

**State Expert Appraisal Committee (SEAC)**

Minutes of 394<sup>th</sup> meeting of the State Expert Appraisal Committee (SEAC) held on 21.07.2023 (Friday) at SEIAA Conference Hall, 2<sup>nd</sup> Floor, Panagal Maligai, Saidapet, Chennai 600 015 for consideration of Bio-Medical Waste Treatment Facilities, Building Construction Projects, Distilleries Plant, Metallurgical Industries & Mining Projects.

**Confirmation of Earlier Minutes**

The minutes of the 393<sup>rd</sup> SEAC meeting held on 20.07.2023 were circulated to the Members in advance and as there are no remarks, the Committee decided to confirm the minute.

**Agenda Item No: 394-01**

**(File No: 9471/2022)**


Proposed 60 KLPD Capacity Cane Juice and B-Heavy Molasses based Distillery and 1.5 MW Captive Power Plant at S. F. No. 102/1 (Part), 102/2 (Part), 102/3, 102/4, 102/5A (Part), 102/6 (Part), 110/1 (Part), 110/2, 110/3, 110/4, 110/5 (Part), 110/6 (Part), 110/7A, 110/7B, 110/7C, 110/8, 110/9, 110/10, 110/11A, 110/11B, 110/11C, 110/11D, 110/12, 110/13 (Part), 110/14, 110/15, 116/16A, 110/16B, 110/17, 110/18, 110/19, 110/20, 111A/1A (Part), 111A/2 (Part), 111A/3 (Part), 113A/1 (Part), 113A/2A, 113A/2B1, 113A/2B2, 113A/4A (Part), 113A/4B (Part), 113A/4C (Part), 113A/5 (Part), 113A/6 (Part), 114/1A, 114/1B (Part), 114/2 (Part), 114/3, 114/4 (Part), 114/6A, 114/6B (Part), 114/7 (Part), 114/8 (Part), 114/9 (Part) in Sethiyathope Village, Bhuvanagiri Taluk, Cuddalore District, Tamil Nadu by M/s. M.R.KRISHNAMURTHY CO-OPERATIVE SUGAR MILLS LTD. (MRKCSML) - For Environmental Clearance.

(SIA/TN/IND2/426454/2023, dated 17.04.2023)

The proposal was placed in this 394<sup>th</sup> meeting of SEAC held on 21.07.2023. The details of the project furnished by the proponent are available in the website (parivesh.nic.in).

The SEAC noted the following:

1. The Proponent, M/s. M.R.KRISHNAMURTHY CO-OPERATIVE SUGAR MILLS LTD. (MRKCSML) has applied for Environmental Clearance for the proposed 60 KLPD Capacity Cane Juice and B-Heavy Molasses based Distillery and 1.5 MW Captive Power Plant at S. F. No. 102/1 (Part), 102/2 (Part), 102/3, 102/4, 102/5A (Part), 102/6 (Part), 110/1 (Part), 110/2, 110/3, 110/4, 110/5 (Part), 110/6 (Part), 110/7A, 110/7B, 110/7C, 110/8, 110/9, 110/10, 110/11A, 110/11B, 110/11C,

  
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110/11D, 110/12, 110/13 (Part), 110/14, 110/15, 116/16A, 110/16B, 110/17, 110/18, 110/19, 110/20, 111A/1A (Part), 111A/2 (Part), 111A/3 (Part), 113A/1 (Part), 113A/2A, 113A/2B1, 113A/2B2, 113A/4A (Part), 113A/4B (Part), 113A/4C (Part), 113A/5 (Part), 113A/6 (Part), 114/1A, 114/1B (Part), 114/2 (Part), 114/3, 114/4 (Part), 114/6A, 114/6B (Part), 114/7 (Part), 114/8 (Part), 114/9 (Part) in Sethiyathope Village, Bhuvanagiri Taluk, Cuddalore District, Tamil Nadu.

2. The proposed activity is covered under Category "B1" of Item 5(g)- Distilleries of the Schedule to the EIA Notification, 2006, as amended.
3. ToR issued vide T.O. Lr. No. SEIAA-TN/F.No. 9471/SEAC/5(g)/ToR-1282/2022 Dated: 08.10.2022.
4. Earlier, the proposal was placed in the 377<sup>th</sup> SEAC meeting held on 11.05.2023. Based on the presentation and documents furnished by the project proponent, the SEAC noted that the EIA report did not address the additional ToR issued vide T.O. Lr. No. SEIAA-TN/F.No. 9471/SEAC/5(g)/ToR-1282/2022 Dated: 08.10.2022 and further noticed that the Project Proponent has not furnished the study reports sought by the Committee. Hence the SEAC directed the NABET Consultant to prepare and submit the EIA report in accordance with the ToR issued and to furnish the study reports called for by the Committee. On receipt of the same the Committee will deliberate further and decide on the future course of action.
5. On receipt of a reply from the proponent, the proposal is again placed in this 394<sup>th</sup> SEAC meeting held on 21.07.2023.
6. The salient features of the proposal are as follows:

S. No	Description	Details
1	Name of the project	Proposed 60 KLPD Capacity Cane Juice and B-Heavy Molasses based Distillery and 1.5 MW Captive Power Plant by M/s. M.R. Krishnamurthy Co-Operative Sugar Mills Limited
2	Location	S.F. Nos. 102/1 (Part), 102/2 (Part), 102/3, 102/4, 102/5A (Part), 102/6 (Part), 110/1 (Part), 110/2, 110/3, 110/4, 110/5 (Part), 110/6 (Part), 110/7A, 110/7B, 110/7C, 110/8, 110/9, 110/10, 110/11A, 110/11B, 110/11C,


  
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		110/11D, 110/12, 110/13 (Part), 110/14, 110/15, 116/16A, 110/16B, 110/17, 110/18, 110/19, 110/20, 111A/1A (Part), 111A/2 (Part), 111A/3 (Part), 113A/1 (Part), 113A/2A, 113A/2B1, 113A/2B2, 113A/4A (Part), 113A/4B (Part), 113A/4C (Part), 113A/5 (Part), 113A/6 (Part), 114/1A, 114/1B (Part), 114/2 (Part), 114/3, 114/4 (Part), 114/6A, 114/6B (Part), 114/7 (Part), 114/8 (Part), 114/9 (Part) in Sethiyathope Village, Bhuvanagiri Taluk, Cuddalore District, Tamil Nadu <b>Coordinates:</b> <table><tr><th>Point</th><th>Latitude</th><th>Longitude</th></tr><tr><td>A</td><td>11°26'45.34"N</td><td>79°32'43.84"E</td></tr><tr><td>B</td><td>11°26'51.02"N</td><td>79°32'43.54"E</td></tr><tr><td>C</td><td>11°26'51.58"N</td><td>79°32'53.01"E</td></tr><tr><td>D</td><td>11°26'50.56"N</td><td>79°32'53.53"E</td></tr><tr><td>E</td><td>11°26'48.13"N</td><td>79°32'53.78"E</td></tr><tr><td>F</td><td>11°26'46.56"N</td><td>79°32'54.92"E</td></tr><tr><td>G</td><td>11°26'43.39"N</td><td>79°32'55.26"E</td></tr><tr><td>H</td><td>11°26'43.00"N</td><td>79°32'49.91"E</td></tr></table>	Point	Latitude	Longitude	A	11°26'45.34"N	79°32'43.84"E	B	11°26'51.02"N	79°32'43.54"E	C	11°26'51.58"N	79°32'53.01"E	D	11°26'50.56"N	79°32'53.53"E	E	11°26'48.13"N	79°32'53.78"E	F	11°26'46.56"N	79°32'54.92"E	G	11°26'43.39"N	79°32'55.26"E	H	11°26'43.00"N	79°32'49.91"E
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3	Type of project	Schedule No. 5(g) - Distilleries and categorized as "Category B1" of EIA notification 2006																											
4	Total area	Total land area – 6.90 ha (17.06 acres) <table><tr><th>Sl.No.</th><th>Details</th><th>Total Area in Acres</th><th>Area as % of Total</th></tr><tr><td>1</td><td>Plant Area</td><td>4.77</td><td>27.96%</td></tr><tr><td>2</td><td>Internal Roads – Peripheral &amp; Internal</td><td>6.49</td><td>38.04%</td></tr><tr><td>3</td><td>Green Belt Area</td><td>5.8</td><td>34.00%</td></tr><tr><td></td><td>Total</td><td>17.06</td><td>100%</td></tr></table>	Sl.No.	Details	Total Area in Acres	Area as % of Total	1	Plant Area	4.77	27.96%	2	Internal Roads – Peripheral & Internal	6.49	38.04%	3	Green Belt Area	5.8	34.00%		Total	17.06	100%							
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5	Cost of project	Rs. 85 Crores.																											

6	Brief description of the project	<p>i) M.R.Krishnamurthy Co-operative Sugar Mills Limited (MRKCSML), Senthithope currently operating 2500TPCD sugar mill has proposed to put up a 60 KLPD distillery for the production of ethanol using B-Heavy Molasses and Cane Juice.</p> <p>ii) The proposed ethanol plant for production of fuel grade ethanol is for supply to Oil Marketing Companies under the EBP Programme, promoted by the Government of India under Biofuel Policy 2018.</p> <p>iii) The proposed 60 KLPD capacity distillery plant will produce Fuel Grade Ethanol by diverting about 36% cane juice and B-Heavy molasses for production of ethanol. The Fuel Grade Ethanol will also generate Potash Rich Boiler Ash, CO<sub>2</sub> and Fusel Oil as by-products. 1.5 MW capacity Back Pressure Turbine will be installed for captive power generation.</p>
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Sl. No.	Product Capacity Utilization	Unit	Quantity (100%)
1	Ethanol production from B – Heavy Molasses (22 KLPD)	KL/Yr	5,987.8
2	Ethanol production from Cane Juice (38 KLPD)	KL/Yr	10,320
By – Products			
3	CO <sub>2</sub>	MT/Yr	7725
4	Fusel Oil	KL/Yr	25.7
5	Potash Rich Boiler Ash	MT/Yr	310

  
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7	Raw materials	S.No.	Name of Raw material	Amount (TPA)
		Raw Materials		
		1.	B-heavy Molasses	20733.0
		2.	Cane Juice (assuming 100% Juice on cane)	157197.0
		Other Raw materials & chemicals requirements		
		1.	Nutrients	
		a)	Urea	0.25 kg/KL
				4.08 TPA
		b)	DAP	0.25 kg/KL
				4.08 TPA
		2.	Turkey red oil	0.5 kg/KL
				8.16 TPA
		3.	De-naturants	1 PPM/KL
		4.	Yeast	0.5 kg/KL
				8.16 TPA
8	ToR details	Lr No.SEIAATN/F.No. 9471/SEAC/5(g)/ToR-1282/2022 dated: 08.10.2022		
9	Public hearing details	14.03.2023		
10	EIA report submitted on	18.04.2023		
11	a. Water Requirement	Total Water Requirement – max. 500 kLD Molasses based – 1250.7 kLD (before recycling) Molasses based – 499.2 kLD (after recycling) Cane Juice based – 1250.82 kLD (before recycling) Cane Juice based – 431.9 kLD (after recycling) In case of Cane Juice, surplus treated water from sugar mill of 247.5 kLD & the groundwater requirement is 184.4 kLD. In case of B-heavy molasses the groundwater requirement is 499.2 kLD		
	b. Source of water	Ground Water. Permission from PWD obtained.		

  
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12	Sewage & Effluent generation, & Treatment	<p>Sewage Generation – 42 kLD</p> <p>STP Capacity – 50 KLD</p> <p>Spent wash from analyzer bottom is concentrated in a MEE to a brix of 60 deg. for its incineration in an incinerator type boiler. Spent lees &amp; Condensate will be treated in Condensate Polishing Unit (CPU) and reused in process; thus, the distillery will be Zero Liquid Discharge (ZLD)</p> <p>Evaporation Condensate + Spent Lees + Cooling Tower Blow Down</p> <table><thead><tr><th>Streams</th><th>Quantity (m<sup>3</sup> / day)</th></tr></thead><tbody><tr><td>Process Condensate</td><td>480</td></tr><tr><td>Spent Lees</td><td>120</td></tr><tr><td>Cooling Tower Blow Down</td><td>30</td></tr><tr><td>Total</td><td>650</td></tr></tbody></table> <ol style="list-style-type: none"><li>1. Equalization Tank</li><li>2. Neutralization Tank</li><li>3. Primary Clarifier</li><li>4. Anaerobic Treatment</li><li>5. Aerobic Treatment Tank</li><li>6. Secondary Clarifier</li><li>7. Multimedia Filter</li><li>8. Ultrafiltration / RO</li></ol> <p>Treated water sent to process &amp; cooling tower makeup water</p>	Streams	Quantity (m <sup>3</sup> / day)	Process Condensate	480	Spent Lees	120	Cooling Tower Blow Down	30	Total	650
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Total	650											
13	Mode of disposal of sewage	<p>Toilet flushing – 23 kLD</p> <p>Green belt development – 17 kLD</p>										

14	Quantity of solid waste generated per day (in kgs). mode of treatment and disposal of solid waste	Sl. No.	Type of Solid Waste	Amount	Mode of disposal
		1	Yeast Sludge	28.5 Ton / Year	Used as fuel in the boiler mixed with bagasse
		2	Potash Rich Boiler Ash	310.0 MT / Year	Will be sold as fertilizer
		3	Paper / Card Board etc.	1-2 Ton / Year	Will be sold to recyclers
		4	Food waste / Biodegradable waste	0.5-1 Ton / Year	Food / other biodegradable waste will Bio composted and compost will be used for green belt development
15	Hazardous waste management	Type of Hazardous Waste	Category	Amount	Mode of disposal
		Used / spent oil	5.1	5 KL / Annum	Used oil will be collected in metal drums kept in secured dyke area and will be disposed to CPCB / TNPCC registered used oil preprocessor.
16	Power requirement	Sl. No.	Power Requirement (From Turbine Outlet)	Operating in KW	Connected in KW
		1	Molasses Handling	20	40
		2	Fermentation (including Compressor)	188	242
		3	Distillation (Wash to RS)	36	72
		4	Dehydration Plant (MSDH)	25	50
		5	RSW Evaporation	500	525
		6	Cooling Tower	217	372
		7	Condensate polishing Unit (CPU)	200	300

		8	Alcohol Storage	11	22
		9	Instrumentation Air & CIP	22	44
		10	Auxiliary Power Required (For Boiler & TG accessories, Fuel handling)	500	600
		11	Street Lighting etc	36	36
		12	CO2 Plant	250	400
			<b>Total Power Load (KW)</b>	<b>2005</b>	<b>2703</b>
		1 No. of 750 kVA capacity DG set for backup power			
17	Steam Requirement	15.4 TPH			
18	Fuel requirement	1 No. of 18 TPH Boiler Total Bagasse requirement – 17160 TPA			
19	APC measures	Stack attached to.	Fuel used	Stack Height from ground level (m)	Pollution Control Equipment Measures
		Proposed 18 TPH Boiler	Bagasse – 17160 TPA	55	Electrostatic Precipitator (ESP)
		DG set 750 kVA	HSD - 2-3 kLD (as per requirement)	10	-
20	Details of man power	74 Nos.			
21	Details of green belt	2.347 ha (34% of the total land area)			
22	Provision of rainwater harvesting	2 Nos. Rainwater harvesting tank of 40 m <sup>3</sup> each is proposed 12 Nos. of RWH pits provided			
23	EMP cost (INR)	Capital Cost - Rs. 1416.8 lakhs Recurring Cost - Rs. 148.3 lakhs			



24	CER Activity	Rs. 174 Lakhs as committed and out of which PP has specifically committed to spend the amount (Rs 100 lakhs) to start and run study centres in the villages of its members to benefit the students and also to extend financial help to students (wards of members) to pursue higher education.
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### RECOMMENDATION OF THE COMMITTEE

The Committee discussed the proposal and recommended grant of environmental clearance for the project proposal as above along with standard environmental clearance conditions prescribed by MoEF&CC, GoI and the following additional conditions:

#### Specific Conditions:

1. As the PP is a cooperative institution, any waste generated in the process of producing ethanol that can be used as fertilizer, like boiler ash, shall be given to the farmer-members free of cost.
2. PESO (Petroleum and Explosives Safety Organization) Guidelines shall be strictly adhered to during processing, handling and stocking of ethanol and PP shall obtain PESO certification.
3. Coal shall not be used as fuel in incineration boiler. The industry shall use only cleaner fuels like natural gas such as PNG/CNG, LPG, Biogas, Propane, Butane etc.
4. Real time monitoring data of stack emission should be made available on the Company's website for public access.
5. The proponent shall furnish an affidavit stating that the ethanol produced will be used only for the Ethanol Blended Petroleum Programme of the government.
6. As per the Notification S.O. 2339(E), dated 16th June, 2021, EC is given under EBP and if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.

  
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7. PP shall produce or buy green renewable energy to meet at least 50% of the total energy requirement of the proposed distillery.
8. PP shall engage IIT Madras or any other reputed institution to develop a technology/methodology for converting bagasse into bio-briquettes which will ultimately help in storage, transportation and commodification of bagasse.
9. The PP shall construct a pond of appropriate size in the earmarked OSR land in consultation with the local body. The pond should be modelled like a temple tank with parapet walls, steps, etc. The pond is meant to play three hydraulic roles, namely (1) as a storage, which acted as insurance against low rainfall periods and also recharges groundwater in the surrounding area, (2) as a flood control measure, preventing soil erosion and wastage of runoff waters during the period of heavy rainfall, and (3) as a device which was crucial to the overall eco-system.
10. PP has proposed CER to benefit the wards of its member-farmers by way of running study centres in villages, coaching for examinations like NEET, JEE etc, and instituting scholarships for pursuing higher education as submitted in CER plan.

<b>General Conditions:</b>
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1. The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
2. The project proponent will treat and reuse the treated water within the integrated industry and no waste or treated water shall be discharged outside the premises. ZLD system should be maintained as committed.
3. Total fresh water requirement for the industry shall not exceed than proposed. Groundwater monitoring shall be done regularly and report is to be submitted to concerned authorities regularly.
4. Raw spent wash will be sent for Bio-Methanation and concentrate in MEE. Concentrated spent wash shall be burnt in incineration boiler. PP shall install

  
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brick manufacturing plant within factory for utilization of ash obtained from combustion for manufacturing bricks.

5. CO<sub>2</sub> generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
6. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
7. Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
8. The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.
9. Process organic residue and spent carbon, if any, shall be sent to Cement or other suitable industries for its incineration. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
10. The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high-pressure hoses for equipment clearing to reduce wastewater generation.
11. The green belt of at least 5-10 m width shall be developed in nearly 33% (minimum) of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy.
12. There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products as per CPCB norms and no parking to be allowed outside on public places.

13. Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
14. Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
15. A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 394 – 02.

File No. 10113/2023.

Proposed Expansion of Steel melting plant and inclusion of steel rolling mill S.F. No. 3/1B, 3/2A, 3/3A2, 3/3B, 3/2B, 2pt Pudupalayam Village & S.F. No. 431/4B, 431/3B, 431/4A2 Panchai Palathozhuvu Village, Perundurai Taluk, Erode District, Tamil Nadu by M/s. Jaya Sakthi Casting India Private Limited - for Terms of Reference.

(SIA/TN/IND1/431501/2023 Dt:31.05.2023)

The proposal was placed in this 394<sup>th</sup> meeting of SEAC held on 21.07.2023. The details of the project furnished by the proponent are available in the website (parivesh.nic.in).

The SEAC noted the following

1. Earlier, the PP has obtained CTO from TNPCB Dt: CTO (Direct) Proc. No. F.0132PND/OM/DEE/TNPCB/PND/W&A/2020, dated 04.09.2020 and renewed vide RCO Dt:21.01.2023 for production of M.S. Ingots / Billets - 1455 Tonnes/Month (17460 TPA using induction furnace of 10T) (< 30,000 Tonnes).
2. The Proponent M/s. Jaya Sakthi Casting India Private Limited has applied for Terms of Reference for the Proposed Expansion of Steel melting plant and inclusion of steel rolling mill S.F. No. 3/1B, 3/2A, 3/3A2, 3/3B, 3/2B, 2pt Pudupalayam Village & S.F. No. 431/4B, 431/3B, 431/4A2 Panchai Palathozhuvu

  
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Village, Perundurai Taluk, Erode District, Tamil Nadu for production of 1.) M.S Billets - 2,40,000 TPA, 2.) TMT Rods & Structural Components - 2,32,000 TPA utilising proposed Induction furnace - 2 X 12 Tons & Reheating Furnace - 2 X 15 Tons (coal based).

3. The project/activity is covered under Category "B1" of Item 3(a) "Metallurgical industries (ferrous & non-ferrous)" of the Schedule to the EIA Notification, 2006.

Based on the presentation made by the proponent and the documents furnished, the SEAC decided to prescribe TOR for the preparation of detailed EIA report along with Public Hearing. The detailed EIA shall include standard ToR along with the following additional ToR:

1. The PP shall conduct an 'energy audit' of the existing plant by an accredited BEE consultant and submit the report along with action plan to implement the suggestions made in the report.
2. The PP shall furnish panel board calculation for the existing and proposed expansion. activity.
3. The PP shall explore possibilities to utilize renewable energy with respect to total power consumption.
4. The PP shall plant native trees 2 nos. of rows all along the site and within the proposed site adhering to 33% of Green belt of the total area and shall furnish photographs of the same.
5. The PP shall furnish details of scrap imported and composition of scrap obtained from laboratory to ensure free from toxic contaminants.
6. The PP shall propose conservation measures for the nearby Reserve Forest and abutting Velli karadu in consultation with concerned DFO.
7. Details of quantity Coal, imported/ indigenous and its quality regard to sulphur content & ash content.
8. Details of handling and management & disposal of coal, fly ash, bottom ash, furnace slag.
9. The PP shall explore possibilities to provide ESP for the reheating furnace, since coal is used as the fuel.

  
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10. The PP shall obtain land use conversion for the proposed activity from the competent authority.
11. The PP shall provide details of ground water including its quality with respect to the process activity.
12. The PP shall furnish fresh water commitment letter from the competent authority for the proposed expansion activity.
13. The PP shall adopt Environmental manager for effective compliance on mitigation measures & monitoring of proposed expansion activity.
14. Since the Periods of idling are inherent because of the following activities, the PP shall study in detail and the same shall be included in the EIA report.
  - i. Charging
  - ii. Slagging
  - iii. Sampling
  - iv. Charge material
  - v. Molten Heel Practice
  - vi. Furnace Cover Losses
15. The PP shall study in detail about Charging and operation of Melting for better and efficient operation of induction furnaces.
16. The proponent shall study in detail about various measures could be adopted during finishing and tapping of a heat.
17. The proponent shall study in detail about operational control measures to Minimize and control the refractory wall wearing.
18. The proponent shall explore the possibilities to Change from mains frequency to medium frequency furnaces.
19. Details of sand reclamation unit shall be incorporated in the EIA report.
20. The proponent shall explore the possibilities of utilizing state of the art technology with best global practice.
21. The proponent shall explore the possibilities of utilizing the industrial wastewater instead of fresh water.
22. The proponent shall elaborate on the state-of-the-art technology for induction furnace to control emissions (Fumes).

23. The proponent shall submit the Certified Compliance Report for existing plant.
24. The proponent must increase the solar and Wind Energy and must explore the possibilities of achieving Net Zero energy consumption.
25. The proponent shall submit the video and photograph of the operational details with particular reference to points of pollution in the existing plant.
26. Material balance and Water balance shall be furnished in accordance with MoEF&CC guidelines.
27. A detailed report on Solid waste management, hazardous waste shall be furnished.
28. Report on AAQ survey and proposed air pollution prevention and control measures shall be furnished in the EIA report.
29. The project proponent shall do the stoichiometric analysis of all the involved reactions to assess the possible emission of air pollutants in addition to the criteria pollutants, from the proposed project.
30. Adequacy report for ETP & STP for the proposed project obtained from any reputed Government institution such as IIT, Anna University, NIT shall be furnished.
31. Land use classification shall be obtained from the DTCP for the Survey Numbers of this project. Further, the project proponent shall submit the planning permission obtained from the DTCP, if any.
32. The proponent shall conduct the EIA study and submit the EIA report for the entire campus along with layout and necessary documents such as "A" register and village map.
33. Public Hearing points raised and commitments of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project and to be submitted to SEIAA/SEAC with regard to the Office Memorandum of MoEF& CC accordingly.
34. The Public hearing advertisement shall be published in one major National daily and one most circulated Tamil daily.
35. The PP shall produce/display the EIA report, executive summary and other related

information with respect to public hearing in Tamil.

36. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non- forest purpose involved in the project.
37. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
38. The project proponent shall explore the possibilities of treating and utilizing the trade effluent and sewage within the premises to achieve Zero liquid discharge.
39. The layout plan shall be furnished for the greenbelt area earmarked with GPS coordinates by the project proponent on the periphery of the site and the same shall be submitted for CMDA/DTCP approval. The green belt width should be at least 3m wide all along the boundaries of the project site. The green belt area should be not less than 15 % of the total land area of the project.
40. As the plant operation involves the sensitive processing, the medical officer and the supporting staff involved in the health centre activities shall be trained in occupational health surveillance (OHS) aspects through the outsourced training from the experts available in the field of OHS for ensuring the health standard of persons employed.
41. The proposal for Roof Top solar panel shall be included in the EIA Report.
42. 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 furnish the detailed EMP.

**Agenda No. 394 – 03.**

**File No. 10149/2023.**

**Proposed Rough stone Quarry lease over an extent of 3.61.0Ha S.F.Nos.1196/1A, 1196/1B (Part) & 1197/12A (Part), Punnam Village, Pugalur Taluk, Karur District by M/s.V.S.T Blue Metals - For Terms of Reference.**

**(SIA/TN/MIN/431189/2023, dt: 27/05/2023)**

The proposal was placed in this 394<sup>th</sup> meeting of SEAC held on 21.07.2023. The details of the project furnished by the proponent are available in the website (parivesh.nic.in).

**The SEAC noted the following:**


  
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1. Earlier, the PP has obtained Environmental Clearance from DEIAA vide Lr. No. DEIAA-DIA/TN/MIN/8364/2017/-KRREC.No.79/2017/Mines, Dt: 14.10.2017 for the proposed Rough stone Quarry lease over an extent of 4.13.5Ha S.F.Nos.1196/1A, 1196/1B (Part) & 1197/12A (Part), Punnam Village, Pugalur Taluk, Karur District, Tamil Nadu for the production of Rough Stone - 409229 cu.m & depth upto 43m.
2. This EC issued by the DEIAA has been filed before the SEIAA-TN for reappraisal in compliance to the order of the Hon'ble NGT in O.A142 of 2022 as per the Guidelines stipulated in MoEF &CC OM F.No. IA3-22/11/2023-IA.III (E-208230), dated. 28.04.2023.
3. Certified Compliance Report (CCR) obtained from IRO(SZ), MoEF&CC vide Lr. EP/12.1/2022-23/SEIAA/143/TN/1151 Dt:31.10.2022.
4. MoEF&CC OM Dt:28.04.2023.
5. Now, the project proponent, M/s.V.S.T Blue Metals has applied for Terms of Reference for the proposed Rough stone Quarry lease over an extent of 3.61.0haHa S.F.Nos.1196/1A, 1196/1B (Part) & 1197/12A (Part), Punnam Village, Pugalur Taluk, Karur District, Tamil Nadu.
6. 500m Radius cluster from AD/Dept. of G&M Lr. Rc.No. 82/Mines/2023 Dt: 24.05.2023.
7. The project/activity is covered under Category "B1" of Item 1(a) "Mining of Minerals Projects" of the Schedule to the EIA Notification, 2006.
8. Lease period extension issued for the 18 months due to Covid-19 by the Commissioner, Dept. of Geology& Mining, Guindy Chennai Vide RC.No.1306/MM6/2023 Dt: 22.02.2023.
9. As per the precise area communication the lease period is for 5 years. The mining plan is for 5 Years. The production for 5 years shall not to exceed 409229m<sup>3</sup> of Rough Stone with Annual Peak Production Capacity of not exceeding 107756m<sup>3</sup> and the ultimate depth of 43m BGL.

During the presentation, proponent stated his intention to withdraw the proposal. Hence, SEIAA may accept the request of withdrawal as and when received from the PP.

  
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Agenda No. 394- 04.

File No. 10155/2023.

Existing Rough Stone Quarry lease over an extent of 4.54.0Ha S.F.Nos.1093/A1 (Part) & 1093/A2(Part), Thennilai West Village, Aravakurichi Taluk, Karur District by M/s. Sri Ganesh murugan Blue Metal - For Terms of Reference.

(SIA/TN/MIN/433495/2023, dt:20/06/2023)

The proposal was placed in this 394<sup>th</sup> meeting of SEAC held on 21.07.2023. The details of the project furnished by the proponent are available in the website (parivesh.nic.in).

The SEAC noted the following:

1. Earlier, the PP has obtained Environmental Clearance from DEIAA vide Lr. No. DEIAA-DIA/TN/MIN/15444/2018-KRR/Ec.No.108/2018/Mines, Dt: 14.06.2018 for the proposed Rough Stone Quarry lease over an extent of 4.54.0Ha S.F.Nos.1093/A1 (Part) & 1093/A2(Part), Thennilai West Village, Aravakurichi Taluk, Karur District for the production of Rough Stone - 269471 cu.m & depth up to 22m.
2. This EC issued by the DEIAA has been filed before the SEIAATN for reappraisal in compliance to the order of the Hon'ble NGT in O.A142 of 2022 as per the Guidelines stipulated in MoEF &CC OM F.No. IA3-22/11/2023-IA.III (E-208230), dated. 28.04.2023.
3. Certified Compliance Report (CCR) obtained from IRO(SZ), MoEF&CC vide Lr. EP/12.1/2022-23/SEIAA/221/TN/61 Dt:12.01.2023
4. MoEF&CC OM Dt:28.04.2023.
5. Now, the project proponent, M/s. Sri Ganesh Murugan Blue Metal has applied for Terms of Reference for the existing Rough Stone Quarry lease over an extent of 4.54 Ha S.F.Nos.1093/A1 (Part) & 1093/A2(Part), Thennilai West Village, Aravakurichi Taluk, Karur District, Tamil Nadu.
6. 500m Radius cluster from AD/Dept. of G&M Lr. Rc.No. 99/Mines/2023 Dt: 24.05.2023.
7. The project/activity is covered under Category "B1" of Item 1(a) "Mining of Minerals Projects" of the Schedule to the EIA Notification, 2006.

  
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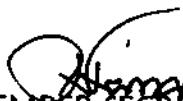
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8. Lease period extension issued for the 18 months due to Covid-19 by the Commissioner, Dept. of Geology & Mining, Guindy Channai Vide RC.No.1778/MM6/2023 Dt: 25.03.2023.
9. As per the precise area communication the lease period is for 5 Years. The mining plan is for 5 Years. The production for 5 years shall not to exceed 269471m<sup>3</sup> of Rough Stone & 31850m<sup>3</sup> of Gravel and the ultimate depth of 22m BGL.

Based on the presentation and details furnished by the project proponent, SEAC decided to grant Terms of Reference (TOR) with Public Hearing subject to the following TORs, in addition to the standard terms of reference for EIA study for non-coal mining projects and details issued by the MOEF & CC to be included in EIA/EMP Report:

1. The proponent shall give an Affidavit before the issuance of ToR from SEIAA-TN stating that the mining operations will remain suspended till they obtain the EC granted by the SEIAA after the reappraisal process as per MoEF & CC OM F.No. IA3-22/11/2023-IA.III (E-208230), dated. 28.04.2023.
2. For the existing quarry, the PP shall obtain a letter from the concerned AD (Mines) which shall stipulate the following information:
  - i. Original pit dimension of the existing quarry
  - ii. Quantity achieved Vs EC Approved Quantity
  - iii. Balance Quantity as per Mineable Reserve calculated.
  - iv. Mined out Depth as on date Vs EC Permitted depth
  - v. Details of illegal/illicit mining carried out, if any
  - vi. Non-compliance/Violation in the quarry during the past working.
  - vii. Quantity of material mined out outside the mine lease area (or) in the adjacent quarry/land.
  - viii. Existing condition of Safety zone/benches
  - ix. Details of any penalties levied on the PP for any violation in the quarry operation

  
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3. The PP shall furnish mitigation measures/action plan for the non-compliance stated in the Certified Compliance Report (CCR) obtained from IRO(SZ), MoEF&CC.
4. The PP/EIA Coordinator shall explain the mining technique and methodology with strategies to be adopted comprehensively to achieve the unquarried quantity of Rough stone in a duration of just 18 months from a hard rock terrain.
5. The Project Proponent shall furnish the revised EMP based on the study carried out on impact of the dust & other environmental impacts due to proposed quarrying operations of aforesaid excavation volume of unquarried quantity of Rough stone on the nearby agricultural lands / surrounding environment for remaining life of the mine in the format prescribed by the SEAC considering the cluster situation.
6. The PP shall carry out the scientific studies to assess the slope stability of the existing quarry wall and working benches to be constructed, by involving any one of the reputed Research and Academic Institutions - CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. The PP shall submit a copy of the aforesaid report indicating the stability status of the quarry wall and possible mitigation measures with slope stability action plan during the time of appraisal for obtaining the EC.

Agenda No. 394 – 05.

File No. 10161/2023.

Proposed Colour Granite Quarry lease over an extent of 1.54.0Ha (Government Poromboke Land) at S.F.Nos.609A(Part) (Bit-5) Nagojanahalli Village, Pochampalli Taluk, Krishnagiri District, Tamil Nadu by Tvl. A.A. Enterprises - For Terms of Reference.

(SIA/TN/MIN/434043/2023, dt:20/06/2023)

The proposal was placed in this 394<sup>th</sup> meeting of SEAC held on 21.07.2023. The details of the project furnished by the proponent are available in the website (parivesh.nic.in).

  
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The SEAC noted the following:

1. The project proponent, Tvl. A.A. Enterprises has applied for Terms of Reference for the Colour Granite Quarry lease over an extent of 1.54.0Ha (Government Poromboke Land) at S.F.Nos.609A(Part) (Bit-5) Nagojanahalli Village, Pochampalli Taluk, Krishnagiri District, Tamil Nadu.
2. 500m Radius cluster from DD/Dept. of G&M Lr. RoC. No. 1054/2020/Mines Dt: 27.04.2023.(Cluster Area - 11.09.35 Ha).
3. The project/activity is covered under Category "B1" of Item 1(a) "Mining of Minerals Projects" of the Schedule to the EIA Notification, 2006.
4. As per the precise area communication the lease period is for 20 years. The scheme mining plan is for 5 Years. The production & development quantity for first five Years shall not to exceed 29440m<sup>3</sup> of RoM including 8832m<sup>3</sup> of Colour Granite (Recovery- 30%) & 20608m<sup>3</sup> of Granite Reject (Reject - 70%) and the depth of mining upto 24m (15mAGL & 9m BGL). the annual Peak production shall not exceed 6075 m<sup>3</sup> of RoM.

Based on the presentation and details furnished by the project proponent, SEAC decided to grant Terms of Reference (TOR) with Public Hearing subject to the following TORs, in addition to the standard terms of reference for EIA study for non-coal mining projects and details issued by the MOEF & CC to be included in EIA/EMP Report:

1. The study on impact of the proposed quarrying operations on the surrounding environment which includes water bodies, etc.
2. The Proponent shall furnish a comprehensive plan for storing the waste blockage of granite produced from the proposed quarrying operation to ensure sustainable environment.
3. The proponent shall furnish a revised EMP budget for entire life of proposed mining.

Agenda No: 394-06

(File No: 10009/2023)

Proposed Expansion of Premium Residential Complex "Jain's ADVAIT" at S.F.Nos. 168/3pt & 4pt, 169/1pt, 2A, 2B & 2Cpt, 170/1, 2A & 2B, 172/20pt, 21pt, 29, 42pt,

  
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43pt, 44pt, 48pt, 49pt, 50pt & 51pt, 171/2 & 171/3 of Pammal Village, Tambaram Taluk, Kancheepuram District, Tamil Nadu by M/s. Jain Housing & Constructions Ltd.- For Environmental Clearance (SIA/TN/INFRA2/426456/2023, dated:18/04/2023).

The proposal was placed in this 394<sup>th</sup> SEAC meeting held on 21.07.2023. The project proponent gave detailed presentation. The details of the project furnished by the proponent are available in the website (parivesh.nic.in).

The SEAC noted the following:

1. The Proponent, M/s. Jain Housing & Constructions Ltd has applied for Environmental Clearance for the Proposed Expansion proposal of Premium residential complex "Jain's ADVAIT " at S.F.No. 168/3pt & 4pt, 169/1pt, 2A, 2B & 2Cpt, 170/1, 2A & 2B, 172/20pt, 21pt, 29, 42pt, 43pt, 44pt, 48pt, 49pt, 50pt & 51pt, 171/2 & 171/3 of Pammal Village, Tambaram Taluk, Kancheepuram District, Tamil Nadu.
2. The project/activity is covered under Category "B2" of item 8(a) "Building & Construction Projects" of the Schedule to the EIA Notification, 2006.
3. Earlier, Environmental Clearance was issued to the proponent vide SEIAA Lr.No. SEIAA-TN/E.No.13/EC/8(a)/179/2007 dated: 20.06.2013 for the proposed Residential Building "Jain Housing" at S.F.Nos. 168/3pt & 4pt, 169/1pt, 2A, 2B & 2Cpt, 170/1, 2A & 2B, 172/20pt, 21pt, 28pt, 29, 42pt, 43pt, 44pt, 48pt, 49pt, 50pt & 51pt, 52pt of Pammal Village , Tambaram Taluk, Kancheepuram District, Tamil Nadu for the Construction of Block (1-14) -S+4 floors, Block (15&16) G+1 floors with total Plot area is 28084.97 Sq.m and the Built up area is 66281.44 Sq.m.
4. CCR obtained from MoEF&CC vide F. No. EP/12.1/2020-21/SEIAA/15/TN/107 dated:10.02.2021.
5. Now, the PP had applied for the Proposed Expansion proposal of Premium residential complex "Jains Advait" at S.F.No. 168/3pt & 4pt, 169/1pt, 2A, 2B & 2Cpt, 170/1, 2A & 2B, 172/20pt, 21pt, 29, 42pt, 43pt, 44pt, 48pt, 49pt, 50pt & 51pt, 171/2 & 171/3 of Pammal Village, Tambaram Taluk, Kancheepuram District, Tamil Nadu with total Plot area is 35,284.97 Sq.m and the Built up area is 1,39,993.60 Sq.m. Total Number of Dwelling Units increased from 492 units to 1288 units.

6. Earlier, this proposal was placed in the 390<sup>th</sup> Meeting of SEAC held on 07.07.2023. During the meeting the PP has requested for additional time to produce documents as sought by the Committee. Hence, the SEAC decided to take up this proposal in any one of the forthcoming SEAC meeting.

Hence, proposal was placed in this 394<sup>th</sup> SEAC meeting held on 21.07.2023.

Based on the documents submitted and presentation made by the project proponent along with the consultant, the following facts have emerged: -

1. The environmental clearance is sought for the proposed expansion of Construction Project at Plot No: "Proposed Expansion of Premium Residential Project "Jain's ADVAIT". Survey Nos. 168/3pt & 4pt, 169/1pt, 2A, 2B & 2Cpt, 170/1, 2A & 2B, 172/20pt, 21pt, 29, 42pt, 43pt, 44pt, 48pt, 49pt, 50pt & 51pt and 171/2 & 171/3 at Pammal Village, Tambaram Taluk, Kancheepuram (Now in Chengalpattu) District – Tamil Nadu" by the PP M/s Jain Housing & construction Ltd.
2. M/s Perfect Enviro Solution Pvt. Ltd. is the EIA Consultant for the project.
3. Total plot area of the project is 35,284.97m<sup>2</sup> and built-up area is 139,993.60 m<sup>2</sup> respectively.
4. Maximum number of floors will be Existing Blocks- 1 to 6 (Stilt+4 floors) & Proposed Common Basement, a combined First level Parking for Blocks 7,8,9,10,11 & 12 and Blocks 7 to 16 (Stilt +10 floors) & a Clubhouse (Stilt + 3 floors) and maximum height of the building will be 34 m.
5. Total Saleable DU's (dwelling units) is 1288.
6. Salient features of the project as submitted by the project proponent:

PROJECT SUMMARY					
Sl. No.	Description	Existing EC		Proposed Expansion	
		Total Quantity	Unit	Total Quantity	Unit
GENERAL					
1	Plot Area	28,084.97	SQMT	35,284.97	SQM T
2	Proposed Built Up Area	66,281.44	SQMT	139,993.64	SQM T

  
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3	Total no of Saleable DU's/Villas	492	No.	1288	No.
4	Max Height - (Height of tallest block)	15	M	34	M
5	No of Building Blocks (Residential + Community facilities)	Block- 1 to 14 (Stilt+4 floors) & Block 15 to 16 (G+1 floor)		Existing Blocks- 1 to 6 (Stilt+4 floors) & Proposed Common Basement, combined First level Parking for Blocks 7,8,9,10,11 & 12 and Blocks 7 to 16 (Stilt +10 floors) & Clubhouse (Stilt + 3 floors)	
6	Max No of Floors	Block- 1 to 14 (Stilt+4 floors) & Block 15 to 16 (G+1 floor)	No.	Existing Blocks- 1 to 6 (Stilt+4 floors) Blocks 7 to 16 (Stilt +10 floors) & Clubhouse (Stilt + 3 floors)	No.
7	Expected Population (Residential + Floating)	2,923	No.	7,645	No.
8	Total Cost of Project INR	17.94	CR	120.00	CR
9	Project Activity:	Category- B, Activity - 8(a)		Category- B, Activity - 8(a)	

#### AREAS

10	Permissible Ground Coverage Area (xx%)	14,042.485 (50%)	SQMT	17,642.485 (50%)	SQM T
11	Proposed Ground Coverage Area (xx%)	(12,611.79) (44.90%)	SQMT	(12,702.59 (36.00%))	SQM T
12	Permissible FSI Area (xxx)	50,552.95	SQMT	98,797.92	SQ MT
13	Proposed FSI Area	50,097.22	SQMT	97,897.60	SQ MT
14	Other Non FSI Areas - including basement area etc.	16,184.22	SQMT	42,096.04	SQ MT

  
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15	Proposed Total Built Up Area	66,281.44	SQMT	139,993.60	SQ MT
<b>WATER</b>					
16	Total Water Requirement	364	KLD	927.5	KLD
17	Fresh water requirement	226	KLD	599	KLD
18	Treated Water Requirement	138	KLD	328.5	KLD
19	Wastewater Generation	280	KLD	785	KLD
20	Proposed Capacity of STP	400	KLD	950	KLD
21	Treated Water Available for Reuse	280	KLD	722	KLD
22	Treated Water Recycled	138	KLD	328.5	KLD
	Treated water for avenue plantation	142	KLD	393.5	KLD
23	Surplus treated water to be discharged in Municipal Sewer with Prior permission, if any	0	KLD	0	KLD
<b>RAINWATER HARVESTING</b>					
24	Rainwater Harvesting Recharge Pits	3	No.	4	No.
25	Rainwater Harvesting Sump Capacity	500	M <sup>3</sup>	2000	M <sup>3</sup>
<b>PARKING</b>					
25	Total Parking Required as / Building Bye Laws	492	ECS	888	ECS
26	Proposed Total Parking	511	ECS	1373	ECS
27	Parking in Basements	0	ECS	686	ECS

  
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GREEN AREA					
28	Proposed Green Area (Minimum 15.0% of plot area)	6291.03 (22.39 %)	SQMT	5298.50 (15.01%)	SQ MT
	Total Plot area	28,084.97	SQMT	35,284.97	SQ MT
	Existing trees on plot	70	Nos.	70	Nos
	Number of trees to be planted	1188	Nos.	990	Nos
	Number of trees to be transplanted/cut	0	Nos.	0	Nos
SOLID WASTE MANAGEMENT					
29	Total Solid Waste Generation	1.75	TPD	4.59	TPD
30	Organic waste	1.05	TPD	2.75	TPD
31	Mode of Treatment & Disposal	OWC		OWC	
32	Quantity of Sludge Generated from STP & Disposal	30.38	KG/DAY	110	KG/ DAY
33	Quantity of E-Waste Generation & Disposal	-	KG/DAY	1.1	KG/ DAY
34	Quantity of Hazardous waste Generation & Disposal	Used Oil - 0.15	LPD	Used Oil - 0.41	LPD
POWER / GREEN POWER					
34	Total Power Requirement	12000	KW	5500	KW
35	DG set backup	1*82.5 kVA, 2*62.5 kVA, 1*50 kVA	KVA	3*320 kVA, 3 *200 KVA, and 1*160 KVA	KVA
36	No of DG Sets	4	No.	7	No.

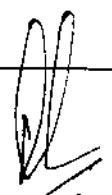
  
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37	Solar Panels – Roof Coverage	-	%	50	%
38	Hot Water Requirement Of which met by Solar Panels	-		25,760	Liters

Details of POPULATION		
	TOTAL POPULATION (Existing EC) (Nos.)	TOTAL POPULATION (Proposed Expansion Activity) (Nos.)
<b>Residential</b>		
Total Saleable Du's	492	1288
POP/DU	5	5
<b>TOTAL Residential POPULATION</b>	<b>2923</b>	<b>6440</b>
<b>Non-Residential</b>		
CLUB house (Employees etc.)		
Club	-	450
Commercial	-	-
Facility Management - Staff		105
<b>Total Non-Residential</b>	<b>-</b>	<b>555</b>
<b>Visitors</b>		
Residential	-	650
Club/Community Hall	-	-
Commercial	-	-
<b>Total Visitors</b>	<b>-</b>	<b>650</b>
<b>Total Population (Residential + Non-Residential + Visitor)</b>	<b>2460</b>	<b>7645</b>

  
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EMP Cost	Capital Cost: 462 Lakhs Recurring Cost: - 81.5 Lakhs
CER Cost	120 Lakhs
Details of CER Activities	<ol style="list-style-type: none"> <li>1. Allocation of Funds for the Welfare of Govt. High School in Nagalkeni of Pammal Municipality in line with the discussions had from Pammal Municipal Corporation: <ol style="list-style-type: none"> <li>a) Construction of Toilets @ INR 15 Lakhs</li> <li>b) Provision of Drinking Water Facility @ INR 8 Lakhs</li> <li>c) Facilities for Sanitation and Hygienic Maintenance for Girl students @ INR 10 Lakhs</li> <li>d) Surveillance Camera in and around school area @ INR Lakhs</li> <li>e) Construction of Anganvadi @ INR 20 Lakhs</li> </ol> </li> <li>2. Allocation of Funds for the Welfare of Govt. Hr. Sec. School in Agaram Village: <ol style="list-style-type: none"> <li>a) Construction of Toilets @ INR 15 Lakhs</li> <li>b) Provision of Drinking Water Facility @ INR 8 Lakhs</li> <li>c) Facilities for Sanitation and Hygienic Maintenance for Girl students @ INR 10 Lakhs</li> <li>d) Surveillance Camera in and around school area @ INR Lakhs</li> <li>e) Construction of Anganvadi @ INR 20 Lakhs</li> </ol> </li> </ol>


1. The project proposal falls under Category-8(a) of EIA Notification, 2006 (as amended).

#### **RECOMMENDATION OF THE COMMITTEE**

The Committee discussed the matter and recommended grant of environmental clearance for the proposed expansion activity subject to as per the Annexure II of this minutes and all the conditions stipulated in the EC issued vide Lr. No. Letter No. SEIAATN/F.No.13/EC/8(a)/179/2007 dated: 20.06.2013 in addition to following conditions

Additional Conditions:

  
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1. The construction shall comply with Green Building norms and shall get minimum IGBC Gold rating.
2. The PP shall obtain fresh water supply commitment letter and disposal of excess treated water from the Pammal ULB /Competent Authority before getting CTO.
3. The PP shall construct a proper drainage system to convey excess storm water from the proposed project site to the nearest waterbody after getting necessary approvals from the authorities concerned.
4. It was noted that the following applications for the same area/project were applied by the PP in the Parivesh portal.

S.No	Online Application No
1.	SIA/TN/INFRA2/425302/2023 dated:07.07.2023
2.	SIA/TN/INFRA2/231590/2022 dated:25.03.2022
3.	SIA/TN/INFRA2/75337/2018 dated:08.06.2018
4.	SIA/TN/INFRA2/212674/2021 dated:02.06.2021

During the meeting, the PP informed the Committee that they would retain the EC application vide application No. **SIA/TN/INFRA2/426456/2023**, dated:18/04/2023 and withdraw the above remaining applications filed for obtaining EC. PP shall do so before issue of EC.


5. STP shall be installed on 10-year BOOT basis, so that the construction and maintenance are combined in one single responsibility.
6. The project proponent shall provide entry and exit points for the OSR area, play area as per the norms for the public usage and as committed. The PP shall construct a pond of appropriate size in the earmarked OSR land in consultation with the local body. The pond should be modelled like a temple tank with parapet walls, steps, etc. The pond is meant to play three hydraulic roles, namely (1) as a storage, which acted as insurance against low rainfall periods and also recharges groundwater in the surrounding area, (2) as a flood control

measure, preventing soil erosion and wastage of runoff waters during the period of heavy rainfall, and (3) as a device which was crucial to the overall eco-system.

7. Project proponent is advised to explore the possibility and getting the cement in a closed container rather through the plastic bag to prevent dust emissions at the time of loading/unloading.
8. Project proponent should ensure that there will be no use of "Single use of Plastic" (SUP).
9. The proponent should provide the sufficient electric vehicle charging points as per the requirements at ground level and allocate the safe and suitable place in the premises for the same.
10. The project proponent should develop green belt in the township as per the plan submitted and also follow the guidelines of CPCB/Development authority for green belt as per the norms.
11. Project proponent should invest the CSR amount as per the proposal and submit the compliance report regularly to the concerned authority/Directorate of environment.
12. Proponent should submit the certified compliance report of previous/present EC along with action taken report to the Regional office MoEF Lko/Director of Environment and other concerning authority regularly.
13. Proponent shall provide the dual pipeline network in the project for utilization of treated water of STP for different purposes and also provide the monitoring mechanism for the same. STP treated water not to be discharged outside the premises without the permission of the concerned authority.
14. The project proponent shall provide a measuring device for monitoring the various sources of water supply namely fresh water, treated waste water and harvested rain water.
15. The proponent should provide the MoU with STPs' owner/concerned department for getting the STPs treated water for construction use.

Agenda No: 394-07

(File No: 6561/2018)

  
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SEAC- TN

**Proposed Increase in production capacity and addition of new products of leather chemicals division at S.F No. 32 of Sathangadu Village, Manali Taluk, Chennai District, Tamil Nadu by M/s. Balmer Lawrie & Co Ltd - For Environment Clearance – Category “B1”-5(f) Synthetic Organic Chemical Industry - Regarding. (SIA/TN/IND2/23352/2017, dated: 03.04.2018).**

The proposal was placed for appraisal in this 394<sup>th</sup> meeting of SEAC held on 21.07.2023. The details of the project furnished by the proponent are given in the website (parivesh.nic.in). The SEAC noted the following:

1. The Proponent, M/s. Balmer Lawrie & Co LTD has applied for Environment Clearance to SEIAA on 16.04.2018 for the proposed increase in production capacity and addition of new products of leather chemicals division to a total plot area of 48540 sq.m at Plot No. 32 of Sathangadu Village, Manali taluk, Chennai district.
2. The project/activity is covered under Category “B1” of Item 5(f) “Synthetic Organic Chemicals Industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations; synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates)” of the Schedule to the EIA Notification, 2006.
3. The existing unit produces Synthetic Tanning Agent (420 MTPM) and Synthetic Fat Liquor (480 MTPM) used in leather industry.
4. The unit was established prior to EIA Notification and the first production of SYNTAN carried out by the unit was after obtaining CTE and CTO in 1991.
5. The proponent has proposed to increase the production capacity of leather chemicals at their factory located in Manali Industrial Area, Chennai.
6. The proposal was appraised by MoEF&CC and issued the Terms of Reference (TOR) with public consultation vide Letter No. F.No. J-11011/428/2017-IA-II (I) TOR dated 29.09.2017.
7. Based on MOEF&CC OM No. J-11013/5/2010-IA.II (I) dated 25.11.2016 which stating that Cuddalore & Manali are no more critically polluted areas MoEF&CC has redirected the files of industries located in Manali &

Cuddalore Industrial Cluster/area to SEIAA-TN to consider under Category "B".

8. The facility requires prior Environmental Clearance from State Environmental Impact Assessment Authority (SEIAA), Tamil Nadu before commencing onsite activities.
9. For the proposed expansion additional reactors which will be equipped with APC measures to meet the standards set by the TNPCB/CPCB.

Earlier, the proposal was placed before the 121<sup>st</sup> SEAC Meeting held on 30.11.2018. Based on the presentation made by the proponent and the documents furnished, the committee instructed to furnish the following details for the existing and proposed expansion activity to SEAC:

1. Land Break up detail with survey number and extent of land area.
2. The proponent has to furnish the clear village map of the project site and extract of A- register.
3. Reason for addition of 2 units in the same survey no. of 32, Sathangadu village which are having valid CTO of TNPCB in the existing Synthetic Tanning Agent unit for which EC was obtained from MoEF&CC on 14.03.1997.
4. Detail of raw material used.
5. Detail of products attracting EIA Notification,2006 as amended and products which are non-attracting EIA Notification,2006 as amended.
6. Detail of ground water and surface water analysis report for the project site.
7. Is there any court direction issued for the industry? If so, furnish the detailed action taken report and remediation's measures.
8. Detail of hazardous waste management plan shall be furnished as a part of EIA study.
9. The proponent shall furnish the adequacy report for air pollution control measures obtained from the reputed Institution (Anna University (or) IIT) for the raw material which are used or proposed to use (i.e both existing and proposed) in the process and VOC analyser's adequacy report shall be obtained from the reputed Institution.(Anna University (or) IIT)

  
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10. The proponent shall furnish the Report of Analysis of AAQ survey, stack survey, VOC monitoring conducted by TNPCB for the last 3years.
11. The proponent shall furnish the Report of Analysis of the inlet and outlet of STP/ETP collected by TNPCB for last 3years.
12. The proponent shall furnish the Report of Analysis of the inlet and outlet of combined STP/ETP for all the organic components, heavy metals and other standard parameters from the NABL accredited Lab.
13. The details furnished by the proponent for the existing green belt area were found to be 20.6% of total land area, which is found to be inadequate as per CPCB guidelines. The proponent should enhance the green belt area upto 33% of the total land area as per CPCB guidelines.
14. The proponent should furnish the report for health checkup conducted for the employees working in the site for past 5 years. A detailed report shall be furnished for the same.
15. To furnish the process flow diagram, Layout and technical details of the proposed site.
16. Details about the solid waste management
17. Google map showing the surrounding water bodies.

The project proponent requested to submit the aforesaid details to SEIAA-TN. On receipt of above details (Sl.No.1 to 17) from the project proponent, further course of action will be taken.

Meanwhile Hon'ble NGT(PB) in its order Dt 19.8.2019 has pronounced that *"Further direction of the Tribunal is that "No further industrial activities or expansion be allowed with regard to 'red' and 'orange' category units till the said areas are brought within the prescribed parameters or till carrying capacity of area is assessed and new units or expansion is found viable having regard to the carrying capacity of the area and environmental norms."*

Further, O.M No. F.No. 22-23/2018 –IA.II (Pt) MoEF&CC Dt. 31.10.2019 has stated the following " The Hon'ble NGT in O.A.No .1038/ 2018 had passed orders regarding formulation of a mechanism for environmental management of critically and severely polluted areas and consideration of activities/projects in such areas.

  
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The following mechanism has been finalized by the Ministry and necessary action may be taken as given below:

- a) In cases pertaining to Critically and Severely Polluted Areas, where the environmental clearance proposal is yet to be referred to the EACs/SEACs, the mechanism may be provided to the EACs/SEACs which after due diligence may prescribe additional conditions as incorporated in the mechanism for environmental protection.
- b) In cases pertaining to Critically and Severely Polluted Areas, where the environmental clearance proposal has already been recommended by the EACs/SEACs, and the proposal was kept on hold, the mechanism may now be considered by the concerned sectors of the Ministry/SEIAs and after due diligence the concerned sectors of the Ministry/SEIAs may prescribe additional conditions as incorporated in the mechanism for environmental protection while issuing ECs, and enclosed the mechanism for environmental management of Critically and Severely Polluted Areas and consideration of activities/projects in such areas in compliance of directions issued by Hon'ble National Green Tribunal on 19.08.2019 (published on 23.08.2019) in O. A. No. 1038 2018.

Further, MoEF&CC has issued the O.M vide F.No. 22-23/2018 -IA. II (Pt) MoEF&CC Dt. 30.12.2019 regarding disposal of the application received on or before 31.10.2019 for ToR/EC. This is in continuation to the Office Memorandum of even number dated 31st October, 2019, the following three classes of cases that may emerge for disposal of the applications received as on date of OM, for ToR/EC: -

- I. The cases which were already recommended by SEAC or UTEAC, as the case may be;
- II. The cases where partial deliberations or complete deliberations were made by SEAC or UTEAC, as the case may be; and
- III. The cases where applications were received but not yet taken for SEAC/UTEAC.

2.0 The ministry is in receipt of representation for mechanism to be followed for disposal of the above classes of cases for ToR and EC. The matter has been examined and decided to follow the procedure given below: -

  
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- I. In respect of the cases which were already recommended by SEAC or UTEAC, as the case may be (Class-I), SEIAA may prescribe the additional conditions as per the OM dated 31st October, 2019 and dispose without referring to SEAC or UTEAC, as the case may be.
- II. In respect of the cases where partial deliberations or complete deliberations were made by SEAC or UTEAC, as the case may be (Class-II), the deliberation may be completed keeping in view of the additional conditions by the SEAC or UTEAC, as the case may be, and sent to the ministry for comments. If the comments were not received within 15 days from the communication, may be deemed as accepted and disposed based on the recommendations of the SEAC.
- III. In respect of the cases where applications were received but not yet taken for SEAC/UTEAC (Class-III), may be transferred to Ministry for dealing at Central level as per the OM dated 31st October, 2019.

The Hon'ble Supreme Court vide order dated 22.09.2020 in the matter of Gujarat Chambers of Commerce and Industry Vs Central Pollution Control Board & Anr, has imposed a stay on the operation of the impugned order of the NGT in O.A.No.1038/2018 dated 19.08.2019.

With the above remarks it is placed before 247<sup>th</sup> SEAC meeting held on 18.2.2022. Based on the presentation made by the proponent and the documents furnished, the Committee noted that this application falls under Class – II i.e In respect of the cases where partial deliberations or complete deliberations were made by SEAC or UTEAC, as the case may be (Class-II), the deliberation may be completed keeping in view of the additional conditions by the SEAC or UTEAC, as the case may be, and sent to the ministry for comments. If the comments were not received within 15 days from the communication, may be deemed as accepted and disposed based on the recommendations of the SEAC.

In view of the above, the Committee instructed the PP to furnish the following additional details;

1. The proponent shall furnish the last 5 years detailed health study of the people/residents located in the vicinity of the unit.

  
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2. Detailed study report of surface & ground water analysis located within 2 Km from the project site.
3. Plant safety audit report in respect of installation of existing & proposed machineries shall be furnished through competent Authority such as National Test house/Regional labour institute.
4. The proponent shall furnish the action plan to mitigate the air pollution due to this expansion.


On the receipt of the same it was again placed in 366<sup>th</sup> meeting of SEAC held on 30.03.2023. During the meeting the PP has made the representation along the above said details. Based on the presentation and documents furnished by the project proponent, SEAC decided to obtain the following details to get clarification on whether the project comes under violation or not.

1. The PP shall furnish list of raw materials used and details of products with production quantity in year wise from 1991.
2. Detail of products attracting EIA Notification, 1994 and 2006 as amended and products which are non-attracting EIA Notification, 2006 as amended.
3. The PP shall furnish proof of no Expansion after EIA notification, 2006 as amended.
4. The PP shall furnish Baseline study report for the last 2 years in the CEPI area to ensure that pollution loads are within permissible limits.
5. The proponent shall furnish the Report of Analysis of AAQ survey, stack survey, VOC monitoring conducted by TNPCB for the last 3 years.

Now, The Proponent has furnished the details sought by the Committee vide letter dated 07.07.2023 and the proposal was placed for reappraisal in this 394<sup>th</sup> meeting of SEAC held on 21.07.2023. The Project proponent made a presentation along with the clarifications for the above shortcomings observed by the Committee and the Committee carefully examined the replies given by the PP.

Further, the Committee noted the following.

1. The Hon'ble Supreme Court vide order dated 25.2.2022 in the matter of Chambers of Small-scale Industry Vs Central Pollution Control Board & Anr.,

  
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has ordered that “..... the interim order of stay granted by this Court on 18.03.2020 shall continue to operate for next Eight Weeks”. As the interim stay now stands vacated after the expiry of eight weeks’ time, the mechanism communicated vide, O.M vide F.No. 22-23/2018 –IA.II (Pt) MoEF&CC Dt. 30.12.2019 will come into force again”.

2. MoEF&CC has issued the O.M vide F.No. 22-23/2018 –IA.III MoEF&CC Dt. 30.12.2019 regarding disposal of the application received on or before 31.10.2019 for ToR/EC and this application falls under Class – II. i.e

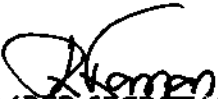
*“...In respect of the cases where partial deliberations or complete deliberations were made by SEAC or UTEAC, as the case may be (Class-II), the deliberation may be completed keeping in view of the additional conditions by the SEAC or UTEAC, as the case may be, and sent to the ministry for comments. If the comments were not received within 15 days from the communication, may be deemed as accepted and disposed based on the recommendations of the SEAC”.*

Hence SEAC decided to request the SEIAA to send the additional conditions imposed in the 394<sup>th</sup> meeting of SEAC held on 21.07.2023 to the MoEF&CC for obtaining Comments as per the sub para ii of para 2.0 contained in the OM F.No. 22-23/2018 –IA.III dated 30<sup>th</sup> December 2019 and shall intimate to SEAC upon the receipt of comments from the MoEF&CC within stipulated time as mentioned in the above O.M.

Based on the presentation and documents furnished by the PP, the SEAC carefully considered the proposal as the proposed expansion is in the CEPI area and decided to impose the following specific conditions in addition to standard environmental clearance conditions prescribed by MoEF&CC, GoI and EMP. As a result of these measures, the net increase in CEPI values will be in the negative.

1. Change of fuel for existing and proposed boilers.

PP shall implement change in fuel from FO to clean fuel energy, like LPG, bio-briquettes and CNG for existing 3 boilers (850 kg/hr each) and for the proposed one boiler (850 kg/hr), before obtaining CTO.

  
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**2. 100 % reliance on Green Energy**

- I. PP shall generate 50 % of the requirement of power for the existing and proposed expansion (Total required load after expansion = 580 KVA) through renewable energy sources i.e Solar, wind etc. before getting CTO.
- II. PP shall source the balance 50% of the total power requirement from the TANGEDCO in the form of green energy, before getting CTO.

**3. CO2 Sequestration**

PP shall spend an amount of Rs.20 lakhs under Corporate Environmental Responsibility (CER) for planting trees (min 5000 Nos; Preference Neem, Teak & Banyan) in and around Manali (CEPI area) before getting CTO.

4. PP shall commit that ZLD shall be maintained.
5. PP shall ensure that 33% area is maintained as green area before getting CTO.
6. PP shall ensure that there is minimum 95% Solvent recovery.
7. The proponent shall provide, operate and maintain adequate Air-pollution control measures for the process area.
8. The proponent should continuously monitor the VOC and ensure that VOC levels are within permissible limits.
9. The proponent shall obtain and maintain valid safety licenses for the concerned department for boiler, solvent/fuel/raw material storage areas etc.
10. The proponent shall ensure that the area for boiler is earmarked, further the proponent may submit the safety measures on the same to TNPCB before obtaining CTO.
11. The proponent shall strictly follow the norms and guidelines mentioned in the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 for the handling and disposal of Hazardous waste to be generated.
12. The proponent shall periodically conduct and submit fire safety study, emergency evacuation plan, risk assessment study, occupational health safety study for the worst case scenario in regard to existing safety measures/standard operating procedures adopted for the process/ equipment/utilities for operation & maintenance and the storage areas of products, raw materials, solvent, fuel, etc. in the different operating zones of the plant at least once in a year to regularly

identify safety fragile areas within the plant which requires regular monitoring and the proponent shall submit the same along with timeline for implementation of the said recommendations to the concerned departments.

13. A detail report on the safety measure and health aspects including periodical audiometry, pulmonary lung function, etc., test reports once in a year for all the workers shall be submitted to TNPCB.
14. As the plant operation involves the sensitive processing, the medical officer and the supporting staff involved in the health centre activities shall be trained in occupational health surveillance (OHS) aspects through the outsourced training from the experts available in the field of OHS for ensuring the health standard of persons employed.
15. As per the MoEF&CC Office Memorandum F.No. 22-65/2017-IA.III dated: 30.09.2020 and 20.10.2020, the proponent shall adhere the EMP as committed.
16. The recommendation for the issue of "Environmental Clearance" is subjected to the final outcome of the Hon'ble Supreme Court vide order dated 22.10.2020 in the matter of civil appeal Dy. No. 19271/2020 in the matter of Gujarat Chambers of Commerce and Industry Vs Central Pollution Control Board & Anr., imposed a stay on the operation of the impugned order of the Hon'ble National Green Tribunal in O.A.No.1038/2018 dated 19.08.2019.

Standard Environmental Clearance Conditions prescribed by MoEF&CC for 5(f) Synthetic Organic Chemicals.

**(A) Statutory compliance**

- i. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
- ii. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- iii. The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented

in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report. (Incase of the presence of schedule-I species in the study area)

- iv. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board/ Committee.
- v. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.
- vi. The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989

**(B) Air quality monitoring and preservation:**

- i. The project proponent shall install 24x7 continuous emission monitoring system at process stacks to monitor stack emission with respect to standards prescribed in Environment (Protection) Rules 1986 and connected to SPCB and CPCB online servers and calibrate this system from time to time according to equipment supplier specification through labs recognised under Environment (Protection) Act, 1986 or NABL accredited laboratories.
- ii. The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognised under Environment (Protection) Act, 1986.
- iii. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM25 in reference to PM emission, and SO2 and NOx in reference to SO2 and NOx emissions) within and outside the plant area at least at four locations (one within



and three outside the plant area at an angle of 120° each), covering upwind and downwind directions.

- iv. To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. Sulphur content should not exceed 0.5% in the coal for use in coal fired boilers to control particulate emissions within permissible limits (as applicable). The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- v. Storage of raw materials, coal etc shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
- vi. National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended from time to time shall be followed.
- vii. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be complied with

**(C) Water quality monitoring and preservation:**

- i. The project proponent shall provide online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises (applicable in case of the projects achieving ZLD)
- ii. As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises (applicable in case of the projects achieving the ZLD).
- iii. The effluent discharge shall conform to the standards prescribed under the Environment (Protection) Rules, 1986, or as specified by the State Pollution Control Board while granting Consent under the Air/Water Act, whichever is more stringent.
- iv. Total fresh water requirement shall not exceed the proposed quantity or as specified by the Committee. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard.

- v. Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.
- vi. The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial operations within the plant.
- vii. The DG sets shall be equipped with suitable pollution control devices and the adequate stack height so that the emissions are in conformity with the extant regulations and the guidelines in this regard.

**(D) Noise monitoring and prevention:**

- i. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- ii. The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation.
- iii. The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time

**(E) Safety, Public hearing and Human health issues:**

- i. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- ii. The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.
- iii. The PP shall provide Personal Protection Equipment (PPE) as per the norms of Factory Act.
- iv. Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical

  
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examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.

- v. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- vi. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- vii. There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places

**(F) Corporate Environment Responsibility:**

- i. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
- ii. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
- iii. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- iv. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and

shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other 5 purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six Monthly Compliance Report.

- v. Self environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out.

**(G)Waste management:**

- i. Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.
- ii. Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- iii. The company shall undertake waste minimization measures as below:-
  - a. Metering and control of quantities of active ingredients to minimize waste.
  - b. Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
  - c. Use of automated filling to minimize spillage.
  - d. Use of Close Feed system into batch reactors.
  - e. Venting equipment through vapour recovery system.
  - f. Use of high pressure hoses for equipment clearing to reduce wastewater generation

**Air Environment**

- 1. Stack emission levels should be stringent than the existing standards in terms of the identified critical pollutants.
- 2. CEMS may be installed in all large/medium red category industries (air polluting) and connected to SPCB and CPCB server.

3. Effective fugitive emission control measures should be imposed in the process, transportation, packing etc.
4. Transportation of materials by rail/ conveyor belt, wherever feasible.
5. Encourage use of cleaner fuels (pet coke/ furnace oil/ LSHS may be avoided).
6. Best Available Technology may be used. For example; usage of EAF/SAF/ IF in place of Cupola furnace. Usage of Supercritical technology in place of sub-critical technology.
7. Increase of green belt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever feasible.
8. Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc.
9. Assessment of carrying capacity of transportation load on roads inside the industrial premises.

#### Water Environment

1. Reuse/recycle of treated wastewater, wherever feasible.
2. Continuous monitoring of effluent quality/quantity in large and medium Red Category Industries (water polluting).
3. A detailed water harvesting plan may be submitted by the project proponent
4. Zero liquid discharge wherever techno - economically feasible.

#### Land Environment

1. Increase of green belt cover by 40% of the total land area beyond the permissible requirement of 33%, wherever, feasible for new projects.
2. Stipulation of greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc.
3. Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated locations approved by SPCBs/ PCCs.
4. More stringent norms for management of hazardous waste. The waste generated should be preferably utilized in co processing.

5. Monitoring of compliance of EC conditions may be submitted with third party audit every year.


**Agenda No: 394 - 08**

**(File No: 10121/2023)**

**Proposed Rough stone & Gravel lease over an extent of 1.68.5 Ha at S.F.Nos. 27/2B (Part) Kodangipalayam Village, Palladam Taluk, Tiruppur District, Tamil Nadu by Thiru. P.Gopal- For Terms of Reference. (SIA/TN/MIN/432831/2023 dated 09.06.2023)**

The proposal is placed for appraisal in this 394<sup>th</sup> meeting of SEAC held on 21.07.2023. The Project Proponent made a detailed presentation on the proposed project. The details of the project furnished by the proponent are available on the website (parivesh.nic.in). The SEAC noted the following:

1. The Project Proponent, Thiru. P.Gopal has applied for Terms of Reference for the Proposed Rough stone & Gravel lease over an extent of 1.68.5 Ha at S.F.Nos. S.F.Nos. 27/2B (Part) Kodangipalayam Village, Palladam Taluk, Tiruppur District, Tamil Nadu.
2. The project/activity is covered under Category "B1" of Item 1(a) "Mining Projects" of the Schedule to the EIA Notification, 2006 as amended.
3. Previously SEIAA has issued Environmental Clearance for the Rough stone & Gravel quarry over an extent of 1.74.5 Ha at S.F.No. 27/2B (Part) Kodangipalayam Village, Palladam Taluk, Tiruppur District, Tamil Nadu by this Project Proponent for the product quantity of 72739 m<sup>3</sup> of Rough stone and 14946 m<sup>3</sup> of Gravel to the proposed depth of 22m vide EC Lr. No. SEIAA-TN/F.No.4846/1(a)/EC.No.3341/2016 dated 15.07.2016.
4. Project site is a patta land classified as dry land.
5. In the mine plan it is reported that the water table in the area is 78m in summer season and 73m during rainy season.
6. Physical structures are noticed at a distance of 80m, 120m and 140m from the periphery of the mine lease area.
7. The ultimate pit of the proposed quarry is 35 m and the existing depth is 22m.
8. The mine has been working within the lease boundary which was verified by

  
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the SEAC.

Based on the presentation made by the proponent, SEAC recommended to grant of Terms of Reference (TOR) with Public Hearing as per Annexure I of this minute for the EIA study subject to the following ToRs in addition to the standard ToR for EIA study for non-coal mining projects and details issued by the MOEF & CC to be included in EIA/EMP Report:

1. The PP shall submit Certified Compliance Report obtained from the office of the concerned DEE/TNPCB (or) IRO, MoEF & CC, Chennai and appropriate mitigating measures for the non-compliance items, if any.
2. The PP shall carry out the scientific studies to assess the slope stability of the working benches to be constructed and existing quarry wall, by involving any one of the reputed Research and Academic Institutions - CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. The PP shall submit a copy of the aforesaid report indicating the stability status of the quarry wall and possible mitigation measures with slope stability action plan during the time of appraisal for obtaining the EC.
3. The PP shall carry out the cumulative EIA studies considering the cluster situation.


**Agenda No: 394 - 09**

**(File No: 10139/2023)**

**Proposed Rough stone & Gravel lease over an extent of 4.40.0 Ha at S.F.Nos. 775/IE (P), 776/3, 777/1, 778/1A (P), 807/2B & 807/2C2 Anjur Village, Pugalur Taluk, Karur District, Tamil Nadu by Thiru.P. Ravi – For Terms of Reference. (SIA/TN/MIN/432831/2023 dated 02.06.2023)**

The proposal is placed for appraisal in this 394<sup>th</sup> meeting of SEAC held on 21.07.2023. The NABET consultant informed the Committee that the Proponent intends to withdraw the proposal. The Committee, therefore, decided to defer the proposal to allow SEIAA to accept the withdrawal request of the Project Proponent.

**Agenda No: 394 - 10**

  
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(File No: 10121/2023)

Proposed Common Bio - Medical Waste Treatment Facility (CBWTF) at Plot No. C-6 SIPCOT Industrial Park, Seikalathur Village. Manamadurai Taluk, Sivagangai District, Tamil Nadu by M/s. Medicare Environmental Management Private Limited – For Terms of Reference. (SIA/TN/INFRA2/429635/2023 dated 29.03.2023.)

The proposal is placed for appraisal in this 394<sup>th</sup> meeting of SEAC held on 21.07.2023. The Project Proponent made a detailed presentation on the proposed project. The details of the project furnished by the proponent are given in the website (parivesh.nic.in).

The SEAC noted the following:

1. The Project Proponent, M/s. Medicare Environmental Management Private Limited has applied seeking Terms of Reference for EIA study the Common Bio - Medical Waste Treatment facility proposed at Plot No. C-6 SIPCOT Industrial Park, Seikalathur Village. Manamadurai Taluk, Sivagangai District, Tamil Nadu.
2. The project/activity is covered under Category "B1" of Item 7d(a) "Common Bio Medical Treatment Facilities (CBWTF)" of the Schedule to the EIA Notification, 2006 as amended.

Based on the presentation made by the proponent, SEAC recommended to grant of Terms of Reference (TOR) with Public Hearing for the EIA study subject to the following ToRs in addition to the standard ToR for EIA study for Common Bio Medical Treatment Facilities (CBWTF) and details issued by the MOEF & CC to be included in EIA/EMP Report:

1. The Project Proponent shall consult the District Pollution Control Board regarding the suitability of the project site for establishing Common Bio - Medical Waste Treatment Facility and furnish the details.
2. A gap analysis shall be carried out on the quantity of the Bio Medical Waste generated and availability of the treatment and disposal facilities in the district and furnish report.
3. Every industry located in the SIPCOT shall be served individual notice on the place, date and time of public hearing.
4. A detailed note on the technology proposed to be adopted for treatment and

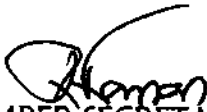
  
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disposal of Bio medical waste and the advanced technology currently in practice world-wide shall be furnished.

5. Establishment of the facility as per Bio Medial Waste Management Rules 2016 as amended.
6. Land requirement for the facility including its break up for various purposes, its availability and optimization.
7. Details of proposed layout clearly demarcating various activities such as security.
8. Details on collection and transportation of Bio Medical Waste from health care establishments, No. of vehicles and feature of vehicles, etc.
9. Details of the incineration system – a statement on the compliance to the CPCB guidelines for common bio medical waste incinerators in respect of waste feed cutoffs, operating parameters of combustion chambers, flue gas cleaning, ash handling, etc.
10. Details on fuel requirement for incineration.
11. Details on flue gas emissions discharge through stack analysis of toxic pollutants and proposed pollution control technologies.
12. Details on residue/ash generation and management.
13. Details on area storage of BMW, in case of maintenance flow of waste of detail action plan shall be part at EIA study.
14. Details of the proposed overall safety and health protection measures.
15. Details of the existing access road(s)/walkways to the designed operations in the site and its layout.
16. Land use map based on satellite imagery including location specific sensitivities such as national parks / wildlife sanctuary, villages, industries, etc.
17. Surface water quality of nearby water bodies.
18. Details on proposed groundwater monitoring wells, locations, frequency of monitoring, parameters, etc.
19. Action plan for the greenbelt development in accordance with CPCB published guidelines.
20. Details on pollution control technologies and online monitoring equipments.

  
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21. Details of the emergency preparedness plan and on-site & off-site disaster management plan.
22. The proponent shall explore the possibility for use of green technology like plasma technology, etc.,
23. The proponent shall conduct Socio-economic and health survey.
24. A detailed incinerator design needs to be submitted on the likelihood of emission, possible types of gases coming out of the process and its measures and mitigation.
25. The proponent shall furnish SOP for the process.
26. The proponent shall conduct a detailed study on water, land and Air quality.
27. Proponent shall furnish the letter received from DFO concerned stating the proximity details of Reserve Forests, Protected Areas, Sanctuaries, Tiger reserve etc., up to a radius of 25 km from the proposed site.
28. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.
29. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of ground water pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to proposed 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.
30. The Proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study.
31. The Proponent shall carry out the Cumulative impact study due to project activity specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts. Accordingly, the Environment Management plan

should be prepared keeping the proposed site and the surrounding habitations in the mind.

32. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.
33. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
34. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for proposed operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB should be secured and furnished to the effect that the proposed project activities could be considered.
35. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
36. Impact on local transport infrastructure due to the Project should be indicated.
37. A tree survey study shall be carried out (nos., name of the species, age, diameter etc.,) at the project site.
38. Public Hearing points raised and commitments of the Project Proponent on the same along with time bound Action Plan with budgetary provisions to implement the same should be provided and also incorporated in the final EIA/EMP Report of the Project and to be submitted to SEIAA/SEAC with regard to the Office Memorandum of MoEF& CC accordingly.
39. The Public hearing advertisement shall be published in one major National daily and one most circulated vernacular daily.
40. The Proponent shall produce/display the EIA report, Executive summery and other related information with respect to public hearing in Tamil Language

also.

41. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.
42. The purpose of Greenbelt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the Appendix-I in consultation with the DFO, & Tamil Nadu Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
43. Taller/one year old Saplings raised in appropriate size of bags, preferably eco-friendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner.
44. A Disaster management Plan and Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report.
45. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the project site area may be detailed.
46. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.

47. The Socio-economic studies should be carried out within a 5 km buffer zone from the project site. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
48. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
49. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
50. The Proponent shall prepare the EMP for the entire life of project and also furnish the sworn affidavit stating to abide the EMP for the entire life of project.
51. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Terms of Conditions besides attracting penal provisions in the Environment (Protection) Act, 1986.

**STANDARD TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY FOR BIO-MEDICAL WASTE TREATMENT FACILITIES AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT.**

**I. Project Details**

- i. Importance and benefits of the project.
- ii. Reasons for selecting the site with details of alternate sites examined/rejected/selected on merit with comparative statement and reason/basis for selection. The examination should justify site suitability in terms of environmental damages, resources sustainability associated with selected site as compared to rejected sites. The analysis should include parameters considered along with weightage criteria for short-listing selected site.
- iii. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly

spelt out.

- iv. Details of various waste management units with capacities for the proposed project. Details of utilities indicating size and capacity to be provided.
- v. List of waste to be handled and their characteristics. Details of temporary storage facility for storage of Bio-medical waste at project site.
- vi. Other chemicals and materials required with quantities and storage capacities.
- vii. Detailed design of pre-treatment and waste stabilization facility of *Bio- medical waste*.
- viii. Project proponents would also submit a write up on how their project proposal conform to the stipulations made in the " Bio-Medical Waste Management Rules, 2016 ", notified by the MoEF&CC on 28<sup>th</sup> March, 2016.
- ix. Process description along with major equipment and machineries, process flow sheet (quantitative) from *Bio-Medical waste* material to disposal to be provided.
- x. Details of man-power requirement (regular and contract).
- xi. A detailed layout of the project site indicating all the project components.

## II. Road and Traffic

- xii. Submit the details of the road/rail connectivity along with the likely impacts and mitigative measures
- xiii. Examine the details of transportation of Bio-Medical wastes, and its safety in handling.

## III. Land Environment

- xiv. Detailed soil analysis of the site including its permeability, water holding capacity be included.
- xv. Submit the present land use and permission required for any conversion such as forest, agriculture etc.

- xvi. Specify the land area and space allotted for each activity proposed within the facility. The area requirements for each activity shall be calculated as per the CPCB guidelines for the specified activity.
- xvii. Status of the land purchases in terms of land acquisition Act. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.
- xviii. The EIA would address to the conformity of site to the stipulations as made in the Bio-Medical Waste Management Rules, 2016 and Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 and will have a complete chapter indicating conformity to the said rules. NOC shall be obtained from State Pollution Control Board/Committee (SPCB/SPCC) regarding site suitability for establishment of Bio-Medical Waste Treatment Facilities.
- xix. Post project reclamation management program with financial allocation.

#### **IV. Environmental Monitoring and Management**

- xx. Examine and submit the details of on-line pollutant monitoring.
- xxi. Project proponent must ensure Good Combustion Practice (GCP) to reduce the possibilities of formation of 'Total dioxins and furans'. In addition, GCP must be coupled with appropriate End-of-the-pipe treatment at low temperature to reduce the emission of 'Total dioxins and furans' below the standards. Further, the project proponent must provide detailed Standard operating procedure (SOPs) for sampling and monitoring of 'Total dioxins and furans'.
- xxii. Environmental Management Plan should be accompanied with Environmental Monitoring Plan and environmental cost and benefit assessment. Regular monitoring shall be carried out for odour control

- xxiii. Water quality around the landfill site shall be monitored regularly to examine the impact on the ground water.
- xxiv. A detailed draft EIA/EMP report should be prepared in accordance with the above additional TOR and should be submitted to the Ministry in accordance with the Notification.
- xxv. Air Quality Index shall be calculated for base level air quality.
- xxvi. Baseline data on Ground water quality is required.
- xxvii. Possible carbon footprint contribution from each activities and mitigation measures proposed shall be included as part of Environment Management Plan.

#### **V. Waste Management**

- xxviii. Examine and submit details of the proposed odour control measures.
- xxix. The storage and handling of Bio-Medical wastes shall be as per the Bio-Medical Waste Management Rules, 2016.
- xxx. Details of storage and disposal of pre-processing and post-processing rejects/inerts and products. List of proposed end receivers for the rejects/inerts/products should be provided. MoUs to be submitted in this regard.
- xxxi. Details of hazardous/solid waste generation and their management.

#### **VI. Water Environment**

- xxxii. Detailed hydro-geological studies and possible impact if any accidental contamination occurs shall be included.
- xxxiii. Examine and submit details of monitoring of water quality around the landfill site.
- xxxiv. Examine and submit details of impact on water body and mitigative measures during rainy season.
- xxxv. Details of Drainage of the project up to 5 km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence



frequency based on

peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided.

**VII. Water Management**

xxxvi. Details of effluent treatment and recycling process.

xxxvii. A certificate from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.

**VIII. Energy Management**

xxxviii. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project.

**IX. Disaster Management Plan**

xxxix. Submit details of a comprehensive Disaster Management Plan including emergency evacuation during natural and man-made disaster.


xl. Hazard identification and proposed mitigation measures.

**X. Green Belt**

xli. A detailed Plan for green belt development.

**XI. Socioeconomic Environment**

xl.ii. Public hearing to be conducted for the project in accordance with provisions of Environmental Impact Assessment Notification, 2006 and the issues raised by the public should be addressed in the Environmental Management Plan. The Public Hearing should be conducted based on the ToR letter issued by the Ministry and not on the basis of Minutes of the Meeting

  
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available on the web-site.

- xlili. The project proponents shall satisfactorily address all the complaints/suggestions that have been received against the project till the date of submission of proposals for Appraisal.

## **XII. Court Cases**

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

## **XIII. Miscellaneous**

- xliv. Any further clarification on carrying out the above studies including anticipated impacts due to the project and mitigative measure, project proponent can refer to the model ToR available on Ministry website <http://moef.nic.in/Manual/Incinerator>

Agenda No: 394 - 11

(File No: 9444/2023)

Proposed 60 KLPD Capacity Cane Juice and B-Heavy Molasses based Distillery and 1.5 MW Captive Power Plant at S. F. No. 59/1 (Part), 59/3, 60/2 (Part), 60/3(Part), 60/4 (Part), 60/5 (Part), 60/6 (Part), 60/7, 76/2 (Part), 77/1 (Part), 77/2 (Part), 78/4 (Part), 78/8, 78/9, 78/10A (Part), 78/10B, 93/1 (Part), 93/2A, 93/2B, 93/3 (Part), 93/4 (Part), 93/5 (Part), 93/6 in Moongilthurapattu Village, Sankarapuram Taluk, Kallakurichi District by M/s. Kallakurichi-1 Cooperative Sugar Mills Ltd. (KCSM) - For Environment Clearance. (SIA/TN/IND2/82097/2022, dated 09.08.2022)

The proposal was earlier placed for appraisal in the 377<sup>th</sup> meeting of SEAC held on 11.05.2023. held on 21.07.2023. The details of the project furnished by the proponent are given in the website (parivesh.nic.in). The SEAC noted the following:

1. The Project Proponent, M/s. Kallakurichi-1 Cooperative Sugar Mills Ltd. (KCSM) has applied for Environment Clearance for the Proposed 60 KLPD Capacity Cane Juice and B-Heavy Molasses based Distillery and 1.5 MW Captive Power Plant at S. F. No. 59/1 (Part), 59/3, 60/2 (Part), 60/3(Part), 60/4 (Part), 60/5 (Part), 60/6 (Part), 60/7, 76/2 (Part), 77/1 (Part), 77/2

  
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(Part), 78/4 (Part), 78/8, 78/9, 78/10A (Part), 78/10B, 93/1 (Part), 93/2A, 93/2B, 93/3 (Part), 93/4 (Part), 93/5 (Part), 93/6 in Moongilthurapattu Village, Sankarapuram Taluk, Kallakurichi District, Tamil Nadu.

2. The proposed quarry/activity is covered under Category "B1" of Item 5(g)- Distilleries, "Industrial Projects-2" of the Schedule to the EIA Notification, 2006, as amended.
3. Proposed Production is 60 KLPD or around 6392.56 KL/Annum (22.3 KLPD) from B-Heavy Molasses and 10800 KL/Annum (37.7 KLPD) from Sugar Cane Juice along with 1.5 MW X 1 no capacity Back Pressure Turbine will be installed for captive power plant.

a) Main Product: 60 KLPD (Fuel Grade Ethanol)

- Ethanol from Cane Juice – 10320 KL/Annum (38 KLPD)
- Ethanol from B-Heavy Molasses – 5987.8 KL/Annum (22 KLPD)

b) By-product:

- Liquid CO<sub>2</sub> – 8144 TPA
- Fusel Oil – 27.15 KL/Annum
- Potash Rich Boiler Ash – 370 TPA

5. Total land requirement - 8.47.0 Ha. (20.94 Acres)
6. The proposed Distillery will operate under "Zero Liquid Discharge" (ZLD) concept.
7. Existing unit is located at a distance of 100m from the River Thenpenniyan and in the GO(Ms) No.82 Environment Climate Change & Forest (EC.3) Dept Dt. 13.10.2021 it is stated that *"Who are indent to set up new ethanol production unit within the existing Sugar Mills/distillery units located within 1Km/5Km from the water bodies in relaxation of G.O(Ms) No. 2013 E&F Dt. 30.3.1989 and G.O (Ms) No. 127, E&F Dept Dt. 8.5.1988. The above permission shall be issued with the condition that the unit shall achieve Zero Liquid Discharge with Reject management system and other and other conditions imposed by TNPCB".*
8. MoEF&CC vide Notification dated 13.06.2019 has notified that *"All Molasses based distilleries <= 100 kLD and non-molasses-based distilleries <= 200 kLD*

*fall under B Category projects"*

9. Furthermore, as per the MoEF&CC Notification dated 16.06.2021, "*Expansion of sugar manufacturing units or distilleries for production of ethanol, having Prior Environment Clearance (EC) for existing unit, to be used completely for Ethanol Blended Petrol (EBP) Programme only, as per self-certification in form of an affidavit by the Project Proponent, shall be appraised as category 'B2' projects.*". However, this plant has no Environmental Clearance for the existing activity, as the plant was started well before the EIA Notification, 2006 came into existence and hence the Project activity falls under B1 Category.
10. ToR issued vide T.O. Lr. No. SEIAA/F.No.9444/5(g)/ToR-1272/2022 dated 08.10.2022.
11. Public Hearing conducted on 08.03.2023

S. No	Description	Details																														
1.	Name of the Project	Kallakurichi-1 Cooperative Sugar Mills Ltd. (KCSM)																														
2.	Location	<p>S. F. No. 59/1 (Part), 59/3, 60/2 (Part), 60/3(Part), 60/4 (Part), 60/5 (Part), 60/6 (Part), 60/7, 76/2 (Part), 77/1 (Part), 77/2 (Part), 78/4 (Part), 78/8, 78/9, 78/10A (Part), 78/10B, 93/1 (Part), 93/2A, 93/2B, 93/3 (Part), 93/4 (Part), 93/5 (Part), 93/6 in Moongilthurapattu Village, Sankarapuram Taluk, Kallakurichi District, Tamil Nadu</p> <p><u>Co-ordinates:</u></p> <table> <tr> <th>Points</th><th>Latitude</th><th>Longitude</th></tr> <tr> <td>A</td><td>12° 3'47.52"N</td><td>78°58'22.23"E</td></tr> <tr> <td>B</td><td>12° 3'44.45"N</td><td>78°58'23.91"E</td></tr> <tr> <td>C</td><td>12° 3'42.91"N</td><td>78°58'24.05"E</td></tr> <tr> <td>D</td><td>12° 3'40.76"N</td><td>78°58'25.20"E</td></tr> <tr> <td>E</td><td>12° 3'38.44"N</td><td>78°58'22.47"E</td></tr> <tr> <td>F</td><td>12° 3'36.36"N</td><td>78°58'21.55"E</td></tr> <tr> <td>G</td><td>12° 3'40.74"N</td><td>78°58'13.32"E</td></tr> <tr> <td>H</td><td>12° 3'40.59"N</td><td>78°58'16.63"E</td></tr> <tr> <td>I</td><td>12° 3'41.67"N</td><td>78°58'16.40"E</td></tr> </table>	Points	Latitude	Longitude	A	12° 3'47.52"N	78°58'22.23"E	B	12° 3'44.45"N	78°58'23.91"E	C	12° 3'42.91"N	78°58'24.05"E	D	12° 3'40.76"N	78°58'25.20"E	E	12° 3'38.44"N	78°58'22.47"E	F	12° 3'36.36"N	78°58'21.55"E	G	12° 3'40.74"N	78°58'13.32"E	H	12° 3'40.59"N	78°58'16.63"E	I	12° 3'41.67"N	78°58'16.40"E
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D	12° 3'40.76"N	78°58'25.20"E																														
E	12° 3'38.44"N	78°58'22.47"E																														
F	12° 3'36.36"N	78°58'21.55"E																														
G	12° 3'40.74"N	78°58'13.32"E																														
H	12° 3'40.59"N	78°58'16.63"E																														
I	12° 3'41.67"N	78°58'16.40"E																														

		J	12° 3'43.23"N	78°58'23.00"E
		K	12° 3'44.54"N	78°58'23.06"E
		L	12° 3'47.27"N	78°58'21.80"E
		M	12° 3'48.12"N	78°58'19.41"E
		N	12° 3'49.42"N	78°58'18.81"E
		O	12° 3'50.02"N	78°58'19.96"E
		P	12° 3'51.92"N	78°58'19.14"E
		Q	12° 3'51.84"N	78°58'20.60"E
		R	12° 3'49.23"N	78°58'21.51"E
		S	12° 3'35.87"N	78°58'22.38"E
		T	12° 3'37.20"N	78°58'24.13"E
		U	12° 3'33.70"N	78°58'24.33"E
		V	12° 3'34.73"N	78°58'14.78"E
3.	Type of Project	Schedule 5(g)- Distilleries		

  
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4.	Total Area	S.No	Particular	Area (Acre)	% of Total Land																															
		1	Raw Material Storage	0.45	100																															
		2	Fermentation	0.25	21																															
		3	Process plant & Machinery	0.435	33																															
		4	Product Ethanol storage	1.55	19																															
		5	Utilities-Boiler, Turbine, WTP, DG sets, APC etc	3.34	2																															
		6	Internal Roads-Peripheral & Internal	6.49	21																															
		7	Offices-Admin, Excise, Lab, Workshop, security	0.195	4																															
		8	Green Belt area	8.23	39																															
			Total	20.94	100																															
5.	Cost of Project (INR)	INR 85 Crore																																		
6.	Raw Material	<table><tr><td>Sl. No</td><td>Name of Raw Material</td><td>Amount (TPA)</td><td>Source</td><td>Mode of Transportation</td><td>Storage</td></tr><tr><td colspan="6">Raw Materials</td></tr><tr><td>1</td><td>B - heavy Molasses</td><td>20449.0</td><td>KCSML sugar plant</td><td>Pipe Line</td><td>Store in proper reserve place</td></tr><tr><td>2</td><td>Cane Juice (assuming 100% Juice on Cane)</td><td>161580.0</td><td>KCSML sugar plant</td><td>Pipe Line</td><td>Store in proper reserve place</td></tr><tr><td colspan="6">Other Raw materials &amp; chemicals</td></tr></table>					Sl. No	Name of Raw Material	Amount (TPA)	Source	Mode of Transportation	Storage	Raw Materials						1	B - heavy Molasses	20449.0	KCSML sugar plant	Pipe Line	Store in proper reserve place	2	Cane Juice (assuming 100% Juice on Cane)	161580.0	KCSML sugar plant	Pipe Line	Store in proper reserve place	Other Raw materials & chemicals					
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		2	Cane Juice (assuming 100% Juice on Cane)	161580.0	KCSML sugar plant	Pipe Line	Store in proper reserve place																													
Other Raw materials & chemicals																																				

		1	Urea	0.25 Kg/KL	Purchase from Manufacturer	Store	By Vehicle
		2	DAP	0.25 Kg/KL	Purchase from Manufacturer	Store	By Vehicle
		3	Turk red oil	0.5 Kg/KL	Purchase from Manufacturer	Store	By Vehicle
		4	Denaturants	1 PPM/KL	Purchase from Manufacturer	Store	By Vehicle
		5	Yeast	0.5 Kg/KL	Prepared in own lab	Laboratory	By Manual

7.	Details of Proposed Products	Sl. No.	Product	Unit	Quantity
			Capacity Utilization		100 %
		1	Ethanol production from B – Heavy Molasses	KL/Yr	6392.56
		2	Ethanol production Cane Juice	KL/Yr	10800
		By - Products			
		3	Liquid CO <sub>2</sub>	MT/Yr	8144
		4	Fusel Oil	KL/Yr	27.15
		5	Potash Rich Boiler Ash	MT/Yr	370

8.	Equipment details	<b>Description</b>	<b>Capacity/Quantity</b>
		Wash preheater	2 No.s
		Analyzer Reboiler	2 No.s
		Rectifier Reboiler	1 No.
		Rectifier Condenser I	1 No.
		Rectifier Vent Condenser	1 No.
		Condenser for Degasser	1 No.
		Rectified Reflux Tank	1 No.
		Rectified Reflux Pump	2 No.s (Centrifugal)
		Condensate Transfer Pump	2 No.s (Centrifugal)
		Product cum feed tank (for RS feed to MSDH plant)	2 No.s (Centrifugal)
		HFO & LFO Cooler	1 Lot
		Fusel oil Decanter	1 No.
		RS Cooler	1 No.
		Spent wash transfer pump	2 No.s (Centrifugal)
		Fusel oil washing pump	2 No.s (Centrifugal)
		Rectifier Bottom Transfer pump	2 No.s (Centrifugal)
		Vacuum Pump	2 No.s
		Fusel oil washing tank (Cylindrical)	1 No.
		Steam Condensate Tank (Cylindrical)	1 no. x 20 KL
		Process water pump	2 No.s x 100 KL (Centrifugal)
		Vapour liquid separator for Analyzer column	2 No.s
		Siphon, Manometer bottles, Vapour Bottles	1 Lot
		Piping and Valves	1 Lot
		Instrumentation (PLC SCADA based)	1 Lot
		Electrical	1 Lot
		<b>MSDH Section</b>	
		Recovery column	1 lot (35 trays)
		Recovery column Re-boiler	1 No
		Feed Pre-heater	1 No
		Super heater	1 No
		Molecular Sieve Drum	2 No.s
		Product condenser	1 No
		Recovery condenser	1 No
		Product cooler	1 No

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Description	Capacity/Quantity
Weak Alcohol Tank (Vertical/Cylindrical)	1 No
Weak Alcohol Re-circulation cooler	1 No
Vacuum drum	1 No. x 0.5 KL
Stand Alone Spent wash Multi Effect Evaporator	
Falling film Evaporator	3 + 1
Forced Circulation Evaporator	2 + 1
Vapour Liquid Separators (Vertical)	5 No.s
Surface Condenser	1 No.
Feed Preheater	2 No.s
Feed Tank	1 No.
Process Condensate Tank-I	1 No. x 1 KL
Concentrate Product Tank	1 No.
Process Condensate Transfer (Centrifugal)	2 No.s
Feed pump (Centrifugal)	2 No.s
Recirculation cum transfer pump (Centrifugal)	6 No.s
Concentrated Product transfer (Centrifugal)	2 No.s
Sealing water circulation Tank	1 No.
Seal water Cooler (Vacuum pump)	1 No.
Sealing water circulation pump (Centrifugal)	1 No.
Vacuum pump	1 No.
Steam condensate transfer pump (Centrifugal)	2 No.s
Piping and Valves	1 Lot
Instrumentation	1 Lot
Electrical	1 Lot
Power Generation Plant	
Back pressure cum extraction type Turbo Alternator	1 No. x 1.5 MW
Diesel Generator	750 KVA
Power House Crane	1 No.
Cooling Water System	

Cooling Tower for Fermentation section	1 No. x 400 m <sup>3</sup> /Hr
Cooling Tower pumps for Fermentation section	2 Nos. x 400 m <sup>3</sup> /Hr
Cooling Tower for Distillation, dehydration	1 No. x 900 m <sup>3</sup> /Hr
Cooling tower for MEE	2 No.s x 350 m <sup>3</sup> /Hr
Steam Generation Plant	
Boiler	18 TPH (Single drum type)
Steam pressure at MSSV Outlet	45 Kg/cm <sup>2</sup>

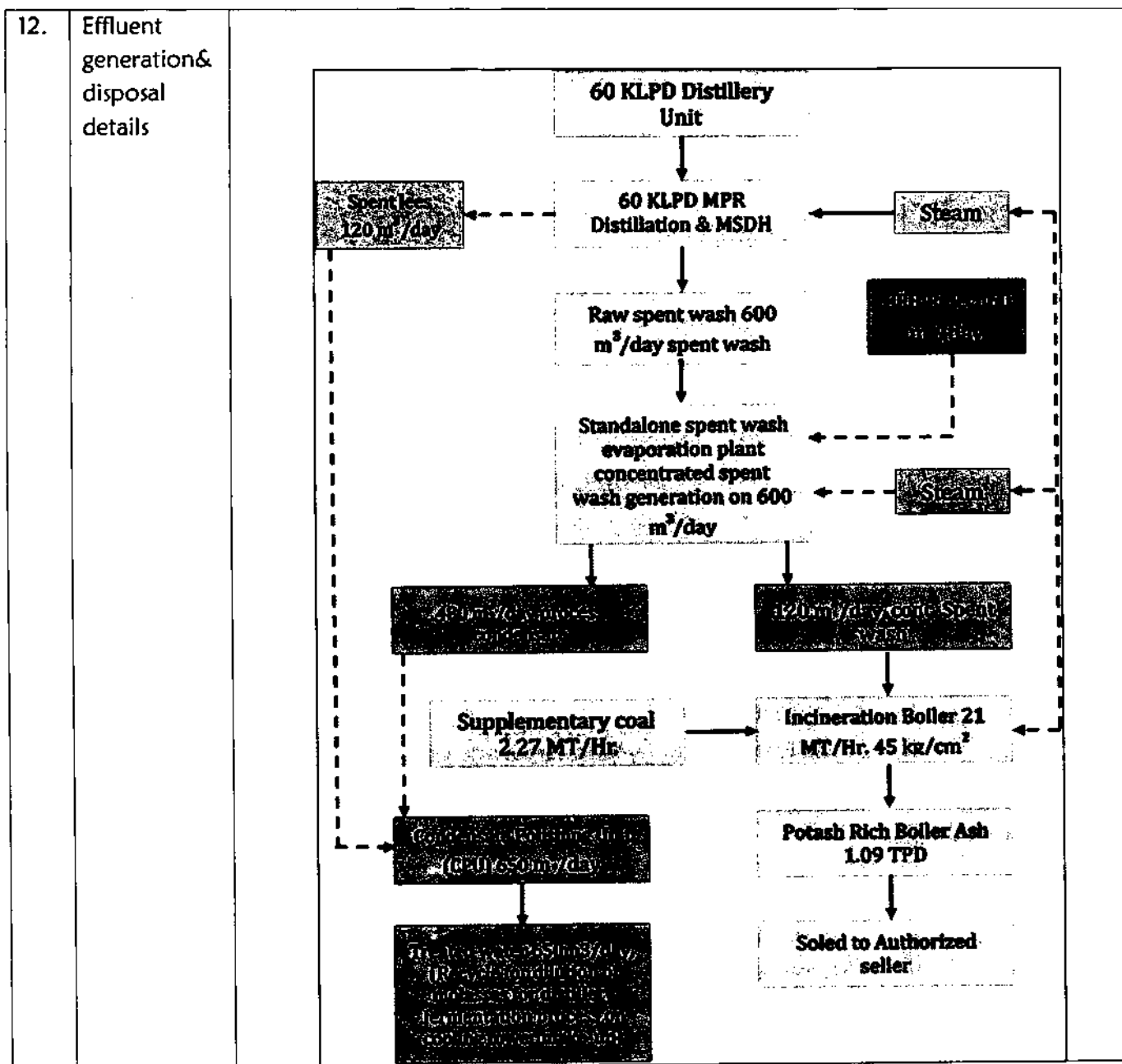
#### Captive Power Plant

Particulars	Details
Type of Fuel	□ Bagasse – 18,185TPA (160 TPD)
Capacity of Boiler	18 TPH x 1 Nos.
Stack Height	~55 m
Pollution Control Equipment Measures	Electrostatic Precipitator (ESP)
Load	Process will confirm
Boiler “fuel to steam” efficiency based on ISO Condition	82.5±2%
Steam production	15.4 TPH
Steam temperature	400°C/ 490°C
Steam pressure	45 kg/cm <sup>2</sup>
Make up water temperature	30°C
Flue gas temperature	150-160°C
Oxygen content	5-7%
Turbine capacity	1.5 MW
Turbine type	Single extraction cum condensing type

  
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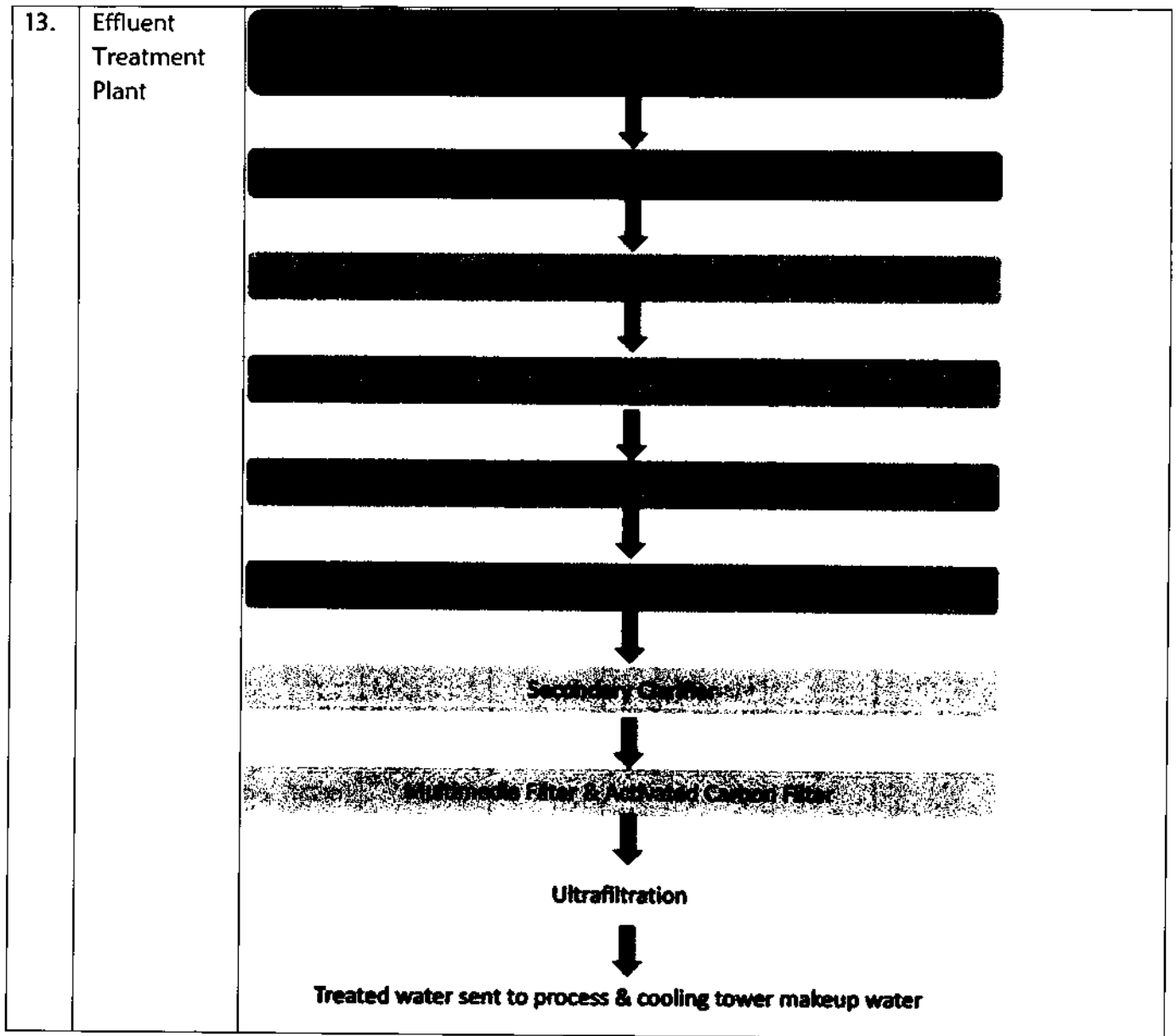
  
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9.	Process & Technology	<p>1. Molasses and Cane Sugar Syrup Handling:</p> <ul style="list-style-type: none"> <li>• B – Heavy Molasses &amp; Cane Juice Distillery Molasses Storage Tank</li> <li>• Molasses Storage Tank, Molasses Weighing System, Weighed Molasses Holding Tank, Yeast Vessels, Pre- Fermenter and Fermenter.</li> </ul> <p>2. Fermentation:</p> <ul style="list-style-type: none"> <li>• Yeast Culture and Propagation</li> <li>• Pre – Fermentation</li> <li>• Fermentation</li> </ul> <p>3. Distillation:</p> <ul style="list-style-type: none"> <li>• Multi Pressure Vacuum Distillation:</li> <li>• Analyzer Column Cum Degasser Column</li> <li>• Primary Rectifier Column</li> </ul> <p>4. Fuel Grade Ethanol:</p> <p>5. Environmental Measures &amp; Zero Liquid Discharge System:</p> <p>6. Concentration</p> <p>7. Incineration</p> <p>8. Treatment of Evaporator Condensate and Other Liquid Effluents</p>
10.	Fuel Consumption	Bagasse-18185 TPA
11.	a) Water requirement	<p>Total Water Requirement</p> <ul style="list-style-type: none"> <li>• Molasses based – 1250.7 kLD (Before recycling)</li> <li>• Cane Juice based – 1250.8 kLD (Before recycling)</li> <li>• Molasses based – 499.27 kLD (After recycling)</li> <li>• Cane Juice based – 431.9 kLD (After recycling)</li> </ul>
	b) Source	Fresh water supply – River Thenpennai



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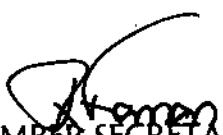
  
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14.

Hazardous & Other Solid waste Management

Details of Solid Waste from Bio Ethanol Plant			
Sl. No.	Type of Solid Waste	Amount	Mode of disposal
1	Yeast Sludge	0.5 % of total Fermented Wash	Used as fuel in the boiler mixed with bagasse
2	Potash Rich Boiler Ash	310.0 MT/Year	Will be sold to authorised seller
3	Paper/ Card Board etc.	1-2 Ton/ Year	Will be sold to recyclers
4	Food waste/ Biodegradable waste	0.5-1 Ton/Year	Food/other biodegradable waste will Bio composted and compost will be used for green belt development

Details of Hazardous Waste from Bio Ethanol Plant				
S.No.	Type of Hazardous Waste	Category	Amount	Mode of disposal
1	Used/ spent oil	5.1	5 KL/ Annum	Used oil will be collected in metal drums kept in secured dyked area and will be disposed to CPCB/ TNPCB registered used oil preprocessor. (The agreement is made with the authorized person)

  
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15.	Power requirement	2005 Kwh 1000 Kwh during season (Captive Power Plant) 750 KVA DG set as standby																																			
16.	Stack Emission	Stack attached to Proposed 18 TPH Boiler Stack attached to DG set 750 KVA Stack dimensions as per the CPCB norms																																			
17.	Rain water harvesting	Average Rainfall: 1119.8 mm / 72.8 days = 15.38 mm / Day 2 Nos of 60 m <sup>3</sup> = 120 m <sup>3</sup> Volume of the pit = 2*2*2 = 8 m <sup>3</sup> Number of pits = 68.49/8 ~ 9 no.s of pits																																			
18.	Details of man power	78 nos.																																			
19.	CER	Rs. 174 Lakhs as committed and out of which PP has specifically committed to spend the amount (Rs 100 lakhs) to start and run study centres in the villages of its members to benefit the students and also to extend financial help to students (wards of members) to pursue higher education.																																			
20.	EMP Cost (INR)	<table><tr><th>Sl.No</th><th>Construction Phase Expenses</th><th>Capital Cost (in Lacs INR)</th><th>Recurring Cost (in Lacs INR)</th></tr><tr><td>1</td><td>Environmental Monitoring</td><td>0</td><td>2.5</td></tr><tr><td>2</td><td>Air Environment</td><td>0</td><td>1.5</td></tr><tr><td>3</td><td>Health Check Up &amp; Occupational Health</td><td>0</td><td>4</td></tr><tr><td></td><td>Total (A)</td><td>0</td><td>8</td></tr><tr><th>Sl.No</th><th>Operational Phase Expenses</th><th>Capital Cost (in Lacs INR)</th><th>Recurring Cost (in Lacs INR)</th></tr><tr><td>1</td><td>Air pollution - Electrostatic precipitator</td><td>105</td><td>2.5</td></tr><tr><td>2</td><td>CPU</td><td>75</td><td>2</td></tr></table>				Sl.No	Construction Phase Expenses	Capital Cost (in Lacs INR)	Recurring Cost (in Lacs INR)	1	Environmental Monitoring	0	2.5	2	Air Environment	0	1.5	3	Health Check Up & Occupational Health	0	4		Total (A)	0	8	Sl.No	Operational Phase Expenses	Capital Cost (in Lacs INR)	Recurring Cost (in Lacs INR)	1	Air pollution - Electrostatic precipitator	105	2.5	2	CPU	75	2
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1	Air pollution - Electrostatic precipitator	105	2.5																																		
2	CPU	75	2																																		

		3	Environmental Monitoring (Air, water, waste water, Soil, Solid waste, Noise)	0	5
		4	Health Check Up & Occupational Health	5	9
		5	Green belt	20	9
		6	Solid waste	5	1
		7	Rain water	20	1
			Total (B)	230	29.5
			Grand Total (A+B)	230	37.5

Based on the presentation and documents furnished by the project proponent, the SEAC noted that the EIA report did not address the additional ToR issued vide T.O. Lr. No. SEIAA/F.No.9444/5(g)/ToR-1272/2022 dated 08.10.2022 and further noticed that the Project Proponent has not furnished the study reports sought by the Committee. Hence the SEAC directed the NABET Consultant to prepare and submit the EIA report in accordance with the ToR issued and to furnish the study reports called for by the Committee. On receipt of the same the Committee will deliberate further and decide on the future course of action.

The project proponent furnished the revised EIA report on 07.07.2023 and hence the subject was taken up for discussion in this 394<sup>th</sup> meeting of SEAC held on 21.07.2023.

#### RECOMMENDATION OF THE COMMITTEE

The Committee discussed the proposal and recommended grant of environmental clearance for the project proposal as above along with standard environmental clearance conditions prescribed by MoEF&CC, GoI and the following additional conditions:


#### Specific Conditions:

  
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1. As the PP is a cooperative institution, any waste generated in the process of producing ethanol that can be used as fertilizer, like boiler ash, shall be given to the farmer-members free of cost.
2. PESO (Petroleum and Explosives Safety Organization) Guidelines shall be strictly adhered to during processing, handling and stocking of ethanol and PP shall obtain PESO certification.
3. Coal shall not be used as fuel in incineration boiler. The industry shall use only cleaner fuels like natural gas such as PNG/CNG, LPG, Biogas, Propane, Butane etc.
4. Real time monitoring data of stack emission should be made available on the Company's website for public access.
5. The proponent shall furnish an affidavit stating that the ethanol produced will be used only for the Ethanol Blended Petroleum Programme of the government.
6. As per the Notification S.O. 2339(E), dated 16th June, 2021, EC is given under EBP and if it is found that the ethanol, produced based on the EC granted as per this dispensation, is not being used completely for EBP Programme, or if ethanol is not being produced, or if the said distillery is not fulfilling the requirements based on which the project has been appraised as category B2 project, the EC shall stand cancelled.
7. PP shall produce or buy green renewable energy to meet at least 50% of the total energy requirement of the proposed distillery.
8. PP shall engage IIT Madras or any other reputed institution to develop a technology/methodology for converting bagasse into bio-briquettes which will ultimately help in storage, transportation and commodification of bagasse.
9. The PP shall construct a pond of appropriate size in the earmarked OSR land in consultation with the local body. The pond should be modelled like a temple tank with parapet walls, steps, etc. The pond is meant to play three hydraulic roles, namely (1) as a storage, which acted as insurance against low rainfall periods and also recharges groundwater in the surrounding area, (2) as a flood control measure, preventing soil erosion and wastage of runoff waters during the

  
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period of heavy rainfall, and (3) as a device which was crucial to the overall eco-system.

10. PP has proposed CER to benefit the wards of its member-farmers by way of running study centres in villages, coaching for examinations like NEET, JEE etc. and instituting scholarships for pursuing higher education as submitted in CER plan.

<b>General Conditions:</b>
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1. The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
2. The project proponent will treat and reuse the treated water within the integrated industry and no waste or treated water shall be discharged outside the premises. ZLD system should be maintained as committed.
3. Total fresh water requirement for the industry shall not exceed than proposed. Groundwater monitoring shall be done regularly and report is to be submitted to concerned authorities regularly.
4. Raw spent wash will be sent for Bio-Methanation and concentrate in MEE. Concentrated spent wash shall be burnt in incineration boiler. PP shall install brick manufacturing plant within factory for utilization of ash obtained from combustion for manufacturing bricks.
5. CO<sub>2</sub> generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.
6. Occupational Health Centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
7. Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

8. The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.
9. Process organic residue and spent carbon, if any, shall be sent to Cement or other suitable industries for its incineration. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
10. The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
11. The green belt of at least 5-10 m width shall be developed in nearly 33% (minimum) of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy.
12. There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products as per CPCB norms and no parking to be allowed outside on public places.
13. Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
14. Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
15. A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project

area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

**Agenda No: 394 - 12**

**(File No: 10121/2023)**

**Proposed Construction of Super Speciality Block in Government Medical College Hospital at Plot No: 739, 740/2A1, 744, 745/1, City Thoothukudi, District, Tamil Nadu by the Executive Engineer, Public Works Department, Thoothukudi - For Environmental Clearance. (SIA/TN/INFRA/432831/2023 dated 09.06.2023)**

The proposal is placed for appraisal in this 394<sup>th</sup> meeting of SEAC held on 21.07.2023. The Project Proponent made a detailed presentation on the proposed project. The details of the project furnished by the proponent are available on the website ([parivesh.nic.in](http://parivesh.nic.in)). The SEAC noted the following:

1. The Project Proponent, the Executive Engineer, Public Works Department, Thoothukudi has applied seeking for Environmental Clearance for the Proposed Construction of Super Speciality Block in Government Medical College Hospital at Plot No: 739, 740/2A1, 744, 745/1, City Thoothukudi, District, Tamil Nadu.
2. The project/activity is covered under Category "B2" of Item 8(a) "Building & Construction Projects" of the Schedule to the EIA Notification, 2006 as amended.


Based on the documents submitted and presentation made by the project proponent along with the consultant, the following facts have emerged: -

1. The environmental clearance is sought for Construction of Super Speciality Block I at Government Medical College Hospital at Plot No: 739, 740/2A1, 744, 745/1, City Thoothukudi, District - Thoothukudi, Tamil Nadu by the the Executive Engineer, Public Works Department, Thoothukudi.
2. M/s. Hubert Enviro Care Systems Pvt Ltd is the EIA Consultant for the project.
3. Total plot area of the project is 1,33,425.04 m<sup>2</sup> (32.97 acres) and proposed built-up area is 29840 m<sup>2</sup> .
4. Maximum number of floors will be G+7 floors and maximum height of the building will be 30.9 m.
5. Salient features of the project as submitted by the project proponent:

  
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PROJECT SUMMARY			
Sl. No.	Description	Total Quantity	Unit
GENERAL			
1	Plot Area	1,33,425.04	SQMT
2	Proposed Built Up Area	29,840	SQMT
3	Total no of Saleable DU's/Villas	Not Applicable	-
4	Max Height – (Height of tallest block)	30.9	M
5	No of Building Blocks	Hospital – Super Speciality Block-1	No.
6	Max No of Floors	7	No.
	No. of Beds	650	No.
7	Expected Population	Permanent – 930 Temporary – 2050	No.
8	Total Cost of Project	136.35	CR
9	Project Activity:	Construction of Super Specialty Block in Government Medical College Hospital	
AREAS			
10	Permissible Ground Coverage Area (xx%)	40	SQMT
11	Proposed Ground Coverage Area (xx%)	22.8	SQMT
12	Permissible FSI Area (xxx)	2.5	-
13	Proposed FSI Area	1.79	-
14	Other Non FSI Areas - including basement area etc.	0.51	-
15	Proposed Total Built Up Area	29,840	SQMT
WATER			
16	Total Water Requirement	710	KLD
17	Fresh water requirement	395	KLD

  
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18	Treated Water Requirement	315	KLD
19	Wastewater Generation	460	KLD
20	Proposed Capacity of STP	500	KLD
21	Treated Water Available for Reuse	315	KLD
22	Treated Water Recycled	315	KLD
23	Surplus treated water to be discharged in Municipal Sewer with Prior permission, if any	145	KLD
RAINWATER HARVESTING			
24	Rainwater Harvesting - Recharge Pits	16	No.
25	Rainwater Harvesting Sump Capacity	1.104	M <sup>3</sup>
PARKING			
25	Total Parking Required as / Building Bye Laws	7640	ECS
26	Proposed Total Parking	7800	ECS
27	Parking in Basements	NIL	-
GREEN AREA			
28	Proposed Green Area (Minimum 15.0% of plot area)	49,493.98	SQMT
	Total area	1,33,425.04	SQMT
	Existing trees on plot	285	SQMT
	Number of trees to be planted	9352	
	Number of trees to be transplanted/cut	5	
SOLID WASTE MANAGEMENT			
29	Total Solid Waste Generation	1.341	TPD
30	Organic waste	0.804	TPD
31	Mode of Treatment & Disposal	Disposed to local TPD municipal bin and Municipal corporation	
	Bio medical waste	Collected in colour Will be	

	60.65 kg/day (Yellow)	coded biomedical waste collection bins	disposed to authorised CBMWTF
	128.17 kg/day (Red)		
	1.03(white)		
	27.46 (Blue)		
32	Quantity of Sludge Generated from STP & Disposal	4	KG/DAY
33	Quantity of Hazardous waste Generation & Disposal	0.027 & TNPCB authorised dealer	LPD
		150 ETP Sludge	Kg/month
POWER / GREEN POWER			
34	Total Power Requirement	1300	KW
35	DG set backup	2x750	KVA
36	No of DG Sets	2	No.
37	Solar Panels – Roof Coverage	50	%
38	Hot Water Requirement	2x500 LPD	-
	Of which met by Solar Panels	50%	-

S. No	CER Activities	Amount (in Lakhs)		
		2024-25	2025-26	Total
1.	Korampallam Government Higher School <ul style="list-style-type: none"> <li>• Painting of entire school</li> <li>• Sanitation facility &amp; drinking water plant</li> <li>• Library &amp; Solar lighting</li> <li>• Sanitary napkin incinerator</li> <li>• Construction of hand washing system</li> <li>• Avenue Plantation along the school boundary</li> </ul>	70	32	102

2.	M.Thangammalpuram Government Higher School <ul style="list-style-type: none"> <li>• Painting of entire school</li> <li>• Sanitation facility &amp; drinking water plant</li> <li>• Library &amp; Solar lighting</li> <li>• Sanitary napkin incinerator</li> <li>• Construction of hand washing system</li> <li>• Avenue Plantation along the school boundary</li> </ul>	70	32	102
	Total			204

#### RECOMMENDATION OF THE COMMITTEE

The Committee decided to recommend for the grant of Environmental clearance for the project proposal and subject to standard environmental clearance conditions as per the Annexure II of this minutes and prescribed by MoEF&CC, Gol, the aforesaid conditions and following additional conditions:

#### Additional Conditions:

1. The construction shall comply with Green Building norms and shall get minimum IGBC Gold rating.
2. STP shall be installed on 10-year BOOT basis, so that the construction and maintenance are combined in one single responsibility.
3. The project proponent shall provide entry and exit points for the OSR area, play area as per the norms for the public usage and as committed. The PP shall construct a pond of appropriate size in the earmarked OSR land in consultation with the local body. The pond should be modelled like a temple tank with parapet walls, steps, etc. The pond is meant to play three hydraulic roles, namely (1) as a storage, which acted as insurance against low rainfall periods and also recharges groundwater in the surrounding area, (2) as a flood control measure, preventing soil erosion and wastage of runoff waters during the period of heavy rainfall, and (3) as a device which was crucial to the overall eco-system.

  
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4. Project proponent is advised to explore the possibility and getting the cement in a closed container rather through the plastic bag to prevent dust emissions at the time of loading/unloading.
5. Project proponent should ensure that there will be no use of "Single use of Plastic" (SUP).
6. The proponent should provide the sufficient electric vehicle charging points as per the requirements at ground level and allocate the safe and suitable place in the premises for the same.
7. The project proponent should develop green belt in the township as per the plan submitted and also follow the guidelines of CPCB/Development authority for green belt as per the norms.
8. Project proponent should invest the CSR amount as per the proposal and submit the compliance report regularly to the concerned authority/Directorate of environment.
9. Proponent should submit the certified compliance report of previous/present EC along with action taken report to the Regional office MoEF Lko/Director of Environment and other concerning authority regularly.
10. Proponent shall provide the dual pipeline network in the project for utilization of treated water of STP for different purposes and also provide the monitoring mechanism for the same. STP treated water not to be discharged outside the premises without the permission of the concerned authority.
11. The project proponent shall provide a measuring device for monitoring the various sources of water supply namely fresh water, treated waste water and harvested rain water.
12. The proponent should provide the MoU with STPs' owner/concerned department for getting the STPs treated water for construction use.

Agenda No: 394 - 13

(File No: 10140/2023)

Proposed Multi Colour Granite quarry lease area over an extent of Extent 1.62.0 Ha at S.F.No. 480/1 (Part) of Nadanthai Village, Paramathi Velur Taluk, Namakkal District, Tamil Nadu by M/s. Sivasakthi Rock Exports - For Terms of Reference. (SIA/TN/MIN/432724/2023, Dated: 09.06.2023)

  
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The proposal was placed in 394<sup>th</sup> SEAC meeting held on 21.07.2023. The details of the project furnished by the proponent are given in the website (parivesh.nic.in).

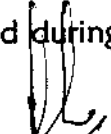
The SEAC noted the following:

1. The Project Proponent, M/s. Sivasakthi Rock Exports has applied for Terms of Reference for the Proposed Multi Colour Granite quarry lease area over an extent of Extent 1.62.0 Ha at S.F.No. 480/1 (Part) of Nadanthai Village, Paramathi Velur Taluk, Namakkal District, Tamil Nadu.
2. The project/activity is covered under Category "B1" of Item 1(a) "Mining of Minerals Projects" of the Schedule to the EIA Notification, 2006.
3. As per mining plan, the lease period is for 20 years. The mining plan is for 5 years & production should not exceed ROM – 50,182m<sup>3</sup>, Granite recovery @ 30% - 15,054m<sup>3</sup> & Granite waste @ 70% - 35,128m<sup>3</sup>. The annual peak production 10,134m<sup>3</sup> of ROM & 3,040m<sup>3</sup> of Granite (@ 30%). The ultimate depth of mining is 33 BGL..

Now, the proposal was placed in the 394<sup>th</sup> Meeting of SEAC held on 21.07.2023. Based on the presentation made by the proponent SEAC recommended grant of Terms of Reference (TOR) with Public Hearing, subject to the following TORs as per the Annexure I of this minute, in addition to the standard terms of reference for EIA study for non-coal mining projects and details issued by the MOEF & CC to be included in EIA/EMP Report:

1. The PP shall furnish the details such as number of days the quarry worked, the details of production of the granite blocks, stocks, pit mouth value of the granite blocks, export details, etc., in the half yearly return in Form-F for every half year ending 30th September and 31st March before the 15th of the following month for the proceeding half year period and the annual return in Form-G before 1st July of each year for the preceding year to the District Collector under the provision under Rule 41 of the Granite Conservation and Development Rules, 1999.
2. As per Rule 31(1) of Granite Conservation and Development Rules, 1999, the over burden, waste stock and non-saleable granites generated during mining

  
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operation for granite shall be stored separately in properly formed dumps on the ground earmarked in the lease hold area. As per clause 1 of Appendix-IV of the Tamil Nadu Minor Mineral Concession Rules, 1959, the mining waste shall be dumped in the lease hold area as specified in each mining plan. Hence, the PP shall submit the revised 'Plan and Sections' duly approved by the competent authority indicating the existence of the dump is within the mine lease area.

3. The proponent shall carry out a survey and enumerate waterbody located within 1km radius and shall submit a comprehensive hydrogeological report covering the impacts on the waterbody and the mitigation measures that will be adopted.
4. The PP shall submit Certified Compliance Report obtained from the office of the concerned DEE/TNPCB (or) IRO, MoEF & CC, Chennai and appropriate mitigating measures for the non-compliance items, if any.

**Agenda No: 394 - 14**

**(File No: 10146/2023)**

**Proposed Rough Stone & Gravel quarry lease area over an extent of Extent 4.63.0 Ha at S.F. No. 289/2 & 290/1A of Karudayampalayam Village, Pugalur Taluk, Karur District, Tamil Nadu by M/s. Ram Blue Metals - For Terms of Reference. (SIA/TN/MIN/431192/2023, Dated: 28.05.2023)**

The proposal was placed in 394<sup>th</sup> SEAC meeting held on 21.07.2023. The details of the project furnished by the proponent are given in the website (parivesh.nic.in).

**The SEAC noted the following:**

1. The Project Proponent, M/s. Ram Blue Metals has applied for Terms of Reference for the Proposed Rough Stone & Gravel quarry lease area over an extent of Extent 4.63.0 Ha at S.F. No. 289/2 & 290/1A of Karudayampalayam Village, Pugalur Taluk, Karur District, Tamil Nadu.
2. The project/activity is covered under Category "B1" of Item 1(a) "Mining of Minerals Projects" of the Schedule to the EIA Notification, 2006.
3. Earlier, the project proponent has obtained EC from DEIAA vide Lr.No.DEIAA/TN/MIN/7341/2017-KKR Ec.No.67/2017/Mines Dated: 14.10.2017 for a period of 5 years. The EC was accorded for a quantity of

  
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1,36,670m<sup>3</sup> of Rough Stone and 67,782 m<sup>3</sup> of Gravel up to a depth of 18m (BGL).

Now, the proposal was placed in the 394<sup>th</sup> Meeting of SEAC held on 21.07.2023. During the presentation, proponent requested to withdraw the proposal. Hence, SEAC decided to recommend to SEIAA to accept the proponent's request to withdraw the proposal.

**Agenda No: 394 - 15**

**(File No: 10152/2023)**

**Proposed Grey Granite quarry lease area over an extent of Extent 3.50.0 Ha at S.F. No. 380/1 (Part) of Chendarapalli Village, Bargur Taluk, Krishnagiri District, Tamil Nadu by M/s. Zak Exports - For Terms of Reference. (SIA/TN/MIN/430120/2023, Dated: 21.05.2023)**

The proposal was placed in 394<sup>th</sup> SEAC meeting held on 21.07.2023. The details of the project furnished by the proponent are given in the website (parivesh.nic.in).

**The SEAC noted the following:**

1. The Project Proponent, M/s. Zak Exports has applied for Terms of Reference for the Proposed Grey Granite quarry lease area over an extent of Extent 3.50.0 Ha at S.F. No. 380/1 (Part) of Chendarapalli Village, Bargur Taluk, Krishnagiri District, Tamil Nadu.
2. The project/activity is covered under Category "B1" of Item 1(a) "Mining of Minerals Projects" of the Schedule to the EIA Notification, 2006.
3. As per mining plan, the lease period is for 20 years. The mining plan is for 5 years & production should not exceed ROM – 54,539m<sup>3</sup>, Granite recovery @ 35% - 19,089m<sup>3</sup> & Granite waste @ 65% - 35,450m<sup>3</sup>. The annual peak production 11,250m<sup>3</sup> of ROM & 3,938m<sup>3</sup> of Granite (@ 35%). The ultimate depth of mining is 39 BGL.

Now, the proposal was placed in the 394<sup>th</sup> Meeting of SEAC held on 21.07.2023. Based on the presentation made by the proponent SEAC recommended grant of **Terms of Reference (TOR) with Public Hearing** as per Annexure I of this minute, subject to the following TORs, in addition to the standard terms of reference for EIA study for non-coal mining projects and details issued by the MOEF & CC to be

  
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included in EIA/EMP Report:

1. The PP shall submit the 'Action Taken' report on appropriate mitigating measures carried out (or) proposed for the non-compliance items on the Certified Compliance Report obtained from the office of the concerned DEE/TNPCB (or) IRO, MoEF & CC, Chennai.
2. The PP shall carry out the scientific studies to assess the slope stability of the existing quarry wall and the working benches to be constructed during the proposed operations, by involving any one of the reputed Research and Academic Institutions - CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg, Surathkal, and Anna University Chennai-CEG Campus. The PP shall submit a copy of the aforesaid report indicating the stability status of the quarry wall and possible mitigation measures during the time of appraisal for obtaining the EC.
3. The PP shall submit a detailed hydrological report indicating the impact of proposed quarrying operations on the waterbodies like lake, water tanks, etc are located within 1 km of the proposed quarry.
4. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.

Agenda No: 394 - 16

(File No: 10158/2023)

Proposed Rough Stone & Gravel quarry lease area over an extent of Extent 4.11.5 Ha at S.F. No. 683/2 (Part) & 686/1 (Part) of Kuppam Village, Pugalur Taluk, Karur District, Tamil Nadu by Thiru. T.Manoj Prabakar - For Terms of Reference.

(SIA/TN/MIN/433804/2023, Dated: 19.06.2023)

The proposal was placed in 394<sup>th</sup> SEAC meeting held on 21.07.2023. The details of the project furnished by the proponent are given in the website (parivesh.nic.in).

The SEAC noted the following:

1. The Project Proponent, Thiru. T. Manoj Prabakar has applied for Terms of Reference for the Proposed Rough Stone & Gravel quarry lease area over an extent of Extent 4.11.5 Ha at S.F. No. 683/2 (Part) & 686/1 (Part) of Kuppam

  
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Village, Pugalur Taluk, Karur District, Tamil Nadu.

2. The project/activity is covered under Category "B1" of Item 1(a) "Mining of Minerals Projects" of the Schedule to the EIA Notification, 2006.
3. As per mining plan, the lease period is for 10 years. The mining plan is for 10 years & production should not exceed 8,21,400m<sup>3</sup> of Rough Stone & 1,73,850m<sup>3</sup> of Gravel. The annual peak production 2,04,400m<sup>3</sup> of Rough Stone & 64,050m<sup>3</sup> of Gravel. The ultimate depth of mining is 45 m BGL.

Now, the proposal was placed in the 394<sup>th</sup> Meeting of SEAC held on 21.07.2023. Based on the presentation made by the proponent SEAC recommended grant of Terms of Reference (TOR) with Public Hearing as per the annexure I of this minute, subject to the following TORs, in addition to the standard terms of reference for EIA study for non-coal mining projects and details issued by the MOEF & CC to be included in EIA/EMP Report:

1. The PP shall submit the 'Action Plan' on the issues raised during the Public Hearing with budgetary provisions for the same.
2. The PP shall study the Traffic Volume of the proposed quarry site considering the cluster situation involving the Division of Transportation Engineering of Department of Civil Engineering, Anna University, Chennai and the report shall stipulate the plan indicating the transportation of the minerals by road not passing through adjacent villages without increasing the carrying capacity of such village roads.
3. The PP shall submit a controlled blasting measures for reducing the impacts due to the blasting operation in the proposed quarries within 1 km of the proposed quarry.
4. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.
5. The PP shall submit a 'Conceptual Mining Plan' indicating the accessible ramp from the surface to the pit bottom keeping the benches intact for the dimension as stipulated in the Approved Mining Plan.

Agenda No: 394 - 17

(File No: 10164/2023)

  
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Proposed Rough Stone quarry lease area over an extent of Extent 2.55.5 Ha at S.F. No. 329/1A, 331/1A, 331/1B, 331/1C, 331/2, 332/1, 332/2 & 332/3 of Kalappanahalli Village, Karimangalam Taluk, Dharmapuri District, Tamil Nadu by Thiru. M. G. Sekar - For Terms of Reference. (SIA/TN/MIN/434247/2023, Dated: 22.06.2023)

The proposal was placed in 394<sup>th</sup> SEAC meeting held on 21.07.2023. The details of the project furnished by the proponent are given in the website (parivesh.nic.in).

The SEAC noted the following:

1. The Project Proponent, Thiru. M. G. Sekar has applied for Terms of Reference for the Proposed Rough Stone quarry lease area over an extent of Extent 2.55.5 Ha at S.F. No. 329/1A, 331/1A, 331/1B, 331/1C, 331/2, 332/1, 332/2 & 332/3 of Kalappanahalli Village, Karimangalam Taluk, Dharmapuri District, Tamil Nadu.
2. The project/activity is covered under Category "B1" of Item 1(a) "Mining of Minerals Projects" of the Schedule to the EIA Notification, 2006.

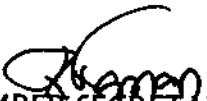
Now, the proposal was placed in the 394<sup>th</sup> Meeting of SEAC held on 21.07.2023. Based on the presentation and document furnished by the proponent, SEAC noted that

1. Many Structures and habitations are existing within the 300m radius from the proposed mine lease area.
2. A Shed is located within 200m radius from the proposed mine lease area.

Hence, this proposal attracts the following legal implications:

- (i) Under the provisions of Tamil Nadu Minor Mineral Concession Rules, 1959, Rule 36 (1-A) (a) says

*".... No lease shall be granted for quarrying stone within 300 meters (three hundred meters) from any inhabited site: Provided that the exiting quarries which are subsisting under current leases shall be entitled for continuance till the expiry of the lease period. The lessees whose quarries lie within a radius of 300 metres from the inhabited site shall undertake blasting operations only after getting permission of the Director of Mines Safety.*

  
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Chennai”.

Similarly, Rule 36 (1-A) (c) also indicates

*“.... No new layout, building plans falling within 300 metres from any quarry should be given approval by any agency unless prior clearance of the Director of Geology and Mining is obtained. On receipt of proposals for according clearance, the Director of Geology and Mining (DGM) shall decide upon the continuance or closure, as the case may be of any quarry which is situated within 300 metres from the now layout, building sought for such ,clearance.... ”.*

In view of the above reasons, the SEAC decided that grant of Environmental Clearance for this proposal will be detrimental to environment and living conditions in this area and consequently decided not to issue ToR to this proposal.

Agenda No: 394-18

(File No.10141/2023)

Proposed construction of IT/ITES Development at Survey Nos. 36/1A1A2, 38/2A1A2, 38/2A1B, 38/2A1C, 38/2A1D, 38/2A1E, 38/2A1F, 47/1C1, 47/1C2 & 47/1C3 of Seevaram Village, Shollinganallur Taluk, Chennai District, Tamil Nadu by M/s. Jananya Realtors Pvt. Ltd. – For Terms of Reference. (SIA/TN/INFRA2/417558/2023, dated:01.06.2023)

The proposal was placed in the 394<sup>th</sup> meeting of SEAC held on 21.07.2023. The details of the project furnished by the proponent are given in the website (parivesh.nic.in).

The SEAC noted the following:

1. The Proponent, M/s. Jananya Realtors Pvt. Ltd. has applied for Terms of Reference for the Proposed construction of IT/ITES Development at Survey Nos. 36/1A1A2, 38/2A1A2, 38/2A1B, 38/2A1C, 38/2A1D, 38/2A1E, 38/2A1F, 47/1C1, 47/1C2 & 47/1C3 of Seevaram Village, Shollinganallur Taluk, Chennai District, Tamil Nadu.
2. The project/activity is covered under Category “B1” of Item 1(a) “Mining of Minerals Projects” of the Schedule to the EIA Notification, 2006.

The proponent vide mail dated.20.07.2023 has informed that they have decided to revise the master plan and resubmit the application and hence requested to reschedule

  
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the proposal after the submission of the revised application. In view of this, the Committee decided to defer the proposal.

**Agenda No: 394-19**

**(File No.10147/2023)**

**Proposed Rough Stone and Gravel Quarry lease over an extent of 4.98.0 Ha (Patta Land) in S.F.No. 273/A3, 273/A4, 273/A5, 273/A2, 273/A6, 274/1 and 274/5 at Karudayampalayam Village, Pugalur Taluk (Erstwhile Aravakurichi Taluk), Karur District, Tamil Nadu by Tvl. Sri Ganeshmurugan Blue Metals – For Terms of Reference. (SIA/TN/MIN/431829/2023, dated:02.06.2023)**

The proposal was placed in the 394<sup>th</sup> meeting of SEAC held on 21.07.2023. The details of the project furnished by the proponent are given in the website (parivesh.nic.in).

**The SEAC noted the following:**

1. The Proponent, Tvl. Sri Ganeshmurugan Blue Metals, has applied for Terms of Reference for the Proposed Rough Stone and Gravel Quarry lease over an extent of 4.98.0 Ha (Patta Land) in S.F.No. 273/A3, 273/A4, 273/A5, 273/A2, 273/A6, 274/1 and 274/5 at Karudayampalayam Village, Pugalur Taluk (Erstwhile Aravakurichi Taluk), Karur District, Tamil Nadu.
2. The project/activity is covered under Category "B1" of Item 1(a) "Mining of Minerals Projects" of the Schedule to the EIA Notification, 2006.
3. Earlier, the project proponent has obtained EC from DEIAA vide DEIAA-DIA/TN/MIN/18673/2018-KRR EC.No.138/2018/Mines. Dated. 02.11.2018 for a period of 5 years from the date of execution of lease deed. The EC was accorded for a quantity of 5,45,860m<sup>3</sup> of rough stone & 45,864m<sup>3</sup> upto the depth of 27m below ground level.

During the presentation, proponent stated that he would like to withdraw the proposal. Hence, SEAC decided to recommend to SEIAA to accept the proponent's request to withdraw the proposal.

**Agenda No: 394-20**

**(File No.10159/2023)**

**Existing Black Granite Quarry lease over an extent of 3.89.5 Ha in S.F.No. 715/3(P), 719/4(P), 721/1, 721/2A(P), 721/2B(P) & 722/1(P) at Irudhukottai Village,**

  
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Denkanikottai Taluk, Krishnagiri District, Tamil Nadu by Thiru.D.Karunanithi – For Terms of Reference. (SIA/TN/MIN/433811/2023, dated:19.06.2023)

The proposal was placed in the 394<sup>th</sup> meeting of SEAC held on 21.07.2023. The details of the project furnished by the proponent are given in the website (parivesh.nic.in).

The SEAC noted the following:

1. The Proponent, Thiru.D.Karunanithi has applied for Terms of Reference for the Existing Black Granite Quarry lease over an extent of 3.89.5 Ha in S.F.No. 715/3(P), 719/4(P), 721/1, 721/2A(P), 721/2B(P) & 722/1(P) at Irudhukottai Village, Denkanikottai Taluk, Krishnagiri District, Tamil Nadu.
2. The project/activity is covered under Category “B1” of Item 1(a) “Mining of Minerals Projects” of the Schedule to the EIA Notification, 2006.
3. Earlier, the project proponent has obtained EC from DEIAA vide Lr.No.12/DEIAA-KGI/ EC.No.10/2017. Dated. 12.10.2017 for a period of 5 years. The EC was accorded for a quantity of 3025m<sup>3</sup> of black granite upto a depth of 14m.

During the presentation, proponent stated that he would like to withdraw the proposal. Hence, SEAC decided to accept the proponent’s request to withdraw the proposal and SEIAA may accordingly take necessary action in accordance with the procedures laid by the MoEF & CC.

Agenda No: 394-21

(File No.10171/2023)

Proposed Rough Stone Quarry lease over an extent of 2.62.0 Ha (Govt. Poramboke Land) in S.F.No. 327/1 (Part) of Gopanapalli Village, Hosur Taluk, Krishnagiri District, Tamil Nadu by M/s. Vijay Blue Metals, – For Terms of Reference. (SIA/TN/MIN/434597/2023, dated:27.06.2023)

The proposal was placed in the 394<sup>th</sup> meeting of SEAC held on 21.07.2023. The details of the project furnished by the proponent are given in the website (parivesh.nic.in).

The SEAC noted the following:

1. The Proponent, M/s. Vijay Blue Metals, has applied for Terms of Reference for the Proposed Rough Stone Quarry lease over an extent of 2.62.0 Ha (Govt.

  
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Poramboke Land) in S.F.No. 327/1 (Part) of Gopanapalli Village, Hosur Taluk, Krishnagiri District, Tamil Nadu.

2. The project/activity is covered under Category "B1" of Item 1(a) "Mining of Minerals Projects" of the Schedule to the EIA Notification, 2006.
3. Earlier, the project proponent has obtained EC from DEIAA vide Lr.No.03/DEIAA-KGI/ EC.No.88/2018. Dated. 27.08.2018 for a period of 5 years. The EC was accorded for a quantity of 12,97,408m<sup>3</sup> of rough stone upto the depth of 85m.
4. Now, based on MoEF&CC O.M dated.24.04.2023, the proponent has submitted the application at SEIAA-TN for re-appraisal of EC granted by DEIAA.

Based on the presentation made by the proponent, SEAC decided to recommend the proposal for Terms of Reference (TOR) with Public Hearing subject to the following additional TORs, in addition to the standard terms of reference for EIA study for non-coal mining projects and details issued by the MOEF & CC to be included in EIA/EMP Report:

1. The proponent shall give an Affidavit before the issuance of ToR from SEIAA-TN stating that the mining operations will remain suspended till they obtain the EC granted by the SEIAA after the reappraisal process as per MoEF & CC OM F.No. IA3-22/11/2023-IA.III (E-208230), dated. 28.04.2023.
2. For the existing quarry, the PP shall obtain a letter from the concerned AD (Mines) which include the following information:
  - i. Original pit dimension of the existing quarry
  - ii. Quantity achieved Vs EC Approved Quantity
  - iii. Balance Quantity as per Mineable Reserve calculated.
  - iv. Mined out Depth as on date Vs EC Permitted depth
  - v. Details of illegal/illicit mining carried out, if any
  - vi. Non-compliance/Violation in the quarry during the past working.
  - vii. Quantity of material mined out outside the mine lease area (or) in the adjacent quarry/land.
  - viii. Existing condition of Safety zone/benches

  
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- ix. Details of any penalties levied on the PP for any violation in the quarry operation
3. The PP shall submit Certified Compliance Report obtained from the office of the concerned DEE/TNPCB (or) IRO, MoEF & CC, Chennai and appropriate mitigating measures for the non-compliance items, if any.
  4. The Project Proponent shall furnish the revised EMP based on the study carried out on impact of the dust & other environmental impacts due to proposed quarrying operations on the nearby agricultural lands for remaining life of the mine in the format prescribed by the SEAC considering the cluster situation.
  5. The Proponent shall revise the Mining Plan / Scheme of Mining duly approved by the competent authority so as to maintain the ultimate depth of quarrying below 50 m.

**Agenda No: 394 - 22**


**(File No: 10130/2023)**

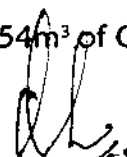
**Proposed Rough stone & Gravel Quarry over an extent of 3.00.36 Ha at SF.No. 1118/1 of Bilichi Village, Coimbatore North Taluk, Coimbatore District, Tamil Nadu by M/s. Sri Rajalakshmi Samappa Building Materials Company - For Terms of Reference. (SIA/TN/MIN/433574/2023, Dt. 16.06.2023)**

The proposal was placed in the 394<sup>th</sup> SEAC Meeting held on 21.07.2023. The details of the project furnished by the proponent are given on the website (parivesh.nic.in).

**The SEAC noted the following:**

1. The Project Proponent, M/s. Sri Rajalakshmi Samappa Building Materials Company has applied for Terms of Reference for the Proposed Rough stone & Gravel Quarry over an extent of 3.00.36Ha at SF.No. 1118/1 of Bilichi Village, Coimbatore North Taluk, Coimbatore District, Tamil Nadu.
2. The project/activity is covered under Category "B1" of Item 1(a) " Mining of mineral of the Schedule to the EIA Notification, 2006.
3. As per the mining plan the lease period is for 10 years. The mining plan is for the period of ten years & the production should not exceed 4,86,300m<sup>3</sup> of rough stone, 67,266m<sup>3</sup> of Weathered rock & 48,672m<sup>3</sup> of Gravel with an ultimate depth of mining is 50m BGL. The annual peak production is 58,750m<sup>3</sup> of rough stone, 16,983m<sup>3</sup> of Weathered rock & 18,954m<sup>3</sup> of Gravel.

  
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Based on the presentation made by the proponent, SEAC decided to recommend for grant of Terms of Reference (TOR) with Public Hearing, subject to the following TORs, in addition to the standard terms of reference for EIA study for non-coal mining projects and details issued by the MOEF & CC to be included in EIA/EMP Report:

1. The PP shall furnish ownership details of all survey numbers in EIA report.
2. The PP shall submit the 'Action Plan' on the issues raised during the Public Hearing with budgetary provisions for the same.
3. The PP shall submit the controlled blasting measures for reducing the impacts due to the blasting operation in the proposed quarries within 1 km of the proposed quarry.
4. The PP shall submit a 'Conceptual Mining Plan' indicating the accessible ramp from the surface to the pit bottom keeping the benches intact for the dimension as stipulated in the Approved Mining Plan.
5. The PP shall submit the nature of buildings/structures, occupants and their profession, etc located within 500 m radius of the proposed quarry.

**Agenda No: 394 - 23**

**(File No: 10148/2023)**

**Proposed Rough stone Quarry over an extent of 1.00.0Ha at SF.No. 59/1A1A (Part) of Thondamanur Village, Thandrapet Taluk, Tiruvannamalai District, Tamil Nadu by Thiru. M. Balamurugan- For Terms of Reference. (SIA/TN/MIN/433690/2023, Dt. 22.06.2023)**

The proposal was placed in the 394<sup>th</sup> SEAC Meeting held on 21.07.2023. The project proponent gave a detailed presentation. The details of the project furnished by the proponent are given on the website (parivesh.nic.in).

**The SEAC noted the following:**

1. The Project Proponent, Thiru. M. Balamurugan has applied for Terms of Reference for the Proposed Rough stone Quarry over an extent of 1.00.0Ha at SF.No. 59/1A1A (Part) of Thondamanur Village, Thandrapet Taluk, Tiruvannamalai District, Tamil Nadu.
2. The project/activity is covered under Category "B1" of Item 1(a) " Mining of mineral of the Schedule to the EIA Notification, 2006.

  
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The SEAC noted that the project proponent has not attended the meeting. Hence the subject was not taken up for discussion and the project proponent shall furnish the reason for his absence.

**Agenda No: 394 - 24**

**(File No: 10166/2023)**

**Proposed Rough stone Quarry over an extent of 3.19.0Ha at SF.No. 378/2B2, 378/2C, 380/4A, 380/4B2 (Part) & 381/2A (Part) of Serugudi Village, Musiri Taluk, Tiruchirappalli District, Tamil Nadu by Thiru. R. Rabeendran - For Terms of Reference.**

**(SIA/TN/MIN/434467/2023, Dt. 28.06.2023)**

The proposal was placed in the 394<sup>th</sup> SEAC Meeting held on 21.07.2023. The details of the project furnished by the proponent are given on the website (parivesh.nic.in).

The SEAC noted the following:

1. The Project Proponent, Thiru. R. Rabeendran has applied for Terms of Reference for the Proposed Rough stone Quarry over an extent of 3.19.0Ha at SF.No. 378/2B2,378/2C,380/4A,380/4B2 (Part) & 381/2A (Part) of Serugudi Village, Musiri Taluk, Tiruchirappalli District, Tamil Nadu.
2. The project/activity is covered under Category "B1" of Item 1(a) " Mining of mineral of the Schedule to the EIA Notification, 2006.
3. As per the mining plan the lease period is for 5 years. The mining plan is for the period of Five years & the production should not exceed 4,09,762m<sup>3</sup> of rough stone & 15,788m<sup>3</sup> of Topsoil with an ultimate depth of mining is 46m BGL.The annual peak production is 84,115m<sup>3</sup> of rough stone & 15,788m<sup>3</sup> of Topsoil.

Based on the presentation made by the proponent, SEAC decided to recommend for grant of Terms of Reference (TOR) with Public Hearing as per annexure I of this minute, subject to the following TORs, in addition to the standard terms of reference for EIA study for non-coal mining projects and details issued by the MOEF & CC to be included in EIA/EMP Report:

1. The PP shall submit (i) a predictive model showing the blast-induced ground vibration level to be maintained as per the DGMS provisions for

  
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the buildings/structures/habitations located within a radial distance of 500 m and (ii) the controlled blast design for the proposed quarry thereby minimizing the impacts due to blasting operation.

2. The PP shall analyze the cumulative pollution load including the crusher on the surrounding environment and the data shall be furnished in EIA report.
3. The PP shall study and explore the technical feasibility & economical implications of installing conveyor belt system such as In-Pit Crushing Conveying (IPCC) Technology in place of the conventional 'Truck' transport system of ROM to the crusher location for ensuring environmental sustainability.
4. The PP shall submit a 'Conceptual Mining Plan and section (layout)' indicating the accessible ramp from the surface to the pit bottom keeping the benches intact for the dimension as stipulated in the Approved Mining Plan.

**Agenda No: 394 - 25**

**(File No: 10172/2023)**

**Proposed Multi-Coloured Granite Quarry over an extent of 4.89.0Ha at SF.No. 74/3A1A, 74/3A1B, 74/3A2, 74/3B, 75/1A, 75/2A1, 75/2A2, 75/2B, 75/3B, 75/3D & 74/2 of Veeriyapalayam Village, Krishnarayapuram Taluk, Karur District, Tamil Nadu by Thiru. E. Dhanapal- For Terms of Reference. (SIA/TN/MIN/434720/2023, Dt. 27.06.2023)**

The proposal was placed in the 394<sup>th</sup> SEAC Meeting held on 21.07.2023. The details of the project furnished by the proponent are given on the website (parivesh.nic.in).

**The SEAC noted the following:**


1. The Project Proponent, Thiru. E. Dhanapal has applied for Terms of Reference for the Proposed Multi-Coloured Granite Quarry over an extent of 4.89.0Ha at SF.No. 74/3A1A, 74/3A1B, 74/3A2, 74/3B, 75/1A, 75/2A1, 75/2A2, 75/2B, 75/3B, 75/3D & 74/2 etc of Veeriyapalayam Village, Krishnarayapuram Taluk, Karur District, Tamil Nadu.
2. The project/activity is covered under Category "B1" of Item 1(a) " Mining of mineral of the Schedule to the EIA Notification, 2006.
3. As per the mining plan the lease period is for 20 years. The mining plan is for

the period of five years & the production should not exceed 70,375m<sup>3</sup> of ROM, 28,150 m<sup>3</sup> of Granite Recovery @40%, 42,225m<sup>3</sup> of Granite Waste @ 60%, 9,698m<sup>3</sup> of Weathered Rock & 5,122m<sup>3</sup> of Topsoil with an ultimate depth of mining is 28m BGL (1m Topsoil + 2m Weathered Rock + 25m Multi Colour Granite). The annual peak production is 15650m<sup>3</sup> of ROM (2<sup>nd</sup> Year), 6,260m<sup>3</sup> of Granite Recovery @40% (2<sup>nd</sup> Year), 9,390m<sup>3</sup> of Granite Waste @ 60% (2<sup>nd</sup> Year), 3,798m<sup>3</sup> of Weathered Rock (1<sup>st</sup> year) & 2,101m<sup>3</sup> of Topsoil (1<sup>st</sup> Year).

Based on the presentation made by the proponent, SEAC decided to recommend for grant of Terms of Reference (TOR) with Public Hearing as per annexure I of this minute, subject to the following TORs, in addition to the standard terms of reference for EIA study for non-coal mining projects and details issued by the MOEF & CC to be included in EIA/EMP Report:

1. The proponent is requested to furnish a letter obtained from the concerned AD (Mines) on the details of existing pit and the last permits for the transportation.
2. The PP shall furnish the modern quarrying technology as proposed and its implications on the surrounding environment including any structures/buildings situated within 500 m from the lease boundary of the quarry.
3. As per Rule 31(1) of Granite Conservation and Development Rules, 1999, the over burden, waste stock and non-saleable granites generated during mining operation for granite shall be stored separately in properly formed dumps on the ground earmarked in the lease hold area. As per clause 1 of Appendix-IV of the Tamil Nadu Minor Mineral Concession Rules, 1959, the mining waste shall be dumped in the lease hold area as specified in each mining plan. Hence, the PP shall indicate the existence of the dump which includes non-saleable granite blocks and mitigation measures for ensuring the stability of the same.

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## ANNEXURE-I

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

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

blasting in the quarrying operations and it can be replaced with non-conventional methods such as noise-controlled rock breakers, usage of non-explosive expansive materials/chemicals. Hydraulic Splitting based on the suitable scientific studies carried out by any reputed scientific and academic institutions.

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

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

1. The proponent shall mandatorily appoint the statutory competent persons and commence the quarry operations within the purview of Mines Act 1952.
2. The proponent shall erect fencing all around the boundary of the proposed area with gates for entry/exit before the commencement of the operation and shall furnish the photographs/map showing the same before obtaining the CTO from TNPCB.
3. Perennial maintenance of haulage road/village / Panchayat Road shall be done by the project proponent as required in connection with the concerned Govt. Authority.
4. The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation. No change in basic mining proposal shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt. in the form of Short-Term Permit (STP), Query license or any other name.
5. Perennial sprinkling arrangement shall be in place on the haulage road for fugitive dust suppression. Fugitive emission measurements should be carried out during the mining operation at regular intervals.
6. The Proponent shall ensure that the noise level is monitored during mining operation at the project site for all the machineries deployed and adequate noise level reduction measures undertaken accordingly.
7. Proper barriers to reduce noise level and dust pollution should be established by providing greenbelt along the boundary of the quarrying site and suitable working methodology to be adopted by considering the wind direction.
8. The purpose of green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in

addition to improving the aesthetics.

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


security guards are to be posted during the entire period of the mining operation.

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

obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility, to comply with the conditions laid down in all other laws for the time-being in force, rests with the project proponent.

22. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.

23. As per the MoEF& CC Office Memorandum E.No. 22-65/2017-IA.III dated: 30.09.2020 and 20.10.2020 the proponent shall adhere EMP furnished.

  
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### ROUGH STONE/JELLY/BLUE METAL QUARRY

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

incorporating the benches & accessible haul road approved by the concerned AD (Mines) for the proposed quarry to the DEE/TNPCB at the time of obtaining the CTO.

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



operation at the project site for all the machineries deployed and adequate noise level reduction measures are undertaken accordingly. The report on the periodic monitoring shall be included in the HYCR.

- 18) Proper barriers to reduce noise level and dust pollution should be established by providing greenbelt along the boundary of the quarrying site and suitable working methodology to be adopted by considering the wind direction.
- 19) The purpose of green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
- 20) Taller/one year old saplings raised in appropriate size of bags (preferably eco-friendly bags) should be planted in proper spacing as per the advice of local forest authorities/botanist/horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner.
- 21) Noise and Vibration Related: (i) Appropriate measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs/muffs, (ii) Noise levels should be monitored regularly (on weekly basis) near the major sources of noise generation within the core zone.
- 22) The PP shall carry out maximum of only one round of controlled blast per day, restricted to the maximum of 30 to 40 number of holes per round with maintaining maximum charge per delay in such a manner that the blast-induced ground vibration level (Peak Particle Velocity) measured in the houses/structures located at a distance of 500 m shall not exceed 2.0 mm/s and no fly rock shall travel beyond 20 m from the site of blasting.

- 23) The PP shall also ensure that the blasting operations are not carried out on a 'day after day' basis and a minimum 24 hours break should be observed between blasting days to reduce the environmental impacts effectively.
- 24) If 'Deep-hole large diameter drilling and blasting' is required, then the PP shall obtain special permission from DGMS.
- 25) The PP shall ensure that the blasting operations shall be carried out during a prescribed time interval with a prior notice to the habitations situated around the proposed quarry after having posted the sentries/guards adequately to confirm the non-exposure of public within the danger zone of 500 m from the boundary of the quarry. The PP shall use the jack hammer drill machine fitted with the dust extractor for the drilling operations such that the fugitive dust is controlled effectively at the source.
- 26) The PP shall ensure that the blasting operations are carried out by the blaster/Mine Mate/Mine Foreman employed by him in accordance with the provisions of MMR 1961 and it shall not be carried out by the persons other than the above statutory personnel.
- 27) The proponent shall undertake in a phased manner restoration, reclamation and rehabilitation of lands affected by the quarrying operations and shall complete this work before the conclusion of such operations as per the Environmental Management Plan & the approved Mine Closure Plan.
- 28) Ground water quality monitoring should be conducted once in every six months and the report should be submitted to TNPCB.
- 29) The operation of the quarry should not affect the agricultural activities & water bodies near the project site and a 50 m safety distance from water body should be maintained without carrying any activity. The proponent shall take appropriate measures for "Silt Management" and prepare a SOP for periodical de-siltation indicating the possible silt content and size in case of any agricultural land exists around the quarry.
- 30) The proponent shall provide sedimentation tank / settling tank with adequate capacity for runoff management.
- 31) The proponent shall ensure that the transportation of the quarried granite

stones shall not cause any hindrance to the Village people/Existing Village Road and shall take adequate safety precautionary measures while the vehicles are passing through the schools / hospital. The Project Proponent shall ensure that the road may not be damaged due to transportation of the quarried granite stones; and transport of granite stones will be as per IRC Guidelines with respect to complying with traffic congestion and density.

32) To ensure safety measures along the boundary of the quarry site, security guards are to be posted during the entire period of the mining operation.

33) The Project Proponent shall comply with the provisions of the Mines Act, 1952, MMR 1961 and Mines Rules 1955 for ensuring safety, health and welfare of the people working in the mines and the surrounding habitants.


34) The project proponent shall ensure that the provisions of the MMDR Act, 1957 & the MCDR 2017 and Tamilnadu Minor Mineral Concession Rules 1959 are complied by carrying out the quarrying operations in a skillful, scientific and systematic manner keeping in view proper safety of the labour, structure and the public and public works located in that vicinity of the quarrying area and in a manner to preserve the environment and ecology of the area.

35) The quarrying activity shall be stopped if the entire quantity indicated in the Mining plan is quarried even before the expiry of the quarry lease period and the same shall be informed to the District AD/DD (Geology and Mining) District Environmental Engineer (TNPCB) and the Director of Mines Safety (DMS), Chennai Region by the proponent without fail.

36) The Project Proponent shall abide by the annual production scheduled specified in the approved mining plan and if any deviation is observed, it will render the Project Proponent liable for legal action in accordance with Environment and Mining Laws.

37) All the conditions imposed by the Assistant/Deputy Director, Geology & Mining, concerned District in the mining plan approval letter and the Precise area communication letter issued by concerned District Collector should be strictly followed.

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


  
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**SPECIAL MITIGATION MEASURES FOR THE QUARRIES LOCATED IN CLOSE PROXIMITY TO THE WINDMILLS**

Sl. No	Existing (or) Virgin Quarry	
	Wind Mills located at a distance of 150 m to 300 m	Wind Mills located beyond 300 m Up to 500 m
1.	Appointment of I/II Class Mines Manager Certificate of Competency under MMR 1961.	Appointment of I/II Class Mines Manager Certificate of Competency under MMR 1961.
2.	Special precautions are to be taken during blasting within danger zone such as posting guards, etc.	Blast design parameters should be mentioned in mining plan/scheme. and may be reviewed by a competent mining engineer.
3.	Blast design parameters should be mentioned in mining plan/scheme.	MCPD and total charge should be fixed such that it should not exceed 1.3 kg and 26.50 kg respectively.
4.	The recommendations of scientific organisation need to be incorporated in the mining plan/scheme before its approval.	Fresh scientific study may be conducted if mine management wants to increase the MCPD and total explosive charge above the quantity of 1.30 kg and 26.50 kg respectively. Continuous monitoring using seismograph should also be done in such cases by the mine management.
5.	Engagement of blasting in-charge having Diploma/Degree in mining engineering for day-to-day blasting.	Engagement of blasting in-charge having Diploma/Degree in mining engineering for day-to-day blasting.
6.	Training of the blasting crew on controlled blasting practices before engaged in operation.	Training of the blasting crew on controlled blasting practices before engaged in operation.
7.	Submission of monthly report on	Submission of monthly report on blast

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

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

1. In the case of existing/operating mines, a letter obtained from the concerned AD (Mines) shall be submitted and it shall include the following:
  - (i) Original pit dimension
  - (ii) Quantity achieved Vs EC Approved Quantity
  - (iii) Balance Quantity as per Mineable Reserve calculated.
  - (iv) Mined out Depth as on date Vs EC Permitted depth
  - (v) Details of illegal/illicit mining
  - (vi) Violation in the quarry during the past working.
  - (vii) Quantity of material mined out outside the mine lease area
  - (viii) Condition of Safety zone/benches
  - (ix) Revised/Modified Mining Plan showing the benches of not exceeding 6 m height and ultimate depth of not exceeding 50m.
2. Details of habitations around the proposed mining area and latest VAO certificate regarding the location of habitations within 300m radius from the periphery of the site.
3. The proponent is requested to carry out a survey and enumerate on the structures located within the radius of (i) 50 m, (ii) 100 m, (iii) 200 m and (iv) 300 m (v) 500m shall be enumerated with details such as dwelling houses with number of occupants, whether it belongs to the owner (or) not, places of worship, industries, factories, sheds, etc with indicating the owner of the building, nature of construction, age of the building, number of residents, their profession and income, etc.
4. The PP shall submit a detailed hydrological report indicating the impact of proposed quarrying operations on the waterbodies like lake, water tanks, etc are located within 1 km of the proposed quarry.
5. The Proponent shall carry out Bio diversity study through reputed Institution and the same shall be included in EIA Report.
6. The DFO letter stating that the proximity distance of Reserve Forests, Protected Areas, Sanctuaries, Tiger reserve etc., up to a radius of 25 km

from the proposed site.

7. In the case of proposed lease in an existing (or old) quarry where the benches are not formed (or) partially formed as per the approved Mining Plan, the Project Proponent (PP) shall the PP shall carry out the scientific studies to assess the slope stability of the working benches to be constructed and existing quarry wall, by involving any one of the reputed Research and Academic Institutions - CSIR-Central Institute of Mining & Fuel Research / Dhanbad, NIRM/Bangalore, Division of Geotechnical Engineering-IIT-Madras, NIT-Dept of Mining Engg. Surathkal, and Anna University Chennai-CEG Campus. The PP shall submit a copy of the aforesaid report indicating the stability status of the quarry wall and possible mitigation measures during the time of appraisal for obtaining the EC.
8. However, in case of the fresh/virgin quarries, the Proponent shall submit a conceptual 'Slope Stability Plan' for the proposed quarry during the appraisal while obtaining the EC, when the depth of the working is extended beyond 30 m below ground level.
9. The PP shall furnish the affidavit stating that the blasting operation in the proposed quarry is carried out by the statutory competent person as per the MMR 1961 such as blaster, mining mate, mine foreman, II/I Class mines manager appointed by the proponent.
10. The PP shall present a conceptual design for carrying out only controlled blasting operation involving line drilling and muffle blasting in the proposed quarry such that the blast-induced ground vibrations are controlled as well as no fly rock travel beyond 30 m from the blast site.
11. The EIA Coordinators shall obtain and furnish the details of quarry/quarries operated by the proponent in the past, either in the same location or elsewhere in the State with video and photographic evidences.
12. If the proponent has already carried out the mining activity in the proposed mining lease area after 15.01.2016, then the proponent shall furnish the following details from AD/DD, mines,



13. What was the period of the operation and stoppage of the earlier mines with last work permit issued by the AD/DD mines?
14. Quantity of minerals mined out.
  - Highest production achieved in any one year
  - Detail of approved depth of mining.
  - Actual depth of the mining achieved earlier.
  - Name of the person already mined in that leases area.
  - If EC and CTO already obtained, the copy of the same shall be submitted.
  - Whether the mining was carried out as per the approved mine plan (or EC if issued) with stipulated benches.
15. All corner coordinates of the mine lease area, superimposed on a High-Resolution Imagery/Topo sheet, topographic sheet, geomorphology, lithology and geology of the mining lease area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
16. The PP shall carry out Drone video survey covering the cluster, green belt, fencing, etc..
17. The proponent shall furnish photographs of adequate fencing, green belt along the periphery including replantation of existing trees & safety distance between the adjacent quarries & water bodies nearby provided as per the approved mining plan.
18. The Project Proponent shall provide the details of mineral reserves and mineable reserves, planned production capacity, proposed working methodology with justifications, the anticipated impacts of the mining operations on the surrounding environment, and the remedial measures for the same.
19. The Project Proponent shall provide the Organization chart indicating the appointment of various statutory officials and other competent persons to be appointed as per the provisions of the Mines Act'1952 and the MMR.

1961 for carrying out the quarrying operations scientifically and systematically in order to ensure safety and to protect the environment.

20. The Project Proponent shall conduct the hydro-geological study considering the contour map of the water table detailing the number of groundwater pumping & open wells, and surface water bodies such as rivers, tanks, canals, ponds, etc. within 1 km (radius) along with the collected water level data for both monsoon and non-monsoon seasons from the PWD / TWAD so as to assess the impacts on the wells due to mining activity. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided.
21. The proponent shall furnish the baseline data for the environmental and ecological parameters with regard to surface water/ground water quality, air quality, soil quality & flora/fauna including traffic/vehicular movement study.
22. The Proponent shall carry out the Cumulative impact study due to mining operations carried out in the quarry specifically with reference to the specific environment in terms of soil health, biodiversity, air pollution, water pollution, climate change and flood control & health impacts. Accordingly, the Environment Management plan should be prepared keeping the concerned quarry and the surrounding habitations in the mind.
23. Rain water harvesting management with recharging details along with water balance (both monsoon & non-monsoon) be submitted.
24. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
25. Details of the land for storage of Overburden/Waste Dumps (Or) Rejects

outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be provided.

26. Proximity to Areas declared as 'Critically Polluted' (or) the Project areas which attracts the court restrictions for mining operations, should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the TNPCB (or) Dept. of Geology and Mining should be secured and furnished to the effect that the proposed mining activities could be considered.
27. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
28. Impact on local transport infrastructure due to the Project should be indicated.
29. A tree survey study shall be carried out (nos., name of the species, age, diameter etc.,) both within the mining lease applied area & 300m buffer zone and its management during mining activity.
30. A detailed mine closure plan for the proposed project shall be included in EIA/EMP report which should be site-specific.
31. As a part of the study of flora and fauna around the vicinity of the proposed site, the EIA coordinator shall strive to educate the local students on the importance of preserving local flora and fauna by involving them in the study, wherever possible.
32. The purpose of Green belt around the project is to capture the fugitive emissions, carbon sequestration and to attenuate the noise generated, in addition to improving the aesthetics. A wide range of indigenous plant species should be planted as given in the appendix-I in consultation with the DFO, State Agriculture University. The plant species with dense/moderate canopy of native origin should be chosen. Species of small/medium/tall trees alternating with shrubs should be planted in a mixed manner.
33. Taller/one year old Saplings raised in appropriate size of bags, preferably

- ecofriendly bags should be planted as per the advice of local forest authorities/botanist/Horticulturist with regard to site specific choices. The proponent shall earmark the greenbelt area with GPS coordinates all along the boundary of the project site with at least 3 meters wide and in between blocks in an organized manner
34. A Disaster management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
  35. A Risk Assessment and management Plan shall be prepared and included in the EIA/EMP Report for the complete life of the proposed quarry (or) till the end of the lease period.
  36. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
  37. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.
  38. The Socio-economic studies should be carried out within a 5 km buffer zone from the mining activity. Measures of socio-economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
  39. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
  40. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.

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

  
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## Annexure II

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

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

9. The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.

10. The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.

1. Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.

2. A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.

3. The project proponent shall install a system to carry out Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g., PM10 and PM25) covering upwind and downwind directions during the construction period.

4. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3-meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.

5. Sand, murram, loose soil, cement, stored on site should be covered adequately so as to prevent dust pollution.


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

7. Unpaved surfaces and loose soil should be adequately sprinkled with water to suppress dust.

8. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly

disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules 2016.

9. The diesel generator sets to be used during construction phase shall be low Sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise mission standards.
10. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
11. For indoor air quality the ventilation provisions as per National Building Code of India.

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1. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rainwater.
  2. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
  3. Total freshwater use shall not exceed the proposed requirement as provided in the project details.
  4. The quantity of freshwater usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with Half Yearly Compliance Reports (HYCR).
  5. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources.



ensuring that there is no impact on other users.

6. At least 20% of the open spaces as required by the local building byelaws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
7. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation car washing, thermal cooling, conditioning etc. shall be done.
8. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
9. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
10. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
11. The local bye-law provisions on rainwater harvesting should be followed. If local byelaw provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rainwater harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.
12. A rainwater harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built-up area and storage capacity of minimum one day of total freshwater requirement shall be provided. In areas where ground water recharging is not feasible, the rainwater should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.
13. All recharges should be limited to shallow aquifer.
14. No ground water shall be used during construction phase of the project.
15. Any ground water dewatering should be properly managed and shall


conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering.

16. The quantity of freshwater usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with Half Yearly Compliance Reports (HYCR).
17. Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening. As proposed, not related water shall be disposed into municipal drain.
18. No sewage or untreated effluent water would be discharged through storm water drains.
19. Onsite sewage treatment of capacity of treating 100% wastewater to be installed. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated wastewater shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged as per statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.
20. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be taken to mitigate the odor problem from STP.
21. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Centre Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

1. Ambient noise levels shall conform to residential area/commercial

area/industrial area/silence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

2. Noise level survey shall be carried out as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of Half Yearly Compliance Report (HYCR).
3. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

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1. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC.
  2. Outdoor and common area lighting shall be LED.
  3. The proponent shall provide solar panels covering a minimum of 50% of terrace area as committed.
  4. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
  5. Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.
  6. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level/ local building byelaws requirement, whichever is higher.

7. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building byelaws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

1. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained.
2. Disposal of muck during construction phase shall not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
3. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.
4. Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed.
5. All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.
6. Any hazardous waste generated during construction phase shall be disposed of as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
7. Use of environmentally friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environmentally friendly materials.

8. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September 1999 and amended from time to time. Ready mixed concrete must be used in building construction.
9. Any wastes from construction and demolition activities related thereto shall be managed to strictly conform to the Construction and Demolition Rules, 2016.
10. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.


1. No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted).
2. A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping.
3. Where the trees need to be cut with prior permission from the concerned local authority, compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree that is cut) shall be done and maintained. Plantations to be ensured species (cut) to species (planted). Area for green belt development shall be provided as per the details provided in the project document.
4. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.
5. A wide range of indigenous plant species should be planted as given in the

Appendix-I, in consultation with the Government Forest/Horticulture Departments and State Agriculture University.

- [REDACTED]
1. A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
    - a. Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
    - b. Traffic calming measures.
    - c. Proper design of entry and exit points.
    - d. Parking norms as per local regulation.
  2. Vehicles hired to bring construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
  3. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.
- [REDACTED]

1. All workers working at the construction site and involved in loading,

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

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1. The PP shall complete the CER activities, as committed, before obtaining CTE.
  2. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of Half Yearly Compliance Report (HYCR).
  3. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.

4. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Half Yearly Compliance Report (HYCR).

1. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in Tamil language within seven days indicating that the project has been accorded environment clearance and the details of MoEFCC/SEIAA website where it is displayed.
2. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn must display the same for 30 days from the date of receipt.
3. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
4. The project proponent shall submit Half Yearly Compliance Reports (HYCR) on the status of the compliance of the stipulated environmental conditions on the website of the Ministry of Environment, Forest and Climate Change at environment clearance portal.
5. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
6. The project proponent shall inform the Authority (SEIAA) of the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of



production operation by the project.

7. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
8. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also during their presentation to the State Expert Appraisal Committee.
9. No further expansion or modifications to the plant shall be carried out without prior approval of the Authority (SEIAA).
10. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
11. The Authority (SEIAA) may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
12. The Authority reserves the right to stipulate additional conditions if found necessary. The Company in a time-bound manner shall implement these conditions.
13. The Regional Office of the MoEF&CC Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
14. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

  
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**Appendix -I**  
**List of Native Trees Suggested for Planting**

No	Scientific Name	Tamil Name	Tamil Name
1	<i>Aegle marmelos</i>	Vilvam	விலவம்
2	<i>Adenaanthera pavonina</i>	Manjadi	மஞ்சள், ஆனைக்குன்றிமணி
3	<i>Albizia lebbek</i>	Vaagai	வாகை
4	<i>Albizia amara</i>	Usil	உசில்
5	<i>Bauhinia purpurea</i>	Mantharai	மந்தாரை
6	<i>Bauhinia racemosa</i>	Aathi	ஆத்தி
7	<i>Bauhinia tomentos</i>	Iruvathi	இருவாத்தி
8	<i>Buchanania axillaris</i>	Kattuma	காட்டுமா
9	<i>Borassus flabellifer</i>	Panai	பனை
10	<i>Butea monosperma</i>	Murukkamaram	முருக்கமரம்
11	<i>Bobax ceiba</i>	Ilavu, Sevvilavu	இலவு
12	<i>Calophyllum inophyllum</i>	Punnai	புனை
13	<i>Cassia fistula</i>	Sarakondrai	சர்க்கொன்றை
14	<i>Cassia roxburghii</i>	Sengondrai	செங்கொன்றை
15	<i>Chloroxylon sweitenia</i>	Purasamaram	பூசு மரம்
16	<i>Cochlospermum religiosum</i>	Kongu, Manjallavu	கோங்கு, மஞ்சள் இலவு
17	<i>Cordia dichotoma</i>	Naruvuli	நருவுளி
18	<i>Creteva adansoni</i>	Mavalingum	மாவிலங்கம்
19	<i>Dillenia indica</i>	Uva, Uzha	உசா
20	<i>Dillenia pentagyna</i>	SiruUva, Sitruzha	சிறு உசா
21	<i>Diospyro sebum</i>	Karungali	கருங்காலி
22	<i>Diospyro schloroxylon</i>	Vaganai	வாகையை
23	<i>Ficus amplissima</i>	Kalltchi	கல் இச்சி
24	<i>Hibiscus tiliaceou</i>	Aatrupoovarasu	ஆற்றாப்பூவரசு
25	<i>Hardwickia binata</i>	Aacha	ஆச்சா
26	<i>Holoptelia integrifolia</i>	Aayili	ஆயில் மரம், ஆயிலி
27	<i>Lannea coromandelica</i>	Odham	ஒதியம்
28	<i>Lagerstroemia speciosa</i>	Poo Marudhu	பூ மருது
29	<i>Lepisanthus tetraphylla</i>	Neikottaimaram	நெய் கொட்டை மரம்
30	<i>Limonia acidissima</i>	Vila maram	விலா மரம்
31	<i>Litsea glutinos</i>	Pisinpattai	அரம்பா. பிசின்பட்டை
32	<i>Madhuca longifolia</i>	Illuppai	இலுப்பை
33	<i>Manilkara hexandra</i>	UlakkaiPaalai	உலக்கை பாலை
34	<i>Mimusops elengi</i>	Magizhamaram	மகிழ்மரம்
35	<i>Mitragyna parvifolia</i>	Kadambu	கடம்பு
36	<i>Morinda pubescens</i>	Nuna	நுணா
37	<i>Morinda citrifolia</i>	Vellai Nuna	வெள்ளை நுணா
38	<i>Phoenix sylvestre</i>	Eachai	எச்சமரம்
39	<i>Pongamia pinnat</i>	Pungam	புங்கம்

40	<i>Premna mollissima</i>	Munnai	முன்னை
41	<i>Premna serratifolia</i>	Narumunnai	நறு முன்னை
42	<i>Premna tomentosa</i>	Malaiipoovarasu	மலை பூவரசு
43	<i>Prosopis cinerea</i>	Vanni maram	வன்னி மரம்
44	<i>Pterocarpus marsupium</i>	Vengai	வேங்கை
45	<i>Pterospermum canescens</i>	Vennangu, Tada	வேண்ணங்கு
46	<i>Pterospermum xylocarpum</i>	Polavu	புலவு
47	<i>Putranjiva roxburghii</i>	Karipala	கறிபாலா
48	<i>Salvadora persica</i>	Ugaa Maram	ஊகா மரம்
49	<i>Sapindus emarginatus</i>	Manipungan, Soapukai	மணிப்புங்கன் சோப்புக்காய்
50	<i>Saraca asoca</i>	Asoca	அசோகா
51	<i>Streblus asper</i>	Piray maram	பிராய் மரம்
52	<i>Strychnos nuxvomica</i>	Yetti	எட்டி
53	<i>Strychnos potatorum</i>	Therthang Kottai	தேத்தன் கோட்டை
54	<i>Syzygium cumini</i>	Navai	நாவல்
55	<i>Terminalia belleric</i>	Thandri	தாந்தி
56	<i>Terminalia arjuna</i>	Ven marudhu	வென் மருது
57	<i>Toona ciliata</i>	Sandhana vembu	சந்தன வேம்பு
58	<i>Thespesia populnea</i>	Puvarasu	பூவரசு
59	<i>Walsuratrifoliata</i>	valsura	வால்குரா
60	<i>Wrightia tinctoria</i>	Veppalai	வேப்பலை
61	<i>Pithecellobium dulce</i>	Kodukkapuli	கொடுக்காப்பூளி

  
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# Appendix -III

## Display Board

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

-----சுரங்கம்

சுரங்கங்களில் சுவாசி செயல்பாடுகளுக்கான கற்றுச்சூழல் அனுமதி கிழகம் துத்தளங்களுக்கு உட்பட்டு வழங்கப்பட்டுள்ளது SEAW, தேதி: \_\_\_\_\_, கற்றுச்சூழல் அனுமதி \_\_\_\_\_ தேதி வரை செல்லத்தக்கதாக உள்ளது.

பகலம் பகுதி வளர்ச்சி மேம்பாட்டுக்கான சுரங்கத் திட்டம்	சுவாசியின் எல்லைகளைக் கற்றி வேலி அமைக்க வேண்டும்.
நடப்பட்டு பராமரிக்கப்பட வேண்டிய மரங்கள் எண்ணிக்கை:	சுரங்கப்பாறைகளின் ஆழம் தளமாட்டத்திலிருந்து மீட்டர்க்கு மிகாமல் இருக்க வேண்டும். சுரத்தில் மரம் ஏற்படாதவாறு சுரங்க பணிகளை மேற்கொள்ள வேண்டும். வாகனங்கள் செல்லும் பாதையில் மரம் ஏற்படாத அளவிற்கு தண்ணீரை முறைப்பாக தண்ணீர் வளிகளின் மூலமாக அவ்வப்போது தெளிக்க வேண்டும். இனதர்சன அமைவதும் தரவி மரங்களைப் பதும் சுவாசியின் எல்லைகளை கற்றி அடத்தியான பகலம் பகுதியை ஏற்படுத்த வேண்டும்.
சுரங்கத்தில் வெடி வைக்கும்பொழுது நிலத்திலுள்ள ஏற்படாதவாறும் மற்றும் சுரங்க பறக்காதவரும் பாதுகாப்பு நடவடிக்கைகளை உண்டிப்பாக செயல்படுத்தப்பட வேண்டும்.	
சுரங்கத்தில் இருந்து ஏற்படும் இனதர்சன அல்லது BS செபிபஸ் (BSA) அளவிற்கு மேல் ஏற்படாதவாறு தகுந்த கட்டுப்பாடுகளை மேற் கொள்ள வேண்டும்.	
சுரங்க எட்ட விதிகள் 1988ன் கீழ் சுரங்கத்தில் உண் பணியாளர்களுக்கு தகுந்த பாதுகாப்பு கருவிகள் வழங்குவதோடு கைதாழ்முள்ள வழிப்பாடு வசதிகளை செய்து தர வேண்டும்.	
கிராமம் அல்லது பஞ்சாயத்து வழியாக வாகனங்கள் செல்லும் சாலைகளை தெரித்து தரவு பராமரிக்க வேண்டும்.	
சுரங்கப்பணிகளை அருகில் உள்ள விவசாயப் பணிகள் மற்றும் தீர்தினைகள் பாதிக்கப்படக் கூடாது.	
நீர்தினைகள் பாதிக்கப்படாமல் இருப்பதை உறுதி செய்தும் வாகனம் நிலத்தடி நீரின் தரத்தினை தெரித்து கைதாழ்முள்ள வேண்டும்.	
சுரங்கத்திலிருந்து கவிட பொருட்களை எடுத்துச் செல்வது கிராம மக்களுக்கு எந்தத் தீர்ப்புமில்லாமல் ஏற்படுத்தாதவாறு பாதுகாப்புகளும் மற்றும் சுற்றுதூய்மை பாதிக்கவாத வகைகள் வாகனங்களை இயக்க வேண்டும்.	
சுரங்கப்பணிகள் முடிக்கப்பட்டவுடன் சுரங்க மூடல் திட்டத்தில் உண்வாறு சுரங்கத்தினை மூட வேண்டும்.	
சுரங்க நடவடிக்கைகளை முடித்தபின்னர் சுரங்கப் பகுதி மற்றும் சுரங்க நடவடிக்கைகளை இடைபுது ஏற்படக்கூடிய வேறு எந்தப் பகுதியையும் மறுகட்டுமானம் செய்து தரவழங்கல் விவங்குகள் ஆகியவற்றின் வளர்ச்சிக்கு ஏற்ற வகையில் பகலம்பகுதியை உருவாக்க வேண்டும்.	
முழுமையான துத்தளங்களை அறிவ பாதிவேலி ( <a href="http://parivallin.in">http://parivallin.in</a> ) என்சிற இணையதளத்தைப் பார்க்கவெடும் மேதும் எந்தவித கற்றுச்சூழல் சாத்த புரங்களுக்கு சென்னைபில் உண் கற்றுச்சூழல் மற்றும் வன அமைச்சத்தின் ஒருங்கிணைந்த வட்டார அலுவலகம்: 044 - 28223325 (அல்லது) தமிழ்நாடு மாக கட்டுப்பாடு வாரியத்தின் மாவட்ட கற்றுச்சூழல் பொறிபாணை அலுவலகம்.	

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