

भारत पेट्रोलियम कॉर्पोरेशन लिमिटेड  
28/PT/EC/17  
4<sup>th</sup> December 2017

भारत सरकार का उपक्रम  
कोच्चि रिफ़ाइनरी



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

Ministry of Environment, Forest and Climate Change  
Regional Office (Southern Zone)  
4<sup>th</sup> Floor, E&F Wings, Kendriya Sadan  
Koramangala  
Bangalore -- 560 034

Kind Attn: Smt Tejaswini GS, Research Assistant (Env)

Dear Madam

**Sub: Compliance Report on the conditions laid down by the Ministry of Environment, Forest and Climate Change for the BS VI quality upgradation and new MS block project of BPCL Kochi Refinery, Ambalamugal, Kochi.**

**Ref: (i) MoEF&CC letter no: J- 11011/43/2016 -IA II (I) dated 20<sup>th</sup> October 2016 granting Environmental Clearance.**

**(ii) MoEF&CC letter no : EP/12.1/1/2016-17/KER dated 16.11.2017**

Please find enclosed the six monthly compliance report for the period 1<sup>st</sup> April 2017 to 30<sup>th</sup> September 2017 on the various conditions laid down by Ministry of Environment, Forest and Climate Change vide Ref (i).

In response to Ref (ii), kindly note that compliance report for the period 20<sup>th</sup> October 2016 to 31<sup>st</sup> March 2017, was submitted during June 2017 and a copy of the same is also attached for your ready reference.

Thanking You

Very truly yours  
For BPCL Kochi Refinery

Shelly Abraham  
DGM (Project Technical)

- Cc: 1. The Member Secretary  
Central Pollution Control Board  
Parivesh Bhavaner  
East Arjun Nagar  
Delhi - 110 032
2. The Member Secretary  
Kerala State Pollution Control Board  
Plamoodu Junction  
Pattom Palace  
Thiruvananthapuram - 695 004
3. The Environmental Engineer  
Kerala State Pollution Control Board  
District Office 2, Perumbavoor, Ernakulam

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REPORT ON THE STATUS OF COMPLIANCE OF STIPULATED ENVIRONMENTAL CONDITIONS -BS VI QUALITY UPGRADE AND MS BLOCK PROJECT  
OF BPCL KOCHI REFINERY - PERIOD 1ST APRIL 2017 TO 30TH SEPTEMBER 2017

S.No. as per Env.Ltr.No.J-11011/43/2016-IA II (I), Dtd..22/10/16	COMMENTS	COMPLIANCE STATUS
<b>SPECIFIC CONDITIONS:</b>		
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.	BPCL-KR will comply
ii	Continuous on –line stack monitoring for SO <sub>2</sub> ,NO <sub>x</sub> and CO of all the stack shall be carried out.	BPCL-KR will comply
iii	The process emissions (SO <sub>2</sub> , NO <sub>x</sub> ,HC (Methane & Non-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, 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.	BPCL-KR will comply
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. Gas detectors will be provided at strategic locations and this requirement will be ensured at engineering design phase itself.

*(Signature)*

v	<p>SO2 emissions after expansion from the plant shall not exceed 1579 kg/hr and further efforts shall be made for reduction of SO2 load through use of low sulphur fuel. Sulphur recovery units shall be installed for control of H2S emissions. The overall sulphur recovery efficiency of Sulphur recovery unit with tail gas treating shall not be less than 99.9%</p>	<p>The Sulphur rich offgases from new project units shall be treated in the existing Sulphur recovery units and BPCL-KR will comply to the SO2 emission limit of 1579Kg/Hr</p>
vi	<p>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.</p>	<p>BPCL-KR will comply after commissioning of MSBP</p>
vii	<p>Flare gas recovery system shall be installed.</p>	<p>New Flare system was proposed in the project report. However, based on inputs from selected Process Licensor, mitigated flare load is found to be less. Hence Flare load from MSBP will be connected to existing flare system. Flare gas recovery system is being commissioned as part of the Integrated Refinery Expansion Project (IREP).</p>
viii	<p>Ambient air quality monitoring stations, {PM10, PM2.5, SO2, NOX, H2S, mercaptan, non-methane-HC and Benzene} shall be set up in the complex in consultation with Kerala State Pollution Control Board (KSPCB), 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.</p>	<p>Discussions are on with KSPCB for positioning of AAQMS.</p>

ix	Total water requirement from River Periyar after implementation of IREP and BS VI project shall not exceed 1372.2 m <sup>3</sup> /hr and prior permission shall be obtained from the competent authority.	Total fresh water requirement for MSBP will be 125M <sup>3</sup> /hr. Govt. of Kerala has given approval for drawing maximum of 3083.3m <sup>3</sup> /hr water from the river. The total fresh water requirement for BPCL KR post MSBP will be limited within 3083.3 m <sup>3</sup> /hr. The number 1372.2 M <sup>3</sup> /hr seems to have come in place of 3083.3M <sup>3</sup> /hr as an error in the Environmental Clearance Letter. We are planning to get the number corrected by submitting request for EC amendment.
x	As proposed, industrial effluent generation shall not exceed 5.6 m <sup>3</sup> /hr from proposed expansion and treated in the effluent treatment plant. Treated effluent shall be recycled/reused within the factory premises. Domestic sewage shall be treated in sewage treatment plant (STP).	Effluent generated shall be treated in the existing ETP and shall be recycled. Domestic sewage shall be treated in the existing STP.
xi	Oil catchers/oil traps shall be provided at all possible locations in rain/storm water drainage system inside the factory premises.	BPCL-KR will comply
<b>GENERAL CONDITIONS:</b>		
i	The project authorities must strictly adhere to the stipulations made by the Kerala State Pollution Control Board (KSPCB), 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 modifications in the plant shall be carried out without prior approval of the Ministry of Environment and 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 locations of ambient air quality monitoring stations shall be decided in consultation with the KSPCB 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.	Discussions are on with KSPCB for positioning of AAQMS.
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 Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time)	The noise levels will be limited at the fence as prescribed under EPA rules
v	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	BPCL-KR will comply
vi	During transfer of materials, spillages shall be avoided and garland drains be constructed to avoid mixing of accidental spillages with domestic wastewater and storm water rains.	Drains and sewers will be designed with sound engineering practices
vii	Usage of Personnel Protection Equipments by all employees/ workers shall be ensured.	BPCL-KR will comply
viii	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 shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.	BPCL-KR conducts periodic training on health and safety to cover all employees. Pre-employment and routine periodical medical examinations are also undertaken.
ix	The company shall also comply with the environmental protection measures and safeguards proposed in the project report submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, risk mitigation measures and public hearing relating to the project shall be implemented.	BPCL-KR will comply

x	The company shall undertake CSR activities and all relevant measures for improving the socio-economic conditions of the surrounding area.	BPCL-KR will comply
xi	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.	BPCL-KR will comply
xii	A separate Environmental Management Cell equipped with full fledged laboratory facilities shall 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 Centralised Quality Control Laboratory also. The same facility will be utilised for MSBP also.
xiii	The company shall earmark sufficient funds for recurring cost per annum to implement the conditions stipulated by the Ministry of Environmental and Forests 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.	BPCL-KR has earmarked adequate funds for environment protection measures
xiv	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, ZilaParasad/Municipal Corporation, Urban local Body and the local NGO, if any, from who suggestions/representations, if any, were received while processing the proposal.	BPCL-KR has complied with this condition.
xv	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, the respective Zonal Office of CPCB and the Kerala State Pollution Control Board. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.	Six monthly compliance reports will be submitted during December (for period April-Septmeber) and during June (for period October to March). The same will be sent to the Regional office of MoEF and also uploaded in the website of BPCL.

*Handwritten signature/initials*

xvi	<p>The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the Keala 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 Bhopal Regional Offices of MoEF by e-mail.</p>	BPCL-KR will comply
xvii	<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 <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 a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.</p>	BPCL-KR has complied with this condition.
xviii	<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 MSBP project was obtained on 24.02.2016. The date of financial closure shall be intimated after completion of the project.</p>