

MAHARASHTRA POLLUTION CONTROL BOARD

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Red/LSI

Consent order No: Format1.0/BO/RO-HQ/EIC-Nm-5408-14/CR/CC-11599 Date-06/12/2014

To,
M/s.Reliance Industries Ltd.,
Reliance Tank Firm,Plot No.3,
Opp. Port users Building,
Navi Mumbai-400707

Subject: Renewal of Consent for storage and handling of petroleum products in red category.

Ref : Minutes of Consent Committee meeting held on 29/11/2014.

Your application CR140800041

Dated: 22nd July, 2014.

For: Renewal of Consent for storage and handling of petroleum Products in red category.

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 operate is granted for a period from 31/8/2014 to 31.8.2017.
2. The capital investment of the industry is Rs. 66 Cr. (As per CA Certificate submitted by project proponent)
3. Renewal of Consent for: Storage & handling of Petroleum products of maximum capacity of **71,000 KL a time**.

Sr. No.	Tank No.	Maximum Capacity in KL	Location of tanks	Product Name
1.	T-101	9500	CRZ	Storage of Naptha, Motor Spirit, Kerosene, HSD,ATF
2.	T-106	9500		
3.	T-116	11000		
4.	T-102	9500	NON CRZ	Storage of Naphtha, MS, Kerosene, HSD, ATF, loading & unloading of Paraxylene, Aromatic feed stock, AHE-70,Paraffin Mixed Xylene.
5.	T-107	9500		
6.	T-108	11000		
7.	T-109	5000		
8.	T-110	5000		
9.	T-114	1000		

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	10.00 (Occasionally{once in year-while tank Cleaning activity)	As per Schedule -I	Send to CETP for further disposal
2.	Domestic effluent	10.00		100% recycle for flushing, gardening within own premises

"M/s.Reliance Industries Ltd" SRO Taloja/I/R/L/37264000

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5. Conditions under Air (P& CP) Act, 1981 for air emissions:

Sr. No.	Description of stack/ source	Capacity	Number Of Stack	Standards to be achieved
1	DG Set	500 KVA	1	As Per Schedule -II

6. Conditions under Municipal Solid Waste (Management and Handling) Rule, 2000:NIL

7. Conditions under Hazardous Waste (MH & TM) Rules, 2008 for treatment and Disposal of hazardous waste

Sr. No.	Type of Waste	Quantity & UOM	Disposal
1.	3.1:Oil containing cargo residue, washing water & Sludge	2.0 No.	Sale to MPCB approved recycler/reprocessor
2.	5.1:Used/spent oil	500 Ltrs/A	Sale to MPCB approved recycler/reprocessor
3.	5.2:Wastes/residue containing oil	1500 MT	Sale to MPCB approved recycler/reprocessor
4.	15.2:Discarded asbestos	200 MT	CHWTSDF
5.	B4 lead acid batteries	20 Nos	Sale to MPCB approved recycler/reprocessor
6.	Used/broken mercury lamps	200 Kg/A	CHWTSDF

8. The Board reserves the right to review, amend, suspend, revoke etc. this consent and the same shall be binding on the industry.

9. This consent should not be construed as exemption from obtaining necessary NOC/permission from any other Government authorities.

For and on behalf of the
Maharashtra Pollution Control Board

(Rajeev Kumar Mital, IAS)
Member Secretary

Received Consent fee of -

Sr. No.	Amount(Rs.)	DD. No.	Date	Drawn On
1	Rs. 2,25,000/-	004418	18/6/2014	HDFC Bank
2.	Rs.100/-	406161	7/7/2014	SBI Bank

Copy to:

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

Schedule-I

Terms & conditions for compliance of Water Pollution Control:

- (i) **Trade Effluent Treatment:** The industry shall provide necessary arrangement for collection & treatment of tank washings and other effluents during pigging etc. The Industry shall ensure that comprehensive treatment system comprising primary / secondary & tertiary facilities. Industry shall become member of CETP as and when proposed. 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:

Sr. N	Parameter	Standards prescribed by Board
		Limiting Concentration in mg/l, except for pH
1	pH	5.5 to 9.0
2	Oil & Grease	10 mg/l
3	Suspended Solids	100 mg/l
4	TDS	2100 mg/l
5	COD	250 mg/l.
6	BOD 3 days 27° C	30 mg/l

- (ii) **Treated effluent Disposal:** The treated effluent shall be 100% recycled for flushing, gardening within own premises.
- (iii) **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 27° 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.
- (v) **The Industry 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	...	15.00 CMD
(ii) Industrial Processing	...	10.00 CMD
(iii) Industrial Cooling	...	10.00 CMD
(iv) Agriculture / Gardening	...	15.00 CMD

- (vi) The Industry 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.
- (vii) The Industry shall monitor effluent quality at discharge pipeline & outlet of ETP at least on monthly basis from MoEF recognized laboratory.

- (viii) The industry shall maintain log book for the operation of ETP with records for operation of pumps, chemical addition etc. and separate energy meters, record of reused of treated effluent shall be maintained. Dual plumbing shall be provided for toilets to enable use of treated effluents / sewage for flushing.
- (ix) Monitoring of ground water (through Peizometric wells) and soil at atleast three location at quarterly interval (every 3 months) shall be carried out to ascertain that these are not getting polluted.
- (x) The smooth & safe operation of the tankage and pipelines shall be ensured by incorporating a computerized SCADA (Supervisory Control and Data Acquisition) system coupled with vigilance squad to physically check the pipelines for leakage. If, any leakage in the pipeline is detected the product pumping shall be immediately suspended. Necessary precautions for cordoning the affected area shall be taken and use of leaking pipeline shall be discontinued.
- (xi) The offsite emergency preparedness plan prepared by industry shall have scenario for pipeline leakage, spillage during transfer and handling of petroleum from Jawahar Deep to the site as also during movement of tanker to client's site. Industry shall intimate MPCB immediately along with other agencies concerned incase of such leakage /spillage.
- (xii) The industry shall provide facilities for containing spills during tank/tanker filling operations and in no case shall such spills enter into nearby storm drains.

Schedule-II

Terms & conditions for compliance of Air Pollution Control:

1. As per your application, you have proposed to install the Air pollution control (APC) system and also proposed to erect following stack (s) 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
1	DG Set (500 KVA)	Meeting EP Act Standard	3.5*	HSD	81.44	Ltr/Hr	1	2.02 Kg/Hr

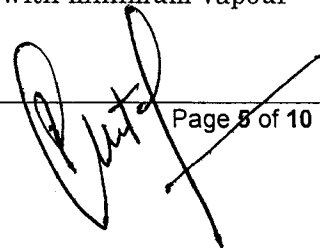
* Above roof of the building in which it is installed.

2. The Industry 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.
3. 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).
4. Standards for Emissions of VOC Pollutants :

Sr. No.	Petrochemical process / compounds	Maximum emission limit (mg/Nm ³) dry basis.
1	MA, PA, Phenol	20
2	Ethyl benzene (EB), Styrene, Toulene, Xylene, Aromatics, EG, PG	100
3	Non-methane HC (paraffin), Acetone, olefins	150

(i) **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.

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.		

(5) VOC Emission Controls:

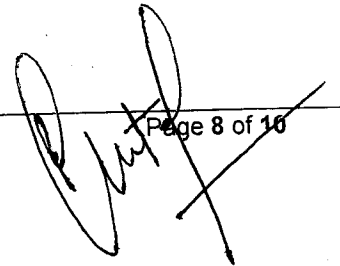
- The industry shall take all operational practices & implement control measures to limit VOC emission during breathing (tank evaporative emission) and during filling of storage tanks as mandated under storage tank provision of GSR 186 (E) Dt. 18.03.2008.
- The Industry has provided 10 storage tanks-5 of internal floating roof type and 5 of vertical fixed roof type.
- The industry shall store Class A petroleum compounds in internal floating roof tanks only.
- Industry shall keep record indicating type of chemical stored in different tanks & submit the same to MPCB every month.

- e) The tanks shall be maintained as per the API RP 575 Standards and provided with modern instrumentation to ensure that there shall be no leakage or spillage during handling.
- f) The industry shall have preventive maintenance plan and keep records of preventive maintenance carried out. For IFR Tanks, this shall include regular inspection of seals, seal gap, condition of various sleeves, jackets etc.
- g) The industry shall monitor vapour pressure in the tanks. The industry shall spray water on tank shells by water sprinkler installed, provided tank vapour pressure exceeds set norms. Industry shall maintain records of operation of fire water sprinkler & submit the same to MPCB every month.
- h) The industry shall provide control system comprising brine chillers followed by activated carbon/ charcoal adsorption on the outlet of breather valve provided on vertical fixed roof tanks. The control system provided shall have arrangement to isolate the activated carbon/charcoal adsorption unit during washing of the tanks.
- i) The industry shall provide adequate arrangement for capturing VOC emissions during tanker filling. This shall include providing compatible lids (with suitable openings for filling pipe and fume extraction vent) to close the manholes on the tanker top so that no VOC emissions leaks into the environment. Alternately bottom loading of tankers with leak proof vapour collection facilities at the manholes will be provided. Compatible loading arms with level gauge, metered flow to tanker to ensure control filling to be provided. Vapour capturing hoses shall be connected to central header and shall have extra provision for collecting VOC emissions from maintenance activities and during pigging of pipelines.
- j) The collection header shall be connected to Air pollution control system consisting of brine chiller followed by activated carbon/charcoal to meet standard as given in GSR - 186 (E) Dt. 18.03.2008.
- k) The industry shall explore possibility of collecting vapors from open manholes during tank washing and diverting the same to the air pollution control system provided.
- l) Industry shall ensure that the nitrogen / air used during pigging operations shall be diverted to the air pollution control system provided.
- m) The air blown from manifold to tanker filling point shall be diverted to air pollution control system provided.
- n) High level alarm synchronized with cut off capacity shall be provided to the storage tanks.
- o) The internal roads shall be cement concrete and shall be maintained with adequate green belt.
- p) The Industry shall monitor ambient air quality on a monthly basis and the emission of Volatile Organic Compound particularly Toluene, Xylene and non methane Hydro Carbon from MoEF approved laboratory.
- q) The Industry shall not cause any nuisance in surrounding area.

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
NIL						

Maharashtra Pollution Control Board



Schedule-IV

General Conditions:

- 1) The Industry 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) The Industry 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 Industry shall stop, reduce or otherwise, control production to abide by terms and conditions of this consent.
- 3) 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.
- 4) 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 shall go for that purpose, in order to reduce load on incineration and landfill site/environment.
- 5) The industry shall comply with the Hazardous Waste (M,H & TM) Rules, 2008 and submit the Annual Returns as per Rule 5(6) & 22(2) of Hazarsous Waste (M,H & TM) Rules, 2008 for the preceding year April to March in Form-IV by 30th June of every year.
- 6) An inspection book shall be opened and made available to the Board's officers during their visit to the Industry.
- 7) **The Industry shall make an application for renewal of the consent at least 60 days before the date of the expiry of the consent (in case of Renewal of consent).**
- 8) 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).
- 9) Conditions for D.G. Set
 - a) Noise from the D.G. Set shall be controlled by providing an acoustic enclosure or by treating the room acoustically.
 - b) Industry shall provide acoustic enclosure for control of noise. The acoustic enclosure/ acoustic treatment of the room shall be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on higher side. A suitable exhaust muffler with insertion loss of 25 dB (A) shall also be provided. The measurement of insertion loss will be done at different points at 0.5 meters from acoustic enclosure/room and then average.
 - c) Industry shall make efforts to bring down noise level due to DG set, outside industrial premises, within ambient noise requirements by proper siting and control measures.
 - d) Installation of DG Set must be strictly in compliance with recommendations of DG Set manufacturer.
 - e) A proper routine and preventive maintenance procedure for DG set shall be set and followed in consultation with the DG manufacturer which would help to prevent noise levels of DG set from deteriorating with use
 - f) D.G. Set shall be operated only in case of power failure.
 - g) The Industry shall not cause any nuisance in the surrounding area due to operation of D.G. Set.
 - h) The Industry shall comply with the notification of MoEF dated 17.05.2002 regarding noise limit for generator sets run with diesel

- 10) The Industry 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.
- 11) The industry shall submit quarterly statement in respect of industries' obligation towards consent and pollution control compliance's duly supported with documentary evidences (format can be downloaded from MPCB official site).
- 12) The industry shall submit official e-mail address and any change will be duly informed to the MPCB.
- 13) During transportation handling of Petroleum product if any accident occurs, the industry shall make emergency arrangement having responsibility to control the situation.
- 14) **Industry shall obtain necessary clearances under the Forest (Conservation) Act, 1980 and the Wildlife (Protection) Act, 1972.**
- 15) The storage tanks shall be kept in good conditions all the year round with adequate maintenance.
- 16) The project authority shall prepare On-site & Off-site emergency preparedness plan based on detailed risk analysis.

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Maharashtra Pollution Control Board

