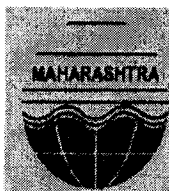


MAHARASHTRA POLLUTION CONTROL BOARD

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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: 23/01/2013

Consent No: BO/PAMS/Amendment/EIC NO.NM-1637-10/CC-794

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 Oil and Natural Gas Corporation Ltd
Uran Plant, Tal-Uran, Dist Raigad
Pin 400 702.

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: 31.12.2013
2. The Consent is valid for the manufacture of -

Sr. No.	Product Name	Maximum Quantity	UOM
1	L.P.G.	6,25,000	MT/Yr
2	Crude Oil	20 x 10 ⁶	MT/Yr
3	C2-C3 (Ethane-Propane)	6,25,000	MT/Yr
4	Naphtha	3,30,000	MT/Yr
5	Lean Gas	16 x 10 ⁶	SCMD

3. CONDITIONS UNDER WATER ACT:

- (i) The daily quantity of trade effluent from the factory shall not exceed 16800.0 M³.
- (ii) The daily quantity of sewage effluent from the factory shall not exceed 668.0 M³.
- (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:

1	pH	Between	5.5 to 9.0
2	Temperature	Not to exceed	40 deg C
3	Suspended Solids	Not to exceed	100 mg/l.
4	Zinc	Not to exceed	2.0 mg/l
5	BOD 3 days 27 deg C	Not to exceed	30 mg/l
6	COD	Not to exceed	100 mg/l

7	Total Dissolved Solids	Not to exceed	2100 mg/l.
8	Chlorides	Not to exceed	600 mg/l.
9	Sulphates	Not to exceed	1000 mg/l.
10	% Sodium	Not to exceed	60 mg /l
11	Oil and Grease	Not to exceed	10 mg/l
12	Phenolics	Not to exceed	1.2 mg/l
13	Cyanide (as 'CN')	Not to exceed	0.2 mg/l.
14	Fluorides	Not to exceed	1.5 mg/l
15	Sulphides	Not to exceed	2.0 mg/l
16	Chromium as Cr Hexavalent Total	Not to exceed	0.1 mg/l.
17	Chromium (Total)	Not to exceed	1.0 mg/l.
18	Copper	Not to exceed	0.2 mg/l
19	Lead (as Pb)	Not to exceed	0.1 mg/l.
20	Mercury	Not to exceed	0.01 mg/l
21	Nickel (as Ni)	Not to exceed	3.0 mg/l

Notes:

- 1) Concentration limits should 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 application of treated effluent directly for irrigation / Horticulture purposes (within or outside the premises of refinery). Make up water for cooling system, fire fighting etc., the concentration limits should also be complied with 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 from the purpose of compliance.
 - 2) In case of circulating seawater cooling, the blow-down from cooling systems should be monitored for pH and oil and grease (also hexavalent & total chromium, if chromate treatment is given to cooling water) and should confirm 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) should be monitored and confirm the prescribed standards.
 - 3) In case of once through cooling with seawater, the oil & grease content in the effluent from cooling water should not exceed 1.0 mg/l.
- (iv) **Trade Effluent Disposal:** The treated effluent should be disposed off into the sea through well-designed marine outfall.
- (v) **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, shall be used on land for gardening / plantation only.
- (vii) **Non-Hazardous Solid Wastes:**

Sr. No.	Type Of Waste	Quantity	UOM	Disposal
01	Glass wool	100.0	MT/A	MWML

(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	...	700.0	CMD
(ii) Water gets Polluted & Pollutants are Biodegradable	...	8000.00	CMD
(iii) Industrial Cooling, spraying in mine pits or boiler feed	...		
(iv) Water gets Polluted, Pollutants are not Biodegradable & Toxic	...	00.00	CMD
(v) Gardening / Agriculture	...	3000.00	CMD

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:

a. Control Equipment:

- Air pollution control equipments of sufficient should be provided to all sources of SPM operate & maintain properly.
- There shall not be any secondary (fugitive) emissions.

b. Standards for Emissions of Air Pollutants:

(i) SPM/TPM	Not to exceed	150 mg/Nm ³
(ii) SO ₂ from Furnace /Boiler	Not to exceed	50 Kg/day

Emission standards for VOC – HAPS from Process Vents:

Sr. No.	Parameters	Maximum emission limit (mg/Nm ³)
01	(Toluene DI-isocyanate), TDI, Methylenediphenyl Di-isocyanate (MDI)	0.1
02	Benzene, Butadiene	5.0
03	EO, VCM, EDC, CAN, PO	20.0

Standards for emission of VOC Pollutants

Sr. No.	Petrochemical Process / Compounds	Maximum emission limit (mg/Nm ³) , dry basis
01	MA, PA, Phenol	20
02	Ethyl benzene (EB), Styrene, Toluene, Xylene, Aromatics, EG, PG	100
03	Non-methane HC (Paraffin), Acetone, olefins	150

The industry shall phase out the Ozone Depleting Substances (ODS) as per ODS Rules 2000 and shall be informed to MPCB within a period of 3 months.

GUIDELINES FOR FUGITIVE EMISSION CONTROL

1. Fugitive emissions over reactors, formulation areas, centrifuges, chemicals loading, transfer areas etc. are yet to be collected through hoods and ducts by induced drafts and controlled by scrubber / dust collector.
2. Usually scrubbers installed for channelized emissions are used for fugitive emissions to control also & sometimes dedicated scrubbers are provided. This practice may be permitted as long as tail gas concentrations are within the prescribed limits.
3. In addition, organic gaseous emissions (odour & toxic) be routed to activated carbon beds (absorption) or to thermal oxidizer and for dust emissions cyclones / bag filters are to be provided.
4. Emphasis be given to solvent management / solvent loss prevention.
5. Enclosures to chemical storage area, collection of emissions from loading of raw materials. In particulars, solvents through hoods and ducts by induced draft, and control by scrubber / dust collector or to be ensured.
6. Vapour balancing, nitrogen blanketing ISO tanks etc. to be provided, besides special care needs to be taken for control in respect of odorous chemicals.

- (ii) **The applicant shall observe the following fuel pattern:-**

Sr. No.	Type Of Fuel	Quantity	UOM
1	Natural Gas	0.55	MMSCMD
2	Diesel	50.0	Lit/day

- (iii) **The applicant shall erect the chimney(s) of the following specifications:-**

Sr. No.	Chimney Attached To	Height in Mtrs.
1	Gas Heater (LPG-I & II)	25.27 Each
2	Gas Turbine (LPG-I)	25.00
3	HRSG-I	30.36
4	HRSG-II	18.36
5	HRSG-III	32.00
6	Thermax Boiler	30.00
7	Elevated flare (Old)	80.00
8	Elevated flare (New)	90.00
9	Box Flare	25.00
10	Incinerator	30.00

- (iv) 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.
- (v) 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.

(vi) **Other Conditions:**

- 1) The industry should not cause any nuisance in surrounding area.
- 2) The unit should avail benefit of Clean Development Mechanism (CDM)
- 3) The industry should monitor stack emissions and ambient air quality Regularly.

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

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

Sr. No.	Type Of Waste	Quantity	UOM	Disposal
01	3.3 (Sch -I) Oil Sludge from storage tank	5000	MT/Y	CHWTSDF for incineration/ Bioremediation/MPCB authorized reprocessor
02	4.4 (Sch-I) Organic residue from Process, filter candle removed from filters from LPG-I & II, sludge catcher Phase-II and air filter	25.00	MT/Y	CHWTSDF for landfill
03	4.5 (Sch-I) Sludge from waste water treatment	6600	MT/Y	
04	35.1 (Sch-I) Filters and filter material which have organic liquids in them arising from purification of organic compounds	50.00	MT/Y	
05	34.3 Spent Carbon / Spent Charcoal	50.00	MTY	
06	34.2 Spent resin of DA plant calion exchanger & C ₂ -C ₃ DM plant	20.00	MT/Y	
07	B-18 (Sch-II) Poly Urethane Foam	30.00	MT /Y	
08	B-24 (Sch-II) Aqueous film forming Foam(AFFF) (Fluorinated surfactant / Polyfluro alkyl betaine) / Halogenat inorganics including solvent	40.00	MT/Y	
09	A-6 (Sch-II) Electrical waste including glass waste from mercury Vapor lamps/fluorescent lamps, cathode ray tube, other activated glasses, electrical scrap, mercury switches, PCB capacitors , printed circuit boards, wires	20.00	MT/Y	
10	A4, B-6 (Sch-II) Batteries (Lead acid & Ni-Cd)	5.00	MT/Y	CHWTSDF for incineration
11	-- Electronic Waste	5.00	MT/Y	CHWTSDF for incineration
12	1.7 Polypropylene Bio Tower packing media	70.00	MT/Y	CHWTSDF for incineration
13	1.7 Spent Catalyst & Molecular sieves	150.00	MT/Y	CHWTSDF


- (ii) Treatment: - NIL

7. Whenever due to any accident or gas leakage 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 Collector, Directorate of Industry, Safety and Health, Police Station, Fire Brigade, Directorate of Health Services, Department of Explosives, Board and Local Body and the production process should be stopped by taking all necessary safety measures. The industry shall also monitor the emission and ensure that the emissions do not cause any harm or nuisance in the surrounding. The industry should not restart the process without permission of the Board and other statutory organization as require under the law.

8. 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.
09. This consent shall not be construed as any exemption from obtaining necessary No Objection Certificate from other Government agencies as may deemed fit necessary.
10. Industry shall comply with the standard prescribed as per Notification from MoEF, Vide No. G.S.R.186 (E), dated 18/03/2008. Also industry should comply for Air Emission Standards prescribed as per Notification from MoEF, vide No. G.S.R. 186 (E), dated 18/03/2008.
11. The amendment in the consent is issued with an overriding effect to the earlier consent granted by Board vide No. BO/RO-NM/(WPAE)/PCI-I/NM-1637-10/CC-152, dated 07/06/2010 valid up to 31.12.2013
12. This consent is issued as per corrigendum letter issued by MoEF (IA div) vide letter No F.No J-11011/635/2008-IA II (I), dated 20 Sept 2010.
13. This consent is issued as per the decision taken in the meeting of the Consent Appraisal Committee of the Board held on 08 /01/2013.
14. The Capital investment of the industry is Rs. 923.81 Crore.


(Rajeev Kumar Mital)
Member Secretary

To,
M/s Oil and Natural Gas Corporation Ltd
Uran Plant, Tal-Uran, Dist Raigad.
Pin 400 702.

Copy to :

RO, Navi Mumbai / SRO Taloja NM-III

-- They are directed to ensure the compliance of consent conditions.

CAO/Cess Branch/Master file.

Received Consent fee of -

Sr. No.	Amount(Rs.)	DD. No.	Date	Drawn On
1	36,95,350/-	221774	29/09/2009	SBI