

**Compliance of Environmental Clearance conditions for the period 1<sup>st</sup> April 2017 to 30<sup>th</sup> September 2017**

Project: Expansion of Mumbai refinery from 7.5 MMTPA to 9.5 MMTPA at B.D. Patil Marg, Mahul, Mumbai, Maharashtra by M/s HPCL

Reference No.: F. No. J-11011/413/2014-IA-II(I) dated January 31, 2017 by Ministry of Environment, Forests and Climate Change, GOI

***A. Specific Conditions***

<b>S. No.</b>	<b>Particulars</b>	<b>Compliance Status</b>
i.	M/s HPCL shall comply with 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.	Being Complied
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.	On-line stack monitoring facilities shall be provided to all new stacks under this project.
iii.	The process emissions [ SO <sub>2</sub> , NO <sub>x</sub> , HC {Methane and 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.	Being Complied
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 leak shall be provided at strategic locations.	LDAR Programs are already implemented in existing refinery and same shall be extended to New facilities under this project. HC detectors are being considered during detail engineering and lay out finalization at strategic locations.
v.	SO <sub>2</sub> emission after expansion from the plant shall not exceed 525 Kg/hr and further efforts shall be made for reduction of SO <sub>2</sub> load through use of low Sulphur fuel. 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%.	Low Sulphur fuel has been considered for firing in heaters and boilers. Sulphur recovery units along with tail gas treating units are already installed in

		existing refinery which will ensure 99.9% of Sulphur recovery.
vi.	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.	Sulphur balance record in line with existing practice and as stipulated in condition shall be maintained.
vii.	Flare gas recovery system shall be installed.	Being Complied.  Flare gas recovery system is already in place in the existing refinery.
viii.	Ambient air quality monitoring stations, [ PM <sub>10</sub> , PM <sub>25</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 State Pollution Board, based on occurrence of maximum ground level concentration and down-wing direction of wind. The monitoring network must be decided based on modeling exercise to represent short term GLCs.	Being Complied.  Refinery already has ambient air quality monitoring stations.
ix.	The freshwater requirement from BMC after expansion of proposed project shall not exceed 538 m <sup>3</sup> /hr and prior permission shall be obtained from the competent authority.	Will be complied.
x.	As proposed, Industrial effluent generation shall not exceed 178 m <sup>3</sup> /hr after proposed expansion and treated in the integrated effluent treatment plant. Treated effluent shall be recycled/reused within the factory premises. Domestic sewage shall be treated in sewage treatment plant (STP).	Will be complied.  Effluent generated in existing refinery is treated in the existing integrated effluent treatment plant which as a zero liquid discharge.
xi.	Automatic mechanical Oil catchers/oil traps shall be provided at all possible locations in rain/storm water drainage system inside the factory premises.	Being Complied.
xii.	At least 2.5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESR) based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bangalore.	Will be complied.
<b>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.	Will be complied.
ii.	No further expansion or modification in the project shall be carried without prior approval of the Ministry of Environment and Forests. In case of deviations or alternations in the project proposal from those submitted to the 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.	Will be complied.
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.	Being Complied. Existing refinery already has ambient air monitoring stations.
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.	Being Complied.
v.	The overall noise levels in and around the plant area shall be kept 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 EPA Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	Being Complied.
vi.	The company shall harvest rain water from the rooftops 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.	New building coming under this project shall have rain water harvesting.
vii.	Training shall be imparted to all employees of safety and health aspects of chemical handling. Pre-employment and routine periodical medical examinations of all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.	Being Complied
viii.	The company shall also comply with Environmental Protection Measures and safeguard proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, risk mitigation measures and public hearing related to the project shall be implemented.	Will be Complied.
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.	Being Complied.

x.	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.	Being Complied.  As the project area is within the existing refinery so the measures mentioned are already being complied.
xi.	A separate environment management cell with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.	Being Complied.  Existing refinery already has a dedicated environment management cell and a laboratory to carry out the 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 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.	Being Complied
xiii.	A copy of clearance letter shall be sent by the project 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.	Complied with.
xiv.	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both on hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and MPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.	Will be complied.
xv.	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 EC conditions and shall also be sent to the respective Regional Office of MoEF by e-mail.	Being Complied

xvi.	<p>The Project Proponent should inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the State Pollution Control Board/ Committee and may also be seen at Website of the Ministry of Environment and Forests at <a href="http://www.envfor.nic.in">http://www.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 should be forwarded to the concerned Regional office of this Ministry.</p>	<p>Complied with</p> <p>Advertisement regarding grant of Environmental Clearance was published on Feb 28, 2017 in Times of India in English.</p> <p>Published on 1<sup>st</sup> March, 2017 in Navbharat Times in Hindi and Maharashtra Times in Marathi.</p>
xvii.	<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>Project approved vide HPCL board meeting dated 29<sup>th</sup> September, 2015.</p> <p>Project start date is November, 2017.</p>