subject to the standard conditions as per the Annexure I of this minutes & normal

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conditions stipulated by MOEF &CC, in addition to the following specific conditions:

- The prior Environmental Clearance granted for this mining project shall be valid
 for the project life including production value as laid down in the mining plan
 approved and renewed by competent authority, from time to time, subject to a
 maximum of thirty years, whichever is earlier, vide MoEF&CC Notification S.O,
 1807(E) dated 12.04.2022.
- 2. The PP shall mark the DGPS reference pillars painted with blue & white colour indicating the safety barrier of 7.5 m to be left under the Rule 13 (1) of MCDR, 1988 within the lease boundary and protective bunds, before obtaining the CTO from the TNPCB.
- 3. Before obtaining the CTO from the TNPCB, the PP shall construct the Garland drains of width 2m, depth 1.5m and with proper gradient for maximum discharge of rainfall in the adjoining areas of the mine lease boundary with siltation/sedimentation tank with an objective of allowing the water to let out in the natural drainage system located nearby shall be completed before execution of the mine lease.
- 4. The PP shall construct the Catch drains and siltation ponds of appropriate size to arrest silt and sediment flow from the working pit, soil and waste dumps. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should regularly be desilted particularly after monsoon and maintained properly.
- 5. The PP shall not employ any external agency for carrying out the blasting operation and he shall also install the temporary magazines approved by the concerned licensing authority before the execution of the lease, for storing the authorized explosives & detonators separately in accordance with the Explosive Rules, 2008.
- 6. The PP shall furnish an affidavit indicating the Standard Operating Procedures (SoP) for carrying out the 'Best Mining Practices' in the areas of drilling, blasting excavation, transportation and green belt development, in securing the safety of

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- the persons living within a radial distance of 500 m (danger zone) to the concerned AD (Mines) at the time of lease execution.
- 7. The PP shall appoint a First Class/Second Class Mine Manager for managing the quarrying operations before the execution of lease and a copy of the appointment shall be sent to the Director of Mines Safety, Chennai Region along with Notice of Opening of the Mine under the provisions of MMR 1961.
- 8. Since the structures are situated within a radial distance of 500 m, the PP shall carry out the scientific studies within a period of six months from the commencement of quarrying operations, after obtaining the prior permission from the DMS. Chennai Region, to design the controlled blast parameters for reducing the blast-induced ground/air- vibrations and eliminating the fly rock from the blasting operations carried out in the quarry, by involving anyone of these reputed Research and Academic Institution such as CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. A copy of such scientific study report shall be submitted to the SEIAA, MoEF, TNPCB, AD/Mines-DGM and DMS, Chennai as a part of Environmental Compliance without any deviation.
- 9. The PP shall only carry out the NONEL-based (or) Electronic Detonator based blasting operation for controlling the environmental impacts with keeping the security guards at a radial distance of 500 m by ensuring that all persons within such area have taken proper shelter. Blasting operation should be carried out only during the daytime.
- 10. The PP shall not carry out the deep hole larger diameter blasting and the secondary blasting of oversize fragments /boulders during the life of the lease period.
- 11. Since a water tank/lake is situated within core zone, as a part of Ground Water Management, the PP shall annually carry out the scientific studies to assess the existing hydrogeological condition and impacts of the quarrying operation on the ground water level present in the core zone, by involving any one of the

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reputed Research and Academic Institution - CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, University of Madras – Centre for Environmental Studies, and Anna University Chennai-Dept of Geology, CEG Campus. A copy of such scientific study report shall be submitted to the SEIAA, MoEF, TNPCB, AD/Mines-DGM and DMS, Chennai as a part of Environmental Compliance without any deviation.

- 12. Plantation shall be raised in the surrounding area including green belt in an area of 1.00 Ha by planting native species around ML area, OB dumps, and roads etc. in consultation with local DFO/Agriculture Department. The density of the trees should be around 500 plant species per hectare.
- 13. The PP shall carry out the Regular monitoring of ground water level & quality by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring should be carried out four times in a year– pre-monsoon (April -May), monsoon (August), post monsoon (November) and winter (January) and the data thus collected may be sent regularly to MOEF, Central Ground Water Authority and Regional Director Central Ground Water Board with a copy forwarded to the DEE/TNPCB.
- 14. The PP shall ensure that the higher benches of the mined-out pit and dumps shall be adequately terraced and plantation completed to stabilize the slopes.
- 15. As accepted by the Project Proponent the CER cost of Rs. 10 Lakhs and the amount shall be spent for the activities as committed towards Government High School, Thethurai Village before obtaining CTO from TNPCB.

Agenda No: 438 - 12

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(File No: 10507/2023)

Proposed Rough stone and Gravel Quarry lease over an extent of 2.60.5 Ha at S.F.No. 402/1 and 402/2 in Palamadai Village, Tirunelveli Taluk, Tirunelveli District, Tamil Nadu by Thiru. P. Arumugasundar – For Environment Clearance.

(SIA/TN/MIN/449657/2023 dt 25/10/2023)

The proposal was placed in this 438th meeting of SEAC held on 05.01.2024. The Project

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Proponent made a detailed presentation on the proposal. The details of the project and the PPT furnished by the proponent are available on the PARIVESH web portal (parivesh.nic.in).

The SEAC noted the following:

- 1. The Project Proponent, Thiru. P. Arumugasundar has applied seeking Environment Clearance for the proposed Rough stone and Gravel Quarry lease over an extent of 2.60.5 Ha at S.F.No. 402/1 and 402/2 in Palamadai Village, Tirunelveli Taluk, Tirunelveli District, Tamil Nadu.
- 2. The proposed quarry/activity is covered under Category "B2" of Item 1(a) "Mining Projects" of the Schedule to the EIA Notification, 2006, as amended.
- 3. A private school is located at a distance of 451 m from the boundary of proposed mine lease area.

Considering the proximity of the school, the SEAC directed the Project Proponent to furnish:

- i. Modified mining plan duly approved by the competent authority.
- ii. PP shall develop green belt all along the boundary beyond the buffer zone to attenuate the noise generated during the operation of the mine and to contain the dust borne particulates.

On receipt of the same the SEAC will further deliberate and decide on the future course of action. Hence, the proponent is advised to submit the details within a period of 30 days failing which the proposal will be automatically delisted from the PARIVESH Portal.

Agenda No: 438 - 13 (File No: 10521/2023)

Proposed Rough stone and Gravel Quarry lease over an extent of 4.98.00 Ha at S.F.No. 609/1(P), 610(P), 616/1(P), 616/1(P), 617/1A(P), 617/1B2, 650/1(P), 651/1(P), 609/2(P), 609/3 and 617/2 in Ayyanaruthu Village, Kayathar Taluk, Thoothukudi District, Tamil Nadu by Thiru.A.Arunmuthukumar – For Environment Clearance. (SIA/TN/MIN/450838/2023 dt 03/11/2023)

The proposal was earlier placed in the 438th meeting of SEAC held on 05.01.2024. The

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Project Proponent made a detailed presentation on the proposal. The details of the project and the PPT furnished by the proponent are available on the PARIVESH web portal (parivesh.nic.in).

The SEAC noted the following among other things:

- The Project Proponent. Thiru. A. Arunmuthukumar has applied seeking Environment Clearance for the proposed Rough stone and Gravel Quarry lease for next scheme of mining over an extent of 4.98.00 Ha at S.F.No. 609/1(P), 610(P), 611(P), 616/1(P), 617/1A(P), 617/1B2, 650/1(P), 651/1(P), 609/2(P), 609/3 and 617/2 in Ayyanaruthu Village, Kayathar Taluk, Thoothukudi District, Tamil Nadu.
- 2. The proposed quarry/activity is covered under Category "B2" of Item 1(a) "Mining Projects" of the Schedule to the EIA Notification, 2006, as amended.

	10521			
File N	lo SIA/TN/MIN/450838/	SIA/TN/MIN/450838/		B2
	2023 dt 03/11/2023			
SI. No	Salient F	eatu	res of the Proposal	
1.	Name of the Owner/Firm	:	Thiru.A.Arunmuthu S/o.Arasappan, No.133/1, Yadhavar Street, Bu Iraippuvari, Tirunel	tterpuram,
2.	Type of quarrying (Ordinary Stone/Sand/Granite/Limestone)	:	Rough Stone and G	ravel
3.	S.F Nos. of the quarry site with area break-up		S.F.No. 609/1(P), 616/1(P), 617/1A(P), 651/1(P), 609/2(P),	
4.	. Village in which situated : Ayyanaruthu Village			
5.	Taluk-in which situated	:	Kayathar Taluk	() ()

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6.	District in which situated	:	Thoothukudi				
7.	Extent of quarry (in ha.)	:	4.98.00 Ha				
8.	Latitude & Longitude of all corners of the quarry site	:	08°55'55.33"N to 08°56'06.14"N 77°42'56.61"E to 77°43'05.35"E				
9.	Topo Sheet No.	:	58 H/09				
10.	Type of mining	:	Opencast Semi – me	chanized mining			
	Life of Project	;	10years				
11.	Lease Period		10 years				
	Mining Plan Period	:	5 years				
	Mining Plan Details	:	As per approved Mining Plan	As modified by SEAC			
	Geological Resources m³ (RoM)	•	Rough Stone – 2715790 m³ Gravel - 98756 m³	-			
12.	Minable Resources in m³ (RoM)	:	Rough Stone – 944230 m³ Gravel – 79332 m³	-			
	Annual Peak Production in m ³	:	Rough Stone – 166760 m³ Gravel – 70476 m³	-			
	Maximum Depth in meters		57m BGL	47m BGL			
13.	Depth of water table	:	65m				
14.	Man Power requirement per day:	•	39Nos.				
15.	Water requirement: 1. Drinking & domestic purposes (in KLD)	•	3.75 kLD & 1.75 kLC)			
			1.0 KLD & 1.0 KLD				

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	2. Dust suppression,				
	Green Belt & Wet				
	Drilling (in KLD)				
16.	Power requirement		TNEB & DG Set		
	Precise area communication		Rc.No.G.M.1/315/20	023	
17.	approved by the Dept. of	:	Dated:01.09.2023.		
	Geology & Mining				
18.	Mining Plan approved by		Rc.No.G.M.1/315/20	023	====
10.	Dept. of Geology & Mining	'	Dated:25.09.2023.		
	500m Cluster Letter issued by		Rc.No.G.M.1/315/20	023	
19.	the Dept. of Geology &		Dated:25.09.2023.		
	Mining				
	VAO Certificate regarding		Letter Dated: Nil		
20.	Structures within 300m				
	Radius				
21.	Project Cost (excluding EMP	:	Rs.67,80,000/-		
	cost)	Ĺ			
				30 years	-
,				to the fo	•
ŀ		:	Validity	upper lim	its.
	· ·			Rough	Gravel
				Stone	
22.	EC Recommendation	:	Max Total RoM in	832590	79332
			m³		
•	!		Annual Max RoM	166760	
			in m³	166760	70476
			Illeiman Daath !-		
		:	Ultimate Depth in	47m BGL	
			m	\bigcap	

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23. EMP cost (in Rs. Lakh).	•	Capital cost - Rs.49.46 Lakh Recurring cost - Rs. 54.43 Lakh + 5% of inflation cost every year Total EMP - Rs.673.43 Lakh for 10 years
24. CER cost (in Rs. Lakh).	:	11.0 Lakh as accepted by the PP

Based on the presentation and documents furnished by the project proponent, SEAC decided to recommend the proposal for the grant of Environmental Clearance for the annual peak RoM production capacity not exceeding 166760 m³ of Rough stone and 70476 m³ of Gravel and upto the ultimate depth of mining of 47m BGL, subject to the standard conditions as per the Annexure I of this minutes & normal conditions stipulated by MOEF &CC, in addition to the following specific conditions:

- The prior Environmental Clearance granted for this mining project shall be valid
 for the project life including production value as laid down in the mining plan
 approved and renewed by competent authority, from time to time, subject to a
 maximum of thirty years, whichever is earlier, vide MoEF&CC Notification S.O,
 1807(E) dated 12.04.2022.
- 2) The proponent shall provide the particulars for carrying out the plantation of 2500 Nos. of tall saplings of native species within and outside the proposed mining area as committed before obtaining CTO from TNPCB.
- 3) The PP shall mark the DGPS reference pillars painted with blue & white colour indicating the safety barrier of 7.5 m to be left under the Rule 13 (1) of MCDR, 1988 within the lease boundary and protective bunds before obtaining the CTO from the TNPCB.
- 4) The PP shall not employ any external agency for carrying out the blasting operation and he shall also install the temporary magazines approved by the concerned licensing authority before the execution of the lease, for storing the

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- authorized explosives & detonators separately in accordance with the Explosive Rules, 2008.
- 5) The PP shall not carry out the deep hole larger diameter blasting and the secondary blasting of oversize fragments /boulders during the life of the lease period.
- 6) Since the structures and highway/village roads are situated within a radial distance of 500 m, the PP shall carry out the scientific studies within a period of six months from the commencement of quarrying operations with prior permission from the DMS/Chennai Region, to design the controlled blast parameters for reducing the blast-induced ground/air- vibrations and eliminating the fly rock from the blasting operations carried out in the quarry, by involving anyone of these reputed Research and Academic Institution such as CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. A copy of such scientific study report shall be submitted to the SEIAA, MoEF, TNPCB, AD/Mines-DGM and DMS, Chennai as a part of Environmental Compliance without any deviation.
- 7) For securing the safety of persons employed in the mine, the PP shall carry out the scientific studies to assess the slope stability of the benches and quarry wall when the depth of the quarry touches 30 m (or) after the completion of 3 years of operation whichever is earlier, by involving anyone of the reputed Research and Academic Institutions CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM, IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus, etc. A copy of such scientific study report shall be submitted to the SEIAA, MoEF, TNPCB, AD/Mines-DGM and DMS, Chennai as a part of Environmental Compliance without any deviation.
- 8) The proponent shall conduct the Safety Audit following the DGMS Guidelines laid for the purposes vide DGMS (Tech) S&T Circular No. 5 of 2016, during the 3rd year of quarrying operation to detect any unsafe condition/practice prevalent in the mine to ensure the health and safety of the workers employed, by

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involving anyone of these reputed Research and Academic Institution such as CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. A copy of such scientific study report shall be submitted to the SEIAA, MoEF, TNPCB, AD/Mines-DGM and DMS, Chennai as a part of Environmental Compliance without any deviation.

9) As accepted by the Project Proponent the CER cost of Rs.11.0 lakh and the amount shall be spent for the following committed activities at Panchayat Union Primary School, Ayyanaruthu before obtaining CTO from TNPCB.

Agenda No: 438 - 14

(File No: 10528/2023)

Proposed Red Earth Quarry lease over an extent of 2.30.45 Hectare at S.F.No.300/28 in Ervadi Village, Kelakarai Taluk, Ramanathapuram District, Tamil Nadu by Mr. V. Naveen Raja – For Environment Clearance. (SIA/TN/MIN/451003/2023 dt 07/11/2023).

The proposal was placed in this 438th meeting of SEAC held on 05.01.2024. The Project Proponent made a detailed presentation on the proposal. The details of the project and the PPT furnished by the proponent are available on the PARIVESH web portal (parivesh.nic.in). The SEAC noted the following:

- 1. The Project Proponent, Mr.V.Naveen Raja has applied seeking Environment Clearance for the proposed Red Earth Quarry lease over an extent of 2.30.45 Hectare at S.F.No.300/2B in Ervadi Village, Kelakarai Taluk, Ramanathapuram District, Tamil Nadu.
- 2. The proposed quarry/activity is covered under Category "B2" of Item 1(a) "Mining Projects" of the Schedule to the EIA Notification, 2006, as amended. Based on the presentation and documents furnished by the project proponent, SEAC decided to direct the PP to submit the following details for further processing the proposal.
 - a. Details of green cover with geo-tagging.

Hence, the proponent is advised to submit the details within a period of 30 days failing

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which the proposal will be automatically delisted from the PARIVESH Portal.

Agenda No: 438 - 15

(File No.10508/2023)

Proposed Rough Stone and Gravel Quarry lease area over an extent of 1.83.9Ha at S.F.No.46/2(P) of Sivaniyarkulam Village, Tirunelveli Taluk, Tirunelveli District, Tamil Nadu by Thiru. V. Vinothkumar - For Environmental Clearance.

(SIA/TN/MIN/450587/2023, dated: 30.10.2023).

The proposal was placed for appraisal in the 438th Meeting of SEAC held on 05.01.2024. The details of the project furnished by the proponent are given in the website(parivesh.nic.in).

The SEAC noted the following:

- 1. The project proponent, Thiru. V. Vinothkumar has applied for Environmental Clearance for the Proposed Rough Stone and Gravel Quarry lease area over an extent of 1.83.9Ha at S.F.No.46/2(P) of Sivaniyarkulam Village, Tirunelveli Taluk, Tirunelveli District, Tamil Nadu.
- 2. The project/activity is covered under category "B2" of Item 1(a) "Mining of Minerals Projects" of the Schedule to the EIA Notification, 2006.
- 3. The salient features of the proposal are as follows:

File No		10508/2023		Category	B2	
• •	ile 140	450587/2023		Category	1(a)	
SI. No	Salient Features of the Proposal					
1.	Name of the Owner/Firm		:	Thiru. V. Vinothkumar, S/o. Vasanthakumar, No. 26/27, Natesan Street, Thiyagaraya Nagar, Chennai – 600 017.		
2.	Type of a	uarrying	:	Rough Stone and Gravel	Quarry	
3.	S.F Nos. of the quarry site with area break-up		:	46/2 (P)	\bigcap	

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4.	Village in which situated	:	Sivaniyarkulam					
5.	Taluk in which situated	:	Tirunelveli					
6.	District in which situated	 	Tirunelveli	Tirunelveli				
7.	Extent of quarry (in ha.)	:	1.83.9 Ha	1.83.9 Ha				
8.	Latitude & Longitude of all	t.	08°45`05.17" N to (08°45'05.17" N to 08°45'10.22" N				
о.	corners of the quarry site	'	77°35'04.44" E to 7	7°35'09.85" E				
9.	Topo Sheet No.	:	58 H/10	 				
10.	Type of mining	:	Opencast Semi Mec	hanized mining				
	Life of Project	;	5 years	The state of the s				
11.	Lease Period	:	5 years					
	Mining Plan Period	:	5 years					
Mining Plan Details		As per approved	As modified by					
		Ĺ	Mining Plan	SEAC				
Geological Resources m ³	Geological Resources m ³	١.	Rough Stone -	Rough Stone -				
	(RoM)		8,22,960m³					
	()		Gravel - 73,152m ³	Gravel ·				
	Minable Resources m³		Rough Stone -	Rough Stone -				
12.	(RoM)		2,13,960m³	İ				
			Gravel 54,000m ³	Gravel -				
		Ĺ	Rough Stone -	Rough Stone -				
	Annual Peak Production in	ľ	42,970m³					
	m³		Gravel - 40,608m³	Gravel ·				
	Ultimate Depth in meters	:	49m BGL					
13.	Depth of water table	:	60m in rainy & 63m	in summer seasons				
14.	Man Power requirement		23 Nos.					
• 1•	per day:	•	25 1403.					
	Water requirement:		5.0 KLD					
15.	1. Dust & Domestic		1.0 KLD					
	1							

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	2. Dust Suppression		2.0 KLD	<u> </u>		
	3. Green belt		2.0 KLD			
16.	Power requirement	:	1,80,168 liters of HSD for the entire project life.			
17.	Precise area communication approved by the Joint Director /Assistant Director(i/c), with date	:	Roc.No.M2/159/2023, Dated: 10.08.2023.			
18.	Mining Plan approved by Joint Director /Assistant Director(i/c), Dept. of Geology & Mining	:	Rc.No.M2/159/2023, Dated: 30.08.2023.			
19.	500m cluster letter issued by the Joint Director /Assistant Director(i/c), Dept. of Geology and Mining with date	:	Rc.No.M2/159/2023, Dated: 30.08.2023			
20.	VAO Certificate Regarding Structures within 300m Radius	:	Letter dated: 15.09.2	2023.		
21.	Project Cost (excluding EMP cost)	:	Rs. 66,03,400/-			
22.	EC Recommendation	•	30 years subject to the following upper: : Validity limits. Rough Stone Gravel			
		:	Max Total RoM in m ³	2,13,960m³	54,000m³	

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		:	Annual Max RoM in m³	42,970m³	40,608m³	
		[:	Max Depth in mtrs	49m	BGL	
23.	EMP cost (in Rs. Lakhs).	:	Capital Cost – Rs. 33.88 Lakhs Recurring Cost – Rs. 26.79Lakhs			
24.	CER cost (in Rs. Lakhs).	:	Rs. 8,00,000 /-			

Based on the presentation and documents furnished by the project proponent, SEAC decided to recommend the proposal for the grant of Environmental Clearance for the annual peak production capacity not exceeding 42,970m3 of Rough stone & 40,608m3 of gravel by maintaining the ultimate depth of mining up to 49m below ground level and subject to the standard conditions as per the Annexure I of this minutes & normal conditions stipulated by MoEF &CC, in addition to the following specific conditions:

- 1) The prior Environmental Clearance granted for this mining project shall be valid for the project life including production value as laid down in the mining plan approved and renewed by competent authority, from time to time, subject to a maximum of thirty years, whichever is earlier, vide MoEF&CC Notification S.O. 1807(E) dated 12.04.2022.
- 2) The PP shall mark the DGPS reference pillars painted with blue & white colour indicating the safety barrier of 7.5 m to be left under the Rule 13 (1) of MCDR, 1988 within the lease boundary and protective bunds, before obtaining the CTO from the TNPCB.
- 3) Before obtaining the CTO from the TNPCB, the PP shall construct the Garland drains of width 2m, depth 1.5m and with proper gradient for maximum discharge of rainfall in the adjoining areas of the mine lease boundary with siltation/sedimentation tank with an objective of allowing the water to let outin the natural drainage system located nearby shall be completed before execution of the mine lease.

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- 4) The PP shall construct the Catch drains and siltation ponds of appropriate size to arrest silt and sediment flow from the working pit, soil and waste dumps. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should regularly be desilted particularly after monsoon and maintained properly.
- 5) The PP shall not employ any external agency for carrying out the blasting operation and he shall also install the temporary magazines approved by the concerned licensing authority before the execution of the lease, for storing the authorized explosives & detonators separately in accordance with the Explosive Rules, 2008.
- 6) The PP shall furnish an affidavit indicating the Standard Operating Procedures (SoP) for carrying out the 'Best Mining Practices' in the areas of drilling, blasting excavation, transportation and green belt development, in securing the safety of the persons living within a radial distance of 500 m (danger zone) to the concerned AD (Mines) at the time of lease execution.
- 7) The PP shall appoint a First Class/Second Class Mine Manager for managing the quarrying operations before the execution of lease and a copy of the appointment shall be sent to the Director of Mines Safety, Chennai Region along with Notice of Opening of the Mine under the provisions of MMR 1961.
- 8) The PP shall carry out the scientific studies within a period of one year from the commencement of quarrying operations, to design the controlled blast parameters for reducing the blast-induced ground/air- vibrations and eliminating the fly rock from the blasting operations carried out in the quarry, by involving anyone of these reputed Research and Academic Institution such as CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. A copy of such scientific study report shall be submitted to the SEIAA, MoEF, TNPCB, AD/Mines-DGM and DMS, Chennai as a part of Environmental Compliance without any deviation.

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- 9) For the safety of the persons employed in the quarry, the PP shall carry out the scientific studies to assess the slope stability of the working benches and existing quarry wall when the depth of mine touches 30 m or during the 3rd year of quarrying operation whichever is earlier, by involving any one of the reputed Research and Academic Institutions - CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. A copy of such scientific study report shall be submitted to the SEIAA, MoEF, TNPCB, AD/Mines-DGM and DMS, Chennai as a part of Environmental Compliance without any deviation.
- 10) The PP shall only carry out the blasting operation adopting 60% of Electronic Detonator and 40% of NONEL initiation systems for controlling the environmental impacts with keeping the security guards at a radial distance of 500 m by ensuring that all persons within such area have taken proper shelter. The Blasting operation should be carried out only during the daytime.
- 11) The PP shall not carry out the deep hole larger diameter blasting without the prior permission obtained from the DGMS, Chennai Region and the secondary blasting of oversize fragments /boulders during the life of the lease period.
- 12) As a part of Ground Water Management, the PP shall carry out the scientific studies to assess the existing hydrogeological condition and impacts of the quarrying operation on the ground water level present in the core zone, within 2 years from the commencement of mining operations, by involving any one of the reputed Research and Academic Institution - CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, University of Madras – Centre for Environmental Studies, and Anna University Chennai-Dept of Geology, CEG Campus. A copy of such scientific study report shall be submitted to the SEIAA, MoEF, TNPCB, AD/Mines-DGM and DMS, Chennai as a part of Environmental Compliance without any deviation.

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13) Plantation shall be raised in the surrounding area including green belt in an area of 1.00 Ha by planting native species around ML area, OB dumps, and roads etc. in consultation with local DFO/Agriculture Department. The density of the

trees should be around 500 plant species per hectare.

14) The PP shall carry out the Regular monitoring of ground water level & quality by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring should be carried out four times in a year- pre-monsoon (April -May), monsoon (August), post - monsoon (November) and winter (January) and the data thus collected may be sent

regularly to MOEF, Central Ground Water Authority and Regional Director

Central Ground Water Board with a copy forwarded to the DEE/TNPCB.

15) The PP shall ensure that the higher benches of the excavated void/mine pit shall

be adequately terraced and plantation completed to stabilize the slopes.

16) As accepted by the Project Proponent, the PP shall identify four Govt Higher Secondary Schools located nearby and install the 'Smart Interactive Flat Panel/White Board with Android 11' in the class room of each school towards

the CER fund before obtaining CTO from TNPCB.

Agenda No: 438 - 16

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File No: 10515/2023

Proposed Rough stone quarry lease over an extent of 4.91.33 ha in S.F. No. 281/1A, 281/1B, 281/2A, 281/2B, 282/2A (Part), 282/2B, 282/3, 282/6, 282/7A, 282/7B, 283/1A1 & 283/1B, Koothakudi Village, Kallakurichi Taluk, Kallakurichi District, Tamil

Nadu by Thiru. A.Nithish - For Environmental Clearance.

(SIA/TN/MIN/449842/2023, Dated: 26.10.2023)

The proposal is placed in the 438th SEAC meeting held on 05.01.2024. The project proponent has given a detailed presentation. The details of the project furnished by the proponent are given in the website (parivesh.nic.in). The project proponent gave detailed presentation.

The SEAC noted the following:

1. The Project Proponent, Thiru. A. Nithish has applied for Phylironmental

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Clearance for the Proposed Rough stone quarry lease over an extent of 4.91.33 ha in S.F. No. 281/1A, 281/1B, 281/2A, 281/2B, 282/2A (Part), 282/2B, 282/3, 282/6, 282/7A, 282/7B, 283/1A1 & 283/1B, Koothakudi Village, Kallakurichi Taluk, Kallakurichi District, Tamil Nadu.

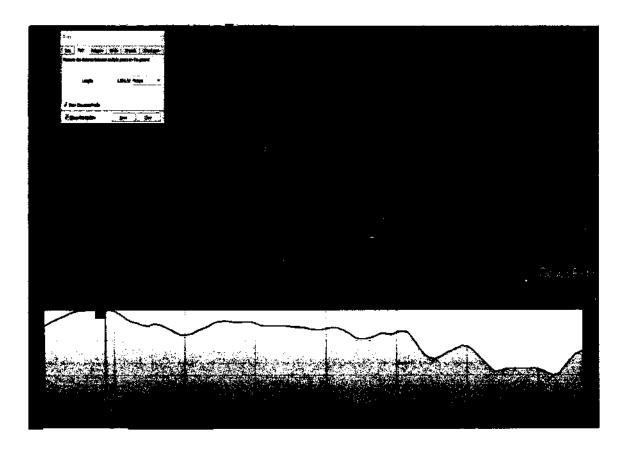
2. The project/activity is covered under Category "B2" of Item 1(a) "Mining Projects" of the Schedule to the EIA Notification, 2006.

The proposal was placed in the 438th SEAC meeting held on 05.01.2024. Based on the presentation and documents furnished by the proponent, committee noted the following

- As per the KML file uploaded by the proponent in Parivesh portal, it is ascertained that
 - (i) The proposed site is engulfed by Koothakudi Reserved Forest on three sides, namely, on the Western, Northern and Eastern sides.
 - (ii) Further, Manimuhtaru River, which is a tributary of Thamirabharani River, is located at a distance (nearest) of approximately 575m in the Southwestern Direction and the river flows in the Southern Direction through the proposed site.
 - (iii) Based on the Elevation profile, obtained from the Google Imagery from the Koothakudi Reserved Forest along the proposed site and towards the Manimutharu River, the terrain is sloping towards the Manimutharu River which clearly indicates that the terrain appears to be a water catchment area for the Manimutharu river which flows in the Southern direction.

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Hence, in the view of the above facts, Committee is of the opinion that

- A. The proposed site is located at the downhill of Koothakudi Reserved Forest and the site appears to be environmentally sensitive.
- B. Based on the elevation profile, it is evident that the proposed site appears to be a watershed area and in turn its contribution to the Manimutharu River flowing in the southern direction will be hampered. Further, that will affect the water flow of the above said river.

Hence, considering all the above facts, Committee decided not to recommend the proposal for grant of Environmental Clearance and reject the proposal.

Agenda No: 438 - 17

(File No.10509/2023)

Proposed Rough Stone and Gravel quarry lease over an extent 4.04.0 Ha at S.F.Nos. 15/4B(P), 15/5, 15/6, 15/12, 15/13(P), 15/14, 20/1, 20/2(P), 20/3A, 20/3B(P), 20/4(P), 21/5, 21/6, 21/7(P), 21/8(P), 21/9(P), 22/1(P) and 13A(P) of Ulagapurapy Village,

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Vanur Taluk, Viluppuram District, Tamil Nadu by M/s. Sri Varu Blue Metals and M. Sand - For Environmental Clearance. (SIA/TN/MIN/450532/2023 dated: 28.10.2023) The proposal was placed for appraisal in the 438th Meeting of SEAC held on 05.01.2024. The details of the project furnished by the proponent are given in the website(parivesh.nic.in).

The SEAC noted the following:

- The project proponent, M/s. Sri Varu Blue Metals and M. Sand has applied for Environmental Clearance for the Proposed Rough Stone and Gravel quarry lease over an extent 4.04.0 Ha at S.F.Nos. 15/4B(P), 15/5, 15/6, 15/12, 15/13(P), 15/14, 20/1, 20/2(P), 20/3A, 20/3B(P), 20/4(P), 21/5, 21/6, 21/7(P), 21/8(P), 21/9(P), 22/1(P) and 13A(P) of Ulagapuram Village, Vanur Taluk, Viluppuram District, Tamil Nadu.
- 2. The project/activity is covered under Category "B2" of Item 1(a) "Mining of Minerals Projects" of the Schedule to the EIA Notification, 2006.
- 3. It is an existing quarry which was previously operated by Thiru.Murugesan between 2006 to 2016.
- 4. The salient features of the proposal are as follows:

	File No	10509/2023	Category	B2		
	THE TO	450532/2023	Category	l(a)		
SI. No	Salient Features of the Proposal					
1.	Name of the Owner/Firm :		M/s. Sri Varu Blue A SF.No.15/3,18/2, : Brammadesam to K Ulagapuram, Vanur Viluppuram District	Taluk,		
2.	Stone/Sand/Granite/Limestone) S.F Nos. of the quarry site		Rough Stone & Gra	vel Quarry		
3.			:	/6, 15/12, 15/13(P),), 20/3A, 20/3B(P),		

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		Γ	20/4(P), 21/5, 21/6	5, 21/7(P), 21/8(P),		
			21/9(P), 22/1(P) and	I 13A(P)		
4.	Village in which situated	:	Ulagapuram			
5.	Taluk in which situated	:	Vanur			
6.	District in which situated	:	Viluppuram			
7.	Extent of quarry (in ha.)	:	4.04.0Ha			
8.	Latitude & Longitude of all		12°10'28.8397"N to	12°10'36.9489"N		
0.	corners of the quarry site	•	79°45'41.8921"E to 7	79°45'50.7639"E		
9.	Topo Sheet No.	:	57 P/16			
10.	Type of mining	:	Opencast Mechanize	ed Mining		
	Life of Project	:	5 years			
11.	Lease Period		5 years			
	Mining Plan Period	:	5 years	·-·		
	Mining Plan Details		As per approved	As modified by		
			Mining Plan	SEAC		
			Rough Stone	Rough Stone		
	Geological Resources m ³	:	16,20,590 m³			
	(RoM)		Gravel	Gravel		
			50,556 m³	-		
12.		!	Rough Stone	Rough Stone		
	Minable Resources m³ (RoM)		5,97,375m³	-		
	(1011)	•	Gravel	Gravel		
			35,814 m³	*		
			Rough Stone	Rough Stone		
	Annual Peak Production in m ³		1,34,935m³	-		
	The state of the s	•	Gravel	Gravel		
:		:	17,098m³	-		

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13.	Maximum Depth in meters Depth of water table Man Power requirement/day: Water requirement: 10. Drinking & utilized		47m BGL (2m Gravel + 45m Rough Stone) 56-60m BGL 34 Nos. 2.0 KLD	-
15.	water 11. Dust suppression 12. Green belt	•	0.8 KLD 0.9 KLD	
16.	Power requirement	:	4,83,874 Liters of HSD for the entire project life	
17.	Precise area communication approved by the Deputy Director, Dept. of G&M	:	Rc.No. A/G&M/54/2023, dated: 04.10.2023.	
18.	Mining Plan approved by Deputy Director, Dept. of G&M	•	Rc.No. A/G&M/54/2023, dated: 10.10.2023	
19.	500m Cluster Letter issued by the Deputy Director, Dept. of G&M.	:	Rc.No. A/G&M/54/2023, dated: 10.10.2023	
20.	VAO Certificate Regarding Structures within 300m Radius	•	Letter Dated:07.10.2023.	
21.	Project Cost (excluding EMP cost)	•	Rs. 3,55,08,000/-	
22.	EC Recommendation	•	Validity	30 years subject to the following upper limits.

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				Rough Stone	Gravel
			Max Total RoM	5,97,375 m³	35,814 m³
		;	Annual Max RoM	1,34,935 m³	17,098m³
		••	Ultimate Depth in mtrs	Gravel	GL (2m + 45m Stone)
23.	EMP cost (in Rs. Lakhs).	:	Capital Cost - Rs. 48 Recurring Cost - Rs.		
24.	CER cost (in Rs. Lakhs).	:	Rs. 5,00,000/-		

Based on the presentation and documents furnished by the project proponent, SEAC decided to recommend the proposal for the grant of Environmental Clearance for the annual peak production capacity not exceeding 1,34,935m³ of Rough stone & 17,098m³ of gravel by restricting the ultimate depth of mining up to 47m below ground level and subject to the standard conditions as per the Annexure I of this minutes & normal conditions stipulated by MoEF &CC, in addition to the following specific conditions:

- The prior Environmental Clearance granted for this mining project shall be valid for the project life including production value as laid down in the mining plan approved and renewed by competent authority, from time to time, subject to a maximum of thirty years, whichever is earlier, vide MoEF&CC Notification S.O, 1807(E) dated 12.04.2022.
- 2) Tree plantation & fencing and installation of garland drainage with siltation tank around the mine lease area shall be completed before execution of the mine lease.
- 3) The PP shall mark the DGPS reference pillars painted with blue & white colour indicating the safety barrier of 7.5 m to be left under the Rule 13 (1) of MCDR.

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1988 within the lease boundary and protective bunds, before obtaining the CTO from the TNPCB.

:

- 4) The PP shall not employ any external agency for carrying out the blasting operation and he shall also install the temporary magazines approved by the concerned licensing authority before the execution of the lease, for storing the authorized explosives & detonators separately in accordance with the Explosive Rules, 2008.
- 5) Since structures are situated within a radial distance of 500 m, the PP shall carry out the scientific studies within a period of six months from the commencement of quarrying operations with prior permission from the DMS/Chennai Region, to design the controlled blast parameters for reducing the blast-induced ground/air- vibrations and eliminating the fly rock from the blasting operations carried out in the quarry, by involving anyone of these reputed Research and Academic Institution such as CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. A copy of such scientific study report shall be submitted to the SEIAA, MoEF, TNPCB, AD/Mines-DGM and DMS, Chennai as a part of Environmental Compliance without any deviation.
- 6) The PP shall furnish an affidavit indicating the Standard Operating Procedures (SoP) for carrying out the 'Best Mining Practices' in the areas of drilling, blasting excavation, transportation, and green belt development, in securing the safety of the persons living within a radial distance of 500 m (danger zone) to the concerned AD (Mines) at the time of lease execution.
- 7) The PP shall appoint a statutory Mine Manager possessing the I / II Class Mines Manager Certificate of Competency (R/UR) under MMR 1961 before executing the lease and a copy of such appointment shall be sent to the DMS/Chennai Region atleast 30 days before the commencement of the mining operations without fail.

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8) The PP shall not carry out the deep hole larger diameter blasting and the secondary blasting of oversize fragments /boulders during the life of the lease

period.

9) Considering the village/highway roads are located within 300m from the lease boundary, the PP shall carry out the small-scale blasting involving 30 to 40 holes

in a round at a time with keeping the total aggregate explosive charge/round is

limited to 2 kg only in accordance with the provisions of MMR 1961.

10) The PP shall only carry out the NONEL-based (or) Electronic Detonator based

blasting operation for controlling the environmental impacts with keeping the

security guards at either side of the Village road (@distance of 500 m) by

ensuring that no vehicles are allowed to pass through the road and all persons

within such area have taken proper shelter during the blasting.

11) Since the quarry depth is already reached 30 m, for the safety of the persons

employed in the quarry, the PP shall carry out the scientific studies to assess the

slope stability of the working benches and existing quarry wall within a period

six months from the commencement of mining operation after obtaining prior

permission from the Director of Mines Safety/Chennai Region, by involving any

one of the reputed Research and Academic Institutions - CSIR-Central Institute

of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, Division of

Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and

Anna University Chennai-CEG Campus. A copy of such scientific study report

shall be submitted to the SEIAA, MoEF, TNPCB, AD/Mines-DGM and DMS,

Chennal as a part of Environmental Compliance without any deviation.

12) As accepted by the Project Proponent the CER cost is Rs. 5 Lakhs and the amount

shall be spent towards Government Higher Secondary School, Ulagapuram for

the activities as committed before obtaining CTO from TNPCB.

Agenda No: 438 - 18

(File No.10516/2023)

Proposed Rough Stone quarry lease over an extent 1.00.0 Ha (Patta land) at S.F.No.

437/1 (Part) of Pallapatti Village, Aravakurichi Taluk, Karur District, Tamil Nadu by

SEAC -TN

Thiru. P. Saravanan - For Environmental Clearance. (\$IA/TN/MIN/448808/2023 dated: 26.10.2023)

The proposal was placed for appraisal in the 438th Meeting of SEAC held on 05.01.2024. The details of the project furnished by the proponent are given in the website(parivesh.nic.in).

The SEAC noted the following:

- 1. The project proponent, Thiru. P. Saravanan has applied for Environmental Clearance for the Proposed Rough Stone quarry lease over an extent 1.00.0 Ha (Patta land) at S.F.No. 437/1 (Part) of Pallapatti Village, Aravakurichi Taluk, Karur District, Tamil Nadu.
- 2. The project/activity is covered under Category "B2" of Item 1(a) "Mining of Minerals Projects" of the Schedule to the EIA Notification, 2006.
- Earlier, the proponent has obtained EC from DEIAA vide Lr.No./DEIAA-DIA/TN/MIN/6698/2017-KRR EC.No.57/2018/Mines dated.14.10.2017. The EC was accorded for the quantity of 8700m3 of rough stone up to the depth of 11m.
- 4. The Deputy Director, Dept. of G&M vide letter dated.10.10.2023 has furnished the details of earlier quarrying operations and pit details as follows:
 - i) Exact depth of existing pit as per the approved mining plan

Pit Level	Length(m)	Width(m)	Depth(m)
1	38	17	2
II	42	30	5

iii) Quantity and depth granted in earlier mining operations and achieved by proponent:

Approved depth as per EC	:	11m
Approved quantity as per EC	:	8700
Permit obtained quantity	:	7650

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Based on the presentation and details furnished by the project proponent, the Committee decided to call for the following details from the project proponent to consider the proposal for appraisal:

- 1. From the KML file uploaded in the PARIVESH Portal, it was ascertained that quarrying operations were carried out outside the lease area. Hence, the SEIAA is requested to write to the concerned AD/DD (Mines) with a copy sent to the Commissioner of Geology and Mining, Chennai, to inspect the site physically and furnish details as detailed below:
 - (i) Details of illegal/illicit mining carried out, if any
 - (ii) Non-compliance/Violation in the quarry during the past working.
 - (iii) Quantity of material mined out outside the mine lease area (or) in the adjacent quarry/land.
 - (iv) Existing condition of Safety zone/benches
 - (v) Details of any penalties levied on the PP for any violation in the quarry operation by the Department of Geology and Mining.
- 2. The PP shall submit the Certified Compliance Report (CCR) obtained from IRO(SZ), MoEF&CC for the previous EC obtained from DEIAA dated.14.10.2017 and also to furnish mitigation measures/remedial action plan with the budget allocation for the non-compliance stated in the CCR.

On receipt of the same, further deliberations shall be done.

Hence, the proponent is advised to submit the details within a period of 30 days failing which the proposal will be automatically delisted from the PARIVESH Portal.

Agenda No: 438 - 19 (File No.10523/2023)

:

Proposed multi-Colour Granite quarry lease area over an extent of 2.43.0 Ha (Patta Land) at S.F. Nos. 636/1(Part), 636/2(Part), 636/3(Part), 636/4(Part), 637/1(Part) & 637/2(Part) of Pothuravuthanpatti Village, Krishnarayapuram Taluk, Karur District, Tamil Nadu by M/s. Seven Granites Private Limited - For Environmental Clearance. (SIA/TN/MIN/449463/2023 dated: 19.10.2023)

The proposal was placed for appraisal in the 438th Meeting of SEAC held on

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05.01.2024. The details of the project furnished by the proponent are given in the website(parivesh.nic.in).

The SEAC noted the following:

- The project proponent, M/s. Seven Granites Private Limited has applied for Environmental Clearance for the Proposed Multi-Colour Granite quarry lease area over an extent of 2.43.0 Ha (Patta Land) at S.F. Nos. 636/1(Part), 636/2(Part), 636/3(Part), 636/4(Part), 637/1(Part) & 637/2(Part) of Pothuravuthanpatti Village, Krishnarayapuram Taluk, Karur District, Tamil Nadu.
- 2. The project/activity is covered under Category "B2" of Item 1(a) "Mining of Minerals Projects" of the Schedule to the EIA Notification, 2006.
- 3. The salient features of the proposal are as follows:

	 File No	10523/2023		Catacan	B2		
THE NO		449463/2023		Category	1(a)		
SI. No		Salient Fea	eatures of the Proposal				
1.	Name of the	e Owner/Firm	:	M/s. Seven Granites Private Limited, No.3/4, Viswa Nagar, Tharanallur Extension, Tiruchirapalli District-620008.			
2.		rrying (Ordinary Granite/Limestone)	:	Multi-colour Granite Quarry			
3.	S.F Nos. of t with area br	he quarry site eak-up		636/1(Part), 636/2(Pa 636/4(Part), 637/1(Pa 637/2(Part)			
4.	Village in w	hich situated	:	Pothuravuthanpatti			
5.	Taluk in whi	ich situated	:	Krishnarayapuram			
6.	District in w	hich situated	:	Karur			
7.	Extent of qu	arry (in ha.)	:	2.43.0 Ha			

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8.	Latitude & Longitude of all	Τ.	10°46'52.9403"N to 1	0°46'59.3836"N	
0.	corners of the quarry site		78°18'38.5542"E to 78	8°18'43.2599"E	
9.	Topo Sheet No.	:	58 J/05		
10	Type of mining	;	Opencast Semi - Mech	nanized Mining	
	Life of Project	:	20 years		
	Lease Period		20 years		
11.	Mining Plan Period	:	20 years		
	Tentative Development and Production Plan Period		5 years		
	Mining Plan Details		As per approved	As modified by	
	Milling Flatt Details		Mining Plan	SEAC	
			ROM	ROM	
	Geological Resources m³ (RoM)	14	9,72,400 m³	-	
			Granite Recovery @ 40%	Granite Recovery @ 40%	
			3,88,960m³	-	
12.			Granite Waste @ 60%	Granite Waste @ 60%	
'2			5,83,440m³	•	
	· · · · · · · · · · · · · · · · · · ·		ROM	ROM	
			3,86,200m³		
	Minable Resources m³ (RoM)		Granite Recovery @	Granite Recovery @ 40%	
			1,54,480m³	-	
			Granite Waste @ 60%	Granite Waste @	
			2,31,720m³	- /	

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			ROM	ROM	
			19,440m³	-	
	Annual Peak Production in m ³		Granite Recovery @	Granite Recovery	
			40%	@ 40%	
	Aimaai reak rioduction iii iii		7,776m³	-	
			Granite Waste @ 60%	Granite Waste @ 60%	
			11,664m³	-	
	Ultimate Depth in meters	:	43m BGL		
13.	Depth of water table	:	64m BGL		
14.	Man Power requirement/day:	:	41 Nos.		
	Water requirement:		2.2 KLD		
	1. Drinking & utilized		0.6 KLD		
15.	water	:			
	2. Dust suppression		0.9 KLD		
	3. Green belt		0.7 KLD		
16.	Power requirement	:	1,54,000 Liters of HSI)	
	Precise area communication				
17.	approved by the Additional		Letter No.4654470/N	MB.2/2023-1,	
''	Chief Secretary to Govt.,	-	dated: 19.07.2023		
	Natural Resources Dept.				
	Mining Plan approved by the		Pc No 449/NAM2/201	22 datada	
18.	Director, Dept. of Geology &	:	Rc.No.448/MM2/2023, dated:		
	Mining.		11.09.2023		
	500m Cluster Letter issued by		Pc No 382/Minos/201	22 dated:	
19.	the Deputy Director,	:			
	Department of G&M.		29.09.2023		

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	VAO Certificate Regarding				
20	Structures within 300m		Letter Dated: 25.09.2023		
	Radius				
	Project Cost (excluding EMP				
21.	cost)	:	Rs. 3,56,42,000/-		
				30 years	
				subject to the	
			N 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	following	
		:	Validity	upper limits.	
				Multi Colour	
				Granite	
	EC Recommendation			RoM -	
				96,250m³,	
		••		which includes	
			Max Total RoM in m ³	Granite recovery	
				@ 40%-	
22				38,500m³ &	
				Granite Waste -	
				57,750m³	
				RoM - 19,440m³	
				which includes	
				Granite recovery	
			Annual Max RoM	@ 40%-	
		•	in m³	7,776m³,	
				Granite Waste	
				@ 60% -	
				11.664m³	
			Ultimate Depth	43 BGL	
22	FMD cost (in Dr. Lakha)	:	Capital Cost - Rs. 33,	64,100/-	
23	EMP cost (in Rs. Lakhs).		Recurring Cost - Rs. 11,98,560/-		

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24	CER cost (in Rs. Lakhs).	:	Rs. 5,00,000/-	

Based on the presentation and documents furnished by the project proponent, SEAC decided to recommend the proposal for the grant of Environmental Clearance for Annual Peak excavation quantity of ROM not exceeding 19,440m³ with maintaining an ultimate pit depth of 43m below ground level subject to the standard conditions as per the Annexure 1 of this minutes & normal conditions stipulated by MOEF &CC, in addition to the following specific conditions:

- The prior Environmental Clearance granted for this mining project shall be valid
 for the project life including production value as laid down in the mining plan
 approved and renewed by competent authority, from time to time, subject to a
 maximum of thirty years, whichever is earlier, vide MoEF&CC Notification S.O,
 1807(E) dated 12.04.2022.
- 2. The PP shall ensure that the plantation shall be carried out in a phase manner as a part of mine closure activities spelt out in the progressive mine closure plan.
- 3. The PP shall install the Environmental Management Cell headed by the statutory (I/II Class) Mines Manager of the concerned mine and the cell shall include a dedicated full-time Environmental Engineer exclusively to look into the effective implementation of Environmental Management Plan besides the reviewing the compliance reports with the regulatory authorities.
- 4. The PP shall ensure the safety provisions as stipulated in the DGMS Circular No:02, dated. 29.11.2019 while using the Diamond Wire Saw machines in the proposed quarry operation.
- The PP shall adopt only non-explosive technique (Rock Breaking Compounds) for the fracturing of granite blocks ensuring the eco-friendly mining operation in the proposed quarry.
- 6. To ensure the conditions of occupational safety, health & welfare status of persons working in the mine, the PP shall annually conduct occupational health survey to determine prevalence of Noise Induced Hearing Loss (NIHL) due to the operation of Diamond Wire Saw cutting & other HEMMs deployed in the

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mine and to prepare a plan for hearing conservation programme by involving anyone of the reputed institutes - Regional Occupational Health Centre (Southern) of ICMR-National Institute of Occupational Health, Bengaluru, National Institute of Miners' Health, Nagpur and Anna University, Chennai.

- 7. The PP shall properly provide all the required welfare amenities near quarry such as Drinking water, Rest Shelter, Canteen, Toilets, etc for the persons to be employed in the proposed quarry before the execution of lease, in accordance with the provisions of the Mines Rules, 1955.
- 8. For the safety of the persons employed in the quarry, the PP shall carry out the scientific studies to assess the slope stability of the working benches and existing quarry wall during the 4th year or when the depth exceeds 30m whichever is earlier, by involving any one of the reputed Research and Academic Institutions CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. A copy of such scientific study report shall be submitted to the SEIAA, MoEF, TNPCB, AD/Mines-DGM and DMS. Chennai as a part of Environmental Compliance without any deviation.
- 9. The PP shall ensure that the Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from soil, OB and mineral reject (Granite waste) dumps. The water so collected in such sump should be utilized for watering the mine area, roads, green belt development, etc. The drains should be regularly de-silted and maintained properly.
- 10. The mining lease holders shall, after ceasing mining operations, undertake regrassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.
- 11. The Project Proponent shall ensure that the funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year-wise expenditure should be reported to the

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- MoEF & CC Ministry and its Integrated Regional Office (IRO) located in Chennai.
- 12. As accepted by the Project Proponent the CER cost of Rs. 5 Lakhs and the amount shall be spent for the activities as committed towards Panchayat Union Primary School, Ayyampalayam before obtaining CTO from TNPCB.

Agenda No: 438 - 20 (File No.10530/2023)

Proposed Rough Stone and Gravel Quarry lease over an extent 2.10.90 ha (Patta Land) at S.F.Nos. 306/2A2 & 306/2B2(P) of Akkalampatti Village, Tiruchengode Taluk, Namakkal District, Tamil Nadu by M/s. Rajamurugan Blue Metals - For Environmental Clearance. (SIA/TN/MIN/451047/2023 dated: 02.11.2023)

The proposal was placed for appraisal in the 438th Meeting of SEAC held on 05.01.2024. The details of the project furnished by the proponent are given in the website(parivesh.nic.in).

The SEAC noted the following:

- The project proponent, M/s. Rajamurugan Blue metails has applied for Environmental Clearance for the Proposed Rough Stone and Gravel Quarry lease over an extent 2.10.90 ha (Patta Land) at S.F.Nos. 306/2A2 & 306/2B2(P) of Akkalampatti Village, Tiruchengode Taluk, Namakkal District, Tamil Nadu.
- 2. The project/activity is covered under Category "B2" of Item 1(a) "Mining of Minerals Projects" of the Schedule to the EIA Notification, 2006.
- 3. The salient features of the proposal are as follows:

File No		10530/2023			B2
		451047/2023		Category	1(a)
SI. No		Salient Features of the Proposal			
	1. Name of the Owner/Firm			M/s. Rajamurugan Blo	ue Metals,
				Thiru. R. Balakrishnar	n (Managing
1.			:	Partner),	
				No. 6/4, Salem Road.	. Kalangani.
				Namakkal Taluk & Di	strict - 637 014

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2.	Type of quarrying (Ordinary	:	Rough Stone & Grav	el Quarry	
	Stone/Sand/Granite/Limestone)				
3.	S.F Nos. of the quarry site	:	306/2A2 & 306/2B2	?(P)	
	with area break-up				
4.	Village in which situated	:	Akkalampatti		
5.	Taluk in which situated	:	Tiruchengode		
6.	District in which situated	:	Namakka!		
7.	Extent of quarry (in ha.)	:	2.10.90 Ha		
8.	Latitude & Longitude of all	:	11°18'59.17"N to 11°1	9'08.31"N	
0.	corners of the quarry site		78°03'31.57"E to 78°	°03'36.98"E	
9.	Topo Sheet No.	:	58 - 1/03		
10.	Type of mining	:	Opencast Mechanized Mining		
,	Life of Project	;	: 10 years		
11.	Lease Period		10 years		
	Mining Plan Period	:	10 years		
	Mining Plan Details	:	As per approved	As modified by	
			Mining Plan	SEAC	
	Geological Resources m³ (RoM)		Rough Stone	Rough Stone	
			9,50,400 m³	-	
			Gravel	Gravel	
			42,240 m³	-	
12.	Minable Resources m³ (RoM)		Rough Stone	Rough Stone	
12.			2,94,320m³	-	
	Williadic Resources III (Nowy		Gravel	Gravel	
			32,140 m³	-	
			Rough Stone	Rough Stone	
	Annual Peak Production in m ³		43,880m³	-	
			Gravel	Gravel	
			13,484m³	-	

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	Maximum Depth in meters	:	47m BGL		•
13.	Depth of water table	;	75 - 80m BGL		
14.	Man Power requirement/day:	:	20 Nos.		
	Water requirement:		1.5 KLD		
<u> </u>	1. Drinking & utilized		0.3 KLD		
15.	water	:			
	2. Dust suppression		0.7 KLD		
	3. Green belt		0.5 KLD		
16.	Power requirement	:	1,75,872 Liters of H	ISD for 5 ye	ars
17.	Precise area communication approved by the Assistant Director, Dept. of G&M	:	Na.Ka.No.1478/Kar 24.08.2023	nimam/202	2, dated:
18.	Mining Plan approved by Assistant Director, Dept. of G&M	:	Roc.No.1478/Mines/2022, dated: 26.10.2023		
19.	500m Cluster Letter issued by Assistant Director, Dept. of G&M	:	Roc.No.1478/Mines/2022, dated: 27.10.2023		
20.	VAO Certificate Regarding Structures within 300m Radius	:	Letter Dated: 04.09	.2023.	
21.	Project Cost (excluding EMP cost)	:	Rs. 55,14,000/-		
22.	EC Recommendation	•	Validity	30 years so the follow upper lim Rough Stone	ving
			Max Total RoM	2,94,320 m³	32,140m³

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		:	Annual Max RoM	43,880m³	13,484m³
		:	Max Depth in mtrs	47m	BGL
23.	EMP cost (in Rs. Lakhs).	:	Capital Cost - Rs. 2 Recurring Cost - Rs.		·-
24.	CER cost (in Rs. Lakhs).	:	Rs. 5,00,000/-		

Based on the presentation and documents furnished by the project proponent, SEAC decided to recommend the proposal for the grant of Environmental Clearance for the annual peak production capacity not exceeding 43,880m³ of Rough stone & 13,484m³ of gravel by restricting the ultimate depth of mining up to 47m below ground level and subject to the standard conditions as per the Annexure I of this minutes & normal conditions stipulated by MoEF &CC, in addition to the following specific conditions:

- The prior Environmental Clearance granted for this mining project shall be valid
 for the project life including production value as laid down in the mining plan
 approved and renewed by competent authority, from time to time, subject to
 a maximum of thirty years, whichever is earlier, vide MoEF&CC Notification
 S.O, 1807(E) dated 12.04.2022.
- 2) Tree plantation & fencing and installation of garland drainage with siltation tank around the mine lease area shall be completed before execution of the mine lease.
- 3) The PP shall mark the DGPS reference pillars painted with blue & white colour indicating the safety barrier of 7.5 m to be left under the Rule 13 (1) of MCDR, 1988 within the lease boundary and protective bunds, before obtaining the CTO from the TNPCB.
- 4) The PP shall not employ any external agency for carrying out the blasting operation and he shall also install the temporary magazines approved by the concerned licensing authority before the execution of the lease, for storing the authorized explosives & detonators separately in accordance with the Explosive Rules, 2008.

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- 5) Since structures are situated within a radial distance of 500 m, the PP shall carry out the scientific studies within a period of six months from the commencement of quarrying operations with prior permission from the DMS/Chennai Region, to design the controlled blast parameters for reducing the blast-induced ground/air- vibrations and eliminating the fly rock from the blasting operations carried out in the quarry, by involving anyone of these reputed Research and Academic Institution such as CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. A copy of such scientific study report shall be submitted to the SEIAA, MoEF, TNPCB, AD/Mines-DGM and DMS, Chennai as a part of Environmental Compliance without any deviation.
- 6) The PP shall furnish an affidavit indicating the Standard Operating Procedures (SoP) for carrying out the 'Best Mining Practices' in the areas of drilling, blasting excavation, transportation, and green belt development, in securing the safety of the persons living within a radial distance of 500 m (danger zone) to the concerned AD (Mines) at the time of lease execution.
- 7) The PP shall appoint a statutory Mine Manager possessing the 1/11 Class Mines Manager Certificate of Competency (R/UR) under MMR 1961 before executing the lease and a copy of such appointment shall be sent to the DMS/Chennai Region atleast 30 days before the commencement of the mining operations without fail.
- 8) The PP shall not carry out the deep hole larger diameter blasting and the secondary blasting of oversize fragments /boulders during the life of the lease period.
- 9) Considering the village/highway roads are located within 300m from the lease boundary, the PP shall carry out the small scale blasting involving 30 to 40 holes in a round at a time with keeping the total aggregate explosive charge/round is limited to 2 kg only in accordance with the provisions of MMR 1961.
- 10) The PP shall only carry out the NONEL-based (or) Electronic Detonator based blasting operation for controlling the environmental impacts with keeping the

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- security guards at either side of the Village road (@distance of 500 m) by ensuring that no vehicles are allowed to pass through the road and all persons within such area have taken proper shelter during the blasting.
- 11) For the safety of the persons employed in the quarry, the PP shall carry out the scientific studies to assess the slope stability of the working benches and existing quarry wall during the 4th year or when the depth exceeds 30m whichever is earlier, by involving any one of the reputed Research and Academic Institutions CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. A copy of such scientific study report shall be submitted to the SEIAA, MoEF, TNPCB, AD/Mines-DGM and DMS, Chennai as a part of Environmental Compliance without any deviation.
- 12) As accepted by the Project Proponent the CER cost is Rs. 5 Lakhs and the amount shall be spent towards Government Higher Secondary School, Ulagapuram for the activities as committed before obtaining CTO from TNPCB.

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ANNEXURE-I

SPECIAL MITIGATION MEASURES FOR THE QUARRIES LOCATED WITHIN 1 KM FROM THE RESERVE FORESTS

- 1. Since the R.F is located very close to the proposed quarry site, the PP shall develop Green Belt (Thick Tree plantation in two to three rows) along the boundary of the mine lease area before obtaining the CTO from the TNPCB.
- The proponent shall construct and maintain proper fencing all around the boundary of the proposed working quarry adjacent to the direction of the location of the Reserved Forest before the commencement of the operation and shall furnish the photographs showing the same before obtaining the CTO from TNPCB.
- 3. The PP shall take steps so that the overburden, waste rock, rejects and fines generated during the mining operations shall be stored in separate dumps positioned in opposite direction to the location of the reserved forest.
- 4. The PP shall ensure that such waste/reject dumps shall be properly secured to prevent escape of material there from in harmful quantities which may cause degradation of environment and to prevent causation of floods.
- 5. The PP shall select the site for dumps on impervious ground to ensure minimum leaching effects due to predipitations.
- 6. The PP shall take necessary steps that wherever possible, the waste rock, overburden etc. shall be back-filled into the mine excavations with a view to restoring the land to its original use as far as possible.
- 7. Wherever back-filling of waste rock in the area excavated during mining operations is not feasible, the PP shall take adequate steps in discussion with the concerned DFO to suitably terrace the waste dumps ensuring the stability through vegetation to consolidate the green belt development in the areas adjacent to the reserved forest location.
- 8. The PP shall carry out the scientific investigations in order to keep the ground and noise vibrations caused by blasting operations and movement of HEMM such as Excavators. Trucks within safe limit.

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- 9. The PP shall not perform secondary breakage involving the drilling & blasting in the quarrying operations and it can be replaced with non-conventional methods such as noise-controlled rock breakers, usage of non-explosive expansive materials/chemicals, Hydraulic Splitting based on the suitable scientific studies carried out by any reputed scientific and academic institutions.
- 10. The PP shall take adequate steps to control the air pollution due to fines, dust, smoke or gaseous emissions during the quarrying operations within 'Permissible Limits' specified under the environmental laws.
- 11. The Quarrying and Mining activities shall be restricted in the Eco-sensitive Zone of 60 m from the boundary of the Reserved area and hence the PP shall not even indulge in constructing the haul roads in these areas.
- 12. No development on existing steep hill slopes or slopes with a high degree of erosion shall be permitted. Hence, the PP shall not carry out the quarrying on steep hill slopes with a gradient of 20° or more or areas with a high degree of erosion on forestland.
- 13. The PP shall give an affidavit at the time of lease execution that there will be no felling of trees (or) any encroachment will not be made on these Reserved Forest lands and also within the Eco- sensitive Zone of 60 m without the prior permission of the State Government in case of reserve forest land as per the procedures laid down by the State Government.
- 14. The PP shall not use plastic carry bags within the quarry area.
- 15. The PP shall ensure that all the haul roads within the quarry lease shall be provided with adequate number of road side drains and these drains shall be kept free form blockage for runoff disposals. This run off from the road side drainage shall relate to the natural drainage system in the area.
- 16. The PP shall adhere to the provisions of the MoEF had issued Notification No. S.O. 1545 dated 25th June 2009 regulating certain activities in the ecosensitive zone to conserve and protect the reserved forest area from ecological and environmental point of view.

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#### GRAVEL / RED EARTH & PEBBLES QUARRY - GENERAL CONDITIONS

- 1. The proponent shall mandatorily appoint the statutory competent persons and commence the quarry operations within the purview of Mines Act 1952.
- The proponent shall erect fencing all around the boundary of the proposed area with gates for entry/exit before the commencement of the operation and shall furnish the photographs/map showing the same before obtaining the CTO from TNPCB.
- Perennial maintenance of haulage road/village / Panchayat Road shall be done by the project proponent as required in connection with the concerned Govt. Authority.
- 4. 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. No change in basic mining proposal shall 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 of Short-Term Permit (STP), Query license or any other name.
- Perennial sprinkling arrangement shall be in place on the haulage road for fugitive dust suppression. Fugitive emission measurements should be carried out during the mining operation at regular intervals.
- 6. The Proponent shall ensure that the noise level is monitored during mining operation at the project site for all the machineries deployed and adequate noise level reduction measures undertaken accordingly.
- 7. Proper barriers to reduce noise level and dust pollution should be established by providing greenbelt along the boundary of the quarrying site and suitable working methodology to be adopted by considering the wind direction.

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- 8. The purpose of green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics.
- 9. Taller/one year old saplings raised in appropriate size of bags (preferably eco-friendly bags) should be planted in proper spacing as per the advice of local forest authorities/botanist/horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner.
- 10. Noise and Vibration Related: (i) Appropriate measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs/muffs, (iii) Noise levels should be monitored regularly (on weekly basis) near the major sources of noise generation within the core zone.
- 11. The operation of the quarry should not affect the agricultural activities & water bodies near the project site and a 50 m safety distance from water body should be maintained without carrying any activity. The proponent shall take appropriate measures for "Silt Management" and prepare a SOP for periodical de-siltation indicating the possible silt content and size in case of any agricultural land exists around the quarry.
- 12. The proponent shall provide sedimentation tank / settling tank with adequate capacity for runoff management.
- 13. The proponent shall ensure that the transportation of the quarried granite stones shall not cause any hindrance to the Village people/Existing Village Road and shall take adequate safety precautionary measures while the vehicles are passing through the schools / hospital. The Project Proponent shall ensure that the road may not be damaged due to transportation of the quarried granite stones; and transport of granite stones will be as per IRC Guidelines with respect to complying with traffic congestion and density.

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- 14. To ensure safety measures along the boundary of the quarry site, security guards are to be posted during the entire period of the mining operation.
- 15. The Project Proponent shall comply with the provisions of the Mines Rules 1955 for ensuring safety, health and welfare of the people working in the mines and the surrounding habitants.
- 16. The project proponent shall ensure that the provisions of the MMDR Act, 1957, the MCDR 2017 and Tamilnadu Minor Mineral Concession Rules 1959 are compiled by carrying out the quarrying operations in a skillful, scientific and systematic manner keeping in view proper safety of the labour, structure and the public and public works located in that vicinity of the quarrying area and in a manner to preserve the environment and ecology of the area.
- 17. The quarrying activity shall be stopped if the entire quantity indicated in the Mining plan is quarried even before the expiry of the quarry lease period and the same shall be informed to the District AD/DD (Geology and Mining) District Environmental Engineer (TNPCB) by the proponent without fail.
- 18. The Project Proponent shall abide by the annual production scheduled specified in the approved mining plan and if any deviation is observed, it will render the Project Proponent liable for legal action in accordance with Environment and Mining Laws.
- 19. Prior clearance from Forestry & Wild Life including clearance from committee of the National Board for Wildlife as applicable shall be obtained before starting the quarrying operation, if the project site attracts the NBWL clearance, as per the existing law from time to time.
- 20. All the conditions imposed by the Assistant/Deputy Director, Geology & Mining, concerned District in the mining plan approval letter and the Precise area communication letter issued by concerned District Collector should be strictly followed.
- 21. That the grant of this E.C. is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole

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- and complete responsibility, to comply with the conditions laid down in all other laws for the time-being in force, rests with the project proponent.
- 22. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.
- 23. As per the MoEF& CC Office Memorandum F.No. 22-65/2017-IA.III dated: 30.09.2020 and 20.10.2020 the proponent shall adhere EMP furnished.

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#### ROUGH STONE/JELLY/BLUE METAL QUARRY

- The PP shall inform send the 'Notice of Opening' of the quarry to the Director of Mines Safety, Chennai Region before obtaining the CTO from the TNPCB.
- 2) The Project Proponent shall abide by the annual production scheduled specified in the approved mining plan and if any deviation is observed, it will render the Project Proponent liable for legal action in accordance with Environment and Mining Laws.
- 3) The proponent shall appoint the statutory competent persons relevant to the proposed quarry size as per the provisions of Mines Act 1952 and Metalliferous Mines Regulations, 1961, as amended from time to time.
- 4) Within a period one month from the execution of lease deed, the PP shall ensure that the persons deployed in the quarry including all the contractual employees/truck drivers shall undergo initial/periodical training in the DGMS approved GVTC situated in Trichy / Salem / Hosur.
- 5) The PP shall construct a garland drain of size, gradient and length around the proposed quarry incorporating garland canal, silt traps, siltation pond and outflow channel connecting to a natural drain should be provided prior to the commencement of mining. Garland drain, silt-traps, siltation ponds and outflow channel should be de-silted periodically and geo-tagged photographs of the process should be included in the HYCR.
- 6) Monitoring of drainage water should be carried out at different seasons by an NABL accredited lab and clear water should only be discharged into the natural stream. Geo-tagged photographs of the drainage and sampling site should be submitted along with HYCR.
- 7) The proponent shall install the 'S3 (or) G2' type of fencing all around the boundary of the proposed working quarry with gates for entry/exit before the commencement of the operation as recommended in the DGMS Circular, 11/1959 and shall furnish the photographs showing the same before obtaining the CTO from TNPCB.

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- 8) The Proponent shall submit a conceptual 'Slope Stability Action Plan' incorporating the benches & accessible haul road approved by the concerned AD (Mines) for the proposed quarry to the DEE/TNPCB at the time of obtaining the CTO.
- 9) The PP shall ensure that the persons employed in the quarry whether permanent, temporary or contractual are undergoing the initial/periodical medical examination in the DGMS approved OHS Clinics/Hospitals as per the DGMS Circular No. 01 of 2011 before they are engaged in mining activities.
- 10) The PP shall ensure that the persons employed in the quarry whether permanent, temporary or contractual are provided with adequate PPEs before engaged in mining operations.
- 11) The PP shall meticulously carry out the mitigation measures as spelt out in the approved EMP.
- 12) Proper barriers to reduce noise level and dust pollution should be established by providing greenbelt along the boundary of the quarrying site and suitable working methodology should be adopted by considering the wind direction.
- 13) The Project Proponent shall ensure that the funds earmarked for environmental protection measures are kept in a separate bank account and should not be diverted for other purposes. Year-wise expenditure should be included in the HYCR.
- 14) The Project Proponent shall send a copy of the EC to the concerned Panchayat/local body.
- 15) Perennial maintenance of haulage road/village / Panchayat Road shall be done by the project proponent as required, in coordination with the concerned Govt. Authority.
- 16) Perennial sprinkling arrangements shall be in place on the haulage road for fugitive dust suppression. Fugitive emission measurements should be carried out during the mining operation at regular intervals and submit the consolidated report to TNPCB once in six months.

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- 17) The Proponent shall ensure that the noise level is monitored during mining operation at the project site for all the machineries deployed and adequate noise level reduction measures are undertaken accordingly. The report on the periodic monitoring shall be included in the HYCR.
- 18) Proper barriers to reduce noise level and dust pollution should be established by providing greenbelt along the boundary of the quarrying site and suitable working methodology to be adopted by considering the wind direction.
- 19) The purpose of green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
- 20) Taller/one year old saplings raised in appropriate size of bags (preferably eco-friendly bags) should be planted in proper spacing as per the advice of local forest authorities/botanist/horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner.
- 21) Noise and Vibration Related: (i) Appropriate measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs/muffs, (ii) Noise levels should be monitored regularly (on weekly basis) near the major sources of noise generation within the core zone.
- 22) The PP shall carry out maximum of only one round of controlled blast per day, restricted to the maximum of 30 to 40 number of holes per round with maintaining maximum charge per delay in such a manner that the blast-induced ground vibration level (Peak Particle Velocity) measured in the

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- houses/structures located at a distance of 500 m shall not exceed 2.0 mm/s and no fly rock shall travel beyond 20 m from the site of blasting.
- 23) The PP shall also ensure that the blasting operations are not carried out on a 'day after day' basis and a minimum 24 hours break should be observed between blasting days to reduce the environmental impacts effectively.
- 24) If 'Deep-hole large diameter drilling and blasting' is required, then the PP shall obtain special permission from DGMS.
- 25) The PP shall ensure that the blasting operations shall be carried out during a prescribed time interval with a prior notice to the habitations situated around the proposed quarry after having posted the sentries/guards adequately to confirm the non-exposure of public within the danger zone of 500 m from the boundary of the quarry. The PP shall use the jack hammer drill machine fitted with the dust extractor for the drilling operations such that the fugitive dust is controlled effectively at the source.
- 26)The PP shall ensure that the blasting operations are carried out by the blaster/Mine Mate/Mine Foreman employed by him in accordance with the provisions of MMR 1961 and it shall not be carried out by the persons other than the above statutory personnel.
- 27) The proponent shall undertake in a phased manner restoration, reclamation and rehabilitation of lands affected by the quarrying operations and shall complete this work before the conclusion of such operations as per the Environmental Management Plan& the approved Mine Closure Plan.
- 28) Ground water quality monitoring should be conducted once in every six months and the report should be submitted to TNPCB.
- 29) The operation of the quarry should not affect the agricultural activities & water bodies near the project site and a 50 m safety distance from water body should be maintained without carrying any activity. The proponent shall take appropriate measures for "Silt Management" and prepare a SOP for periodical de-siltation indicating the possible silt content and size in case of any agricultural land exists around the quarry.

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- 30) The proponent shall provide sedimentation tank / settling tank with adequate capacity for runoff management.
- 31) The proponent shall ensure that the transportation of the quarried granite stones shall not cause any hindrance to the Village people/Existing Village Road and shall take adequate safety precautionary measures while the vehicles are passing through the schools / hospital. The Project Proponent shall ensure that the road may not be damaged due to transportation of the quarried granite stones; and transport of granite stones will be as per IRC Guidelines with respect to complying with traffic congestion and density.
- 32)To ensure safety measures along the boundary of the quarry site, security guards are to be posted during the entire period of the mining operation.
- 33) The Project Proponent shall comply with the provisions of the Mines Act. 1952, MMR 1961 and Mines Rules 1955 for ensuring safety, health and welfare of the people working in the mines and the surrounding habitants.
- 34) The project proponent shall ensure that the provisions of the MMDR Act, 1957&the MCDR 2017 and Tamilnadu Minor Mineral Concession Rules 1959 are compiled by carrying out the quarrying operations in a skillful, scientific and systematic manner keeping in view proper safety of the labour, structure and the public and public works located in that vicinity of the quarrying area and in a manner to preserve the environment and ecology of the area.
- 35)The quarrying activity shall be stopped if the entire quantity indicated in the Mining plan is quarried even before the expiry of the quarry lease period and the same shall be informed to the District AD/DD (Geology and Mining) District Environmental Engineer (TNPCB) and the Director of Mines Safety (DMS). Chennai Region by the proponent without fail.
- 36)The Project Proponent shall abide by the annual production scheduled specified in the approved mining plan and if any deviation is observed, it will render the Project Proponent liable for legal action in accordance with Environment and Mining Laws.

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- 37)All the conditions imposed by the Assistant/Deputy Director, Geology & Mining, concerned District in the mining plan approval letter and the Precise area communication letter issued by concerned District Collector should be strictly followed.
- 38) That the grant of this E.C. is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility, to comply with the conditions laid down in all other laws for the time-being in force, rests with the project proponent.
- 39) As per the directions contained in the OM F.No.22-34/2018-IA.III dated 16th January 2020 issued by MoEFCC, the Project Proponent shall, undertake regrassing the mining area and any other area which may have been disturbed due to his mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc. The compliance of this direction shall be included in the Half Yearly Compliance Report which will be monitored by SEAC at regular intervals.
- 40) The mining lease holders shall, after ceasing mining operations, undertake regrassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.
- 41) As per the MoEF&CC Office Memorandum F.No. 22-65/2017-IA.III dated: 30.09.2020 and 20.10.2020 the proponent shall adhere to the EMP as committed.

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| SPEC | SPECIAL MITIGATION MEASURES FOR THE QUARRIES LOCATED IN CLOSE |                                             |  |  |
|------|---------------------------------------------------------------|---------------------------------------------|--|--|
| PRC  | PROXIMITY TO THE WINDMILLS                                    |                                             |  |  |
| St.  | Existing (or) Virgin Quarry                                   |                                             |  |  |
| No   | Wind Mills located at a distance of                           | Wind Mills located beyond 300 m             |  |  |
| Ì    | 150 m to 300 m                                                | Up to 500 m                                 |  |  |
| 1.   | Appointment of I/II Class Mines                               | Appointment of I/II Class Mines Manager     |  |  |
|      | Manager Certificate of                                        | Certificate of Competency under MMR         |  |  |
|      | Competency under MMR 1961.                                    | 1961.                                       |  |  |
| 2.   | Special precautions are to be taken                           | Blast design parameters should be           |  |  |
|      | during blasting within danger zone                            | mentioned in mining plan/scheme. and        |  |  |
| İ    | such as posting guards, etc.                                  | may be reviewed by a competent mining       |  |  |
|      |                                                               | engineer.                                   |  |  |
| 3.   | Blast design parameters should be                             | MCPD and total charge should be fixed       |  |  |
|      | mentioned in mining                                           | such that it should nott exceed 1.3 kg and  |  |  |
|      | plan/scheme.                                                  | 26.50 kg respectively.                      |  |  |
| 4.   | The recommendations of scientific                             | Fresh scientific study may be conducted if  |  |  |
| ;    | organisation need to be                                       | mine management wants to increase the       |  |  |
|      | incorporated in the mining                                    | MCPD and total explosive charge above       |  |  |
|      | plan/scheme before its approval.                              | the quantity of 1.30 kg and 26.50 kg        |  |  |
|      |                                                               | respectively. Continuous monitoring using   |  |  |
|      |                                                               | seismograph should also be done in such     |  |  |
|      |                                                               | cases by the mine management.               |  |  |
| 5.   | Engagement of blasting in-charge                              | Engagement of blasting in-charge having     |  |  |
|      | having Diploma/Degree in mining                               | Diploma/Degree in mining engineering for    |  |  |
|      | engineering for day-to-day                                    | day-to-day blasting.                        |  |  |
|      | blasting.                                                     |                                             |  |  |
| 6.   | Training of the blasting crew on                              | Training of the blasting crew on controlled |  |  |
|      | controlled blasting practices                                 | blasting practices before engaged in        |  |  |
|      | before engaged in operation.                                  | operation.                                  |  |  |

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| 7.  | Submission of monthly report on      | Submission of monthly report on blast        |
|-----|--------------------------------------|----------------------------------------------|
|     | blast design pattern and detailed    | design pattern and detailed explosive        |
|     | explosive consumption as well as     | consumption as well as volume of rock        |
|     | volume of rock excavation to a       | excavation to a statutory body viz. DGMS,    |
|     | statutory body viz. DGMS, DMG,       | DMG, SPCB. Report of recorded ground         |
|     | PESO or SPCB.                        | vibration need to be added in monthly        |
|     |                                      | report.                                      |
| 8.  | Report of recorded ground            | Report of recorded ground vibration need     |
| İ   | vibration need to be added in        | to be added in monthly report which shall    |
|     | monthly report which shall be sent   | be sent to all the statutory body viz.       |
|     | to all the statutory body viz.       | DGMS, DMG, SPCB.                             |
|     | DGMS, DMG, SPCB.                     |                                              |
| 9.  | Small diameter emulsion cartridge    | Small diameter emulsion cartridge of 25      |
|     | of 25 mm diameter (125 gm            | mm diameter (125 gm weight per               |
| !   | weight per cartridge) shall be used. | cartridge) shall be used. However, ANFO      |
| İ   | However, ANFO explosives may         | explosives may also be used as main          |
|     | also be used as main explosive       | explosive charge.                            |
|     | charge.                              |                                              |
| 10. | Electronic (or) Non-electric         | Non-electric detonators (Nonel) shall be     |
|     | detonators (Nonel) shall be used     | used in all the blasts for in-hole explosive |
| İ   | in all the blasts for in-hole        | initiation and surface hole-to-hole firing.  |
|     | explosive initiation and surface     |                                              |
| !   | hole-to-hole firing.                 |                                              |
| 11. | Max. number of holes in a round:     | Max. number of holes in a round: 40 to       |
|     | 30.                                  | 60.                                          |

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- 1. In the case of existing/operating mines, a letter obtained from the concerned AD (Mines) shall be submitted and it shall include the following:
  - (i) Original pit dimension
  - (ii) Quantity achieved Vs EC Approved Quantity
  - (iii) Balance Quantity as per Mineable Reserve calculated.
  - (iv) Mined out Depth as on date Vs EC Permitted depth
  - (v) Details of illegal/illicit mining
  - (vi) Violation in the quarry during the past working.
  - (vii) Quantity of material mined out outside the mine lease area
  - (viii) Condition of Safety zone/benches
  - (ix) Revised/Modified Mining Plan showing the benches of not exceeding 6 m height and ultimate depth of not exceeding 50m.
- Details of habitations around the proposed mining area and latest VAO 2. certificate regarding the location of habitations within 300m radius from the periphery of the site.
- 3. The proponent is requested to carry out a survey and enumerate on the structures located within the radius of (i) 50 m, (ii) 100 m, (iii) 200 m and (iv) 300 m (v) 500m shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc with indicating the owner of the building, nature of construction, age of the building, number of residents, their profession and income, etc.
- 4. The PP shall submit a detailed hydrological report indicating the impact of proposed quarrying operations on the waterbodies like lake, water tanks, etc are located within 1 km of the proposed quarry.
- The Proponent shall carry out Bio diversity study through reputed 5. Institution and the same shall be included in EIA Report.

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- The DFO letter stating that the proximity distance of Reserve Forests,
   Protected Areas, Sanctuaries, Tiger reserve etc., up to a radius of 25 km from the proposed site.
- 7. In the case of proposed lease in an existing (or old) quarry where the benches are not formed (or) partially formed as per the approved Mining Plan, the Project Proponent (PP) shall the PP shall carry out the scientific studies to assess the slope stability of the working benches to be constructed and existing quarry wall, by involving any one of the reputed Research and Academic Institutions CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. The PP shall submit a copy of the aforesaid report indicating the stability status of the quarry wall and possible mitigation measures during the time of appraisal for obtaining the EC.
- 8. However, in case of the fresh/virgin quarries, the Proponent shall submit a conceptual 'Slope Stability Plan' for the proposed quarry during the appraisal while obtaining the EC, when the depth of the working is extended beyond 30 m below ground level.
- 9. The PP shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/I Class mines manager appointed by the proponent.
- 10. The PP shall present a conceptual design for carrying out only controlled blasting operation involving line drilling and muffle blasting in the proposed quarry such that the blast-induced ground vibrations are controlled as well as no fly rock travel beyond 30 m from the blast site.
- 11. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.

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- 12. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines,
- 13. What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
- 14. Quantity of minerals mined out.
  - Highest production achieved in any one year
  - Detail of approved depth of mining.
  - · Actual depth of the mining achieved earlier.
  - Name of the person already mined in that leases area.
  - If EC and CTO already obtained, the copy of the same shall be submitted.
  - Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.
- 15. All corner coordinates of the mine lease area, superimposed on a High-Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease 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).
- The PP shall carry out Drone video survey covering the cluster, green belt, fencing, etc.,
- 17. The proponent shall furnish photographs of adequate fending, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.
- 18. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment, and the remedial measures for the same.

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- 19. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of the Mines Act 1952 and the MMR. 1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.
- 20. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of groundwater pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds, etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. 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.
- 21. The proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study.
- 22. The Proponent shall carry out the Cumulative impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.
- 23. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.
- 24. 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

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- encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
- 25. Details of the land for storage of Overburden/Waste Dumps (or) Rejects outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be provided.
- 26. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.
- 27. 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.
- 28. Impact on local transport infrastructure due to the Project should be indicated.
- 29. A tree survey study shall be carried out (nos., name of the species, age, diameter etc..) both within the mining lease applied area & 300m buffer zone and its management during mining activity.
- 30. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
- 31. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.
- 32. The purpose of Green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix-1 in consultation with the DFO. State Agriculture University. The plant species with

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- dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
- 33. Taller/one year old Saplings raised in appropriate size of bags, preferably ecofriendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner
- 34. A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
- 35. A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
- 36. 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.
- 37. 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.
- 38. The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. 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.

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- 39. Details of litigation pending against the project, if any, with direction/order passed by any Court of Law against the Project should be given.
- 40. 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.
- 41. If any quarrying operations were carried out in the proposed quarrying site for which now the EC is sought, the Project Proponent shall furnish the detailed compliance to EC conditions given in the previous EC with the site photographs which shall duly be certified by MoEF&CC, Regional Office, Chennai (or) the concerned DEE/TNPCB.
- 42. The PP shall prepare the EMP for the entire life of mine and also furnish the sworn affidavit stating to abide the EMP for the entire life of mine.
- 43. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.

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#### Annexure 11

Standard Environmental Clearance Conditions prescribed by MoEF&CC for Construction Projects.

## 1. Statutory Compliance:

- The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightning etc.
- 3. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
- 4. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- 5. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
- 6. The project proponent shall obtain the necessary permission for drawing of ground water / surface water required for the project from the competent authority.
- A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
- 8. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department and Civil Aviation

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- Department shall be obtained, as applicable, by project proponents from the respective competent authorities.
- The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
- 10. The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.

# 2. Air quality monitoring and preservation:

- Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.
- 2. A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
- 3. The project proponent shall install a system to carry out Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g., PM10 and PM25) covering upwind and downwind directions during the construction period.
- 4. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3-meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
- 5. Sand, murram, loose soil, cement, stored on site should be covered adequately so as to prevent dust pollution.
- Wet jet shall be provided for grinding and stone cutting.

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- 7. Unpaved surfaces and loose soil should be adequately sprinkled with water to suppress dust.
- 8. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules 2016.
- The diesel generator sets to be used during construction phase shall be low Sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise mission standards.
- 10. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- 11. For indoor air quality the ventilation provisions as per National Building Code of India.

## 3. Water Quality Monitoring and Preservation:

- The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bioswales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rainwater.
- 2. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
- 3. Total freshwater use shall not exceed the proposed requirement as provided in the project details.
- 4. The quantity of freshwater usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with Half Yearly Compliance Reports (AYCR).

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- 5. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.
- 6. At least 20% of the open spaces as required by the local building byelaws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
- 7. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation car washing, thermal cooling, conditioning etc. shall be done.
- 8. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- 10. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- 11. The local bye-law provisions on rainwater harvesting should be followed. If local byelaw provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rainwater harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.
- 12. A rainwater harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built-up area and storage capacity of minimum one day of total freshwater requirement

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shall be provided. In areas where ground water recharging is not feasible, the rainwater should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.

- 13. All recharges should be limited to shallow aquifer.
- 14. No ground water shall be used during construction phase of the project.
- 15. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering.
- 16. The quantity of freshwater usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with Half Yearly Compliance Reports (HYCR).
- 17. Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening. As proposed, not related water shall be disposed into municipal drain.
- 18. No sewage or untreated effluent water would be discharged through storm water drains.
- 19. Onsite sewage treatment of capacity of treating 100% wastewater to be installed. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated wastewater shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged as per statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.
- 20. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be taken to mitigate the odor problem from STP.

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21. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Centre Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

# 4. Noise Monitoring and Prevention:

- 1. Ambient noise levels shall conform to residential area/commercial area/industrial area/silence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- 2. Noise level survey shall be carried out as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of Half Yearly Compliance Report (HYCR).
- 3. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

#### 5. Energy Conservation Measures:

- Compliance with the Energy Conservation Building Code (ECBC) of Bureau
  of Energy Efficiency shall be ensured. Buildings in the States which have
  notified their own ECBC, shall comply with the State ECBC.
- 2. Outdoor and common area lighting shall be LED.
- 3. The proponent shall provide solar panels covering a minimum of 50% of terrace area as committed.
- 4. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting

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- design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
- 5. Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.
- 6. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level/local building byelaws requirement, whichever is higher.
- 7. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building byelaws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

#### 6. Waste Management:

- A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained.
- 2. Disposal of muck during construction phase shall not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.
- 4. Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed.

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- 5. All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.
- 6. Any hazardous waste generated during construction phase shall be disposed of as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- 7. Use of environmentally friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environmentally friendly materials.
- 8. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September 1999 and amended from time to time. Ready mixed concrete must be used in building construction.
- 9. Any wastes from construction and demolition activities related thereto shall be managed to strictly conform to the Construction and Demolition Rules, 2016.
- 10. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.

#### 7. Green Cover:

- 1. No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted).
- 2. A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping.

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- 3. Where the trees need to be cut with prior permission from the concerned local authority, compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree that is cut) shall be done and maintained. Plantations to be ensured species (cut) to species (planted). Area for green belt development shall be provided as per the details provided in the project document.
- 4. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.
- A wide range of indigenous plant species should be planted as given in the Appendix-I, in consultation with the Government Forest/Horticulture Departments and State Agriculture University.

### 8. Transport:

- A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
  - a. Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
  - b. Traffic calming measures.
  - c. Proper design of entry and exit points.
  - d. Parking norms as per local regulation.
- Vehicles hired to bring construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during nonpeak hours.
- 3. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 99 kms

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#### 9. Human Health Issues:

- 1. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
- 2. For indoor air quality the ventilation provisions as per National Building Code of India.
- 3. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- 4. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- 5. Occupational health surveillance of the workers shall be done on a regular basis.
- A First Aid Room shall be provided in the project both during construction and operations of the project.

# 10. Corporate Environment Responsibility:

1. The PP shall complete the CER activities, as committed, before obtaining CTE.

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- 2. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of Half Yearly Compliance Report (HYCR).
- 3. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- 4. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Half Yearly Compliance Report (HYCR).

#### 11. Miscellaneous:

- The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in Tamil language within seven days indicating that the project has been accorded environment clearance and the details of MoEFCC/SEIAA website where it is displayed.
- 2. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies. Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn must display the same for 30 days from the date of receipt.

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- The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
- 4. The project proponent shall submit Half Yearly Compliance Reports (HYCR) on the status of the compliance of the stipulated environmental conditions on the website of the Ministry of Environment, Forest and Climate Change at environment clearance portal.
- 5. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
- 6. The project proponent shall inform the Authority (SEIAA) of the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- 7. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- 8. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also during their presentation to the State Expert Appraisal Committee.
- 9. No further expansion or modifications to the plant shall be carried out without prior approval of the Authority (SEIAA).
- 10. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- 11. The Authority (SEIAA) may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- 12. The Authority reserves the right to stipulate additional conditions if found necessary. The Company in a time-bound manner shall implement these conditions.

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- 13. The Regional Office of the MoEF&CC Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- 14. The above conditions shall 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, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

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# Appendix -I List of Native Trees Suggested for Planting

| No         | Scientific Name          | Tamil Name         | Tamil Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------|--------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1          | Asgle marmelos           | Vilvam             | alment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 2          | Adenoanthera pavonina    | Manjadi            | மஞ்சார்.<br>ஆன்னக்குள்றியனி                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 3          | Albizia lebbeck          | Vaagai             | OFFICE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 4          | Albizia amara            | Usil               | உக்ஸ்                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 5          | Beulainia purpurea       | Mantharai          | (2) 美国中国中                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 6          | Baukinia racemosa        | Aathi              | ass                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 7          | Bauhinia tomentos        | Iruvathi           | இருவாத்தி                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 8          | Buchanania axillaris     | Kattuma            | esti Gior                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 9          | Borassus flabellifer     | Panai              | £1600000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 10         | Виtea топогретта         | Murukkamaram       | முகுக்கமரம்                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 11         | Bobax cerba              | Ilavu, Sevvilavu   | <u>B</u> eoq                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 12         | Calophyllum inophyllum   | Punnai             | Ligitation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 13         | Cassia fistula           | Serakondrai        | syklassing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 14         | Cassia roxburghii        | Sengondrai         | ОстіОспетер                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 15         | Chloroxylon sweitenia    | Purasamaram        | புத்த மழம்                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 16         | Cochlospermum religiosum | Kongu, Manjaillavu | கோய்து, மஞ்சன்<br>இவை                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 17         | Cordia dichotoma         | Naruvuki           | தகுஷ்டி.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 18         | Creteva adansoni         | Mavalingum         | (CERTIFICATION OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON OF THE PERSON O |
| 19         | Dillenia indica          | Uva, Uzha          | 2_51                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 20         | Dillenia pentagyna       | SiruUva, Sitruzha  | சிறு உள                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 21         | Diospyro sebenum         | Karungali          | agricated:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 22         | Diospyro schloroxylon    | Vaganai            | OF EAST                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 23         | Ficus amplissima         | Kalltchi           | <b>கல் இ</b> ச்சி                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 24         | Hibiscus tiliaceou       | Aatrupoovarasu     | - POLITICALS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 25         | Hardwickia binato        | Aacha              | <b>अ</b> क्षेत्र                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 26         | Holoptelia integrifolia  | Aayili             | ஆயா மரம், ஆயிலி                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 27         | Lannea coromandelica     | Odhiam             | <del>அதியம்</del>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 28         | Lagerstroemia speciosa   | Poo Marudhu        | ri nogen                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 29         | Lepisanthus tetraphylla  | Neikottaimaram     | தெய் கொட்டடை மரம்                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 30         | Limonia acidissima       | Vile marem         | വിദാദ ഥസ്                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 31         | Litsea glutinos          | Pisinpattai        | அறம்பா. பிசின்பட்டை                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>3</b> 2 | Madhuca longifolia       | Illuppai           | இலுப்பை                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 33         | Manilkara hexandra       | UlakkaiPaalai      | உலக்கை பாகை:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 34         | Mimusops elengi          | Magizhamaram       | மகிழுமாம்                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 35         | Mitragyna parvifolia     | Kadambu            | #SLICKL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 36         | Morinda pubescens        | Nuna               | Telegram                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 37         | Morinda citrifolia       | Vellai Nuna        | வெள்ளை நுணா                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 20         | Phoenix sylvestre        | Eachai             | Ŧ <b>\$</b> \$£07£                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 38         | T INCOME SHIP COME       | Lacion             | reemin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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| 40 | Presine mollissima      | Munnai           | piese                  |
|----|-------------------------|------------------|------------------------|
| 41 | Premna serratifolia     | Narumunnai       | 5g                     |
| 42 | Preuma tomentosa        | Malaipeovarasu   | name nate              |
| 43 | Presopis cinerea        | Vanni maram      | कार्यस्थि व्यक्तदे     |
| 44 | Pterocarpus marsupium   | Vengai           | Corins                 |
| 45 | Pterospermum canescens  | Vennangu, Tada   | Geratian ming          |
| 46 | Pterospermum xylocarpum | Polavu           | rfæsel                 |
| 47 | Puthranjiva roxburghi   | Karipala         | eignien                |
| 48 | Salvadora parsica       | Ugas Maram       | MEET MAN               |
| 49 | Sapindus emarginatus    | Manipungan,      | confliction            |
|    |                         | Soapukai         | Genitarii<br>Genitarii |
| 50 | Sатиса авося            | Asoca            | Acres                  |
| 51 | Stratitus asper         | Piray maram      | ulippi wyż             |
| 52 | Strychnes muxtomic      | Yetti            | ar it                  |
| 53 | Stryclines potatorium   | Therthang Kottai | Gelegiai Gentari       |
| 54 | Syzygium cumini         | Navai            | 5700                   |
| 55 | Terminalia belleric     | Thandri          | <b>Find</b>            |
| 56 | Terminalia erjuna       | Ven marudhu      | வேன் மடுது             |
| 57 | Toona ciliate           | Sendhana vembu   | சந்தன வேம்பு           |
| 58 | Thespesia populnea      | Puvarasu         | ilote                  |
| 59 | Walsuratrifoliata       | vaisura          | and the                |
| 60 | Wrightia tinctoria      | Veppalai         | COLLIFORN              |
| 61 | Pithacellobium dulce    | Kodukkapuli      | GENGESTUPE             |

CHAIRMAI

# Appendix -III

# **Display Board**

(Size 6' x5' with Blue Background and White Letters)

| क्यांग्रह्मां ह्यांग्रह्म क्यांग्रह्म व्यवस्था क्यांग्रह्म क्यांग्रह्म क्यांग्रह्म क्यांग्रह्म क्यांग्रह्म क्य<br>व्यवस्थान                                                   | ஈடுகளுக்கான சற்றுச்துறல் அனுமதி கீழ்கள்ட நடந்தனைகளுக்கு உட்பட்டு<br>நோக்டர்கட்டு, சற்றுச்துறல் அனுமதிதேதி வரை செல்லத்தக்கதாக உள்ளது.            |  |  |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
| பாளம் ப <b>த்தி</b> வ <del>கர்ச்</del> சி                                                                                                                                     | தவரியில் எல்லைகார் உற்றி Good அமைக்க Goods@ம்                                                                                                   |  |  |  |  |  |
| Carturi Gianer apring gir is                                                                                                                                                  | க்கும்படைகளின் ஆழம் தரைவட்டத்திலிருந்துமிட்டந்தே மினவல் இருக்க வேண்டுக்                                                                         |  |  |  |  |  |
|                                                                                                                                                                               | காற்றில் மாக ஏற்படாதவாறு கரங்க பாசிகளை மேற்கொள்ள வேண்டும்.                                                                                      |  |  |  |  |  |
|                                                                                                                                                                               | amaminai Criiggii uragellii era çğuurş gendiği gelenling gengura                                                                                |  |  |  |  |  |
| grierig                                                                                                                                                                       | gatemily confinalist (persons arcine) Guelli a Guelli (pis.                                                                                     |  |  |  |  |  |
| uprofission.Continuo agricair<br>aataatiisma:                                                                                                                                 | இவர்சல் அமைவும் நூர் மாவன் வடாற் இவறப்பதற்காக வோற்கில் என்னைய                                                                                   |  |  |  |  |  |
|                                                                                                                                                                               | <u>கத்தி அடர்த்தியன பகளை பகுதியை ஏற்படுத்த வேண்டும்.</u>                                                                                        |  |  |  |  |  |
|                                                                                                                                                                               | idd hariffeing ein einstein night sien alles alles inderstalle inderstalle.                                                                     |  |  |  |  |  |
| guen in anna anna anna anna anna anna anna                                                                                                                                    | ச்சல் அமை( 85 Ch., கியம்ஸ் ( ABA) அமைந்த கேல் ஏற்படாதவாறு அழுத்த கட்டுப்பாடுகளை                                                                 |  |  |  |  |  |
| Capi Canda ConteQui.                                                                                                                                                          |                                                                                                                                                 |  |  |  |  |  |
|                                                                                                                                                                               | சுரிகத்தில் உள்ள ப <b>ாகிய</b> ர்களுக்கு அதுத பாறுகாப்பு களுகிகள் சுழக்களிறவி                                                                   |  |  |  |  |  |
| வைநாருள்ள வழிப்பாற வாழிவ                                                                                                                                                      | nes Grüg; gy Gustsilpis.                                                                                                                        |  |  |  |  |  |
| சியான் அல்லது பஞ்சாபத்து வழியா                                                                                                                                                | s ситемпінні Отнідрії готопти Орястіўду раку сутоўнік Соліві(Св.                                                                                |  |  |  |  |  |
| ஷம்ப்பாரிகளைல் அத்தில் உற்ற                                                                                                                                                   | வீவால் பளிகள் மத்தும் நீர்நினைகள் மாநிக்கப்படல் டேமாது.                                                                                         |  |  |  |  |  |
|                                                                                                                                                                               | தை உறுதி செட்டிக் வணைில் நிலந்தா, நீரின் தரந்தினை நெடந்து என்னைகிற்க வேண்டுக்                                                                   |  |  |  |  |  |
| apinggalaga anta Gracia                                                                                                                                                       | ima aljāgi Ordonji dijus iešaigski aljāš dijuššijamiņš aljulijāsijamiji<br>1. aljulijami artikais armainas dauks daukstijamija aljulijāsijamija |  |  |  |  |  |
| பாறுகாப்போடும் மற்றும் சந்துதறும் பாறிக்கவாற வரிகளம் வாகளங்களை இயக்க வேண்டும்.<br>சநப்சப்பாரிகள் முடிக்கப்பட்டவுடன் வங்க முடல் நீட்டத்தில் உள்ளவாறு சநப்சத்தினை முட வேண்டும். |                                                                                                                                                 |  |  |  |  |  |
| esia a contenant mate                                                                                                                                                         | பின்னர் சுறப்பட் பதுதி மற்றும் சுறப்படற்ற நடவடிக்கைகளால் இடையூறு ஏற்படக்கூடிக                                                                   |  |  |  |  |  |
| வேறு எந்தப் பகுதியையும் மறுகட்டுமானம் செய்து தாவரங்கள் விண்குகள் ஆகியவற்றின் வளர்ச்சிக்கு ஏற்ற வளையில்                                                                        |                                                                                                                                                 |  |  |  |  |  |
| <u>பகளைப்பத்தினை உதவாக்க வேண்டும்.</u>                                                                                                                                        |                                                                                                                                                 |  |  |  |  |  |
| முருகையாக நிற்குகைகள் அநிப                                                                                                                                                    | والعوارة فيرونك فبمساعدهان توهيزه وستتناق والأشه (منسخه بدرانها) والمذاؤس                                                                       |  |  |  |  |  |
| சந்நதும் சாந்த புசார்வதக்கு Gerimmethis உள்ள சந்நர்தமுல் வற்றுக் வள அமைச்சக்கின் ஒருங்கொளத்த வட்டா                                                                            |                                                                                                                                                 |  |  |  |  |  |
| அலுக்கைக் 944 – 20222325 (அல்லது) தமிழ்தாடு மாக கட்டுப்பாடு வாரியத்தின் மாவட்ட சுற்றுக்குழல் டோறியானரை அனுக்கும்.                                                             |                                                                                                                                                 |  |  |  |  |  |

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