MINUTES

664th MEETING

STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY-TAMIL NADU

Date: 25.10.2023

MINUTES OF THE 664th MEETING OF THE STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY HELD ON 25.10.2023.

Agenda No	Description	File No.	Minutes
a)	Confirmation of the minutes of the 663 rd meeting of the Authority held on 18.10.2023.		The minutes of the 663 rd meeting of the Authority held on 18.10.2023 was confirmed.
b)	The Action taken on the decisions of the 663 rd meeting of the Authority held on 18.10.2023.		The Member Secretary informed that 663 rd Minutes uploaded in Parivesh website and action taken report will be putup ensuing meeting.
1,	Proposed Rough Stone Quarry lease over an extent of 2.80.0 Ha (Government Poramboke land) in S.F.No. 136 (Part-1) of Venkatesapuram Village, Hosur Taluk, Krishnagiri District, Tamil Nadu by Thiru. S. Chinnanna – For Environmental Clearance. (SIA/TN/MIN/437327/2023)		The authority noted that the subject was appraised in the 412 th SEAC meeting held on 04.10.2023. During the meeting, the EIA Coordinator stated that PP would like to withdraw the proposal as it was wrongly applied for obtaining the prior EC under B2 category instead of applying for ToR application under B1 category. Hence, the SEAC decided that SEIAA may accordingly decide on the application to withdraw the current application as and when received from the PP. The Authority, during deliberations, noted that the proponent has not submitted a request to withdraw the proposal in the PARIVESH Portal till date. Hence, the authority decided to take further action on the proposal after the receipt of the same from the project proponent with proper justification for withdrawal.
2.	Existing Grey Granite Quarry lease over an extent of 2.16.0 Ha		The authority noted that the subject was appraised in the 412 th SEAC meeting held on 04.10.2023. Based
	(Government Poramboke land) in S.F.Nos. 356/1B1, 356/2, 356/3B &		on the presentation and documents furnished by the project proponent, SEAC decided to grant of Terms

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360/2 of Chendarapalli Village, Bargur Taluk, Krishnagiri District, Tamil Nadu by Thiru. D. Loganathan – For Terms of Reference under Violation. (SIA/TN/MIN/437872/2023) of Reference (TOR) under Violation category, subject to the TORs stated therein, in addition to the standard terms of reference for EIA study for non-coal mining projects and ToR given in Annexure-I, the EIA/EMP report along with assessment of ecological damage, remediation plan and natural and community resource augmentation plan and it shall be prepared as an independent chapter by the accredited consultants. Terms of Reference issued are 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.

After detailed discussions, the Authority accepts the recommendation of SEAC and decided to grant Terms of Reference (ToR) under violation category for undertaking EIA study followed by the EMP report along with assessment of ecological damage, remediation plan and natural and community resource augmentation plan and it shall be prepared as an independent chapter by the accredited consultants subject to the conditions recommended by SEAC & normal / Standard conditions in addition to the following conditions and conditions stated therein vide Annexure 'B'.

- 1. The PP shall furnish a Copy of valid mining lease approval obtained from the competent Authority.
- The PP shall furnish Copy of mining plan approved by the competent authority of the Dept of Geology and Mining.
- The PP shall furnish EMP for the project life including progressive mine closure plan and

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			final mine closure plan with detailed budget
			plan.
ı			4. The PP shall study in detail about the CO ₂
			release and temperature rise and the project
			activities that add to micro climate alternations
			and the same shall be included in the final EIA
			report.
			5. The PP shall study in detail about impact of the
			proposed mining activity on the water bodies
			and natural flow of surface and ground water
			and the same shall be included in the final EIA
İ			report.
			6. The PP shall study in detail about Possibilities
			of water contamination and impact on aquatic
			ecosystem health.
			7. The PP shall study the impact on Invasive
			Alien Species (IAP).
3.	Existing Multi colour Granite quarry	10191	The authority noted that the subject was appraised
	lease over an extent of 1.62 .0 Ha in		in the 412th Meeting of SEAC held on 04.10.2023.
	S.F.Nos. 584/2A, 584/5, 584/6 and		SEAC has furnished its recommendations for
	584/12, Veerapatti Village, Iluppur		granting Environmental Clearance subject to the
	Taluk, Pudukkottai District, Tamil		conditions stated therein.
	Nadu by Thiru.V.Aasimuddeen -		After detailed discussions, the Authority taking into
	For Environmental Clearance.		account the recommendations of SEAC and also the
	(SIA/TN/MIN/429864/2023)		safety aspects and to ensure sustainable, scientific
			and systematic mining, decided to grant
			Environmental Clearance for the quantity of 30612
			m3 of ROM, 12245 m3 of Multi Colour Granite
			(Recovery 40 %) & 18,367 m3 of Granite Waste
			(Reject 60%) up to the depth of 28m and the
			annual peak production is 6240 m3 of ROM,
			2496m3Multi Colour Granite (Recovery 10%) &
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3744m3 of Granite Waste (Reject 60%)]. This is also subject to the conditions imposed by SEAC, normal conditions stipulated by MOEF&CC 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.
- 2. The EC granted is subject to review by District Collector, Mines Dept. and TNPCB on completion of every mine plan period, till the project life. They should also review the EC conditions to ensure that they have all been adhered to and implemented.
- 3. 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.
- 4. 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 sixmonthly compliance on the environmental conditions prescribed in the prior environmental clearance letter(s) through newly developed compliance module in the PARIVESH Portal from the respective login.
- 6. The amount allocated for EMP should be kept in a separate account and both the capital and

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			recurring expenditures should be done year wise for the works identified, approved and as committed. The work & 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. 7. The PP shall carryout transplantation/ plantation/ afforestation of tall native saplings in the ratio1:10 in regard to existing the trees cut down (or) 500 Nos. of Trees per hectare of mining lease area all along the periphery within the proposed mining area and as well as avenue plantation as committed.
4.	Proposed Rough stone quarry lease over an extent of 2.65.0Ha (Patta Land) in S.F.No: 309/1, 309/2, 309/8 & 309/14A(Part), Naranamangalam Village, Alathur Taluk, Perambalur District, Tamil Nadu by Mr.S.Nandakumar - For Environmental Clearance. (SIA/TN/MIN/436410/20230	10215	The authority noted that the subject was appraised in the 412 th Meeting of SEAC held on 04.10.2023 and SEAC decided to defer this proposal seeking additional particulars as follows. 1. The PP shall submit NOC obtained from the DFO in regard to existence of any Reserve Forest (i.e., Naranamangalam) along with recommendation for conservation measures. 2. The PP shall submit a letter of NOC obtained from the competent persons of the National Highway Authority for carrying the quarrying activities involving the blasting operation as the distance between the NH and the proposed mining area is within 500m (i.e., Blasting Danger Zone as per the DGMS Circulars). 3. The PP shall complete land registration for all the survey nos. of the proposed mining area.

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			In view of the above, the authority noted the 412 th
			Meeting of SEAC held on 04.10.2023.
5.	Proposed Rough stone & Gravel	10227	The authority noted that the subject was appraised
	quarry lease over an extent of		in the 412th Meeting of SEAC held on 04.10.2023.
	4.08.32Ha (Patta Land) in S.F.		SEAC has furnished its recommendations for
	No:374/1A & 374/1B, Sindalakattai		granting Environmental Clearance subject to the
	Village, Ottapidaram Taluk,		conditions stated therein.
	Thoothukudi District, Tamil Nadu		After detailed discussions, the Authority taking into
	by Thiru.S.Pandi - For		account the recommendations of SEAC and also the
	Environmental Clearance.		safety aspects and to ensure sustainable, scientific
	(SIA/TN/MIN/435997/2023)		and systematic mining, decided to grant
			Environmental Clearance for the quantity 8,96,080
			m ³ of rough stone & 1,46,160 m ³ of Gravel and the
			annual peak production shall not exceed 1,91,080
			m ³ of Rough Stone & 52,896 m ³ of Gravel by
			restricting the ultimate depth of mining up to
			45m BGL. This is also subject to the conditions
			imposed by SEAC, normal conditions stipulated by
			MOEF&CC in addition to the following conditions
			and the conditions in Annexure 'A' of this minutes.
			1. 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.
			2. The EC granted is subject to review by
			District Collector, Mines Dept. and TNPCB
			on completion of every mine plan period, 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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- 3. 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.
- 4. 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 module in the PARIVESH Portal from the respective login.
- 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 & expenditure made under EMP should be elaborated in the biannual compliance report submitted and also should be brought to the notice of concerned authorities during inspections.
- 7. The PP shall carryout transplantation /plantation/ afforestation of tall native saplings in the ratio1:10 in regard to existing the trees cut down (or) 500 Nos. of Trees per hectare of mining lease area all along the periphery within the proposed mining area

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			and as well as avenue plantation as committed.
 6. 7. 	Proposed Black Granite quarry lease over an extent of 1.64.0Ha (Govt. tender cum auction quarry) in S.F. No: 309(Part), Guttur Village, Bargur Taluk, Krishnagiri District, Tamil Nadu by Thiru. D. Mathiazhagan – For Environmental Clearance. (SIA/TN/MIN/436900/2023) Proposed Ordinary Earth quarry lease over an extent of 4.65.0Ha	10246	The authority noted that the subject was appraised in the 412 th Meeting of SEAC held on 04.10.2023 and SEAC observed that the cluster area for the proposed mining area is 6.88 ha which attracts EIA with EMP with public hearing as per EIA notification, 2006 as amended. Hence, SEAC decided that the PP shall apply for Terms of Reference (ToR) for this project and the PP shall submit request for withdraw of this application seeking EC through online. The authority noted that the subject was appraised in the 412 th Meeting of SEAC held on 04.10.2023.
	(Patta Land) in S.F. No:427/5, 427/6, 427/8, 427/9, 427/11, 427/12, 427/13, 428/4, 428/6, 428/7 & 428/10, Pottipuram Village, Uthamapalayam Taluk, Theni District, Tamil Nadu by Thiru.P.Vinnarasu, - For Environmental Clearance. (SIA/TN/MIN/437643/2023)		SEAC has furnished its recommendations for granting Environmental Clearance subject to the conditions stated therein. After detailed discussions, the Authority taking into account the recommendations of SEAC and also the safety aspects and to ensure sustainable, scientific and systematic mining, decided to grant Environmental Clearance for the Block 2 (1.725 ha) alone & for the SF. No. 428/4, 428/6, 428/7 & 427/13 of Pottipuram Village, Uthamapalayam Taluk, Theni District and the annual peak production shall not exceed 6256 m³ of Ordinary Earth by restricting the ultimate depth of mining up to 1m BGL and for the period 2 Years. This is also subject to the conditions imposed by SEAC, normal conditions stipulated by MOEF&CC in addition to the following conditions and the conditions in Annexure 'A' of this minutes. 1. Keeping in view of MoEF&CC's notification S.O.1533(E) dated.14.09.2006 and S.O.

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- 1807(E) dated 12.04.2022, this Environmental Clearance is valid as per the approved mine plan period.
- 2. The EC granted is subject to review by District Collector, Mines Dept. and TNPCB on completion of every mine plan period, till the project life. They should also review the EC conditions to ensure that they have all been adhered to and implemented.
- 3. 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.
- 4. 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 module in the PARIVESH Portal from the respective login.
- 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 & expenditure made under EMP should be elaborated in the biannual compliance report submitted and also

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			should be brought to the notice of concerned authorities during inspections. 7. The PP shall carryout transplantation/ plantation/ afforestation of tall native saplings in the ratio1:10 in regard to existing the trees cut down (or) 500 Nos. of Trees per hectare of mining lease area all along the periphery within the proposed mining area and as well as avenue plantation as committed.
8.	Proposed Multi Colour Granite Quarry over an extent of 4.31.0Ha at S.F.Nos.108/1, 108/2, 108/3, 108/4, 108/5, 108/6, 108/7, 108/8, 108/9, 108/10, 108/11, 108/12, 108/13, 108/14, 108/15, 108/16, 108/17 and 614/1 of Pandiyampalayam Village, Perundurai Taluk, Erode District, Tamil Nadu by Thiru.P.Velmani - For Environmental Clearance. (SIA/TN/MIN/431141/2023)	10233	The authority noted that this proposal was placed for appraisal in 412 th meeting of SEAC held on 04.10.2023. Based on the presentation and document furnished by the proponent. SEAC noted that the applied lease area falls under cluster mining since the total area of other existing quarries within 500m radius is more than 5 Ha. Hence the Committee directed the Proponent to withdraw this online application and PP shall apply a fresh application for obtaining Terms of Reference along with revised 500m cluster certificate indicating the status of other quarries (existing/ abandoned/ expired/ proposed/ instant) located in the cluster zone. In view of the above, the authority decided to request the Member Secretary, SEIAA to communicate the SEAC minutes to the project proponent held on 04.10.2023.
9.	Proposed Rough Stone and Gravel Quarry over an extent of 2.90.0 Ha at S.F.Nos.750/1(P), 752/1 & 752/2 of Ayyanaruthu Village, Kayathar Taluk, Thoothukudi District, Tamil Nadu by	10254	The authority noted that this proposal was placed for appraisal in 412 th meeting of SEAC held on 04.10.2023. Based on the presentation and documents furnished by the project proponent, SEAC decided to obtain the following details from the PP.

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	Thiru.Karuppasamy -For Environmental Clearance. (SIA/TN/MIN/437012/2023)		1. The Project Proponent shall furnish the Modified Mining Plan approved by the competent authority, incorporating the legitimate co-ordinates of the proposed site as approved by the competent authority. In view of the above, the authority decided to request the Member Secretary, SELAA to communicate the SEAC minutes to the project proponent held on 04.10.2023.
10.	Proposed Gravel quarry lease over an extent of 2.47.0 Ha at S.F.Nos. 85/4 and 85/5A of Malaikandan village, Karaikudi Taluk, Sivagangai Disrict, Tamil Nadu by Thiru. R.Suresh Kumar - For Environment Clearance. (SIA/TN/MIN/437583/2023)	10255	The Authority noted that the subject was placed in the 412 meeting of SEAC held on 29.09.2023 and the SEAC has furnished its recommendations for the grant of Environmental Clearance to the project subject to the conditions stated therein. After detailed discussions, the Authority decided to calling for the following additional particulars from the PP: 1. KML file reveals there is intensive agriculture surrounding the proposed project site which will be impacted by the proposed mining activity. Hence the PP shall furnish the letter obtained from the Director, Department of Agriculture stating the productivity status and productive potential of the proposed mine lease area. 2. PP shall elaborate the "own purpose" for mining Gravel.
11.	Proposed Ordinary Earth quarry (PWD Tank) lease over an extent of 3.15.0 Ha at S.F.Nos. 450A(Part) of Alapakkam Village, Uthukottai Taluk, Thiruvallur District, Tamil Nadu by Thiru. R. Babu - For	10262	The Authority noted that the subject was placed in the 412 th meeting of SEAC held on 29.09.2023 and the SEAC has furnished its recommendations for the grant of Environmental Clearance to the project subject to the conditions stated therein.

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	Environment Clearance,	
	(SIA/TN/MIN/438165/2023)	
12.	Proposed Multi-coloured 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 by Thiru. G.	

After detailed discussions, the Authority decided to call for the following from PP:

- 1. Mine plan was approved in the year 2015 with validity of 55 days. Now the physical, biological and ecological features of the tank have changed. Hence the details of change in quantity of Earth need to be obtained from the AD/Mines.
- 2. PP shall obtain letter from AD/Mines stating whether or not Earth has been removed from the project site as per the EC dated 23.10.2015.
- 3. KML shows dense vegetation within what are species within. Are there any trees within. This may also be examined.

Gopalakrishnan For Environmental Clearance. (SIA/TN/MIN/435949/2023)

The proposal was placed in the 412th SEAC Meeting 212 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.

Upon the receipt of above-mentioned details, further deliberation shall be done.

Hence, the proponent is advised to submit the

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		additional documents/ information as sought above within a period of 30 days failing which your proposal will automatically get delisted from the PARIVESH portal. In the view of the above, SEIAA accepts the decision of SEAC and decided to request Member Secretary to communicate the minutes of 412th SEAC Meeting held on 04.10.2023 to the project proponent.
Quarry lease over an extent of 2.06.5 Ha at S.F.Nos. 44/4 & 45 of Mangudi Village, Illuppur Taluk, Pudukkottai District, Tamil Nadu by Thiru. K.Munisamy - For Environmental Clearance. (SIA/TN/MIN/436132/2023)	10218	The proposal was placed in the 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. Implication of proposed quarrying operations in terms of dust, ground vibrations and water pollution on the surrounding habitatants located within a core zone of 1 km from the lease boundary and mitigating measures proposed by the PP. 2. Details of PWD Tank situated within a distance of 100 m. 3. No. of Govt/Pvt Schools (or) any other Educational Institutions located within 500m from the proposed area & no. of students (including Residential) studying in it. 4. Ayacut area from the competent authority. 5. Water Spread area (distance) & implications due to the proposed mining activity. 6. Wind direction & its implication with respect to school.

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			 Transportation route for the proposed quarrying operation and anticipated traffic volume. Direct /Indirect Employment opportunities for the residents of neighbouring villages. A letter from the concerned AD (Mines) to indicate whether any penalty (or) compensation levied, if any, for illegal mining/illicit mining carried out by the PP in the past in same area (or) other areas, in strict compliance of judgement of Hon'ble Supreme Court dated. 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause Versus Union of India and Ors. Upon the receipt of above-mentioned details, further deliberation shall be done. Hence, the proponent is advised to submit the additional documents/ information as sought above within a period of 30 days failing which your proposal will automatically get delisted from the PARIVESH portal. In the view of the above, SEIAA accepts the decision of SEAC and decided to request Member Secretary to communicate the minutes of 412th SEAC Meeting held on 04.10.2023 to the project proponent.
14.	Proposed Rough stone Quarry lease over an extent of 1.80.0 Ha at S.F.Nos. 40 (Part) of Nariganapuram Village, Hosur Taluk, Krishnagiri District, Tamil Nadu by Thiru. T.Muralikrishnan -	10224	The authority noted that the subject was appraised in the 412 th SEAC meeting held on 04.10.2023. Based on the presentation and documents furnished by the project proponent, SEAC decided to grant of Terms of Reference (TOR) under Violation category, subject to the following TORs, in addition to the

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For Terms of Reference under violation.

(SIA/TN/MIN/436861/2023)

standard terms of reference for EIA study for non-coal mining projects and ToR given in Annexure-I, the EIA/EMP report along with assessment of ecological damage, remediation plan and natural and community resource augmentation plan and it shall be prepared as an independent chapter by the accredited consultants. Terms of Reference issued are 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.

After detailed discussions, the Authority accepts the recommendation of SEAC and decided to grant Terms of Reference (ToR) under violation category for undertaking EIA study followed by the EMP report along with assessment of ecological damage, remediation plan and natural and community resource augmentation plan and it shall be prepared as an independent chapter by the accredited consultants subject to the conditions as recommended by SEAC & normal / Standard conditions in addition to the following conditions and conditions stated therein vide Annexure 'B'.

- The PP shall furnish a Copy of valid mining lease approval obtained from the competent Authority.
- The PP shall furnish Copy of mining plan approved by the competent authority of the Dept of Geology and Mining.
- The PP shall furnish EMP for the project life including progressive mine closure plan and final mine closure plan with detailed budget plan.

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15. Proposed Rough stone over an extent of 3. S.F.Nos. 103 (Part Madathahalli Pappireddipatti Taluk, District, Tamil Nadu M.Santhamurthy Environmental (SIA/TN/MIN/437225/	42.0 Ha at - 6) of Village, Dharmapuri by Thiru For Clearance.	 4. The PP shall study in detail about the CO₂ release and temperature rise and the project activities that add to micro climate alternations and the same shall be included in the final EIA report. 5. The PP shall study in detail about impact of the proposed mining activity on the water bodies and natural flow of surface and ground water and the same shall be included in the final EIA report. 6. The PP shall study in detail about Possibilities of water contamination and impact on aquatic ecosystem health. 7. The PP shall study the impact on Invasive Alien Species (IAP). 5 The proposal was placed in the 412th SEAC Meeting held on 04.10.2023. Based on the presentation and documents furnished by the proponent, committee noted the following. 1. The proponent shall obtain letter from DFO regarding the reserve forests around the proposed site. Upon the receipt of above-mentioned details, further deliberation shall be done. Hence, the proponent is advised to submit the additional documents/ information as sought above within a period of 30 days failing which your proposal will automatically get delisted from the PARIVESH portal. In the view of the above, SEIAA accepts the decision
		In the view of the above, SEIAA accepts the decision of SEAC and decided to request Member Secretary

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			to communicate the minutes of 412th SEAC Meeting
			held on 04.10.2023 to the project proponent.
16.	Proposed Rough Stone and Gravel	10207	The authority noted that the subject was appraised in
	Quarry Lease over an extent of		the 412th SEAC meeting held on 04.10.2023. SEAC
	4.50.2 Ha at S.F.Nos. 228/1A (P),		has furnished its recommendations for granting
	230/3(P) and 229/1(P) of		Environmental Clearance subject to the conditions
	Kasthurirengapuram Part-II Village,		stated therein.
	Tisaiyanvilai Taluk, Tirunelveli		After detailed discussions, the Authority taking into
	District, Tamil Nadu by Thiru. S.		account the recommendations of SEAC and also the
	Sakthiperiyakumaran - For		safety aspects and to ensure sustainable, scientific and
	Environmental Clearance		systematic mining, decided to grant Environmental
	(SIA/TN/MIN/436162/2023)		Clearance for the quantity of 6,82,710m ³ of rough
			stone & 65,824m ³ of gravel up to the restricted
			depth of only 42m Below Ground Level (leaving
		:	out bench X in sections XY-AB & X1Y1-AB) and
			the annual peak production should not exceed
			1,45,315m ³ of rough stone & of 60,104m ³ of gravel.
			This is also subject to the conditions imposed by
	·		SEAC, normal conditions stipulated by MOEF&CC
			in addition to the following conditions and the
			conditions in Annexure 'A' of this minutes.
			1. 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.
			2. The EC granted is subject to review by
			District Collector, Mines Dept. and TNPCB
			on completion of every mine plan period, 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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			 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. 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 module in the PARIVESH Portal from the respective login. 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 & expenditure made under EMP should be elaborated in the biannual compliance report submitted and also should be brought to the notice of concerned
17.	Proposed Rough Stone and Gravel	10225	authorities during inspections. The authority noted that the subject was appraised in
	Quarry Lease over an extent of 1.50.0 Ha (Patta Land) at S.F.Nos. 6/1B(P) of Kundharappalli Village, Krishnagiri Taluk, Krishnagiri District, Tamil Nadu by Thiru. N.S.		the 412 th SEAC meeting held on 04.10.2023. Based on the presentation and documents submitted by the project proponent, SEAC decided to call for the following additional details from the project proponent to consider the proposal for appraisal:
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Jyothi Raaja - For Environmental Clearance.

(SIA/TN/MIN/434604/2023)

- i) The proponent shall furnish the details on the schools (both Govt. & Private schools), industries, factories and other sensitive structures including temples located within 1 km from the quarry site, and detail the impact of mining activities & mitigation measures for protecting these structures.
- ii) Implication of proposed quarrying operations in terms of dust, ground vibrations and water pollution on the surrounding habitatants located within a core zone of 1 km from the lease boundary and mitigating measures proposed by the PP.
- iii)Details of PWD Tank situated within a distance of 100 m.
- iv)No. of Govt/Pvt Schools (or) any other Educational Institutions located within 500m from the proposed area & no. of students (including Residential) studying in it.
- v) The proponent shall furnish a detailed and thorough assessment on the direction of the wind at the project area since schools are located near the project site.
- vi)Transportation route for the proposed quarrying operation and anticipated traffic volume.
- vii) A letter from the concerned AD (Mines) to indicate whether any penalty (or) compensation levied, if any, for illegal mining carried out by the PP in the past in same area (or) other areas, in strict compliance of judgement of Hon'ble Supreme Court dated. 2nd August 2017 in

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			Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause Versus Union of
			India and Ors.
			The Authority, noted the minutes of SEAC.
18.	Proposed Gravel Quarry Lease over	10257	The authority noted that the subject was appraised in
	an extent of 0.64.78 Ha (Patta Land)		the 412 th SEAC meeting held on 04.10.2023. The
	at S.F.Nos. 458/3D of Bolanahalli		SEAC after detailed deliberations, decided to call for
	Village, Nallampalli Taluk,		the following additional details from the project
	Dharmapuri District, Tamil Nadu by		proponent to consider the proposal for appraisal:
	Thiru. S. Gandhi - For		i) The proponent shall furnish a fresh soil test
	Environmental Clearance.		report from the Soli Mechanics Laboratory of
	(SIA/TN/MIN/437684/2023)		NIT, Trichy. The soil sample for testing
			should be collected by the EIA coordinator in
			person as per the detailed protocol prescribed
			by SEAC, with videographic evidence.
			ii) The PP shall furnish the video/photographs
			with legitimate coordinates indicating the
			sample pit/trench for a depth of 2 m BGL and
			3m AGL showing the lithological
			characteristics of the earth.
			The Authority, noted the minutes of SEAC.
19.	Proposed Rough stone & Gravel	10237	The authority noted that this proposal was placed for
	quarry lease over an extent of		appraisal in 412th meeting of SEAC held on
	quarry lease over an extent of 1.55.10Ha at SF.No. 1853/1D2(P),		appraisal in 412 th meeting of SEAC held on 04.10.2023. Based on the presentation and
	-		
	1.55.10Ha at SF.No. 1853/1D2(P),		04.10.2023. Based on the presentation and
	1.55.10Ha at SF.No. 1853/1D2(P), 1853/1D3(P) & 1853/1D4B(P) of		04.10.2023. Based on the presentation and documents furnished by the project proponent, SEAC
	1.55.10Ha at SF.No. 1853/1D2(P), 1853/1D3(P) & 1853/1D4B(P) of Gangaikondan Part-I Village,		04.10.2023. Based on the presentation and documents furnished by the project proponent, SEAC noted that Gangaikondan Spotted Deer Sanctuary is
	1.55.10Ha at SF.No. 1853/1D2(P), 1853/1D3(P) & 1853/1D4B(P) of Gangaikondan Part-I Village, Tirunelveli Taluk, Tirunelveli		04.10.2023. Based on the presentation and documents furnished by the project proponent, SEAC noted that Gangaikondan Spotted Deer Sanctuary is located at 2Km from the lease area and 0.91km is the
	1.55.10Ha at SF.No. 1853/1D2(P), 1853/1D3(P) & 1853/1D4B(P) of Gangaikondan Part-I Village, Tirunelveli Taluk, Tirunelveli District, Tamil Nadu by		04.10.2023. Based on the presentation and documents furnished by the project proponent, SEAC noted that Gangaikondan Spotted Deer Sanctuary is located at 2Km from the lease area and 0.91km is the Eco Sensitive Zone as per Notification S.O.
	1.55.10Ha at SF.No. 1853/1D2(P), 1853/1D3(P) & 1853/1D4B(P) of Gangaikondan Part-I Village, Tirunelveli Taluk, Tirunelveli District, Tamil Nadu by Thiru.M.Shajahan - for		04.10.2023. Based on the presentation and documents furnished by the project proponent, SEAC noted that Gangaikondan Spotted Deer Sanctuary is located at 2Km from the lease area and 0.91km is the Eco Sensitive Zone as per Notification S.O. 2773(E)dated 31.07.2019 of MOEF & CC and
	1.55.10Ha at SF.No. 1853/1D2(P), 1853/1D3(P) & 1853/1D4B(P) of Gangaikondan Part-I Village, Tirunelveli Taluk, Tirunelveli District, Tamil Nadu by Thiru.M.Shajahan - for Environmental Clearance.		04.10.2023. Based on the presentation and documents furnished by the project proponent, SEAC noted that Gangaikondan Spotted Deer Sanctuary is located at 2Km from the lease area and 0.91km is the Eco Sensitive Zone as per Notification S.O. 2773(E)dated 31.07.2019 of MOEF & CC and Talaiyattu RF is located at 390m in West direction.

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			adverse impact on the endangered species, wildlife and flora & fauna. The Committee, therefore, decided not to recommend the project proposal. The Authority, after detailed discussions, considering the kml and merits of the file, accepted the decision of SEAC, rejected the proposal and decided to request Member Secretary, SEIAA-TN to grant rejection letter to proponent as per the SEAC minutes. Further, Authority decided to close and record this proposal.
20.	Proposed Rough stone & Gravel quarry lease over an extent of 4.03.0Ha at SF.No. 171/2 (P) of Kuppam Village, Pugalur Taluk, Karur District, Tamil Nadu by Tvl.Shri Selva Vinaayaga Blue Metal - for Environmental Clearance. (SIA/TN/MIN/436262/2023)	10251	The authority noted that the subject was appraised in 412th SEAC meeting held on 04.10.2023. The committee noted that, the PP requested for withdrawal of the application since the EC and lease period ends on 25.11.2023. The Committee decided to recommend to SEIAA to accept the withdrawal request made by the PP. After detailed discussions, the authority decided to seek the following, (i) The PP shall furnish CCR. (ii) The PP shall furnish last permit details obtained from AD, mines. (iii) The PP shall furnish the details of EMP achieved. In view of these, the authority decided to refer back the proposal to SEAC for re-appraisal on the above said points.
21.	Proposed Rough stone quarry lease over an extent of 2.50.0Ha at SF.No. 252/2 Part-4 (East) of Manakadavu Village, Dharapuram Taluk, Tiruppur District, Tamil Nadu by	10258	The authority noted that the subject was appraised in the 412 th SEAC meeting held on 04.10.2023. SEAC has furnished its recommendations for granting Environmental Clearance subject to the conditions stated therein.

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Thiru.R.Senthilkumar - for Environmental Clearance. (SIA/TN/MIN/436209/2023)

After detailed discussions, the Authority taking into account the recommendations of SEAC and also the safety aspects, and to ensure sustainable, scientific and systematic mining, SEIAA decided to grant Environmental Clearance for the quantity of 1,36,646m³ of Rough stone up to the depth of mining 33m (2m AGL + 31mBGL) and the annual peak production should not exceed 39,350m³ of Rough stone. This is also subject to the conditions imposed by SEAC, normal conditions stipulated by MOEF&CC 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.
- 2. The EC granted is subject to review by District Collector, Mines Dept. and TNPCB on completion of every mine plan period, 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.
- 4. The progressive and final mine closure plan including the green belt implementation and environmental norms should be strictly followed as per the EMP.
- 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-

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monthly compliance on the environmental conditions prescribed in the prior environmental clearance letter(s) through newly developed compliance module in the PARIVESH Portal from the respective login.

- 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 & 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.
- 22. Proposed construction of additional | 10198 Block of Ground floor (Anechoic Chamber) Mezzanine floor (Air Plenum), 1st floor and 2nd floor (Office) and proposed 2nd floor over the existing R&D building with an installation of 3090 HP to the earlier existing blocks 1 to 12, warehouse & R&D building with an installation of 3910 HP at S. No. 175 (part) of Ernavoor Village, S.No. 6/1A1 of Tiruvottiyur Village in T.S. No. 3, 5/1A, 5/2A Block No. 1, Ward No. 1 of Thiruvottiyur, Wimco Nagar, Ennore Express Road, Chennai-600019, Thiruvallur District, Tamil Nadu by M/s. MRF Limited- For

Clearance under CRZ Notification

The authority noted that this proposal was placed for appraisal in 412th meeting of SEAC held on 04.10.2023. Based on the documents furnished and the presentation made by the proponent, the SEAC, after detailed deliberations, decided to obtain the following details,

- 1. The industrial shed is located abutting MRF Tyre Industry. According to the PP, the shed is used for storing raw materials meant for the use of not Tiruvottiyur MRF factory but also for other factories of the Company located elsewhere. Hence, the PP is requested to clarify why the industrial shed which serves as storage for MRF factory/factories should not be considered as expansion of existing industry.
- 2. The PP stated that construction of building within CRZ is a permitted activity. Hence, the

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2011.	PP is requested to furnish information
(SIA/TN/INFRA2/433358/2023)	whether the term "Building" will cover
	industrial sheds and buildings used by an
	industry for R&D purposes.
	3. The PP is requested to give details regarding
	any Hazardous chemical storage & log book extract.
	4. The PP shall submit the details of Solid waste
	generated, discarded & disposed.
	5. The PP shall submit the details of number of
	persons working in the existing facility & the
	proposed increase in workforce due to the
	proposed expansion of existing facility.
	In view of the above, the authority decided to request
	the Member Secretary, SEIAA to communicate the
	SEAC minutes to the project proponent held on
	04.10.2023.

Annexure 'A'

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-feasibilty Report, mitigation measures as assured in the Environmental Impact Assessment/ Environment Management Plan and the mining features including Progressive Mine Closure Plan as submitted with the application.
- 2. 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.

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b) 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, Biological diversity Rules, 2004 & TN Forest Act, 1882 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

c) 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.
- 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.

d) 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.

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- 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.

e) Air Environment – Protection and mitigation measures

- 17. The activity should not result in CO₂ release and temperature rise and add to micro climate alternations.
- 18. 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.

f) 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.

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- 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, vermincomposting, 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.
- 28. Activities should not result in invasion of site by exotic and alien plant and animal species and disturb the native biodiversity and soil micro flora and fauna.

g) Noise Environment - Protection and mitigation measures

- 29. The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.
- 30. 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.

h) Biodiversity - Protection and mitigation measures

- 31. 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.
- 32. 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

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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 activity does not result in invasion by invasive alien species. 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.

- 33. 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.
- 34. 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.
- 35. 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.

i) Climate Change

- 36. The project activity should not in any way impact the climate and lead to a rise in temperature.
- 37. There should be least disturbance to landscape resulting in land use change, contamination and alteration of soil profiles leading to Climate Change.
- 38. Intensive mining activity should not add to temperature rise and global warming.
- Operations should not result in GHG releases and extra power consumption leading to Climate Change.
- 40. Mining through operational efficiency, better electrification, energy use, solar usage, use of renewable energy should try to decarbonize the operations.
- 41. Mining Operation should not result in droughts, floods and water stress, and shortages, affecting water security both on site and in the vicinity.
- 42. Mining should not result in water loss from evaporation, leaks and wastage and should support to improve the ground water.
- 43. 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.

j) Reserve Forests & Protected Areas

- 44. The activities should provide nature based support and solutions for forest protection and wildlife conservation.
- 45. The project activities should not result in forest fires, encroachments or create forest fragmentation and disruption of forest corridors.

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

k) Green Belt Development

- 53. The proponent shall ensure that in the green belt development more indigenous trees species (Appendix as per the SEAC Minutes) are planted.
- 54. The proponent shall ensure the area is restored and rehabilitated with native trees as recommended in SEAC Minutes (in Appendix).

1) Workers and their protection

- 55. 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.
- 56. 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.
- 57. 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.

m) Transportation

58. 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

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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.

59. The Main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt-conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.

n) Storage of wastes

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

o) CER/EMP

- 61. The CER should be fully Implemented and fact reflected in the Half-yearly compliance report.
- 62. The EMP shall also be implemented in consultation with local self-government institutions & Govt. departments.
- 63. The follow-up action on the implementation of CER Shall be included in the compliance report.

p) Directions for Reclamation of mine sites

- 64. 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.
- 65. 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

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- status. The proponent shall ensure that the area is ecologically restored to conserve the ecosystems and ensure flow of goods and services.
- 66. 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.
- 67. For mining area reclamation plot culture experiments to be done to identify/ determine suitable species for the site.
- 68. 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.
- 69. Soil and moisture conservation and water harvesting structures to be used where ever possible for early amelioration and restoration of site.
- 70. 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.
- 71. 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.
- 72. 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.
- 73. 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

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- indigenous and local species may be broad casted after topsoil and treated overburden are spread.
- 74. 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.
- 75. 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.
- 76. Action taken for restoration of the site should be specifically mentioned in the EC compliances.

Annexure 'B'

Cluster Management Committee

- 1. Cluster Management Committee shall be framed which must include all the proponents in the cluster as members including the existing as well as proposed quarry.
- 2. The members must coordinate among themselves for the effective implementation of EMP as committed including Green Belt Development, Water sprinkling, tree plantation, blasting etc.,
- 3. The List of members of the committee formed shall be submitted to AD/Mines before the execution of mining lease and the same shall be updated every year to the AD/Mines.
- 4. Detailed Operational Plan must be submitted which must include the blasting frequency with respect to the nearby quarry situated in the cluster, the usage of haul roads by the individual quarry in the form of route map and network.
- 5. The committee shall deliberate on risk management plan pertaining to the cluster in a holistic manner especially during natural calamities like intense rain and the mitigation measures considering the inundation of the cluster and evacuation plan.

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- 6. The Cluster Management Committee shall form Environmental Policy to practice sustainable mining in a scientific and systematic manner in accordance with the law. The role played by the committee in implementing the environmental policy devised shall be given in detail.
- 7. The committee shall furnish action plan regarding the restoration strategy with respect to the individual quarry falling under the cluster in a holistic manner.
- 8. The committee shall furnish the Emergency Management plan within the cluster.
- 9. The committee shall deliberate on the health of the workers/staff involved in the mining as well as the health of the public.
- 10. The committee shall furnish an action plan to achieve sustainable development goals with reference to water, sanitation & safety.
- 11. The committee shall furnish the fire safety and evacuation plan in the case of fire accidents.

Impact study of mining

- 12. Detailed study shall be carried out in regard to impact of mining around the proposed mine lease area covering the entire mine lease period as per precise area communication order issued from reputed research institutions on the following
 - a) Soil health & soil biological, physical land chemical features.
 - b) Climate change leading to Droughts, Floods etc.
 - c) Pollution leading to release of Greenhouse gases (GHG), rise in Temperature, & Livelihood of the local people.
 - d) Possibilities of water contamination and impact on aquatic ecosystem health.
 - e) Agriculture, Forestry & Traditional practices.
 - f) Hydrothermal/Geothermal effect due to destruction in the Environment.
 - g) Bio-geochemical processes and its foot prints including environmental stress.
 - h) Sediment geochemistry in the surface streams.

Agriculture & Agro-Biodiversity

- 13. Impact on surrounding agricultural fields around the proposed mining Area.
- 14. Impact on soil flora & vegetation around the project site.
- 15. Details of type of vegetations including no. of trees & shrubs within the proposed mining area and. If so, transplantation of such vegetations all along the boundary of the proposed mining area shall committed mentioned in EMP.
- 16. The Environmental Impact Assessment should study the biodiversity, the natural ecosystem, the soil micro flora, fauna and soil seed banks and suggest measures to maintain the natural Ecosystem.

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- 17. Action should specifically suggest for sustainable management of the area and restoration of ecosystem for flow of goods and services.
- 18. The project proponent shall study and furnish the impact of project on plantations in adjoining patta lands, Horticulture, Agriculture and livestock.

Forests

- 19. The project proponent shall detailed study on impact of mining on Reserve forests free ranging wildlife.
- 20. The Environmental Impact Assessment should study impact on forest, vegetation, endemic, vulnerable and endangered indigenous flora and fauna.
- 21. The Environmental Impact Assessment should study impact on standing trees and the existing trees should be numbered and action suggested for protection.
- 22. The Environmental Impact Assessment should study impact on protected areas, Reserve Forests, National Parks, Corridors and Wildlife pathways, near project site.

Water Environment

- 23. 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) so as to assess the impacts on the nearby waterbodies 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, covering the entire mine lease period.
- 24. Erosion Control measures.
- 25. Detailed study shall be carried out in regard to impact of mining around the proposed mine lease area on the nearby Villages, Water-bodies/ Rivers, & any ecological fragile areas.
- 26. The project proponent shall study impact on fish habitats and the food WEB/ food chain in the water body and Reservoir.
- 27. The project proponent shall study and furnish the details on potential fragmentation impact on natural environment, by the activities.
- 28. The project proponent shall study and furnish the impact on aquatic plants and animals in water bodies and possible scars on the landscape, damages to nearby caves, heritage site, and archaeological sites possible land form changes visual and aesthetic impacts.
- 29. The Terms of Reference should specifically study impact on soil health, soil erosion, the soil physical, chemical components and microbial components.

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30. The Environmental Impact Assessment should study on wetlands, water bodies, rivers streams, lakes and farmer sites.

Energy

31. The measures taken to control Noise, Air, Water, Dust Control and steps adopted to efficiently utilise the Energy shall be furnished.

Climate Change

- 32. The Environmental Impact Assessment shall study in detail the carbon emission and also suggest the measures to mitigate carbon emission including development of carbon sinks and temperature reduction including control of other emission and climate mitigation activities.
- 33. The Environmental Impact Assessment should study impact on climate change, temperature rise, pollution and above soil & below soil carbon stock.

Mine Closure Plan

34. Detailed Mine Closure Plan covering the entire mine lease period as per precise area communication order issued.

<u>EMP</u>

- 35. Detailed Environment Management Plan along with adaptation, mitigation & remedial strategies covering the entire mine lease period as per precise area communication order issued.
- 36. The Environmental Impact Assessment should hold detailed study on EMP with budget for Green belt development and mine closure plan including disaster management plan.

Risk Assessment

37. To furnish risk assessment and management plan including anticipated vulnerabilities during operational and post operational phases of Mining.

Disaster Management Plan

38. To furnish disaster management plan and disaster mitigation measures in regard to all aspects to avoid/reduce vulnerability to hazards & to cope with disaster/untoward accidents in & around the proposed mine lease area due to the proposed method of mining activity & its related activities covering the entire mine lease period as per precise area communication order issued.

Others

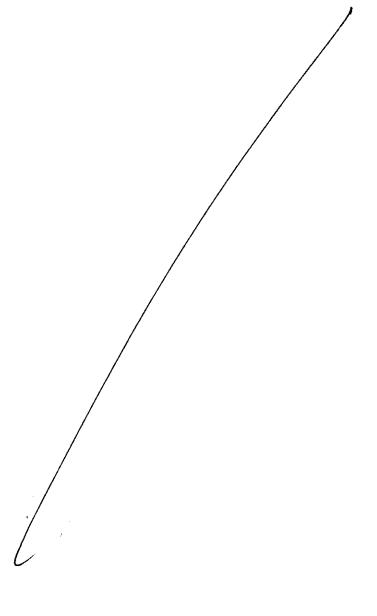
39. The project proponent shall furnish VAO certificate with reference to 300m radius regard to approved habitations, schools, Archaeological sites, Structures, railway lines, roads, water bodies such as streams, odai, vaari, canal, channel, river, lake pond, tank etc.

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- 40. 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 address the concerns raised during the public consultation and all the activities proposed shall be part of the Environment Management Plan.
- 41. The project proponent shall study and furnish the possible pollution due to plastic and microplastic on the environment. The ecological risks and impacts of plastic & microplastics on aquatic environment and fresh water systems due to activities, contemplated during mining may be investigated and reported.



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