







Karnataka State Pollution Control Board

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

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Email id: ho@kspcb.gov.in

Consent For Establishment -Expand(CFE-EXP)

As per the provisions of

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

&

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

То

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 |
|------------------|-------|--------|-----------------------|---------------|
| CTE-337561 | 10206 | 176625 | RED/LARGE | 03/05/2023 |

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

Validity : <u>18/01/2031</u>



ISO 9001:2015 & 14001:2015 Certified

PCB ID-10206

D-10206 INW

INW ID-176625 CHIEF/SENIOR ENVIRONMENTAL OFFICER

| | (Thi | s documen | t contains 15 | р | ages inclu | uding annex | ure & excluding | g additional condit | ions) | |
|--------|--------------------------|-------------|--------------------------|-----------|------------|--------------|-----------------|--|---------------|------------|
| Comb | ined Consent | Order No: | CTE-33756: | 1 | PCB ID: | 10206 | GSC No: F | PB0XG0000166625 | Date: | 03/05/2023 |
| To, | | | | | | | | | | |
| The A | pplicant, | | | | | | | | | |
| Mang | alore Refine | ry And Pet | trochemical | s Limitec | l Kutheth | noor P.O via | Э, | | | |
| Katipa | alla Mangalo | re 573030 |). | | | | | | | |
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| | | | | | | | | | | |
| Sir, | | | | | | | | | | |
| Sub: | | • | n of the unitrevention & | | | | | r (Prevention & C | Control of Po | ollution) |
| Ref: | 1.CFE exp | ansion ap | plication su | bmitted l | by the or | ganization | on 05/01/2023 | 8 at Regional Off | ice KSPCE | \$ |
| | 2.Inspection Officer | on of the p | project site b | y Regior | nal | | on | 30/01/2023 | | |
| | 3.Proceed | ings of the | e ECM dated | d 09/03/2 | 2023 helo | d on07/03/2 | 2023 | | | |
| | | | | | | | • | ords Consent for | - | |
| | | | | | | | | 74 & the Air (Pre ions indicated in | | |
| Locati | - | | | | | | | | Schedule A | innexeu. |
| | of the Indus | strv: N | ∕langalore R | efinerv A | And Petro | ochemicals | Limited Kuthe | ethoor P.O via, | | |
| Addre | | | - | | | | | hethoor P, Kuthe | thoor Post | |
| | trial Area: | | lot In I.A, | KA | RN | | langalore, | , | | |
| Taluk: | | | /langalore, | | | | istrict: Dakshi | na Kannada | | |
| COND | ITIONS: | | U , | | | | | | | |
| 1. Tł | ne Consent fo | or Expansi | on is grante | d consid | ering the | e following | activities: | | | |
| Sr | | roduct Nam | ie | CFE | | CFO Qty | Applied Qty | | Existing/Prop | |
| 1 bi | tumen | | | | 0.1440 0. | 000 - MMTa | 0.1440 | Million Metric Tons/Annum | Prop | osed |
| 2. Tł | nis consent fo | or establis | hment is val | id up to | 18/01/2 | 031 fr | om the date of | issue. | | |
| 3. Th | e applicant s | shall not u | ndertake fu | rther ex | pansion/ | diversificat | ion without th | ne prior consent | of the Boar | d. |
| | e applicant s ne law. | shall obtai | n necessary | license/ | clearanc | e from oth | er relevant sta | atutory agencies | as required | under |
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| | | | | | | | | | | |

pages including annexure & excluding additional conditions)

I. WATER CONSUMPTION:

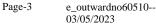
1. The source of water shall be from Other

and shall obtain prior permission from the concerned

authority. Total water consumption shall not exceed as indicated below:

| Particulars | Water Consumption(KLD) | Water Discharge(KLD) | Water Source | Existing/Proposed |
|----------------------------|------------------------|----------------------|--------------|-------------------|
| Cooling Water | 62616.0 | 12168.0 | Other | Existing |
| D.M Water Plant | 22392.0 | 3144.0 | Other | Existing |
| Domestic Purpose | 1912.0 | 1407.0 | Other | Existing |
| Manufacturing Processes | 12576.0 | 12120.0 | Other | Existing |
| Others | 0.0 | 1728.0 | Other | Existing |
| Others | 5640.0 | 0.0 | Other | Existing |
| Others | 600.0 | 0.0 | Other | Existing |
| Others | 1800.0 | 0.0 | Other | Existing |
| Others | 61.0 | 41.0 | Other | Proposed |





II. WATER POLLUTION CONTROL:

1. The discharge from the premises of the applicant 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. The sewage/domestic effluent shall be treated in Septic Tank 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.

3. The Effluent Treatment Plant proposal is generally agreeable and shall be constructed as per the specifications mentioned in the proposal and it shall consist of following units.

4. The industry shall treat the domestic wastewater in the Sewage Treatment Plant (STP) as per the proposal submitted. It shall meet the standards specified in Annexure-I & shall be used on land for gardening/greenbelt within the factory premises.

5. If the treatment plant does not achieve the effluent standards stipulated in this consent order and/or if it is found to be inadequate, then the industry shall have to modify the units so as to meet the standards with prior consent of the Board.

6. All the treatment units shall be totally impervious.

7. The applicant shall provide separate flow meter for measuring the quantity of effluents through ETP and separate energy meter and shall maintain a logbook for the verification of inspecting officers.

8. The applicant shall operate and maintain Treatment Plant continuously and maintain at all times to achieve the stipulated standards as per Annexure-I & also maintain regular log-books/operation records.

9. There shall not be any increase in generation of Domestic sewage due to proposed expansion.

10. There shall be no bypass or discharge of effluents either within or outside the factory premises under any circumstances.

11. There shall not be any discharge of untreated trade/domestic sewage inside/outside the industry premises.

12. The applicant shall explore the possibility of reducing freshwater consumption & adopt recycling/ reuse.

III. AIR POLLUTION CONTROL:

- 1. The type of emissions, stack heights and the air pollution control equipment for the air pollution control sources to be installed as specified in **Annexure-II**.
- 2. The discharge of emissions from the air pollution sources shall pass through the 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.
- 3. The stacks shall have port holes and platforms as per the guidelines specified in **Annexure-II** to facilitate monitoring of emissions.
- 4. The applicant shall upgrade/modify/replace the control equipments if they are found inadequate to meet the standards stipulated with prior permission of the Board shall be obtained for the same.
- 5. There shall not be any other sources of air pollution from the proposed expansion.
- 6. If there is going to be any new air pollution sources in future, the project authorities shall apply and obtain consent for establishment for the same from the Board.
- 7. Any fugitive emission has to be controlled to meet the ambient air quality standards.

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

- 1. The applicant shall collect, treat and dispose off all solid waste generated during construction i.e. Muck, and Garbage after construction if any in such manner so as not to cause environmental pollution.
- 2. The details of solid waste generated from the expansion activity shall be as follows

V. HAZARDOUS AND OTHER WASTES (MANAGEMENT & TRANSBOUNDRY MOVEMENT) RULES 2016:

- The industry shall apply and obtain authorization under Hazardous and Other Wastes (Management & Transboundry Movement) Rules 2016, and comply with the conditions of the authorization. The applicant shall apply for authorization along with the consent for operation (CFO) application under the Rules in Form-I to obtain authorization and comply with conditions.
- 2. There shall not be any Hazardous Waste generation from the proposed expansion project.

VI. NOISE POLLUTION CONTROL:

The applicant shall ensure that the ambient noise levels within its premises during construction and 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.

VII. GENERAL CONDITIONS:

- 1. The applicant shall obtain prior permission from the competent authority for drawing of water from Surface/Ground water source and submit a copy of the same to the Board.
- 2. The applicant shall transport and store the raw materials in a manner so as not to cause any damage to environment, life and property. The applicant shall be solely responsible for any damages to environment.
- 3. The applicant shall not commission the proposed plant for trial or regular production unless necessary pollution control measures are installed as specified in this Consent Order.
- 4. The applicant shall ensure that the treatment plant and control equipments are completed and commissioned simultaneously along with construction of the factory and erection of machineries.
- 5. The applicant shall not change or alter (a) raw materials or manufacturing process, (b) change the products or product mix (c) the quality, quantity or rate of discharge/emissions and (d) install/replace/alter the water or air pollution control equipments without the prior approval of the Board.
- 6. The applicant shall immediately report to the Board of any accident or unforeseen act or event resulting in releas of discharge of effluents or emissions or solid wastes etc. in excess of the standards stipulated. And the industry shall immediately take appropriate corrective and preventive actions under intimation.
- 7. The applicant is liable to reinstate or restore, damaged or destroyed elements of environment at his cost, failing which, the applicant/occupier as the case may be shall be liable to pay the entire cost of remediation or restoration in advance an amount equal to the cost estimated by Competent Agency or Committee.
- 8. The Board reserves the right to review, impose additional condition or conditions, revoke, change or alter the terms and conditions.
- 9. This CFE does not give any right to the Party/Project Authority/Industry to forego any *other* legal requirement that is necessary for setting/operation of the plant.
- 10. The applicant shall furnish point wise compliance to the conditions given under this consent for establishment within 30 days.
- 11. The applicant shall take measures to develop green belt all along the periphery of the factory premises.
- 12. This consent is issued without prejudice to any Court Cases pending in any Hon'ble Court
- 13. The applicant shall comply with all the Conditions and guidelines issued by the Board from time to time.

Please note that this is only consent for establishment issued to you to proceed with the formalities for expansion of the industry and does not give any right to proceed trial/regular production. For this purpose, separate consents of the Board for discharge of liquid effluent and the emissions to the air shall have to be obtained by remitting prescribed consent fee. The application for consent has to be made 120 days in advance of commissioning for trial production of the plant.

The receipt of this letter may please be acknowledged.

: Rs. 800000

Consent Fee paid

NOTE:

The Conditions II(2)mentioned above are not applicable.



CHAIRMAN - CHIEF/SENIOR ENVIRONMENTAL OFFICER

KARNATAKA

Encl.: Annexure-I & II.

COPY TO:

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

- 1. Master copy (Dispatch).
- 2. Office copy.

| Chi m.N o. | Chimne y attached to | KVA | Minimum chimney height to be provided above ground level (in Mts) | Constituents to be controlled in the emission | Tolerance limits mg/NM3 | Fuel | Control | 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,C O, NMHC | 100,1700,450,2 00,- | F.O | PRT | At all times |

03/05/2023

Additional Conditions:

1. This CFE expansion is issued to existing petroleum crude oil refinery of capacity 16.6MMTPA for the following expansion/modernization activities

a. LPG Amine Treatment of 1365 KTPA capacity at PFCC Unit.

b. Wet Gas Scrubber of 2992 KTPA capacity at PFCC Unit.

c. New Bitumen train of 144 KTPA capacity.

d. CCR-1 re-generator revamp.

e. Natural Gas facility of 1.2 MMCMD capacity- an alternative fuel/feed.

2. The occupier shall comply with all the Additional Conditions and Standards stipulated in Annexure attached with this consent order.

3. This consent order contains 18 pages including Additional Conditions and Annexure.

4. 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. 5. In case of any discrepancy in the name of the product & its quantity in this consent order, the name of the product and quantity indicated in the EC will

prevail.

5. The industry shall submit copy of the Public Liability Insurance obtained under PLI Act to the Board.

| 2 | Any | CCR-1 | 50 | PM,SO2,NOx,C | 10,50,350,150, | F.G | PRT | At all times |
|----|------------------|---|----|----------------------------|------------------------|-----|-----|--------------|
| | Other | NHT chaege/s tripper heater | | O, NMHC | - | | | |
| 3 | Incinera tor | Sulphur Recover y Unit (SRU) -7 Incinerat or | 90 | PM,SO2,NOx,C O, NMHC | -,-,350,150,150 | F.G | PRT | At all times |
| 4 | D.G. Sets | Phase-3 DG 2 4850 KVA | 30 | PM,SO2,NOx,C O, NMHC | 75,0,710,150,1 00 | DIE | AEC | At all times |
| 5 | D.G. Sets | Phase-3 DG 1 4850 KVA | 30 | PM,SO2,NOx,C O, NMHC | 75,-,710,150,1 00 | DIE | AEC | At all times |
| 6 | D.G. Sets | Phase-2 DG 4 1000 KVA | 22 | PM,SO2,NOx,C O, NMHC | 75,-,710,150,1 00 | DIE | AEC | At all times |
| 7 | D.G. Sets | Phase-2 DG 3 1000 KVA | 22 | PM,SO2,NOx,C O, NMHC | 75,-,710,150,1 00 | DIE | AEC | At all times |
| 8 | D.G. Sets | Phase-2 DG 2 1000 KVA | 22 | PM,SO2,NOx,C O, NMHC | 75,-,710,150,1 00 | DIE | AEC | At all times |
| 9 | D.G. Sets | Phase-2 DG 1 1000 KVA | 22 | PM,SO2,NOx,C O, NMHC | 75,-,1100,150, 150 | DIE | AEC | At all times |
| 10 | D.G. Sets | Phase-2 CPP DG 500 KVA | 19 | PM,SO2,NOx,C O, NMHC | -,-,-,- | DIE | AEC | At all times |
| 11 | D.G. Sets | Phase-2 CPP DG 650 KVA | 19 | PM,SO2,NOx,C O, NMHC | -,-,-,- | DIE | AEC | At all times |
| 12 | D.G. Sets | Phase-1 DG-2 set 1000 KVA | 22 | PM,SO2,NOx,C O, NMHC | 75,-,710,150,1 00 | DIE | AEC | At all times |
| 13 | D.G. Sets | Phase-1 DG-1 set 1000 KVA | 22 | PM,SO2,NOx,C O, NMHC | 75,-,710,150,1 00 | DIE | AEC | At all times |
| 14 | Any Other | Phase-3 CPP GTG- HRSG 2 (Frame- 6) | 70 | PM,SO2,NOx,C O, NMHC | 100,1700,450,2 00,- | F.O | PRT | At all times |

70 PM,SO2,NOx,C 100.1700.450.2 F.O PRT 15 Any Phase-3 At all times Other CPP 00,-О, NMHC GTG-. HRSG 1 (Frame-5) 120 PM,SO2,NOx,C PRT 16 Boiler Phase-3 100,1700,450,2 F.O At all times CPP О. 00,-NMHC Utility Boiler Stack 3 & 4 17 Boiler Phase-3 PRT 120 PM,SO2,NOx,C 100,1700,450,2 F.O At all times CPP 00,-О, Utility NMHC Boiler Stack 1 & 2 18 Incinera Phase-3 PRT 90 PM,SO2,NOx,C 0,0,350,150,15 F.G At all times SRU 6 tor О, 0 NMHC Incinerat or Phase-3 90 PM,SO2,NOx,C PRT At all times 19 Incinera -,-,350,150,150 F.G tor SRU 5 О. Incinerat NMHC or 20 Incinera Phase-3 90 PM,SO2,NOx,C 10,50,350,150, F.G PRT At all times sulphur tor О. recovery NMHC unit (SRU) 4 Incinerat or 120 PM,SO2,NOx,C 100,1700,450,2 F.O 21 Any Phase-3 PRT At all times Other Delayed 00,-О, Coker NMHC unit (DCU) 22 Any Phase-3 65 PM,SO2,NOx,C 10,50,350,150, NEP PRT At all times Other HGU 0, Heater NMHC 23 FCC Phase-3 80 PM,SO2,NOx,C 50,850,350,300 FIL,CYC,SC At all times ReGen PFCCU R О, erator Regener NMHC ator stack 24 Any Phase-3 90 PM,SO2,NOx,C 100,1700,450,2 F.O PRT At all times Other PFCCU 00,-О, NMHC Charge heater 25 DHDS Phase-3 110 PM,SO2,NOx,C 100,1700,450,2 F.O PRT At all times heater DHDTch 00,0 О. arge NMHC heater 90 PM,SO2,NOx,C 100,1700,450,2 F.O PRT 26 Anv Phase-3 At all times Other CHTU О. 00,-NMHC Charge/ Splitter Heater (common chimney)

(This document contains 15 pages including annexure & excluding additional conditions)

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(This document contains 15 pages including annexure & excluding additional conditions) 120 PM,SO2,NOx,C 100,1700,450,2 F.O PRT 27 CDU/V Phase-3 At all times DU CDU/ 00,-О, VDU 3 NMHC Heater Heater PRT 28 Boiler Phase-2 90 PM,SO2,NOx,C 100,1700,450,2 F.O At all times Cogener О, 00,-NMHC ation Power Plant -II-Boiler 140 TPH (2 Nos) (Commo n Chimney PRT 29 Boiler 90 PM,SO2,NOx,C 100,1700,450,2 F.O At all times Phase-2 Cogener О, 00,-NMHC ation Power Plant -II-Boiler 140 TPH (2 Nos) (Commo n Chimney 30 Any Phase-2 57 PM,SO2,NOx,C 10,50,350,150, F.G PRT At all times Other SRU 3 О. Tail gas NMHC heater 31 Incinera Phase-2 71 PM,SO2,NOx,C -,-,350,150,15 F.G PRT At all times SRU 3 tor О, Incinerat NMHC or 32 Any Phase-2 57 PM,SO2,NOx,C 10,50,350,150, F.G PRT At all times Other SRU 2 О, NMHC Tail gas heater 33 Incinera Phase-2 71 PM,SO2,NOx,C -,-,250,100,10 F.G PRT At all times tor SRU 2 О. Incinerat NMHC or Phase-2 64 PM,SO2,NOx,C 100,1700,450,2 F.O PRT 34 Any At all times Other Isomeris О, 00,-NMHC ation unit Phase-2 61 PM,SO2,NOx,C PRT 35 Any 100,1700,450,2 F.O At all times Other Mixed О. 00,-NMHC Xylene 36 Any Phase-2 51 PM,SO2,NOx,C 100,1700,450,2 F.O PRT At all times Other GOHDS О. 00,heater NMHC 37 NHT/C Phase-2 74 PM,SO2,NOx,C 100,1700,450,2 F.O PRT At all times CR CCR-2 О. 00,-NMHC heater Platform er heater PRT 38 NHT/C Phase-2 45 PM,SO2,NOx,C 100,1700,450,2 F.O At all times CR CCR-2-О, 00.heater Stripper NMHC Heater e_outwardno60510--

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| 39 | NHT/C CR heater | Phase-2 CCR NHT Charge heater | 30 | PM,SO2,NOx,C O, NMHC | 100,1700,450,2 00,- | F.U | PRT | At all times |
|----|-----------------------|--|----|----------------------------|------------------------|-----|-----|--------------|
| 40 | Any Other | Phase-2 Hydroge n Reformer | 51 | PM,SO2,NOx,C O, NMHC | 10,50,350,150, - | F.G | PRT | At all times |
| 41 | Any Other | Phase-2 Hydroge n Naphtha Vaporise r Heater | 65 | PM,SO2,NOx,C O, NMHC | 10,50,350,150, - | F.G | PRT | At all times |
| 42 | Any Other | Phase-2 HCU feed heater C | 51 | PM,SO2,NOx,C O, NMHC | 100,1700,450,2 00,- | F.G | PRT | At all times |
| 43 | Any Other | Phase-2 HCU feed heater B | 51 | PM,SO2,NOx,C O, NMHC | 10,50,350,150, - | F.G | PRT | At all times |
| 44 | Any Other | Phase-2 HCU feed heater A | 51 | PM,SO2,NOx,C O, NMHC | 100,1700,450,2 00,- | F.G | PRT | At all times |
| 45 | Any Other | Phase-2 HCU -2- Recycle Splitter Feed Heater | 65 | PM,SO2,NOx,C O, NMHC | 100,1700,450,2 00,- | F.O | PRT | At all times |
| 46 | VBU Heater | Phase-2 VBU 2 Heater | 65 | PM,SO2,NOx,C O, NMHC | 100,1700,450,2 00,- | F.O | PRT | At all times |
| 47 | CDU/V DU Heater | Phase-2 CDU/VD U/NSU- 2 Heater | 94 | PM,SO2,NOx,C O, NMHC | 100,1700,450,2 00,- | F.0 | PRT | At all times |
| 48 | Boiler | Phase-1 Cogene Power Plant 1 (45 MW) Boilers- 3* 140 | 90 | PM,SO2,NOx,C O, NMHC | 100,1700,450,2 00,- | F.O | PRT | At all times |
| 49 | Any Other | TPH Phase-1 SRU 1 Tail gas heater | 57 | PM,SO2,NOx,C O, NMHC | 10,50,350,150, - | F.G | PRT | At all times |
| 50 | Incinera tor | Phase-1 SRU 1 Incinerat or Heater | 71 | PM,SO2,NOx,C O, NMHC | -,-,350,150,150 | F.G | PRT | At all times |
| 51 | NHT/C CR heater | Phase-1 CCR -1 Platform er heater | 64 | PM,SO2,NOx,C O, NMHC | 10,50,350,150, - | F.G | PRT | At all times |

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| | NHT/C CR heater | Phase-1 CCR NHT Charge / Stripper Heater | | PM,SO2,NOx,C O, NMHC | 10,50,350,150, - | | PRT | At all times |
|-------------------------------|---------------------------|---|------|----------------------------|--------------------------|-----|---------|--------------|
| 53 | Any Other | Phase-1 Hydroge n Reformer heater | 51 | PM,SO2,NOx,C O, NMHC | 10,50,350,150, - | F.G | PRT | At all times |
| 54 | Any Other | Phase-1 Hydroge n Naphtha Vaporise r | 65 | PM,SO2,NOx,C O, NMHC | 100,1700,450,2 00,- | F.G | PRT | At all times |
| 55 | Any Other | Phase-1 HCU feed heater C | 51 | PM,SO2,NOx,C O, 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,C O, NMHC | 10,50,350,150, - | F.G | PRT | At all times |
| 57 | Any Other | Phase-1 HCU feed heater A | 51 | PM,SO2,NOx,C O, NMHC | 10,50,350,150, - | F.G | PRT | At all times |
| 58 | Any Other | Phase-1 HCU Recyled Splitter Heater | 65 | PM,SO2,NOx,C O, NMHC | 100,1700,450,2 00,- | F.O | PRT | At all times |
| 59 | VBU Heater | Phase-1 VBU-1 Heater | 65 | PM,SO2,NOx,C O, NMHC | 100,1700,450,2 00,- | F.O | PRT | At all times |
| 60 | Any Other | Phase-1 NSU -1 Heater | 60 | PM,SO2,NOx,C O, NMHC | 100,1700,450,2 00,- | F.0 | PRT | At all times |
| 61 | CDU/V DU Heater | Phase-1 CDU & VDU Heater-1 | 94 | PM,SO2,NOx,C O, NMHC | 100,1700,450,1 50,150 | F.O | PRT | At all times |
| 62 | D.G. Sets | 500 KVA D G Set | 4 | PM,SO2,NOx,C O, NMHC | -,-,-,- | DIE | AEC,PRT | At all times |
| 63 | D.G. Sets | 500 KVA D G Set | 4 | PM,SO2,NOx,C O, NMHC | 777777 | DIE | AEC,PRT | At all times |
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| IL,C\ CR | YC, ∶Bag | Filter | | | | | | |

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|--------|----------------------------|---|
| PRT | : Port Hole | |
| AEC,PR | Г ∶ Accoustic Enclosures | |

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 at least eight times the stack or duct diameter downstream from any flow disturbance such as bend, expansion, contraction and visible flame. Further, the selected port has to be at least 2 stack/duct diameter before stack/duct exit or from any other flow disturbance. For rectangular stacks, an equivalent diameter can be calculated using following expression.

2 (Length x Width)

Equivalent Diameter = ------(Length + Width)

2. The diameter of the sampling port should not be less than 100mm 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 off 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.



ADDITIONAL CONDITIONS [PCB Id: 10206; Inward: 166625]

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

Α.

- 1 This CFE-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 CFE-Expansion is issued to existing Petroleum Crude Oil refinery of capacity 16.6 MMTPA for following modernization/expansion activities and to manufacture following products

| SI. No. | Product details | Quantity in MMTPA | | | | |
|------------|-----------------|-------------------|--|--|--|--|
| 1 | LPG | 0.797 | | | | |
| 2 | Naphtha | 1.281 | | | | |
| 3 | Motor Spirit | 1.407 | | | | |
| 4 | Kerosene | 0.537 | | | | |
| 5 | ATF | 1.595 | | | | |
| 6 | Diesel | 6.434 | | | | |
| 7 | Fuel Oil | 2.161 | | | | |
| 8 | Bitumen | 0.489 | | | | |
| 9 | Sulphur | 0.195 | | | | |
| 10 | Mixed Xylene | 0.350 | | | | |
| 11 | Pet Coke | 0.674 | | | | |
| 12 | Polypropylene | 0.380 | | | | |
| 13 | VGO | 0.086 | | | | |
| 14 | Fuel and Losses | 0.214 | | | | |

MODERNIZATION ACTIVITIES.

- i. Treatment Unit of capacity 1365 KTPA at PFCC unit.
- ii. Wet gas LPG Amine Scrubber System of capacity 2992 KTPA at PFCC unit.
- iii. New Bitumen Blowing Train of capacity 144 KTPA.
- iv. CCR-1 regenerator revamp
- v. Natural Gas Facility of capacity 12 MMCMD (alternative fuel/feed)
- 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: 19.01.2021.
- 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 and proceedings communicated vide letter dated: 08.02.2023 as below;

- i. The industry shall monitor the water quality of the storm water drain at the entry into the premises of the refinery complex, at the exit point of the refinery complex and submit the reports to the Board every month.
- ii. The industry shall follow up with Pilikula Nisarga Dhama authorities (Forest Department) to complete the Bio-diversity Park in the marshy land.
- iii. The industry shall submit the detailed micro action plan to comply with the conditions stipulated in the consent and to prevent pollution in general.
- iv. The industry shall engage agricultural science university and shall conduct comprehensive study on pollution of soil, effect on plant etc., and shall submit interim report to the Board after every season.
- 7 This CFE (Expansion) order is valid upto: **18.01.2031 (Co-terminus with validity of EC).**

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

- 1. The Source of water for the proposed expansion activity shall be treated sewage from MSEZ. No additional river water shall be used for this proposed expansion activity.
- 2. Total water requirement in the proposed expansion activity shall not exceed 61 m³/hour (1464 KLD).
- 3. The quantity of effluent shall in the proposed expansion activity shall not exceed 41 m³/hour & shall be treated in the existing ETP followed by RO system and the treated effluent shall be completely utilized for cooling tower makeup water. There shall not be any increase in the permitted quantity of treated effluent discharge to sea through pipeline i.e., 446 m³/hour.

C. EMISSIONS.

- 1. There shall not be any additional air pollution source in the proposed expansion activity.
- 2. The applicant shall upgrade the APC system by installing wet scrubber in addition to existing cyclone and filter followed by chimney of height 80 m AGL in the regeneration section of PFCC.

D. SOLID WASTE MANAGEMENT

1. The industry shall establish scientific facility for collection, storage, treatment and disposal off all the solid waste generated from the process other than wastes covered under the Hazardous and Other Waste (Management &Transboundary Movement) Rules,2016 in such manner so as not to cause environmental pollution.

E. HAZARDOUS WASTE MANAGEMENT

- 1. The applicant shall apply and obtain authorization under the Hazardous & other wastes (Management & Transboundry Movement) Rules, 2016 after obtaining CFO.
- 2. The applicant shall provide scientifically designed, dedicated storage area with proper ventilation for storing various categories of hazardous wastes. The storage area shall be provided with impervious floor and constructed in such a

way that, the area is divided into different cells to store different categories of waste.

3. The industry shall submit the details on various categories of Hazardous wastes generated per unit of each of the product/s, hazardous waste generated from sections/ETP and utilities viz DG sets, compressors etc., separately.

F. SELF MONITORING AND REPORTING:

- 1. The applicant shall carry out Environmental Quality Monitoring (Ground Water, Effluent (Sewage/LTDS/HTDS), Air Emissions, Ambient Air/Noise) on monthly basis and submit the monitoring reports to the Board.
- 2. The applicant shall carryout the ambient air quality monitoring and submit the report to the Board. The AAQM shall be carried out in all the established stations as per the requirement under the National Ambient Air Quality Monitoring Standards stipulated in Environmental (Protection) Rules, 1986. Monitoring shall include the parameters PM_{2.5}, PM₁₀, Sulphur dioxide, Nitrogen Oxide, Ammonia. The industry shall furnish statistical analysis for annual average of pollutants at all the locations as per Ambient Air Quality standards Notification once in a year. The monitoring shall be carried-out as per National Ambient Air Quality Standards notified by MoEF & CC vide No.GSR. 826(E) dated:16.11.2009.

G. GENERAL:

- 1. The area around production block, utilities, raw material storage area and the area used movement of vehicles shall be provided with RCC flooring/asphalted.
- 2. The application shall obtain prior permission of the State Ground Water Board of abstraction of ground water and shall submit copy of such permission issued within 3 months if ground water is proposed to be drawn for industrial/domestic use.
- 3. The Industry shall explore the possibility of using solar energy.
- 4. The industry shall comply with Plastic Waste Management Rules and E-Waste Management Rules.
- 5. The applicant shall submit half yearly consent conditions compliance report to the Board on or before 30th October for the period April to September and on or before 30th April for the period October to March.
- 6. The applicant shall submit Form-V as per Environment (Protection) Rules, 1986 before 30th September every year for the vious financial year after obtaining Consent for Operation.
- 7. The Industry shall conduct Awareness Programme on Environmental Pollution among Employees and community.
- 8. Non-compliances to the conditions stipulated, Board has the right to withdraw the consent.

SENIOR ENVIRONMENTAL OFFICER **17 CATEGORY CELL**