

MAHARASHTRA POLLUTION CONTROL BOARD

Phone : 4010437/4020781
/4037124/4035273
Fax : 24044532/4024068 /4023516
Email : enquiry@mpcb.gov.in
Visit At : <http://mpcb.gov.in>



Kalpataru Point, 3rd & 4th floor, Sion- Matunga
Scheme Road No. 8, Opp. Cine Planet Cinema, Near
Sion Circle, Sion (E),
Mumbai - 400 022

Red/L.S.I

Date: 27/04/2012

Consent No: Bo/JDCPams/20-Mu/EIC No-MU-3356-11/R/CAC-412

Consent to Operate 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 / Renewal of Authorization under Rule 5 of the Hazardous Wastes (Management, Handling & Transboundary Movement) Rules 2008

[To be referred as Water Act, Air Act and HW (M&H) Rules respectively].

CONSENT is hereby granted to

M/s. Bharat Petroleum Corporation Ltd.
Refinery, Mahul, Mumbai.

located in the area declared under the provisions of the Water Act, Air act and Authorization under the provisions of HW(M&H) Rules and amendments thereto subject to the provisions of the Act and the Rules and the Orders that may be made further and subject to the following terms and conditions:

1. The Consent to Operate is granted for a period up to: 30/04/2013.
2. The Consent is valid for the manufacture of -

Sr. No.	Product Name	Maximum Quantity MT/Day
1	Liquified Petroleum Gas, Poly propylene feedstock	1617
2	Benzene, Toluene/Xytol	350
3	Special Naphtha (SBP55/115 Deg. C) Hexane (FGH 64/69 Deg. C), Motor Spirit Euro II/ Euro III/ Euro IV/MTBE/ Naphtha	7225
4	Superior Kerosene, Mineral Turpentine Oil, Aviation Turbine Fuel	5217
5	High Speed Diesel 0.05% wt S, High Speed Diesel 0.035% wt.S & 0.005 % wt S, Light Diesel Oil	13538
6	HS Furnace Oil, Low Sulphur Heavy Stock, Bitumen, Sulphur	6021
7	Lube Oil Base Stock	680

3. CONDITIONS UNDER WATER ACT:

- (i) The daily quantity of trade effluent including sea cooling water blow down from the factory should not exceed **146319.00M³**.

(In case of emergency, (once through circulation) should not exceed **458186 M³**.)

- (ii) The daily quantity of sewage effluent from the factory shall not exceed **235.00M³**.

(iii) Quality of sea cooling water outlet / discharge to sea:

1. Ph Between 6.0 to 8.5
2. Oil & Grease Not to exceed 20 mg/l

*Oil & grease not to exceed 5 mg/lit in sea cooling water outlet MOC outfall after new oil recovery system installed within a period of one year as per the letter submitted by industry vide their letter No. TA/PC/GEN-2 dated 16/4/2009.

Quantum calculation for sea water at outlet to be done regularly.

(iii) Trade Effluent :

Treatment: The applicant shall provide comprehensive treatment system consisting of primary / secondary and/or tertiary treatment as is warranted with reference to influent quality and operate and maintain the same continuously so as to achieve the quality of the treated effluent to the following standards:

S. No.	Parameter		Limiting value for concentration (mg/l, except for pH)
1	pH	Not to exceed	6.0 – 8.5
	Suspended solids	Not to exceed	20
	BOD _{3 days, 27° C}	Not to exceed	15
	COD	Not to exceed	125
2	Oil & Grease	Not to exceed	5
6	Phenols	Not to exceed	0.35
7	Sulphides	Not to exceed	0.5
8	CN	Not to exceed	0.2
9	Ammonia as N	Not to exceed	15
10	TKN	Not to exceed	40
11	P	Not to exceed	3
12	Cr (Hexavalent)	Not to exceed	0.1
13	Cr (Total)	Not to exceed	2.0
14	Pb	Not to exceed	0.1
15	Hg	Not to exceed	0.01
16	Zn	Not to exceed	5.0
17	Ni	Not to exceed	1.0
18	Cu	Not to exceed	1.0
19	V	Not to exceed	0.2
20	Benzene	Not to exceed	0.1
21	Benzo(a)-pyrene	Not to exceed	0.2

Notes:

1. Concentration limits shall be complied with at the outlet discharging effluent (excluding discharge from sea water cooling systems) to receiving environment (surface water bodies, marine systems or public sewers). In case of reuse of treated effluent directly for irrigation/horticulture purposes (within the premises of refinery) and/or make-up water for cooling systems, the concentration limits shall also be complied at the outlet before taking the effluent for such application. However, any use in the process such as use of sour water in desalter is excluded for the purpose of compliance.

2. In case of circulating seawater cooling, the blow-down from cooling systems shall be monitored for pH and oil & grease (also hexavalent & total chromium, if chromate treatment is given to cooling water) and shall conform to the concentration limits for these parameters. In case of reuse of treated effluent as cooling water make-up, all the parameters (as applicable for treated effluent) shall be monitored and conform to the prescribed standards.
3. In case of once through cooling with seawater, the oil & grease content in the effluent from cooling water shall not exceed 1.0 mg/l.

NOTE: Above standard are prescribed as per Notification from MOE&F, vide No G.S.R 186 (E), dated 18/03/2008.

- v. **Trade Effluent Disposal :** The treated effluent should be recycled in cooling water system. The blow down from the sea water cooling system should be discharged into the sea through a separate channel.
- (iv) **Sewage Effluent Treatment:** The applicant shall provide comprehensive treatment system as is warranted with reference to influent quality and operate and maintain the same continuously so as to achieve the quality of treated effluent to the following standards.
 - (1) Suspended Solids Not to exceed 100 mg/l.
 - (2) BOD 3 days 27o C. Not to exceed 100 mg/l.
- (vi) **Sewage Effluent Disposal:** The treated domestic effluent shall be soaked in a soak pit, which shall be got cleaned periodically. Overflow, if any, should be connected to the sewerage system provided by MCGM.
- (vii) **Non-Hazardous Solid Wastes:**

Sr. No.	Type Of Waste	Quantity	UOM	Disposal
1	Ferrous scrap (iron etc)	4742.00	MT/A	Sale
2	Non Ferrous scrap	275.00	MT/A	Sale
3	Electrical/Instrumentation items	105.00	MT/A	Sale
4	Other scrap (Wood)	161.00	MT/A	Sale
5	Other scrap (Drums & Tin)	6067.00	No.	Sale
6	Rubber & Elastic items	7.50	MT/A	Sale
7	Electronics Waste	7.70	MT/A	Sale

- (viii) **Other Conditions:** Industry should monitor effluent quality regularly.
4. **The applicant shall comply with the provisions of the Water (Prevention & Control of Pollution) Cess Act, 1977 (to be referred as Cess Act) and amendment Rules, 2003 there under**

The daily water consumption for the following categories is as under:

- (i) Domestic purpose ... 1400.00 CMD
- (ii) Water gets Polluted & Pollutants are Biodegradable ... 20405.00 CMD
- (iii) Water gets Polluted, Pollutants are not Biodegradable & Toxic ... 0.00 CMD
- (iv) Industrial Cooling, spraying in mine pits or boiler feed ... 153790.00CMD

The applicant shall regularly submit to the Board the returns of water consumption in the prescribed form and pay the Cess as specified under Section 3 of the said Act.

5. CONDITIONS UNDER AIR ACT :

- (i) The applicant shall install a comprehensive control system consisting of control equipments as is warranted with reference to generation of emission and operate and maintain the same continuously so as to achieve the level of pollutants to the following standards:

Control Equipment:-

Standards for Emissions of Air Pollutants :

- | | | |
|----------------------|---------------|-------------------------|
| i. SPM / TPM | Not to exceed | 100 mg/Nm ³ |
| ii. SO ₂ | Not to exceed | 1700 mg/Nm ³ |
| iii. NO _x | Not to exceed | 450 mg/Nm ³ |

- ii. The applicant should observe the following fuel pattern:

<u>Sr No.</u>	<u>Type of Fuel</u>	<u>Quantity</u>
1.	Fuel gas	839 MT/Day
2.	LSHS	897 MT/Day
3.	BHAG	130 to 205 MT/Day
4.	Naphtha	377 MT/Day

* Note: Additional Natural Gas will be supplied by M/s. Gail as per industry agreement.

- iii. The applicant should erect the chimney (s) of the following specifications:

SR. NO.	CHIMNEY ATTACHED TO	HEIGHT IN MTRS.
1)	High Efficiency Boiler HEB-1	70
2)	High Efficiency Boiler HEB-2	70
3)	High Efficiency Boiler HEB-3	70
4)	CDU B1	75
5)	CDU B2	75
6)	FPU B1	60.96
7)	Reformer CRU B1	60.96
8)	Bitumen F1	33.53
9)	New demountable Flare	125
10)	New Flare	100
11)	Crude Modification Unit (F01/F02)	64.6
12)	HVU Heater	67.8
13)	FCCU Charge heater	67.8
14)	FCCU CO Boiler	60
15)	FCCU regenerator flue gas without CO Boiler	60
16)	Aromatics Naphtha reboiler F101 / F102	94
17)	Aromatics hot oil heater F320	60
18)	CCU CO Boiler	60
19)	CCU regenerator Flue Gas without CO boiler	60
20)	CPP HRSG-1	60
21)	CPP HRSG-2	60
22)	CPP HRSG-3	60
23)	Gas Turbine-1 exhaust	30
24)	Gas Turbine-2 exhaust	30
25)	NB2A furnace in CDU	60
26)	CCU charge heater	65
27)	H-801	65

28)	HDS H-101 / H102	60
29)	DHDS	60
30)	DHDS H2	60
31)	DHDS SRU incinerator	60
32)	RMP CDU & VDU	75
33)	RMP HCU (1 st & 2 nd stage)	60
34)	Hydrocracker (HCU) Fractionator	60
35)	RMP SRU	80
36)	RMP Hydrogen Unit	60
37)	Vaccum column feed heater(LOBS)	65.0
38)	Reactor Feed heater(LOBS)	65.0
39)	Vaccum tower feed heater(LOBS)	65.0
40)	Gas Turbine-3 exhaust	30

iv. The applicant should provide ports in the chimney(s) and facilities such as ladder platform etc, for monitoring the air emission and the same should be open for inspection to / and for use of the Board's Staff. The chimney such as S-1, S-2, etc. and these should be painted / displayed to facilitate identification.

v. The industry should 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 daytime and 70 dB (A) during night time. Day time is reckoned in between 6 am to 10 pm and night time is reckoned between 10 pm and 6 am.

vi. **Other conditions :**

1. The industry should not cause any nuisance in surrounding area
2. The industry should monitor major stack emissions once a quarter and ambient air quality regularly.
3. Fugitive emission survey to be done twice in a year (one for monitoring and other for checking after repair of leaks)

6. CONDITIONS UNDER HAZARDOUS WASTE (MANAGEMENT, HANDLING & TRANSBOUNDARY MOVEMENT) RULES, 2008:

(i) The Industry shall handle hazardous wastes as specified below.

Sr. no.	Item No. of Process generating HW as per Schedule-II	Waste substance contain as per classes of Schedule II	Type of Waste	Quantity	Disposal
1.	4.1	-	Oily Sludge	8100 MT	Sale to Authorised party. OR should be sent to the CHWTSDF
2.	4.2	-	Spent Catalyst	1308 MT	

ii. Treatment : Mechanical oil recovery for oily sludge whenever feasible followed by bioremediation.

- iii. The authorization is hereby granted to operate a facility for collection, storage, transport and disposal of hazardous waste.
6. Whenever due to any accident or other unforeseen act or even, such emissions occur or is apprehended to occur in excess of standard laid down, such information should be forth with 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 should be stopped.
7. The consent should not be construed as any exemption from obtaining necessary NOC from other Govt. agencies as may deemed fit necessary.
8. Industry shall provided one continuous air monitoring station at location approved by MPCB.

9. Industry shall comply with following additional conditions:

- i. The applicant shall maintain good housekeeping and take adequate measures for control of pollution from all sources so as not to cause nuisance to surrounding area / inhabitants.
- ii. The applicant shall bring minimum 33% of the available open land under green coverage/ tree plantation.
- iii. Solid waste – 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 to dumping ground.
- iv. The applicant shall provide for an alternate electric power source sufficient to operate all pollution control facilities installed by he applicant 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 & conditions of this consent regarding pollution levels.
- v. The applicant shall not change or alter 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.
- vi. The applicant shall provide facility for collection of environmental samples and samples of trade and sewage effluents, air emissions and hazardous wastes to the Board staff at the terminal or designated points and shall pay to the Board for the services rendered in this behalf.
- vii. The applicant shall make an application for renewal of the consent at least 60 days before the date of the expiry of the consent.
- viii. 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 pre the provisions of rule 14 of the Environment (Protection) (Second Amendment) Rules, 1992.
- ix. As inspection book shall be opened and made available to the Board's officers during their visit to the applicant.
- x. The applicant shall install a separate electric 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.

- Xi. Separate drainage system shall be provided for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of collection system with arrangement for measuring the flow. No effluent shall be admitted in the pipes / sewers down- stream of the terminal manholes. No effluent shall find its way other than in designed and provided collection system.
- xii. Neither storm water nor discharge from other premises shall be allowed to mix with the effluents from the factory.
10. This is issued pursuant to the decision of the Consent Appraisal Committee meeting of the Board held on 16.04.2012
10. Capital investment of the industry is Rs. 4826.48 /-Crores


Milind Mhaiskar, I.A.S.)
Member secretary

To,

**M/s. Bharat Petroleum Corporation Ltd.,
Mahul, Mumbai – 400 074.**

Copy to :

1. Regional Officer, MPCB, Mumbai 2. Sub-Regional Officer, MPCB, Mumbai-III
3. Chief Accounts Officer, MPCB, Mumbai

Received consent fee of-

Amount	DD NO	Date	Drawn on
9652951/-	233142	23/01/2012	State Bank of India CAG Br Mumbai

1. Cess Branch MPCB

5. Master File