



KR.PET.5.EC

30<sup>th</sup> Nov.2020

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

**Kind Attn: Shri. E Thirunavukkarasu – Scientist D**

Dear Sir,

**Sub: HYCR of stipulated Environmental Conditions for the period April 2020 to Sept 2020.**

**Ref: MoEF&CC letter no. J-11011/26/2013-IA II (I) dated 12<sup>th</sup> May, 2015 granting Environmental Clearance for Propylene Derivatives Petrochemical Project (PDPP) by Bharat Petroleum Corporation Limited, Kochi Refinery, Ambalamugal, Ernakulam District, Kerala:**

With reference to the aforementioned letter, please find enclosed the Half Yearly Compliance Report (HYCR) for the period 1<sup>st</sup> April 2020 to 30<sup>th</sup> September 2020 on various conditions laid down by MoEF&CC along with applicable annexures.

**Encl: Half yearly compliance report for the period April 2020 to Sept 2020**  
**Annexure 1 - Status of Public Hearing commitments**  
**Annexure 2 –Status of Enterprise Social Commitment (ESC) activities**  
**Annexure 3 –Status of Green Belt Development**

Thanking you,

**Very truly yours**  
**For BPCL Kochi Refinery**

  
**SREERAM A N**

**CGM (Project Technical & Petchem)**

Copy to:

1. The Member Secretary (Industry –II)  
Ministry of Environment, Forests and Climate Change (MoEF&CC)

**Page 1 of 2**

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पंजीकृत कार्यालय: भारत भवन, 4 & 6, करीमभाय रोड, बेलार्ड इस्टेट, पी. बी. नं. 688 मुंबई - 400 001

Indira Gandhi Paryavaran Bhavan, Jorbagh Road, New Delhi, 110003

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

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

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



**Report on the status of Compliance of stipulated Environmental Conditions; PDPP Project BPCL-KR – Period Apr 2020 to Sept 2020.**

S.No. as per  
Env.Ltr.No. J-  
11011/26/2013-  
IA II (I), Dtd.:  
12/05/2015

Stipulated Clearance Condition

Compliance Status

**SPECIFIC CONDITIONS:**

i	M/s BPCL shall comply with new standards/norms for Oil Refinery Industry and petrochemical industry notified under the Environment (Protection) Rules, 1986.	<p>The project / facility is designed to comply with applicable standards and norms for Oil Refinery Industry and petrochemical industry notified under the Environment (Protection) Rules, 1986.</p> <p>The facility is currently under construction/ precommissioning stage.</p> <p>Compliance report including parameter monitoring (ambient air quality, noise levels etc.) will be submitted after startup of the complex.</p> <p>Startup &amp; Stabilization of the complex is targeted in a phased manner during the period Dec 2020 to Mar 2021.</p>
ii	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.	<p>There are no fired heaters or fired boilers in the project, Waste gas and liquids incinerators are having low NO<sub>x</sub> burners.</p> <p>Continuous on-line stack monitoring systems are installed. Stack Monitoring reports will be submitted after startup of Incinerators in the complex.</p>
iii	The emission standards prescribed by the MoEF under Environment (Protection) Act for petrochemical industry shall be strictly followed. At no time, the emission levels shall go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.	<p>There are no fired process heaters /fired boilers in the PDPP Project. Waste incinerators are designed to consume clean fuels like vaporized LPG/LNG as fuel. The incinerators are designed to comply with the prescribed emission standards.</p> <p>Compliance report against emission standards for petrochemical</p>



**Report on the status of Compliance of stipulated Environmental Conditions; PDPP Project BPCL-KR – Period Apr 2020 to Sept 2020.**

S.No. as per Env.Ltr.No. J- 11011/26/2013- IA II (I), Dtd.: 12/05/2015		Stipulated Clearance Condition	Compliance Status
		Stack emissions shall be monitored regularly.	industry will be submitted after startup of the facilities in the complex.
iv	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 HC from product storage tank yards etc. must be regularly monitored. Sensors for detecting HC leakage shall be provided at strategic locations.	<p>Detailed leak detection and repair program for monitoring and repair of VOC leak points, leak detection and repair survey are already identified, the frequency of monitoring of leaks and schedule of repairs of leak will be as per CPCB guidelines/OISD guidelines. Implementation will be after startup and stabilization of the facility.</p> <p>Plant-wise PM check schedule for the periodic health check-up of the Rotary Equipment is prepared.</p> <p>All storage tank breathing vents are routed to incinerator as per design. Gas detectors are already provided at strategic locations.</p> <p>In order to reduce fugitive emissions of volatile organic compounds from the complex.</p> <ol style="list-style-type: none"> <li>1. Seal less canned pumps are installed in organic liquid services</li> <li>2. Special gland packings are provided in valves to reduce fugitive VOC emissions from glands.</li> </ol>	
v	Total SO <sub>2</sub> emissions after implementation of PDPP including IREP SHALL NOT EXCEED 1561.4 Kg/hr.	<p>The fuel for firing in Incinerators is vaporized LPG/LNG having very low sulfur content. The SO<sub>2</sub> emissions after implementation of PDPP including IREP will not exceed 1561.4 kg/hr.</p> <p>The compliance status against this target will be submitted along with HYCR after startup and stabilization of the facility.</p>	

Report on the status of Compliance of stipulated Environmental Conditions; PDPP Project BPCL-KR – Period Apr 2020 to Sept 2020.

S.No. as per  
Env.Ltr.No. J-  
11011/26/2013-  
IA II (I), Dtd.:  
12/05/2015

Stipulated Clearance Condition

Compliance Status

vi	Continuous monitoring system for VOCs at all important places/areas shall be ensured. When monitoring results indicate above the permissible limits, effective measures shall be taken immediately.	Photo ionization detectors (fixed VOC meters) are being installed at eight (8) important locations in and around the facilities for continuous monitoring of VOCs.
vii	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 Kerala State 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.	One AAQMS STATION for continuous monitoring of SO <sub>2</sub> , NO <sub>2</sub> , NO <sub>x</sub> , NH <sub>3</sub> , CO, OZONE, HC, H <sub>2</sub> S, MERCAPTAN, BTX, VOC, PM 10 (SPM), PM 2.5 (RSPM) and meteorological data etc.is being installed at the location approved by Kerala State Pollution Control Board and the same is being connected to display board which is positioned facing PWD (public) road for visibility.
viii	Ambient air quality data shall be collected as per NAAQES 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.	Ambient air quality data & trend analysis monitoring has not started yet since the complex is still in construction /precommissioning phase.
ix	The gaseous emission 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. Gaseous emissions from DG sets are designed to be dispersed through stack heights as per CPCB standards. Acoustic enclosure is installed for DG set.
X	Total fresh water requirement from Kochi Refinery for PDPP shall not exceed 493 m <sup>3</sup> /hr and prior permission shall be obtained from the concerned agency. No ground water shall be used.	The total fresh water requirement will be 493 m <sup>3</sup> /hr which is within the total sanctioned quantity of 3083.3 m <sup>3</sup> /hr for refinery by Govt. of Kerala.

**Report on the status of Compliance of stipulated Environmental Conditions; PDPP Project BPCL-KR – Period Apr 2020 to Sept 2020.**

S.No. as per Env.Ltr.No. J- 11011/26/2013- IA II (I), Dtd.: 12/05/2015		Stipulated Clearance Condition	Compliance Status
			The actual consumption for the complex has not started since the facility is under construction /precommissioning stage.
xi	Industrial effluent shall be treated in the effluent treatment plant. Treated effluent shall be recycled/reused in the existing cooling tower. As proposed, high COD effluent shall be incinerated. Water quality of treated effluent shall be monitored regularly. Online water monitoring system shall be installed for important parameters.		Industrial effluent will be incinerated / treated in ETP before final disposal. Also online water monitoring facility available at existing refinery effluent outlet will be utilized.
xii	Oil catchers/oil traps shall be provided at all possible locations in rain/storm water drainage system inside the factory premises.		Oil catchers/oil traps at possible locations provided
xiii	Incinerator designed shall be as per CPCB guidelines.		Two numbers Incinerator installed within the PDPP complex is designed to ensure final effluent quality as per CPCB guidelines.
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.		Disposal of Hazardous waste will be as per hazardous waste rules 2008.
xv	Proper oil spillage prevention management plan shall be prepared to avoid spillage/leakage of oil/petroleum products and ensure regular monitoring.		Oil spillage prevention is taken care at the design stage itself. adequate facilities are maintained to prevent and contain oil spillage for PDPP complex
xvi	The company shall strictly follow all the recommendation mentioned in the Charter on Corporate Responsibility for Environmental Protection (CREP).		Complied to the points mentioned in CREP that is applicable for PDPP project

Report on the status of Compliance of stipulated Environmental Conditions; PDPP Project BPCL-KR – Period Apr 2020 to Sept 2020.

S.No. as per Env.Ltr.No. J-11011/26/2013-IA II (I), Dtd.: 12/05/2015		Stipulated Clearance Condition	Compliance Status
xvii	To prevent fire and explosion of 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.	PDPP facility is designed as per OISD & PESO guidelines and the facilities satisfy separation distances as specified by OISD and relevant Petroleum rules.  PESO approval for the facility and storage license for products and intermediates is being obtained on a phased manner based on completion and site inspection by PESO/OISD officials.	
xviii	All the recommendations mentioned in the rapid risk assessment report, disaster management plan and safety guidelines shall be implemented. Accordingly, provision of budget to be kept.	All recommendations mentioned in rapid risk assessment report was implemented. Emergency Response Disaster Control Manual prepared including scenarios identified during risk assessment report.	
xix	All the issues raised and commitment made during the public hearing/consultation meeting held on 23 <sup>rd</sup> December 2014 shall be satisfactorily implemented. Accordingly, provision of budget to be kept.	BPCL-KR has complied with commitment made during the public hearing/consultation meeting held on 23 <sup>rd</sup> December 2014. Status of Public Hearing commitments are attached as – <b>ANNEXURE 1</b>	
xx	At least 2% of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details should be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program should be ensured accordingly in a time bound manner.	Action plan prepared and already submitted with the previous compliance report. Being implemented in consultation with local authorities. Status attached as <b>ANNEXURE 2</b>	

**Report on the status of Compliance of stipulated Environmental Conditions; PDPP Project BPCL-KR – Period Apr 2020 to Sept 2020.**

S.No. as per Env.Ltr.No. J- 11011/26/2013- IA II (I), Dtd.: 12/05/2015		Stipulated Clearance Condition	Compliance Status
xxi	Green belt shall be developed at least in 40 acres of land in and around the plant premises to mitigate the effects of fugitive emissions all around the plant as per the CPCB guidelines in consultation with DFO. Thick greenbelt with suitable plant species shall be developed around unit. Selection of plant species shall be as per the CPCB guidelines.	Green belt development started with plant species identified in line with CPCB guidelines in 40 acres of land in and around the plant premises. Details are attached as <b><u>ANNEXURE-3</u></b>	
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.	All necessary infrastructure, labor camps, medical facilities are arranged.	
<b>GENERAL CONDITIONS:</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.	BPCL-KR will adhere to the stipulations made by KSPCB, State Govt. and other statutory bodies.  Consent to Operate obtained from KERALA -SPCB Consent No: PCB/HO/EKM-2/ICO/09/2019 - Dated 20-08-2019	
ii	No further expansion or modification in the project shall be carried out without prior approval of the Ministry of Environment & Forests. 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.	Complied.	



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iii	The project authorities must strictly comply with the rules and regulations 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.	BPCL-KR has obtained approvals from Chief Inspectorate of Factories, Chief Controller of Explosives, Fire Safety Inspectorate etc. wherever required. BPCL-KR will comply with the rules and regulations under manufacture, Storage and import of Hazardous Chemical Rules, 2000. PESO approval obtained for plot plan and other drawings as required.	
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, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	PESO license for storage and commissioning approval obtained partly for the facility based on completion and site inspection by PESO .The balance facilities are getting completed and progressively approvals are being obtained. The overall noise level are limited at the fence as prescribed under EPA rules/ SPCB advisory. Continuous operation of the plants and facility is yet to commence. The facility is under construction and precommissioning stage.	
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-KR is having a separate Environment Management section to carry out environmental management and monitoring functions. We have well equipped Centralized Quality Control Laboratory for PDPP project related monitoring activities.	
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 by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purposes.	BPCL-KR has earmarked adequate funds for environment pollution control measures. The funds are being utilized for installing 1. Conventional and Submerged type, liquid and gaseous waste incinerators to meet final effluent quality.	

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			2. AAQMS station and monitoring facilities  3. VOC meters for continuous monitoring  Also LDAR program formulated for operation phase of the complex.
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 shall be submitted to them regularly.	Six monthly compliance reports will be submitted by BPCL-KR	
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.	BPCL-KR has complied with this condition. Copies of clearance letter was sent to all local bodies.	
ix	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM10, PM2.5, SO2, NOx, HC (Methane of 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	Six monthly compliance reports being submitted without fail by BPCL-KR after receipt of the Environmental Clearance for the PDPP project. The same will be sent to the Regional Office of MoEFCC and also uploaded in the BPCL website.  The criteria pollutant levels namely; PM10, PM2.5, SO2, NOx, HC (Methane of 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.	

**Report on the status of Compliance of stipulated Environmental Conditions; PDPP Project BPCL-KR – Period Apr 2020 to Sept 2020.**

S.No. as per Env.Ltr.No. J-11011/26/2013-IA II (I), Dtd.: 12/05/2015		Stipulated Clearance Condition	Compliance Status
		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.	Six monthly compliance reports will be submitted by BPCL-KR after receipt of the Environmental Clearance for the PDPP project. The same will be sent to the Regional Office of MoEFCC and also uploaded in the website.
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.	BPCL-KR will comply. Environment statement will be submitted once the facility is started and stabilized based on operational data.
xii		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 and may also be seen at website of the 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 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 the locality concerned and the copy of the same shall be forwarded to the Regional Office.	BPCL-KR has complied with this condition.

**Report on the status of Compliance of stipulated Environmental Conditions; PDPP Project BPCL-KR – Period Apr 2020 to Sept 2020.**

<p>S.No. as per Env.Ltr.No. J- 11011/26/2013- IA II (I), Dtd.: 12/05/2015</p>	<p>Stipulated Clearance Condition</p>	<p>Compliance Status</p>
<p>xiii</p>	<p>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.</p>	<p>Investment clearance from Board obtained on 03.12.2014 and land development started subsequently.  Currently the project is in construction and precommissioning phase.</p>



**BPCL KOCHI REFINERY – PROPYLENE DERIVATIVES PETROCHEMICAL PROJECT****PUBLIC HEARING MOM & STATUS OF COMMITMENTS**

Based on the directive from Expert Appraisal Committee (EAC)-Industry, Ministry of Environment & Forest in their meeting held during 5th March to 7th March 2013 and vide their minutes for the said meeting dated 30th April 2013, BPCL-KR made the draft EIA report and submitted an application to Kerala State Pollution Control Board, Thiruvananthapuram for organizing public hearing for BPCL-KR. The State Pollution Control Board advised the Regional office Ernakulam to conduct the public hearing. Public consultation for the proposed Propylene Derivatives Petrochemical Project (PDPP) was held on 23.12.2014 at the Collectorate Conference Hall, Ernakulam.

After the discussions, the ADM invited the company representatives for replying the queries.

Replies given by company representative (As per MOM enclosed in EIA report) and status of commitments are indicated below.

- Safety, pollution and land acquisition are the main concerns of the participants. In all these areas measures as per law will be implemented with the directions of the authorities concerned. Land acquisition for the project has been completed.

BPCL COMMENT DATED – 31.OCT.2020 – The facility is designed to comply with all all safety standards as per applicable Indian regulations and International best practices No Burning of Sulphur is envisaged in PDPP- Item Closed

- This project envisages to reduce the quantity of sulphur in line with global trend and no burning of sulphur is proposed.

BPCL COMMENT DATED – 31.OCT.2020 – The facility is designed in such a way that – No Burning of Sulphur is envisaged in PDPP project. Item Closed

- For water consumption, 74 mld from the Periyar river is sanctioned from Government but only 30 mld is used at present. This will not be increased. Since latest technologies like reverse osmosis is included treated water will be reused.

BPCL COMMENT DATED – 31.OCT.2020 – Water consumption for PDPP project as per design is within the limits specified by MoEFCC clearance and KSPCB consent to operate. Item Closed



## BPCL KOCHI REFINERY – PROPYLENE DERIVATIVES PETROCHEMICAL PROJECT

- For preventing the effects of earth quake, construction methods suitable for zone 3 are proposed.

BPCL COMMENT DATED – 31.OCT.2020 –Construction of PDPP project is as per requirements of Zone 3. Item Closed.

- As per the CSR activities land will be given to four line road from Irumpanam to KRL gate.

BPCL COMMENT DATED – 31.OCT.2020: Discussions were held with Govt. of Kerala – in presence of PWD Minister, and it was agreed for construction of 4 lane road. Role of BPCL in this project will be

1. Contribute land required for road widening
2. Landscaping /Beautification of road, divider, arrangement for lighting-up
3. Construction of bridge in the stretch of the road.

Designing, tendering, construction of road will be carried out by PWD- Govt. of Kerala using KIIFB fund.Item Closed

- Discussions will be held with the Tripunithura Municipality for bypass road.

BPCL COMMENT DATED – 31.OCT.2020: During meeting held with MLA and concerned depts. of Govt.of Kerala regarding this project, it was informed to BPCL that adequate funds for the project is earmarked via KIIFB and execution will be by Kerala PWD. BPCL had and allocated fund to municipality for initial formation of road. Item Closed

- Only land required for the project can be acquired as per Government norms. In the future expansions, land acquisitions request will be considered. If the land acquired before 5 years is not utilized, the same will go the land bank. Hence only required land can be acquired at 30 m from the boundary. The projects area has been exempted from critically pollute area and there is notification to this effect. Only after this notification, the expansion projects are started.

BPCL COMMENT DATED – 31.OCT.2020 – Land acquisitions for PDPP project had already been completed during the period 2013-14. Item Closed.



## **BPCL KOCHI REFINERY – PROPYLENE DERIVATIVES PETROCHEMICAL PROJECT**

- The Company's plant will be 60 m away from the boundary, and tanks will be kept at 30 m from the boundary.

BPCL COMMENT DATED – 31.OCT.2020 Complied, all distance norms as per statutory regulations are complied. All necessary approvals were obtained from PESO/F&B before construction of the facility. Item Closed

- The projects area has been exempted from critically pollute area and there is notification to this effect. Only after this notification, the expansion projects are started.

BPCL COMMENT DATED – 31.OCT.2020 – Notification is available – Item closed.

- Pet coke has enclosed conveyor system and enclosed storage area. Hence this waste will not pollute Chitrapuzha river.

BPCL COMMENT DATED – 31.OCT.2020

Item closed.

— End —



**Write up on Enterprise Social Commitment for Propylene Derivatives  
Petrochemical Project (PDPP)**

While according Environment clearance for the PDPP project in May 2015, one of the conditions mentioned was that 2 % of the total project cost should be earmarked towards Enterprise Social Commitment (ESC) based on "local needs". Further, it was also mentioned that all the issues raised and commitment made during the public hearing/consultation meeting shall be satisfactorily implemented. Based on this condition, an action plan was prepared and submitted to MoEF & CC.

A detailed action plan was prepared in consultation with the neighboring Local Self Governments (LSGDs - Vadavucode-Puthencruz Grama Panchayat, Thiruvaniyoor Grama Panchayat, Thripunithura Municipality, Cochin Corporation and other neighboring LSGD's) and Ernakulam district administration, highlighting ESC expenditure proposed to be carried out in the neighborhood.

Out of the total envisaged expenditure of Rs.92 Crore, an amount of Rs.28 Crore has already been spent on schemes which have been completed or are under progress, as highlighted in *Annexure 1*.

Balance amount of approximately Rs.64 Crore is proposed to be spent on the schemes identified/committed jointly with Government of Kerala, LSGDs and Ernakulam district administration, as highlighted in *Annexure 2*. These schemes have been identified/committed envisaging impact of PDPP on local public/neighborhood due to start up and sustained operation of PDPP.





**Enterprise Social Commitment**  
**Propylene Derivatives Petrochemical Project (PDPP)**

**Schemes completed or under progress**

Header	Schemes	Amount ( Rs. Crore)	Remarks
<b>Infrastructure Development</b>	Construction of road to residential area near PDPP and rerouting the canal	18.93	Completed
	Rejuvenation of Ponds and canals near refinery/PDPP site	0.73	In progress
	Road reconstruction and clearing of canals	1.00	Completed
	Rural road development (near refinery/PDPP site)	1.21	In progress
	Support for indoor stadium for local public at Kunnathunadu Grama panchayat	0.39	In progress
	Support for the construction of crematorium in Poothrikka Grama Panchayat	0.50	In progress
	Setting up of Cyber Dome for social media and internet monitoring at Kochi by Kerala Police	1.00	Completed
<b>Health, Nutrition &amp; Hygiene</b>	COVID related sanitization works in the area and related jobs	0.17	Completed
	Provision of food and provisions for nearby areas and colonies during lock down period	0.20	Completed
	Medical camp at various locations	0.30	Completed
<b>Education</b>	Electrification of schools in neighboring areas	0.74	Completed
	Construction of toilets in schools in Thiruvaniyoor Grama Panchayat	0.37	Completed
	Swachh Vidyalaya in Vadavucode Puthencruz Grama Panchayat	0.56	Completed
	Swachh Vidyalaya in Tripunithura Municipality	0.27	Completed
	Construction of new school building for Irumpanam Lower Primary Schools - Tripunithura Municipality	0.39	In progress
	VIDYADHANAM PROJ –one time scholarship scheme for children of Kochi city	0.50	Completed
<b>Skill development</b>	Safety Training vehicle for Factories & Boilers (to create safety awareness among children and industrial workers)	0.67	In progress



<b>Total</b>		27.93	
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Annexure 2

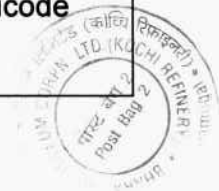
**Enterprise Social Commitment Plan**  
**Propylene Derivatives Petrochemical Project**

**Schemes identified/ Committed**

<b>Header</b>	<b>Committed Schemes</b>	<b>Amount (Rs. Crore)</b>	<b>Remarks</b>
<b>Infrastructure Development</b>	Four-lane development of PWD road & completion of additional span of Chitrapuzha Bridge	15.00	Main road passing in front of Refinery. Four laning planned in view of the increased number of tankers post IREP/PDPP, thereby reducing hardship to local public. Being carried out jointly with Govt. of Kerala, who would be spending the balance amount through Kerala Infrastructure Investment Fund Board (KIIFB).
	Proposed Chitrapuzha-Mamala bund road	15.00	Alternate escape route for Refinery/PDPP/Irumpanam installation. Project for decongesting nearby junctions by rerouting tankers.
	'Amruthakudeeram' housing project near Kochi Refinery	1.00	Gap fund for infrastructure development and reconstruction of 124 houses for poor at Amruthakudeeram Colony(nearby slum) near Kochi Refinery
	Street lighting projects in Vadavucode Puthencruz & Thiruvaniyoor Grama Panchayats and Tripunithura Municipality	1.00	Project submitted by neighboring Local Self Governments for safety of local people in view of project implementation
	Canal protection and bund roads	1.25	This is to help neighboring people for paddy cultivation. Project submitted by Vadavucode -Puthencruz Grama Panchayat
<b>Health, Nutrition &amp; Hygiene</b>	First meal for the children in nearby schools (Vadavucode Puthencruz, Thiruvaniyoor, Tripunithura and Kunnathunadu)	5.00	Providing breakfast(first meal) for approximately 6500 school going children. Being carried out for the last 3 years and needs to be continued. (Budget for 5 years shown)



	New block for Tripunithura Government Taluk Hospital	5.00	Proposal of Tripunithura Municipality, nearest Government Taluk Hospital which is being used by poor in the neighboring area
	Supplementary nutrition programme for Anganwadi (near Kochi Refinery)	0.75	KR has been supporting the nearby Pre-schools for poor (Anganwadis) for providing supplementary nutrition which needs to be continued (budget for 5 years shown)
	Facility enhancement in Community Health Centre/Public Health Centres(PHC's)/Sub Health Centres	1.50	Community Health Centre at Vadavucode and PHCs/Sub Health Centres in Thiruvaniyoor & Puthencruz Grama Panchayats
	Construction of Anganwadis in Vadavucode Puthencruz & Thiruvaniyoor Grama Panchayat	1.50	New building for 5 Anganwadis near KR
	Multi-specialty Medical camps	1.00	Medical camps to be conducted at nearby Grama Panchayats/Municipalities at specific intervals (budget for 3 years)
	Mediclaim insurance for nearby wards	4.50	Insurance for around 15000 individuals in 10 nearby wards of Kochi Refinery (for 5 years).
	Swachh toilets at Schools/Govt. hospitals	1.00	Toilets for neighbouring schools and Govt. General Hospital, Ernakulam
	Public toilets at Corporation area	1.00	Project of Greater Cochin Development Authority
	COVID-19 related activities in neighborhood by District Administration	2.00	Project of Ernakulam District Administration/District Panchayat
<b>Education</b>	Construction of new buildings for nearby schools	2.00	New building for Govt. Upper Primary/Lower Primary schools at Puttumanoor, Puthencruz and Irumpanam
	Infrastructure support for education at neighboring schools	1.00	Providing Furniture, computers, televisions, lab equipments, etc. for nearby schools
<b>Water Management</b>	Rejuvenation of ponds/canals	1.00	Three ponds at Thiruvaniyoor and Vadavucode Puthencruz Grama Panchayats
	Maintenance of public wells	0.30	Renovation/maintenance of public wells in Vadavucode Puthencruz Grama Panchayats



	Drinking water projects	2.00	For Phase 2 of drinking water schemes for various wards/divisions near Refinery
<b>Skill development</b>	Home based rehabilitation for Differently abled	1.20	Project with NGO 'Adarsh' (budget for 5 years)
<b>Total</b>		<b>64</b>	



Table 1

**DETAILS OF GREEN BELT DEVELOPMENT IN PDPP AS ON 30.10.2020.**

Sl. No	YEAR( FY)	NO OF TREES TOTAL TREES PLANTED	TYPE OF TREES		AREA ( IN ACRES)	Total No of Trees Planted	Total No of Trees Survived	MORTALITY	TREES PER ACRE
			SAPLING SPECIES	NO OF SAPLINGS PLANTED					
1	2016-2017	NIL							
2	2017-2018	700	False Ashoka	451	0.91	700	510	27.14%	771.3
			Mango Tree	14					
			Njaval	3					
			Arjun Tree	5					
			Austrailan wattle	46					
			Frywood Tree	40					
			Coconut tree	2					
			Pongam Tree	7					
			Pala	2					
			Yellow Illi	29					
			Athi	75					
			Anjili	2					
			Arayal	2					
			Poomaram	3					
			Manipoomar	11					
			Manivaka	8					
3	2018-2019	2650	Mango Tree	436	1.84	2650	2519	4.94%	1442.2
			Jack Fruit Tree	63					
			Njaval	228					
			Arjun Tree	202					
			Avanakku	11					
			Mahagony	365					
			Baniyan Tree	2					
			Austrailan wattle	17					
			Frywood Tree	155					
			Cashew	9					
			Kanikona	29					
			Australian Pine	11					
			Coconut tree	10					
			Bakul	80					
			Pongam Tree	155					
			tamarind	5					
			Pala	7					
			Aruveppu	85					
			Yellow Illi	57					
			Erukku	73					
			Nelli	224					
			Athi	17					
			Poovarasu	11					
			Anjili	3					
			Poomaruthu	36					
			Nagalingam	11					
			Poomaram	85					
			Manipoomar	14					
			Manivaka	93					
			Manjadi	11					
			Koovalam	11					
			Arayal	3					



Sl. No	YEAR( FY)	NO OF TREES TOTAL TREES PLANTED	TYPE OF TREES		AREA ( IN ACRES)	Total No of Trees Planted	Total No of Trees Survived	MORTALITY	TREES PER ACRE
			SAPLING SPECIES	NO OF SAPLINGS PLANTED					
4	2019-2021	697	Mango Tree	88	1.326	697	697	0.00%	525.7
			Njaval	100					
			Pomogranate	181					
			Jack Fruit Tree	41					
			Guava	51					
			Cashew	47					
			Anjili	159					
			Nelli	30					
5	2020-2021	9119	Mango Tree	1402	20.86	9119	9119	0.00%	437.1
			Jack Fruit Tree	632					
			Njaval	1024					
			Arjun Tree	782					
			Mahagony	1740					
			Cashew	150					
			Elange	214					
			Pongam Tree	245					
			Tamarind	84					
			Neem	28					
			Nelli	127					
			Poovarasu	548					
			Anjili	593					
			Flame of forest	165					
			Guava	484					
			Pomogranate	328					
			Lemon	29					
			Arboria	96					
			wood apple	51					
			Bamboo	355					
Coconut tree	42								
<b>Total</b>		<b>13166</b>		<b>13035</b>	<b>24.93</b>	<b>13166</b>	<b>12845</b>		<b>528.1</b>

Plants planted per acre per year from the date of issue of EC

13166 / (40 x 5)

65.83



Table 2

<b>DETAILS OF YEAR WISE PLANTATION AND BUDGET SPENT IN PDPP</b>				
<b>SL. No</b>	<b>YEAR (FY)</b>	<b>NO OF TREE SAPLINGS</b>	<b>AMOUNT SPENT IN RS (EXCLUDING GST/ TAXES)</b>	<b>REMARKS</b>
1	2017-2018	700	279000	
2	2018-2019	2650	738340	
3	2019-2020	697	167000	
4	2020-2021	9119	6247000	Planting in Progress.
<b>TOTAL</b>		<b>13166</b>	<b>7431340</b>	



Table 3

**BUDGET ALLOCATION FOR FOR INCREASING/MAINTENANCE OF GREEN BELT IN PDPP**

SL.No	FINANCIAL YEAR	BUDGET IN RS (Excluding GST)	DETAILS FOUND
1	2020-2021	6247000	Development of Greenbelt in PDPP
2	2021-2022	1440000	Maintenance of Green Belt
3	2022-2023	1440000	Maintenance of Green Belt
	<b>TOTAL</b>	<b>9127000</b>	

