भारत पेट्रोलियम कॉर्पोरेशन लिमिटेड
भारत सरकार का उपक्रम
कोच्चि रिफ़ाइनरी

BHARAT PETROLEUM CORPORATION LIMITED
A Govt. of India Enterprise
Kochi Refinery

Ref. BPCL-KR/PC 7

23rd May 2016

Ministry of Environment & Forests
Regional Office (Southern Zone)
4th Floor, E&F Wings, Kendriya Sadan,
Koramangala,
Bangalore – 560 034.

Kind Attn : Dr. S.K. Susrula – Director (S)

Dear Madam,

Sub : Compliance Report on the status of Compliance of stipulated Environmental Conditions for the Propylene Derivatives Petrochemical Project (PDPP) - BPCL-Kochi Refinery for the period Oct 15 – March 16

Ref : MoE&F's letter No. J-11011/26/2013-IA II(I) dated 12th May, 2015 granting Environmental Clearance

With reference to the above mentioned letter, please find enclosed six monthly compliance report for the period 1st October 2015 to 31st March 2016 on the various conditions laid down by MoE&F.

Thanking you,

Very truly yours
For BPCL Kochi Refinery

(George Paul)
DGM (Project Tech. Petrochem)

Cc: 1. The Member Secretary
Central Pollution Control Board
Parivesh Bhawaner
East Arjun Nagar
Delhi – 110 032.

2. The Member Secretary
Kerala Pollution Control Board
Plamoodu Junction
Pattom Palace
Thiruvananthapuram – 695 004

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

S.No. as per Env.Ltr.No. J-11011/26/2013 -IA II (I), Dtd.: 12/05/2015	COMMENTS	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.	BPCL-KR will comply.
ii	Continuous on-line stack monitoring for SO_2 NO_X and CO of all the stacks shall be carried out. Low NO_x burners shall be installed.	BPCL-KR will comply.
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. Stack emissions shall be monitored regularly.	BPCL-KR will comply. There are no heaters in the PDPP Project. Only incinerators are there for which vaporised LPG/LNG shall be used.
iv	Leak Detection and Repair programme 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.	Leak Detection and Repair programme will be prepared. Preventive maintenance for pumps, valves, pipelines will be implemented at the operation phase. Tank breathing vents will be routed to incinerator. Gas detectors will be provided at strategic locations. This requirement will be ensured at the design engineering phase itself.
v	Total SO_2 emissions after implementation of PDPP including IREP SHALL NOT EXCEED 1561.4 Kg/hr.	Will be complied. The fuel for firing in Incinerators will be vaporized LPG/LNG.
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.	BPCL-KR will comply.

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vii	Ambient air quality monitoring stations (PM_{10}, $PM_{2.5}$, SO_2, NO_x, H_2S, 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.	GLC values after modeling have been incorporated in the EIA/RRA report based on which environmental clearance has been accorded to the PDPP project. Accordingly Ambient air monitoring stations shall be set up in consultation with Kerala State Pollution Control Board.
viii	Ambient air quality data shall be collected as per NAAQES 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.	BPCL-KR will comply.
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.	BPCL-KR will comply.
x	Total fresh water requirement from Kochi Refinery for PDPP shall not exceed 493 m^3/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^3/hr which is within the total sanctioned quantity of 3083.3 m^3/hr for refinery by Govt of Kerala
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.	High COD effluent will be Incinerated. Effluent will be routed to IREP ETP for final treatment & disposal. There will be no treated effluent discharge from PDPP complex.
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 shall be provided
xiii	Incinerator designed shall be as per CPCB guidelines.	Will be complied with. Two numbers Incinerator (Acrylic

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		acid & Acrylates unit) is considered within the PDPP complex.
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.	BPCL-KR will comply.
xv	Proper oil spillage prevention management plan shall be prepared to avoid spillage/leakage of oil/petroleum products and ensure regular monitoring.	BPCL-KR will comply. Inside the refinery complex, adequate facilities are maintained to prevent and contain oil spillage. The same shall be implemented for PDPP complex also.
xvi	The company shall strictly follow all the recommendation mentioned in the Charter on Corporate Responsibility for Environmental Protection (CREP).	BPCL-KR will comply.
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.	BPCL-KR will comply.
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.	BPCL-KR will comply.
xix	All the issues raised and commitment made during the public hearing/consultation meeting held on 23rd December 2014 shall be satisfactorily implemented. Accordingly, provision of budget to be kept.	BPCL-KR will address the concerns raised by the public during public hearing wherever it is feasible and applicable.

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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.	Schemes will be developed in areas like road development, water conservation, health etc. based upon local needs/public hearing requests
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.	BPCL-KR will comply.
xxii	The company shall strictly follow all the recommendation mentioned in the Charter on Corporate Responsibility for Environmental protection (CREP).	BPCL-KR will comply.
GENERAL CONDITIONS:		
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.
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.	BPCL-KR will comply

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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 will apply for 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.
iv	The overall noise levels in the 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).	The overall noise level will be limited at the fence as prescribed under EPA rules.
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 cell to carry out environmental management and monitoring functions. We have well equipped Centralized Quality Control Laboratory. The same facility will be utilized for PDPP also.
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.
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 on 1st December (for the period 1st April to 30th September) and on 1st June (for the period 1st Oct to 31st March) by BPCL-KR

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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.
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 main gate of the company in the public domain.	Six monthly compliance reports will be submitted on 1st December (for the period 1st April to 30th September) and on 1st June (for the period 1st Oct to 31st March) by BPCL-KR after receipt of the Environmental Clearance for the PDPP project. The same will be sent to the Regional Office of MoEF and also uploaded in the 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.
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 on 1st December (for the period 1st April to 30th September) and on 1st June (for the period 1st Oct to 31st March) by BPCL-KR after receipt of the Environmental Clearance for the PDPP project. The same will be sent to the Regional Office of MoEF and also uploaded in the 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	BPCL-KR will comply

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	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.	
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 http:/envfor.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 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.
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.	The Board approval for pre-project activities for the PDPP project was obtained on 03.12.2014.