

F. No. J-11011/47/2016-IA-II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

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New Delhi -110 003

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Dated: 10th July, 2017

To

The DGM
(Shri M.S. Sudarsan)
M/s Mangalore Refinery and Petrochemicals Limited
Kuthethoor (PO), Via Katipalla,
Mangalore, Karnataka- 575 030

Sub: BS V/VI Auto fuel Quality Compliance & Associated projects at MRPL, Mangalore, Karnataka by M/s Mangalore Refinery and Petrochemicals Limited – Environmental Clearance– reg.

Ref: Online Proposal No. IA/KA/IND2/39753/2016 dated 07th April, 2017.

Sir,

This has reference to your online proposal no. IA/KA/IND2/39753/2016 dated 07th April, 2017, along with project documents including Form I, Terms of References, Pre-feasibility Report and EIA/EMP Report with public hearing report regarding the above mentioned project.

2. The Ministry of Environment, Forest and Climate Change has examined the application. It is noted that the proposal is for BS V/VI Auto fuel Quality Compliance & Associated projects at MRPL, Mangalore, Karnataka by M/s Mangalore Refinery and Petrochemicals Limited. As informed and as per the documents submitted by the Project Proponent (PP), existing land area is 1592 acre. 20 acre of land in the existing refinery complex will be used for the proposed project. Industry will develop greenbelt in an area of 33% i.e., 525 acre out of 1592 acre area of the project. Industry will undertake compensatory afforestation, in case the land is not available for green belt development at existing industry premises. The estimated project cost is Rs 1810 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs 356 Crore and the Recurring cost (operation and maintenance) will be about Rs10 Crore per annum. Total employment will be around 40 persons as direct and around 30 persons as indirect after the expansion. Industry proposes to allocate Rs.91 Crore (@ 5 % of Rs. 1810 Crore) towards Corporate/Environment Social Responsibility. It is reported that, no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife



Corridors etc. lies within 10 km distance from the project site. Gurupura River is flowing at a distance of 2 km in South-West direction.

3. All Petroleum Refining Industry Projects are listed at S.N. 4(a) of Schedule of Environmental Impact Assessment (EIA) Notification under Category 'A' and is appraised at Central Level by Expert Appraisal Committee (EAC).

4. The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 5th meeting held during 25-26th February, 2016 & 12th meeting held during 23-24 August, 2016 and recommended Terms of References (TORs) for the project. The TOR has been issued by Ministry vide letter dated 19.04.2016 and amended on 14.12.2016.

5. The EAC (Industry-2) in its 22nd meeting held during 17-18th April, 2017 has considered the proposal for environmental clearance (EC). The Project Proponent and the accredited consultant M/s National Environmental and Engineering Research Institute, Nagpur gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken, as per the Terms of References (TORs).

6. Ministry had issued Environmental Clearance (EC) earlier vide letter no. J-11011/215/2010-IA II (I), dated 1st November, 2011 for Expansion by adding Polypropylene Manufacturing Unit (440000 TPA) to M/s. Mangalore Refinery and Petrochemicals Limited. The PP has submitted the certified compliance report from the Regional office Bangalore for the existing EC.

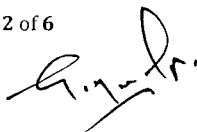
7. Public hearing for the proposed project has been conducted by the Karnataka State Pollution Control Board on 27.02.2017. Issues raised during the public hearing are related to employment, development in villages etc. The committee noted that the PP has addressed the issues raised in the public hearing in the EIA/EMP report.

8. It is reported that, with the implementation of BS VI Auto Fuel Quality Compliance and Associated Projects Facilities, MRPL will be able to achieve the following:

- (i) Conversion of the existing BS IV quality Motor Spirit (MS) and High Speed Diesel (HSD) entirely into BS VI quality MS and HSD.
- (ii) Production of BS VI quality 1.2 MMTPA MS and 7 MMTPA HSD, with all other products remaining the same as earlier.

9. The details of existing and proposed product list are

Existing Product list	Proposed Product list (Product list post BS VI Project)
Motor Spirit-BS IV	Motor Spirit-BS VI (1.2 MMTPA)
Diesel-BS IV	Diesel-BS VI (7 MMTPA)
Polypropylene	Polypropylene
LPG	LPG
Naphtha	Naphtha
Kerosene	Kerosene
ATF	ATF
Fuel Oil	Fuel Oil



Bitumen	Bitumen
Sulphur	Sulphur
Xylols + Aromatics	Xylols + Aromatics
Pet Coke	Pet Coke

10. Total water requirement for BS VI Project is estimated to be 85 m³/hr and will be met from Treated Municipal Sewage water. Treated effluent of 7 m³/hr will be treated through existing effluent treatment plant.

11. Power requirement after expansion will be 180 MW including existing 150 MW and will be met from existing Captive Power Plants and import from Mangalore Electricity Supply Company Limited (MESCOM). Existing unit has 8DG sets of 13.65 MW capacity which are used as standby during power failure. Additionally, no new DG set is envisaged.

12. Existing unit has 2230 TPH of steam generation capacity. No new fired boiler will be installed.

13. Ambient air quality monitoring was carried out at 11 locations during March 2016 to May 2016 and the baseline data indicates the ranges of concentrations as: PM₁₀ (53 to 73 µg/m³), PM_{2.5}(22 to 31 µg/m³), SO₂ (7 to 13 µg/m³) and NO₂ (12 to 15 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 9 µg/m³, 3 µg/m³ with respect to SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

14. The Solid waste/Hazardous waste generation and its management for proposed project are as below:

S. No.	Source	Estimated Generation(MT)	Category of Waste	Method of Disposal
1.	FCC gasoline hydrodesulphurization Unit spent catalyst	16/yr	Sch.1, Sl. No. 4.2	Will be given to KSPCB/CPCB authorized/Registered re-processors/recyclers
2.	SRU spent catalyst	9.4/yr	Sch.1, Sl. No. 4.2	Will be given to KSPCB/CPCB authorized/Registered co-processors/recyclers

15. The CRZ clearance from Karnataka SCZMA has been obtained vide no. FEE 323 CRZ 2016 dated 03.04.2017. KSCZMA has noted that as per para (4)(ii)(d) of the CRZ notification, 2011, it is a permissible activity and opined that a separate CRZ clearance may not be required since MRPL is laying the pipeline in the existing MSEZL pipeline corridor for which clearance has been issued.

16. The EAC, in its 22nd meeting held during 17-18th April, 2017, has found that the final EIA/EMP report submitted by the PP is adequate. The EAC after detailed deliberations, on

the basis of the information and presentation made by the PP, has recommended the project for environmental clearance with certain conditions.

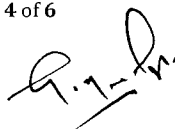
17. Based on the proposal and information submitted by the Project Proponent, and considering the recommendation of the Expert Appraisal Committee (Industry-2), the Ministry of Environment, Forest and Climate Change hereby accords Environmental Clearance to the above project under the provisions of EIA Notification dated 14th September 2006, subject to the compliance of the following Specific and General Conditions:

A. Specific Conditions:

- i. Green belt of atleast 10 m width shall be planted (with trees like Kadamba etc.) along the periphery of the unit.
- ii. Atleast 30 % of the area of the unit area shall be developed as green area with native tree species.
- iii. PP shall undertake tree plantation in village and the Biological Park (flowering/fruit bearing plants). 1000 trees/year for five years shall be planted and maintained.
- iv. As proposed, 5 % of the total amount shall be earmarked for Enterprises Social Commitment. Solar panel, LED light, Drinking water with RO facilities shall be provided to the proposed ten villages.
- v. PP shall explore the possibility of spent clay remediation.
- vi. PP shall reduce the noise level and odour due to the project from the proposed level.
- vii. The by-products which fall under the purview of the Hazardous Waste Rules, be handled as per the provisions of the said Rules and necessary permissions shall be obtained under the said rules.
- viii. Environment Management Cell with well-equipped laboratories shall be setup in the unit. A regular environment manager having post graduate qualification in environmental sciences/ environmental engineering to be appointed for looking after the environmental management activities of the proposed plant.

B. General Conditions:

- i. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Boards, State Governments and any other statutory authority.
- ii. No further expansion or modifications in the pipeline shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- iii. The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one stations is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.




- iv. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
- v. 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. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- vi. Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.
- vii. The company shall also comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management and risk mitigation measures relating to the project shall be implemented.
- viii. The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. ESC activities shall be undertaken by involving local villages and administration.
- ix. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- x. A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.
- xi. The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.
- xii. A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
- xiii. The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
- xiv. The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of




compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.

- xv. The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry at <http://moef.nic.in>. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
- xvi. The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
18. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
19. The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions.
20. The above conditions will be enforced, *inter alia* under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Water Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules.


(Yogendra Pal Singh)
Scientist 'D'

Copy to:-

1. The Secretary, Department of Forest, Environment & Ecology, Government of Karnataka, Room No. 708, Gate 2, Multi Storied Building, Dr. Ambedkar Veedhi, Bangalore - 560 001.
2. The Additional Principal Chief Conservator of Forests (C), Ministry of Environment, Forest and Climate Change Regional Office (SZ), Kendriya Sadan, 4th Floor, E&F Wings, 17th Main Road, Koramangala II Block, Bangalore - 560034.
3. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex East Arjun Nagar, Delhi - 110 032.
4. The Chairman, Karnataka State Pollution Control Board, "Parisara Bhavan", #49, 4th & 5th Floor, Church Street, Bangalore-560001.
5. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhavan, Jor Bhag, New Delhi- 110 003.
6. Guard File/Monitoring File/Website/Record File.


(Yogendra Pal Singh)
Scientist 'D'