Karnataka State Pollution Control Board

Parisara Bhavana,No.49, Church Street,Bengaluru-560001

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Consent For Operation(CFO-Air,Water) - (CfO-Expand)

As per the provisions of

The Water (Prevention & Control of Pollution) Act, 1974

&

The Air (Prevention & Control of Pollution) Act, 1981

To

Mangalore Refinery And Petrochemicals Limited Kuthethoor P.O via,, Kuthethoor Post

for the Facility located at,

Mangalore Refinery And Petrochemicals Limited Kuthethoor P.O via,,Mangalore Refineries And Petrochemicals Limited,Kuthethoor P ,Kuthethoor Post

Dakshina Kannada

Consent Order No	PCBID	INW ID	Industry Colour/Scale	Date of Issue
AW-337260	10206	189054	RED/LARGE	06/04/2023

This Consent is granted for the Products/ Activity/Service name indicated in the annexure along with the terms & conditions attached to this order

Validity through: 06/04/2023 to 30/06/2026

Combined Consent Order No. AW-337260 **PCB ID:** 10206 **Date:** 06/04/2023

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

Ref: 1. Application filed by the applicant/organization on 21/02/2023

2.Inspection of the Industry/organization/by RO, on 21/02/2023

3.Proceedings of the ECM dated 09/03/2023 ,held on 07/03/2023

Consent is hereby granted to the Occupier 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, (herein referred to as the Air Act) and the Rules and Orders made there under and authorized the Occupier to operate /carryout industry/activity & to make discharge of the effluents & emissions confirming to the stipulated standards from the premises mentioned below and subject to the terms and conditions as detailed in the Schedule Annexed to this order.

Location:

Name of the Industry: Mangalore Refinery And Petrochemicals Limited Kuthethoor P.O via,

Address: Mangalore Refineries And Petrochemicals Limited,Kuthethoor P, Kuthethoor Post

Industrial Area: Not In I.A, Mangalore,

Taluk: Mangalore, District: Dakshina Kannada

CONDITIONS:

a) Discharge of effluents under the Water Act:

Sr	Water Code	WC(KLD)	WWG(KLD)	Remark
1	Cooling Water	62616.000	12168.000	Phase-I & II CTBD is discharged to Sea. Phase-III CTBD is recycled, discharged to Sea
2	D.M Water Plant	22392.000	3144.000	Phase-I & II De-mineralized Plant (DM) regeneration is discharged to sea, Phase-III DM regeneration is recycled, discharged to sea.
3	Domestic Purpose	1912.000	1407.000	Recycled and discharged to sea.
4	Manufacturing Processes	12576.000	12120.000	Recycled and discharged to sea.
5	Others	0.000	1728.000	Contaminated condensates/tank bottoms - Recycled, Discharged to Sea.
6	Others	5640.000	0.000	Fire Water Make-up, BASF, HPCL - Contaminated effluent is processed in CRWS System & discharged to Sea/ Recycle.
7	Others	600.000	0.000	Washing/Quenching - Contaminated effluent is processed in CRWS System & Discharged to Sea/ Recycle.
8	Others	1800.000	0.000	Greenbelt - No Waste Water Generation

b) 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,constituents to be controlled in emissions etc. are detailed in Annexure-II.		

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

Sr	Product Name	Applied Qty	Unit
1	1. processing of petroleum crude oil of capacity 16.6 million metric tonnes per annum (mmtpa) to manufacture various products mentioned below	18.2000	Million Metric Tons/Annum
2	atf	2.0400	Million Metric Tons/Annum
3	bitumen	0.1900	Million Metric Tons/Annum
4	diesel	6.4700	Million Metric Tons/Annum
5	Fuel and Loss	2.0000	Million Metric Tons/Annum
6	fuel oil	0.3700	Million Metric Tons/Annum
7	kerosene	0.0500	Million Metric Tons/Annum
8	lpg	1.2600	Million Metric Tons/Annum
9	mixed xylene	0.0020	Million Metric Tons/Annum
10	motor spirit (ms)	1.9600	Million Metric Tons/Annum
11	naphtha	1.7710	Million Metric Tons/Annum
12	pet coke	1.1200	Million Metric Tons/Annum
13	polypropylene	0.5100	Million Metric Tons/Annum
14	sulphur	0.3100	Million Metric Tons/Annum
15	vgo	0.1500	Million Metric Tons/Annum

Validity through : 06/04/2023 **to** 30/06/2026

To,

Mangalore Refinery And Petrochemicals Limited Kuthethoor P.O via,

Katipalla Mangalore 573030.

COPY TO:

The Environmental Officer, KSPCB, Regional Office Mangalore for information and necessary action.

2. Master Register.
3. Case file.

Consent Fee paid : Rs. 800

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 confirm to the standards stipulated by the Board in Annexure-I

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

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

5. The applicant 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 applicant 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.

7. The daily quantity of domestic effluent and trade effluent from the industry shall not exceed the limits as indicated in this consent order:

8. The applicant shall discharge the effluents only to the place mentioned in the Consent order and discharge of treated/untreated outside the premises is not permitted.

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.The tolerance limits of the constituents forming the emissions in each of the stacks shall not exceed the limits laid down in Annexure-II.

2. The applicant 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 applicant shall upgrade/modify/replace the control equipment with prior permission of the Board.

C.MONITORING & REPORTING:

1. The applicant shall get the samples of effluents & emissions collected and get them analyzed once a month/either by in house monitoring laboratory or through EP approved laboratories for the parameters as Indicated in Annexure I & II.

2. The applicant shall maintain log books to reflect the working condition of pollution control systems and also self monitoring results and keep it open for inspection.

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

1.The applicant 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. HAZARDOUS AND OTHER WASTES (MANAGEMENT & TRANSBOUDARY MOVEMENT)Rules 2016:

The applicant shall comply with the provisions of the Hazardous and other Wastes (Management & Transboundry Movement) Rules 2016.

G. GENERAL CONDITIONS:

1. The applicant shall not allow the discharge from the other premises to mix with the discharge from his premises.

2. The applicant shall promptly comply with all orders and instructions issued by the Board from time to time or any other officers of the Board duly authorized in this behalf.

3. The applicant shall set-up Environmental Cell comprising of qualified and competent personnel for complying with the conditions specified.

4. The Board reserves the right to review, impose additional conditions, revoke, change or alter terms and conditions of this consent.

5. The applicant 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.

6. The applicant shall provide alternate power supply sufficient to operate all Pollution control equipments.

7. The entire premises shall always be kept clean. The effluent holding area, inspection chambers, outlets, flow points should made easily approachable.

8. The applicant shall display the consent granted in a prominent place for perusal of the inspecting officers of the Board.

9. The applicant his heirs, legal representatives or assignee shall have no claims what so ever to the continuation or renewal of this consent after expiry of the validity of consent.

10. The applicant shall make an application for consent for subsequent period at least 120 days before expiry of this consent.

11. The applicant shall develop and maintain adequate green belt all around the periphery.

12. The applicant shall provide rain water harvesting system and shall provide proper storm water management system.

13. This consent is issued without prejudice to any Court Cases pending in any Hon'ble Court

14. The applicant shall furnish the Environmental statement for every financial year ending with 31st March in Form-V as per Environment (Protection) Rules, 1986. The statement shall be furnished before the end of September.

15. The applicant shall display flow diagram of the pollution control system near the pollution contol system/s

NOTE:

The Conditions A(2(a) & 3(b)) mentioned in the schedule are not applicable.

Additional Conditions:

1. The CFO-Expansion is issued for Petroleum Crude Oil Refinery from 16.6 MMTPA to 18.2 MMTPA in the existing Refinery complex without any revamps, without addition new units but only by increase in the number of Operation Hours from 8,000 (333 days) to 8,760 per annum (365 days)
2. There shall not be any additional consumption of water in the expansion activity.
3. There shall not be any additional generation of effluent from the expansion activity.
4. There shall not be any additional air pollution source in the expansion activity.
5. The details of Water and Air pollution sources mentioned in this consent for operation (expansion) order is same as existing CFO which is valid up to 30-06-2026.
6. The occupier shall comply with all the Additional Conditions attached with this consent order.
7. This consent order contains 15 pages including Additional Conditions.
8. The products with quantities, water consumption, waste water generation, mode of disposal with standards, air pollution sources with control measures mentioned in Additional Conditions attached with this order shall be considered and to be complied by the industry.

Chim.No.	Chimney attached to	Capacity/ KVA Rating	Minimum chimney height to be provided above ground level (in Mts)	Constituents to be controlled in the emission	Tolerance limits mg/NM3	Fuel	Air pollution Control equipment to be installed,in addition to chimney height as per col.(4)	Date of which air pollution control equipments shall be provided to achieve the stipulated tolerance limits and chimney heights conforming to stipulated heights.
1	Any Other	KSU 2 Heater	63	PM,SO2,NOx,CO, NMHC	100,1700,450,200,-	F.O	PRT	At all times
2	Any Other	CCR-1 NHT chaege/stripper heater	50	PM,SO2,NOx,CO, NMHC	10,50,350,150,-	F.G	PRT	At all times
3	Incinerator	Sulphur Recovery Unit (SRU) -7 Incinerator	90	PM,SO2,NOx,CO, NMHC	-,-,350,150,150	F.G	PRT	At all times
4	D.G. Sets	Phase-3 DG 2 4850 KVA	30	PM,SO2,NOx,CO, NMHC	75,0,710,150,100	DIE	AEC	At all times
5	D.G. Sets	Phase-3 DG 1 4850 KVA	30	PM,SO2,NOx,CO, NMHC	75,-,710,150,100	DIE	AEC	At all times

6	D.G. Sets	Phase-2 DG 4 1000 KVA	22	PM,SO2,NOx,CO, NMHC	75,-,710,150,100	DIE	AEC	At all times
7	D.G. Sets	Phase-2 DG 3 1000 KVA	22	PM,SO2,NOx,CO, NMHC	75,-,710,150,100	DIE	AEC	At all times
8	D.G. Sets	Phase-2 DG 2 1000 KVA	22	PM,SO2,NOx,CO, NMHC	75,-,710,150,100	DIE	AEC	At all times
9	D.G. Sets	Phase-2 DG 1 1000 KVA	22	PM,SO2,NOx,CO, NMHC	75,-,1100,150,150	DIE	AEC	At all times
10	D.G. Sets	Phase-2 CPP DG 500 KVA	19	PM,SO2,NOx,CO, NMHC	-,-,-,-,-	DIE	AEC	At all times
11	D.G. Sets	Phase-2 CPP DG 650 KVA	19	PM,SO2,NOx,CO, NMHC	-,-,-,-,-	DIE	AEC	At all times
12	D.G. Sets	Phase-1 DG-2 set 1000 KVA	22	PM,SO2,NOx,CO, NMHC	75,-,710,150,100	DIE	AEC	At all times
13	D.G. Sets	Phase-1 DG-1 set 1000 KVA	22	PM,SO2,NOx,CO, NMHC	75,-,710,150,100	DIE	AEC	At all times
14	Any Other	Phase-3 CPP GTG-HRSG 2 (Frame-6)	70	PM,SO2,NOx,CO, NMHC	100,1700,450,200,-	F.O	PRT	At all times
15	Any Other	Phase-3 CPP GTG-HRSG 1 (Frame-5)	70	PM,SO2,NOx,CO, NMHC	100,1700,450,200,-	F.O	PRT	At all times
16	Boiler	Phase-3 CPP Utility Boiler Stack 3 & 4	120	PM,SO2,NOx,CO, NMHC	100,1700,450,200,-	F.O	PRT	At all times
17	Boiler	Phase-3 CPP Utility Boiler Stack 1 & 2	120	PM,SO2,NOx,CO, NMHC	100,1700,450,200,-	F.O	PRT	At all times
18	Incinerator	Phase-3 SRU 6 Incinerator	90	PM,SO2,NOx,CO, NMHC	0,0,350,150,150	F.G	PRT	At all times

19	Incinerator	Phase-3 SRU 5 Incinerator	90	PM,SO2,NOx,CO, NMHC	-,-,350,150,150	F.G	PRT	At all times
20	Incinerator	Phase-3 sulphur recovery unit (SRU) 4 Incinerator	90	PM,SO2,NOx,CO, NMHC	10,50,350,150,-	F.G	PRT	At all times
21	Any Other	Phase-3 Delayed Coker unit (DCU)	120	PM,SO2,NOx,CO, NMHC	100,1700,450,200,-	F.O	PRT	At all times
22	Any Other	Phase-3 HGU Heater	65	PM,SO2,NOx,CO, NMHC	10,50,350,150,-	NEP	PRT	At all times
23	FCC ReGenerator	Phase-3 PFCCU Regenerator stack	80	PM,SO2,NOx,CO, NMHC	50,850,350,300,-		PRT	At all times
24	Any Other	Phase-3 PFCCU Charge heater	90	PM,SO2,NOx,CO, NMHC	100,1700,450,200,-	F.O	PRT	At all times
25	DHDS heater	Phase-3 DHDTcharge heater	110	PM,SO2,NOx,CO, NMHC	100,1700,450,200,0	F.O	PRT	At all times
26	Any Other	Phase-3 CHTU Charge/ Splitter Heater (common chimney)	90	PM,SO2,NOx,CO, NMHC	100,1700,450,200,-	F.O	PRT	At all times
27	CDU/VDU Heater	Phase-3 CDU/ VDU 3 Heater	120	PM,SO2,NOx,CO, NMHC	100,1700,450,200,-	F.O	PRT	At all times
28	Boiler	Phase-2 Cogeneration Power Plant -II- Boiler 140 TPH (2 Nos) (Common Chimney)	90	PM,SO2,NOx,CO, NMHC	100,1700,450,200,-	F.O	PRT	At all times

29	Boiler	Phase-2 Cogeneration Power Plant -II-Boiler 140 TPH (2 Nos) (Common Chimney)	90	PM,SO2,NOx,CO, NMHC	100,1700,450,200,-	F.O	PRT	At all times
30	Any Other	Phase-2 SRU 3 Tail gas heater	57	PM,SO2,NOx,CO, NMHC	10,50,350,150,-	F.G	PRT	At all times
31	Incinerator	Phase-2 SRU 3 Incinerator	71	PM,SO2,NOx,CO, NMHC	-,-,350,150,15	F.G	PRT	At all times
32	Any Other	Phase-2 SRU 2 Tail gas heater	57	PM,SO2,NOx,CO, NMHC	10,50,350,150,-	F.G	PRT	At all times
33	Incinerator	Phase-2 SRU 2 Incinerator	71	PM,SO2,NOx,CO, NMHC	-,-,250,100,10	F.G	PRT	At all times
34	Any Other	Phase-2 Isomerisation unit	64	PM,SO2,NOx,CO, NMHC	100,1700,450,200,-	F.O	PRT	At all times
35	Any Other	Phase-2 Mixed Xylene	61	PM,SO2,NOx,CO, NMHC	100,1700,450,200,-	F.O	PRT	At all times
36	Any Other	Phase-2 GOHDS heater	51	PM,SO2,NOx,CO, NMHC	100,1700,450,200,-	F.O	PRT	At all times
37	NHT/CCR heater	Phase-2 CCR-2 Platformer heater	74	PM,SO2,NOx,CO, NMHC	100,1700,450,200,-	F.O	PRT	At all times
38	NHT/CCR heater	Phase-2 CCR-2-Stripper Heater	45	PM,SO2,NOx,CO, NMHC	100,1700,450,200,-	F.O	PRT	At all times
39	NHT/CCR heater	Phase-2 CCR NHT Charge heater	30	PM,SO2,NOx,CO, NMHC	100,1700,450,200,-	F.O	PRT	At all times
40	Any Other	Phase-2 Hydrogen Reformer	51	PM,SO2,NOx,CO, NMHC	10,50,350,150,-	F.G	PRT	At all times
41	Any Other	Phase-2 Hydrogen Naphtha Vaporiser Heater	65	PM,SO2,NOx,CO, NMHC	10,50,350,150,-	F.G	PRT	At all times

42	Any Other	Phase-2 HCU feed heater C	51	PM,SO2,NOx,CO, NMHC	100,1700,450,200,-	F.G	PRT	At all times
43	Any Other	Phase-2 HCU feed heater B	51	PM,SO2,NOx,CO, NMHC	10,50,350,150,-	F.G	PRT	At all times
44	Any Other	Phase-2 HCU feed heater A	51	PM,SO2,NOx,CO, NMHC	100,1700,450,200,-	F.G	PRT	At all times
45	Any Other	Phase-2 HCU -2- Recycle Splitter Feed Heater	65	PM,SO2,NOx,CO, NMHC	100,1700,450,200,-	F.O	PRT	At all times
46	VBU Heater	Phase-2 VBU 2 Heater	65	PM,SO2,NOx,CO, NMHC	100,1700,450,200,-	F.O	PRT	At all times
47	CDU/VDU Heater	Phase-2 CDU/VDU/NSU-2 Heater	94	PM,SO2,NOx,CO, NMHC	100,1700,450,200,-	F.O	PRT	At all times
48	Boiler	Phase-1 Cogene Power Plant 1 (45 MW) Boilers-3* 140 TPH	90	PM,SO2,NOx,CO, NMHC	100,1700,450,200,-	F.O	PRT	At all times
49	Any Other	Phase-1 SRU 1 Tail gas heater	57	PM,SO2,NOx,CO, NMHC	10,50,350,150,-	F.G	PRT	At all times
50	Incinerator	Phase-1 SRU 1 Incinerator Heater	71	PM,SO2,NOx,CO, NMHC	-,-,350,150,150	F.G	PRT	At all times
51	NHT/CCR heater	Phase-1 CCR -1 Platformer heater	64	PM,SO2,NOx,CO, NMHC	10,50,350,150,-	F.G	PRT	At all times
52	NHT/CCR heater	Phase-1 CCR NHT Charge / Stripper Heater	50	PM,SO2,NOx,CO, NMHC	10,50,350,150,-	F.G	PRT	At all times
53	Any Other	Phase-1 Hydrogen Reformer heater	51	PM,SO2,NOx,CO, NMHC	10,50,350,150,-	F.G	PRT	At all times

54	Any Other	Phase-1 Hydrogen Naphtha Vaporiser	65	PM,SO2,NOx,CO, NMHC	100,1700,450,200,-	F.G	PRT	At all times
55	Any Other	Phase-1 HCU feed heater C	51	PM,SO2,NOx,CO, NMHC	10,50,350,150,150	F.G	PRT	At all times
56	Any Other	Phase-1 HCU feed heater B	51	PM,SO2,NOx,CO, NMHC	10,50,350,150,-	F.G	PRT	At all times
57	Any Other	Phase-1 HCU feed heater A	51	PM,SO2,NOx,CO, NMHC	10,50,350,150,-	F.G	PRT	At all times
58	Any Other	Phase-1 HCU Recyled Splitter Heater	65	PM,SO2,NOx,CO, NMHC	100,1700,450,200,-	F.O	PRT	At all times
59	VBU Heater	Phase-1 VBU-1 Heater	65	PM,SO2,NOx,CO, NMHC	100,1700,450,200,-	F.O	PRT	At all times
60	Any Other	Phase-1 NSU -1 Heater	60	PM,SO2,NOx,CO, NMHC	100,1700,450,200,-	F.O	PRT	At all times
61	CDU/VDU Heater	Phase-1 CDU & VDU Heater-1	94	PM,SO2,NOx,CO, NMHC	100,1700,450,150,150	F.O	PRT	At all times
62	D.G. Sets	500 KVA D G Set	4	PM,SO2,NOx,CO, NMHC	-,-,-,-,-	DIE	AEC,PRT	At all times
63	D.G. Sets	500 KVA D G Set	4	PM,SO2,NOx,CO, NMHC	-,-,-,-,-	DIE	AEC,PRT	At all times

Note:

PRT : Port Hole

PRT : Port Hole

AEC : Accoustic Enclosures

PRT : Port Hole

PRT : Port Hole

PRT : Port Hole

PRT : Port Hole

PRT : Port Hole

PRT : Port Hole

AEC,PRT : Accoustic Enclosures

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, PLATFORMS, 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 100 mm dia". Arrangements should be made so that the porthole is closed firmly during the non sampling period

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 of 230 V 15 A with suitable switch control and 3 Pin Point shall be provided at the Porthole location.

4. The ladder shall be provided with adequate safety features so as to approach the monitoring location with ease.

For and on behalf of the
Karnataka State Pollution Control Board

Signature Not Verified
Digitally signed by
Date: 2023.04.06 13:12:06 +05:30

ADDITIONAL CONDITIONS
[PCB Id: 10206; Inward: 179054]

ADDITIONAL CONDITIONS TO ACCOMPANY CONSENT FOR OPERATION (EXPANSION) ORDER OF M/S MANGALORE REFINERY AND PETROCHEMICALS LIMITED, KUTHETHUR, KATIPALLA, MANGALURU-573030.

1) This CFO-Expansion is issued from Water & Air pollution control point of view under the provisions of the Water (Prevention and Control of Pollution) Act, 1974 & the Air (Prevention and Control of Pollution) Act, 1981.
2) The CFO-Expansion is issued for Petroleum Crude Oil Refinery from 16.6 MMTPA to 18.2 MMTPA in the existing Refinery complex without any revamps, without addition of new units but only by increase in the number of Operation Hours from 8,000 (333 days) to 8,760 per annum (365 days) to manufacture the following products.

Sl. No.	Product details	Quantity in MMTPA
1	LPG	1.26
2	Naphtha	1.771
3	Motor Spirit	1.96
4	Kerosene	0.05
5	ATF	2.04
6	Diesel	6.47
7	Fuel Oil	0.3 7
8	Bitumen	0.19
9	Sulphur	0.31
10	Mixed Xylene	0.002
11	Pet Coke	1.12
12	Polypropylene	0.51
13	VGO	0.15
14	Fuel and Losses	2.00

3) The quantity shall not exceed the quantity indicated against respective product in col. (3) of the above table.
4) The industry shall comply with the conditions stipulated in the Environmental Clearance issued by MoEF & CC vide No. J-11011/215/2010-IA (II) dated: 09.01.2023.
5) The industry shall comply with the conditions stipulated in the CFO issued by the Board vide No. AW-332309 dated: 15.07.2022.
6) The industry shall comply with the directions issued in the Personal Hearing held on 25.11.2022.
7) **The industry shall conduct radiation modelling study to assess the impact of heat radiation from flare stack on surrounding environment and submit the study report to the Board within six months.**
8) This Consent for Operation (Expansion) order is valid upto: **30.06.2026 (Co-terminus with existing CFO).**

B. TREATMENT AND DISPOSAL OF EFFLUENTS UNDER THE WATER ACT.

1. There shall not be any additional consumption of water in the expansion activity.
2. There shall not be any additional generation of effluent from the expansion activity.

C. EMISSIONS.

1. There shall not be any additional air pollution source in the expansion activity.

D. SOLID AND HAZARDOUS WASTE.

1. There shall not be any generation of additional Solid or Hazardous Waste from the expansion activity.

SENIOR ENVIRONMENTAL OFFICER
17 CATEGORY CELL