

MAHARASHTRA POLLUTION CONTROL BOARD

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Mumbai - 400 022

Consent order No :- *Formate1.0/ BO/CAC-Cell/ EIC No MU-7070-16 /15th CAC/ 5497*
Date- *27/04/2016*

To,
M/s Bharat Petroleum Corporation Ltd
Refinery, Mahul,
Mumbai - 74

Subject: Consent to establish for conversion of catalytic reforming unit (CRU) to Isomerisation unit and Revamp of existing Naptha Hydro Desulphurisation unit (NHDS) under RED category.

Ref : 1. Existing Consent granted vide no. Formate1.0/BO/AST/EIC NoMU-6070-14/22nd CAC/12566 dated 30.12.2014 which is valid upto 31.08.2016

2. Your application approved in CAC meeting held on 09.03.2016.

Your application: CE16020000397

Dated:29.06.2015

For: Consent to establish for conversion of catalytic reforming unit (CRU) to Isomerisation unit and Revamp of existing Naptha Hydro Desulphurisation unit (NHDS).

under Section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization under Rule 5 of the Hazardous Wastes (M, H & T M) Rules 2008 is considered and the consent is hereby granted subject to the following terms and conditions and as detailed in the schedule I, II, III & IV annexed to this order:

1. The consent is granted for a period up to Commissioning of the unit or Five years whichever is earlier.
2. The proposed capital investment of the industry is Rs.725 Crs. (As per Undertaking submitted by industry).The total capital investment of the industry is Rs 6582 crs + Rs 725 crs = Rs 7307.42 crs
3. The Consent is valid for the manufacture of -

Sr. No.	Product Name	Maximum Quantity in MT/D
1	Gas	49
2	LPG	43
3	Food grade Hexane	150
4	Isomerate	1640
	Total	1882

The total Euro IV MS generated after conversion of catalytic reforming unit (CRU) to Isomerisation unit and Revamp of existing Naptha Hydro Desulphurisation unit (NHDS) shall be 2.3 MMTPA from 0.9 MMTPA.

4. Conditions under Water (P&CP), 1974 Act for discharge of effluent:

Sr. no.	Description	Permitted quantity of discharge (CMD)	Standards to be achieved	Disposal
1.	Trade effluent	Nil	NA	NA

2.	Domestic effluent	Nil	NA	NA
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5. Conditions under Air (P& CP) Act, 1981 for air emissions:

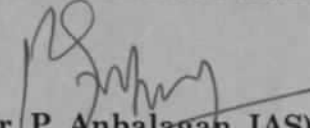
Sr. no.	Description of stack / source	Number of Stack	Standards to be achieved
1.	NHDS/ISOM	1	As per Schedule -II

6. Conditions under Hazardous Waste (MH & TM) Rules, 2008 for treatment and disposal of hazardous waste:

Sr. No.	Type Of Waste	Category	Quantity	UOM	Treatment	Disposal
1	Spent Catalyst	4.2	91	MT in 3-5 years based on the life cycle	—	Sale to authorized reprocessors or CHWTSDF
2	Platinum	Schedule II B5, B6				

- The Board reserves the right to review, amend, suspend, revoke etc. this consent and the same shall be binding on the industry.
- This consent should not be construed as exemption from obtaining necessary NOC/permission from any other Government authorities.
- Industry shall comply the Consent to Establish and Environmental Clearance conditions granted vide ref no F.No. J-11011/270/2013-IA II(I) dated 08.08.2014 and shall submit BG of Rs 10 lakhs towards the compliance of the same.

For and on behalf of the
Maharashtra Pollution Control Board


(Dr. P. Anbalagan, IAS)
Member Secretary

Received Consent fee of-

Sr. No.	Amount(Rs.)	DD. No.	Date	Drawn On
1	1450000	533059	05.05.2015	SBI Bank

Copy to:

- Regional Officer -Mumbai and Sub-Regional Officer-Mumbai MPCB, 3: They are directed to ensure the compliance of the consent conditions.
- Chief Accounts Officer, MPCB, Mumbai.
- CC/CAC desk- for record & website updation purposes.

Schedule-I is not applicable

Schedule-II

Terms & conditions for compliance of Air Pollution Control:

1. As per your application, you have provided the Air pollution control (APC) system and also erected following stacks and to observe the following fuel pattern-

Sr. No.	Stack Attached To	APC System	Height in Mtrs.	Type of Fuel	Quantity & UoM	S %	SO ₂ Kg/Day
1	NHDS/ISOM	Low Nox, low noise burners	97	REF FUEL GAS	2417 Kg/Hr	Nil	Refer Sr. No 3

2. The Applicant shall provide Specific Air Pollution control equipments as per the conditions of EP Act, 1986 and rule made there under from time to time / Environmental Clearance / CREP guidelines.
3. The applicant shall operate and maintain above mentioned air pollution control system, so as to achieve the level of pollutants to the following standards:

Particulate matter	Not to exceed	100 mg/Nm ³ .
SO ₂	Not to exceed	1700 mg/Nm ³
NO _x	Not to exceed	450 mg/Nm ³
CO	Not to exceed	200 mg/Nm ³
H ₂ S in fuel	Not to exceed	150 mg/Nm ³
Nickel and Vanadium (Ni + V)	Not to exceed	5 mg/Nm ³
Sulphur content in liquid fuel, weight%	Not to exceed	1 %

4. Storage of Volatile Liquids : General Petroleum Products

(1) Storage tanks with capacity between 4 to 75m³ and total vapour Pressure (TVP) of more than 10 kpa should have Fixed Roof Tank (FRT) with pressure valve vent.

(2) Storage tank with the capacity between 75 to 500 m³ and total vapour Pressure (TVP) of 10 to 76 kpa should have Internal Floating Root Tank (IFRT) of External Floating Root Tank (EFRT) or Fixed Roof Tank with vapour control or vapour balancing system.

(3) Storage tanks with the capacity of more than 500 m³ and total vapour Pressure (TVP) of 10 to 76 kpa should have Internal Floating Roof Tank or External Floating Roof Tank or Fixed Roof Tank with vapour control system.

(4) The tanks with the capacity of more than 75 m³ and total vapour Pressure (TVP) of more than 76 kpa should have Fixed Root Tank with vapour control system.

(5) Requirement for seals in Floating Roof Tanks:

- (i) (a) IFRT and EFRT shall be provided with double seals with minimum vapour recovery of 96%.
- (b) Primary seal shall be liquid or shoe mounted for EFRT and vapour mounted for IFRT. Maximum seal gap width will be 4 cm and maximum gap area will be 200 cm²/m of tank diameter. (c) Secondary seal shall be rim mounted. Maximum seal gap width will be 1.3 cm and maximum gap area will be 20 cm²/m of tank diameter. (d) Material of seal and construction shall ensure high performance and durability.
- (ii) Fixed Roof Tanks shall have vapour control efficiency of 95% and vapour balancing efficiency of 90%
- (iii) Inspection and maintenance of storage tanks shall be carried out under strict control. For the inspection, API RP 575 may be adopted, In-service inspection with regard seal gap should be carried out once in every six months and repair to be implemented in short time. In future, possibility of on-stream repair of both seals shall be examined.

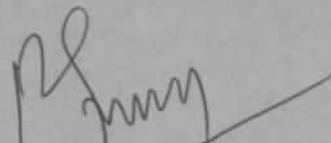
5. Solvents for Lube-Base Oil production (Furfural, NMP, MEK, Toluene and MIBK)

IFRT with double seals and inert gas blanketing with vapour removal efficiency of at least 97% shall be provided.

Emission control for Road tank truck/Rail tank wagon loading		
Loading of Volatile Products	Gasoline and Naphtha:	
	(i) VOC reduction, %	(i) 99.5
	(ii) Emission, gm/m ³	(ii) 5
	Benzene:	
	(i) VOC reduction, %	(i) 99.99
	(ii) Emission, mg/m ³	(ii) 20
	Toluene/Xylene:	
	(i) VOC reduction, %	(i) 99.98
	(ii) Emission, mg/m ³	(ii) 150
Note:		
(i) It shall be applicable for Gasoline, Naphtha, Benzene, Toluene and Xylene loading.		
(ii) Road tank Truck shall have Bottom loading and Roll tank wagon shall have Top submerged loading.		
(iii) Annual leak testing for vapour collection shall be done.		

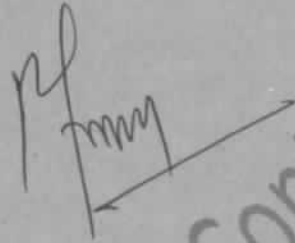
6. The Applicant shall obtain necessary prior permission for providing additional control equipment with necessary specifications and operation thereof or alteration or replacement/alteration well before its life come to an end or erection of new pollution control equipment.
7. The Board reserves its rights to vary all or any of the condition in the consent, if due to any technological improvement or otherwise such variation (including the change of any control equipment, other in whole or in part is necessary).

Maharashtra Pollution Control Board



Schedule-III
Details of Bank Guarantees

Sr. No.	Consent (C to E/O/R)	Amt of BG Imposed	Submission Period	Purpose of BG	Compliance Period	Validity Date
1	C to E	10 lakhs	Within 15 days from the date of issue of consent	Industry shall comply the Consent to Establish and Environmental Clearance conditions granted vide ref no F.No. J-11011/270/2013-IA II(I) dated 08.08.2014	30.04.2021	30.08.2021



Maharashtra Pollution Control Board

Schedule-IV

General Conditions:

- 1) The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous waste to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.
- 2) Industry shall monitor effluent quantity, stack emissions and ambient air quantity monthly.
- 3) The applicant shall provide ports in the chimney/(s) and facilities such as ladder, platform etc. for monitoring the air emissions and the same shall be open for inspection to/and for use of the Board's Staff. The chimney(s) vents attached to various sources of emission shall be designated by numbers such as S-1, S-2, etc. and these shall be painted/ displayed to facilitate identification.
- 4) Whenever due to any accident or other unforeseen act or even, such emissions occur or is apprehended to occur in excess of standards laid down, such information shall be forthwith Reported to Board, concerned Police Station, office of Directorate of Health Services, Department of Explosives, Inspectorate of Factories and Local Body. In case of failure of pollution control equipments, the production process connected to it shall be stopped.
- 5) The applicant shall provide an alternate electric power source sufficient to operate all pollution control facilities installed to maintain compliance with the terms and conditions of the consent. In the absence, the applicant shall stop, reduce or otherwise, control production to abide by terms and conditions of this consent.
- 6) The firm shall submit to this office, the 30th day of September every year , the Environmental Statement Report for the financial year ending 31st March in the prescribed Form-V as per the provisions of rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992.
- 7) The industry shall recycle/reprocess/reuse/recover Hazardous Waste as per the provision contain in the HW(MH&TM) Rules 2008, which can be recycled/processed/reused/recovered and only waste which has to be incinerated shall go to incineration and waste which can be used for land filling and cannot be recycled/reprocessed etc should go for that purpose, in order to reduce load on incineration and landfill site/environment.
- 8) The industry should comply with the Hazardous Waste (M,H & TM) Rules, 2008 and submit the Annual Returns as per Rule 5(6) & 22(2) of Hazardous Waste (M,H & TM) Rules, 2008 for the preceding year April to March in Form-IV by 30th June of every year.
- 9) An inspection book shall be opened and made available to the Board's officers during their visit to the applicant.
- 10) The applicant shall make an application for renewal of the consent at least 60 days before the date of the expiry of the consent.
- 11) Industry shall strictly comply with the Water (P&CP) Act, 1974, Air (P&CP) Act, 1981 and Environmental Protection Act, 1986 and industry specific standard under EP Rules 1986 which are available on MPCB website(www.mpcb.gov.in).
- 12) The industry should comply with the Hazardous Waste (M, H & TM) Rules, 2008 and submit the Annual Returns as per Rule 5(6) & 22(2) of Hazardous Wastes (M,H &TM) Rules, 2008 for the preceding year April to March in Form-IV by 30th June of every year.
- 13) The industry shall constitute an Environmental cell with qualified staff/personnel/agency to see the day to day compliance of consent condition towards Environment Protection.
- 14) Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of the collection system with arrangement for measuring the flow. No effluent shall be admitted in the pipes/sewers downstream of the terminal manholes. No effluent shall find its way other than in designed and provided collection system.

- 15) Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the factory.
- 16) The applicant shall install a separate meter showing the consumption of energy for operation of domestic and industrial effluent treatment plants and air pollution control system. A register showing consumption of chemicals used for treatment shall be maintained.
- 17) The industry should not cause any nuisance in surrounding area.
- 18) The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standard in respect of noise to less than 75 dB (A) during day time and 70 dB (A) during night time. Day time is reckoned in between 6 a.m. and 10 p.m. and night time is reckoned between 10 p.m. and 6 a.m.
- 19) The applicant shall maintain good housekeeping.
- 20) The applicant shall bring minimum 33% of the available open land under green coverage/ plantation. The applicant shall submit a yearly statement by 30th September every year on available open plot area, number of trees surviving as on 31st March of the year and number of trees planted by September end.
- 21) The non-hazardous solid waste arising in the factory premises, sweepings, etc. be disposed of scientifically so as not to cause any nuisance / pollution. The applicant shall take necessary permissions from civic authorities for disposal of solid waste.
- 22) The applicant shall not change or alter the quantity, quality, the rate of discharge, temperature or the mode of the effluent/emissions or hazardous wastes or control equipments provided for without previous written permission of the Board. The industry will not carry out any activity, for which this consent has not been granted/without prior consent of the Board.
- 23) The industry should monitor major stack emissions once a quarter and ambient air quality regularly.
- 24) The industry shall ensure that fugitive emissions from the activity are controlled so as to maintain clean and safe environment in and around the factory premises. Fugitive emission survey shall be done twice in a year (one for monitoring and other for checking after repair of leaks)
- 25) The industry shall submit official e-mail address and any change will be duly informed to the MPCB.
- 26) The industry shall achieve the National Ambient Air Quality standards prescribed vide Government of India, Notification dtd. 16.11.2009 as amended.
- 27) The applicant shall operate three continuous automatic ambient air and micrometeorological monitoring station at location indicated by State Board to be set up and operate at its own cost measure SO₂, NO_x and particulate matter. These CAAQMS shall also have necessary provision of networking to the Air Quality Monitoring network of MPCB.