



मंगलूर रिफाइनरी एण्ड पेट्रोकेमिकल्स लिमिटेड
MANGALORE REFINERY AND PETROCHEMICALS LIMITED

अनुसूची 'अ' के अंतर्गत भारत सरकार का उद्यम, SCHEDULE 'A' GOVT. OF INDIA ENTERPRISE.
(ऑयल एण्ड नेचुरल गैस कॉर्पोरेशन लिमिटेड की सहायक कंपनी, A SUBSIDIARY OF OIL AND NATURAL GAS CORPORATION LIMITED)
आई.एस.ओ. 9001, 14001 एवं 50001 प्रमाणित कंपनी, AN ISO 9001, 14001 AND 50001 CERTIFIED COMPANY.
सीआईएन/CIN : L23209KA1988GOI008959 / वेबसाइट Website : www.mrpl.co.in

L/MS/KSPCB/7636
21st September, 2024

The Member Secretary
Karnataka Pollution Control Board
No. 49, Parisara Bhavan
Church Street
Bangalore – 560 001

Dear Sir,

**विषय SUB: - Submission of Environment Statement (Form-V) for the year 2023 – 24
for Desalination Plant**

We are enclosing herewith the Environmental Statement (Form - V) for the year 2023-24
pertaining to Consent Order issued by the Board for Desalination Plant.

धन्यवाद Thanking you,

Yours sincerely,

For Mangalore Refinery & Petrochemicals Limited,

M.S. Sudarsan
23.9.24
M.S. Sudarsan
Chief General Manager (Health, Safety and Environment)

Amr
T.H.
Encl: As above

Cc: EO, KSPCB, Mangalore

FORM - V

(See Rule - 14)

Environmental Statement for the financial year ending with 31st March 2024 for Desalination plant at Tannerbhavi Village, Mangalore

PART-A

- (i) Name and address of the owner/occupier of the industry, operation or process:

Mundkur Shyamprasad Kamath
Managing Director (MD)
Mangalore Refinery and Petrochemicals Limited (MRPL),
Kuthethoor Post, via Katipalla, Mangalore – 575 030
Address of Desalination Plant:
38/P, 72/P, 37/P, 35/P Tannerbhavi Village.

- (ii) Industry category:

Orange Category (Large)

- (iii) Production Capacity:

Sea water desalination plant capacity increased from 30 MLD to 40 MLD to produce permeate water.

- (iv) Year of Establishment: Commissioned in 2021

- (v) Date of the Last environmental statement: 28th September 2023

PART -B

Water and Raw Material Consumption

- (i) Water consumption

Sea Water : 28.35 MLD (Sea water intake)

Cooling Water : NA

Domestic : 1.15 KLD

Name of Products	Water consumption	
	During the previous financial year 2022-23	During the current financial year 2023-24
Permeate Water to Refinery	6 MLD	10.5 MLD

(ii) Raw material consumption

Name of raw materials	Name of Products	Consumption of raw material per unit of output	
		During the previous financial year 2022-23	During the current financial year 2023-24
Sea Water	Permeate Water to Refinery	2.61	2.70

PART-C

Pollution discharged to Environment/unit of output

Pollutants	Description
(a) Water	Salinity of the brine reject released into sea is maintained within 65 ppt.
(b) Air	Ambient Air Quality is being done and concentration of pollutants found within limit. SO ₂ range varying within 8-13 µg/m ³ NO ₂ range varying within 10-15 µg/m ³

PART-D

Hazardous Waste

Hazardous Waste Streams	Total Quantity Generated (Liter)	
	During the previous financial year 2022-23	During the current financial year 2023-24
1. From process Spent Lube Oil (In Litres)	NIL	100
2. From Pollution Control Facilities	NIL	NIL

PART-E

Solid Wastes

Solid Wastes	Total Quantity Generated	
	During the previous financial year 2022-23	During the current financial year 2023-24
a. From process	NIL	NIL
b. From pollution control facilities	NIL	NIL
c. Quantity Recycled within the unit	NIL	NIL

Note: Insignificant quantity Solid waste generated from DESAL site is disposed to MCC through existing tie-up with Refinery

PART-F

Characteristics and disposal of Hazardous and Solid Waste

Generated Spent lube oil is reprocessed in Refinery along with crude oil.

Part – G

Impact of pollution control measures on conservation of natural resources and on the cost of production

- The sea water intake head is selected distance of 950 m from the shore at 7.7 m CD (Chart datum) water depth. The intake pipeline is made of HDPE material, and it has been laid on the seabed. The entire pipeline is buried in such a way that the top of pipeline remains at minimum 2m below the seafloor.
- Salinity of the brine reject released into the sea is 65 ppt and have the salinity difference of 30 ppt higher than seawater ambient salinity of 35 ppt.
- Brine discharge into sea from desalination plant is 17.85 MLD at the distance of 1050 m from shore.
- Desalination Operation & Maintenance cost = 1459 lakhs
- Power Consumption cost = 1763 lakhs

Part – H

Additional measures/investment proposal for environmental protection including abatement of pollution (2024-25)

1. Monitoring of D.G set is in line with the refinery.
2. Seawater intake pipeline have length of 950 m and outfall length of 1050 m to dilute the brine in an effective manner.
3. Brine reject coming out the desalination plant has been routed through pipeline back to sea. Desalination plant is having pre-

treatment plant consisting of pH correction, coagulation, Flocculation, Ultra Filtration, Reverse Osmosis including high pressure pump, energy recovery system and outfall.

4. Marine Water Quality Monitoring at Desalination marine outfall at different stations.

Part – I

Any other particulars in respect of environmental protection including abatement of pollution

1. Adequate STP has been provided to treat Sanitary sewage generated from toilets provided for the Staff and treated water is being used for gardening.
2. For DG set of 750 KVA (2 No) stacks of adequate height i.e. 12 m (2 No) are provided as stipulated by KSPCB/CPCB for adequate dispersion of pollutants.
3. Environment Management of D.G., set is in line with the Refinery.
4. Afforestation project being taken-up at Bengre with Rs 1.72 Cr. In association with Forest Dept. GoK, INR 106.94 lakhs was released for the same.

M S Sreedharan
23.5.24
for **Signature of the occupier**