



KR.PET.5.EC

24th Dec.2019

Ministry of Environment, Forests and Climate Change
Regional Office (Southern Zone)
Kendriya Sadan, 4th Floor, E&F Wings, 17th main road
Koramangala –II Block, Bangalore – 560 034.

Kind Attn: Shri. E Thirunavukkarasu – Scientist D

Dear Sir,

Sub: Polyols Petrochemical Project by Bharat Petroleum Corporation Limited, Kochi Refinery, Ambalamugal, Ernakulam District, Kerala: HYCR of stipulated Environmental Conditions for the period April 2019 to Sept 2019.

Ref: MoEF&CC letter no. J-11011/552/2017-IA II (I) dated 30th October, 2018 granting Environmental Clearance for Polyols Petrochemical Project at Kochi.

With reference to the aforementioned letter, please find enclosed six monthly compliance report for the period 1st April 2019 to 30st Sept 2019 on various conditions laid down by MoEF&CC. Attached as **Annexure -1**

BPCL takes this opportunity to appraise MoEF&CC that financial approval for Polyols Petrochemical Project was accorded by Board of Directors on 28.09.2018, subject to Environmental clearance, which was obtained on 30.10.2018, and the project is currently in Design & Engineering stage.

Thanking you,

Very truly yours
For BPCL Kochi Refinery

SREERAM A N
GM (Project Technical & Petchem)

Cc: 1. The Member Secretary
Central Pollution Control Board
Parivesh Bhawan, CBD-cum-Office Complex
East Arjun Nagar
Delhi – 110 032.

2. The Member Secretary
Kerala Pollution Control Board
Plamoodu Junction
Pattom (PO),
Thiruvananthapuram – 695 004

3. The Environmental Engineer,
Kerala State Pollution Control Board
District Office -2,
Perumbavoor, Ernakulam.

Report on the status of Compliance of stipulated Environmental Conditions - Polyols Petrochemical Project, BPCL- Kochi Refinery, Apr 19 to Sept 19

| SI.No. as per Env.Ltr.No. J- 11011/552/2017-IA II (I), Dtd.: 30/10/2018 | COMMENTS | Compliance Status |
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| SPECIFIC CONDITIONS: | | |
| i | Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974. | Will be complied. Application for the same is being initiated |
| ii | Discharge of treated effluent after conforming to the prescribed norms to the nearby waste body shall not exceed 30 cum/hr. | Will be complied during design stage itself. |
| iii | Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and Solid waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to. | Will be complied. |

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| iv | National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21 st July, 2010 and amended from time to time shall be followed. | Treatment facilities necessary to comply with national emission standards are being considered during design stage itself. Will be complied. |
| v | To control source and the fugitive emissions, suitable pollution control devices shall be installed with different stacks to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stacks of adequate height as per CPCB/SPCB guidelines. | All treatment facilities and measurement devices to comply with CPCB/SPCB guidelines will be installed & NAAQS /norms will be met. BPCL - KR will comply. |
| vi | Total fresh water requirement shall not exceed 32000cum/day to be met from Muvattupuzha River. Necessary permission in this regard shall be obtained from the concerned regulatory authority. | In Principle approval already obtained from Kerala State Irrigation department vide letter no W4-27818/2017/WE. Final clearance will be obtained after registration of land required for the facility. |
| vii | Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond. | Will be complied. Will be incorporated in design of the complex. |

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| viii | Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer to be done through pumps. | Will be complied. |
| ix | Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry. | Condition will be complied. |
| x | The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989. | MSIHC rules and MVA will be complied by BPCL-KR. |
| xi | Regular VOC monitoring to be done at vulnerable points. | VOC monitoring will be done using suitable measurement devices based on relevant CPCB guidelines and OISD guidelines. Repair of points identified will be done with in specified time frame. |
| xii | The oily sludge shall be subjected to melting pit for oil recovery and the residue shall be bio-remediated. The sludge shall be stored in HDPE lined pit with proper leachate collection system. | BPCL -KR will comply. |

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| xiii | Comprehensive water audit to be conducted on annual basis and report to the concerned Regional Office of MEF&CC. Outcome from the report to be implemented for conservation scheme. | BPCL-KR will comply to this condition. |
| xiv | Oil catchers/oil traps shall be provided at all possible locations in rain/storm water drainage system inside the factory premises. | Will be provided, will be taken care during design stage of project. |
| xv | <p>The Company shall undertake waste minimization measures as below:-</p> <ul style="list-style-type: none"> a) Metering and control of quantities of active ingredients to minimize waste. b) Reuse of by-products from the process as raw materials or as raw material substitutes. c) Use of automated filling to minimize spillage. d) Use of Close Feed system into batch reactors. e) Venting equipment through vapor recovery system. f) Use of high pressure hoses for equipment clearing to reduce wastewater generation. | BPCL KR will comply to this condition. All of these best practices will be adopted. |

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| xvi | The green belt of 5-10m width shall be developed in more than 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. | BPCL KR will comply. |
| xvii | At least 1% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry' Regional Office. | BPCL KR will comply. Report will be submitted after firming up of details. |
| xviii | For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution. | Will be complied. |
| xix | The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. | All necessary firefighting facilities and safety systems will be provided as per relevant OISD norms and PESO guidelines. Approval for plot plan and safety systems will be taken from PESO/OISD. |

Report on the status of Compliance of stipulated Environmental Conditions - Polyols Petrochemical Project, BPCL- Kochi Refinery, Apr 19 to Sept 19

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| xx | <p>Continuous online (24*7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. In case of the treated effluent to be utilized for irrigation/gardening, real time monitoring system shall be installed at the ETP outlet.</p> | <p>Real time monitoring of emissions from the complex will be carried out as per CPCB guidelines and in concurrence with SPCB.</p> |
| xxi | <p>Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.</p> | <p>Will be complied as per Factories Act.</p> |
| xxii | <p>The National Emission Standards for Petroleum Oil Refinery issued by the Ministry vide G.S.R 186(E) dated 18th March, 2008 and G.S.R 595(E) dated 21st August, 2009 as amended from time to time shall be followed.</p> | <p>Will be complied.</p> |
| xxiii | <p>The National Emission Standards for Petrochemical (Basic & Intermediates) issued by the Ministry vide G.S.R. 820(E) dated 9th November, 2012 as amended time to time shall be followed.</p> | <p>Will be complied</p> |

| GENERAL CONDITIONS: | |
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| i | <p>The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board, Central Pollution Control Board, State Government and any other statutory authority.</p> <p style="text-align: right;">Will be complied.</p> |
| ii | <p>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 proposal 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.</p> <p style="text-align: right;">Will be complied.</p> |
| iii | <p>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 each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.</p> <p style="text-align: right;">Will be complied and installed in consultation with State pollution control board.</p> |
| iv | <p>The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.</p> <p style="text-align: right;">Will be complied.</p> |

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| v | <p>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 shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).</p> | <p>Will be complied</p> |
| vi | <p>The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and use the same water for the process activities of the project to conserve fresh water.</p> | <p>Will be complied. All efforts shall be made for recycling of waste water and rain water harvesting.</p> |
| vii | <p>Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees on handling of chemicals shall be imparted.</p> | <p>Will be complied. Already being practiced.</p> |
| viii | <p>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.</p> | <p>Will be complied</p> |

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| ix | <p>The Company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. ESC activities shall be undertaken by involving local villages and administration.</p> | <p>Will be complied</p> |
| x | <p>The Company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.</p> | <p>Will be complied.</p> |
| xi | <p>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.</p> | <p>Will be complied.</p> |
| xii | <p>A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal.</p> | <p>Already complied.</p> |

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| xiii | <p>The project proponent shall also submit six monthly reports on the 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 respective Regional Office of MoEF &CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.</p> | <p>Six monthly compliance reports submitted (last HYCR – for the period of Oct-2018 to March 2019) was submitted of MoEF&CC and also uploaded in the website of BPCL.</p> |
| xiv | <p>The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted 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 clearance conditions and shall also be sent to the respective Regional Offices of MoEF &CC by e-mail.</p> | <p>Will be complied.</p> |
| xv | <p>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 the Ministry at http://moef.nic.in. 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</p> | <p>Already complied.</p> |

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| | <p>circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.</p> | |
| <p>xvi</p> | <p>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 start of the project.</p> | <p>The Board approval for the Polyols project was obtained on 28.Sept.2018. The date of start of project is considered from the Environmental clearance on 30.Oct.2018. Already complied.</p> |