F. No. J-11011/98/2016-IA-II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

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Dated: 20th March, 2017

To,

The General Manager (I/C)
(Mr. C.J. Iyer)
M/s Bharat Petroleum Corporation Ltd.
Mumbai Refinery
Mahul, Mumbai - 400 074
Maharashtra

Sub: Installation of Gasoline Hydro Treatment Unit (GTU) (0.9 MMTPA) and associated facilities to produce 100% BS-VI MS in existing Mumbai Refinery at village Anik, Mahul, Tehsil Kurla, Mumbai, Maharashtra by M/s Bharat Petroleum Corporation Ltd. (BPCL) Mumbai Refinery – Environmental Clearance – reg.

Ref: Online Proposal No. IA/MH/IND2/51174/2016 dated 22nd October, 2016.

Sir,

This has reference to your online proposal no. IA/MH/IND2/51174/2016 dated 22nd October, 2016, along with project documents including Form I, Terms of References, Pre-feasibility Report and EIA/EMP 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 Installation of Gasoline Hydro Treatment Unit (GTU) and associated facilities to produce 100% BS-VI MS in existing Mumbai Refinery at village Anik, Mahul, Tehsil Kurla, Mumbai, Maharashtra by M/s Bharat Petroleum Corporation Ltd (BPCL) Mumbai Refinery. As informed and as per the documents submitted by the Project Proponent (PP), BPCL's Mumbai Refinery is situated in Mahul, Mumbai in an area of 454 acres. Gasoline Hydro Treatment Unit (GTU) will be installed within the existing refinery. The cost of the project is Rs. 554 Crore. It is reported that no national park/wildlife sanctuary/tiger reserve/elephant reserve/ turtle nesting ground is present within 10 Km radius of the project site. The total capacity of GTU is 0.9 MMTPA. MS production with and without GTU is:

S. No.	MS Production	Before GTU MMTPA	Post GTU MMTPA
1	BS-IV	1.2	0.0
2	BS-VI MS	1.1	2.3
3	Total MS	2.3	2.3

3. All the Petroleum Refining Industry are listed at 4(a) of the Schedule of EIA Notification, 2006 under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

4. The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 8th meeting held during 26th – 27th May, 2016 and awarded Terms of Reference (TOR), for preparation of EIA-EMP report. The TOR was issued vide Ministry's letter dated 15th July, 2016.

5. The project proposal was again considered by the Expert Appraisal Committee (Industry -2) in its 15th meeting held on 10th November, 2016 and 17th meeting held during 26th- 29th December, 2016. The Project Proponent and the accredited consultant M/s Engineers India Limited, gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken, as per Terms of References (TORs) awarded in the 8th meeting of the EAC held during 26th – 27th May, 2016.

6. Public Hearing for the proposed project has been exempted as per para 7(ii) of EIA, Notification 2006.

7. The PP has obtained Environmental Clearance (EC) for the existing unit vide letter no. J-11011/582/2011-IA.II (I) dated 07/06/2013; J-11011/140/2012-IA.II (I) dated 12/06/2013; J-11011/270/2013-IA.II (I) dated 08/08/2014 and J-11011/21/2013-IA.II (I) dated 13/08/2015. Ministry's Regional Office at Bhopal has submitted letter No. 5-35/2014(ENV)/543 dated 12.06.2015 regarding the certified compliance report.

8. The PP has informed the EAC that the ambient air quality (AAQ) monitoring was carried out at 5 locations during March, 2016 - June, 2016. The baseline data indicates the ranges of concentrations as:- PM_{10} (42.8 μg/m^3 to 78.1 μg/m^3), $PM_{2.5}$ (12.2 μg/m^3 to 29.1 μg/m^3), SO_2 (4.5 μg/m^3 to 10.9 ug/m^3) NOx (11.1 μg/m^3 to 26.6 μg/m^3), CO (0.39 mg/m^3 to 1.83 mg/m^3) and MHC (0.44 μg/m^3 -0.9 μg/m^3), Benzene (1.2 μg/m^3 -5.41 μg/m^3) and ozone (1.5 μg/m^3 - 19.3 μg/m^3). The predicted value of ground level concentrations are within the National Ambient Air Quality Standards (NAAQS).

9. Power requirement for the proposed project will be 3 MW, which will be sourced from existing gas turbines. Net steam requirement will be 35 MTPD and will be met from the existing steam generation system. Fuel requirement will be 57 MT/day of RLNG of the refinery complex will be met by Low Sulphur Fuel Oil and the fuel gas systems. Existing water requirement is 16500 m^3/day. As per the revised water balance submitted by the PP, the water consumption has been reduced from 16500 m^3/day to 15950 m^3/day. No additional water will be required. About 300 m^3/hr of cooling water blow down will be discharged into sea.

10. The spent catalyst will be sold or recycled as per existing practices. All statutory rules/guidelines of MoEF/CPCB will be complied prior to recycle, reclamation or sale of spent catalyst. There is no additional generation of crude tank bottom sludge or any oily sludge, as the existing storage and offsite facilities will be used.

11. It is informed that the Comprehensive Memorandum of Understanding (MOU) was signed on 24th October, 2014 between M/s Rashtriya Chemicals and Fertilizers Limited

(RCF) and M/s Bharat Petroleum Corporation Ltd (BPCL) for "supply of treated water from proposed Sewage Treatment Plant (STP) at RCF Trombay to BPCL" on 24th October, 2014.

12. The EAC, in its 17th meeting held on 26th - 29th December, 2016 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.

13. 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. M/s BPCL shall comply with new standards/norms for Oil Refinery Industry notified under the Environment (Protection) Rules, 1986 vide G.S.R. 186(E) dated 18th March, 2008.
ii. Compliance to all the environmental conditions stipulated in the environmental clearance letter no. J J-11011/582/2011-IA II (I) dated 07.06.2013, letter no. J-11011/140/2012-IA II (I) dated 12.06.2013, letter no. J-11011/270/2013-IA II.(I) dated 08.08.2014 and letter no. J-11011/21/2013-IA II (I) dated 13.08.2015 shall be satisfactorily implemented and compliance reports shall be submitted to the Ministry's Regional Office.
iii. Continuous on-line stack monitoring for SO_2, NOx and CO of all the stacks shall be carried out. Low NOx burners shall be installed.
iv. 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. Besides, acoustic enclosure/silencer shall be installed wherever noise levels exceed the limit.
v. Fresh water requirement from MCGM shall not exceed 15950 m^3/day after expansion and prior permission shall be obtained from the competent authority. About 300 m^3/hr of cooling water blow down will be discharged into sea.
vi. Comprehensive water audit to be conducted on annual basis and report to the concerned Regional Office of MEF&CC. Outcome from the report to be implemented for conservation scheme.
vii. Automatic/online monitoring system (24 x 7 monitoring devices) for flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB, Regional Office of MoEF&CC and in the Company's website.
viii. The Company should strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 *as* amended in October, 1994 and January, 2000. Hazardous waste should be disposed of as per Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 and amended time to time.
ix. Acoustic enclosure /silencer shall be installed wherever it is possible.

x. Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.

xi. Green belt over 33% area should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

xii. The company should make the arrangement for protection of possible fire and explosion hazards during construction and operation phase. To prevent fire and explosion at oil and gas facility, potential ignition sources shall be kept to a minimum and adequate separation distance between potential ignition sources and flammable materials shall be in place.

xiii. All the recommendations mentioned in the rapid risk assessment report, disaster management plan and safety guidelines shall be implemented.

xiv. At least 2 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured accordingly in a time bound manner.

xv. Zero Liquid Discharge shall be ensured.

B. General Conditions:

i. The project authorities must strictly adhere to the stipulations made by the Maharashtra Pollution Control Board, State Government and any other statutory authority.

ii. No further expansion or modifications in the plant 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. The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and use the same water for the process activities of the project to conserve fresh water.

vii. 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.

viii. 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.

ix. The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CSR activities shall be undertaken by involving local villages and administration.

x. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.

xi. A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

xii. 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.

xiii. 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.

xiv. 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.

xv. 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.

xvi. 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.

xvii. 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.

14. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

15. The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions.

16. The above conditions will be enforced, *inter alia* under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention &. Control of 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.

20.3.2017

(Yogendra Pal Singh)
Scientist 'D'

Copy to:-

1. The Secretary, Environment Department, Government of Maharashtra, 15th Floor, New Administrative Building, Mantralaya, Mumbai - 400 032.
2. The Additional Principal Chief Conservator of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (WCZ), Ground Floor, East Wing, New Secretariat Building, Civil Line, Nagpur - 440001.
3. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex East Arjun Nagar, Delhi - 110 032.
4. The Chairman, Maharashtra Pollution Control Board, Kalpataru Point, 3rd and 4th floor, Opp. Cine Planet, Sion Circle, Mumbai-400 022.
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.

20.3.2017

(Yogendra Pal Singh)
Scientist 'D'