



## Consent For Operation (CFO-Air,Water)

Karnataka State Pollution Control Board  
Zonal Office : Mangalore,  
Plot No.10B, Parisara Bhavana, Baikampady Industrial  
Area,Mangalore-575011  
Tele : 0824-2408420

Industry Colour: ORANGE  
Industry Scale: LARGE

(This document contains 8 pages including annexure & excluding additional conditions)

Combined Consent Order No: AW-328367 PCB ID: 77170 Date: 26/11/2021

### Combined consent for discharge of effluents under the Water (Prevention and Control of Pollution) Act , 1974 and emission under Air (Prevention and Control of Pollution)Act , 1981

Ref: 1. Application filed by the industry / organization on 07/10/2021  
2. Inspection of the Industry/organization/by RO, on 08/11/2021

Consent is hereby granted under Section 25(4) of the Water (Prevention & Control of Pollution) Act, 1974 ( herein referred to as the Water Act) & Section 21 of Air (Prevention & Control of Pollution) Act, 1981, ( here in referred to as the Air Act) and the Rules and Orders made there under and subject to the terms and conditions as detailed in the Schedule Annexed to this order.

The Occupier is authorized to operate /carryout industry/activity & to make discharge of the effluents & emissions confirming to the stipulated standards from the premises mentioned below:

#### Location:

Name of the Industry: Mangalore Refinery And Petrochemicals Limited (Desalination Plant)  
Address: 38/P, 72/P, 37/P, 35/P, MRPL  
Industrial Area: Not In I.A, MANGALORE,  
Taluk: Mangalore, District: Dakshina Kannada

#### Discharge of effluents under the Water Act:

Sr	Water Code	WC(KLD)	WWG(KLD)	Remark
1	Domestic Purpose	5.000	4.000	Shall be treated in STP. Treated sewage shall be used onland for gardenig after confirming to standard in Annexure-I
2	Manufacturing Processes	78328.000	48328.000	Sea water intake from Arabian sea is around 78.4 MLD, processed in desalination plant to produce 30MLD permeate to refinery and balance brine is discharged to sea.

#### Discharge of Air emissions under the Air Act from the following stacks etc.

Sl. No.	Description of chimney/outlet	Limits specified refer schedule
The details of Sources, control equipments and its specification, type of fuel, rate of emissions, constituents to be controlled in emissions etc. are detailed in Annexure-I.		

The consent for operation is granted considering the following activities/Products;

Sr	Product Name	Applied Qty/Month	Unit
1	desalination plant (permeate water to refinery)	900000.0000	CBM

This consent is valid for the period from 03/11/2021 to 30/09/2031



**Consent For Operation  
(CFO-Air,Water)**

**Karnataka State Pollution Control Board  
Zonal Office : Mangalore,  
Plot No.10B, Parisara Bhavana, Baikampady Industrial  
Area,Mangalore-575011  
Tele : 0824-2408420**

Industry Colour: ORANGE Industry Scale: LARGE

(This document contains 8 pages including annexure & excluding additional conditions)

To,  
Mangalore Refinery And Petrochemicals Limited (Desalination Plant)  
MANGALORE

**NOTE:**

The following Conditions mentioned above are not applicable.

**Additional Conditions:**

1)Applicant shall comply with the conditions mentioned in attached Annexures and shall submit compliance report periodically once in 6 months to the Regional Office 2)shall conduct environmental audit & submit statement in Form-V within 30th September of every year 3)There shall not be any kind of noise/dust/smell nuisance from the unit 4)In case of any complaint/violation of consent conditions the Board is at liberty to withdraw the CFO 6)liable to pay the balance fees if any

**COPY TO:**

1. The Regional Officer, **Mangalore** for information and necessary action.
2. Master Register.
3. Case file.

Consent Fee paid	: Rs. 1280000
------------------	---------------



**Consent For Operation  
(CFO-Air,Water)**

Karnataka State Pollution Control Board

Zonal Office : Mangalore,

Plot No.10B, Parisara Bhavana, Baikampady Industrial

Area,Mangalore-575011

Tele : 0824-2408420

Industry Colour:  
ORANGE

Industry Scale: LARGE

(This document contains 8 pages including annexure & excluding additional conditions)





## **Consent For Operation** **(CFO-Air,Water)**

Karnataka State Pollution Control Board  
Zonal Office : Mangalore,  
Plot No.10B, Parisara Bhavana, Baikampady Industrial  
Area, Mangalore-575011  
Tele : 0824-2408420

Industry Colour: ORANGE  
Industry Scale: LARGE

(This document contains 8 pages including annexure & excluding additional conditions)

### **SCHEDULE**

#### **TERMS AND CONDITIONS**

##### **A. TREATMENT AND DISPOSAL OF EFFLUENTS UNDER THE WATER ACT.**

1. The discharge from the premises of the occupier shall pass through the terminal manhole/manholes where from the Board shall be free to collect samples in accordance with the provisions of the Act/Rules made there under.

2(a). The sewage/domestic effluent shall be treated in septic tank and with soak pit. No overflow from the soak pit is allowed. The septic tank and soak pit shall be as per IS 2470 Part-I & Part-II.

2(b). The treated sewage effluent discharged shall conform to the standards specified in Annexure-I.

3(a). The trade effluent generated in the industry shall be treated in the ETP and treated effluent shall conform to the standards stipulated by the Board in Annexure-1

3(b). The trade effluent shall be handed over to CETP and maintain logbook of effluent generated & sent every day.

4. The occupier shall install flow measuring/recording devices to record the discharge quantity and maintain the record.

5. The occupier shall not change or alter either the quality or the quantity or the place of discharge or temperature or the point of discharge without the previous consent/ permission of the Board.

6. The Occupier shall not allow the discharge from the other premises to mix with the discharge from his premises. Storm water shall not be allowed to mix with the effluents on the upstream of the terminal manhole where the flow measuring devices are installed.

##### **B. EMISSIONS:**

1. The discharge of emissions from the premises of the applicant shall pass through the air pollution control equipment and discharged through stacks/chimneys mentioned in **Annexure-II** where from the Board shall be free to collect the samples at any time in accordance with the provisions of the Act and Rules made there under.

2. The occupier shall provide port holes for sampling of emission, access platforms for carrying out stack sampling, electrical points and all other necessary arrangements including ladder as indicated in Annexure-II.

3. The Occupier shall upgrade/modify/replace the control equipment with prior permission of the Board.

##### **C. MONITORING & REPORTING:**

1. The occupier shall get the samples of effluents & emissions collected and get them analyzed once a month for the parameters.



## **Consent For Operation** **(CFO-Air,Water)**

**Karnataka State Pollution Control Board**  
**Zonal Office : Mangalore,**  
**Plot No.10B, Parisara Bhavana, Baikampady Industrial**  
**Area,Mangalore-575011**  
**Tele : 0824-2408420**

Industry Colour: ORANGE  
Industry Scale: LARGE

(This document contains 8 pages including annexure & excluding additional conditions)

### **D. SOLID WASTE (OTHER THAN HAZARDOUS WASTE) DISPOSAL:**

1. The Occupier shall segregate solid waste from Hazardous Waste, Municipal Solid Waste and store it properly till treatment/disposal without causing pollution to the surrounding Environment.
2. The solid waste generated shall be handled & disposed by scientific method without causing eye sore to the general public and to the surrounding environment.

### **E. NOISE POLLUTION CONTROL:**

The applicant shall ensure that the ambient noise levels within its premises during construction and during operational period shall not exceed w.r.t Area/Zone as per Noise Pollution (Regulation and Control) Rules, 2000 as mentioned below:-

- a) In Industrial Area 75 dB(A) Leq during day time and 70 dB(A) Leq during night time.
- b) In Commercial Area 65 dB(A) Leq during day time and 55 dB(A) Leq during night time.
- c) In Residential Area 55 dB(A) Leq during day time and 45 dB(A) Leq during night time.
- d) In Silence Zone 50 dB(A) Leq during day time and 40 dB(A) Leq during night time.

Note: - \* Day time shall mean 6 am to 10 pm and Night time shall mean 10 pm to 6 am.

\* dB(A) Leq denotes the time weighted average of the level of sound in decibels on scale A which is relatable to human hearing.

\* A "decibel" is a unit in which noise is measured.

\* "A", in dB(A) Leq, denotes the frequency weighting in the measurement of noise and corresponds to frequency response characteristics of the human ear.

\* Leq: It is an energy mean of the noise level over a specified period.

### **F. GENERAL CONDITIONS:**

1. The Board reserves the right to review, impose additional conditions, revoke, change or alter terms and conditions of this consent.
2. The Occupier shall forthwith keep the Board informed of any accidental discharge of emissions/effluents into the atmosphere in excess of the standards laid down by the Board. The applicant shall also take corrective steps to mitigate the impact.
3. The Occupier shall provide alternative power supply sufficient to operate all Pollution control equipments.



## Consent For Operation (CFO-Air,Water)

Karnataka State Pollution Control Board  
Zonal Office : Mangalore,  
Plot No.10B, Parisara Bhavana, Baikampady Industrial  
Area,Mangalore-575011  
Tele : 0824-2408420

Industry Colour: ORANGE  
Industry Scale: LARGE

(This document contains 8 pages including annexure & excluding additional conditions)

- The entire premises shall always be kept clean. The effluent holding area, inspection chambers, outlets, flow measuring points should made easily approachable.
- The Occupier shall display the consent granted in a prominent place for perusal of the inspecting officers of the Board.
- The Occupier his heirs, legal representatives or assigns shall have no claims what so ever to the continuation or renewal of this consent after expiry of the validity of consent.
- The Occupier shall make an application for consent at least 45 days before expiry of this consent.
- The occupier shall maintain register recording the ambient air quality and stack monitoring. The register shall be open for inspection by the Board Officers at all time.

**Note:** All efforts should be made to remove colour and unpleasant odour as far as practicable.

### Annexure-II

Chim. No.	Chimney attached to	KVA Rating/ Capacity	Minimum chimney height to be provided above ground level (in Mtr)	Constituents to be controlled in the emission	Tolerance limits mg/NM3	Air pollution Control equipment to be installed,in addition to chimney height as per col.(4)	Date on which air pollution control equipments shall be provided to achieve the stipulated tolerance limits and chimney heights conforming to stipulated heights.
1	D.G. Sets	750 KVA, 1 no.	12	PM(mg/NM3),SO2(PPM),NOx (PPM)	-,,-	AEC,PRT	---

Note:

AEC,PRT : Accoustic Enclosures



## Consent For Operation (CFO-Air,Water)

Karnataka State Pollution Control Board  
Zonal Office : Mangalore,  
Plot No.10B, Parisara Bhavana, Baikampady Industrial  
Area,Mangalore-575011  
Tele : 0824-2408420

Industry Colour: ORANGE  
Industry Scale: LARGE

(This document contains 8 pages including annexure & excluding additional conditions)

### Note:

1. The Noise levels within the premises shall not exceed 75 dB (A) leq during day time and 70 dB(A) leq during night time respectively.
2. The DG set shall be provided with acoustic measures as per SI.No.94 in Schedule-I of Environment (Protection)Rules.
3. There shall be no smell or odour nuisance from the industry.

### LOCATION OF SAMPLING PORTHOLES, THE PLATFORMS, THE ELECTRICAL OUTLET.

1. Location of Portholes and approach platform:

Portholes shall be provided for all chimneys, stacks and other sources of emission. These shall serve as the sampling points. The sampling point should be located at a distance equal to atleast eight times the stack or duct diameters downstream and two diameters upstream from source of low disturbance such as a Bend, Expansion, Construction Valve, Fitting or Visible Flame for rectangular stacks, the equivalent diameter can be calculated from the following equation.

$$\text{Equivalent Diameter} = \frac{2 (\text{Length} \times \text{Width})}{(\text{Length} + \text{Width})}$$

2. The diameter of the sampling port should not be less than 3". Arrangements should be made so that the porthole is closed firmly during the period when it is not used for sampling.
3. An easily accessible platform to accommodate 3 to 4 persons to conveniently monitor the stack emission from the portholes shall be provided. Arrangements for an Electric Outlet Point off 230 V 15 A with suitable switch control and 3 Pin Point shall be provided at the Porthole location.

For and on behalf of the  
Karnataka State Pollution Control  
Board



**Consent For Operation  
(CFO-Air,Water)**

Karnataka State Pollution Control Board  
Zonal Office : Mangalore,  
Plot No.10B, Parisara Bhavana, Baikampady Industrial  
Area,Mangalore-575011  
Tele : 0824-2408420

Industry Colour: ORANGE Industry Scale: LARGE

(This document contains 8 pages including annexure & excluding additional conditions)



Validity unknown

Digitally signed by  
Date: 2021.11.26 17:42:39  
+05:30





**ANNEXURE – A**

**ADDITIONAL CONDITIONS TO ACCOMPANY CONSENT FOR OPERATION OF M/S MANGALORE REFINERY AND RETROCHEMICALS LIMITED (DESALINATION PLANT AT SY NO. 38/P, 72/P, 37/P, 35/P, THANNIRBHAVI VILLAGE, MANGALURU TALUK & DAKSHINA KANNADA DISTRICT**

This Consent for Operation is valid for operation of Sea Water Desalination Plant for production of 30 MLD potable water (Permeate).

Sea Water Intake	Permeate water to refinery	Brine outfall to sea
78.4MLD	30 MLD	48.4 MLD

- All conditions/recommendation stipulated by MOEF & CC, GOI vide its letter F.No. 11-3/2019-1A-III dated: 18.04.2019 shall be complied with.
- All conditions/recommendation stipulated by Karnataka Coastal Zone Management Authority(KCZMA) vide its letter FEE 194 CRZ 2018 Dated: 22.12.2018 shall be complied with
- Proposed landfall points (LEPs) along with shoreline for sea water intake and marine outfall have been planned at 1.7 Km South of Southern breakwaters of the New Mangalore Port at Panmabur, in Mnagaluru, Gurupur River runs on the eastern side of the proposed LFPs
- Seawater will be drawn adjacent Arabian Sea and will be carried desalination plant located within project premises on western side of the plant. Brine reject coming out of the desalination plant will be routed through pipeline back to sea. Desalination plant will have pre-treatment plant consisting of pH correction, Coagulation Flocculation, Clarification , Ultra Filtration, Reverse Osmosis Including high pressure pump, energy recovery system and outfall.
- Seawater requirement for the RO plant will be 78.4 MLD.
- The Sea water intake head will be located at selected distance of 950 m from the shore at 7.7m CD (Chart Datum) water depth. The intake pipeline will be made of HDPE material and it will be laid on the sea bed. The entire pipeline will be buried in such a way that the top of the pipeline will remain at minimum 2m below the seafloor.
- Salinity of the brine reject released into the sea will be 65ppt will have the salinity difference of 30ppt higher than seawater ambient salinity of 35 ppt
- Brine discharge into the sea from the desalination plant will be 48.4 MLD.
- Outfall diffuser will be located at 1050 m distance from the shoreline at water depth of 8 m CD. Outfall pipeline will be laid on seabed where top of the pipeline will be buried 2 m below the sea floor.
- Seawater intake pipeline will have length of 950 m and Outfall length will be 1050m
- Desalination plant will be in CRZ-II area but the pipeline will traverse through CRZ-IV CRZ-II and CRZ-I.
- Desalination water (permeate) will be transported through MRPL refinery through pipeline in Right of way (ROW) of MSEZL pipeline corridor.

  
**Senior Environmental Officer,**

**I. WATER CONSUMPTION AND DISCHARGE DETAILS**

**Discharge of Effluents under Water Act:**

Water Code	Water Consumption in KLD	Wastewater generation in KLD	Place of Discharge
Domestic Purpose	5	4	On land for gardening within industry premises after treating in 5 KLD STP as per Annexure-I
Process	78.4 MLD	48.4 MLD	Brine reject discharge into Sea through outfall diffuser

**II. AIR POLLUTION CONTROL STATUS (PROPOSE ADDITIONAL AIR POLLUTION SOURCES)**

Chimney attached to	Emission Constituents	Chimney height stipulated	Air Pollution Control equipment stipulated
750 KVA DG Set-2 Nos	SO <sub>2</sub> & NO <sub>2</sub>	12 mts AGL individual chimney	As per Col.3 with acoustic enclosure
Diesel driven fire water pumps	SO <sub>2</sub> & NO <sub>2</sub>	9 mts AGL individual chimney	As per Col.3

**ANNEXURE-II  
ON LAND FOR IRRIGATION**

1	Colour & Odour	See Note
2	Suspended Solids (mg/I max)	30
3	pH Value	5.5 to 9.0
4	Oil & Grease (mg/I max)	10
5	Biochemical Oxygen Demand (5days at 20 <sup>o</sup> c)mg/I max	100

Note: All efforts should be made to remove colour and unpleasant odour as far as practicable

**Table**  
**HYDRAULIC LOADING APPLICABLE FOR DIFFERENT SOILS:**

Sl. No.	Soil Texture	Loading Rate in m <sup>3</sup> /Hec./day
1	Sandy	225 to 280
2	Sandy Loam	170 to 225
3	Loam	110 to 170
4	Clay Loam	055 to 110
5	Clay	035 to 055

Senior Environmental Officer,  
KSPCB, Mangaluru