# MINUTES

# 645<sup>th</sup> MEETING

# STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY-TAMIL NADU

Date: 08.08.2023

# MINUTES OF THE 645<sup>th</sup> MEETING OF THE STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY HELD ON 08.08.2023.

Agenda No	Description	File No.	Minutes					
a)	Confirmation of the minutes of the 644 <sup>th</sup> meeting of the Authority held on 07.08.2023.		The minutes of the 644 <sup>th</sup> meeting of the Authority held on 07.08.2023 was confirmed.					
b)	The Action taken on the decisions of the 644 <sup>th</sup> meeting of the Authority held on 07.08.2023.		The Member Secretary informed that 644 <sup>th</sup> Minutes uploaded in Parivesh website and action taken report will be putup ensuing meeting.					
1.	<ul> <li>Vidayur Village, Tiruvallur Talul Environmental Clearance.</li> <li>The authority noted that earlier, to 18.02.2023. The Authority noted that the Committee has furnished its react the project subject to the condition.</li> <li>The Authority, after detailed discuss from the Project Proponent: <ol> <li>Detailed study shall be carrier in the lease area from a reputa.</li> <li>Detailed study shall be carrier in the biology.</li> <li>Climate change lease is constructed to the condition of the d. Possibilities of with the construction.</li> </ol> </li> </ul>	k Tiruvall he subject at vide mi commend as stated th ssions dec ried out ir ited resear diversity. eading to I to release clocal peop ater contar estry & Tra	ided to call for the following additional particulars a regard to impact of mining around the proposed rch institutions on the following: Droughts, Floods etc. of Greenhouse gases (GHG), rise in Temperature, & ple. mination and impact on aquatic ecosystem health. aditional practices. effect due to distraction in the Environment.					
		<ul><li>g. Bio-geochemical processes and its foot prints including environmental stress.</li><li>h. Sediment geochemistry in the surface streams.</li></ul>						

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- 2. Impact of mining on the agriculture/ agricultural fields, horticulture, humus, water body, surface/underground drainage, biodiversity in the vicinity of the proposed site shall be studied from a reputed Institute other than the NABET consultant. Health hazards anticipated due to the mining activity shall also be studied.
- The impact of mining on biodiversity, agriculture and horticulture around the mining area, adjacent lands and land use.
- 4. Whether the sulphides/sulphates released during mining activity will mix with water forming acids change the PH and hamper the health of human beings/wildlife in the area.
- 5. A letter from the concerned DFO stating the proximity distance of RF, WLS etc., located within 25 Km from the project site.

The proponent vide letter dated 31.07.2023 gave reply to the above details sought by SEIAA. In view of this, it was again placed in this 645<sup>th</sup> SEIAA meeting held on 08.08.2023.

The Authority after examining the reply/details furnished by the proponent and also taking into account the recommendations of SEAC, the safety aspects and to ensure sustainable, scientific and systematic mining, decided to grant Environmental Clearance for the quantity of 29,970 m<sup>3</sup> of Ordinary Earth with an ultimate depth of mining upto 0.9m below ground level as per the mine plan approved by the Department of Geology & Mining. This is also subject to the standard conditions as per Annexure - (I) of SEAC minutes, other normal conditions stipulated by MOEF&CC & all other specific conditions as recommended by SEAC in addition to the following conditions and the conditions in Annexure 'A' of this minutes.

 The Environmental Clearance issued is only for the below co-ordinates bounded by four corners.

Boundaries /	Co-ord	linates
Corners	Latitude	Longitude
1	13°06'29.03"N	79°50'10.64"E
2	13°06'36.26"N	79°50'10.54"E
3	13°06'36.36"N	79°50'15.50"E
4	13°06'29.14"N	79°50'15.63"E

- Keeping in view of MoEF&CC's notification S.O.1533(E) dated.14.09.2006 and S.O. 1807(E) dated 12.04.2022, this Environmental Clearance is valid as per the approved mine plan period.
- The EC granted is subject to review by District Collector, Mines Dept. and TNPCB on completion of every 5 years till the project life. They should also review the EC conditions to ensure that they have all been adhered to and implemented.

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5. 6. 7.	MoEF&CC while seeking a r The progressive and final mi environmental norms should As per the OM vide F. No Project Proponents are directed conditions prescribed in the developed compliance modul The amount allocated for EM recurring expenditures should committed. The work & expendence	enewal of ine closure be strictly . IA3-22/1 ed to subm ne prior e le in the P/ IP should b d be done inditure ma d and also	a Certified Compliance Report obtained from the mining plan to cover the project life. e plan including the green belt implementation and followed as per the EMP. /2022-IA-III [E- 172624] Dated: 14.06.2022, the it the six-monthly compliance on the environmental environmental clearance letter(s) through newly ARIVESH Portal from the respective login. be kept in a separate account and both the capital and year wise for the works identified, approved and as ade under EMP should be elaborated in the bi-annual to should be brought to the notice of concerned
an ext 109/1 109/2 Villag Villup Bhuva	ng Black Granite Quarry over ent of 1.38.0 Ha. at S.F. Nos. 7, 109/25A1, 109/25B, 6B & 109/28 of Ulagiyanallur ge, Kallakurichi Taluk, ouram District, by Tmt. R. aneshwari – For conmental Clearance.	6551	The authority noted that earlier this proposal was placed for appraisal in 115 <sup>th</sup> Meeting of SEAC held on 28.06.2018 and deferred the proposal and directed the PP to revise the EIA/EMP report in line with the SEAC observations. The PP has submitted the reply on 03.02.2023. The reply was placed in 368 <sup>th</sup> meeting of SEAC held on 19.04.2023 and the committee decided to make site inspection by a sub-committee to be constituted by SEAC. The inspection report was placed in 384 <sup>th</sup> meeting of SEAC held on 16.06.2023 and based on inspection report and documents furnished, SEAC has furnished its recommendations for granting Environmental Clearance subject to the conditions stated therein. In view of the above, the authority in its 634 <sup>th</sup> meeting held on 28.06.23 decided that, the PP shall furnish current status of case filed by PP WP.No.9168 of 2019 and facts shall be intimated. Now the PP has submitted reply stating that, as per

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			orders dated 27.07.2023 "the writ petition stands closed as nothing survives for further adjudication", since SEAC itself has recorded the fact that a decision has been taken to waive public hearing. The authority noted that in counter affidavit filed by the SEIAA-TN on 08.11.2019, the Member Secretary, SEIAA has submitted that the PP has to conduct Public Hearing as per the Hon'ble High Court of Madras in its order dated 13.10.2017. Now the PP shown order of SEAC to court and the court
			has taken the cognizance of current order. In view of the above, the authority after detailed discussion decided to refer back the file to SEAC for valued opinion.
3.	Note to consider for the grant of Environmental Clearance Name transfer Amendment for the Proposed construction of residential apartment and inclusion of existing building in T.S Nos. 23/1A1 & 23/1B1, 24 & 25 (Old S.Nos.531/1, 532 & 533), Ward No. 44 & Block No. 30 Komarapalayam Village, Coimbatore South Taluk, Coimbatore District, Tamil Nadu	9064	The authority noted that the PP has applied for Transfer of EC in the favour of "WETECH HOME FINDERS PRIVATE LIMITED" for the "Proposed construction of residential apartment and inclusion of existing building in T.S Nos. 23/1A1 & 23/1B1, 24 & 25 (Old S.Nos.531/1, 532 & 533), Ward No. 44 & Block No. 30 Komarapalayam Village, Coimbatore South Taluk, Coimbatore District, Tamil Nadu by M/s. V.Ravichandran. The PP has obtained EC vide EC letter No.SEIAA- TN/F.No.9064/EC/8(a)/844/2021 dated 14.06.2022.
	by M/s. V.Ravichandran & CO to M/s. Wetech Home finders Private Limited.		As per Agreement for Joint Development furnished by the PP, SEIAA noted that the property to be developed measures about 3.23 Acres, whereas the PP has obtained EC for plot ground coverage area of 1.45 Acres. In view of the above, the authority after detailed

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			discussions decided to refer back the file to SEAC and SEAC is requested to appraise the project based on the above views.
4.	To consider the proposal for the grant of Environmental Clearance Name transfer Amendment for the Proposed Rough Stone & Gravel Quarry lease over an extent of 1.37.0Ha in S.F.Nos. 80/1E1, 80/1E2, 80/1E4 of Pachapalayam Village, sulur Taluk, Coimbatore District, Tamil Nadu– by Thiru.M.Ramasamy to Thiru.R.Karuppusamy	8297	<ul> <li>The Authority noted the following: <ol> <li>The Proponent, Thiru.M.Ramasamy (Late) has obtained Environmental Clearance vide Lr.No.SEIAA- TN/F.No.8297/1(a)/EC.No:5337/2020 Dated: 10.10.2022 for the proposed Rough stone and Gravel over an extent of 1.37.0Ha at S.F.No. 80/1E1, 80/1E2 &amp; 80/1E4 of Pachapalayam Village, Sulur Taluk, Coimbatore District, Tamil Nadu.</li> <li>Now, Thiru.R.Karuppusamy, S/O. Thiru.M.Ramasamy (Late) has applied for Name Change Amendment in form-7 for EC issued vide Lr.No.SEIAA-TN/F.No.8297/1(a)/EC.No:5337/2020 Dated: 10.10.2022.</li> <li>Death certificate of Thiru.M.Ramasamy (Late) vide D-2023:33-1639-000012 Dt:20.06.2023.</li> <li>Legal Heir Certificate of Thiru.M.Ramasamy (Late) vide Cetificate No.TN-720230614312 Dt:23.06.2023.</li> <li>AD, Dept. of Geology &amp; Mining, Coimbatore vide NA.KA.425/Mines/2019 Dt:10.07.2023.</li> </ol></li></ul> <li>After detailed discussions, the Authority decided to request the Member Secretary, SEIAA-TN to obtain the following details and place before the Authority for further course of action.</li>

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			<ol> <li>The PP, Thiru.R.Karuppusamy, S/o. Thiru.M.Ramasamy (Late) shall furnish the registered consent document/No Objection certificate obtained from the other Legal Heirs of Thiru.M.Ramasamy (Late).</li> </ol>
5.	Proposed Rough Stone & Gravel quarry lease over an extent of 4.68.50ha in S.F. No. 735(P), 736(P), 737/3(P), 750/1(P), 2(P),751/1, 2, 752/1, 2, 753/1, 2A, 2B & 754/1A(P), 1(B(P), 1C, 1D(P), 1E at Achchamdavilthan Village, Srivilliputhur Taluk, Virudhunagar District Tamil Nadu by Thiru. P.V.Lakshmi Narayanan - For Environmental Clearance.	9565	The authority noted that the subject was appraised in 362 <sup>nd</sup> SEAC meeting held on 13.03.2023. Based on the presentation and documents furnished by the project proponent, SEAC noted that a W.P. (MD) No. 1593 of 2023 is pending with Madurai Bench of Madras High Court and decided to recommend the proposal for the grant of Environmental Clearance subject to the outcome of the above-mentioned Writ Petition. Authority after detailed deliberation, decided that since a writ petition (W.P.(MD) No. 1593 of 2023) is pending with Madurai Bench of Madras High Court, the examination of the proposal is kept in abeyance and further course of action for this proposal is subject to the outcome of the W.P. (MD) No. 1593 of 2023 pending in Madurai Bench of Madras High Court and SEAC may examine the outcome and the recommendation for grant of Environmental Clearance may be furnished to SEIAA accordingly. Subsequently, the proponent submitted the reply to O/o SEIAA on 07.08.2023. Based on the reply furnished by the proponent, the proposal was again placed in 645 <sup>th</sup> SEIAA meeting held on 07.08.2023. Authority after detailed deliberation, noted the following order dated

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			<ul> <li>19.07.2023 issued by Hon'ble Madurai bench of Madras High court under sub para 4 &amp; 7 of para 5</li> <li>4.The second respondent shall consider the application submitted by the 11th respondent pending before him and pass appropriate orders after hearing the 11th respondent as well as the Petitioner. The Petitioner shall file his objections, if any to the second respondent or the State Environment Impact Assessment Authority (SEIAA) within a period of one week from the date of receipt of a copy of this order.</li> <li>7.Therefore, the second and fourth respondents as well as the State Environment Impact Assessment Authority (SEIAA) are directed to dispose of the applications pending before them, within a period of eight weeks from the date of receipt of a copy of this order, after hearing the Petitioner as well as the 11th respondent.</li> <li>Hence, in the deference to the above-mentioned order dated 19.07.2023, authority decided to defer the proposal and will be taken up in the ensuing</li> </ul>
			the proposal and will be taken up in the ensuing meeting.
6.	Proposal seeking Environmental	7263	The Authority noted the following:
	Clearance validity Extension for		i) Earlier, EC was accorded to the project
	the Proposed Grey Granite over an		proponent vide Lr. No. SEIAA-
	extent of 2.35.0Ha located at S.F.		TN/F.No.7263/EC. No: 5288/2022
	Nos, 133/2A(P), 133/5(P),		dated: 05.09.2022.
	133/7(P), 133/8(P), 133/10(P) &		ii) Now, the proponent has submitted an
	133/11 Kondappanayanapalli		application in PARIVESH Portal vide
	Village, Bargur Taluk, Krishnagiri		Proposal No.
	District by Tmt. M.Sadhana		SIA/TN/MIN/301852/2023 dated

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		(977	amend the EC dated.05.09.2022 as per the MoEF&CC notification S.O.1807 (E) dated.12.04.2022. The Authority, after deliberations decided that the proponent shall apply in appropriate Form along with a copy of Certified Compliance Report for the EC dated.05.09.2022 to consider the request of the proposal. In this regard, it is further informed that this application applied through Form 4 is closed and recorded.
7.	To consider the proposal for the grant of Terms of Reference validity Extension for the expansion of enhancement of production capacity of their secondary Metallurgical processing Industry (Steel Melting unit) and additional installation of Rolling Mill by M/s. Sakthi Steel Industries Limited at S.F.No.223(p), 233(p), 234, 235(p) & 286(p) Kattankulam Village Uthiramerur Taluk Kancheepuram District. Tamil Nadu.	6857	<ul> <li>After detailed discussions, the Authority noted the following:</li> <li>1. The proponent of M/s. Sakthi Steel Industries Limited have submitted application for Terms of References (ToR) on 12.06.2019, in Form-I, Pre- Feasibility report and draft ToR for the proposed expansion of production capacity of Rerolled &amp; Structural production of 175200 TPA and MS billets of 180000 TPA their secondary metallurgical processing industry (Steel melting unit) and additional installation of rolling mill by direct hot charging technology at S.F.No. 223(P), 233(P), 234, 235(P) &amp; 286(P) in Kattankulam Village, Uthiramerur Taluk, Kancheepuram District vide online application No. SIA/TN/IND/36587/2019, Dated: 22.05.2019.</li> <li>2. ToR was issued to the Project Proponent vide Lr.No. SEIAA-TN/F.No. 6857 /2019/</li> </ul>

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(3a)/ToR-695/2020 Dated: 13.05.2020 for a period of three years with validity up to 12.05.2023.

- 3. Now the Project Proponent, M/s. Sakthi Steel Industries Limited has applied for extension of validity of Terms of Reference for the quarrying of Existing expansion of production capacity of Rerolled & Structural's production of 175200TPA and MS billets of 180000TPA their secondary metallurgical processing industry(Steel melting unit) and additional installation of rolling mill by direct hot charging technology S.F at No.223 (P), 233(P), 234, 235(P) & 286(P) in Kattankulam Village, Uthiramerur Taluk, Kancheepuram District vide online application No. SIA/TN/MIN/301303/2023 dated: 16.06.2023.
- However, as per MoEF&CC Notification S.O. 221(E) 18<sup>th</sup> January 2021, para 9A stated as follows:

"9A. Notwithstanding anything contained in this notification, the period from the 1<sup>st</sup> April, 2020 to the 31<sup>st</sup> March, 2021 shall not be considered for the purpose of calculation of the period of validity of Prior Environmental Clearances granted under the provisions of this notification in view of outbreak of Corona Virus (COVID-19) and subsequent lockdowns (total or partial) declared for its control, however, all activities undertaken during this period in respect of the

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Environmental Clearance granted shall be treated as valid.".

 Further, as per MoEF&CC office memorandum vide No. J-11013/41/2006-IA-II (I) (Part), dated: 29.08.2017, para (iii) & (iv) stated as follows:

(iii) The above validity period can be extended by the concerned Regulatory Authority for a maximum period of one year without referring the proposal to the EAC/SEAC concerned, provided an application is made by the applicant before expiry of the validity period, together with an updated Form-1 and proper justification and there is no change in terms and conditions of the ToRs. After the lapse of validity, such extension will need EAC/SEAC consideration.

(iv) Thus, an outer limit of validity of ToRs shall be 4 years for all the projects/activities and 5 years for River Valley and HEP Projects.

The Authority, after detailed discussions, decided to issue extension of validity of earlier issued ToR dated 13.05.2020 for a period valid up to 12.05.2025 in view of the above-mentioned office memorandum dated: 29.08.2017 & MoEF&CC Notification S.O. 221(E) dated 18.01.2021. All other conditions imposed in ToR dated 13.05.2020 remains unaltered.

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8.	File No:	6788					
	To Cons	idering the	e Issue of Environ	mental Clearance Amend	ment fo	r the proposed expansion	
	Poly Vinyl Chloride (PVC) Resins Plant by M/s. Chemplast Cuddalore Vinyls Limited at R.S.No						
	70Part, 7	1 Part, 72,	73, 74 Part, 75 Par	t, 76 Part, 133 part & 134,	SIPCO	T Industrial Complex, Pha	
	-II, Sem	mankuppa	m Village, Cuddal	ore Taluk, Cuddalore Dis	trict, Ta	mil Nadu.	
	The auth	ority noted	d the following:				
	i)	EC was	accorded to the p	roject proponent, M/s. C	hemplas	st Cuddalore Vinyls Limit	
		(CCVL	) by SEIAA-T	N vide Lr.No.SEIAA	-TN/	F.No.6788/5(e)/EC-69/20	
		dated.19	9.11.2019 for exp	ansion of PVC Plant	at Cud	dalore, Tamil Nadu fro	
	3,00,000 TPA to 6,00,000 TPA.						
	ii)	Similar	ly, M/s.Champlast	Sanmar Limited (CSL) ha	s obtain	ed EC from MoEF&CC vi	
		letter ne	o. IA-J-11011/132	/2020-IA-II(I), EC Ident	ificatior	n No. EC21A020TN1192	
		dated.10	6.11.2021 for the	proposed project of Poly	Vinyl (	Chloride (PVC) Paste Res	
		Plant of	70,000TPA Plant	located at Cuddalore, Tar	nil Nad	u.	
	iii)	Subsequ	ently, the propone	ent (M/s. CCVL) has sub-	leased s	some land belonging to M	
		Chemplast Cuddalore Vinyls Limited to its other holding company M/s. Chemplas					
		Sanmar	Limited due to she	ortage of land for CSL's p	project.		
	iv)	Hence,	M/s. CSL has app	lied for EC amendment a	t MoEF	&CC due to change in la	
		extent and the amendment was issued by MoEF&CC vide letter dated.19.05.2023					
		subject to the condition that the PP shall obtain amendment for the EC issued vide					
		Lr.No.SEIAA-TN/ F.No.6788/5(e)/EC-69/2019 dated.19.11.2019 from SEIAA-TN for					
		reductio	on in total plot area	of 7.2 acres.			
	v)	In this	regard, the propo	onent has submitted an	applica	tion seeking the following	
		amendn	nent in the EC issu	ed earlier dated.19.11.201	9.		
		S.No.	Description	As in earlier	EC	Amendment Sought	
				dated.19.11.2019			
		1	Extent of Land	2,80,852 Sq.m		2,51,862 Sq.m	
		2	Project Site	R.S.No.70 Part, 71 Part,	72, 73,	R.S.No. 70 Part, 72, 73	
			Survey	74 Part, 75 Part, 76 Pa	rt, 133	74 Part, 75 Part, 76 Part	
			Numbers	Part & 134		133 Part & 134.	
		3	Vacant Land/	93075.6 Sq.m		87976.5 Sq.m	
			Green Belt				

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The aut	nority, after detailed deliber	rations, decided to issue the above - mentioned amendment
		ect to the following conditions:
i)		change in emission/ environment parameters with respect to th
ii)		ipulated in the earlier EC dated.19.11.2019 shall remai
Lease ov S.F.No. Village, Peramba Thiru.P.J	I Rough Stone quarry er an extent of 1.00.0 Ha at 139/1 (Part) in Esanai Perambalur Taluk, lur District, Tamilnadu by Kalaiselvan – For nental Clearance.	<ul> <li>9301 Earlier, the subject was placed in the 636<sup>th</sup> authorit meeting held on 10.07.2023. The authority note that the subject was appraised in the 386<sup>th</sup> SEAt meeting held on 23.06.2023. SEAC has furnishe its recommendations for granting Environmental Clearance subject to the conditions stated therein. The Authority, after detailed discussions decided t consider the proposal after obtaining the followin particulars from the project proponent:</li> <li>1. The project proponent shall upload the Certifie Compliance Report obtained from IRO of MoEF&amp;CC in the PARIVESH Portal and copy of the same shall be submitted to SEIAATN.</li> <li>The proponent, vide letter dated.22.07.202 furnished a reply for the above queries/detail requested in the 636<sup>th</sup> authority meeting.</li> <li>The Authority after examining the reply/detail furnished by the proponent and also taking int account the recommendations of SEAC, the safet aspects and to ensure sustainable, scientific an systematic mining, decided to grant Environmenta Clearance for the quantity of 2,10,090m<sup>3</sup> of roug stone for the restricted depth of 76m abov ground level as per the mine plan approved by th Department of Geology &amp; Mining. This is als</li> </ul>

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subject to the standard conditions as per Annexure - (I) of SEAC minutes, other normal conditions stipulated by MOEF&CC & all other specific conditions as recommended by SEAC in addition to the following conditions and the conditions in Annexure 'A' of this minutes.

- Keeping in view of MoEF&CC's notification S.O.1533(E) dated.14.09.2006 and S.O. 1807(E) dated 12.04.2022, this Environmental Clearance is valid as per the approved mine plan period.
- The EC granted is subject to review by District Collector, Mines Dept. and TNPCB on completion of every 5 years till the project life. They should also review the EC conditions to ensure that they have all been adhered to and implemented.
- The project proponent shall furnish a Certified Compliance Report obtained from MoEF&CC while seeking a renewal of the mining plan to cover the project life.
- The progressive and final mine closure plan including the green belt implementation and environmental norms should be strictly followed as per the EMP.
- 5. As per the OM vide F. No. IA3-22/1/2022-IA-III [E- 172624] Dated: 14.06.2022, the Project Proponents are directed to submit the six-monthly compliance on the environmental conditions prescribed in the prior environmental clearance letter(s) through newly developed compliance

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			<ul> <li>module in the PARIVESH Portal from the respective login.</li> <li>6. The amount allocated for EMP should be kept in a separate account and both the capital and recurring expenditures should be done year wise for the works identified, approved and as committed. The work &amp; expenditure made under EMP should be elaborated in the bi-annual compliance report submitted and also should be brought to the notice of concerned authorities during inspections.</li> </ul>
10.	Proposal for the Withdrawal of Terms of Reference with public hearing for the Proposed Rough Stone Quarry lease over an extent of 1.05.0Ha in S.F.Nos.50/2 of Ekkattampalayam Village, Perundurai Taluk, Erode District, Tamil Nadu –by Thiru.P.Venkatachalam	8313	The authority noted that the proponent has given a request letter to withdraw and surrender the Terms of Reference issued earlier vide Lr. No. SEIAA-TN/F.No.8313/SEAC/TOR/957/2021 dated 03.05.2021. In the view of the above, Authority after detailed deliberation decided to forward the proponent's request to SEAC to obtain its remarks regarding the surrender and withdrawal of earlier issued terms of reference.
11.	Note on issue of Extension of Validity of Environmental Clearnce for the Multi colour Granite quarry lease area over an extent of 2.11.0 Ha at S.F.Nos.41/2A, 2B, 2C, 2D, 2E, 106/1(P) & 106/3(P) of Elayampalayam Village, Tiruchengode Taluk, Namakkal		<ul> <li>After detailed discussion, the Authority noted that,</li> <li>1. The proponent has obtained Environmental Clearance vide Lr. No.SEIAA- TN/F.No.4508 /EC/1(a)/2656/2015 dated: 05.01.2016.</li> <li>2. Subsequently, the proponent has applied for Extension of validity of earlier issued EC in Form 6 vide SIA/TN/MIN/302234/2023, dated: 13.07.2023.</li> </ul>

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District, Tamil Nadu by M/s.	Further, as per EIA Notification 2006, as amended
M.P.Granite.	vide S.O. 1141 (E) Dated: 29.04.2015 and S.O.
	2944 (E) Dated: 14.09.2016, which states that
	" (iii) When the multiplication for the interview
	"(iii) Where the application for extension under
	sub-paragraphs (i) and (ii) above has been filed-
	(a) within thirty days after the validity period of
	Environmental Clearance, such cases shall be
	referred to concerned Expert Appraisal
	Committee or State Level Expert Appraisal
	Committee or District Level Expert Appraisal
	Committee and based on their recommendations,
	the delay shall be condoned at the level of the
	Joint Secretary in the Ministry of Environment,
	Forest and Climate Change or Member
	Secretary, State Level Expert Appraisal
	Committee or Member Secretary, District Level
	Expert Appraisal Committee, as the case may be;
	(b) more than thirty days after the validity period of
	Environmental Clearance but less than ninety
	days after such validity period, then, based on
	the recommendations of the Expert Appraisal
	Committee or State Level Expert Appraisal
	Committee or District Level Expert Appraisal
	Committee, the delay shall be condoned with the
	approval of the Minister in charge of
	Environment, Forest and Climate Change or
	Chairman, as the case may be:
	Provided that no condonation for delay shall be
	granted for any application for extension filed
	beyond ninety days after the validity period of
	Environmental Clearance."

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	In the light of the above Notification cited,							
	Authority decided 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.							
12.	File No: 9916							
	Proposed Rough Stone and Gravel quarry lease area over an extent of 1.41.96 Ha at S.F.Nos. 138/2A							
	(P), 138/3A (P) & 138/4 (P) of Kurumbapalayam Village, Sathyamangalam Taluk, Erode District,							
	Tamil Nadu by Thiru. C. Raja - For Environmental Clearance.							
	After detailed discussion, the authority noted as follows:							
	<ol> <li>The subject was placed in 636<sup>th</sup> Authority meeting held on 10.07.2023. The authority noted that the subject was appraised in 386<sup>th</sup> SEAC meeting held on 23.06.2023. SEAC has</li> </ol>							
	furnished its recommendations for granting Environmental Clearance subject to the							
	conditions stated therein. The Authority, after detailed discussions decided to consider the proposal after obtaining							
	the following particulars from the project proponent:							
	The Authority observed that the quarry of Thiru.N.T.Saisada (SEIAA Proposal							
	number.8357) lies within a distance of 500m from the current proposed quarry of							
	Thiru.C.Raja. But the Deputy Director, Dept. of G&M has not mentioned the details of							
	any existing or proposed quarries in the cluster letter issued vide							
	Rc.No.7387/Mines/2018 dated.21.02.2023. Hence, the proponent shall furnish a							
	revised cluster letter obtained from AD/DD of Geology & Mining Department which							
	clearly states the details of all the existing quarries, proposed quarries, lease expired							
	quarries and abandoned quarries that are situated within the radius of 500m from							
	the proposed project site in the prescribed format.							
	2. Now, the proponent has furnished a revised cluster letter dated 27.07.2023 obtained from							
	Deputy Director, Dept. of G&M stating the details of the quarries as follows:							
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		(i) Existing quar	ies:								
	S No	Name of the Applicant	S.F.N	los	Exten (Hect		Lease Details				
	1.	N.T. Saisadha	152/2	152/2 and		5 R	R.C. No. 22023/2017/X-1 dated 23.12.2021. (23.12.2021 to 22.12.2026)				
			152/	'3	B Hect						
	(ii) Proposed quarries:										
	Sl.	I. Name of the			CEN			Extent			
	No	Applicant		S.F.Nos			(Hect)	Date of application			
	1. C.Raja 1			138/2A(P), 138/3A(P) and			and	1.41.96	24.03.2018		
				138/4(P)				Hect	(Mining Plan approved)		
	2.	Thirunavukarası	148/1, 148/11, 148/12, 148/13 and 157/1			2,	2.18.0	02.05.2022			
	3.	N.T. Saisadha		151 (	151 (part) and 152/4			2.28.40 Hect	16.03.2023		
	(iii) Lease expired and abandoned quarries:										
	S	Name of th	Name of the		CEN			Extent			
	No	Applicant	t	S.F.Nos		•		(Hect)	Lease Period		
	1.	M. Ramasamy		139/2, 139/3,			3.13.5	10.08.2016 to			
			139/4					09.08.2021			
	<ul> <li>3. The total extent of quarries within 500m radius thus calculated exceeds 5ha, the proposal falls under B1 category.</li> <li>In view of the above, the authority decided to refer back the proposal to SEAC for remarks recommendations on the above mentioned points.</li> </ul>										
13.	Proposal seeking for validity extension of Terms of Reference					After of follow		ed discussio	ns, the Authority noted th		
	for the Existing Lime Kank			ar		6. The proponent, M/s. Chettinad Cements					
	quarry lease over an extent					Corporation Private Limited has submitted					
	4.37.0 ha in S.F.No. 226/21			В,		application for ToR on 11.10.2019, in Form-					
	226/2C, 226/2D, 241/1A, 241/1B					I, Pre- Feasibility report for the Lime					
	241/2, 241/3A, 241/3B, 241/3C, 241/4, 241/5, 241/6A, 2					Kankar quarry lease over an extent of 4.37					
	241/4, 241/5, 2s41/6A, 241/6B,			B,			ha i	n S.F.No.	226/2B, 226/2C, 226/2D		
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241/7, 241/8, 242/1, 242/2, 242/3 241/1A, 241/1B, 241/2, 241/3A, 241/3B, (P), 242/4, 242/5, 242/6, 242/9, 241/3C, 241/4, 241/5, 241/6A, 241/6B, 242/10A, 242/10B1 241/7, 241/8, 242/1, 242/2, 242/3 (P), 242/4, (P) and 242/10B2 at Kallankurichi Village, 242/5, 242/6, 242/9, 242/10A, 242/10B1 (P) Ariyalur Taluk, Ariyalur District, and 242/10B2 at Kallankurichi Village, Tamil Nadu by M/s. Chettinad Ariyalur Taluk, Ariyalur District vide online Cements application No. SIA/TN/MIN/44467/2019, Corporation Private Limited Dated: 09.10.2019. 7. ToR was issued to the Project Proponent Lr.No. SEIAA-TN/F.No. vide T.O. 7193/SEAC/ToR-760/2020, dated: 24.09.2020 for a period of three years with validity up to 23.09.2023. 8. Now the Project Proponent, M/s. Chettinad Cements Corporation Private Limited has applied for extension of validity of Terms of Reference for the quarrying of Existing Lime Kankar quarry lease over an extent of 4.37.0 ha in S.F.No. 226/2B, 226/2C, 226/2D, 241/1A, 241/1B, 241/2, 241/3A, 241/3B, 241/3C, 241/4, 241/5, 241/6A, 241/6B, 241/7, 241/8, 242/1, 242/2, 242/3 (P), 242/4, 242/5, 242/6, 242/9, 242/10A, 242/10B1 (P) and 242/10B2 at Kallankurichi Village, Ariyalur Taluk, Ariyalur District vide online application No. dated: SIA/TN/MIN/302822/2023 02.08.2023. 9. However, as per MoEF&CC Notification S.O. 221(E) 18th January 2021, para 9A stated as follows: "9A. Notwithstanding anything contained in this notification, the period from the 1<sup>st</sup> April, Gurraus



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2020 to the 31<sup>st</sup> March, 2021 shall not be considered for the purpose of calculation of the period of validity of Prior Environmental Clearances granted under the provisions of this notification in view of outbreak of Corona Virus (COVID-19) and subsequent lockdowns (total or partial) declared for its control, however, all activities undertaken during this period in respect of the Environmental Clearance granted shall be treated as valid.".

- Further, as per MoEF&CC office memorandum vide No. J-11013/41/2006-IA-II (I) (Part), dated: 29.08.2017, para (iii) & (iv) stated as follows:
  - (iii) The above validity period can be extended by the concerned Regulatory Authority for a maximum period of one year without referring the proposal to the EAC/SEAC concerned, provided an application is made by the applicant before expiry of the validity period, together with an updated Form-1 and proper justification and there is no change in terms and conditions of the ToRs. After the lapse of validity, such extension will need EAC/SEAC consideration.
  - (iv) Thus, an outer limit of validity of ToRs shall be 4 years for all the projects/activities and 5 years for River Valley and HEP Projects.

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the Proposed Grey Granite over an extent of 1.46.0Ha located at S.F. Nos, 133/2A(P), 133/2B1A(P) of Kondappanayanapalli Village, Bargur Taluk, Krishnagiri District by Tmt. M.Sadhanaproponent videvide Lr.No.SEIAA- TN/F.No.7264/EC.No.5292/2022 dated.05.09.2022.ii)Now, the proponent has submitted an application in PARIVESH Portal vide Proposal No. SIA/TN/MIN/301855/2023 in Form 4 requesting to amend the EC dated.05.09.2022 as per the MoEF & CC notification S.O.1807 (E) dated.12.04.2022.The Authority, after deliberations decided that the proponent shall apply in appropriate Form along with a copy of Certified Compliance Report for the EC dated.05.09.2022 to consider the request of the proposal.In this regard, it is further informed that this application applied through Form 4 is closed and			The Authority, after detailed discussions, decided to issue extension of validity of earlier issued ToR dated 24.09.2020 for a period valid up to 23.09.2025 in view of the above-mentioned office memorandum dated: 29.08.2017 & MoEF&CC Notification S.O. 221(E) dated 18.01.2021. All other conditions imposed in ToR dated 24.09.2020 remains unaltered.
recorded.	14.	Clearance validity Extension for the Proposed Grey Granite over an extent of 1.46.0Ha located at S.F. Nos, 133/2A(P), 133/2B1A(P) of Kondappanayanapalli Village, Bargur Taluk, Krishnagiri District	<ul> <li>i) Earlier, EC was accorded to the project proponent vide Lr.No.SEIAA-TN/F.No.7264/EC.No.5292/2022 dated.05.09.2022.</li> <li>ii) Now, the proponent has submitted an application in PARIVESH Portal vide Proposal No. SIA/TN/MIN/301855/2023 in Form 4 requesting to amend the EC dated.05.09.2022 as per the MoEF &amp; CC notification S.O.1807 (E) dated.12.04.2022.</li> <li>The Authority, after deliberations decided that the proponent shall apply in appropriate Form along with a copy of Certified Compliance Report for the EC dated.05.09.2022 to consider the request of the</li> </ul>

Annexure-'A'

# EC Compliance

1. The Environmental Clearance is accorded based on the assurance from the project proponent that there will be full and effective implementation of all the undertakings given in the Application Form, Pre-feasibility Report, mitigation measures as assured in the

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Environmental Impact Assessment/ Environment Management Plan and the mining features including Progressive Mine Closure Plan as submitted with the application.

- All the conditions as presented by the proponent in the PPT during SEAC appraisal should be addressed in Full.
- 3. The proponent shall submit Compliance Reports on the status of compliance of the stipulated EC conditions including results of monitored data. It shall be sent to the respective Regional Office of Ministry of Environment, Forests and Climate Change, Govt. of India and also to the Office of State Environment Impact Assessment Authority (SEIAA).
- 4. Concealing the factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

# Applicable Regulatory Frameworks

5. The project proponent shall strictly adhere to the provisions of\_Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Public Liability Insurance Act, 1991, along with their amendments, Minor Mineral Conservation &Development Rules, 2010 framed under MMDR Act 1957, National Commission for protection of Child Right Rules, 2006, Wildlife Protection Act, 1972, Forest Conservation Act, 1980, Biodiversity Conservation Act, 2016, the Biological Diversity Act, 2002 and Biological diversity Rules, 2004 and Rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/Hon'ble High Court of Madras and any other Courts of Law relating to the subject matter

#### Safe mining Practices

- 6. The AD/DD, Dept. of Geology & Mining shall ensure operation of the proposed quarry after the submission slope stability study conducted through the reputed research & Academic Institutions such as NIRM, IITs, NITS Anna University, and any CSIR Laboratories etc.
- 7. The AD/DD, Dept. of Geology & Mining & Director General of Mine safety shall ensure strict compliance and implementation of bench wise recommendations/action plans as recommended in the scientific slope stability study of the reputed research & Academic Institutions as a safety precautionary measure to avoid untoward accidents during mining operation.

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8. A minimum buffer distance specified as per existing rules and statutory orders shall be maintained from the boundary of the quarry to the nearest dwelling unit or other structures, and from forest boundaries or any other ecologically sensitive and archeologically important areas or the specific distance specified by SEIAA in EC as per the recommendations of SEAC depending on specific local conditions.

#### Water Environment - Protection and mitigation measures

- 9. The proponent shall ensure that the activity does not disturb the water bodies and natural flow of surface and groundwater, nor cause any pollution, to water sources in the area.
- 10. The proponent shall ensure that the activities do not impact the water bodies/wells in the neighboring open wells and bore wells. The proponent shall ensure that the activities do not in any way affect the water quantity and quality in the open wells and bore wells in the vicinity or impact the water table and levels. The proponent shall ensure that the activities do not disturb the river flow, nor affect the Odai, Water bodies, Dams in the vicinity.
- 11. Water level in the nearest dug well in the downstream side of the quarry should be monitored regularly and included in the Compliance Report.
- 12. Quality of water discharged from the quarry should be monitored regularly as per the norms of State Pollution Control Board and included in the Compliance Report.
- 13. Rain Water Harvesting facility should be installed as per the prevailing provisions of TNMBR/TNCDBR, unless otherwise specified. Maximum possible solar energy generation and utilization shall be ensured as an essential part of the project.
- 14. Regular monitoring of flow rates and water quality upstream and downstream of the springs and perennial nallahs flowing in and around the mine lease area shall be carried out and reported in the compliance reports to SEIAA.
- 15. Regular monitoring of ground water level and water quality shall be carried out around the mine area during mining operation. At any stage, if it is observed that ground water table is getting depleted due to the mining activity; necessary corrective measures shall be carried out.
- 16. Garland drains and silt traps are to be provided in the slopes around the core area to channelize storm water. De-silting of Garland canal and silt traps have to be attended on a daily basis. A labour has to be specifically assigned for the purpose. The proponent shall ensure the quality of the discharging storm water as per the General Effluent Discharge Standards of CPCB.

#### Air Environment - Protection and mitigation measures

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- The activity should not result in CO<sub>2</sub> release and temperature rise and add to micro climate alternations.
- The proponent shall ensure that the activities undertaken do not result in carbon emission, and temperature rise, in the area.
- 19. The proponent shall ensure that Monitoring is carried out with reference to the quantum of particulate matter during excavation; blasting; material transport and also from cutting waste dumps and haul roads.

# Soil Environment - Protection and mitigation measures

- 20. The proponent shall ensure that the operations do not result in loss of soil biological properties and nutrients.
- 21. The proponent shall ensure that activity does not deplete the indigenous soil seed bank and disturb the mycorrizal fungi, soil organism, soil community nor result in eutrophication of soil and water.
- 22. The activities should not disturb the soil properties and seed and plant growth. Soil amendments as required to be carried out, to improve soil health.
- 23. Bio remediation using microorganisms should be carried out to restore the soil environment to enable carbon sequestration.
- 24. The proponent shall ensure that the mine restoration is done using mycorrizal VAM, vermin-composting, Biofertilizers to ensure soil health and biodiversity conservation.
- 25. The proponent shall ensure that the topsoil is protected and used in planting activities in the area.
- 26. The proponent shall ensure that topsoil to be utilized for site restoration and Green belt alone within the proposed area.
- 27. The top soil shall be temporarily stored at earmarked place (s) and used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. At critical points, use of geotextile shall be undertaken for stabilization of the dump. Protective wall or gabions should be made around the dump to prevent erosion / flow of sediments during rains. The entire excavated area shall be backfilled.

# Noise Environment - Protection and mitigation measures

28. The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.

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29. The sound at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Hence, the PP shall ensure that the biological clock of the villages are not disturbed because of the mining activity.

#### **Biodiversity - Protection and mitigation measures**

- 30. The proponent should ensure that there is no disturbance to the agriculture plantations, social forestry plantations, waste lands, forests, sanctuary or national parks. There should be no impact on the land, water, soil and biological environment and other natural resources due to the mining activities.
- 31. No trees in the area should be removed and all the trees numbered and protected. In case trees fall within the proposed quarry site the trees may be transplanted in the Greenbelt zone. The proponent shall ensure that the activities in no way result in disturbance to forest and trees in vicinity. The proponent shall ensure that the activity does not disturb the movement of grazing animals and free ranging wildlife. The proponent shall ensure that the activity does not disturb the biodiversity, the flora & fauna in the ecosystem. The proponent shall ensure that the activities do not disturb the resident and migratory birds. The proponent shall ensure that the activities do not disturb the vegetation and wildlife in the adjoining reserve forests and areas around.
- 32. The proponent shall ensure that the activities do not disturb the agro biodiversity and agro farms. Actions to be taken to promote agroforestry, mixed plants to support biodiversity conservation in the mine restoration effort.
- 33. The proponent shall ensure that all mitigation measures listed in the EIA/EMP are taken to protect the biodiversity and natural resources in the area.
- 34. The proponent shall ensure that the activities do not impact green lands/grazing fields of all types surrounding the mine lease area which are food source for the grazing cattle.

## **Climate Change**

- 35. The project activity should not in any way impact the climate and lead to a rise in temperature.
- 36. There should be least disturbance to landscape resulting in land use change, contamination and alteration of soil profiles leading to Climate Change.
- 37. Intensive mining activity should not add to temperature rise and global warming.

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- Operations should not result in GHG releases and extra power consumption leading to Climate Change.
- 39. Mining through operational efficiency, better electrification, energy use, solar usage, use of renewable energy should try to decarbonize the operations.
- 40. Mining Operation should not result in droughts, floods and water stress, and shortages, affecting water security both on site and in the vicinity.
- 41. Mining should not result in water loss from evaporation, leaks and wastage and should support to improve the ground water.
- 42. Mining activity should be flood proof with designs and the drainage, pumping techniques shall ensure climate-proofing and socio-economic wellbeing in the area and vicinity.

# **Reserve Forests & Protected Areas**

- 43. The activities should provide nature based support and solutions for forest protection and wildlife conservation.
- 44. The project activities should not result in forest fires, encroachments or create forest fragmentation and disruption of forest corridors.
- 45. There should be no disturbance to the freshwater flow from the forest impacting the water table and wetlands.
- 46. The project proponent should support all activities of the forest department in creating awareness to local communities on forest conservation.
- 47. The project activities should not alter the geodiversity and geological heritage of the area.
- 48. The activities should not result in temperature rise due to increased fossil fuels usage disrupting the behaviour of wildlife and flora.
- 49. The activities should support and recognise the rights and roles of indigenous people and local communities and also support sustainable development.
- 50. The project activities should support the use of renewables for carbon capture and carbon storage in the project site and forest surrounds.
- The project activities should not result in changes in forest structure, habitats and genetic diversity within forests.

## Green Belt Development

52. The proponent shall ensure that in the green belt development more indigenous trees species (Appendix as per the SEAC Minutes) are planted.

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53. The proponent shall ensure the area is restored and rehabilitated with native trees as recommended in SEAC Minutes (in Appendix).

### Workers and their protection

- 54. The project proponent is responsible for implementing all the provisions of labour laws applicable from time to time to quarrying /Mining operations. The workers on the site should be provided with on-site accommodation or facilities at a suitable boarding place, protective equipment such as ear muffs, helmet, etc.
- 55. The proponent has to provide insurance protection to the workers in the case of existing mining or provide the affidavit in case of fresh lease before execution of mining lease.
- 56. The workers shall be employed for working in the mines and the working hours and the wages shall be implemented/enforced as per the Mines Act, 1952.

#### **Transportation**

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

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conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.

### Storage of wastes

59. The project proponent shall store/dump the granite waste generated within the earmarked area of the project site for mine closure as per the approved mining plan.

#### CER/EMP

- 60. The CER Should be fully Implemented and fact reflected in the Half-yearly compliance report.
- 61. The EMP Shall also be implemented in consultation with local self-government institutions.
- The follow-up action on the implementation of CER Shall be included in the compliance report.

#### **Directions for Reclamation of mine sites**

- 63. The mining closure plan should strictly adhere to appropriate soil rehabilitation measures to ensure ecological stability of the area. Reclamation/Restoration of the mine site should ensure that the Geotechnical, physical, chemical properties are sustainable that the soil structure composition is buildup, during the process of restoration.
- 64. The proponent shall ensure that the mine closure plan is followed as per the mining plan and the mine restoration should be done with native species, and site restored to near original status. The proponent shall ensure that the area is ecologically restored to conserve the ecosystems and ensure flow of goods and services.
- 65. A crucial factor for success of reclamation site is to select sustainable species to enable develop a self-sustaining eco system. Species selected should easily establish, grow rapidly, and possess good crown and preferably be native species. Species to be planted in the boundary of project site should be un palatable for cattle's/ goats and should have proven capacity to add leaf-litter to soil and decompose. The species planted should be adaptable to the site conditions. Should be preferably pioneer species, deciduous in nature to allow maximum leaf-litter, have deep root system, fix atmospheric nitrogen and improve soil productivity. Species selected should have the ability to tolerate altered pit and toxicity of and site. They should be capable of meeting requirement of local people in regard to fuel fodder and should be able to attract bird, bees and butterflies. The species should be planted in mixed association.

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- 66. For mining area reclamation plot culture experiments to be done to identify/ determine suitable species for the site.
- 67. Top soil with a mix of beneficial microbes (Bacteria/Fungi) to be used for reclamation of mine spoils. AM Fungi (Arbuscular mycorrhizal fungi), plant growth promoting Rhizo Bacteria and nitrogen fixing bacteria to be utilized.
- 68. Soil and moisture conservation and water harvesting structures to be used where ever possible for early amelioration and restoration of site.
- 69. Top soil is most important for successful rehabilitation of mined sites. Topsoil contains majority of seeds and plant propagation, soil microorganism, Organic matter and plant nutrients. Wherever possible the topsoil should be immediately used in the area of the for land form reconstruction, to pre mining conditions.
- 70. Over burdens may be analyzed and tested for soil characteristics and used in the site for revegetation. Wherever possible seeds, rhizome, bulbs, etc of pioneering spices should be collected, preserved and used in restoring the site.
- 71. Native grasses seeds may be used as colonizers and soil binders, to prevent erosion and allow diverse self- sustaining plant communities to establish. Grasses may offer superior tolerance to drought, and climatic stresses.
- 72. Reclamation involves planned topographical reconstruction of site. Care to be taken to minimize erosion and runoff. Topsoils should have necessary physical, chemicals, ecological, properties and therefore should be stored with precautions and utilized for reclamation process. Stocked topsoil should be stabilized using grasses to protect from wind. Seeds of various indigenous and local species may be broad casted after topsoil and treated overburden are spread.
- 73. Alkaline soils, acidic soils, Saline soils should be suitably treated/amended using green manure, mulches, farmyard manure to increase organic carbon. The efforts should be taken to landscape and use the land post mining. The EMP and mine closure plan should provide adequate budget for re-establishing the site to pre-mining conditions. Effective steps should be taken for utilization of over burden. Mine waste to be used for backfilling, reclamation, restoration, and rehabilitation of the terrain without affecting the drainage and water regimes. The rate of rehabilitation should be similar to rate of mining. The land disturbed should be reshaped for long term use. Mining should be as far as possible be eco-friendly. Integration of rehabilitation strategies with mining plan will enable speedy restoration.

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- 74. Efforts should to taken to aesthetically improve the mine site. Generally, there are two approaches to restoration i.e Ecological approach which allows tolerant species to establish following the succession process allowing pioneer species to establish. The other approach i.e plantation approach is with selected native species are planted. A blend of both methods may be used to restore the site by adding soil humus and mycorrhiza.
- 75. Action taken for restoration of the site should be specifically mentioned in the EC compliances.

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