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File No.: J-11011/380/2017-IA-II(I)
Government of India
Ministry of Environment, Forest and Climate Change
IA Division



Dated 18/07/2024



To,

Santosh S Melligeri
mellbro sugars private limited
M/s. Mellbro Sugars Pvt. Ltd., Melligeri Complex, Kaladagi Road, Bagalkot - 587101, Shirur Village,
BAGALKOTE, KARNATAKA, 587101
mellbro@rediffmail.com

Subject: Grant of Standard Terms of Reference (ToR) to the proposed Project under the EIA Notification 2006-and as amended thereof-regarding.

Sir/Madam,

This is in reference to your application submitted to MoEF&CC vide proposal number IA/KA/IND2/482471/2024 dated 21/06/2024 for grant of Terms of Reference (ToR) to the project under the provision of the EIA Notification 2006-and as amended thereof.

2. The particulars of the proposal are as below :

(i) ToR Identification No.	TO24A2501KA5530439N
(ii) File No.	J-11011/380/2017-IA-II(I)
(iii) Clearance Type	Fresh ToR
(iv) Category	A
(v) Project/Activity Included Schedule No.	5(g) Distilleries,5(j) Sugar Industry
(vi) Sector	Industrial Projects - 2 Expansion of sugarcane crushing capacity from 5000 TCD to 15000 TCD to produce sugarcane syrup/Crystal sugar, Cogeneration plant of 30 MW and Expansion of distillery from 200 KLPD to 500 KLPD with multi feedstock (Sugar syrup/B / C - Heavy Molasses/ Grain) to produce Ethanol/ENA and Captive power plant from 7.5 MW to 13 MW by M/s. Mellbro Sugars Pvt. Ltd.
(vii) Name of Project	mellbro sugars private limited
(viii) Name of Company/Organization	BAGALKOTE, KARNATAKA
(ix) Location of Project (District, State)	MoEF&CC
(x) Issuing Authority	NO
(xi) Applicability of General Conditions	

3. The **MoEF&CC** has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and after detailed examination hereby decided to grant Standard Terms of Reference to the instant proposal of **M/s.mellbro sugars private limited** under the provisions of the aforementioned Notification.
4. Standard Terms of Reference are annexed to this letter as Annexure (1). The brief about products and by-products as submitted by the Project proponent in Form-1 (Part A, B) are annexed to this letter as Annexure (2).
5. As per SO S.O. 751(E) dated 17th February, 2020 the validity of ToR shall be four years. The Ministry reserves the right to stipulate additional TORs, if found necessary.
6. The Standard Terms of Reference (ToR) to the aforementioned project is under provisions of EIA Notification, 2006 and as amended thereof. It does not tantamount to approvals/consent/permissions etc required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.
7. The granted letter, all the documents submitted as a part of application viz. Form-1 Part A and Part B are available on PARIVESH portal which can be accessed by scanning the QR Code above.

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N/A

Annexure 1

Standard Terms of Reference for conducting Environment Impact Assessment Study for Distilleries and information to be included in EIA/EMP report

1. Executive Summary

Sr. No.	Terms of Reference
1.1	Executive Summary

2. Introduction

Sr. No.	Terms of Reference
2.1	Details of the EIA Consultant including NABET accreditation
2.2	Information about the project proponent

3. Project Description

Sr. No.	Terms of Reference
3.1	Cost of project and time of completion.
3.2	Products with capacities for the proposed project.If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
3.3	List of raw materials required and their source along with mode of transportation.

Sr. No.	Terms of Reference
3.4	Other chemicals and materials required with quantities and storage capacities
3.5	Details of Emission, effluents, hazardous waste generation and their management. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
3.6	Process description along with major equipments and machineries, process flow sheet (quantitative) from raw material to products to be provided.
3.7	Hazard identification and details of proposed safety systems.
3.8	<p>Expansion/modernization proposals:</p> <p>a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 08th June, 2022 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, status of compliance of Consent to Operate for the ongoing /existing operation of the project from SPCB shall be attached with the EIA-EMP report.</p> <p>b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.</p>

4. Site Details

Sr. No.	Terms of Reference
4.1	Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.
4.2	A toposheet of the study area of radius of 10 km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)
4.3	Co-ordinates (lat-long) of all four corners of the site. Google map-Earth downloaded of the project site. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
4.4	Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
4.5	Land use break-up of total land of the project site (identified and acquired), government/ private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area).
4.6	A list of major industries with name and type within study area (10km radius) shall be incorporated.

Sr. No.	Terms of Reference
4.7	Details of Drainage of the project up to 5km 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.
4.8	Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.
4.9	R&R details in respect of land in line with state Government policy.

5. Forest and wildlife related issues (if applicable):

Sr. No.	Terms of Reference
5.1	Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable)
5.2	Land use map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (in case of projects involving forest land more than 40 ha).
5.3	Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
5.4	The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon
5.5	Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area
5.6	Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife.

6. Environmental Status

Sr. No.	Terms of Reference
6.1	Determination of atmospheric inversion level at the project site and site-specific micrometeorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
6.2	AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
6.3	Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with - min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.

Sr. No.	Terms of Reference
6.4	Surface water quality of nearby River (100m upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.
6.5	Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC, if yes give details.
6.6	Ground water monitoring at minimum at 8 locations shall be included.
6.7	Noise levels monitoring at 8 locations within the study area.
6.8	Soil Characteristic as per CPCB guidelines.
6.9	Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc. Impact due to increased traffic shall be assessed and incorporated in environmental management plan. Buffer zone of 50.0 m from centre of state highway shall be maintained.
6.10	Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule- I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.
6.11	Socio-economic status of the study area.

7. Impact and Environment Management Plan

Sr. No.	Terms of Reference
7.1	Assessment of ground level concentration of pollutants from the stack emission based on site specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modeling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed. Details of the model used and the input data used for modeling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.
7.2	Water Quality modeling - in case of discharge in water body
7.3	Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor cum- rail transport shall be examined.
7.4	A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
7.5	Details of stack emission and action plan for control of emissions to meet standards.
7.6	Measures for fugitive emission control

Sr. No.	Terms of Reference
7.7	Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
7.8	Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
7.9	Action plan for the green belt development plan in 33 % area i.e., land with not less than 2,500 trees per ha. mentioning details of species, width of plantation, planning schedule, density of the plantation etc. shall be included. At least 20 varieties of species shall be proposed as part of greenbelt. No invasive or alien or non-native tree species shall be selected for plantation. The green belt shall be around the project periphery and a scheme for greening of the roads used for the project shall also be incorporated.
7.10	Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources. Industry shall construct a rain water storage pond and the accumulated water to be used as fresh water thereby reducing fresh water consumption. Dimensions of rain water storage pond/tank proposed shall be given.

8. Occupational health

Sr. No.	Terms of Reference
8.1	Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers.
8.2	Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analyzed data of above mentioned parameters as per age, sex, duration of exposure and department wise.
8.3	Details of existing Occupational & Safety Hazards. What are the exposure levels of hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved.
8.4	Annual report of health status of workers with special reference to Occupational Health and Safety.

9. Corporate Environment Policy

Sr. No.	Terms of Reference
9.1	Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
9.2	Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.

Sr. No.	Terms of Reference
9.3	What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
9.4	Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report.

10. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.

11. Enterprise Social Committment (ESC)

Sr. No.	Terms of Reference
11.1	As per Ministry's OM No. 22-65/2017-IA.III dated 30.09.2020 PP shall address Public Hearing issues and submit item-wise details along with time bound action plan which shall be included in the Environmental Management Plan in lieu of Corporate Environment Responsibility. Socio-economic development activities need to be elaborated upon.
11.2	Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details there of and compliance/ATR to the notice(s) and present status of the case.
11.3	A tabular chart with index for point wise compliance of above TOR.

12. Specific Conditions

Sr. No.	Terms of Reference
12.1	List of existing distillery units in the study area along with their capacity and sourcing of raw material.
12.2	Number of working days of the distillery unit.
12.3	Details of raw materials such as molasses/grains, their source with availability.
12.4	Details of the use of steam from the boiler.
12.5	Surface and Ground water quality around proposed spent wash storage lagoon, and compost yard.
12.6	Plan to reduce spent wash generation within 6-8 KL/KL of alcohol produced.
12.7	Proposed Effluent treatment system for molasses/grain based distillery (spent wash, spent lees, condensate and utilities) as well as domestic sewage and scheme for achieving zero water conservation.
12.8	Proposed action to restrict fresh water consumption within 10 KL/KL of alcohol production.
12.9	Details about capacity of spent wash holding tank, material used, design consideration. No. of peizometers

Sr. No.	Terms of Reference
	to be proposed around spent wash holding tank.
12.10	Details of solid waste management including management of boiler ash, yeast, etc. Details of incinerated spent wash ash generation and its disposal.
12.11	Details of bio-composting yard (if applicable).
12.12	Action plan to control odour pollution.
12.13	Arrangements for installation of continuous online monitoring system (24x7 monitoring device)
12.14	Industry shall utilize treated effluent from the sugar unit in the distillery instead of using fresh water in order to reduce fresh water requirement in the distillery unit. Provision of ETP for treating distillery effluent and CPU for sugar unit shall be made. Filter press shall be provided for sludge management.

Standard Terms of Reference for conducting Environment Impact Assessment Study for Sugar Industry and information to be included in EIA/EMP report

1. Environmental Status

Sr. No.	Terms of Reference
1.1	iii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with - min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.

2. Specific Conditions

Sr. No.	Terms of Reference
2.1	Complete process flow diagram describing each unit, its processes and operations in production of sugar, along with material and energy inputs and outputs (material and energy balance).
2.2	Details on water balance including quantity of effluent generated, recycled & reused. Efforts to minimize effluent discharge and to maintain quality of receiving water body.
2.3	Details of effluent treatment plant, inlet and treated water quality with specific efficiency of each treatment unit in reduction in respect to fall concerned / regulated environmental parameters.
2.4	Number of working days of the sugar production unit.
2.5	Details of proposed source-specific pollution control schemes and equipments to meet the

Sr. No.	Terms of Reference
	national standards.
2.6	Collection, storage, handling and transportation of molasses.
2.7	Collection, storage and handling of bagasse and press mud.
2.8	Fly ash management plan for coal based and bagasse and action plan
2.9	Details on water quality parameters such as Temperature, Colour, pH, BOD, COD, Total Kjeldhal Nitrogen, Phosphates, Oil & Grease, Total Suspended Solids, Total Coli form bacteria etc.
2.10	Details on existing ambient air quality and expected, stack and fugitive emissions for PM10, PM2.5, SO ₂ *, NO _x *, etc., and evaluation of the adequacy of the proposed pollution control devices to meet standards for point sources and to meet AAQ standards. (*-As applicable)

Additional Terms of Reference

1. Risk assessment study shall be carried out of hazardous chemical storage. Location of alcohol bulk storage tanks shall be placed in such a way that in the event of any fire, accident, explosion or any unforeseen conditions the impact of such event should not go beyond the boundary of the plant i.e., the risk should be tolerable (acceptable) at the boundary.
2. The industry shall determine the distance of fire hydrant while finalizing its location from ethanol storage tanks or any other hazardous storage substance shall be based on dispersion of Thermal Radiation so that during any unforeseen situation fire hydrant is always available to operate manually.
3. Total Freshwater requirement during off-season shall not exceed 4 kL per kL of alcohol produced which will be met from groundwater for non-crushing season. During the Sugar crushing season, entire treated water from the Sugar unit shall be utilized in the Distillery, reducing the freshwater demand to zero. No groundwater recharge shall be permitted within the premises.
4. Air-cooled condensers shall be provided with sugar unit. PP shall provide the details of the source for feedstock i.e., sugarcane juice/ molasses and also provide the availability of sufficient feedstock for operating the proposed plant.
5. EIA/EMP report shall include details such as (i) Details of advertisements for the Public Hearing (ii) Copy of forwarding letter of SPCB to MoEF&CC (iii) Legible copy of public hearing proceedings duly signed by the presiding officer (iv) Attendance sheets (v) Action plan to address the issues raised during public along with budget allocation and timeline. (vi) Copy of written grievances/submissions if any. If the Public Hearing is in the regional language, an authenticated English Translation of the same should be provided from SPCB.

Annexure 2

Details of Products & By-products

Name of the product /By-product	Product / By-product	Existing	Proposed	Total	Unit	Mode of Transport / Transmission	Remarks (eg. CAS number)
Sugarcane crushing	Product	5000	10000	15000	Tons Crushed per Day (TCD)	Road	NA
Cogen power	Product	30	0	30	Mega Watt (MW)	Transmission lines	NA
ENA/Ethanol	Product	200	300	500	Kilo Litre per Day (KLD)	Road	500 KLPD ENA/ Ethanol i.e. 500 Ethanol or 300 ENA & 200 Ethanol) (B/C heavy molasses, sugarcane syrup and Grain)

