



MR.HSE.ENV.1.ECCOMP

Date:31<sup>st</sup> Dec.2024

To

**Shri. Kanwarjit Singh, IFS**

Additional Principal Chief Conservator of Forest,  
Ministry of Environment Forest & Climate Change,  
Regional Office (WCZ), Ground Floor,  
East Wing, New Secretariat Building,  
Civil Line, Nagpur-440001  
Email: [apccfcentral-ngp-mef@gov.in](mailto:apccfcentral-ngp-mef@gov.in)

**Sub:** Submission of Six Monthly Compliance report for the period of April-2024 to September -2024

Dear Sir,

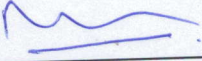
We, Bharat Petroleum Corporation Ltd. (BPCL), Mumbai Refinery, would like to bring to your kind attention that we are facing an issue with the online entry of six-monthly Environmental Clearance Compliance Report on the PARIVESH Portal for the reporting period of April-2024 to September 2024. The issue is being addressed and we will update the necessary details on the PARIVESH portal as soon as the issue is resolved.

In the meantime, please find enclosed the six-monthly Compliance Report for the reporting period April-2024 to September-2024 for Environmental Clearances (ECs) pertaining to the projects of BPCL Mumbai Refinery in Maharashtra, for your kind reference.

Thanking you,

Yours Faithfully,

For Bharat Petroleum Corporation Ltd.,

  
**Suresh Rathod**  
Chief Manager  
(Environment, HSSE, Mumbai Refinery)

**Encl: EC Compliance report**

CC:

1. Environment Department, Govt. of Maharashtra, Room No. 207, 2<sup>nd</sup> Floor, Mantralay Annex, Mumbai- 400032
2. Member Secretary, Maharashtra Pollution Control Board, Kalpataru Point, 3<sup>rd</sup> floor Sion, Mumbai-400022
3. SRO-III, Maharashtra Pollution Control Board, Kalpataru Point, 2<sup>nd</sup> floor, Sion, Mumbai-400022

मुंबई रिफाइनरी : माहुल, मुंबई - 400074. फोन : 2552 4888/2552 4999/2553 3888/2553 3999, फॅक्स : 2554 2970

रजिस्टर्ड ऑफिस : भारत भवन, करीमभाँय रोड, बेलाई इस्टेट, मुंबई - 400 001.

Mumbai Refinery, Mahul, Mumbai-400074. Tel.: 2552 4888/2552 4999/2553 3888/ 2553 3999, Fax : 2554 2970

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# **Half Yearly EC Compliance Report**

**Period: Apr-2024 to Sep-2024**

**BPCL, Mumbai Refinery**

**Compliance Status Report for Gasoline Hydro Treatment Unit (GTU) (0.9 MMTPA) & associated facilities to produce 100% BS-VI MS**

EC Letter no. J-11011/98/2016-IA-II(I) dated 20<sup>th</sup> March 2017

Consent To Operate (CTO) for Gasoline Treatment Unit (GTU) amalgamated with existing refinery CTO has been received from Maharashtra Pollution Control Board (MPCB) on 13<sup>th</sup> Sept-2019.

GTU plant was commissioned on 22<sup>nd</sup> Oct 2019.

As per the stipulations given in the Environmental Clearance for Gasoline Hydro Treatment Unit (GTU) (0.9 MMTPA) & its associated facilities to produce 100% BS-VI MS, the detailed compliance status is given below:

**A. SPECIFIC CONDITIONS :**

| Sr. No. | SPECIFIC CONDITION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | STATUS as on 01.12.2024<br>(April-2024 to September-2024)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| i.      | M/s BPCL shall comply with new standards/norms for Oil Refinery Industry notified under the Environment (Protection) Rules,1986 vide G.S.R. 186(E) dated 18 <sup>th</sup> March,2008                                                                                                                                                                                                                                                                                                                   | Complied                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| ii.     | Compliance to all the environmental conditions stipulated in the environmental clearance letter no. J J-11011/582/2011-IA II (I) dated 7 <sup>th</sup> June'2013, letter no. J-11011/140/2012-IA II (I) dated 12 <sup>th</sup> June 2013, letter no.-J-11011/270/2013-IA II (I) dated 8 <sup>th</sup> August 2014 and letter no. J-11011/21/2013-IA II (I) dated 13 <sup>th</sup> August 2015, shall be satisfactorily implemented and compliance reports submitted to the Ministry's Regional Office. | Complied<br><br>Compliance reports are being uploaded on PARIVESH portal on 6 monthly basis.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| iii.    | Continuous on-line stack monitoring for SO <sub>2</sub> , NO <sub>x</sub> and CO of all the stacks shall be carried out. Low NO <sub>x</sub> burners shall be installed.                                                                                                                                                                                                                                                                                                                               | The following features at GTU ensure process emissions to confirm to the standards prescribed under EPA <ul style="list-style-type: none"><li>• Air preheater provided for improving efficiency</li><li>• Provision of stack dampers, on-line indication for stack temperature, excess O<sub>2</sub></li><li>• Stacks of adequate height</li><li>• Analyzers have been installed at GTU stacks for continuous on-line monitoring of SO<sub>2</sub>, NO<sub>x</sub> CO and PM.</li><li>• Low NO<sub>x</sub> burners have been installed at two furnaces of GTU.</li></ul> Similarly, all stacks in BPCL MR have been provided with analyzers for continuous online monitoring of SO <sub>x</sub> , NO <sub>x</sub> , CO & SPM. Stack analyzers are connected to MPCB and CPCB servers for real time data transmission. |

|      |                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| iv.  | The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Besides, acoustic enclosure/silencer shall be installed wherever noise levels exceed the limit.                                                 | Noted<br>Power is supplied to GTU unit from existing Captive Power Plant at Mumbai Refinery or shall be imported from Tata Electric Company, if required.<br><br>Additional DG set is not required for GTU unit and Existing refinery DG set is not operating continuously. It supplies power to critical equipment's in the refinery only in case of total power failure.                                                                                                                                                                 |
| v.   | Fresh water requirement from MCGM shall not exceed 15950 m <sup>3</sup> /day. After expansion and prior permission shall be obtained from competent authority. About 300 m <sup>3</sup> /hr of cooling water blow down will be discharged to sea.                                                                                              | Noted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| vi.  | Comprehensive water audit to be conducted on annual basis and report to the concerned Regional Office of MoEF & CC. Outcome from the report to be implemented for conservation scheme.                                                                                                                                                         | Noted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| vii  | Automatic/online monitoring system (24 X 7 monitoring devices) for flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCB, Regional Office of MoEF&CC and in the Company's website.                                                                            | Noted<br><br>On line analyzers have been provided at Effluent Treatment Plant outlet for measuring PH, BOD, COD & TSS with continuous connectivity to CPCB/ MPCB servers.<br><br>ETP outlet water is 100% recycled to raw cooling water towers make up.                                                                                                                                                                                                                                                                                    |
| viii | The Company should strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October, 1994 and January, 2000. Hazardous waste should be disposed of as per Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 and amended time to time. | Complied<br><br>Hazardous Waste is disposed of as and when generated as per Hazardous waste rules and as per Consent to Operate issued by MPCB to MPCB approved Recycler party M/s MWML (Mumbai Waste Management Ltd.). (Refer <b>Annexure-1:</b> Membership Certificate of M/s MWML).<br><br>Hazardous Waste annual return form (Form-IV) is filled up every year before 30 <sup>th</sup> June of every year for previous financial year. For 2023-24, Form- IV was filled on 29 <sup>th</sup> June-2024. Please refer <b>Annexure-2.</b> |
| ix.  | Acoustic enclosure/silencer shall be installed wherever it is possible.                                                                                                                                                                                                                                                                        | Noted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| x.   | Occupational Health Surveillance of the workers should be done on regular basis and records maintained as per the Factories Act.                                                                                                                                                                                                               | Noted<br>Periodic Health check-up for employees is carried out regularly.                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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| xi. | Green belt over 33% area should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO. | <p>Noted</p> <p>GTU unit is within the premises of existing Mumbai refinery. Tree plantation is being carried out in and around Chembur / Mumbai to mitigate the effect of emissions.</p> <ul style="list-style-type: none"> <li>- In the year 2014-15, 10000 tree saplings were planted at various locations around Mumbai (Among these saplings, 3000 were planted at AMPC Vashi to develop four acres of green belt in the heart of Navi Mumbai. Refer <b>Annexure- 3:</b> Certificate from APMC Vashi).</li> <li>- In 2016-17, more than 3000 trees were planted at MIDC area at Taloja. (Refer <b>Annexure- 4:</b> Certificate from M/s Mumbai Waste Management Limited (MWML)).</li> <li>- In 2017-18, 5000 Trees were planted at Thane Municipal Corporation in the year 2017. (Refer <b>Annexure- 5:</b> Certificate from TMC, Thane).</li> <li>- In 2018-19, more than 1350 saplings were planted at Marine Oil Terminal area, MBPT area, inside BPCL refinery and National Park Borivali.</li> <li>- In 2019-20, a total of 10000 tree saplings were planted at different locations around Mumbai regions through M/s CERE and all the trees were Geo-tagged. (Refer <b>Annexure- 5a:</b> Certificate M/s CERE)</li> <li>- In 2020-21, a total of 300 tree saplings were planted at Mumbai through M/s Unique Pest Control.</li> <li>- In 2021-22, a total of 1000 tree saplings were planted using MIYAWAKI METHOD at LTT Railway Station Mumbai through M/s Green Yatra. Also, a total of 145 number of trees of native species were planted at Trees for Tigers, Panna, Tiger Reserve, Madhya Pradesh, India through M/s Grow Trees.</li> <li>- In 2022-23 around 3200 trees have been planted by BPCL MR at Station 6, Sewree and Swami Vivekanand College locations.</li> </ul> |
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|       |                                                                                                                                                                                                                                                                                                                                                                    | - In 2023-24 around 2000 trees have been planted using Miyawaki method at NITIE college campus.                                                                                               |
| xii.  | The company should make the arrangement for protection of possible fire and explosion hazards during construction and operation phase. To prevent fire and explosion at oil and gas facility, potential ignition sources shall be kept to a minimum and adequate separation distance between potential ignition sources and flammable materials shall be in place. | Noted                                                                                                                                                                                         |
| xiii. | All the recommendations motioned in the rapid risk assessment report, disaster management plan and safety guidelines shall be implemented.                                                                                                                                                                                                                         | Noted<br><br>As per risk assessment report, blast proof control room has been built up at GTU site. Hydrocarbon & H2S meters has been installed at critical locations.                        |
| xiv.  | At least 2% of the total cost of the project shall be earmarked towards the Enterprises Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry Of Regional Office. Implementation of such program shall be ensured accordingly in a time bound manner.           | Noted                                                                                                                                                                                         |
| xv.   | Zero liquid discharge to be ensured.                                                                                                                                                                                                                                                                                                                               | Noted<br><br>There is no additional requirement of fresh water and no additional generation of effluent from GTU project.<br><br>ETP outlet water is 100% recycled to process cooling towers. |

#### **B.GENERAL CONDITIONS:**

| <b>Sr. No.</b> | <b>Condition</b>                                                                                                                                                                                                                                                                                                                                      | <b>STATUS as on 01.12.2024<br/>(April-2024 to September-2024)</b> |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| i.             | The project authorities must strictly adhere to the stipulations made by the Maharashtra Pollution Control Board (SPCB), State Government and any other statutory authority.                                                                                                                                                                          | Noted                                                             |
| ii.            | No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change. In case of deviations or alterations in the project proposed from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of | Noted                                                             |

|      |                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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|      | conditions imposed and to add additional environmental protection measures required, if any.                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| iii. | The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one station is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.                                                                                       | <p>Three Ambient Air Quality Monitoring Stations are existing in the refinery for on-line monitoring of PM-10, PM-2.5, SO<sub>2</sub>, NO<sub>x</sub>, CO, Ammonia, Ozone and Meteorological parameters of Wind speed, Wind Direction, Temperature &amp; Relative humidity as per National Ambient Air Quality Standards (NAAQS).</p> <p>Real time AMS data is being transmitted to CPCB/ MPCB site.</p> <p>Also, online data of parameters namely Benzene, Toluene, O/M/P- Xylene and Methane &amp; Non Methane hydrocarbon from AMS have been successfully connected and transmitted to MPCB and CPCB servers since 31<sup>st</sup> Dec 2018.</p> <p>Also, Mercaptan analyzer has been installed at AMS and data is being transmitted to MPCB/CPCB servers.</p> <p>As per MPCB, there is no additional requirement of Continuous Ambient Air Quality Monitoring Station for GTU project.</p> |
| iv.  | The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No.826 (E) dated 16 <sup>th</sup> November, 2009 shall be followed.                                                                                                                                                                                                                                              | <p>Noted</p> <p>Ambient Air quality data is being collected at three locations in the existing refinery (AMS-1/2/3). The quality is conforming to the standard as specified in the NAAQS.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| v.   | The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under Environmental (Protection) Act, 1986 Rules and 1989 viz. 75 dBA (daytime) and 70 dBA (night time). | <p>Noted</p> <p>Ambient Noise levels conform to the standards prescribed under Environmental (Protection) Act, 1986 Rules.</p> <p>Also, sign painting is done for High Noise area and instructions have been mentioned to use PPEs.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| vi.  | The company shall harvest rain water from roof tops of the buildings and storm water drains to recharge the ground water and use the same waste for the process activities to the project to conserve fresh water.                                                                                                                                                                                      | <p>Noted</p> <p>Rain water harvesting systems are provided at BPCL MR with roof top capacity of 69000 sqm. Around 2527 sq m roof top area has been added in 2023-24 for RWH. Details of total Rain water harvested are as below:</p> <p>2016-17: 88 Thousand KL<br/> 2017-18: 65.7 Thousand KL<br/> 2018-19: 42.8 Thousand KL</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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|       |                                                                                                                                                                                                                                                                                                                | 2019-20: 71 Thousand KL<br>2020-21: 67 Thousand KL<br>2021-22: 33 Thousand KL<br>2022-23: 51 Thousand KL<br>2023-24: 53 Thousand KL<br>2024-25: 62 Thousand KL                                                                                                                                                                                                                                                                                                                     |
| vii.  | Training shall be imparted to all employees on safety & health aspects of chemicals handling. Pre –employment & routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.                          | Noted<br>Safety trainings are carried out for BPCL employees as well as contractor employees which includes Hands on fire fighting, Behavior based safety training & safety in refining etc. Mandatory periodic health check is done for employees and also pre-employment check is carried out at BPCL medical center. Comprehensive safety training is provided to contractor staff during registration process by Fire & Safety Dept.                                           |
| viii. | The company shall also comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management and risk mitigation measures relating to the project shall be implemented. | Noted                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| ix.   | The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CSR activities shall be undertaken by involving local villages and administration.                                                                                                      | Noted<br>CSR activities are conducted on regular basis for local villages which involves Cancer screening camp, Eye screening camp Blood donation camp, Public health center, Ambulance service during emergency, providing fish nets to local fishermen.                                                                                                                                                                                                                          |
| x.    | The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.                                                                                                                                                | Noted<br>BPCL is providing scholarships to needy students through local schools. Also felicitates 10 <sup>th</sup> & 12 <sup>th</sup> std. students every year.<br>Environment (HSSE) department carries out tree plantation and awareness functions in nearby schools as a part commitment towards sustainable environment.<br>Various activities such as drawing/painting competitions, nukkad natak, LED bulb distribution, beach cleaning etc. carried out for “MISSION LIFE”. |
| xi.   | A separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.                                                                                                                                  | There is no requirement of additional Laboratory for GTU Project. Existing BPCL Laboratory is used for GTU. Refinery has a full-fledged NABL approved Laboratory.                                                                                                                                                                                                                                                                                                                  |

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|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | BPCL refinery already has an Environment section to carry out environmental management and monitoring functions.                                                                                                                                                                                                                                |
| xii.  | The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management / pollution control measures shall not be diverted for any other purpose.                                                                                      | Noted<br><br>Various Environmental projects incurring capital expenditure are being carried out regularly.                                                                                                                                                                                                                                      |
| xiii. | A copy of clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad / Municipal Corporation, Urban local Body and the Local Body and the local NGO, if any from whom any suggestions / representations, if any, from whom suggestions / representations, if any, were received while processing the proposal.                                                                                                                                                                              | Noted<br>Environment Clearance letter has been put on the BPCL corporate website <a href="http://www.bharatpetroleum.in/EnergizingEnvironment/HealthSafety&amp;Environment/">www.bharatpetroleum.in/EnergizingEnvironment/Health Safety &amp; Environment /</a> which is accessible to all. Environment Clearance letter is being sent to MPCB. |
| xiv.  | The project proponent shall also submit six monthly reports on status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environment Clearance and six monthly compliance status report shall be posted on the website of the company.                                                                                                | Complied.<br>Six monthly compliance statement is being uploaded on PARIVESH portal of MoEF&CC and soft copy is being sent to CPCB, and SRO/ RO office of MPCB through e-mail. The Environment Clearance and six monthly compliance report was also published on the BPCL corporate website.                                                     |
| xv.   | The Environmental Statement for each financial year ending 31 <sup>st</sup> March in Form-V as is mandated to be submitted to the concerned State Pollution Control Board as prescribed under Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the web site of company along with compliance of Environmental Clearance conditions and shall also be sent to the respective Regional Office of MoEF&CC by e-mail.                                                                            | Duly filled form V (Environment Statement) for every financial year is submitted to MPCB office before 30 <sup>th</sup> Sept of every assessment year.<br><br>For 2023-24 also, Form-V was submitted to MPCB on 30 <sup>th</sup> Sep-2024. Please refer <b>Annexure- 6.</b>                                                                     |
| xvi.  | The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of Ministry at <a href="http://moef.nic.in">http://moef.nic.in</a> . This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of | Complied<br><br>Subsequent to obtaining Env. Clearance from MoEF for GTU, dt 20 <sup>th</sup> March-17, the same was published in two newspapers (Indian Express in English & Maharashtra Times Marathi) on 7 <sup>th</sup> of April 2017. <b>Annexure- 7 &amp; 8.</b>                                                                          |

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|       | the locality concerned and a copy of same shall be forwarded to the Regional Office of the Ministry.                                                                                                                                 |       |
| xvii. | The project authorities shall inform the Regional office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work. | Noted |

**Compliance Status Report for Kerosene Treatment Unit (KHT) & integration with existing Diesel Hydro treatment Unit (DHT) along with revamp of DHT to produce 100% BS-VI grade fuel (Capacity 2.83 MMTPA of DHT)**

**EC Letter no. J-11011/21/2015-IA II (I) dated 30<sup>th</sup>Mar-2021**

As per stipulations given in the Environmental Clearance for Kerosene Treatment Unit (KHT) & integration with existing Diesel Hydro treatment Unit (DHT) along with revamp of DHT to produce 100% BS-VI grade fuel (Capacity 2.83 MMTPA of DHT).

DHDT Unit was commissioned on 26.06.2017 and KHT was commissioned in 16.02.2023.

**Specific Conditions:**

| <b>Sr. No.</b> | <b>SPECIFIC CONDITION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>STATUS as on 01.12.2024<br/>(April-2024 to September-2024)</b>                                                                                                                                                                                  |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| i.             | Compliance to all the environmental conditions stipulated in the environmental clearance letter no. J-11011/180/2008-IA II(I) dated 28 <sup>th</sup> April, 2008 , F.No.J-11011/140/2012-IA II I dated 12 <sup>th</sup> June 2013, J-11011/582/2011-IA II (I) dated 7 <sup>th</sup> June 2013and J-11011/270/270/2013-IA (I) dated 8 <sup>th</sup> August 2014 , shall be satisfactorily implemented and compliance reports submitted to Ministry's regional office at Bhopal. | Compiled<br><br>Compliance reports are uploaded on PARVISH portal of MoEF & on six monthly basis.                                                                                                                                                  |
| ii.            | M/s BPCL shall comply with new standards/norms for Oil Refinery Industry notified under the Environment (Protection) Rules. 1986 vide G S R 186(E) dated 18 <sup>th</sup> March, 2008.                                                                                                                                                                                                                                                                                         | Complied                                                                                                                                                                                                                                           |
| III.           | Continuous on-line stack monitoring for SO <sub>2</sub> , NO <sub>x</sub> and CO of all the stacks shall be carried out. Low NO <sub>x</sub> burners shall be installed.                                                                                                                                                                                                                                                                                                       | KHT unit doesn't have furnace and stack. Analyzers are installed at DHT stacks for continuous on-line monitoring of SO <sub>2</sub> , NO <sub>x</sub> CO and PM. Low NO <sub>x</sub> burners are provided.                                         |
| iv             | The process emissions [SO <sub>2</sub> , NO <sub>x</sub> , HC (Methane & No-methane)], VOCs and Benzene from various units shall conform to the standards prescribed under the Environment (Protection) Act. At no time the emission levels shall go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit shall be immediately                                                                                          | The following features at DHDT process emissions to conform with the standards prescribed under EPA <ul style="list-style-type: none"> <li>Fuel gas is fired in the furnaces.</li> <li>Air pre-heater provided for improving efficiency</li> </ul> |

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|      | put out of operation and shall not be restarted until the desired efficiency of the pollution control device has been achieved.                                                                                                                                                                                                                                                                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>Provision of stack dampers, on-line indication for stack temperature, excess O<sub>2</sub>.</li> <li>Stacks of adequate height.</li> </ul> <p>At BPCL refinery, Ambient Air Quality monitoring is carried out on regular basis which includes parameters SOX, NO<sub>x</sub>, CO, O<sub>3</sub>, NH<sub>3</sub>, PM-10. PM-2.5, Hydrocarbon. Also analyzers have been installed at each AMS for transmitting data to MPCB/ CPCB server.</p>                                                       |
| v.   | Leak Detection and Repair program shall be prepared and implemented to control HC/VOC emissions. Focus shall be given to prevent fugitive emission for which preventive maintenance of pumps, valves, pipelines are required. Proper maintenance of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to. Fugitive emissions of HC from product storage tank yard etc. must be regularly monitored. Sensors for detecting HC leakage shall be provided at strategic locations. | <p>LDAR program is already being followed in the existing refinery as per GSR-186 (E). Compressors, exchangers, pumps, valves, equipment's, etc. are being regularly monitored for identifying VOC emissions and rectifying the identified leaks.</p> <p>HC leak detectors are provided in the plant area at strategic locations.</p> <p>Preventive maintenance schedule exists for all critical pumps / compressors and is being adhered to.</p> <p>Please refer <b>Annexure-8 for typical LDAR report of BPCL Mumbai Refinery.</b></p> |
| vi.  | SO <sub>2</sub> emissions after expansion from the plant shall not exceed 10.44 TPD, Sulphur recovery units shall be installed for control of H <sub>2</sub> S emissions.                                                                                                                                                                                                                                                                                                                                                                                       | Noted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| vii  | As proposed, record of sulphur balance shall be maintained at the Refinery as part of the environmental data on regular basis. The basic component of sulphur balance include sulphur input through feed (sulphur content in crude oil), sulphur output from Refinery through products, byproduct (elemental sulphur), atmospheric emissions etc.                                                                                                                                                                                                               | Noted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| viii | Ambient air quality monitoring stations, [PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NO <sub>x</sub> , H <sub>2</sub> S, mercaptan, non-methane-HC and Benzene] shall be set up in the complex in consultation with Maharashtra Pollution Control Board, based on occurrence of maximum ground level concentration and down-wind direction of wind. The monitoring network must be decided based on modeling exercise to represent short term GLCs.                                                                                               | Three Ambient Air Quality Monitoring Stations are existing in the refinery. On-line monitoring of PM-10, PM-2.5, SO <sub>2</sub> , NO <sub>x</sub> , H <sub>2</sub> S, CO, Methanic & non methanic hydrocarbons, benzene, Ammonia, Ozone etc. is being carried out as per National Ambient Air Quality Standards (NAAQS). Real time data is continuously sent to CPCB / MPCB site.                                                                                                                                                       |
| ix   | Ambient air quality data shall be collected as per NAAQEA standards notified by the Ministry on 16 <sup>th</sup> November, 2009 and trend analysis w.r.t. past                                                                                                                                                                                                                                                                                                                                                                                                  | Ambient air quality data is being collected at three locations in the existing refinery through third party. The quality is                                                                                                                                                                                                                                                                                                                                                                                                              |

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|        | monitoring results shall also be carried out. Adequate measures based on the trend analysis shall be taken to improve the ambient air quality in the project area.                                                                                                                             | conforming with the standard as specified in the NAAQS.<br>Please refer <b>Annexure-9 for typical AAQMS report of BPCL Mumbai Refinery.</b>                                                                                                |
| x.     | The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Besides, acoustic enclosure/silencer shall be installed wherever noise levels exceed the limit. | Noted<br>Power is supplied to DHT/KHT units from existing Captive Power Plant (CPP) at the Refinery. Additional requirement of power shall be imported from Tata Electric Company.<br>Additional DG set is not required for DHT/KHT units. |
| xi.    | Total fresh water requirement from Municipal Corporation of Greater Mumbai after expansion shall not exceed 16,100m <sup>3</sup> /day. After expansion and prior to permission shall be obtained from competent authority.                                                                     | Noted                                                                                                                                                                                                                                      |
| xii    | Industrial effluent generation shall not exceed 155 m <sup>3</sup> /Hr and treated in effluent treatment plant. Treated effluent shall be fully as make-up water for raw water cooling towers. Domestic Sewage shall be treated in sewage treatment plant ( STP )                              | Treated effluent is fully recycled as make water to various raw water cooling towers in the Refinery.<br>A new Sewage Treatment plant with a capacity of 250 CMD for administrative block has been commissioned in Dec 2014.               |
| xiii.  | Oil catchers/oil traps shall be provided at all possible locations in rain/storm water drainage system inside the factory premises.                                                                                                                                                            | Complied<br><br>Oil catchers equipped with skimmers, weirs, drum skimmer, rope skimmer, hay filters etc. have been provided.                                                                                                               |
| xiv.   | As committed, BPCL needs to implement the outcome of study for water reduction and its optimize use as result of water auditing. No process effluent shall be discharged outside the premises.                                                                                                 | Noted                                                                                                                                                                                                                                      |
| xv.    | Automatic /online monitoring system (24X7 monitoring devices) For flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to respective SPCB, Regional office of MoEF & CC and Company's site                                          | Noted                                                                                                                                                                                                                                      |
| xvi.   | Oily sludge shall be disposed off into Cocker. Annual oily sludge generation and disposal data shall be submitted to Ministry of Regional offices and CPCB.                                                                                                                                    | Not Applicable<br>There is no coker installed at BPCL Mumbai Refinery.                                                                                                                                                                     |
| xvii . | The Company should strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals Rules,1989 as amended in October, 1994 and January,2000 Hazardous waste should be disposed of as per                                                             | Complied                                                                                                                                                                                                                                   |

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|            | Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 and amended time to time                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                |
| xvii<br>i. | The membership of common TSDF should be obtained for the disposal of hazardous waste. Copy of authorization or membership of TSDF should be submitted to Ministry's Regional Office at Bhopal. Chemical/inorganic sludge shall be sent to treatment storage disposal facility (TSDF) for hazardous waste. Spent catalyst shall be sent to authorize recyclers/re-processors.                                            | BPCL MR has membership of Mumbai Waste Management Limited, which is authorized TSDF. Membership certificate is attached as <b>Annexure-1</b> . |
| xix.       | Proper oil spillage prevention management plan shall be prepared to avoid spillage/leakage of oil/petroleum products and ensure regular monitoring.                                                                                                                                                                                                                                                                     | Noted                                                                                                                                          |
| xx         | Acoustic enclosure/silencer shall be installed wherever it is possible.                                                                                                                                                                                                                                                                                                                                                 | Noted                                                                                                                                          |
| xxi        | The company shall strictly follow all the recommendations mentioned in the charter on Corporate Responsibility for Environmental protection (CREP).                                                                                                                                                                                                                                                                     | Please refer <b>Annexure-10</b> for details of Corporate Responsibility for Environmental protection (CREP).                                   |
| xxii<br>.  | To prevent fire and explosion at oil and gas facility, potential ignition sources shall be kept to a minimum and adequate separation distance between potential ignition source and flammable material shall be in place.                                                                                                                                                                                               | Complied.                                                                                                                                      |
| xxii<br>i. | Thick greenbelt with suitable plants species shall be developed around unit, Selection of plants as per CPCB guidelines.                                                                                                                                                                                                                                                                                                | Please refer feedback of point no A-xi mentioned in GTU EC compliance report for further details.                                              |
| xxi<br>v.  | All the recommendations mentioned in the rapid risk assessment report, disaster management plan and safety guidelines shall be implemented.                                                                                                                                                                                                                                                                             | Noted                                                                                                                                          |
| xxv<br>.   | At least 2.5% of the total cost of the project shall be unmarked towards the Enterprise social responsibility based on need of the affected people with consultation of local Administration and item-wise details along with long time bound action plan shall be prepared and submitted TO Ministry of Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner. | Noted                                                                                                                                          |
| xxv<br>i   | Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.                                                                               | Project is completed and commissioned.                                                                                                         |

**B.GENERAL CONDITIONS:**

| Sr. No. | Condition                                                                                                                                                                                                                                                                                                                                                                                                                            | STATUS as on 01.12.2024<br>(April-2024 to September-2024)                                                                                                                       |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| i.      | The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board (SPCB), state government and any other statutory authority.                                                                                                                                                                                                                                                               | Complied                                                                                                                                                                        |
| ii.     | No further expansion or modifications in the project shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviation or alterations in the project proposed from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any. | Noted                                                                                                                                                                           |
| iii.    | The project authorities must strictly comply with the rules & regulation under manufacture. Storage and import of Hazardous chemical Rules, 2000 as amended subsequently. Prior approvals from Chief Inspectorate of Factories, Chief Controller of Explosives, Fire Safety Inspectorate, etc. must be obtained, wherever applicable.                                                                                                | Complied                                                                                                                                                                        |
| iv.     | The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosure etc, on all sources of noise generation. The ambient noise levels should conform the standards prescribed under Environmental (Protection) Act, 1986 Rules and 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).                                   | Complied                                                                                                                                                                        |
| v.      | A separate environmental management cell equipped with full-fledged laboratory facilities must be set up to carry out the environmental management and monitoring functions.                                                                                                                                                                                                                                                         | BPCL refinery already has an Environment section to carry out environmental management and monitoring functions. The Refinery also has a full-fledged NABL approved Laboratory. |
| vi.     | Adequate funds shall be earmarked towards capital cost and recurring cost for environment pollution control measures and shall be used to implement the conditions stipulated by MOEF as well as state government along with implementation schedule for all the conditions stipulated herein. Funds so provided should not be diverted for any other purpose.                                                                       | Adequate funds are being provided for environment pollution control measures. Various Environment projects incurring capital expenditure are being carried out regularly.       |
| vii.    | The Regional office of the Ministry/ central pollution board / state pollution control board will monitor the                                                                                                                                                                                                                                                                                                                        | Complied.                                                                                                                                                                       |

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|       | stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation shall be submitted to them regularly.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                             |
| viii. | A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zillparishad / Municipal Corporation Urban Local Body and Local NGO, if any from whom any suggestions / representations, if any, here received while processing proposal. The clearance letter shall be put on web site of company proponent.                                                                                                                                                                                                                                                                                                                                                    | Complied.<br><br>Please Refer GTU compliance report as on 31.03.2024 for further details.                                                                                                                                                                                                                                                                                                                                   |
| ix.   | The project proponent shall upload the status of compliance of stipulated environment clearance conditions, including results of monitored data on their website and shall update the same update periodically. It should simultaneously send to Regional office of MoEF, the respective Zonal office of CPCB and SPCB. .The criteria of pollutant levels namely PM <sub>10</sub> ,PM <sub>2.5</sub> ,SO <sub>2</sub> ,NOX,HC ( Methane & Non-Methane ) , VOC's (ambient levels as well as stack emission )or critical sect oral of parameters, indicated for projects shall be monitored and displayed at the convenient location near main gate of the company in public domain. | Complied.<br>Six monthly compliance statement of EC is being uploaded on PARIVESH portal of MoEF&CC and soft copy is being shared with CPCB and MPCB.<br><br>The compliance report is also posted on the BPCL corporate website.<br><br>Environmental display board has been provided at the main gate of the refinery, which continuously displays ambient air quality monitored at the north west corner of the refinery. |
| x.    | The project proponent shall also submit six monthly reports on status of compliance of stipulated environmental conditions including results of monitored data (both in hard copies as well as by email) to the Regional office of MoEF, the respective Zonal Office of CPCB and SPCB. The Regional Office of Ministry/CPCBSPCB shall monitor the stipulated conditions.                                                                                                                                                                                                                                                                                                           | Complied<br><br>Six monthly compliance statement of EC is being uploaded on PARIVESH portal of MoEF&CC and soft copy is being shared with CPCB and MPCB.                                                                                                                                                                                                                                                                    |
| xi.   | The Environmental Statement for each financial year ending 31 <sup>st</sup> March in Form-V as mandated to be submitted by project proponent concerned SPCB as prescribed under Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the web site of company along with compliance of Environmental conditions and shall also be sent to respective Regional Office of MoEF by e-mail.                                                                                                                                                                                                                                                              | Complied                                                                                                                                                                                                                                                                                                                                                                                                                    |
| xii.  | The project proponent shall inform the public that the project has been accorded environmental clearance by the ministry and copies of the clearance are available with the SPCB and may also be seen at website of Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> . This shall be advertised within seven days from the date of issue of clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in                                                                                                                                                                     | Subsequent to obtaining Env. Clearance from MoEF & CC for DHT, dt 13 <sup>th</sup> August-15, the same was published in two newspapers (Indian Express in English & Maharashtra Times Marathi) on 25 <sup>th</sup> August-2015.                                                                                                                                                                                             |

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|       | vernacular language of the locality concerned, and a copy of same shall be forwarded to the Regional Office.                                                                                                                     |       |
| xiii. | Project authorities shall inform the Regional office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work. | Noted |

**Compliance Status Report for Conversion of existing Catalytic Reformer Unit (CRU) to Isomerization Unit (ISOM) and revamp of existing Naphtha Hydro desulfurization Unit (NHDS) at BPCL Mumbai Refinery (MR)**

**EC Letter no. J-11011/270/2013-IA II (I) dated 8<sup>th</sup> Aug 2014**

**Proposal No.- IA/MH/IND/20217/2013**

As per the stipulations given in the Environmental Clearance for Conversion of existing Catalytic Reformer Unit (CRU) to Isomerization Unit and revamp of existing Naphtha Hydro desulfurization Unit (NHDS), the detailed compliance status is given below:

| <b>Sr. No.</b> | <b>Specific Condition</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>STATUS as on 01.12.2024<br/>(April-2024 to September-2024)</b> |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| i.             | Compliance to all the environmental conditions stipulated in the environmental clearance letter no. J-11011/180/2008-IA II(I) dated 28th April, 2008 , F.No.J-11011/140/2012-IA II I dated 12th June 2013 shall be satisfactorily implemented and compliance reports submitted to ministry's regional office at Bhopal.                                                                                                                                                                                             | Complied                                                          |
| ii.            | M/s BPCL shall comply with new standards/norms for Oil Refinery Industry notified under the Environment (Protection) Rules. 1986 vide G S R 186(E) dated 18th March,2008 and GSR 820(E) dated 9th November 2012.                                                                                                                                                                                                                                                                                                    | Complied                                                          |
| iii.           | Continuous on-line stack monitoring for SO <sub>2</sub> ,NO <sub>x</sub> and CO of all the stacks shall be carried out. Low NO <sub>x</sub> burners shall be installed.                                                                                                                                                                                                                                                                                                                                             | Complied                                                          |
| iv.            | The process emissions [SO <sub>2</sub> ,NO <sub>x</sub> ,HC (Methane & No-methane)]. VOCs and Benzene from various units shall conform to the standards prescribed under the Environment (Protection) Act. At no time the emission levels shall go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency of the pollution control device has been achieved. | Complied                                                          |

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| v.    | Leak Detection and Repair programme shall be prepared and implemented to contain HC/VOC emissions. Focus shall be given to prevent fugitive emission for which preventive maintenance of pumps, valves, pipelines are required. Proper maintenance of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to. Fugitive emissions of HC from product storage tank yard etc. must be regularly monitored. Sensors for detecting HC leakage shall be provided at strategic locations. | Complied                                                                                                                                                                                                                                                                                  |
| vi.   | SO <sub>2</sub> emissions after expansion from the plant shall not exceed 10.44 TDP, Sulphur recovery units shall be installed for control of H <sub>2</sub> S emissions. The overall sulphur recovery efficiency of Sulphur recovery unit with tail gas treating shall not be less than 99.9 %.                                                                                                                                                                                                                                                                  | Tail Gas Treatment Units (TGTU) was commissioned for increasing existing SRU efficiency to 99.9%.                                                                                                                                                                                         |
| vii.  | As proposed, record of sulphur balance shall be maintained at the Refinery as part of the environmental data on regular basis. The basic component of sulphur balance include sulphur input through feed (sulphur content in crude oil), sulphur output from Refinery through products, byproduct (elemental sulphur), atmospheric emissions etc.                                                                                                                                                                                                                 | Noted                                                                                                                                                                                                                                                                                     |
| viii. | Ambient air quality monitoring stations, [PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NO <sub>x</sub> , H <sub>2</sub> S, mercaptan, non-methane-HC and Benzene] shall be set up in the complex in consultation with Maharashtra Pollution Control Board, based on occurrence of maximum ground level concentration and down-wind direction of wind. The monitoring network must be decided based on modeling exercise to represent short term GLCs.                                                                                                 | Complied                                                                                                                                                                                                                                                                                  |
| ix.   | Ambient air quality data shall be collected as per NAAQEA standards notified by the Ministry on 16th November, 2009 and trend analysis w.r.t. past monitoring results shall also be carried out. Adequate measures based on the trend analysis shall be taken to improve the ambient air quality in the project area.                                                                                                                                                                                                                                             | Complied                                                                                                                                                                                                                                                                                  |
| x.    | The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Besides, acoustic enclosure/silencer shall be installed wherever noise levels exceed the limit.                                                                                                                                                                                                                                                                    | Complied<br><br>Power is supplied to ISOM unit from Captive Power Plant existing at the refinery, or shall be imported from Tata Electric Company.<br>DG set is not operating continuously. It supplies power to critical equipments in the refinery only in case of total power failure. |
| xi.   | Total raw water requirement from Municipal Corporation of Greater Mumbai water supply shall not exceed 16500 m <sup>3</sup> /day. Industrial effluent shall be treated in the effluent treatment plant. Treated effluent shall be recycled/reused recycled as make up for the raw water cooling tower. Domestic sewage shall be treated in sewage treatment plant (STP).                                                                                                                                                                                          | Complied                                                                                                                                                                                                                                                                                  |

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| xii.   | Oil catchers/oil traps shall be provided at all possible locations in rain/storm water drainage system inside the factory premises.                                                                                                                                                                                                                                          | Oil catchers equipped with skimmers, weirs, oil adsorbent booms, pillows, hay filters etc have been provided.                                                                                                                                   |
| xiii.  | Oily sludge shall be disposed off into Coker. Annual Oily sludge generation and disposal data shall be submitted to the Ministry's Regional Office and CPCB.                                                                                                                                                                                                                 | Not Applicable<br><br>There is no coker installed at BPCL Mumbai Refinery. Other Oily sludge generated in the refinery is subject to mechanical/chemical treatments for oil recovery, and the residual sludge is bio-remediated using bacteria. |
| xiv.   | The Company should strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October, 1994 and January, 2000 Hazardous waste should be disposed of as per Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 and amended time to time.                                | Complied                                                                                                                                                                                                                                        |
| xv.    | The membership of common TSDF should be obtained for the disposal of hazardous waste. Copy of authorization or membership of TSDF should be submitted to Ministry's Regional Office at Bhopal Chemical/inorganic sludge shall be sent to treatment storage disposal facility (TSDF) for hazardous waste. Spent catalyst shall be sent to authorized recyclers/re-processors. | BPCL MR has membership of Mumbai Waste Management Limited, which is authorized TSDF.<br><br>A membership certificate is attached as <b>Annexure-2</b> .                                                                                         |
| xvi.   | Proper oil spillage prevention management plan shall be prepared to avoid spillage/leakage of oil/petroleum products and ensure regular monitoring.                                                                                                                                                                                                                          | Proper oil spillage prevention management plan exist. Closed sampling system has been provided to avoid spillage/leakage of oil. Gully sucker is available in the refinery to take care of any spillages.                                       |
| xvii.  | The company shall strictly follow all the recommendation mentioned in the Charter on Corporate Responsibility for Environmental Protection (CREP).                                                                                                                                                                                                                           | Please refer <b>Annexure-10</b> for details of Corporate Responsibility for Environmental Protection (CREP).                                                                                                                                    |
| xviii. | To prevent fire and explosion at oil and gas facility, potential ignition sources shall be kept to a minimum and adequate separation distance between potential ignition sources and flammable materials shall be in place.                                                                                                                                                  | Complied                                                                                                                                                                                                                                        |
| xix.   | Green belt shall be developed at least in 45 acres area land around the plant premises to mitigate the effects of fugitive emissions all around the plant as per the CPCB guidelines in consultation with DFO. Thin greenbelt with suitable plant species shall be developed around unit. Selection of plant species shall be as per the CPCB guidelines.                    | Please refer feedback of point no A-xi mentioned in GTU EC compliance report for further details.                                                                                                                                               |
| xx.    | All the recommendations mentioned in the rapid risk assessment report, disaster management plan and safety guidelines shall be implemented.                                                                                                                                                                                                                                  | Complied                                                                                                                                                                                                                                        |
| xxi.   | Company shall adopt Corporate Environment Policy as per the Ministry's OM No J-11013/41/2006-IA II(I) dated 26 <sup>th</sup> April 2011 and implemented.                                                                                                                                                                                                                     | BPCL MR is an ISO 14001 certified company. Quality, Environment, Occupational Health & Safety policy as                                                                                                                                         |

|       |                                                                                                                                                                                                                                                                                                                                           |                                                |
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|       |                                                                                                                                                                                                                                                                                                                                           | per Integrated Management Systems is in place. |
| xxii. | Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project. | Project is completed and commissioned.         |

| <b>Sr. No.</b> | <b>General Condition</b>                                                                                                                                                                                                                                                                                                                                                                                                            | <b>STATUS as on 01.12.2024<br/>(April-2024 to September-2024)</b>                                                                                                         |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| i.             | The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board (SPCB), state government and any other statutory authority.                                                                                                                                                                                                                                                              | Complied                                                                                                                                                                  |
| ii.            | No further expansion or modifications in the project shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviation or alterations in the project proposed from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any | Noted                                                                                                                                                                     |
| iii.           | The project authorities must strictly comply with the rules & regulation under manufacture. Storage and import of Hazardous chemical Rules, 2000 as amended subsequently. Prior approvals from Chief Inspectorate of Factories, Chief Controller of Explosives, Fire Safety Inspectorate, etc. must be obtained, wherever applicable.                                                                                               | Complied                                                                                                                                                                  |
| iv.            | The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosure etc, on all sources of noise generation. The ambient noise levels should conform the standards prescribed under Environmental (Protection) Act, 1986 Rules and 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).                                  | Complied                                                                                                                                                                  |
| v.             | A separate environment management cell equipped with full fledged laboratory facilities must be set up to carry out the environmental management and monitoring functions.                                                                                                                                                                                                                                                          | BPCL MR already has an Environment section to carry out environmental management and monitoring functions. The Refinery also has a full-fledged NABL approved Laboratory. |
| vi.            | Adequate funds shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures and shall be used to implement the conditions stipulated Ministry of Environment and Forests as well as state government along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.                             | Various Environmental projects incurring capital expenditure are being carried out regularly.                                                                             |

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| vii.  | The Regional Office of this Ministry / Central Pollution control Board / State Pollution Control Board will monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation should be submitted to them regularly.                                                                                                                                                                                                                                                                                                                                                                | Complied<br>Six monthly compliance Report is being uploaded on PARIVESH portal of MoEF&CC and soft copy is being shared with CPCB and MPCB. Also, it is published on BPCL corporate website.                                                                                                                                                                            |
| viii. | A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila parishad/Municipal Corporation, Urban local body, and the local NGO if any, from whom suggestions, representations, if any were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.                                                                                                                                                                                                                                                                                            | Complied                                                                                                                                                                                                                                                                                                                                                                |
| ix.   | The project proponent shall upload the status of compliance of the stipulated environmental conditions including the results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the regional office of MoEF, the respective zonal office of CPCB, and the SPCB. The criteria pollutant levels, namely PM10, PM2.5, SO2, NOx, HC (Methane & non-methane), VOCs (ambient levels as well as stack emissions) or critical sectoral parameters indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain. | Complied<br>Six monthly compliance Report is being uploaded on PARIVESH portal of MoEF&CC and soft copy is being shared with CPCB and MPCB. Also, it is published on BPCL corporate website.<br>Environmental display board has been provided at Refinery Main Gate which continuously displays ambient air quality monitored at the north west corner of the refinery. |
| x.    | The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional office of MoEF, the respective zonal office of CPCB, and the SPCB. The Regional office of this ministry, /CPCB/SPCB shall monitor the stipulated conditions.                                                                                                                                                                                                                                                | Six monthly compliance Report is being uploaded on PARIVESH portal of MoEF&CC and soft copy is being shared with CPCB and MPCB. Also, it is published on BPCL corporate website.                                                                                                                                                                                        |
| xi.   | The Environmental statement for each financial year ending 31st March in form V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986 as amended subsequently, shall also be put on the website of the company along with the status of compliance of Environmental conditions and shall also be sent to the respective Regional Offices of the MoEF by e-mail.                                                                                                                                                                     | Complied                                                                                                                                                                                                                                                                                                                                                                |
| xii.  | The project proponent shall inform the public that the project has been accorded environmental clearance by the ministry and copies of the clearance are available with the SPCB and may also be seen at website of Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> . This shall be advertised within seven days from the date of issue of clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in vernacular language of the locality concerned, and a                                                                               | Subsequent to obtaining Env. Clearance from MoEF for ISOM, dt 8th August-14, the same was published in two newspapers (Indian Express in English & Maharashtra Times Marathi) on 3 <sup>rd</sup> of September 2014.                                                                                                                                                     |

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|       | copy of same shall be forwarded to the Regional Office.                                                                                                                                                                          |        |
| xiii. | Project authorities shall inform the Regional office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work. | Noted. |

**Compliance Status Report for Construction of new Crude Distillation Unit and Vacuum Distillation Unit (CDU-4) as a replacement of two old crude and vacuum units at BPCL Mumbai Refinery.**

**EC Letter no. J-11011/140/2012-IA II (I) dated 12<sup>th</sup> June 2013**

**Proposal No.- IA/MH/IND/2761/2012**

The Ministry of Environment and Forests accorded environmental clearance for the project as per EIA Notification dated 14th September 2006.

**Status of the projects (as of 1.07.2016)**

As per the stipulations given in the Environmental Clearance for construction of new CDU/VDU (CDU4) as a replacement of two old units,

CDU-4 Unit was commissioned on 30/11/2015

**SPECIFIC CONDITIONS:**

| <b>Sr. No.</b> | <b>SPECIFIC CONDITION</b>                                                                                                                                                                                                                                                                   | <b>STATUS as on 01.12.2024<br/>(April-2024 to September-2024)</b> |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| I              | Compliance to all the environmental conditions stipulated in the environmental clearance letter no. J-11011/180/2008-1A II (I) dated 28 <sup>th</sup> April 2008 shall be satisfactorily implemented and compliance reports submitted to the Ministry's Regional Office at Bhopal.          | Complied                                                          |
| ii.            | M/s BPCL shall comply with new standards/norms for Oil Refinery Industry notified under the Environment (Protection) Rules. 1986 vide G S R 186(E) dated 18 <sup>th</sup> March,2008 and GSR 820(E) dated 9 <sup>th</sup> November-2012                                                     | Complied                                                          |
| III.           | Continuous on-line stack monitoring for SO <sub>2</sub> , NO <sub>x</sub> and CO of all the stacks shall be carried out. Low NO <sub>x</sub> burners shall be installed.                                                                                                                    | Complied                                                          |
| iv             | The process emissions [SO <sub>2</sub> , NO <sub>x</sub> ,HC (Methane & No-methane)]. VOCs and Benzene from various units shall conform to the standards prescribed under the Environment (Protection) Act. At no time the emission levels shall go beyond the stipulated standards. In the | Complied                                                          |

|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                            |
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|      | event of failure of pollution control system(s) adopted by the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency of the pollution control device has been achieved.                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                            |
| v.   | Leak Detection and Repair programme shall be prepared and implemented to control HC/VOC emissions. Focus shall be given to prevent fugitive emission for which preventive maintenance of pumps, valves, pipelines are required. Proper maintenance of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to. Fugitive emissions of HC from product storage tank yard etc. must be regularly monitored. Sensors for detecting HC leakage shall be provided at strategic locations. | Complied                                                                                                                                                                                                   |
| vi.  | SO <sub>2</sub> emissions after expansion from the plant shall not exceed 10.44 TDP, Sulphur recovery units shall be installed for control of H <sub>2</sub> S emissions. The overall sulphur recovery efficiency of Sulphur recovery unit with tail gas treating shall not be less than 99.9 %.                                                                                                                                                                                                                                                                  | Complied                                                                                                                                                                                                   |
| vii  | As proposed, record of sulphur balance shall be maintained at the Refinery as part of the environmental data on regular basis. The basic component of sulphur balance include sulphur input through feed (sulphur content in crude oil), sulphur output from Refinery through products, byproduct (elemental sulphur), atmospheric emissions etc.                                                                                                                                                                                                                 | Complied                                                                                                                                                                                                   |
| Viii | Ambient air quality monitoring stations,[PM <sub>10</sub> ,PM <sub>2.5</sub> ,SO <sub>2</sub> , NO <sub>x</sub> , H <sub>2</sub> S, mercaptan, non-methane-HC and Benzene] shall be set up in the complex in consultation with Maharashtra Pollution Control Board, based on occurrence of maximum ground level concentration and down-wind direction of wind. The monitoring network must be decided based on modeling exercise to represent short term GLCs.                                                                                                    | Complied                                                                                                                                                                                                   |
| Ix   | Ambient air quality data shall be collected as per NAAQEA standards notified by the Ministry on 16 <sup>th</sup> November-2009 and trend analysis w.r.t. past monitoring results shall also be carried out. Adequate measures based on the trend analysis shall be taken to improve the ambient air quality in the project area.                                                                                                                                                                                                                                  | Complied                                                                                                                                                                                                   |
| x.   | The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Besides, acoustic enclosure/silencer shall be installed wherever noise levels exceed the limit.                                                                                                                                                                                                                                                                    | Noted<br>Power is supplied to new CDU/VDU (CDU4) unit from Captive Power Plant existing at the refinery, or shall be imported from Tata Electric Company. Additional DG set is not required for CDU4 unit. |

|        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                     |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| xi.    | Total raw water requirement from Municipal Corporation of Greater Mumbai water supply shall not exceed 687.4 m <sup>3</sup> /hr and prior permission shall be obtained from the competent authority. Industrial effluent generation from new CDU/VDU project shall be 60 m <sup>3</sup> /hr and treated in the effluent treatment plant. Treated effluent shall be recycled /reused recycled as make up for the raw water cooling tower. Domestic sewage shall be treated in sewage treatment plant (STP). | Complied                                                                                                                                                                                            |
| xii.   | Oil catchers/oil traps shall be provided at all possible locations in rain/storm water drainage system inside the factory premises.                                                                                                                                                                                                                                                                                                                                                                        | Complied                                                                                                                                                                                            |
| Xiii   | Oily sludge shall be disposed off into Coker. Annual Oily sludge generation and disposal data shall be submitted to the Ministry's Regional Office and CPCB.                                                                                                                                                                                                                                                                                                                                               | Not applicable                                                                                                                                                                                      |
| xiv    | The Company should strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals Rules,1989 as amended in October, 1994 and January,2000 Hazardous waste should be disposed of as per Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 and amended time to time                                                                                                                                                                 | Complied                                                                                                                                                                                            |
| xv     | The membership of common TSDF should be obtained for the disposal of hazardous waste. Copy of authorization or membership of TSDF should be submitted to Ministry's Regional Office at Bhopal Chemical/inorganic sludge shall be sent to treatment storage disposal facility (TSDF) for hazardous waste. Spent catalyst shall be sent to authorized recyclers/re-processors.                                                                                                                               | Complied                                                                                                                                                                                            |
| xvi.   | Proper oil spillage prevention management plan shall be prepared to avoid spillage/leakage of oil/petroleum products and ensure regular monitoring.                                                                                                                                                                                                                                                                                                                                                        | Proper oil spillage prevention management plan exists. Closed sampling system has been provided to avoid spillage/leakage. Gully Sucker is available in the refinery to take care of any spillages. |
| xvii.  | The company shall strictly follow all the recommendation mentioned in the Charter on Corporate Responsibility for Environmental Protection (CREP).                                                                                                                                                                                                                                                                                                                                                         | Complied. Please refer <b>Annexure-10</b> for details Corporate Responsibility for Environmental Protection (CREP).                                                                                 |
| xviii. | To prevent fire and explosion at oil and gas facility, potential ignition sources shall be kept to a minimum and adequate separation distance between potential ignition sources and flammable materials shall be in place.                                                                                                                                                                                                                                                                                | Complied                                                                                                                                                                                            |
| xix.   | Green belt shall be developed at least in 45 acres area land around the plant premises to mitigate the effects of fugitive emissions all around the plant as per the                                                                                                                                                                                                                                                                                                                                       | Being old refinery established in 1955, there is space constraint. Hence tree plantation is carried out in & around                                                                                 |

|       |                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                        |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
|       | CPCB guidelines in consultation with DFO. Think greenbelt with suitable plant species shall be developed around unit. Selection of plant species shall be as per the CPCB guidelines.                                                                                                                                                     | Mumbai Region outside refinery to develop greenbelt. In last 10 years, around 50000 trees have been planted in & around Mumbai region.                 |
| xx.   | All the issues raised and commitment made during the public hearing/consultation meeting held on 25 <sup>th</sup> September, 2012 shall be satisfactorily implemented. Accordingly, provision of budget to be kept.                                                                                                                       | Complied                                                                                                                                               |
| xxi   | Based on Hazop study carried out and recommendation to reduce the risk shall be expeditiously implemented, and report sent to regional office of ministry                                                                                                                                                                                 | Complied                                                                                                                                               |
| xxii  | Company shall adopt Corporate Environment policy as per ministry's O.M. No J-11013/41/2006-IA II(I) dated 26 <sup>th</sup> April 2011 and implemented.                                                                                                                                                                                    | BPCL MR is an ISO 14001 certified company. Quality, Environment, Occupational Health & Safety policy as per Integrated Management Systems is in place. |
| xxiii | Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project. | Project is completed and commissioned.                                                                                                                 |

**A. GENERAL CONDITIONS :**

| <b>Sr. No.</b> | <b>Condition</b>                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>STATUS as on 01.12.2024<br/>(April-2024 to September-2024)</b> |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| i.             | The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board (SPCB), state government and any other statutory authority.                                                                                                                                                                                                                                                               | Noted                                                             |
| ii.            | No further expansion or modifications in the project shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviation or alterations in the project proposed from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any. | Noted                                                             |
| iii.           | The project authorities must strictly comply with the rules & regulation under manufacture. Storage and import of Hazardous chemical Rules, 2000 as amended subsequently. Prior approvals from Chief Inspectorate of Factories, Chief Controller of                                                                                                                                                                                  | Complied                                                          |

|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                       |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       | Explosives, Fire Safety Inspectorate, etc. must be obtained, wherever applicable.                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                       |
| iv.   | The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosure etc, on all sources of noise generation. The ambient noise levels should conform the standards prescribed under Environmental (Protection) Act, 1986 Rules and 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).                                                                                                                              | Noted                                                                                                                                                                                 |
| v.    | A separate environment management cell equipped with full-fledged laboratory facilities must be set up to carry out the environmental management and monitoring functions.                                                                                                                                                                                                                                                                                                                                                      | Noted<br><br>BPCL MR already has an Environment section to carry out environmental management and monitoring functions. The Refinery also has a full-fledged NABL approved Laboratory |
| vi.   | Adequate funds shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures and shall be used to implement the conditions stipulated Ministry of Environment and Forests as well as state government along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.                                                                                                                         | Adequate funds are being provided for environmental pollution control measurement.                                                                                                    |
| vii.  | The Regional Office of this Ministry / Central Pollution control Board / State Pollution Control Board will monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation should be submitted to them regularly.                                                                                                                                                                                                                                              | Complied                                                                                                                                                                              |
| viii. | A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila parishad/Municipal Corporation, Urban local body, and the local NGO if any, from whom suggestions, representations, if any were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.                                                                                                                                                                          | Complied                                                                                                                                                                              |
| ix.   | The project proponent shall upload the status of compliance of the stipulated environmental conditions including the results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the regional office of MoEF, the respective zonal office of CPCB, and the SPCB. The criteria pollutant levels, namely PM10, PM2.5, SO2, NOx, HC (Methane & non-methane), VOCs (ambient levels as well as stack emissions) or critical sectoral parameters indicated for the projects | Complied                                                                                                                                                                              |

|        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                               |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        | shall be monitored and displayed at a convenient location near the main gate of the company in the public domain                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                               |
| x.     | The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional office of MoEF, the respective zonal office of CPCB, and the SPCB. The Regional office of this ministry,/CPCB/SPCB shall monitor the stipulated conditions.                                                                                                                                                                                                                          | Complied                                                                                                                                                                                                                      |
| xi.    | The Environmental statement for each financial year ending 31 <sup>st</sup> March in form V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986 as amended subsequently, shall also be put on the website of the company along with the status of compliance of Environmental conditions and shall also be sent to the respective Regional Offices of the MoEF by e-mail                                                                                                                                   | Complied                                                                                                                                                                                                                      |
| xviii. | The project proponent shall inform the public that the project has been accorded environmental clearance by the ministry and copies of the clearance are available with the SPCB and may also be seen at website o Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> . This shall be advertised within seven days from the date of issue of clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in vernacular language of the locality concerned, and a copy of same shall be forwarded to the Regional Office. | Subsequent to obtaining Env. Clearance from MoEF for CDU/VDU, dt 12 <sup>th</sup> June-13, the same was published in two newspapers (Indian Express in English & Maharashtra Times Marathi) on 18 <sup>th</sup> of June 2013. |
| xix.   | Project authorities shall inform the Regional office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work.                                                                                                                                                                                                                                                                                                                                                                                           | Noted                                                                                                                                                                                                                         |

**Compliance Status Report for Installation of Continuous Catalytic Regeneration Reformer (CCR 1.2 MMT) at BPCL Mumbai Refinery**

**Reference to Letter no. F. No. J-11011/180/2008-IA II(I), DATED 28/4/2008 and J-11011/582/2011-1A II (I) dated 7<sup>th</sup> June 2013.**

**The Ministry of Environment and Forests accorded environmental clearance for installation of new Continuous Catalytic Regeneration Reformer (CCR 1.2 MMTPA) within the premises of BPCL Mumbai Refinery. As per the stipulations given in the Environmental Clearance, the detailed compliance status is given below:**

**Status of the CCR Project**

CCR Unit commissioned on 04.03.2014 and on grade product diverted to storage on 08.03.2014. Project completed.

| <b>Sr. No.</b> | <b>SPECIFIC CONDITIONS</b>                                                                                                                                                                                                                                                       | <b>STATUS as on 01.12.2024<br/>(April-2024 to September-2024)</b> |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| i.             | Compliance to all the Environmental conditions stipulated in the environmental clearance letter no J-11011/180/2008-1A II (I) dated 28 <sup>th</sup> April 2008 shall be satisfactorily implemented and compliance reports submitted to the Ministry's Regional office at Bhopal | Complied                                                          |
| ii.            | M/s BPCL shall comply with new standards/norms for Oil refinery Industry notified under Environment (Protection) Rules 1986 vide GSR 186 (E) dated 18 <sup>th</sup> March 2008                                                                                                   | Complied                                                          |
| iii.           | Continuous on-line stack monitoring for SO <sub>2</sub> , NO <sub>x</sub> and CO of all the stacks shall be carried out. Low NO <sub>x</sub> burners shall be installed.                                                                                                         | Complied                                                          |
| iv.            | The process emissions {SO <sub>2</sub> , NO <sub>x</sub> , HC (Methane & Non methane)}, VOC's and benzene from various units shall conform to the standards prescribed under Environment (Protection) Act. At no time, the emission levels shall go beyond the stipulated        | Complied                                                          |

|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                     |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
|       | standards. In the event of failure of pollution control system(s) adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency of the pollution control device has been achieved.                                                                                                                                                                                                                                                                                              |                                                                                                                                                     |
| v.    | Leak detection and Repair program shall be prepared and implemented to control HC/VOC emissions. Focus shall be given to prevent fugitive emissions for which preventive maintenance of pumps, valves, pipelines are required. Proper maintenance of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to. Fugitive emissions of storage tank yards etc. must be regularly monitored. Sensors for detecting HC leakage shall be provided at strategic locations. | Complied                                                                                                                                            |
| vi.   | SO <sub>2</sub> emissions after expansion from the plant shall not exceed 12 TPD. Sulfur recovery units shall be installed for control of H <sub>2</sub> S emissions. The overall sulfur recovery efficiency of Sulfur recovery units with tail gas treating shall not be less than 99.9%.                                                                                                                                                                                                                                                        | Noted                                                                                                                                               |
| vii.  | As proposed, record of sulfur balance shall be maintained at the refinery as a part of the environmental data on regular basis. The basic component of sulfur balance include sulfur input through feed (sulfur content in the crude oil), sulfur output from refinery through products, by products, atmospheric emissions etc.                                                                                                                                                                                                                  | Noted                                                                                                                                               |
| viii. | Ambient Air quality monitoring stations {PM <sub>10</sub> , PM <sub>2.5</sub> , SO <sub>2</sub> , NO <sub>x</sub> , H <sub>2</sub> S, mercaptan, non methane-HC and benzene shall be set up in the complex in consultation with Maharashtra Pollution Control Board based on occurrence of maximum ground level concentration and down wind direction of wind. The monitoring network must be decided based on modeling exercise to represent short term GLCs.                                                                                    | Noted                                                                                                                                               |
| ix.   | Ambient air quality data shall be collected as per N AAQES standards notified by the ministry on 16 <sup>th</sup> November 2009 and trend analysis wrt past monitoring results shall be also carried out. Adequate measures based on the trend analysis shall be taken to improve the ambient air quality in the project area.                                                                                                                                                                                                                    | Noted                                                                                                                                               |
| x.    | The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Besides acoustic enclosure/silencer shall                                                                                                                                                                                                                                                                                                          | Noted<br><br>Power is being provided to CCR unit from existing Captive Power Plant at the refinery or is being imported from Tata Electric Company. |

|       |                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       | be installed where ever noise pollution exceeds the limit.                                                                                                                                                                                                                                                                                                                                                                               | Additional DG set is not required for CCR unit.                                                                                                                                                                                                                                                                                                                                                                             |
| xi.   | Total raw water requirement for the proposed project shall not exceed 4995 m3/day and prior permission shall be taken from competent authority. Industrial effluent generation from CCR unit shall not exceed 129 m3/day. Industrial effluent shall be treated in effluent treatment plant. Treated effluent shall be recycled /re-used in the existing cooling tower. Domestic sewage shall be treated in sewage treatment plant. (STP) | Noted                                                                                                                                                                                                                                                                                                                                                                                                                       |
| xii.  | Oil catchers/oil traps shall be provided at all possible locations in rain/storm water drainage system inside the factory premises.                                                                                                                                                                                                                                                                                                      | Noted                                                                                                                                                                                                                                                                                                                                                                                                                       |
| xiii. | Oily sludge shall be disposed off into Coker. Annual oily sludge generation and disposal data shall be submitted to the ministry's Regional office and CPCB.                                                                                                                                                                                                                                                                             | <p>Not Applicable</p> <p>There is no coker installed at BPCL Mumbai Refinery.</p> <p>There is no oily sludge generation from CCR complex.</p> <p>Other Oily sludge generated in the refinery is subject to mechanical/chemical treatments for oil recovery and the residual sludge is bio-remediated using bacteria to reduce oil content below 0.5 wt% before it can be disposed off as per Hazardous waste Rule 2016.</p> |
| xiv.  | The company should strictly comply with the rules and guidelines under manufacture, storage and import of hazardous chemicals Rules 1989 as amended in October 1994 and January 2000. Hazardous waste should be disposed off as per Hazardous waste (Management, Handling and Trans-boundary movement) rules 2008 and amended time to time.                                                                                              | Noted                                                                                                                                                                                                                                                                                                                                                                                                                       |
| xv.   | The membership of common TSDF should be obtained for the disposal of hazardous waste. Copy of authorization or membership of TSDF should be submitted to Ministry's regional office at Bhopal. Chemical/inorganic sludge shall be sent to Treatment storage disposal facility (TSDF) for hazardous waste. Spent catalyst shall be sent to authorized recyclers/re-processors.                                                            | Complied                                                                                                                                                                                                                                                                                                                                                                                                                    |

|        |                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| xvi.   | Proper oil spillage prevention management plan shall be prepared to avoid spillage/leakage of oil/petroleum products and ensure regular monitoring.                                                                                                                                                                                       | Complied<br><br>Closed sampling system has been provided to avoid spillage/leakage of oil.<br><br>Gully Suckers are available to take care of any spillage. Close Blow down system is operational for close draining of hydrocarbons during maintenance activity. Oil catchers are provided for removing oil from water going out of refinery. |
| xvii.  | The company shall strictly follow all the recommendation mentioned in the Charter on Corporate Responsibility for Environmental Protection (CREP)                                                                                                                                                                                         | Noted<br><br>Please refer <b>Annexure-10.</b>                                                                                                                                                                                                                                                                                                  |
| xviii. | To prevent fire and explosion at oil and gas facility, potential ignition sources shall be kept to minimum and adequate separation distance between potential ignition sources and flammable materials shall be in place.                                                                                                                 | Noted                                                                                                                                                                                                                                                                                                                                          |
| xix.   | Green belt shall be developed at least in 33% of the plant area in and around the plant premises to mitigate the effect of fugitive emissions all around the plant as per the CPCB guidelines.                                                                                                                                            | Please refer feedback of point no A-xi mentioned in GTU compliance report.                                                                                                                                                                                                                                                                     |
| xx.    | All the recommendations mentioned in the rapid risk assessment report, disaster management plan, and safety guidelines shall be implemented.                                                                                                                                                                                              | Noted                                                                                                                                                                                                                                                                                                                                          |
| xxi.   | All the issues raised and commitment made during public hearing/consultation meeting held on the 25 <sup>th</sup> September 2012 shall be satisfactorily implemented. Accordingly, provision of budget to be kept.                                                                                                                        | Noted                                                                                                                                                                                                                                                                                                                                          |
| xxii.  | Company shall adopt Corporate Environment policy as per ministry's O.M. No J-11013/41/2006-IA II(I) dated 26 <sup>th</sup> April 2011 and implemented.                                                                                                                                                                                    | BPCL MR is an ISO 14001 certified company. Quality, Environment, Occupational Health & Safety policy as per Integrated Management System.                                                                                                                                                                                                      |
| xxiii. | Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project. | Project is completed and commissioned.                                                                                                                                                                                                                                                                                                         |

| <b>SR. NO.</b> | <b>GENERAL CONDITIONS</b>                                                                                  | <b>STATUS as on 01.12.2024<br/>(April-2024 to September-2024)</b> |
|----------------|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| i.             | The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board | Noted                                                             |

|       |                                                                                                                                                                                                                                                                                                                                                                                                                                     |       |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
|       | (SPCB), state government and any other statutory authority.                                                                                                                                                                                                                                                                                                                                                                         |       |
| ii.   | No further expansion or modifications in the project shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviation or alterations in the project proposed from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any | Noted |
| iii.  | The project authorities must strictly comply with the rules & regulation under manufacture. Storage and import of Hazardous chemical Rules, 2000 as amended subsequently. Prior approvals from Chief Inspectorate of Factories, Chief Controller of Explosives, Fire Safety Inspectorate, etc. must be obtained, wherever applicable.                                                                                               | Noted |
| iv.   | The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosure etc, on all sources of noise generation. The ambient noise levels should conform the standards prescribed under Environmental (Protection) Act, 1986 Rules and 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).                                  | Noted |
| v.    | A separate environment management cell equipped with full-fledged laboratory facilities must be set up to carry out the environmental management and monitoring functions.                                                                                                                                                                                                                                                          | Noted |
| vi.   | Adequate funds shall be earmarked towards capital cost and recurring cost/annum for environment pollution control measures and shall be used to implement the conditions stipulated Ministry of Environment and Forests as well as state government along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.                             | Noted |
| vii.  | The Regional Office of this Ministry / Central Pollution control Board / State Pollution Control Board will monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation should be submitted to them regularly.                                                                                                                                                  | Noted |
| viii. | A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila parishad /Municipal Corporation, Urban local body and the local NGO if any, from whom suggestions, representations, if any were received while processing the proposal. The clearance letter shall                                                                                                                                           | Noted |

|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                          |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       | also be put on the web site of the company by the proponent.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                          |
| ix.   | The project proponent shall upload the status of compliance of the stipulated environmental conditions including the results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the regional office of MoEF, the respective zonal office of CPCB, and the SPCB. The criteria pollutant levels, namely PM10, PM2.5, SO2, NOx, HC (Methane & non-methane), VOCs (ambient levels as well as stack emissions) or critical sectoral parameters indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain. | Noted                                                                                                                                                                                                    |
| x.    | The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional office of MoEF, the respective zonal office of CPCB, and the SPCB. The Regional office of this ministry, /CPCB/SPCB shall monitor the stipulated conditions.                                                                                                                                                                                                                                                | Complied                                                                                                                                                                                                 |
| xi.   | The Environmental statement for each financial year ending 31 <sup>st</sup> March in form V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986 as amended subsequently, shall also be put on the website of the company along with the status of compliance of Environmental conditions and shall also be sent to the respective Regional Offices of the MoEF by e-mail.                                                                                                                                                         | Complied                                                                                                                                                                                                 |
| xii.  | The project proponent shall inform the public that the project has been accorded environmental clearance by the ministry and copies of the clearance are available with the SPCB and may also be seen at website of Ministry of Environment and Forests at <a href="http://envfor.nic.in">http://envfor.nic.in</a> . This shall be advertised within seven days from the date of issue of clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in vernacular language of the locality concerned, and a copy of same shall be forwarded to the Regional Office.                       | Subsequent to obtaining Env. Clearance from MoEF for CCR (1.2 MMTPA), the same was published in two newspapers (Indian Express in English & Maharashtra Times Marathi) on 13 <sup>th</sup> of June 2013. |
| xiii. | Project authorities shall inform the Regional office as well as the Ministry, the date of financial closure and final approval of the project by the concerned                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Noted                                                                                                                                                                                                    |

|  |                                                                   |  |
|--|-------------------------------------------------------------------|--|
|  | authorities and the date of commencing the land development work. |  |
|--|-------------------------------------------------------------------|--|

**Compliance Status Report for modernization of Mumbai Refinery by replacing old Catalytic Cracking Unit (CCU) and Fluidized Catalytic Cracking Unit (FCCU) with the new state of the art Petro Resid Fluidized Catalytic Cracking Unit (PRFCCU) & associated facilities**

**EC Letter no. J-11011/145/2018-1A II (I) dated 5<sup>th</sup> Aug-2019**

BPCL Mumbai Refinery has submitted application to MoEF & CC for amendment of EC Letter no. J-11011/145/2018-1A II (I) for CRZ approval.

**Application No. : Proposal No. : IA/MH/IND2/130402/2019**

**Reason for Amendment:** In view of CRZ, Environment Clearance (EC) for PRFCC amendment is in progress.

**Compliance of EC:**

Post receipt of amended EC for PRFCC project at BPCL Mumbai refinery, EC compliance will be submitted.



Towards sustainable growth

# Mumbai Waste Management Limited

## Certificate

M/s, Bharat Petroleum Corporation Ltd. Mumbai Refinery

is a registered member of

CHW-TSDF at MIDC, Talaja

for safe & secure disposal of

Hazardous Waste.

Membership no.: MWML - HzW MUM-3247

This Certificate is valid up to

31<sup>st</sup> MARCH-2025...

Onkar A. Kulkarni  
Manager - MBD

Somnathi Malgar  
Director



**Form 4**

See rules 6(5),13(8),16(6) and 20(2) of Hazardous and other wastes 2016

**FORM FOR FILING ANNUAL RETURNS**

[ To be submitted to state pollution control board/pollution control committee by 30th June of every year for the preceeding period April to march]

**Unique Application Number:**

MPCB-HW\_ANNUAL\_RETURN-0000049372

**Submitted On:**

29-06-2024

**Industry Type  
:**

Generator

**Submitted for Year:**

2024

**1. Name of the generator/operator of facility**

SHRI. ABHAI RAJ SINGH BHANDARI , EXECUTIVE DIRECTOR, MUMBAI REFINERY

**Address of the unit/facility**

BHARAT PETROLEUM CORPORATION LTD.,  
MUMBAI REFINERY, MAHUL, CHEMBUR,  
MUMBAI-400074

**1b. Authorization Number**

Format1.0/CAC/UAN No.MPCBCONSENT- 0000173030/CR/2310000717

**Date of issue**

Oct 10, 2023

**Date of  
validity of  
consent**

Aug 31, 2023

**2. Name of the authorised person**

ATUL VYAWAHARE, DGM I/C, ENVIRONMENT

**Full address of authorised person**

HSSE, BHARAT PETROLEUM CORPORATION  
LTD., MUMBAI REFINERY, MAHUL,  
CHEMBUR, MUMBAI-400074

**Telephone**

02225533198

**Fax**

NA

**Email**

vyawaharead@bharatpetroleum.in

**3.Production during the year (product wise), wherever applicable**

| Product Type *                                 | Product Name *                                                                                                 | Consented Quantity | Actual Quantity | UOM    |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------|--------------------|-----------------|--------|
| Oil Refinery (Mineral Oil or Petro Refineries) | LPG (Liquified Petroleum Gas), POLY PROPYLENE FEED STOCK                                                       | 1764.0000          | 1376            | MT/Day |
| Oil Refinery (Mineral Oil or Petro Refineries) | BENZENE, TOLUENE, XYTOL                                                                                        | 180.0000           | 145             |        |
| Oil Refinery (Mineral Oil or Petro Refineries) | Special Naphtha (SBP 55/115 DEG C), HEXANE (FGH 64-69 DEG C), Motor Spirit (MS), MTBE, NAPHTHA, Other Solvents | 9122.0000          | 10101           |        |
| Oil Refinery (Mineral Oil or Petro Refineries) | Superior Kerosene (SK, LABFS), Mineral Turpentine (MTO), Aviation Turbine Fuel (ATF)                           | 3450.0000          | 2436            |        |
| Oil Refinery (Mineral Oil or Petro Refineries) | High Speed Diesel (HSD BS IV, Navy Grade HSD), Light Diesel Oil                                                | 19500.0000         | 19218           |        |
| Oil Refinery (Mineral Oil or Petro Refineries) | HS Furnace Oil (FO), Low Sulfur Heavy Stock (LSHS), BITUMEN (VG40, VG30 & VG10), SULFUR                        | 5587.0000          | 5334            |        |
| Oil Refinery (Mineral Oil or Petro Refineries) | LUBE OIL BASE STOCK (LOBS)                                                                                     | 1233.0000          | 1005            |        |

PART A: To be filled by hazardous waste generators

1. Total Quantity of waste generated category wise

| Type of hazardous waste                                   | Wate Name                      | Consented Quantity | Quantity | UOM |
|-----------------------------------------------------------|--------------------------------|--------------------|----------|-----|
| 4.2 Spent catalyst                                        | Spent Alumina                  | 2538.750           | 8.62     | MTA |
| 4.2 Spent catalyst                                        | Spent Catalyst                 | 2538.750           | 1070.02  | MTA |
| 4.2 Spent catalyst                                        | Spent Charcoal                 | 2538.750           | 49.33    | MTA |
| 4.2 Spent catalyst                                        | Spent Coke                     | 2538.750           | 25.23    | MTA |
| 4.2 Spent catalyst                                        | HCU Spent Catalyst Dust        | 2538.750           | 12.05    | MTA |
| 4.2 Spent catalyst                                        | Spent PSA Adsorbent            | 2538.750           | 195.13   | MTA |
| 4.2 Spent catalyst                                        | Spent Catalyst Silica From HCU | 2538.750           | 12.21    | MTA |
| 33.2 Contaminated cotton rags or other cleaning materials | Oil Soaked Mixed Debries       | 50.000             | 5.35     | MTA |
| 4.1 Oil sludge or emulsion                                | Residual Oily Sludge           | 8100.000           | 3911     | MTA |
| 4.3 Slop oil                                              | Slop Oil                       | 270000.000         | 81542    | MTA |
| 4.2 Spent catalyst                                        | CCU Spent Catalyst             | 2538.750           | 5.79     | MTA |

2. Quantity dispatched category wise.

| Type of Waste              | Quantity of waste | UOM | Dispatched to           | Facility Name                                                                                     |
|----------------------------|-------------------|-----|-------------------------|---------------------------------------------------------------------------------------------------|
| 4.2 Spent catalyst         | 469.52            | MTA | Disposal Facility       | MUMBAI WASTE MANAGEMENT LTD. PLOT NO P-32, MIDC TALOJA, PANVEL. RAIGAD. NAVI MUMBAI-410208        |
| 4.2 Spent catalyst         | 1070.02           | MTA | Recycler or Actual user | M/s. Vyankatesh Metals & Alloys Pvt. Ltd./lvUs. Rubamin Ltd./M/s Refracast Metallurgical Pvt.Ltd. |
| 4.1 Oil sludge or emulsion | 3911              | MTA | Disposal Facility       | To be bioremediated inside Refinery                                                               |
| 4.3 Slop oil               | 81542             | MTA | Disposal Facility       | Recycle and Reprocessing along with Crude inside Refinery                                         |

3. Quantity Utilised in-house,If any

| Type of Waste | Name of Waste | Quantity of Waste | UOM |
|---------------|---------------|-------------------|-----|
|               | NA            | 0                 | MTA |

4. Quantity in storage at the end of the year

| Type of Waste | Name of Waste | Quantity of Waste | UOM |
|---------------|---------------|-------------------|-----|
|               | NA            | 0                 | MTA |

5. Quantity disposed in landfills as such and after treatment

| Type                     | Quantity | UOM     |
|--------------------------|----------|---------|
| Direct landfilling       | NA       | KL/Anum |
| Landfill after treatment | NA       | KL/Anum |

6. Quantity incinerated (if applicable)

|    | UOM     |
|----|---------|
| NA | KL/Anum |

Personal Details

**Place**  
MUMBAI

**Date**  
2024-06-29

**Designation**  
DGM I/C ENVIRONMENT



# Mumbai Agricultural Produce<sup>121</sup> Market Committee, Mumbai

(ESTD. 1977)

**HEAD OFFICE** : Central Building, Sector-18, Vashi, Navi Mumbai - 400 703

**BRANCH OFFICE** : Shri Chhatrapati Shivaji Maharaj Mandai,  
3rd Floor, Palton, Mumbai - 400 001.

**TELEPHONES :**

HEAD. OFF. : 2788 9416

EPABX : 2788 8414

FAX : 91-22-27889507

BRANCH OFF. : 2261 6624

FAX : 2261 4888

E-mail : mapmc@bom3.vsnl.net.in

NO.APMC/ENGG.DEPT./ 501 /14

Date : 4/12/14

To,

BPCL Mumbai Refinery,  
Mahul, Chembur,  
Mumbai 400 074.

Sub : Certification Letter.

Ref : Your request letter No.TA/PC/Gen-II, dtd. 27.11.2014.

Sir,

With reference to the above subject, this is to certify that BPCL Mumbai Refinery (Environment Department) has planted a total No. of 3050 tree saplings at Plot No.8 and Plot no.10 area of APMC, Sector-19, Vashi, Navi Mumbai. The plantation is covering an area of approximately 4 acres. The plantation was carried out in the monsoon season of 2014. The saplings planted are in healthy condition and have gained firm roots as on date, 30<sup>th</sup> November, 2014.

*[Signature]*  
Addl. Commissioner & Secretary  
Mumbai APMC, Mumbai.

**Mumbai Waste Management Ltd.**

Plot No. P-32, MIDC Taloja, Dist. Raigad,  
Tal. Panvel Maharashtra 410 208. India  
Tel.: 022-2740 1468 to 71 & 2741 1473  
Fax: 022-2740 1474  
Email: mbdmwml@ramky.com  
www.mumbaiwastemanagement.com

Date: 26/10/2016 To,

To,

Bharat Petroleum Corporation Limited

8931/TA/111, Mahul, Chembur

Mumbai -400074

Sub: Tree Plantation at Mumbai Waste Management Ltd.

Kind Attn: Mr. Joshi

Dear Sir,

As you are aware that your esteemed firm had allotted 3000 trees for plantation at MWML Premises on the occasion of World Environment Day 2016.

MWML is grateful to you for this warm gesture and we would like to inform you that these trees have been planted in our premises at Taloja.

For your reference we are enclosing few photographs with this letter.

Thank You

Sincerely,

Authorized Signatory

Mumbai Waste Management Ltd.

Certified by



**bsi.**

ISO 9001:2008 | ISO 14001:2004 | OHSAS 18001:2007  
C. No. FS 570487 | C. No. EMS 570497 | C. No. OHS 570500

Corporate Office:

Ramky Enviro Engineers Ltd.

Ramky Grandiose Floor, 12, 13, Ramky Tower Complex,  
Gachibowli Hyderabad - 500 032.

Tel.: 040-2301 5000 (40 Lines) • Fax: 040-2330 2353 • Website: www.ramky.com

दुरध्वनी : २५३३१२११

२५३३१२८०



## ठाणे महानगरपालिका, ठाणे

महानगरपालिका भवन, डॉ. अल्मेडा रोड, चंदनवाडी, पांचपाखाडी, ठाणे ४००६०२  
THE MUNICIPAL CORPORATION OF THE CITY OF THANE

संदर्भ क्र : ठामपा/वृप्रा/वृअ - ७२०

दि. २३/६/२०१७

चला एकत्र येऊया : ठाणे हिरवेगार करूया !

प्रति,  
मे. भारत पेट्रोलियम कॉर्पोरेशन लि.,  
भारत भवन, करीमभाय रोड,  
बेल्गार्ड इस्टेट, मुंबई. ४००००१



**विषय: ५ लक्ष वृक्षलागवड योजना ...**

संदर्भ : १. आपले दि. २५/०५/२०१७ रोजीचे पत्र.

२. ठामपा/वृप्रा/वृअ-५२० दि. १३/०६/२०१७

३. आपले आ.क्र. २२२९ दि. २३/०६/२०१७ रोजीचे पत्र.

महोदय,

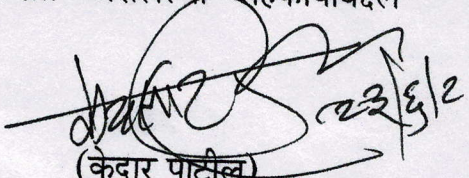
संदर्भ क्र. २ च्या पत्रान्वये आपणास ५ लक्ष वृक्षलागवड योजनेचा शुभारंभ जागतिक पर्यावरण दिनी ५ जून २०१७ रोजी करण्यात आला असून आपणामार्फत आपल्या स्वःखर्चाने या योजनेमध्ये ५००० वृक्षांचा पुरवठा करण्याबाबत कळविले आहे.

संदर्भ क्र. ३ च्या पत्रान्वये आपणामार्फत वृक्षांचे रोपण करण्याबाबत व त्यांच्या दैनंदिन निगा व देखभालीबाबत विचारणा करण्यात आलेली आहे.

सदर अनुषंगाने आपणास कळविण्यात येते की, आपणामार्फत पुरवठा करण्यात येणाऱ्या वृक्षांचे रोपण व त्यांची दैनंदिन निगा व देखभाल ठाणे महानगरपालिकेमार्फत करण्यात येईल.

वरीलप्रमाणे रोपे उपलब्ध करून देण्याबाबत उलट टपाली इकडे कळविण्यात यावे व रोपे पुरवठा बाबत प्रगती अहवाल [gs@thanecity.gov.in](mailto:gs@thanecity.gov.in) या ई-मेलवर पाठविणेत यावा.

आपण पर्यावरण रक्षणासाठी ठाणे महानगरपालिकेस करीत असलेल्या सहकार्याबद्दल आभार !

  
(केदार पाटील)

वृक्षअधिकारी  
ठाणे महानगरपालिका, ठाणे.

प्रत : मा. अति- आयुक्त सो यांचे माहितीसाठी सविनय सादर ...

Annexure-5a

17 SEPTEMBER, 2019

# CARBON SEQUESTRATION CERTIFICATE

PRESENTED TO

*BPCL*



FOR OFFSETTING OVER 15 YEARS

*2,543.76 MT of CO<sub>2</sub>*

WITH THE PLANTATION OF

*10,000 Native Trees*

IN THE

MUMBAI METROPOLITAN REGION



JANJRI JASANI

HEAD OF SUSTAINABILITY SERVICES  
CERE



## FORM V

(See Rule 14)

Environmental Audit Report for the financial Year ending the 31st March 2024

## Unique Application Number

MPCB-ENVIRONMENT\_STATEMENT-0000074103

## Submitted Date

30-09-2024

## PART A

## Company Information

## Company Name

Bharat Petroleum Corporation Limited

## Application UAN number

NA

## Address

BPCL Mumbai Refinery, Mahul Gaon,  
Chembur, Mumbai-400074

## Plot no

234/482

## Taluka

Kurla

## Village

Mahul

## Capital Investment (In lakhs)

1225449

## Scale

L.S.I

## City

Mumbai

## Pincode

400074

## Person Name

Atul Vyawahare

## Designation

DGM I/C (Environment)

## Telephone Number

02231073198

## Fax Number

0

## Email

vyawaharead@bharatpetroleum.in

## Region

SRO-Mumbai III

## Industry Category

Red

## Industry Type

R56 Oil Refinery (mineral Oil or Petro Refineries)

## Last Environmental statement submitted online

yes

## Consent Number

Format1.0/CAC/UAN No.MPCB CONSENT-  
0000173030/CR/2310000717

## Consent Issue Date

2023-10-10

## Consent Valid Upto

2023-08-31

## Establishment Year

1955

## Date of last environment statement submitted

Jan 1 1900 12:00:00:000AM

## Industry Category Primary (STC Code) &amp; Secondary (STC Code)

## Product Information

## Product Name

LPG (Liquified Petroleum Gas), POLY PROPYLENE FEED STOCK

## Consent Quantity Actual Quantity UOM

643860 503537 MT/A

BENZENE, TOLUENE, XYTOL

65700 52945 MT/A

Special Naphtha (SBP 55/115 DEG C), HEXANE (FGH 64-69 DEG C), Motor Spirit (MS), MTBE, NAPHTHA, Other Solvents

3329530 3696970 MT/A

Superior Kerosene (SK, LABFS), Mineral Turpentine (MTO), Aviation Turbine Fuel (ATF)

1259250 891407 MT/A

High Speed Diesel (HSD BS IV, Navy Grade HSD), Light Diesel Oil

7117500 7033940 MT/A

HS Furnace Oil (FO). Low Sulfur Heavy Stock (LSHS), BITUMEN (VG40, VG30 &amp; VG10), SULFUR

2039255 1952128 MT/A

By-product Information

| By Product Name | Consent Quantity | Actual Quantity | UOM  |
|-----------------|------------------|-----------------|------|
| NA              | 0                | 0               | MT/A |

Part-B (Water & Raw Material Consumption)

1) Water Consumption in m3/day

| Water Consumption for Process | Consent Quantity in m3/day | Actual Quantity in m3/day |
|-------------------------------|----------------------------|---------------------------|
| Cooling                       | 153790.00                  | 60000.00                  |
| Domestic                      | 1408.00                    | 750.00                    |
| All others                    | 0.00                       | 0.00                      |
| Total                         | 175603.00                  | 76847.00                  |

2) Effluent Generation in CMD / MLD

| Particulars                | Consent Quantity | Actual Quantity | UOM |
|----------------------------|------------------|-----------------|-----|
| Process Effluent           | 5760             | 2136            | CMD |
| Sea cooling water blowdown | 146319           | 40000           | CMD |
| Domestic Effluent          | 235              | 25              | CMD |

2) Product Wise Process Water Consumption (cubic meter of process water per unit of product)

| Name of Products (Production) | During the Previous financial Year | During the current Financial year | UOM  |
|-------------------------------|------------------------------------|-----------------------------------|------|
| NA                            | 0                                  | 0                                 | MT/A |

3) Raw Material Consumption (Consumption of raw material per unit of product)

| Name of Raw Materials | During the Previous financial Year | During the current Financial year | UOM  |
|-----------------------|------------------------------------|-----------------------------------|------|
| Crude Throughput      | 14494604                           | 15193854                          | MT/A |

4) Fuel Consumption

| Fuel Name   | Consent quantity | Actual Quantity | UOM  |
|-------------|------------------|-----------------|------|
| GAS         | 338501           | 208231          | MT/A |
| LSHS        | 232542           | 189850          | MT/A |
| COKE        | 109500           | 77164           | MT/A |
| RLNG        | 335727           | 177357          | MT/A |
| BHAG        | 22630            | 0               | MT/A |
| NAPHTHA     | 9271             | 0               | MT/A |
| PSA OFF GAS | 94900            | 347169          | MT/A |

Part-C

Pollution discharged to environment/unit of output (Parameter as specified in the consent issued)

[A] Water

| <i><b>Pollutants Detail</b></i> | <i><b>Quantity of Pollutants discharged (kL/day)</b></i> | <i><b>Concentration of Pollutants discharged(Mg/Lit) Except PH,Temp,Colour</b></i> | <i><b>Percentage of variation from prescribed standards with reasons</b></i> |                 |               |
|---------------------------------|----------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-----------------|---------------|
|                                 | <b>Quantity</b>                                          | <b>Concentration</b>                                                               | <b>%variation</b>                                                            | <b>Standard</b> | <b>Reason</b> |
| PH                              | 0                                                        | 7.26                                                                               | 0                                                                            | 6 to 8.5        | NA            |
| Oil & Grease                    | 0                                                        | 2.81                                                                               | 0                                                                            | 5               | NA            |
| BOD (3 days 27'C)               | 0                                                        | 10.13                                                                              | 0                                                                            | 15              | NA            |
| COD                             | 0                                                        | 102.84                                                                             | 0                                                                            | 125             | NA            |
| Suspended Solids                | 0                                                        | 13.37                                                                              | 0                                                                            | 20              | NA            |
| Phenols                         | 0                                                        | 0.23                                                                               | 0                                                                            | 0.35            | NA            |
| Sulphides                       | 0                                                        | 0.26                                                                               | 0                                                                            | 0.5             | NA            |
| CN                              | 0                                                        | 0.005                                                                              | 0                                                                            | 0.2             | NA            |
| Ammonia as N                    | 0                                                        | 8.91                                                                               | 0                                                                            | 15              | NA            |
| TKN                             | 0                                                        | 25.88                                                                              | 0                                                                            | 40              | NA            |
| Phosphate                       | 0                                                        | 2                                                                                  | 0                                                                            | 3               | NA            |
| Cr (Hexavalent)                 | 0                                                        | 0.05                                                                               | 0                                                                            | 0.1             | NA            |
| Cr (Total)                      | 0                                                        | 0.01                                                                               | 0                                                                            | 2               | NA            |
| Pb                              | 0                                                        | 0.05                                                                               | 0                                                                            | 0.1             | NA            |
| Hg                              | 0                                                        | 0.001                                                                              | 0                                                                            | 0.01            | NA            |
| Zn                              | 0                                                        | 0.05                                                                               | 0                                                                            | 5               | NA            |
| Ni                              | 0                                                        | 0.02                                                                               | 0                                                                            | 1               | NA            |
| Cu                              | 0                                                        | 0.04                                                                               | 0                                                                            | 1               | NA            |
| V                               | 0                                                        | 0.1                                                                                | 0                                                                            | 0.2             | NA            |
| Benzene                         | 0                                                        | 0.01                                                                               | 0                                                                            | 0.1             | NA            |
| Benzo (a)-Pyrene                | 0                                                        | 0.01                                                                               | 0                                                                            | 0.2             | NA            |

**[B] Air (Stack)**

| <i><b>Pollutants Detail</b></i> | <i><b>Quantity of Pollutants discharged (kL/day)</b></i> | <i><b>Concentration of Pollutants discharged(Mg/NM3)</b></i> | <i><b>Percentage of variation from prescribed standards with reasons</b></i> |                 |               |
|---------------------------------|----------------------------------------------------------|--------------------------------------------------------------|------------------------------------------------------------------------------|-----------------|---------------|
|                                 | <b>Quantity</b>                                          | <b>Concentration</b>                                         | <b>%variation</b>                                                            | <b>Standard</b> | <b>Reason</b> |
| SOx                             | 7259                                                     | 79.33                                                        | 0                                                                            | 1700            | NA            |
| NOx                             | 3323                                                     | 141.03                                                       | 0                                                                            | 450             | NA            |
| CO                              | 2078                                                     | 38.64                                                        | 0                                                                            | 200             | NA            |
| SPM                             | 416                                                      | 7.89                                                         | 0                                                                            | 100             | NA            |

**Part-D**

**HAZARDOUS WASTES**

**1) From Process**

| <i><b>Hazardous Waste Type</b></i> | <i><b>Total During Previous Financial year</b></i> | <i><b>Total During Current Financial year</b></i> | <i><b>UOM</b></i> |
|------------------------------------|----------------------------------------------------|---------------------------------------------------|-------------------|
| 4.1 Oil sludge or emulsion         | 441                                                | 3911                                              | MT/A              |
| Other Hazardous Waste              | 0                                                  | 0                                                 | KL/A              |

**2) From Pollution Control Facilities**

| <i><b>Hazardous Waste Type</b></i> | <i><b>Total During Previous Financial year</b></i> | <i><b>Total During Current Financial year</b></i> | <i><b>UOM</b></i> |
|------------------------------------|----------------------------------------------------|---------------------------------------------------|-------------------|
|------------------------------------|----------------------------------------------------|---------------------------------------------------|-------------------|

Part-E

SOLID WASTES

1) From Process

| Non Hazardous Waste Type | Total During Previous Financial year | Total During Current Financial year | UOM    |
|--------------------------|--------------------------------------|-------------------------------------|--------|
| FERROUS SCRAP            | 2242.7                               | 2756                                | MT/A   |
| WOOD SCRAP               | 128.9                                | 52.97                               | MT/A   |
| DRUMS & TINS             | 2138                                 | 1920                                | Nos./Y |
| NON FERROUS SCRAP        | 99.47                                | 135                                 | MT/A   |

2) From Pollution Control Facilities

| Non Hazardous Waste Type | Total During Previous Financial year | Total During Current Financial year | UOM  |
|--------------------------|--------------------------------------|-------------------------------------|------|
| NA                       | 0                                    | 0                                   | MT/A |

3) Quantity Recycled or Re-utilized within the unit

| Waste Type | Total During Previous Financial year | Total During Current Financial year | UOM  |
|------------|--------------------------------------|-------------------------------------|------|
| 0          | 0                                    | 0                                   | MT/A |

Part-F

Please specify the characteristics(in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

1) Hazardous Waste

| Type of Hazardous Waste Generated | Qty of Hazardous Waste | UOM  | Concentration of Hazardous Waste |
|-----------------------------------|------------------------|------|----------------------------------|
| 4.1 Oil sludge or emulsion        | 3911                   | MT/A | NA                               |
| 4.2 Spent catalyst                | 1539                   | MT/A | NA                               |

2) Solid Waste

| Type of Solid Waste Generated | Qty of Solid Waste | UOM  | Concentration of Solid Waste |
|-------------------------------|--------------------|------|------------------------------|
| NA                            | 0                  | MT/A | NA                           |

Part-G

Impact of the pollution Control measures taken on conservation of natural resources and consequently on the cost of production.

| Description                                                             | Reduction in Water Consumption (M3/day) | Reduction in Fuel & Solvent Consumption (KL/day) | Reduction in Raw Material (Kg) | Reduction in Power Consumption (KWH) | Capital Investment(in Lacs) | Reduction in Maintenance(in Lacs) |
|-------------------------------------------------------------------------|-----------------------------------------|--------------------------------------------------|--------------------------------|--------------------------------------|-----------------------------|-----------------------------------|
| Tree Plantation of 2000 no of trees by Miyawaki Method                  | 0                                       | 0                                                | 0                              | 0                                    | 14                          | 0                                 |
| Replacement of conventional AFC's (12 nos.) with EFRP blades in NHT CCR | 0                                       | 0                                                | 0                              | 94                                   | 30                          | 0                                 |
| LED in CDU4/CPP SRR (55+50=105 numbers)                                 | 0                                       | 0                                                | 0                              | 1                                    | 10                          | 0                                 |

|                                                                 |      |   |   |   |    |   |
|-----------------------------------------------------------------|------|---|---|---|----|---|
| Steam trap management RMP SRU (Train D)                         | 19.3 | 0 | 0 | 0 | 44 | 0 |
| APC implementation in GTU F-0001 for excess oxygen optimisation | 0    | 4 | 0 | 0 | 0  | 0 |

Part-H

Additional measures/investment proposal for environmental protection abatement of pollution, prevention of pollution.

[A] Investment made during the period of Environmental Statement

| Detail of measures for Environmental Protection                                                              | Environmental Protection Measures           | Capital Investment (Lacks) |
|--------------------------------------------------------------------------------------------------------------|---------------------------------------------|----------------------------|
| Monitoring of stacks, Noise levels, Fugitive emissions, effluent quality, Ambient Air by Approved Laboratory | Routine Environmental monitoring            | 40                         |
| Tree Plantation of 2000 trees by Miyawaki Method                                                             | For CO2 Sequestration                       | 14                         |
| Disposal of Hazardous waste                                                                                  | Hazardous waste management rule,2016        | 71                         |
| Installation of 0.29 MWp solar power plant                                                                   | For power saving and GHG emission reduction | 150                        |

[B] Investment Proposed for next Year

| Detail of measures for Environmental Protection                 | Environmental Protection Measures | Capital Investment (Lacks) |
|-----------------------------------------------------------------|-----------------------------------|----------------------------|
| Tree Plantation of 3000 no of trees in and around Mumbai Region | For CO2 Sequestration             | 13.14                      |

Part-I

Any other particulars for improving the quality of the environment.

Particulars

Based on the national demand for products (HSD/MS/LOBS etc.), crude processing pattern varies leading to variation in product streams with respect to consented production quantities.

Name & Designation

ATUL VYAWAHARE

UAN No:

MPCB-ENVIRONMENT\_STATEMENT-0000074103

Submitted On:

30-09-2024

# सर्वात तरुण महिला वैमानिक उडविणार मिग २९

म. टा. विशेष प्रतिनिधी, मुंबई

सर्वात तरुण वयात वैमानिक बनलेली मुंबईची तरुणी आयेशा अजीझ हिने आता ध्वनिपेक्षाही अधिक वेगाने आभाळात उडणारे मिग २९ हे रशियन विमान उडविण्याचे मनावर घेतले आहे. मुंबईच्या बॉम्बे फ्लाईंग क्लबमध्ये उड्डाण प्रशिक्षण घेतलेल्या आयेशाला नुकताच



मूळची काश्मिरी बारामुल्ला जिल्ह्यातील आहे. आईबरोबर श्रीनगरला जाताना आयेशा नेहमी विमानाने जायची व त्याचवेळी आकाशभरारीचे स्वप्न पाहायची. ती शाळेत असतानाच तिचे वैमानिक प्रशिक्षण सुरू झाले. १६व्या वर्षीच विद्यार्थी उड्डाण परवाना मिळविणारी ती सर्वात तरुण महिला ठरली. बॉम्बे फ्लाईंग क्लबमधून तिने वैमानिक उड्डाण प्रशिक्षण घेतले.

कमर्शियल वैमानिकाचा परवाना हाती पडला असून, आता अंतराळयात्रेच्या तयारीसाठी रशियाच्या सोकल हवाई तळावरून लढाऊ जेट विमान उडविण्यासाठी ती प्रयत्नशील आहे.

२०१२मध्ये ती नासामध्ये अंतराळवीराचे प्रशिक्षण घेण्यासाठीही गेली होती. गेल्या आठवड्यात तिच्या हाती व्यापारी वैमानिक परवाना (सीपीएल) आला आणि आता तिला मिग २९ विमानाचे सारथ्य करण्याचे वेध लागले आहेत. त्यासाठी रशियन एजन्सीशी तिची

बोलणी सुरू आहेत. बॉम्बे फ्लाईंग क्लबचे कॅप्टन मिहिर भगवती यांनी सांगितले की, ती आमची विद्यार्थिनी राहिली आहे.

आह्मनही ती यशस्वीरीत्या पेलेल, असा मला विश्वास वाटतो.

### २ दिवसांचा व्यवसाय प्रशिक्षण कार्यक्रम

## सौर ऊर्जा विषयावर

**प्रत्यक्ष हाती कामाचे तांत्रिक प्रशिक्षण**

**सौर ऊर्जा व्यवसाय क्षेत्रात उद्योग करायला सुरु करायला**

राष्ट्रीय उद्योजकता आणि चतुःपक्षीय विकास संस्था (निएसबुड)

The National Institute for Entrepreneurship & Small Business Development (NIESBUD)

कोशल्या विकास आणि उद्योजकता मंत्रालय, भारत सरकार

१-२३, सेक्टर-६२, मीरबा उड्ड, - २०१३०९, आवारासाठी ९००९२००८ प्रमाणित

**दिनांक** - ०८ व ०९ एप्रिल, २०१७ (सोन विरसा) वेळ : सक. १० ते सायं. ५.३०

**शुल्क** : रु. ७,५००/- (यासाठी अभ्यासक्रम शुल्क, प्रमाणित, ऑफिस ट्रेडिंग पॅसेज, तुल्यचे जेवण समाविष्ट. रवाना : ऑनलाईन ईमेलद्वारे ऑफिस कोलकाले सोबत:- गव्हर्नर, न्यायिककरण नयन, सी.डी.ई. इन्फोटेक मार्ग, अंधेरी (पश्चिम)

**अभ्यासक्रमातील घटक** - सौर व्यवसाय प्रारंभ | ऊर्जा व राज्य धोरण | वित्तनिष्ठा मांडवळा | आवकआय आणि पेमेंट | सौर प्रणालीचे आरेखन आणि उभारणी | मंडळान व घटक | रवाना विरलेला | भारतात व सरकारी पातळी | फॅन गॅलरी व पॉसिबिली

सौर प्रणाली ऑफ डिझा/ऑन डिझा/मॉडल) व्यवसाय सेबी (पॅसेज उल्लेखन)

सौर ऊर्जा उद्योग क्षेत्रात उत्तम इच्छितारे कुणीही या कार्यक्रमातला उपस्थित राहू शकतात.

**प्रारंभिक काळ** | सौर ऊर्जा संचालन घटककोषी प्रत्यक्ष उभारणी

**अधिक उपशिल व नोंदीप्राप्तीसाठी संपर्क करा | मर्यादित जागा ४५**

**समनव्ययक** - ९९५३९२०८८९, ९९५३९२०८९८ | [www.niesbud.nic.in](http://www.niesbud.nic.in)

निबंधकी प्रमाणपत्र देण्यात येईल.

### भारत पेट्रोलियम कॉर्पोरेशन लिमिटेड

(भारत सरकारचा उपक्रम)

मुंबई रिफायनरी, माहूल, चेंबूर, मुंबई ४०००७४, महाराष्ट्र

भारत पेट्रोलियम कॉर्पोरेशन लिमिटेड, मुंबई रिफायनरी येथे १००% बीएस-६ प्रतीचे पेट्रोल बनविण्याकरिता गॅसोलीन हायड्रो ट्रीटमेंट संयंत्र (जीटीयु) व संलग्न यंत्रणा (क्षमता ०.९ एमएमटीपीए) उभारणीकरिता पर्यावरणात्मक मंजूरी दिली आहे.

पर्यावरण, वने आणि हवामान बदल मंत्रालयाचे पत्र क्रमांक, जे-१११०१/९८/२०१६-१७-२(१) दि. २० मार्च २०१७ अंतर्गत भारत पेट्रोलियम कॉर्पोरेशन लिमिटेड, मुंबई रिफायनरी येथे १००% बीएस-६ प्रतीचे पेट्रोल बनविण्याकरिता गॅसोलीन हायड्रो ट्रीटमेंट संयंत्र (जीटीयु) व संलग्न यंत्रणा (क्षमता ०.९ एमएमटीपीए) उभारणीकरिता पर्यावरणात्मक मंजूरी दिली आहे.

पर्यावरण, वने आणि हवामान बदल मंत्रालयाद्वारे विवरित मंजूरी पत्राची प्रत महाराष्ट्र राज्य प्रदूषण नियंत्रण मंडळाला उपलब्ध असून त्या पर्यावरण, वने आणि हवामान बदल मंत्रालयाची वेबसाइट <http://www.envfor.nic.in> वरही उपलब्ध आहेत.

सर्व संबंधितांसाठी सदर माहिती जारी करण्यात येत आहे.

एनएनएडिआर लाइव्ह; एनएनएडिआर विजनेस

मुंबई : गेल्या अनेक महिन्यांपासून प्रलंबित असलेल्या पत्रकार हल्लाविरोधी विधेयकाच्या मसुद्यास गुरुवारी राज्य मंत्रिमंडळाच्या बैठकीत मंजुरी देण्यात आली. आज, शुक्रवारी विधिमंडळ

पत्रकार हल्लाविरोधी विधेयक आज विधिमंडळात अधिवेशनाच्या अखेरच्या दिवशी हे संरक्षण मिळावे, यासाठी पत्रकार विधेयक मांडण्यात येणार आहे. पत्रकारांच्या संघटनांनी पत्रकारांना केली होती. मुख्यमंत्र्यांनी ही मागणी मान्य करताना हे विधेयक या अधिवेशनात मांडण्याचे आश्वासन दिले होते.

# हे गृहकर्ज, तुमच्या हिताचे

मुंबई : संभाव्य घर खरेदीदारांवर हाती घेण्यात आलेल्या एका अलिकडच्या अभ्यासातून काही विस्मयजनक गोष्टी कळून आल्या. गृह कर्जदारांचा एक मोठा गट, लागू असलेले शुल्क आणि देण्यात येणाऱ्या पूर्ण सवलती यांची कसून तपासणी न करताच गृहकर्जासाठी बँकेची निवड करतात. ५ पैकी ३ कर्जदार, कोण जास्तीत जास्त सवलती देतो ते पाहण्याकरिता अनेक धनकोंकडे जाण्याऐवजी एकाच बँकेत गृहकर्जासाठी अर्ज करतात. ह्या अभ्यासात समावेश असलेल्या बहुतेक संभावित खरेदीदारांनी सांगितले की, गृहकर्जाबाबत माहिती देणारे त्यांचे प्रमुख स्रोत कर्ज देणारी बँक स्वतःच होती किंवा ते ज्यांच्याकडून घर खरेदी करायचे ते बिल्डर तरी होते. “विकिस ठेवलेल्या घर मिळकतीची जागा निवडण्यासाठी ग्राहक खूप वेळ खर्च करतात, विविध धनकोंकडून गृह कर्जाची निवड करतांना तसाच उत्साह दिसला पाहिजे. ह्या बाबत केलेले हे थोडेसे संशोधन कर्जदाराकरिता दीर्घ कालावधीत खुपच फायदेशीर ठरू शकते कारण, गृहकर्जाची निवड करताना विचारपूर्वक घेतलेला निर्णय, येणाऱ्या काळात मोठी बचत करू शकतो” श्रीमती मनिषा रावदेव, ग्रेटर बँकेच्या चीफ एक्झिक्युटिव्ह ऑफिसर यांनी एका निवेदनात असे म्हटले आहे.

**बहुतांश घर खरेदीदार ‘सुयोग्य घर’ शोधण्यात बराच वेळ घालवतात, परंतु त्यातले बहुतेक सर्वच सुयोग्य गृहकर्ज निवडण्याकडे दुर्लक्ष करतात. कर्जदाराला ही चुक नंतरच्या काळात लक्षावधी रुपयांनी महागात पडते.**

२० वर्ष कालावधीसाठी रु. १० लाखांच्या कर्जासाठी कर्जदाराने १०.५% व्याजदराने पैसे भरल्यास ग्रेटर बँक देऊ करत असलेल्या ८.५% व्याजदराच्या तुलनेत तो रु. ३,१३,४४०/- जास्त रक्कम प्रदान करतो. आताच किंवा कधीच नाही : एप्रिल २०१६ पासून, कर्जाचे दर आधीच जवळपास एक टक्क्याने घसरले आहेत. जागतिक आणि भारतातील आर्थिक स्थिती पाहता, नजिकच्या काळात व्याज दराची पुढील कपातीची अपेक्षा नाही. तेव्हा गृह कर्ज घेण्यासाठी हीच सुवर्णसंधी आहे. जास्तीत जास्त २० वर्षांच्या कालावधीसाठी ८.५० टक्केच्या सर्वात कमी आणि फिक्स्ड व्याजदराने ग्रेटर बँक तिचे गृह कर्ज देऊ करत आहे. महिला कर्जदारांसाठी ८.४० टक्क्यांचा विशेष व्याजदर ठरविण्यात आला आहे. हा बदल घडवून आणा : जेव्हा बँकांनी त्यांचे दर कमी केलेले आहेत तेव्हा जुने कर्जदार अजूनही उच्च व्याजदरानेच प्रदान करत आहेत. ह्या कर्जदारांसाठी “स्वीच ओव्हर” केल्याने खरोखर मोठा फरक पडतो. उदा.- २० वर्षांच्या



**श्रीमती मनिषा रावदेव, चीफ एक्झिक्युटिव्ह ऑफिसर दी ग्रेटर बॉम्बे को-ऑपरेटिव्ह बँक लिमिटेड (रोझवुड बँक)**

कालावधीच्या (ज्यापैकी ३ वर्ष पूर्ण झाली आहेत) १०.५% दराने रु. १० लाखांच्या कर्जासाठी, ८.५% व्याजदराने ग्रेटर बँकेच्या गृह कर्जात केलेल्या स्वीच ओव्हरमुळे कर्जदाराला त्याचे रु. ३,७९,३९२/- वाचवता येतात. ह्या मर्यादित कालावधीच्या प्रस्तावासाठी सर्व गृह कर्ज हस्तांतरणांवरील प्रक्रिया शुल्क देखील ग्रेटर बँकेने माफ केले आहे. परंतु बदल करण्याचे ठरविण्यापूर्वी प्रत्येक बँक देऊ करत असलेल्या बदल पर्यायांची नोंद घ्या. लक्षात ठेवा, कर्ज थकबाकी आणि कालावधी जेवढा जास्त तेवढा फायदा जास्त.

टीप : ग्रेटर बँकेने सर्व गृह कर्ज हस्तांतरणावरील प्रक्रिया शुल्क माफ केले आहे. मर्यादित कालावधीची सवलत.

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Also Available At: **vijay stores**, **ed zone**, **SONY MONY**, **Snehaanjali**, **RAHUL**, **Redox**, **कॉलॅक्ट**, **Digit**, **1**, **KINGS ELECTRONICS**, **ARCEE**, **PRIMA**, **PARADISE ELECTRONICS**

## बृहन्मुंबई महानगरपालिका - सार्वजनिक आरोग्य खाते

### उष्माघातापासून संरक्षण होण्यासाठी खालील गोष्टी पाळा.

#### हे करा

- तहान लागलेली नसतानाही पुरेसे पाणी प्या.
- उन्हात डोक्यावर छत्री, टोपीचा वापर करा.
- डोके, गळा, चेहऱ्यासाठी ओल्या कपड्याचा वापर करा.
- सौम्य रंगाचे, सैल व कॉटनचे कपडे वापरा.
- अशक्तपणा जाणवत असेल तर त्वरीत डॉक्टरांचा सल्ला घ्या.
- प्रवास करताना पाण्याची बाटली सोबत ठेवा.

#### हे करू नका

- दुपारी १२ ते ३ शक्यतो बाहेर जाणे अथवा फिरणे टाळा.
- मद्यसेवन, चहा, कॉफी व शीतपेय पिणे टाळा. त्यामुळे डिहायड्रेट होते.

#### उष्माघाताची लक्षणे

- शरीराचे तापमान ४० अंशाच्या पुढे जाणे.
- डोकेदुखी व धडधड जाणवणे.
- चक्कर, मळमळ व उलट्या होणे.
- उष्णता असूनही घाम न येणे.
- स्नायू दुखणे व गोळे येणे.
- हृदयाचे ठोके जलद पडणे.
- मनाचा गोंधळ उडणे.

## VIT HAS RETAINED NO.1 POSITION AMONG THE PRIVATE ENGINEERING INSTITUTIONS IN INDIA

**National Institutional Ranking Framework**  
Ministry of Human Resource and Development  
Government of India

| Institute ID             | Name                                                          | City            | State             | Score        | Rank      |
|--------------------------|---------------------------------------------------------------|-----------------|-------------------|--------------|-----------|
| IR17-ENG-1-1-77          | Indian Institute of Technology Madras                         | Chennai         | Tamil Nadu        | 87.96        | 1         |
| IR17-ENG-2-1-3633        | Indian Institute of Technology Bombay                         | Mumbai          | Maharashtra       | 87.87        | 2         |
| IR17-ENG-2-1-3630        | Indian Institute of Technology Kharagpur                      | Kharagpur       | West Bengal       | 81.93        | 3         |
| IR17-ENG-2-1-79          | Indian Institute of Technology Delhi                          | New Delhi       | Delhi             | 81.08        | 4         |
| IR17-ENG-2-1-8248        | Indian Institute of Technology Kanpur                         | Kanpur          | Uttar Pradesh     | 76.83        | 5         |
| IR17-ENG-2-1-3677        | Indian Institute of Technology Roorkee                        | Roorkee         | Uttarakhand       | 73.10        | 6         |
| IR17-ENG-2-1-251         | Indian Institute of Technology Guwahati                       | Guwahati        | Assam             | 72.30        | 7         |
| IR17-ENG-2-1-3632        | Anna University                                               | Chennai         | Tamil Nadu        | 63.97        | 8         |
| IR17-ENG-2-1-3636        | Jadavpur University                                           | Kolkata         | West Bengal       | 62.59        | 9         |
| IR17-ENG-2-1-345         | Indian Institute of Technology Hyderabad                      | Hyderabad       | Telangana         | 60.24        | 10        |
| IR17-ENG-1-1-370         | National Institute of Technology Tiruchirappalli              | Tiruchirappalli | Tamil Nadu        | 59.44        | 11        |
| IR17-ENG-2-1-140         | National Institute of Technology Rourkela                     | Rourkela        | Odisha            | 58.78        | 12        |
| <b>IR17-ENG-2-1-3572</b> | <b>Vellore Institute of Technology</b>                        | <b>Vellore</b>  | <b>Tamil Nadu</b> | <b>58.16</b> | <b>13</b> |
| IR17-ENG-2-1-3621        | Institute of Chemical Technology                              | Mumbai          | Maharashtra       | 57.97        | 14        |
| IR17-ENG-2-1-346         | Indian Institute of Technology Indore                         | Indore          | Madhya Pradesh    | 57.70        | 15        |
| IR17-ENG-2-1-3559        | Birla Institute of Technology & Science - Pilani              | Pilani          | Rajasthan         | 55.43        | 16        |
| IR17-ENG-2-1-3690        | Indian Institute of Engineering Science & Technology, Shibpur | Howrah          | West Bengal       | 54.42        | 17        |
| IR17-ENG-1-1-3627        | Indian Institute of Technology Bhubaneswar                    | Bhubaneswar     | Odisha            | 54.32        | 18        |
| IR17-ENG-2-1-344         | Indian Institute of Technology Patna                          | Patna           | Bihar             | 54.02        | 19        |
| IR17-ENG-1-1-3556        | Jamia Millia Islamia                                          | New Delhi       | Delhi             | 53.70        | 20        |

**MHRD, Govt. of India has ranked VIT AS THE BEST PRIVATE ENGINEERING INSTITUTION in the country**

- No.1 position amongst Private Engineering Institutions in the country for the **second year in a row**
- No.3 amongst Private Institutions under 'Management Institutions' category in the country
- With 2598 research papers VIT had the highest number of publications in the country in 2016 (Based on Scopus Database as on 05.01.2017)

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PRO/11/Adv. 2017-18

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ing and then build a robot to provide solution.

"We received a total of 331

monitor the crop, soil, weather, cultural farms and an electronic money transfer system that uses fingerprint for transactions.

trained about copyrights and intellectual property laws. They will also be mentored in entrepreneurship," said Arya.

# Congestion on port road eliminated: JNPT

## Jams, days-long wait had resulted in truck drivers turning violent in 2015

**EXPRESS NEWS SERVICE**  
MUMBAI, APRIL 6

THE JAWAHARLAL Nehru Port Trust (JNPT) has claimed to have eliminated traffic congestion on roads leading to its three terminals.

A source of constant frustration for drivers of trucks delivering cargo to the terminals, who have had to spend hours in queues waiting for their documents to be verified by port officers, the JNPT administration has said a number of measures have resulted in zero traffic congestion in the past nine months.

Massive traffic jams and days-long waiting period had resulted in truck drivers turning violent in November 2015, attacking port officers and policemen, and ransacking buildings.

Identifying long queues as a focus area, JNPT chairman Anil Diggikar said the submission of hard copies of documents at the entry gate has been stopped. "We have introduced e-forms and RFID tags, so now truck drivers submit their forms online. Each truck saves at least five minutes," he said.

The port has also created a traffic management team to regulate

ulate traffic, as the local police were not able to do it on their own.

The port also introduced what is called the inter-terminal movement, allowing trucks to return to processing areas without having to travel 7.5 km on the port road to exit.

Diggikar said this has led to a 8 per cent drop in congestion on the road and fuel savings of Rs 125 crore.

On Thursday, JNPT also published its figures for financial year 2016-17, recording a marginal increase in its operating income.

Its income was Rs 1,677.90 crore in the just-concluded year, compared to Rs 1,665.10 crore in

the previous year.

Owing to an increase in fuel prices, its expenditure rose to Rs 788.49 crore, up 13 per cent from Rs 693.12 crore in 2015-16, said Neeraj Bansal, Deputy Chairman, JNPT.

In 2016-17, the port handled 4.50 million tonne equivalent units (TEUs) of container traffic, the highest since its inception. The port's own cargo terminal, the JNPT, also logged a significant rise in cargo traffic the previous year, handling 1.53 million

TEUs over 1.43 million TEUs in 2015-16.

Bansal said the first phase of the port's fourth terminal, which is being built in partnership with the Port of Singapore Authority, would be completed by December 2017, while the second phase is expected to be completed by 2023.

Each phase will increase the length of the berth by one km and is expected to add 2.4 million TEUs to the port's capacity.

## EX-SERVICEMEN CONTRIBUTORY HEALTH SCHEME (ECHS)

### EMPLOYMENT NOTICE

ECHS invites application for engagement of Staff as Medical Officer at ECHS Polyclinic Mumbai Upnagar, on contractual basis for a period of one year, renewable for additional period. For details visit [www.echs.gov.in](http://www.echs.gov.in) or call 022-25075448 before 24th April 2017.

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#### NOTICE OF RECORD DATE

NOTICE is hereby given pursuant to Section 91 of the Companies Act, 2013 that Monday, 24<sup>th</sup> April 2017 has been fixed as the Record Date for the purpose of payment of interest to the holders of 11.40% Unsecured Subordinated Perpetual Rated Listed Securities in the form of Non-Convertible Debentures (ISIN:INE245A08034) aggregating ₹ 1,500 crore due on 28<sup>th</sup> April 2017.

For The Tata Power Company Limited  
H. M. Mistry  
Company Secretary

Place : Mumbai  
Dated : 6<sup>th</sup> April 2017



### EMPLOYEES' PROVIDENT FUND ORGANISATION

(Ministry of Labour and Employment, Govt. of India)  
REGIONAL OFFICE MUMBAI-III, KANDIVALI  
Plot No. 222, BHAVISHYA NIDHI BHAVAN,  
Charkop, Kandivali (West), Mumbai - 400067.

#### ATTENTION EMPLOYERS/EMPLOYEES/EMPLOYER REPRESENTATIVES/ EMPLOYEE REPRESENTATIVES "NIDHI AAPKE NIKAT"

Employees Provident Fund Organisation, Regional Office, Kandivali is organising a programme "Nidhi Aapke Nikat" in its office premises on 10<sup>th</sup> April, 2017 as scheduled below:

1. For Members/ claimant/ Pensioners : 10:30 Am to 12:30 Pm
2. Employers / Worker Representative/ : 3.00 Pm to 5:00 Pm

Exempted Establishments  
All the employers/ members/ worker union representatives/pensioners of RO, Kandivali are invited to participate in the programme.

It is organisations endeavor to become more accessible to all its stakeholders by providing platform to approach the office for redressal of grievance/ resolving the difficulties and to educate them on IT related new innovations pertaining to online customer services/ compliance reporting.

Member/ claimants/ pensioners having grievances/ issues related to customer service may approach on this day with the relevant documents for speedy redressal. Additionally the programme will provide support/ practical demonstration on technical/ operational matters as mentioned below:

1. Uploading and approval of KYC data seeded to UAN and member's activation of UAN.
2. Organising Aadhar Camp in the premises of employers.
3. Deposit of EPF dues through Internet Banking.
4. Registration and uploading of digital signature for approval of KYC data/ online transfer applications.
5. UAN activation.
6. Registration of Digital Life Certificate.

Regional Provident Fund Commissioner  
Regional Office, Kandivali



### Bharat Petroleum Corporation Limited

(A Govt. of India Enterprise)

Mumbai Refinery, Mahul, Chembur, Mumbai 400074, Maharashtra

#### Environmental Clearance for Installation of Gasoline Hydro Treatment Unit (GTU) 0.9 MMTPA and associated facilities to produce 100% BS VI MS at Bharat Petroleum Corporation Limited, Mumbai Refinery.

Ministry of Environment, Forest & Climate Change has accorded environment clearance for Installation of Gasoline Hydro Treatment Unit (GTU) 0.9 MMTPA and associated facilities to produce 100% BS VI MS at Bharat Petroleum Corporation Limited, Mumbai Refinery vide letter number J-11011/98/2016-IA-II(I) dated 20<sup>th</sup> March 2017.

Copy of the clearance letter issued by MoEF&CC is available with the Maharashtra State Pollution Control Board and may also be seen at website of the Ministry of Environment, Forest & Climate Change at <http://www.envfor.nic.in>

This is for the information of all concerned.



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Indian Express (Mumbai) 07-04-2017 P-5

## LDAR VOC MONITORING REPORT FOR BPCL MAHUL.



**LEAK DETECTION AND REPAIR (LDAR) PROGRAM  
REPORT FOR THE MONTH OF JANUARY, 2024  
TOTAL VOC EMISSION SUMMARY**

| Sr.No. | Name of the Unit | Date of Monitoring | Total No of Points Monitored | No. of Points Where leaks found beyond standard limits | Total Leak before attending (kg/day) | Total Leak after attending (kg/day) |
|--------|------------------|--------------------|------------------------------|--------------------------------------------------------|--------------------------------------|-------------------------------------|
| 1      | CDU-4            | 25/01/2024         | 1063                         | 1                                                      | 0.084                                | 0                                   |
| Total  |                  |                    |                              | 1                                                      | 0.084                                | 0                                   |

Verified by

Neelima Dalvi

Authorized signatory



Checked by

Shraddha Kere

Technical Manager

LDAR VOC MONITORING REPORT FOR BPCL MAHUL.



LEAK DETECTION AND REPAIR (LDAR) PROGRAM  
REPORT FOR THE MONTH OF JANUARY, 2024  
TOTAL VOC EMISSION SUMMARY

| SR.No. | Date       | Plant Name | Pump Seal | Compressor Seal | Block Valve | Control Valve | Piping Flanges | Exchanger Flanges | PSV | Sampling Connection | TOTAL Component wise Points Surveyed |
|--------|------------|------------|-----------|-----------------|-------------|---------------|----------------|-------------------|-----|---------------------|--------------------------------------|
| 1      | 25/01/2024 | CDU-4      | 15        | 0               | 300         | 20            | 708            | 0                 | 20  | 0                   | 1063                                 |

Verified by

Neelima Dalvi  
Authorized signatory

Checked by

Shraddha Kere  
Technical Manager





LEAK DETECTION AND REPAIR (LDAR) PROGRAM

REPORT FOR THE MONTH OF JANUARY, 2024

PLANT LEAK SUMMARY

| Sr.No | Name of the Unit | Description         | Component | Line Size | Location        | Leak Type | Hydrocarbon Readings while Monitoring. Date 25/01/2024 |        |  | Hydrocarbon Readings after attending leak Attended on Date 02/02/2024 |        |   |
|-------|------------------|---------------------|-----------|-----------|-----------------|-----------|--------------------------------------------------------|--------|--|-----------------------------------------------------------------------|--------|---|
|       |                  |                     |           |           |                 |           | ppm                                                    | kg/day |  | ppm                                                                   | kg/day |   |
| 1     | CDU-4            | 144-DFV-310 D/S I/V | Valve     | 4"        | Isolation Valve | Gland     | 1300                                                   | 0.084  |  | 0                                                                     | 0      | 0 |

Verified by  
  
Neelima Dalvi  
Authorized signatory



Checked by  
  
Shraddha Kere  
Technical Manager



## TEST REPORT

Netel (India) Limited

|                                                               |                                                          |
|---------------------------------------------------------------|----------------------------------------------------------|
| Name of Organization : M/s. Bharat Petroleum Corporation Ltd. |                                                          |
| Customer Address : Mahul, Mumbai - 400 074                    |                                                          |
| Customer Ref. : 4509073556 Dated 29.07.2022                   |                                                          |
| MoEFCC Validity : 16th Oct 2024                               | NABL Validity : 16th June 2024                           |
| Discipline/Group : Chemical-Atmospheric Pollution             | Test Report No. : NIL/AA/04/24/010                       |
| Sample Type : Ambient Air                                     | Sample Code : NIL/AA/04/24/010                           |
| Ambient Temperature : Min: 29 °C Max: 33°C                    | Wind Direction : West                                    |
| Average Wind Speed : 16 Km/Hr                                 | Relative Humidity : Min: 71% Max: 76 %                   |
| Sampling Method : N(I)L/AIR/SOP-12/13/14                      | Time of Sampling : 10.00 AM                              |
| Instrument Used : FDS-082 , RDS-316                           | Calibration Date : 30/11/2023 - 29/12/2024               |
| Sampling Date : 01.04.2024                                    | Sample Receive Date : 02.04.2024                         |
| Analysis Start Date : 02.04.2024                              | Analysis End Date : 06.04.2024                           |
| Reporting Date : 06.04.2024                                   | Sample Qty &Pckg : FP (2 nos), CT, Bld & 50ml PB (4 nos) |
| Sampling Location : AMS-1                                     | Sampling Done By : Netel (India)Limited                  |

| Sr. No | Parameter                                | Result | Consent Limit | Unit              | Duration | Method                                               |
|--------|------------------------------------------|--------|---------------|-------------------|----------|------------------------------------------------------|
| 1      | Sulphur Dioxide (SO <sub>2</sub> )       | 19.6   | 80            | µg/m <sup>3</sup> | 24 Hrs   | IS-5182 (Part-02)                                    |
| 2      | Oxides of Nitrogen (NO <sub>2</sub> )    | 23.8   | 80            | µg/m <sup>3</sup> | 24 Hrs   | IS-5182 (Part-06)                                    |
| 3      | Particulate Matter (PM <sub>10</sub> )   | 61.6   | 100           | µg/m <sup>3</sup> | 24 Hrs   | IS-5182 (Part-23)                                    |
| 4      | Particulate Matter (PM <sub>2.5</sub> )  | 37.2   | 60            | µg/m <sup>3</sup> | 24 Hrs   | NIL/AIR/SOP/03 based on CPCB Guideline Volume 1-2011 |
| 5      | Ozone (O <sub>3</sub> )                  | 2.8    | 100           | µg/m <sup>3</sup> | 8 Hrs    | IS-5182 (Part-09)                                    |
| 6      | Lead (Pb)                                | <0.1   | 0.5           | µg/m <sup>3</sup> | 24 Hrs   | APHA - Air 3rd Edition (Method 822)                  |
| 7      | Carbon Monoxide (CO)                     | 0.31   | 2             | mg/m <sup>3</sup> | 8 Hrs    | IS-5182 (Part-10)                                    |
| 8      | Ammonia (NH <sub>3</sub> )               | 20.4   | 400           | µg/m <sup>3</sup> | 24 Hrs   | APHA AIR 3rd Method 401                              |
| 9      | Benzene (C <sub>6</sub> H <sub>6</sub> ) | 2.0    | 5             | µg/m <sup>3</sup> | 24 Hrs   | IS-5182 (Part-11)                                    |
| 10     | Benzo - a - Pyrene (BaP)                 | <0.5   | 1             | ng/m <sup>3</sup> | 24 Hrs   | IS-5182 (Part-12)                                    |
| 11     | Arsenic (As)                             | <1     | 6             | ng/m <sup>3</sup> | 24 Hrs   | APHA - Air 3rd Edition (Method 822)                  |
| 12     | Nickel (Ni)                              | <5     | 20            | ng/m <sup>3</sup> | 24 Hrs   | APHA - Air 3rd Edition (Method 822)                  |

## Note :

1. This Test Report refers only to the sample tested.
2. This Test Report shall not be reproduced except in full, without written approval of the Laboratory.
3. The complaint register is available with the Laboratory as per Environment Protection Act, 1986.

\*\*\*End of Report\*\*\*

Verified by

Neelima Dalvi  
Technical Manager



Issued by

Shraddha Kere  
Quality Manager



**CREP action points for oil refineries:**

| <b>CREP Point</b>                                                                                                                                                                                                                                                                                                                                                                            | <b>BPCL reply</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>A) Air Pollution Management</b>                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| All refineries located in the critically pollution areas, identified by CPCB, will submit an action plan for phase wise reduction of SO <sub>2</sub> emissions. Future Refineries will have SRU with minimum 99 % efficiency. To enhance the efficiency of SRUs in the existing refineries, an expert committee will be constituted to look into the various aspects and suggest a road map. | BPCL Mumbai Refinery has installed Sulfur Recovery Units for recovering sulfur from sour gases. In 2017, Tail Gas Treatment Units have been commissioned which has improved sulfur recovery efficiency to 99.99 %.                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| With regard to NO <sub>x</sub> emission, the new refinery/ process units will be installed to low NO <sub>x</sub> burners. For retrofitting of low NO <sub>x</sub> burners in existing units, the expert committee will suggest the strategies and action plan including NO <sub>x</sub> std.                                                                                                | All process units in BPCL MR have been equipped with Low NO <sub>x</sub> burners.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| The flare losses will be minimized and monitored regularly.                                                                                                                                                                                                                                                                                                                                  | BPCL Mumbai Refinery has provided Flare recovery system where flare gases are recovered and treated in Fuel Gas treatment unit. After removing H <sub>2</sub> S, treated flare gases are diverted to fuel gas system for burning into furnace.                                                                                                                                                                                                                                                                                                                                                                                                             |
| Refineries shall install CEMS for SO <sub>x</sub> , NO <sub>x</sub> in major stacks with proper calibration facilities                                                                                                                                                                                                                                                                       | As per CPCB guideline, all refinery stacks have been provided with Sox, NO <sub>x</sub> , CO and SPM analyzers with proper calibration facilities. Stack analyzer details are continuously transmitted to CPCB/ MPCB server on real time basis. Also as per recent CPCB direction, dynamic limits have been incorporated for mixed fuel fired furnace.                                                                                                                                                                                                                                                                                                     |
| Refineries will also monitor total HC and benzene in the premises (particularly at Loading-Unloading operations and ETP).                                                                                                                                                                                                                                                                    | Ambient air quality monitoring is carried out on regular basis through MOEF approved and NABL accredited third party LAB.<br>AMS are connected to MPCB/CPCB servers and data is transmitted on real time basis.<br>Benzene/Toluene/Hexane vapour recovery system has been provided at product dispatch unit.<br>N <sub>2</sub> blanketing facility has been provided for Benzene and Toluene Storage tanks.<br>Bottom loading facility has been provided for Benzene and Toluene product dispatch.<br>ETP sub units have been covered with VOC removal system.<br>LDAR survey is carried out as per GSR 186 (E) in TDU and ARU complex on quarterly basis. |
| <b>B) Waste water management</b>                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Refineries will prepare action plan for conservation of water resources and maximize reuse recycling of treated effluent. The treated effluent discharge (excluding once through cooling tower) will be limited to 0.4 m <sup>3</sup> / tone (for 90 % of time) except for the season.                                                                                                       | BPCL Mumbai Refinery is "Zero Liquid discharge" refinery and process water is treated in Effluent Treatment Plant (ETP). Treated water is reused in process cooling towers.<br>Analyzers for monitoring BOD, COD, TSS & PH at ETP outlet have been provided with provision of continuous data transmission to CPCB/ MPCB.<br>ETP subunits have been covered and VOC removal system has been installed.                                                                                                                                                                                                                                                     |

|                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oil spill response facilities at coastal refineries will be in position. To facilitate this MoEF will coordinate with Coast Guards, Port Trust and departments.      | Agreement between MbPT / JNPT and participating oil companies for providing Tier – 1 Oil Spill Response (OSR) facilities at Mumbai port, has been signed. However, the contract for providing Tier -1 OSR facilities has been given to M/s Sadhav Shipping. Also, BPCL MR participates regularly in OSR mock drills conducted by MbPT. Risk assessment has been carried out by MbPT through third party for OSR. Meeting is arranged by MBPT with participating oil companies to liquidate the recommendations arising out the risk assessment. MbPT has also initiated action for new OSR contracts at Mumbai Port area. |
| <b>Solid waste management</b>                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Refineries will explore new technologies for reduction in the generation of oils sludge strategy.                                                                    | At BPCL MR, oily sludge is processed for oil recovery with the help of third party contract. Residual sludge with around 10% wt oil content is treated with bioremediation process using bioremediation agent/ Bacteria to reduce total petroleum hydrocarbon (TPH) below 0.5% wt.                                                                                                                                                                                                                                                                                                                                        |
| The petroleum coke having high sulfur content will be sold to/ reused by organized industries (having consent from SPCB) which have system to control SO2 emissions. | Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |