



सत्यमेव जयते

File No.: J-11011/215/2010-IA-II(I)
Government of India
Ministry of Environment, Forest and Climate Change
IA Division



Dated 21/07/2023



To,

SUDARSAN M S
M/s. MANGALORE REFINERY AND PETROCHEMICALS LTD
KUTHETHOOR P.O, VIA KATIPALLA, , Kuthethoor, DAKSHINA KANNADA, KARNATAKA,
NEAR SURATKAL, 575030
mrplmlr@mrpl.co.in

Subject: **BIO-ATF project located at Mangalore, Dakshin Kannada District, Karnataka by M/s. Mangalore Refinery and Petrochemicals Ltd. (MRPL) - Amendment of Terms of Reference reg.**

Sir/Madam,

This is in reference to your application submitted to Ministry vide proposal number IA/KA/IND2/425214/2023 dated 12/06/2023 for grant of an amendment in prior 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.	TO23A1201KA5505437A
(ii) File No.	J-11011/215/2010-IA-II(I)
(iii) Clearance Type	Amendment in ToR
(iv) Category	A
(v) Schedule No./ Project Activity	4(a) Petroleum refining industry
(vi) Sector	Industrial Projects - 2
(vii) Name of Project	Bio-ATF Project at MRPL
(ix) Location of Project (District, State)	DAKSHINA KANNADA, KARNATAKA
(x) Issuing Authority	MoEF&CC
(xi) ToR Date	12/07/2023
(xii) Applicability of General Conditions	No

1.The Ministry of Environment, Forest and Climate Change has considered the above proposal for amendment in Terms of Reference (ToR) granted by the Ministry vide F. No. IA-J-11011/215/2010-IA-II(I) dated 15.03.2023 for the project – 20 klpd BIO-ATF project located at Mangalore, Dakshin Kannada District, Karnataka by M/s. Mangalore Refinery and Petrochemicals Ltd. (MRPL).

2.The project proponent has submitted application for amendment in ToR with request to exempt the proposed project from EIA/Public hearing. PP has submitted the following justifications/reasons in support of the said request:

- MRPL intends to set up a 20 KL/day Bio-ATF plant based on technology developed by CSIR- Indian Institute of Petroleum (CSIR-IIP) and Engineers India Ltd (EIL) as demonstration of technology in its refinery premises at Mangalore. Upon the advice of MoPNG, MRPL has taken the initiative to set up the unit to demonstrate the technology which will lead the path to decrease the import cost burden of country for SAF. This technology converts Used Cooking Oil (UCO), non-edible Tree Borne Oils (TBO) like Pongamia or Jatropha oil etc., and residual products of palm oil processing - palm stearin and palm oil fatty acid distillate (PFAD) to Bio-ATF product also known as sustainable aviation fuel (SAF) as first such installation of the indigenous technology in the country.
- The technology is known as Hydrocracking of Esters of Fatty Acid (HEFA) single stage process. The feed (UCO/TBO/Palm Stearin/PFAD) is de-oxygenated, selectively cracked and isomerized over a single catalyst to produce Bio ATF. The product meets BIS spec IS 17081:2019. This standard would enable the oil companies to manufacture bio-jet fuel for the Indian aviation industry. Further, the other byproduct is Green Diesel which meets the specification EN 15940 – related to the specification for cleaner transport fuels. Given the advent of Carbon Offsetting and Reduction Scheme for International Aviation (CORSA) by the International Civil Aviation Organization (ICAO) by 2027, this is a significant development which could reduce the carbon emissions and help India become a green fuel production hub.
- As per the extant provisions of EIA Notification, 2006, any process units covered under the item 4(a), 5(b), 5(c), 5(e) and 5(f) of the schedule of the EIA notification 2006 (amended from time to time) attract the provisions of EIA Notification 2006 requiring prior EC. In this regard, it is submitted that the raw material for the manufacturing of Bio ATF is used cooking oil and/or tree born oils but not crude oil or any hydrocarbon originated from crude oil. Hence the item 4 (a) is not applicable. On similar grounds, it can be seen that other related items in the schedule, namely 5 (c), 5(e), or 5(f) are also not applicable.
- It may kindly be noted that Bio ATF or SAF with feedstock as UCO or TBO doesn't fall under other developmental activities listed in the EIA Notification i.e., Technical Guidance Manuals coverage in respect of petrochemicals, petrochemical based products, or synthetic organic chemicals.
- Therefore, the proposed Bio ATF Demonstration plant using HEFA process of converting UCO or TBO or palm stearin or PFAD to Sustainable Aviation Fuel (also called as Bio ATF) used cooking oil is not covered under the provisions of EIA notification 2006.
- In addition, being a demo plant, the scale of production is very low, 20 KLPD Bio ATF which is less than 1% of a typical refinery process unit capacity in MRPL (for comparison MRPL's mineral ATF production is about 6000 KLPD). The demonstration unit is estimated to have low environmental impact potential – as there is no fired heater, or extra utility capacity requirement. Further, we also submit that as the project is being envisaged to be set up within the existing premises of the refinery area for which prior EC has already been obtained, it shall be ensured that inclusion of the said demo plant shall not result in increase in the production level of the project beyond the sanctioned capacity stated in the prior EC.

3.The proposal was considered by the EAC in its meeting held during 27th June, 2023 in the Ministry. During deliberations, EAC noted that since the raw material for the manufacturing of Bio ATF is used cooking oil and/or tree born oils but not crude oil or any hydrocarbon originated from crude oil, the said activity does not attract any process units covered under the item 4(a), 5(b), 5(c), 5(e) and 5(f) of the schedule of the EIA notification 2006. Therefore, the committee recommended the following:

- (a) To revoke the existing TOR issued vide letter no. J-11011/215/2010-IA-II(I) dated 15.03.2023.
- (b) Proposed pilot project namely establishment of 20 klpd BIO-ATF project located at Mangalore, Dakshin Kannada District, Karnataka by M/s. Mangalore Refinery and Petrochemicals Ltd. (MRPL) may be exempted from environmental clearance. However, PP shall obtain consent to establish and consent to operate under air and water Acts from SPCB

4. Based on recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby

accords approval on the following:

(a) The existing TOR issued vide letter no. J-11011/215/2010-IA-II(I) dated 15.03.2023 is revoked.

(b) Proposed pilot project namely establishment of 20 klpd BIO-ATF project located at Mangalore, Dakshin Kannada District, Karnataka by M/s. Mangalore Refinery and Petrochemicals Ltd. (MRPL) is exempted from environmental clearance. However, PP shall obtain consent to establish and consent to operate under air and water Acts from SPCB.

(c) This approval has been accorded as per OM 22-17/2019-IA.III[121076] dated 01.09.2022. However, it may need further examination for commercial scale operation for EC requirement or non-requirement once the technology is fully developed.

5.This issues with approval of the competent authority.

Annexure 2

Annexure 1

Copy To

1. The Secretary, Department of Forest, Environment & Ecology, Government of Karnataka, Room No. 708, Gate 2, Multi Storey Building, Dr. Ambedkar Veedhi, Bangalore - 1
2. The Regional Officer, Ministry of Env., Forest and Climate Change, Integrated Regional Office, Kendriya Sadan, 4th Floor, E&F Wings, 17th Main Road, Koramangala II Block, Bangalore - 34
3. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex East Arjun Nagar, Delhi - 32
4. The Member Secretary, Karnataka State Pollution Control Board, Parisara Bhavan, #49, 4th& 5th Floor, Church Street, Bangalore -1
5. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi
6. The District Collector, District Dakshin Kannada, Karnataka
7. Guard File/Monitoring File/Parivesh portal/Record File