State Expert Appraisal Committee (SEAC)

Minutes of 427th meeting of the State Expert Appraisal Committee (SEAC) held on 07.12.2023 (Thursday) 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 426th SEAC meeting held on 24.11.2023 were circulated to the Members in advance and as there are no remarks, the Committee decided to confirm the minute.

Agenda No: 427 - 01 (File No: 10381/2023)

Existing Black Granite Quarry lease over an extent of 1.83.5 Ha at S.F.No. 12/1(Part), 12/3(Part), 12/4(Part), 12/5, 12/6, 12/7 and 12/8, of Vengamur Village and S.F.Nos. 59/7B(Part), 59/8B(Part), 60/2 and 61/3A1 of Anumanthapuram Village, Anumanthapuram & Vengamur Villages, Vikravandi (Formerly Viluppuram) Taluk, Viluppuram District, Tamil Nadu by M/s. Mani Omega Granites Private Limited - Environment Clearance for next scheme of mining. (SIA/TN/MIN/442571/2023 dt: 01/09/2023)

The proposal was placed in this 427th meeting of SEAC held on 07.12.2023. The Project Proponent made a detailed presentation on the proposal. The details of the project furnished by the proponent are available on the PARIVESH web portal (parivesh.nic.in).

The SEAC noted the following among other things:

1. The Project Proponent, M/s. Mani Omega Granites Private Limited has applied seeking Environment Clearance (next scheme of mining) for the existing Black Granite Quarry lease over an extent of 1.83.5 Ha at S.F.No. 12/1(Part). 12/3(Part), 12/4(Part), 12/5, 12/6, 12/7 and 12/8, of Vengamur Village and S.F.Nos. 59/7B(Part), 59/8B(Part), 60/2 and 61/3A1 of Anumanthapuram Village, Anumanthapuram & Vengamur Villages, Vikravandi (Formerly Viluppuram) Taluk, Viluppuram District, Tamil Nadu.

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- 2. The proposed quarry/activity is covered under Category "82" of Item 1(a) "Mining Projects" of the Schedule to the EIA Notification, 2006, as amended.
- 3. SEIAA EC Lr.No. SEIAA-TN/F.No.5373/1(a)/EC.No.3355/2016 dated 19.07.2016 for mining 2648 cbm of Black Granite upto a depth of 26m subject to the conditions stated therein.
- 4. CCR obtained from IRO(SZ), MoEF&CC vide Lr. No.EP/12.1/2023-24/SEIAA/13/TN/728 dated 15.06.2023.
- 5. There is an existing pit with maximum depth of 17m.
- 6. Previously the PP applied seeking Automatic Extension vide Online Proposal No. SIA/TN/MIN/300065/2023, Dated: 10.05.2023. The Proposal was placed in the 391st meeting of SEAC held on 13.07.2023 and the SEAC decided to confirm that the PP was eligible for Automatic Extension. Subsequently the subject was placed in the 641st meeting of SEIAA held on 27th and 28th of July 2023 and the Authority decided to that the proponent's request for extension of validity of EC cannot be processed, since the proponent has applied for extension in Form 6 through PARIVESH portal beyond 90 days after the validity period of Environmental Clearance. Hence, Authority decided to direct the proponent to apply afresh in PARIVESH portal with necessary relevant documents to obtain Environmental Clearance.

File 1	10381 No SIA/TN/MIN/4425 23 dt: 01/09/2023		Category	B2
SI. No	Salie	ent Feat	tures of the Proposal	
1.	Name of the Owner/Firm	:	M/s. Mani C Limited 2/140A, Manku Morur Post, Tiruchengode T	^

			Namakkal District-6	37304	
	Type of quarrying (Ordinary	_~	Black Granite	 	
2.	Stone/Sand/Granite/	:			
	Limestone)				
			S.F.No. 12/1(Part), 1	2/3(Part), 12/4(Part),	
	S.F Nos. of the quarry site with	 	12/5, 12/6, 12/7 and	d 12/8, of Vengamur	
3.	area break-up	:	Village and S.F	.Nos. 59/7B(Part),	
	area orean ap	:	59/8B(Part), 60/2	and 61/3A1 of	
			Anumanthapuram Village		
4.	Village in which situated	:	Anumanthapuram & Vengamur		
5.	Taluk in which situated	:	Vikravandi (Formerly Viluppuram)		
6.	District in which situated	:	Viluppuram		
7.	Extent of quarry (in ha.)	:	1.83.5 Ha		
8.	Latitude & Longitude of all		12°03'49.09"N to 12°03'53.95"N		
	corners of the quarry site	•	79°21'17.22"E to 79°21'23.48"E		
9.	Topo Sheet No.	:	57P/08		
10	Type of mining		Opencast mechanize	ed method of mining.	
	Life of Project	:	13 years		
11.	Lease Period		20 years	-	
	Mining Plan Period	:	5 years		
	Mining Plan Details		As per approved	As modified by	
			Mining Plan	SEAC	
	Geological Resources m ³	:	281250 m³	-	
	(RoM)				
12	Minable Resources in m ³ (RoM)	:	81225 m³		
	Annual Peak Production in m ³	:	9500 m³	-	
	(RoM)			<u> </u>	
	Maximum Depth in meters	:	42m BGL		

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13	B Depth of water table	:	55m BGL		
14	Man Power requirement per day:		36 Nos.		
	Water requirement:	:	1.5 kLD		
	1. Drinking & domestic		0.4 kLD		
15	purposes (in kLD)				
1.0	2. Dust suppression, Green		0.5 kLD & 0.6 kLD)	
	Belt & Wet Drilling (in				
	kLD)				
16	Power requirement		TNEB power supp	ly &	
	Tower requirement		49200 litre of HSD) for DG set	
	Precise area communication		G.O(3D) No.25	Industries (MMB.1	
17	issued by Industries Dept, Govt	:	Department Dated	:23.02.2011	
	of Tamil Nadu				
			Letter No.6861/M/	M5/2018	
18	Mining Plan approved by		Dates:24.09.20218		
	Dept. of Geology & Mining		Rc.No.1152/MM4/2023		
			Dated: 24.02.2023	•	
19	500m Cluster Letter issued by		Rc.No.B/G&M/556	/2015	
	Dept. of Geology & Mining		Dated: 03.03.2023	•	
20	VAO Certificate regarding		Letter Dated 16.08.	2023	
	Structures within 300m Radius				
21	Project Cost (excluding EMP		Pr 2 14 21 0007		
	cost)		Rs.2,14,31,000/-		
		Ì		30 years subject to	
	EC Recommendation	:	Validity	the following upper	
22	=			limits.	
		\dashv	Annual Max RoM		
		:	in m³	9500	

		:	Max Depth in m	42m BGL
			Capital cost - Rs.30,87,450/-	
23	EMP cost (in Rs. Lakh).	=	Recurring Cost/Annum – 11.59.920/- (5% inflation in every year)	
24	CER cost (in Rs. Lakh).	-	Rs. 10.0 Lakh as accepted by the PP	

Assessing the impact of the project activity on the surrounding environment and the EMP measures proposed in the PFR from the presentation and other 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 9500 m³ by maintaining the ultimate depth of mining of 42m BGL 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:

- 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 proponent shall provide the particulars for carrying out the plantation of 1140 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 ensure that the path is available for the accessibility of the public to the Govt Poramboke land located within the mine lease area.
- 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.
- 5) 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.

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- 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 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) As accepted by the Project Proponent the CER cost of Rs.10 Lakh to be spent for the committed activities at the two Government Schools before obtaining CTO from TNPCB.

Agenda No: 427 - 02

(File No: 10388/2023)

Proposed Rough stone and Gravel lease over an extent of 1.66.50 Ha at S.F.No.157/18,157/3 & 164, in Perambakkam Village, Cheyyur Taluk, Chengalpattu

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District, Tamil Nadu by Thiru. R.Yoganathan - Environment Clearance. (SIA/TN/MIN/442101/2023 dt: 06/09/2023)

The proposal was earlier placed in this 427th meeting of SEAC held on 07.12.2023. The Project Proponent made a detailed presentation on the proposal. The details of the project furnished by the proponent are available on the PARIVESH web portal (parivesh.nic.in).

The SEAC noted the following:

- 1. The Project Proponent, Thiru. R. Yoganathan has applied seeking Environment Clearance for the Proposed Rough stone and Gravel lease for over an extent of 1.66.50 Ha at S.F.No.157/1B,157/3 & 164, in Perambakkam Village, Cheyyur Taluk, Chengalpattu 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.
 During the presentation, the project proponent informed the Committee that the

proposed lease area and the adjacent mine are to be amalgamated. The SEAC observed the following mining laws pertaining to the working near to the mine boundary:

Under the provisions of MCDR 2016 & 2017 which states that

"....51. Notice of amalgamation of mining lease.—Without prejudice to the provisions of the Act or any rules made thereunder or the terms and conditions of a mining lease, every holder of a mining lease shall, within thirty days of the date of amalgamation of mining leases carried out under rule 56 of the Minerals (Other than Atomic and Hydro Carbon Energy Minerals) Concession Rules, 2016 or in accordance with rule 33 of the Atomic Minerals Concession Rules, 2016, as the case may be, send an intimation thereof to the Regional Controller and the State Government and the authorised officer, as the case may be...."

"....56. Amalgamation of leases.- The State Government may, in the interest of mineral development and with reasons to be recorded in writing, permit amalgamation of two or more adjoining leases held by a lessee:

Provided that the period of amalgamated leases shall be co-terminus with the

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lease whose period will expire first...."

Under the provisions of MCR 1960 which states that

".....38. Amalgamation of leases :- The State Government may , in the interest of mineral development and with reasons to be recorded in writing, permit

amalgamation of two or more adjoining leases held by a lessee :

Provided that the period of amalgamated leases shall be co-terminus with

the lease whose period will expire first;...."

Further, as per the Reg.111 (Working near mine boundaries) of MMR 1961

which states that "....(1) The owner, agent or manager of every mine shall fixe

boundaries of the mine. Notwithstanding anything contained in sub-regulation

(2), the shall not be changed except with the permission of the Chief Inspector

in writing and subject to such conditions as he may specify therein]

"...(2) No working shall be made within a distance of 7.5 metres of the

boundary of any mine and, in case of a disputed boundary, no working shall

be made within a distance of 7.5 metres of the boundary claimed by the owner

of an adjacent mine until such time as a binding agreement has been reached

as to the correct boundary or the question has been finally determined by a

court of law:...."

Hence the SEAC directed the PP to furnish the Modified Mining Plan ensuring the

existence of the safety benches around the mine boundary for the commencement of

mining operation at the time of lease execution and thereafter the PP can modify the

plan after obtaining the prior permission under the provisions of MMR 1961 from the

Regional Inspector of Mines (DMS), DGMS, Chennai Region for working near the

common boundary for the amalgamated area.

Therefore, the proponent is now advised to submit the Modified Mining Plan

incorporating the safety benches around the mine boundary and the revised volume of

excavation to be made with maintaining the benches accordingly.

Agenda No: 427 - 03

(File No: 10395/2023)

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Existing Rough stone and Gravei lease over an extent of 1.00.0 Ha of Government Land at S.F.No.25/1(part), in Panamarathupatty Village, Salem Taluk, Salem District, Tamil Nadu by Thiru. K. Prakash – Re-appraisal of Environment Clearance issued by DEIAA. (SIA/TN/MIN/431100/2023 dt 27/05/2023)

The proposal was placed in this 427th meeting of SEAC held on 07.12.2023. The Project Proponent made a detailed presentation on the proposal. The details of the project furnished by the proponent are available on the PARIVESH web portal (parivesh.nic.in).

The SEAC noted the following:

 The Project Proponent, Thiru. K. Prakash has applied seeking Environment Clearance for the existing Rough stone and Gravel lease over an extent of 1.00.0 Ha at S.F.No.25/1(part), in Panamarathupatty Village, Salem Taluk, Salem 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. DEIAA EC. Lr. No. DEIAA-DIA/TN/MIN/15190/2018-SLM/EC.No.15/ 2018 dated 10.06.2018 for the production quantity of 423600 cbm of Rough stone and 10000 cbm of Top soil to a depth of 51m AGL.

Based on the presentation and documents furnished by the project proponent, SEAC directed the Project Proponent to furnish the Certified Compliance Report (CCR) obtained from IRO(SZ), MoEF&CC for the existing EC along with the mitigation measures for the non-compliance, if any, stated therein.

Agenda No: 427 - 04

(File No: 10402/2023)

Proposed Rough stone and Gravel lease over an extent of 4.98.5 Ha at S.F.No.13/2E1, 13/2F1, 13/2G, 13/2H, 13/4, 13/5, 14/1A, 14/1B1, 14/1B2, 14/1C (P), 14/1D (P), 14/1E, 14/2A &14/2B in Mugundakiri VIIIage, Cheyyur Taluk, Chengalpattu District, Tamil Nadu by Thiru. G. Ayyadurai – For Environment Clearance.

(SIA/TN/MIN/443901/2023dt 11/09/2023)

The proposal was placed in this 427th meeting of SEAC held on 07.12.2028. The Project Proponent made a detailed presentation on the proposal. The details of the project

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furnished by the proponent are available on the PARIVESH web portal (parivesh.nic.in). The SEAC noted the following:

- The Project Proponent, Thiru. G. Ayyadurai has applied seeking Environment Clearance for the proposed Rough stone and Gravel lease for next scheme of mining over an extent of 4.98.5 Ha at S.F.No.13/2E1, 13/2F1, 13/2G, 13/2H, 13/4, 13/5, 14/1A, 14/1B1, 14/1B2, 14/1C (P), 14/1D (P), 14/1E, 14/2A &14/2B in Mugundakiri Village, Cheyyur Taluk, Chengalpattu 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. State Highway is located at a distance of 490m from the project site.
- 4. As seen on the KML file, the project site is located at a distance of 8.59 km from the 5-km tank boundary of Vedanthagal Bird Sanctuary.

F	file No	10402 SIA/TN/MIN/443901/2 23dt 11/09/2023	20	Category	B2	
SI. No	Salient Features of the Proposal					
1.	Name o	of the Owner/Firm	:	Thiru. G. Ayyadurai S/o. Gurusamy, Murugan Kovil Adivaram, Kumaragiri, Sanniyasigundu, Salem District - 636015.		
2.		quarrying (Ordinary and/Granite/ Limestone)	 :	Rough Stone and Gra	vel	
3.	S.F Nos.	of the quarry site with ak-up	:	S.F.No.13/2E1, 13/2F 13/4, 13/5, 14/1A, 14/ (P), 14/1D (P), 14/1E, 1	/1B1, 14/1B2, 14/1C	
4.	Village i	which situated	:	Mugundakiri Village		

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5.	Taluk in which situated	:	Cheyyur Taluk	Cheyyur Taluk		
6.	District in which situated	:	Chengalpattu			
7.	Extent of quarry (in ha.)	:	4.98.5 Ha			
8.	Latitude & Longitude of all	:	12°24'21.9785"N to	12°24'30.1498"N		
0.	corners of the quarry site		79°52'50.9177"E to 79°53'00.8295"E			
9.	Topo Sheet No.	:	57 P/15			
10.	Type of mining	:	Opencast Mechani	zed method of 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 m ³ (RoM)	:	Rough Stone –	-		
			2991000 m³			
			Gravel -			
			99700 m³			
			Rough Stone -	-		
12.	Minable Resources in m³ (RoM)		1232490 m³			
			Gravel –			
			82794 m³			
			Rough Stone –	-		
	Annual Peak Production in m ³	.	164100 m³			
			Gravel -			
			28116 m³			
	Maximum Depth in meters		62m BGL	50m BGL		
13.	Depth of water table	:	63-68 m			
14.	Man Power requirement per	-	41 Nos.			
17.	day:	:				

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	Water requirement:	Τ:	2.4 kLD			
}	Drinking & domestic		0.8 kLD			
15.	purposes (in kLD)		0.9 kLD			
15.	2. Dust suppression, Green		0.7 kLD			
	Belt & Wet Drilling (in					
	kLD)					
		+	TNEB & DG set	<u> </u>		
16.	Power requirement		1026628 Liters of I	HSD will be	utilized for	
			during this period			
	Precise area communication		Rc.No.0192/Mines	/2023		
17.	approved by Dept. of Geology	:	Dated:10.08.2023.			
	& Mining					
18.	Mining Plan approved by Dept.	1.	Rc.No.0192/Mines	/2023	<u> </u>	
	of Geology & Mining	:	Dated:18.08.2023,			
19.	500m Cluster Letter issued by		Rc.No.0192/Mines	/2023		
	Dept. of Geology & Mining	;	Dated:18.08.2023.			
20.	VAO Certificate Regarding		Letter Dated 21.08.	.2023.		
	Structures within 300m Radius					
21.	Project Cost (excluding EMP cost)	;	Rs.4,37,82,000/-	<u>. </u>		
				30 years	subject to	
				the following		
		:	Validity	upper lim	its.	
22.	EC Recommendation			Rough		
22.				Stone	Gravel	
		\Box	Annual Max RoM	164100	20116	
			in m³	164100	28116	
		$: \overline{\mid}$	Max Depth in m	50m BGL		
23.	Total EMP cost (in Rs. Lakh).	:	Rs.461 Lakh			
				 		

	5.0 Lakh as accepted by the PP +	
24.	CER cost (in Rs. Lakh).	Rs. 2 Lakh as conservation Cost for Vedanthangal Bird Sanctuary in consultation with the concerned DFO.

Assessing the impact of the project activity on the surrounding environment and the EMP measures proposed in the PFR from the presentation and other 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 164100 m³ of Rough stone and 28116 m³ of Gravel by maintaining the restricted depth of mining of 50m 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 500 Nos. of tall saplings of native species within and outside the proposed mining area as committed before obtaining CTO from TNPCB.
- 3) 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.
- 4) 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.

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- 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) Since the village and state high way are located very close to danger zone of 500 m radius, the PP shall carry out the scientific studies within a period of ONE year from the commencement of quarrying operations, after obtaining the prior permission from the Director of Mines Safety, 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) 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) 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 of working 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, MOFF, 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.7 Lakh towards
 - Rs. 2 Lakh as conservation Cost for Vedanthangal Bird Sanctuary in consultation with the concerned DFO.
 - Rs. 5 Lakh for Panchayat Union primary School, Mugundhagiri Village
 The above amount shall be spent for the committed activities before obtaining
 CTO from TNPCB.

Agenda No: 427 - 05

(File No: 10409/2023)

Proposed Rough stone and Gravel lease over an extent of 1.96.0 Ha at S.F.No.1172/2A3 (Part) and 1172/2B, in Punnam village Pugalur Taluk, Karur District, Tamil Nadu by Mr.K.Balasubramaniyan - Environment Clearance. (SIA/TN/MIN/442924/2023 dt: 13/09/2023).

The proposal was placed in this 427th meeting of SEAC held on 07.12.2023. The Project Proponent made a detailed presentation on the proposal. The details of the project furnished by the proponent are available on the PARIVESH web portal (parivesh.nic.in).

The SEAC noted the following:

- The Project Proponent, Thiru. Mr.K.Balasubramaniyan has applied seeking Environment Clearance for the Proposed Rough stone and Gravel lease for over an extent of 1.96.0 Ha at S.F.No.1172/2A3 (Part) and 1172/2B, in Punnam village Pugalur 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, as amended.

File	No	10409 SIA/TN/MIN/442924/2 023 dt: 13/09/2023	Category	B2
SI. No	·	Salient Featur	es of the Proposal	<u> </u>

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_			Mr. K.Balasubram	anivan	
			S/o.Kandhasamy,	iamyan,	
1.	Name of the Owner/Firm		: Chinnarengapalay		
			1	am,	
			Pugalur Taluk,	22.5	
}	Type of quarrying (Ordinary	4-	Rough Stone and Gravel		
2.		:	Rough Stone and Gravel		
	Stone/Sand/Granite/ Limestone)	- -			
3.	S.F Nos. of the quarry site with	:	S.F.No. 1172/2A3	(Part) and 1172/28	
	area break-up				
4.	Village in which situated	<u> </u> :	Punnam Village	· · · · · · · · · · · · · · · · · · ·	
5.	Taluk in which situated	:	Pugalur Taluk		
6.	District in which situated	:	Karur		
7.	Extent of quarry (in ha.)	:	1.96.0 Ha		
8.	Latitude & Longitude of all	†-	10°59'15.15"N to 10	0°59'21.23"N	
	corners of the quarry site	:	77°58'39.38"E to 77°58'44.18"E		
9.	Topo Sheet No.	:	58-F/13		
10.	Type of mining	-	Open cast Semi-Me	echanized method of	
10.	Type of mining	:	mining		
٠.	Life of Project	:	10 years		
11.	Lease Period		10 years		
	Mining Plan Period	:	5 years		
	Mining Dian Date!	_	As per approved	As modified by	
	Mining Plan Details	:	Mining Plan	SEAC	
			Rough Stone –	-	
12.	Geological Resources m ³		940224 m³	}	
12.	(RoM)	:	Gravel		
			39176 m³		
) () () () () () () () () () (Rough Stone –	-	
	Minable Resources in m³ (RoM)	:	317544 m³	$\int_{\mathbb{R}^n}$	
 -		į		L	

[Т	Gravel –		
			31106 m³		
		\perp	_		
			Rough Stone –		
	Annual Peak Production in m ³	:	63065 m³		
			Gravel –		
	M. I. D. N. I.	ļ	11742 m³		
	Maximum Depth in meters	<u> </u> :	50m BGL		
13.	Depth of water table	<u> </u> :	70-80 m		
14.	Man Power requirement per	.	17 Nos.		
	day:	-			
	Water requirement:	:	4.0 kLD		
	3. Drinking & domestic		0.3 kLD		
15.	purposes (in kLD)		0.7 kLD		
15.	4. Dust suppression, Green		1.5 kLD		
	Belt & Wet Drilling (in		1.5 kLD		
	kLD)				
			238812 Liters of HSD will be utilized for		
16.	Power requirement		entire project life.		
			TNEB & DG set		
	Precise area communication		Rc.No.473/Mines/2022		
17.	approved by Dept. of Geology	:	Dated:08.08.2023.		
	& Mining				
18.	Mining Plan approved by Dept.		Rc.No.473/Mines/2022		
10.	of Geology & Mining	: 	Dated:25.08.2023.		
19.	500m Cluster Letter issued by		Rc.No.473/Mines/2022		
17.	Dept. of Geology & Mining	:	Dated:01.09.2023.		
20	VAO Certificate Regarding		Letter Dated:02.09.2023		
20.	Structures within 300m Radius				
21	Project Cost (excluding EMP		2 (1 (2) 2)		
21.	cost)	:	Rs.64,56,000/-		
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		:	Validity	30 years subject to the following upper limits.	
22.	EC Recommendation			Rough Stone	Gravel
			Annual Max RoM	63065	11742
		:	Max Depth in m	50m BGI	
23.	Total EMP cost (in Rs. Lakh).	:	Rs.158.27 Lakh	<u> </u>	* <u>*</u> · *
24.	CER cost (in Rs. Lakh).	:	Rs. 5,36,500/- as accepted by the PP		

Assessing the impact of the project activity on the surrounding environment and the EMP measures proposed in the PFR from the presentation and other 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 63065 m³ of Rough stone and 11742 m³ of Gravel by maintaining the ultimate depth of mining of 50m BGL, 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:

- 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 5.O, 1807(E) dated 12.04.2022.
- 2) The proponent shall provide the particulars for carrying out the plantation of 950 Nos. of tall saplings of native species within the proposed mining area as committed before obtaining CTO from TNPCB.

3) The PP is not permitted to carry out the deep hole blasting operations considering the sensitivity of the environmental settings.

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- 4) 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.
- 5) 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.
- 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 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 cluster of quarries located in the area, 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.
- 8) The PP shall furnish an affidavit indicating the Standard Operating Procedures (SoP) by involving the existing other mines in the cluster 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.

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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 during the 4th year or when the depth of working 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.
- 10) As accepted by the Project Proponent the CER cost of Rs.5,36,500/- and the amount shall be spent for the committed activities at the Government School before obtaining CTO from TNPCB.

Agenda No: 427 - 06

(File No: 10212/2023)

Proposed Multi-coloured Granite Quarry lease over an extent of 2.52.42Ha at S.F.Nos.17/9A, 17/10A (Part), 17/11A, 18/9, 18/10, 18/12, 19/12A, 19/12B1 & 19/12B2 (Part) of Keelamangalam Village, Ottapidaram Taluk, Thoothukudi District, Tamii Nadu by Thiru. G. Gopalakrishnan - For Environmental Clearance.

(SIA/TN/MIN/ /2023, dated: 11.07.2023)

The proposal was placed in 427th SEAC meeting held on 07.12.2023. 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. G. Gopalakrishnan has applied for Environmental Clearance for the Proposed Multicoloured Granite Quarry lease over an extent of 2.52.42 Ha at S.F.Nos.17/9A, 17/10A (Part), 17/11A, 18/9, 18/10, 18/12, 19/12A, 19/12B1 & 19/12B2 (Part) of Keelamangalam Village, Ottapidaram Taluk, Thoothukudi 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.

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- 3. As per mining plan, the lease period is for 20 years. The mining plan is for 5 years & production should not exceed RoM 21,435m³, Granite Recovery @ 30% 6,431m³ & Granite waste @ 70 % 15,004m³. The annual peak production RoM 4,320m³, Granite Recovery 1,296m³ & Granite waste 3,024m³. The ultimate depth of mining is 27m BGL.
- 4. Earlier Environmental clearance issued vide Lr.No. SEIAA-TN/F.No.4275/EC/1(a)/ 2349/2015, Dated: 06.11.2015 for a quantity of 3,054 Cbm of multi-coloured granite, 4,104 Cbm of top soil & 18,456 cbm of granite waste upto a depth of 7m.
- 5. The proponent had obtained Certified compliance report from IRO, MoEF&CC vide Letter F.No. E.P/12.1/2022-23/SEIAA/320/TN/572, Dated: 02.05.2023.
- 6. Earlier, the proposal was placed in 412th SEAC meeting held on 04.10.2023. Based on the presentation and documents furnished by the proponent, committee decided to call for additional details as follows.
 - 1. PP shall provide section wise comparison between the new Mining Plan and the old Mining Plan.
 - 2. The earlier environmental clearance had been issued for 7m depth. Further, the existing pit depth as per the approved scheme of mining is 22m. Hence, the PP shall give the clarification with proper justifications regarding the discrepancies in the existing pit dimension against the approved depth in the earlier issued EC dated: 06.11.2015.

Now, the proposal was placed in 427th SEAC meeting held on 07.12.2023. Based on the presentation and documents furnished by the PP, committee noted the following

 As against the depth of 7m (2m - Top Soil + 5m - Granite), the PP has mined up to 12m as stated in Mining Plan.

Hence, based on the above, Committee decided to treat the case as violation & decided to grant of Terms of Reference (ToR) under Violation category without Public Hearing, subject to the following ToRs, in addition to the standard terms of reference for EIA study for non-coal mining projects and the EIA/EMP report along with assessment of ecological damage, remediation plan and natural and community resource

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augmentation plan and it shall be prepared as an independent chapter by the NABET accredited consultants. The grant of Terms of Reference (ToR) under Violation category does not entail EC which is subject to the outcome of the final orders of the Hon'ble High Court of Madras in the matter of W.P.(MD) No. 11757 of 2021.

- The project proponent shall submit a Certified Compliance Report obtained from the IRO, MoEF & CC, Chennai as per the MoEF&CC O.M dated.08.06.2022 for the previous EC and appropriate mitigating measures for the non-compliance items, if any.
- 2. SEIAA may write to government to take credible action against the proponent under section 19 of Environment Protection Act, 1986.
- 3. SEIAA may take it up with AD/Mines for levying penalty for the excess quantity mined out with respect to the earlier issued EC Dated: 27.04.2016.
- 4. The PP shall furnish letter from AD, mines including the following details,
 - Existing pit dimension through precise mine surveying (DGPS).
 - Quantity achieved Vs EC Approved Quantity.
 - Balance Quantity as per Mineable Reserve calculated.
 - Mined out Depth as on date Vs EC Permitted depth.
 - Details of illegal/illicit mining carried out in the proposed quarry site.
 - Violation in the quarry during the past working.
 - Quantity of material mined out outside the mine lease area.
 - Condition of Safety zone/benches as on date.
- 5. Details of any penalties levied on the PP for any violation in the quarry operation.
- 6. The Project Proponent shall furnish the revised EMP based on the study carried out on impact of the dust & other environmental impacts due to proposed quarrying operations on the nearby agricultural lands for remaining life of the mine in the format prescribed by the SEAC considering the cluster situation.
- 7. The PP shall submit a detailed hydrological report indicating the impact of proposed quarrying operations on the waterbodies like lake, water lanks, etc are located within 1 km of the proposed quarry.

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- 8. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.
- 9. The PP shall submit the stability status of the existing quarry wall and slope stability action plan by carrying 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.
- 10. The structures within the radius of (i) 50 m, (ii) 100 m, (iii) 200 m and (iv) 300 m & upto 1km 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.
- 11. The PP shall furnish an Independent Chapter 13 as per the MoEF & CC Violation Notification S.O. 804 (E), dated. 14.03.2017 prepared by the accredited consultants from the issue of this specific ToR, comprises of assessment of ecological damage for the project activities carried out during the violation period, and the remediation plan and natural & community resource augmentation plan corresponding to the ecological damage assessed and economic benefit derived due to violation as a condition of Environmental Clearance.
- 12. As a part of procedural formalities as per the MoEF & CC Violation Notification 5.O. 804 (E), dated. 14.03.2017, the action will be initiated by the competent authority under section 15 read with section 19 of the Environment (Protection) Act, 1986 against violation.
- 13. Copy of valid mining lease approval obtained from the competent Authority.
- 14. Letter stating that the quarry lease deed has not been cancelled or terminated and is subsisting as on date.
- 15. Copy of approved review of scheme of mining plan by the competent authority of the Dept of Geology and Mining.

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- 16. Copy of 'No Objection Certificate' for the total penalty levied by the concerned AD/DD, Dept of Geology and Mining, and copy of remittance of total penalty by PP if any.
- 17. Details of habitations and fireworks around the proposed mining area and latest VAO certificate regarding the location of habitations within 300m radius from the periphery of the site.
- 18. 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.
- 19. 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 prepare and submit an 'Action Plan' for carrying out the realignment of the benches in the proposed quarry lease after it is approved by the concerned Asst. Director of Geology and Mining during the time of appraisal for obtaining the EC.
- 20. 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.
- 21. 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.
- 22. 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.
- 23. 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.

- 24. 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,
 - i. What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
 - ii. Quantity of minerals mined out.
 - iii. Highest production achieved in any one year
 - iv. Detail of approved depth of mining.
 - v. Actual depth of the mining achieved earlier.
 - vi. Name of the person already mined in that leases area.
 - vii. If EC and CTO already obtained, the copy of the same shall be submitted.
 - viii. Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.
- 25. 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).
- 26. The PP shall carry out Drone video survey covering the cluster, Green belt, fencing etc..
- 27. The proponent shall furnish photographs of adequate fencing, 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.
- 28. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working
- 29.methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment and the remedial measures for the same.
- 30. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be

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- appointed as per the provisions of 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.
- 31. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of ground water 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.
- 32. 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.
- 33. 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.
- 34. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.
- 35. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.

- 36. 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.
- 37. 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.
- 38. 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.
- 39. Impact on local transport infrastructure due to the Project should be indicated.
- 40.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.
- 41. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
- 42. Public Hearing points raised and commitments of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project and to be submitted to SEIAA/SEAC with regard to the Office Memorandum of MoEF& CC accordingly.
- 43. The Public hearing advertisement shall be published in one major National daily and one most circulated Tamil daily.
- 44. The PP shall produce/display the EIA report, Executive summery and other related information with respect to public hearing in Tamil Language also.
- 45. 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.

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- 46. 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-I in consultation with the
- 47.DFO, State Agriculture University. 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.
- 48. 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.
- 49.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.
- 50.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.
- 51. 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.
- 52. 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.
- 53. 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's should be

indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.

54. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.

55. 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.

56. 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.

57. 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.

58. 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.

Agenda No: 427 - 07

(File No: 10312/2023)

Proposed Rough Stone quarry lease over an extent of 4.94.32 Ha at SF.Nos. 314 (Part -3) of Thuppuganapalli Village, Shoolagiri Taluk, Krishnagiri District, Tamii Nadu by Thiru. G. Perumal - For Terms of Reference. (SIA/TN/MIN/430287/2023, Dated: 22.05.2023)

The proposal is placed for appraisal in the 427th SEAC meeting held on 07.12.2023. 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. G. Perumal has applied for Terms of Reference for the Proposed Rough Stone quarry lease over an extent of 4.94.32 Ha at SF.Nos.

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- 314 (Part 3) of Thuppuganapalli Village, Shoolagiri Taluk, Krishnagiri District, Tamil Nadu.
- The project/activity is covered under Schedule 1(a) "Mining Projects" of the Schedule to the ElA Notification, 2006.
- 3. Earlier, the proposal was placed in the 409th SEAC meeting held on 21.09.2023. During the meeting the EIA coordinator informed that the project proponent was absent for the meeting. Hence the subject was not taken up for appraisal and committee decided that the project proponent shall furnish the reason for his absence.

Now, the proposal was placed in the 427th SEAC meeting held on 07.12.2023. Based on the presentation made by the proponent SEAC recommended grant of **Terms of Reference (TOR) with Public Hearing,** subject to the following TORs, as per the **Annexure I** of this minute, in addition to the standard terms of reference for EIA study for non-coal mining projects and details issued by the MOEF & CC to be included in EIA/EMP Report:

- 1. 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.
- The proponent shall study about the school located within 500m from the cluster as well as from this individual mine and further PP shall furnish the details viz. Number of students studying in the school, school timings.
- 3. The proponent shall study the impact of carrying out blasting on the schools and structures located within 500m from the cluster by carrying out vibration study in the any of the operating mine in the same cluster by involving any reputed scientific / academic institutions such as CIMFR, Dhanbad; NIRM, Bangalaru; IIT(ISM), Dhanbad; Anna University, Chennai; NITK, Surathkal and IIT. Madras.

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Agenda No: 427 - 08

File No: 10389/2023

Proposed Rough Stone & Gravel quarry lease over an extent of 1.50.0 ha in S.F. No.

924/2 (P) of Thennilai West Village, Pugalur Taluk, Karur District, Tamil Nadu by Tmt.

R.Gokila - For Environmental Clearance. (\$IA/TN/MIN/440089/2023, Dated:

11.08.2023)

The proposal was placed in this 427th SEAC meeting held on 07.12.2023. 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, Tmt. R.Gokila has applied for Environmental Clearance

for the Proposed Rough Stone & Gravel quarry lease over an extent of 1.50.0 ha

in S.F. No. 924/2 (P) of Thennilai West Village, Pugalur Taluk, Karur 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.

Based on the presentation and documents furnished by the proponent, committee

decided to call for additional details

1. The proponent shall revise the mining plan by removing the southern portion

and make consequential changes in the section and the quantity and get it

approved by the Mines department, as there is a habitation within the distance

of 300 m.

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 PARIVRESH portal.

Agenda No: 427 - 09

File No: 10417/2023

Proposed Rough Stone & Gravel quarry lease over an extent of 2.35.50 ha in S.F. No.

1519/4, 1519/6E, 1519/8, 1519/9, 1519/10A, 1519/10B & 1519/12 of Vengadampatti Part-

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II Village, Alangulam Taluk, Tenkasi District, Tamil Nadu by Tmt. B.Lakshmi Rajam - For Environmental Clearance. (SIA/TN/MIN/ 444241 /2023, Dated: 16.09.2023)

The proposal was placed in this 427th SEAC meeting held on 07.12.2023. 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:

- The Project Proponent, Tmt. B.Lakshmi Rajam has applied for Environmental Clearance for the Proposed Rough Stone & Gravel quarry lease over an extent of 2.35.50 ha in S.F. No. 1519/4, 1519/6E, 1519/8, 1519/9, 1519/10A, 1519/10B & 1519/12 of Vengadampatti Part-II Village, Alangulam Taluk, Tenkasi 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.
- 3. Earlier EC issued vide Lr. No.SEIAA-TN/F.No.4801/1(a)/ EC.No.3097/2015 dated: 02.03.2016 for a quantity of 89580 cu.m of Rough Stone and 39594 cu.m of Gravel for a depth of 7m.

Based on the presentation and documents furnished by the proponent, committee decided to call for additional details

- 1. 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.
- 2. The proponent shall study about the school located within 500m from the mine and further PP shall furnish the details viz. Number of students studying in the school, school timings.

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3. There is a tank within 200m radius from the proposed site and hence the PP shall furnish the details regarding the ownership of the tank, Ayacut and further shall furnish the details regarding the impact on water flow and appropriate mitigation measures shall be furnished.

4. The PP shall furnish the Certified Compliance Report obtained from IRO, MoEF&CC, Chennai.

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 PARIVRESH portal.

Agenda No: 427-10

(File No.10390/2023)

Proposed Quartz & Feldspar Quarry lease area over an extent of 2.02.5 Ha (Patta Land) at S.F No.2323/2 of Alampalayam Village, Dharmapuri Taluk, Tiruppur District, Tamil Nadu by M/s. Chettinad Morimura Semiconductor Material Pvt. Ltd., - For Environmental Clearance. (SIA/TN/MIN/442163/2023, dated:28.08.2023).

The proposal was placed for appraisal in the 427th Meeting of SEAC held on 07.12.2023. 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. Chettinad Morimura Semiconductor Material Pvt.
 Ltd., has applied for Environmental Clearance for the Proposed Quartz &
 Feldspar Quarry lease area over an extent of 2.02.5 Ha (Patta Land) at S.F
 No.2323/2 of Alampalayam Village, Dharmapuri Taluk, Tiruppur 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 Committee during the meeting noted that the proponent has an exclusive factory for manufacturing High Purity Silica Powder which is located at Kazhipattur Village, Chennai. The Unit was established in the year 1991, started its manufacturing activity in 1993. The unit manufactures silical powder for

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catering distinctly to Global semi-conductor market. The mineral mined out from the current proposed area will be transported to the above mentioned factory for further processing.

Based on the presentation and documents furnished by the proponent, committee decided to call for additional details:

- The PP shall furnish the revised EMP incorporating the changes suggested by the Committee.
- 2. PP shall furnish details of EC obtained for the beneficiation plant of the PP at Kazhipattur Village.
- 3. The PP shall submit the details of the schools / primary health centres/hospitals for the CER provisions.

Agenda No: 427 - 11

(File No.10397/2023)

Proposed Rough Stone and Gravel Quarry lease area over an extent of 1.26.0 Ha at S.F No.132/2A of Pachudayampatti Village, Sendamangalam Taluk, Namakkal District, Tamil Nadu by Tmt. J. Vasuki - For Environmental Clearance. (SIA/TN/MIN/443031/2023, dated:05.09.2023).

The proposal was placed for appraisal in the 427th Meeting of SEAC held on 07.12.2023. 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, Tmt. J. Vasuki has applied for Environmental Clearance for the Proposed Rough Stone and Gravel Quarry lease area over an extent of 1.26.0 Ha at S.F No.132/2A of Pachudayampatti Village, Sendamangalam 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.

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During the meeting, the Committee noted that the project proponent is absent and is not available for attending the meeting. Hence the subject was not taken up for discussion.

Agenda No: 427 - 12

(File No.10411/2023)

Proposed Rough Stone Quarry lease area over an extent of 1.00.0 Ha at 5.F No.328(P) (Bit-1) (Government Land) of Sevinthipatti Village, Mohanur Taluk, Namakkal District, Tamil Nadu by Thiru. N. Srinivasan - For Environmental Clearance. (SIA/TN/MIN/443495/2023, dated:11.09.2023).

The proposal was placed for appraisal in the 427th Meeting of SEAC held on 07.12.2023. 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. N. Srinivasan has applied for Environmental Clearance for the Proposed Rough Stone Quarry lease area over an extent of 1.00.0 Ha at S.F No.328(P) (Bit-1) (Government Land) of Sevinthipatti Village, Mohanur 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		10411/2023 443495/2023		Category	B2		
				Category	1(a)		
SI. No	Salient Features of the Proposal						
1.	Name of the Owner/Firm		:	Thiru. N. Srinivasan, S/o. Nallappa Reddiyar, : No.3/19, Panaimarathupatti, Sevinthipatti, Mohanur taluk, Namakkal District – 621 215.			
2.	Type of q	uarrying	:	Rough Stone Quarry	N /		

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3.	S.F Nos. of the quarry site		328 (P) (Bit-1)		
	with area break-up				
4.	Village in which situated		Sevinthipatti		
5.	Taluk in which situated		Mohanur		
6.	District in which situated		Namakkai		
7.	Extent of quarry (in ha.)		1.00.0Ha		
8.	Latitude & Longitude of all		11°02'57.69"N to 11°03'01.72"N		
0.	corners of the quarry site		78°21'35.02"E to 78°21'38.84"E		
9.	Topo Sheet No.		58-1/08		
10.	Type of mining		Opencast Semi-Mechanized mining		
11.	Life of Project		5 years		
	Lease Period		5 years		
	Mining Plan Period		5 years		
12.	Mining Plan Details		As per approved	As modified by SEAC	
			Mining Plan	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
	Geological Resources m ³	:	Rough Stone m³-	_	
	(RoM)		2,64,650m³		
	Minable Resources m³ (RoM)		Rough Stone m³-	-	
			64,360m³		
	Annual Peak Production in		Rough Stone m³-	-	
	m³		13,315m³		
	Maximum Depth in meters	:	35m AGL	-	
13.	Depth of water table		53m BGL	<u> </u>	
	Man Power requirement non				
14.	Man Power requirement per day:		22 Nos.		
15.	Water requirement:		3.5 KLD		
	1. Dust & Domestic		1.0 KLD		
	Purpose			$\int_{\mathbb{R}^{d}}$	
	<u> </u>				

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	2. Dust Suppression		1.0 KLD				
	3. Green belt		1.5 KLD				
16.	Power requirement	:	51,488 liters of HSD t	for the entire project			
17.	Precise area communication approved by the District Collector with date	:	Rc.No.347/Mines/2023, Dated:18.04.2023.				
18.	Mining Plan approved by Assistant Director, Dept. of Geology & Mining		Rc.No.347/Mines/2023, Dated:14.06.2023.				
19.	500m cluster letter issued by the Assistant Director, Dept. of Geology and Mining with date		Rc.No.347/Mines/2023, Dated:10.08.2023.				
20.	VAO Certificate Regarding Structures within 300m Radius	:	Letter dated:15.05.2023.				
21.	Project Cost (excluding EMP cost)	:	Rs. 98,20,000/-				
		:	Validity	30 years subject to the following upper limits. Rough Stone			
22.	EC Recommendation	- :	Max Total RoM in	64,360m³			
		:	Annual Max RoM in m³	13,315m³			
			Max Depth in mtrs	35m above ground			

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23.	EMP cost (in Rs. Lakhs).	: Capital Cost - Rs. 27.73 Lakhs Recurring Cost - Rs. 20.67 Lakhs
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 13,315m³ of Rough stone by restricting the ultimate depth of mining up to 35m above 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) The PP shall strictly follow the conditions as laid in the Annexure for protecting the Reserve Forest located at a distance of 480 m.
- 3) 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.
- 4) 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.
- 5) For ensuring the scientific & systematic way of mining, the PP shall submit a conceptual plan indicating the quarry operation to be carried out from top ward to downwards by maintaining the haul road of permitted gradient along with keeping the benches intact, to the concerned AD (Mines) at the time of lease execution.

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- 6) The PP shall also furnish the safety management plan for the removal of embedded boulders along the sloping face of the hilly terrain before obtaining the CTO.
- 7) 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.
- 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.
- 9) 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.
- 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 during the 3rd year or when the depth of working 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

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

Agenda No: 427-13

(File No: 10384/2023)

Proposed Black Granite (Dolerite Dyke) quarry lease over an extent of 1.07.5Ha at SF.No. 511/1 of Agalakottai Village, Denkanikottai Taluk, Kancheepuram District, Tamil Nadu by Thiru.H.A.1qbal Hussain - For Environmental Clearance.

(SIA/TN/MIN/442930/2023, Dated:04.09.2023)

The proposal was placed in 427th meeting of SEAC held on 07.12.2023. 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.H.A.Iqbal Hussain has applied for Environmental Clearance for the proposed Black Granite (Dolerite Dyke) quarry lease over an extent of 1.07.5Ha at SF.No511/1 of Agalakottai Village, Denkanikottai Taluk, Krishnagiri District, Tamil Nadu.
- 2. The proposed quarry/activity is covered under Category "B2" of Item 1(a) "Mining of Mineral Projects" of the Schedule to the EIA Notification, 2006.
- 3. Earlier EC Issued by SEIAA- Lr.No.SEIAA-TN/F.No.3314/EC/1(a)/2330/2015 Dated 05.11.2015.

Based on the presentation and details furnished by the project proponent, **SEAC** decided to defer and call for additional particulars as follows,

 The PP shall submit Certified Compliance Report obtained from the office of the IRO, MoEF & CC, Chennai and the PP shall furnish appropriate mitigating measures for the non-compliance items, if any.

Agenda No: 427- 14

(File No: 10391/2023)

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Proposed Quartz & Feldspar quarry lease over an extent of 1.20.0Ha at SF.No. 312/B1, 313/2 & 313/3A of Kodanthur North Village, Aravakurichi Taluk, Karur District, Tamil Nadu by M/s. Chettinad Morimura Semiconductor Material Pvt.Ltd - For Environmental Clearance. (SIA/TN/MIN/442256/2023, Dated:29.08.2023)

The proposal was placed in 427th meeting of SEAC held on 07.12.2023. 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, M/s. Chettinad Morimura Semiconductor Material Pvt.Ltd has applied for Environmental Clearance for the proposed Quartz & Feldspar quarry lease over an extent of 1.20.0Ha at SF.No.312/B1, 313/2 & 313/3A of Kodanthur North Village, Aravakurichi Taluk, Karur District, Tamil Nadu.
- 2. The proposed quarry/activity is covered under Category "B2" of Item 1(a) "Mining of Mineral Projects" of the Schedule to the EIA Notification, 2006.
- 3. The Committee during the meeting noted that the proponent has an exclusive factory for manufacturing High Purity Silica Powder which is located at Kazhipattur Village, Chennai. The Unit was established in the year 1991, started its manufacturing activity in 1993. The unit manufactures silica powder for catering distinctly to Global semi-conductor market. The mineral mined out from the current proposed area will be transported to the above mentioned factory for further processing.

Based on the presentation and documents furnished by the proponent, committee decided to call for additional details:

- 4. The PP shall furnish the revised EMP incorporating the changes suggested by the Committee.
- 5. PP shall furnish details of EC obtained for the beneficiation plant of the PP at Kazhipattur Village.
- 6. The PP shall submit the details of the schools / primary health centres/hospitals for the CER provisions.

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Agenda No: 427-15

(File No: 10385/2023)

Proposed Rough Stone quarry lease over an extent of 2.00.0 Ha (Government Poramboke land) at S.F.No. 109 (Part-1) of Marandapalli Village, Shoolagiri Taluk, Krishnagiri District, Tamil Nadu by M/s. Sri Sai Kesava Enterprises – For Environmental Clearance. (SIA/TN/MIN/430696/2023, Dated: 25.05.2023)

The proposal was placed for appraisal in this 427th meeting of SEAC held on 07.12.2023. 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, M/s. Sri Sai Kesava Enterprises has applied for Environmental Clearance for the Proposed Rough Stone quarry lease over an extent of 2.00.0 Ha (Government Poramboke land) at S.F.No. 109 (Part-1) of Marandapalli Village, Shoolagiri Taluk, Krishnagiri 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 72,650 m³ of Rough Stone for an ultimate depth of 39m below ground level.
- 4. Earlier the project proponent has obtained EC from DEIAA vide Lr.No.03/DEIAA-KGI/EC No.47/2018 dated: 27.08.2018.

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

i) The PP shall obtain Certified Compliance Report (CCR) from Integrated Regional Office, MoEF&CC, Chennai for the earlier Environmental Clearance obtained from DEIAA.

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: 427-16

(File No: 10392/2023)

Proposed Rough Stone and Gravel quarry lease over an extent of 2.55.62 Ha at S.F.Nos. 363/3, 363/4, 363/5, 364/1, 364/2, 364/3, 364/4, 364/5, 365/1, 366/1A, 366/2A, 367/1A, 368/1A, 368/2, 368/3, 368/4, 368/5, 368/6, 368/7 and 368/8 of Madathur Village, Alangulam Taluk, Tenkasi District, Tamil Nadu by Thiru. S. Jayalani – For Environmental Clearance. (SIA/TN/MIN/441981/2023, Dated: 26.08.2023)

The proposal was placed for appraisal in this 427th meeting of SEAC held on 07.12.2023. 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. Jayalani has applied for Environmental Clearance for the Proposed Rough Stone and Gravel quarry lease over an extent of 2.55.62 Ha at S.F.Nos. 363/3, 363/4, 363/5, 364/1, 364/2, 364/3, 364/4, 364/5, 365/1, 366/1A, 366/2A, 367/1A, 368/1A, 368/2, 368/3, 368/4, 368/5, 368/6, 368/7 and 368/8 of Madathur Village, Alangulam 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 ElA Notification, 2006.
- 3. The precise area communication was issued for the period of 10 years. The approved mining plan is for 10 Years. The annual peak production shall not exceed 36,150 m³ of Rough Stone (10th year) and 7885 m³ of Gravel (1st year) for an ultimate depth of 36m (1m Gravel + 35m Rough Stone) below ground level.
- 4. The salient features of the proposal are as follows:

	File No 10392 / 2023		Category		B2 / 1(a)			
SI. No	Salient Features of the Proposal							
1	Name of the	e Owner/Firm	:	Thiru. S. Jayalani, S/o. Saboor Bhadusi No.4/1667, Ganapa Vallam, Tenkasi Disi	thi Nagar Extension,			

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2	Type of quarrying (Ordinary Stone/Sand/Granite/Limestone)		Rough St	Rough Stone and Gravel					
3	S.F Nos. of the quarry site with area break-up		364/3, 3 366/2A,	363/3, 363/4, 363/5, 364/1, 364/2, 364/3, 364/4, 364/5, 365/1, 366/1A, 366/2A, 367/1A, 368/1A, 368/2, 368/3, 368/4, 368/5, 368/6, 368/7 and 368/8					
4	Village in which situated		Madathu	r					
5	Taluk in which situated		Alangular	n					
6	District in which situated	<u> </u>	Tenkasi						
7	Extent of quarry (in ha.)	:	2.55.62 1	-la					
8	Latitude & Longitude of all corners of the quarry site	:		08°49'43.9209"N to 08°49'48.0796"N 77°24'54.3618"E to 77°25'04.0240"E					
9	Topo Sheet No.	:	58 ~ H/05						
10	Type of mining	:	Opencast Mechanized Mining						
	Life of Project	:	10 years						
11	Lease Period	:	10 years						
	Mining Plan Period	:	10 years	10 years					
	Mining Plan Details	:	As per ap Mining Pl	-	As modified by SEAC				
	Geological Resources m ³		Rough Stone	Gravel	Rough Stone	Gravel			
12	(RoM)		8,94,67 0 m ³	25,562 m³	-	-			
-	Minable Resources m³ (RoM)		Rough Stone	Gravel	Rough Stone	Gravel			
	(10.11)		3,36,150 m ³	19,723 m³	-	-			
	Annual Peak Production in m ³	:	Rough Stone	Gravel	Rough Stone	Gravel			

			26 150	700 <i>E</i>	<u> </u>	Y	
			36,150	7885	-	-	
			m³	m³			
			36m (1m				
	Ultimate Depth in meters	:	35m Roug	gh Stone)	-		
			below gro	und level			
13	Depth of water table	:	52m-56m				
14	Man Power requirement per		22 Nos.	. ,			
'-	day:	•					
	Water requirement:		1.5 KLD				
	I. Drinking water		0.5 KLD				
15	2. Utilized water	:	-				
	3. Dust suppression		0.4 KLD				
	4. Green belt		0.6 KLD				
16	Power requirement	:	1,38,394 Liters of HSD				
	Precise area communication		Roc.No.M1/230/2023,				
17	approved by Joint Director /		Dated:04.07.2023				
''	Assistant Director (i/c),	•					
	Department of G&M						
	Mining Plan approved by Joint		Rc.No.M1	/230/2023	, Dated:0	3.08.2023	
18	Director / Assistant Director	:					
	(i/c), Department of G&M						
	Department of G&M, Joint		Rc.No.M1	/230/2023	, Dated:0	3.08.2023	
19	Director / Assistant Director	:					
	(i/c) 500m Cluster Letter						
30	VAO Certificate Regarding		Letter furnished				
20	Structures within 300m Radius	;					
21	Project Cost (excluding EMP	H	Rs. 1,24,40	,000/-	·	-	
21	cost)	:				ļ	
		ш					

CHAIRMAN

22			Validity	30 years subject to the following upper limits.			
				Rough Stone	Gravel		
	EC Recommendation	:	Max Total RoM in m ³	3,36,1 50 m ³	19,723 m³		
		:	Annual Max RoM in m ³	36,150 m ³	7885 m³		
		:	Max Depth in mtrs		Gravel + ugh Stone) ground		
23	EMP cost (in Rs. Lakh).	:	Capital Cost - Rs. 27,82,174/- Recurring Cost - Rs. 16,03,993/-				
24	CER cost (in Rs. Lakh).	- :					

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 36,150 m³ of Rough Stone (10th year) & 7885 m³ of Gravel (1st year) by maintaining the ultimate depth of mining upto 36m (1m Gravel + 35m Rough Stone) 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 is not permitted to carry out the deep hole blasting operations considering the sensitivity of the environmental settings.

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- 3) 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.
- 4) 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.
- 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 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 cluster of quarries located in the area, 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) The PP shall furnish an affidavit indicating the Standard Operating Procedures (SoP) by involving the existing other mines in the cluster 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) 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 of working 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 carry out the scientific studies within a period of TWO years from the commencement of quarrying operations, to study the impact of quarrying operation on ground water level (hydrogeological studies), by involving anyone of these reputed Research and Academic Institution such as CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, IIT-Madras, University of Madras Dept of Geology, 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) 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, South Madathur, Tenkasi District, before obtaining CTO from TNPCB.

Agenda No: 427-17

(File No: 10399/2023)

Proposed Rough Stone and Gravel quarry lease over an extent of 2.82.5 Ha at S.F.Nos. 439/1A & 439/2 of Chettikulam Village and S.F.Nos. 283/1 & 283/2 of Nattarmangalam Village, Alathur Taluk, Perambalur District, Tamil Nadu by Tmt. P. Ranjanaa Devi – For Environmental Clearance. (SIA/TN/MIN/443743/2023, Dated: 09.09.2023)

The proposal was placed for appraisal in this 427th meeting of SEAL held on

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07.12.2023. The details of the project furnished by the proponent are given in the website (particlesh.nic.in). The SEAC noted the following:

- The project proponent, Tmt. P. Ranjanaa Devi has applied for Environmental Clearance for the Proposed Rough Stone and Gravel quarry lease over an extent of 2.82.5 Ha at S.F.Nos. 439/1A & 439/2 of Chettikulam Village and S.F.Nos. 283/1 & 283/2 of Nattarmangalam Village, Alathur Taluk, Perambalur District, Tamil Nadu.
- 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 10 Years. The annual peak production shall not exceed 48,945 m³ of Rough Stone (4th year) and 14,080 m³ of Gravel (3th year) for an ultimate depth of 50m below ground level.

4. The salient features of the proposal are as follows:

	File No 10399 / 2023			B2 / 1(a)				
SI. No	Salient Features of the Proposal							
1	Name of th	e Owner/Firm	:	Tmt. P. Ranjanaa De W/o. Paranthaman, No.11, Nadu Udaiya Melakalkandarkottai Trichy District - 620 (r Street,			
2		uarrying (Ordinary /Granite/Limestone)	:	Rough Stone and Gra	avel			
3	S.F Nos. of area break-	the quarry site with		S.F.Nos. 439/1A & 439/2 of Chettikulam Village and S.F.Nos. 283/1 & 283/2 of Nattarmangalam Village				
4	Village in w	hich situated	:	: Chettikulam and Nattarmangalam				
5	Taluk in wh	ich situated	:	Alathur	ſ			
6	District in w	hich situated	:	Perambalur				

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7	Extent of quarry (in ha.)	T	: 2.82.5 Ha						
	Latitude & Longitude of all	╁	11°07'26.7	79"N to 11°	07'33 22'	 'N			
8	corners of the quarry site	:	: 78°47'30.93"E to 78°47'38.44"E						
9	Topo Sheet No.	+;	: 58 – 1/16						
10	Type of mining	١:	Opencast	Mechanize	ed Minine				
	Life of Project	:	10 years						
11	Lease Period		10 years			·			
	Mining Plan Period	:	10 years						
		┝	As per ap	proved	As mod	lfied by			
	Mining Plan Details	:	Mining Pl	an	SEAC				
		_	Rough	T	Rough				
	Geological Resources m ³		Stone	Gravel	Stone	Gravel			
	(RoM)		12,06,99	53,644					
•			0 m³	m³	-	-			
	Minable Resources m³ (RoM)		Rough	Gravel	Rough	Gravel			
12			Stone	Otavei	Stone	Oravei			
			3,34,02	37,172	_				
			0 m³	m³	!				
			Rough	Gravel	Rough	Gravel			
	Annual Peak Production in m ³		Stone		Stone	Glavei			
			48,945	14,080	_				
		_	m³	m³					
	Ultimate Depth in meters		50m belov	v ground	-				
13	Donath a format a la la	4	level						
13	Depth of water table	:	63m-68m	below grou	and level				
14	Man Power requirement per day:	:	37 Nos.						
	Water requirement:	+	20212						
15	Drinking water	1	2.0 KLD		^				
ا د.	2. Utilized water	: 0.4 KLD							
	2. Ottilzed water								

	3. Dust suppression		0.6 KLD			
	4. Green belt		1.0 KLD			
16	Power requirement	:	1,56,174 Liters of HSD			
	Precise area communication		Roc.No.127/2022/G	sм,		
17	approved by Deputy Director /		Dated:20.07.2023			
"	Assistant Director (FAC),	•				
	Department of G&M					
1	Mining Plan approved by		Roc.No.127/2022/G	sм,		
18	Deputy Director / Assistant		Dated:28.08.2023			
10	Director (FAC), Department of	•				
	G&M					
	Department of G&M, Deputy		Rc.No.127/G&M/202	22,		
19	Director / Assistant Director	:	Dated:28.08.2023			
	(FAC) 500m Cluster Letter					
20	VAO Certificate Regarding		Letter dated 04.09.2023			
20	Structures within 300m Radius	-				
21	Project Cost (excluding EMP		Rs. 98,81,000/-			
_ `	cost)	•				
				30 years subject to		
				the following		
		:	Validity	upper lit	mits.	
				Rough	Gravei	
	EC Recommendation			Stone		
22			Max Total RoM in	3,34,0	37,172	
		Ĭ	m³	20 m³	m³	
		:	Annual Max RoM	48,94	14,080	
		Ĺ	in m³	5 m³	m³	
			Max Depth in mtrs	50m	below	
		Ŀ	evides de desti ili illista	ground	level	

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23	EMP cost (in Rs. Lakh).	Capital Cost - Rs. 29,66,750/-
	Livin Cost (iii No. Edikiry.	Recurring Cost - Rs. 16,47,826/-
24	CER cost (in Rs. Lakh).	: 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 of not exceeding 48,945 m³ of Rough Stone (4th year) & 14,080 m³ of Gravel (3rd year) by maintaining the ultimate depth of mining upto 50m 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) 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.
- 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) 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

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parameters for reducing the blast-induced ground/air- vibrations and eliminating the fly rock from the blasting operations carried out in the cluster of quarries located in the area, 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) by involving the existing other mines in the cluster 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) 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 of working 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) The PP shall carry out the scientific studies within a period of TWO years from the commencement of quarrying operations, to study the impact of quarrying operation on ground water level (hydrogeological studies), by involving anyone of these reputed Research and Academic Institution such as CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, IIT-Madras, University of Madras Dept of Geology, and Anna University Chennai-CEG

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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. 10 Lakhs and the amount shall be spent for the activities as committed towards Panchayat Union Primary School, Chettikulam, Alathur Taluk, Perambalur District, and Govt Higher Secondary School (Provision of two nos of Mobile Smart Board) before obtaining CTO from TNPCB.

Agenda No: 427-18

(File No: 10413/2023)

Proposed Rough Stone and Gravel quarry lease over an extent of 2.53.0 Ha at S.F.Nos. 145/2B, 147/1A, 147/1B, 147/1C, 147/1D, 147/1E, 147/2, 147/3A, 147/3B, 147/3C and 263/10 of Soundariyapuram Village, Cheyyar Taluk, Thiruvannamalai District, Tamil Nadu by Thiru. M. Veerapandi – For Environmental Clearance.

(SIA/TN/MIN/444432/2023, Dated: 15.09.2023)

The proposal was placed for appraisal in this 427th meeting of SEAC held on 07.12.2023. 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. M. Veerapandi has applied for Environmental Clearance for the Proposed Rough Stone and Gravel quarry lease over an extent of 2.53.0 Ha at S.F.Nos. 145/2B, 147/1A, 147/1B, 147/1C, 147/1D, 147/1E, 147/2, 147/3A, 147/3B, 147/3C and 263/10 of Soundariyapuram Village, Cheyyar Taluk, Thiruvannamalai 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 18,700 m³ of Rough Stone (4th year) and 7920 m³ of Gravel (1st year) for an ultimate depth of 27m below ground level (2m Gravel + 25m Rough Stone).

4. The salient features of the proposal are as follows:

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File No 10413 / 2023			Categ	ory	B2 /	1(a)			
SI.	C-11: T								
No	Salient Features of the Proposal								
					Thiru. M. Veerapandi,				
				S/o. Muru	gan,				
1	Name of the	Owner/Firm	ן:	North Stre	et, E.Puth	upatti Villa	ige,		
				Endapuli,	Periyakula	m Taluk,			
				Theni Dist	rict - 625 (604.			
2	Type of qu	uarrying (Ordinary	Ī.	Rough Sto	ne and Gr	avel			
2	Stone/Sand/	Granite/Limestone)	-						
	S F Nos of	the quarry site with		145/2B, 14	\$7/1A, 147	/1B, 147/1	C, 147/1D,		
3	area break-u	• •	:	147/1E, 147/2, 147/3A, 147/3B, 147/3C					
	died biedk e	••		and 263/10					
4	Village in w	hich situated	:	Soundariyapuram					
5	Taluk in wh	ich situated	:	Cheyyar					
6	District in w	hich situated	:	Thiruvannamalai					
7	Extent of qu	arry (in ha.)	:	2.53.0 Ha	I				
8	Latitude &	Longitude of all	:	12°34'15.0	8"N to 12	34'22.10"1	7		
Ŭ	corners of th	ne quarry site	.	79°37'54.0	05"E to 79	°38'01.52"	E		
9	Topo Sheet	No.	:	57 – P/10					
10	Type of min	ning	:	Opencast	Mechanize	ed Mining			
	Life of Proje	ect	:	5 years					
11	Lease Perioc	1	:	10 years					
	Mining Plan	Period	:	5 years					
	Mining Plan	Dotaile		As per app	proved	As modi	fied by		
	Willing Flan	Details		Mining Pla	an	SEAC			
12				Rough	Gravel	Rough	Gravel		
12	Geological I	Resources m³		Stone	CIBVCI	Stone	- Gravet		
	(RoM)		•	6,32,50	50,600	_ ^	_		
				0 m³	m³				

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	Minable Resources m³ (RoM)	:	Rough Stone 80,270 m ³	Gravel 16,678 m³	Rough Stone	Gravel		
:	Annual Peak Production in m ³	:	Rough Stone 18,700 m³	Gravel 7920 m³	Rough Stone	Gravel		
	Ultimate Depth in meters	:	27m below level (2m 25m Roug	w ground Gravel +	-			
13	Depth of water table	:	70m-75m	· .				
14	Man Power requirement per day:	:	15 Nos.					
15	Water requirement: 1. Drinking water 2. Utilized water 3. Dust suppression 4. Green belt	:	1.5 KLD 0.2 KLD - 0.6 KLD 0.7 KLD					
16	Power requirement	:	67,004 Lite	ers of HSD				
17	Precise area communication approved by Deputy Director, Department of G&M	:	Na.Ka.No. Dated:21.0		am/2023	,		
18	Mining Plan approved by Deputy Director, Department of G&M	:	Rc.No.163/Kanimam/2023, Dated:11.09.2023					
19	Department of G&M, Deputy Director 500m Cluster Letter	:	Rc.No.163/Kanimam/2023, Dated:11.09.2023					
20	VAO Certificate Regarding Structures within 300m Radius	:	Letter dated	1 02.09.20	23			

21	Project Cost (excluding EMP cost)	:	Rs. 35,71,000/-		
		:	Validity	30 years the follo upper li	-
	EC Recommendation		Rough Stone Gravel		Gravel
		:	Max Total RoM in	80,27	16,678
22			m³	0 m³	m³
		:	Annual Max RoM	18,700	7020 m³
			in m³	m³	7 920 111
		••		27m	below
			Max Depth in mtrs	ground level	level (2m
			Max Depth in hitis	Gravel	m³ 7920 m³ 27m below ground level (2m
				Rough S	tone)
23	EMP cost (in Rs. Lakh).		Capital Cost – Rs. 25	,67,100/-	
23	Livir Cost (III Ns. Lakii).	:	Recurring Cost – Rs. 13,52,762/-		
24	CER cost (in Rs. Lakh).	:	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 of not exceeding 18,700 m³ of Rough Stone (4th year) and 7920 m³ of Gravel (1st year) by maintaining the ultimate depth of mining upto 27m below ground level (2m Gravel + 25m 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:

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 5.O. 1807(E) dated 12.04.2022.

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- 2) The proponent shall install the embankment with Garland drainage all around the boundary of the proposed area with settlement tank and shall furnish the photographs/map showing the same before obtaining the 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 authorized explosives & detonators separately in accordance with the Explosive Rules, 2008.
- 5) 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 Director of Mines Safety/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 proposed mine, 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) 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 of working 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) The PP shall carry out the scientific studies within a period of one year from the commencement of quarrying operations, to study the impact of quarrying operation on ground water level (hydrogeological studies), by involving anyone of these reputed Research and Academic Institution such as CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, IIT-Madras, University of Madras Dept of Geology, 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. 5 Lakhs and the amount shall be spent for the activities as committed towards Panchayat Union Primary School, Veerampakkam, Anaikaavur, Thiruvannamalai District, before obtaining CTO from TNPCB.

Agenda No: 427-19

(File No: 10387/2023)

Proposed Rough Stone and Gravel Quarry over an extent of 2.00.0 Ha at S.F.Nos.263/A1 (Part), 263/A2 (Part) & 263/B (Part) of Munnur Village, Pugalur Taluk, Karur District, Tamil Nadu by Thiru.S.Ragunathan -For Environmental Clearance. (SIA/TN/MIN/443078/2023, Dated: 06.09.2023).

The proposal was placed in the 427th Meeting of SEAC held on 07.12.2023. The details of the project furnished by the proponent are available in the website (padivesh.nic.in).

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The SEAC noted the following:

- The Project Proponent, Thiru.S.Ragunathan has applied for Environmental Clearance for the Proposed Rough Stone and Gravel Quarry over an extent of 2.00.0 Ha at S.F.Nos.263/A1 (Part), 263/A2 (Part) & 263/B (Part) of Munnur Village, Pugalur 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. From the KML file uploaded in the PARIVESH Portal and other documents submitted, it is further ascertained that the habitations are located at a distance of 260m.
- 4. The salient features of the proposed project as follows

File	10387 SIA/TN/MIN/443078/2023, Dated:06.09.2023			"B2" 1(a)	
No			Category	EC	
SI. No	Salient F	ures of the Proposal			
1.	Name of the Owner/Firm		Thiru.S.Ragunathan, S/o. Sakthivel, No.3/74, Pullagoundanpalayam, Gudalur west, Gudalur East part-1, Periyamathiagudalur, Aravakurichi Taluk, Karur District-639202.		
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	:	263/A1(part), 263 263/B(part)	3/A2(part) &	
4.	Village in which situated	:	Munnur		
5.	Taluk in which situated	:	Pugalur	11/1	

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6.	District in which situated	:	Karur		
7.	Extent of quarry (in ha.)	:	2.00.0 Ha		
8.	Latitude & Longitude of all		10°59'32.29"N to	10°58'35.33"N	
0.	corners of the quarry site	:	77°54'57.41"E to	77°55'5.94"E	
9.	Topo Sheet No.	:	58 - F/13		
10.	Type of mining	:	Opencast Semi m	nechanized Mining	
	Life of Project	:	5 years		
11.	Lease Period		5 years	·	
	Mining Plan Period	:	5 years		
			As per		
	Mining Plan Details	:	approved	As modified by SEAC	
			Mining Plan		
			Rough Stone –	Rough Stone –	
	Geological Resources m³		6,59,109 m³	6,59,109 m³	
	(RoM)	 :	Gravel -	Gravel –	
			39,946 m³	39,946 m³	
,,	Minable Resources m³ (RoM)	:	Rough Stone –	Rough Stone –	
12.			2,06,294 m³	2,06,294 m³	
			Gravel –	Gravel	
			26,276 m³	26,276 m³	
			Rough Stone –	Rough Stone –	
	Annual Peak Production in	:	51,156 m³	51,156 m³	
	m3		Gravel –	Gravel -	
			9324 m³	9324 m³	
	Maximum Depth in meters	:	35m BGL	<u> </u>	
13.	Depth of water table	:	65m-60m BGL		
14.	Man Power requirement per day:	:	10 Nos.		

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15.	Water requirement: 2. Drinking water & Domestic 3. Dust suppression 4. Green belt	:	3.0KLD 1.0KLD 1.0KLD 1.0KLD	
16.	Power requirement		TNEB	
17.	Precise area communication approved by the Joint Director / Assistant Director(i/c), Department of Geology and Mining	:	Rc.No. 463/Mil Dated; 24.07.20	•
18.	Mining Plan approved by Joint Director / Assistant Director(i/c), Department of Geology and Mining	 :	Rc.No. 463/Mir Dated; 11.08.20	
19.	Joint Director / Assistant Director(i/c), Department of Geology and Mining, 500m Cluster Letter		Rc.No. 463/Mir Dated; 25.08.20	
20.	VAO Certificate Regarding Structures within 300m Radius		27.09.2023 Let	ter Furnished.
21.	Project Cost (excluding EMP cost)	:	Rs. 66,71,000/-	
22.	EC Recommendation	:	Validity	30 years subject to the following upper limits. Rough Stone Gravel

		:	Max Total RoM in m³	2,06,294 m³	26,276 m³
			Annual Max RoM in m ³	51,156 m³	9324 m³
		•	Max Depth in mtrs	35m BGL	
23.	EMP cost (in Rs. Lakh).	:	Capital cost - Rs. 38.16 lakhs recurring cost - Rs. 18.42 lakhs/annum		
24.	CER cost (in Rs. Lakh).	:	Rs. 5,36,500 /- 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 production capacity of not exceeding 51,156 m³ of rough stone & 9324 m³ of Gravel by maintaining the ultimate depth of mining upto 35m BGL 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 5.O, 1807(E) dated 12.04.2022.
- The PP shall maintain 40m of safety distance within the mine lease for securing the safety of the habitation located nearby and the PP shall carry out the required number of tree plantations as committed in the above-mentioned safety area without deviation before 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

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

- 4. The PP shall not carry out the deep hole drilling & blasting operations in the proposed mine.
- 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. Since the habitations are existing within a radial distance of 500 m danger zone, 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 Director of Mines Safety/Chennai, 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 proposed mine keeping the vibration monitoring stations at 100m, 200m, 300m, and 500 m, 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. The PP shall furnish an affidavit indicating the Standard Operating Procedures (SoP) by involving the existing other mines in the cluster 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. 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 of working exceeds 30m whichever is earlier, by involving any one of the reputed Research and Academic

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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 carry out the scientific studies within a period of TWO years from the commencement of quarrying operations, to study the impact of quarrying operation on ground water level (hydrogeological studies), by involving anyone of these reputed Research and Academic Institution such as CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, IIT-Madras, University of Madras Dept of Geology, 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. As accepted by the Project Proponent the CER cost of Rs. 5,36,500/- and the amount shall be spent for the activities as committed towards Panchayat Union Primary School, Munnur Village before obtaining CTO from TNPCB.

Agenda No: 427-20

(File No: 10394/2023)

Proposed Multi Colour Granite Quarry over an extent of 4.95.0 Ha at \$.F.Nos.73/1, 73/5A (p), 76/1A, 76/1B, 76/1C, 76/2 & 77/1 of Kilakaduvetti Village, Nanguneri Taluk, Tirunelvell District, Tamil Nadu by M/s. VIBGYOR Minerals Pvt Ltd -For Environmental Clearance. (\$IA/TN/MIN/443631/2023, Dated:08.09.2023).

The proposal was placed in the 427th Meeting of SEAC held on 07.12.2023. 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. VIBGYOR Minerals Pvt Ltd has applied for Environmental Clearance for the Proposed Multi Colour Granite Quarry over an extent of 4.95.0 Ha at S.F.Nos.73/1, 73/5A (p), 76/1A, 76/1B, \$\hat{76}\$/1C, 76/2 &

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77/1 of kilakaduvetti Village, Nanguneri 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.

Based on the presentation and document furnished by the project proponent, SEAC noted that, the Kalakad Mundanthurai Tiger Reserve is located at a distance of 8.0 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 PARIVRESH portal.

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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.
- 2. 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 precipitations.
- 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.

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.
- 5. 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.
- 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.
- 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.

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- 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.
- 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 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.

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- 22. 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.
- 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.

ROUGH STONE/JELLY/BLUE METAL QUARRY

- 1) The PP shall inform send the 'Notice of Opening' of the guarry 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.

- 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

- 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.

- 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.

SPECIAL MITIGATION MEASURES FOR THE QUARRIES LOCATED IN CLOSE			
PRO	PROXIMITY TO THE WINDMILLS		
St.	Existing (or) Virgin Quarry		
No	Wind Mills located at a distance of	Wind Mills located beyond 300 m	
	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	
	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 plan/scheme.	such that it should nott exceed 1.3 kg and	
		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
	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
	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
	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.

TERMS OF REFERENCE (ToR) FOR GRANITE / ROUGH STONE QUARRY

- 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.
- 2. Details of habitations around the proposed mining area and latest VAO 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.
- 5. The Proponent shall carry out Bio diversity study through reputed 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.

- 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).
- 16. The PP shall carry out Drone video survey covering the cluster, green belt, fencing, etc.,
- 17. The proponent shall furnish photographs of adequate fencing, 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 I 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 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-I in consultation with the DFO, State Agriculture University. 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.
- 33. Taller/one year old Saplings raised in appropriate size of bags, preferably ecofriendly bags should be planted as per the advice of \qquad (\qquad \text{q}\) cal forest

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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.
- 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

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- 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.

Annexure II

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

1. Statutory Compliance:

- 1. 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.
- The project proponent shall obtain the necessary permission for drawing of ground water / surface water required for the project from the competent authority.
- 7. 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 Ciyfl 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.

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6. Wet jet shall be provided for grinding and stone cutting.

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- 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, bio-swales,
 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 (HVCR).

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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.
- 9. 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 shall

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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).
- 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:

- 1. 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.
- 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.
- 3. 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.
- 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.
- 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:

- 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.
- 5. 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:

- 1. 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.
 - Proper design of entry and exit points.
 - d. Parking norms as per local regulation.
- 2. 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 05 kms

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radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

9. Human Health Issues:

- 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.
- Occupational health surveillance of the workers shall be done on a regular basis.
- 6. 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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- 3. 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.

Appendix -I List of Native Trees Suggested for Planting

No	Scientific Name	Tamil Name	Tamii Name
1	Aegie marmeios	Vilvam	edecomb
2	Adenaenthere pevonina	Manjadi	மஞ்சார். ஆணைக்குண்றிமணி
3	Albizia lebbeck	Vaagai	arms.
4	Albizia amera	Usil	a_A 60
5	Baultinia purpurea	Mantharai	ஒத்தாளர்
6	Baultinia racemosa	Aathi	ஆக்கி
7	Bashinia tomentos	Iruvathi	Bourse
8	Buchanania axillaris	Kattuma	∉π∟@ωπ
9	Borassus flabellifer	Panai	LIDE
10	Butea monosperma	Murukkamaram	மேடுக்க மரம்
11	Bobax cerba	Ilavu, Sevvilavu	B ever
12	Calophylium inophyllum	Punnai	Linguage
13	Cassie fistula	Sarakondrai	erderman
14	Cassia roxburghii	Sengondrai	Ortocraimp
15	Chloroxylon sweitenia	Purasamaram	புரசு மரம்
16	Cochlospermum religiosum	Kongu, Manjalliavu	கோங்கு, மஞ்சள் இலவு
17	Cordia dichotoma	Naruvuli	seaffi.
18	Creteva adansoni	Mavalingum	Onetherniens
19	Dillenia indica	Uva, Uzha	0_5 1
20	Dillenia pentagyna	SiruUva, Sitruzha	Age sulem
21	Diospyro sebenum	Karungali	e@distrol
22	Diospyro schloroxylon	Vaganai	WE COM
23	Ficus amplissima	Kafftchi	医心 鲁连岛
24	Hibiscus tiliaceou	Astrupoovarasu	Spannede
25	Hardwickia binata	Aacha	ஆக்க
26	Holoptelia integrifolia	Aayih	ஆயா மரம், ஆயிலி
27	Lannea coromandelica	Odhiam.	அதியம்
28	Lagerstroemia speciosa	Poo Marudhu	rt nætt
29	Lepisanthus tetraphylla	Neikottaimaram	தெய் கொட்கை முற்
30	Limonia acidissima	Vila maram	स्म्रीका क्यांक
31	Litsea glutinos	Pisinpattai	அம்பா. பூசின்பட்டை
32	Madhuca longifolia	lihopai	<u>Berimu</u>
33	Manilkara hexandra	UlakkaiPaalai	e sième urmo
34	Mimusops elengi	Magizhamaram	மகிழமரம்
35	Mitragyna parvifolia	Kadambu	சடற்பூ
36	Morinda pubescens	Nuna	Brown
37	Morinda citrifolia	Vellai Nuna	வெள்ளை நுணா
38	Phoenix sylvestre	Fachai	டிச்சலிம்
39	Pongania pinnat	Pengam	புங்கம்

MEMBER SECRETARY
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Premna serratifolia Narumunnai 550 (poisseer 42 Premna tomentosa Malaipoovarasu 100000 (paga 43 Prosopis cinerea Vanni maram autiali uspio 44 Pterocarpus marsupium Vengai Gastistus 45 Pterospermum canescens Vennangu, Tada Gastistus 46 Pterospermum xylocarpum Polavu 14000 (premius roxburghi Karipala 56/14000) (premius roxburghi Karipala 56/14000) (premius persica 149 Sapundus amarginatus Martipungan, Soapukai Gastiapiaci Gastiapiaci Gastiapiaci Struchnos maxvomic Piray maram tiputi 1000 (premius politica) 50 Struchnos maxvomic Yetti ai 19 Strychnos potatorum Therthang Kottai Gastiapiaci Gastiapiaci Naval 55 Terminalia erjuna Ven marudhu Gastia Gastiapiaci Gastiapiaci Toona ciliate Sandhana vembu 155 Toona ciliate Sandhana vembu 155 Thespesia populnea Puvarasu 14000 (premius populnea Puvarasu 14000)				
Premna tomentosa Malaipoovarasu 1955 1956	40	Premna mollissima	Munnai	முக்கள
Prosopis cineres Vanni maram Vengai Perocarpus marsupium Vengai Vengai Perospermum canssens Vennangu, Tada Rasinsuming Perospermum xylocarpum Polavu Puthranjiou rozburghi Karipala Salvadore persica Ugaa Maram Sapindus emarginatus Martipungan, Soapukai Sarica asoca Asoca Streblus asper Piray maram Strychnos maxvomic Yetti Strychnos potatorum Therthang Kottai Syzygium cumini Naval Terminalia belleric Thandri Terminalia arjuna Ven marudhu Sandiana vembu Sigan Ganiu Sulunas Puvarasu Ugas Vanni maram Rasin upio Rasin upio Sarica Therminalia orjuna Ven marudhu Sarica Sar	41	Premna serratifolia	Narumunnai	5ற முக்கள
44 Pterocurpus marsupium Vengai Garinas 45 Pterospermum canescans Vennangu, Tada Gasaitaming 46 Pterospermum xylocarpum Polavu цаха 47 Puthranjioa roxburghi Karipala adaman 48 Salvadora persica Ugaa Maram aman 49 Sapindus emarginatus Mactipungan, Soapukai umainipiaan 50 Saraca asoca Asoca edisman 51 Streblus asper Piray maram ulimiu topio 52 Strychnos muxvomic Yetti aut.q 53 Strychnos potatorum Therthang Kottai designi demi.au 54 Syzygium cumini Naval smissi 55 Terminalia belleric Thandri smissi 56 Terminalia arjuna Ven marudhu Gasait toggi 57 Toona ciliate Sandhana vernbu sigan daniu 59 Walsuratrifoliata valsura ameterpr 60 Wrightia tinctoria Veppalai Qaiumae	42	Premna tomentosa	Malaipoovarasu	ness flett
Pterospermum canescens Vennangu, Tada Pterospermum xylocarpum Polavu Usoai Puthranjiva roxburghi Karipala Lisoai Balanor Balan	43	Prosopis cinerea	Vanni maram	कार्यका कार्य
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Salvadora persica Ugaa Maram Manipungan, Soapukai So	46	Pterospermum xylocarpum		
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56 Terminalia arjuna Ven marudhu Gasai 10051 57 Toona ciliste Sandhana vembu #554 Gasiu 58 Thespesia populnea Puvarasu yasa 59 Welsuratrifoliata valsura eseisayu 60 Wrightia tinctoria Veppalai Gasiusaso	54	Syzygium cumini		5Faisò
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57 Toona ciliate Sandhana vembu siggar Canity 58 Thespesia populnea Puvarasu yanga 59 Welsuratrifoliata valsura canitagu 60 Wrightia tinctoria Veppalai Gail. 18000	56	Termindia orjuna	Ven marudhu	வென் மருது
59 Walsuratrifoliata valsura emousyr 60 Wrightia tinctoria Veppalai Gainsano		Toona ciliate	Sandhana vembu	
60 Wrightia tinctoria Veppalai Gain maso			Puvarasu	ñ et€
	59		valsura	CARROLLITY
		Wrightia tinctoria	Veppalai	GOLLLEGRO)
	61	Pithecellobium dulce	Kodukkapuli	Oco@écaiupal

Appendix -III

Display Board

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

estrangenter Court Charles	ாடுகளுக்கான கற்றுச்துறல் அனுமறி இந்தன்பட நிடந்தனைகளுக்கு உட்பட்டு நூற்டப்பட்டு கற்றுச்துறல் அனுமறிதேற வரை செல்லத்தக்கதாக உள்ளது.	
ஈசுமை ப டி தி எனிச்சி	குவாரியின் எல்லையைச் சற்றி வேலி அமைக்க வேண்டும்	
Combunti@dearen egeleng gali in	egitaliemegilini gigib gergioù şiftligiği. Al têig Genoù Gais Contribà	
	காற்றில் மாக ஏற்படாதவாறு அல்க பளிகளை மேற்கொள்ள வேள்டும்.	

ச் பகுதியை ஏற்படுத்த வேண்டும். орон уфикасонува офука офис правонува களை உள்ளிப்பாக செயல்படுத்தப்பட வேண்டும்

த்தில் இதுத்து ஏற்படும் இணரச்சல் அமை(65 டேமியல்சி) (க்கி) அமாவிற்கு மேல் ஏற்படாதவாது தகுத்த எட்டுப்பாடுகளை

சட்ட விறிகள் எனக் கிற் கரங்கத்தில் உள்ள பணியார்வருக்கு நகுத்த பாறுகாப்பு கருவிகள் வழங்கவிறாடு nangungadas auftirump ausflamas Coving og Gautstjil.

க்றிக்கம் கசிந்தைய ஆக்கு முத்தியாக வகைகள்கள் செற்றும் சிக்கிக்க அடித்த முத்த முத்திய முன்றும், ப்பா

rio அதலில் உள்ள விவசாடப் பளிகள் மற்றும் நிறிகளைன் பாறிக்கப்படக் கூடாது.

mosade பாதிக்கப்பு, made இருப்பாற உறுத் செய்யும் வளையில் நிறந்தும், நீரின் ஒரத்தினை தொட நைதிலிருந்து களிக பொருட்களை எடுந்துச் செல்வது கிராம மக்களுக்கு எந்தத் கிர காப்போடும் மத்தும் சத்துதமுல் மாநிக்களைத வள்ளால் காகணங்களை இயக்க சேண்டி

Harmfled: முடிக்கப்பட்டவுடன் ஷங்க முடல் **நீ**ட்டத்தில் உள்ளனது. ஷங்கத்தினை முட வேண்டும்.

ஓ நாலந்தைகளை நெர்ந்துகள் கள்ளர் படுத் நடித்த கள்ள நாலந்தைகளை இனார்து ஏற்பாத்தார்கா Gorge எந்தப் பகுதிகையும் மறுகட்டுமானம் செய்து நாவரங்கள் விலங்குகள் ஆகியவற்றின் வளர்ச்சிக்கு ஏற்ற வகையில் ஸ்பகுதியை உருவாக்க வேண்டும்.

களை அடுப் பாரிசோஞ் (http://putrab.ski.n) என்றே இணைபதவத்தைப் பார்மனம். உரக் மேலும் சந்நித்ழல் ச**ாந்த** புகாந்கழுக்கு போன்னையில் உள்ள சுற்றுச்தழுல் மற்றுக் வள அமைச்சகத்தின் ஒருக் sicombi 044 ~ 2022225 (அம்றது) தமிற்றாடு cane கட்டுப்பாடு வாரியத்தின் பயலட்ட சுற்றுச்து தம் பொறியா

大大大大大大大大大

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