

**Compliance of Environmental Clearance conditions for the period 1<sup>st</sup> October 2020 to 31<sup>st</sup> March 2021**

**Project: Setting up a Grass Root 9 MMTPA Refinery cum Petrochemical Complex project at Tehsil Pachpadra, District Barmer (Rajasthan) by M/s Hindustan Petroleum Corporation Limited (HPCL)**

**Reference No.: F. No. J-11011/87/2013-IA-II(I) dated 13<sup>th</sup> September, 2017 and its amendment dated 31<sup>st</sup> January, 2020 by Ministry of Environment, Forests and Climate Change, GOI.**

**15. Compliance of terms and conditions (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.	Complied. CTE obtained on 8 <sup>th</sup> Jan 2018 from RSPCB (order no: 2017-2018/HDF/2618).
(ii)	As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. The effluent discharge, if any, shall conform to the standards prescribed under the Environment (Protection) Rules, 1986.	Zero Liquid Discharge for the refinery is ensured and no waste/treated water shall be discharged outside the premises. All effluent discharge shall conform to the standards prescribed under the Environment (Protection) Rules, 1986.
(iii)	Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.	Shall be complied with. This item has been addressed and included in item (i)-CTE issued from RSPCB.
(iv)	Environmental Standards for Petroleum Oil Refinery dated 18th March 2008 and Environmental Standards for Petrochemical (Basic and Intermediates) dated on 9 <sup>th</sup> November, 2012, and its amendments from time to time shall be followed.	Shall be complied with.
(v)	To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. Multi-cyclone followed by bag filter shall be provided to the DCU coke based CFBC boiler to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.	Shall be complied with. Dust Extraction system is provided at outlet of Coke crusher within DCU and at bunker loading area of Captive Power Plant (CPP). All transfer point of conveyors are provided with dry fog type dust suppression system. Coke storage at coke yard is provided with Sprinkler Type dust suppression system. Adequate stack height is provided in all stacks as per CPCB/SPCB guidelines.

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(vi)	Total water requirement shall not exceed 5300 cum/hr to be met from Indira Gandhi Canal. Necessary permission in this regard shall be obtained from the concerned regulatory authority. No ground water shall be used without prior permission from the CGWA.	Noted. Permission for withdrawal of water from Indira Gandhi Nahar Pariyojana (IGNP) is in place. No ground water shall be used without prior permission from the Central Ground Water Authority (CGWA).
(vii)	Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.	Shall be complied with.
(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.	Shall be complied with.
(ix)	Process organic residue and spent carbon 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.	Shall be complied with. During operation of CPP, efforts will be made to sell the fly ash produced from CFBC boilers to brick manufacturers/cement industry as advised in the EC letter granted by MoEF&CC.
(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.	Shall be complied with.
(xi)	Fly ash should be stored separately. as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust should be avoided.	Noted. Fly ash collected from different locations of the boiler (including ESP, APH) shall be conveyed to Reinforced Cement Concrete (RCC) silo through dense phase system (closed conveying). RCC sump to collect floor wash at different location of fly ash handling shall be provided. Separate silos shall be provided for fly ash and bed ash. There shall be one common RCC silo for fly ash collection from two Circulating Fluidized Bed Combustion (CFBC) boilers in each power block with capacity of 5 days of operation of both CFBC boilers at MCR. Ash from all silos shall be directly unloaded into container trucks in dry form through unloading spout. There shall be two such unloading spout in each silo so that unloading can be done through two trucks simultaneously. Provision shall also be made at each fly ash silo to moisture the ash and unload it in the open truck for further disposal outside the refinery complex.
(xii)	The company shall undertake waste minimization measures as below: - (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 in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system.	Noted. (a) – (e) Shall be complied with, as applicable. (f) Shall be complied with during the operation and maintenance phase of the project.

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	(f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.	
(xiii)	The green belt of at least 10 m 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. As many as 25000 trees to be planted per year during first five years. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.	<p>Noted.</p> <p>HRRL has acquired 4380.71 acres area from Government of Rajasthan. Total plot area of refinery and petrochemical (including Marketing Terminal) is 4126.95 acres. Total plot area of refinery and petrochemical (excluding Marketing Terminal) is 3876.95 acres. The allocated greenbelt of refinery area is 1279.38 acres and Marketing Terminal is 82.5 acres which is 33% of the total plot area within the Boundary line. Total greenbelt area of the refinery and marketing terminal is 1362 acres considering the total plot of 4126.9 acres. Green Belt will be developed in 33 % of the plot area within Boundary Line which is ~ 1362 Acre.</p> <p>Draft Greenbelt Development Plan was prepared and discussed with DFO, Barmer district for further execution. Their comments are incorporated in the greenbelt development plan and finalized. A formal offer for the scope of work is expected from the DFO, shortly. The detailed greenbelt plan will be submitted to RO, MoEF&amp;CC once the contract is awarded to third party for execution.</p>
(xiv)	All the commitment made regarding issues raised during the Public Hearing/ consultation meeting held on 30 <sup>th</sup> May, 2014 shall be satisfactorily implemented.	Noted and will be implemented.
(xv)	At least 2.5% of the total project cost shall be allocated for Enterprise Social Commitment based on Public Hearing and item-wise details along with the time bound action plan shall be prepared and submitted to the Ministry's Regional Office.	<p>MoEF&amp;CC has accorded amendment in the EC vide letter no. F. No. J-11011/87/2013-IA-II(I) dated 31<sup>st</sup> January, 2020. The revised EC Condition is stated below:</p> <p>"At least Rs. 107.82 Crores (0.25% of the total project cost) shall be allocated for Corporate Environmental responsibility based on Public Hearing issues."</p> <p>CER Proposals finalized as of now in consultation with Government of Rajasthan (GOR) and to be undertaken under CER Funds are detailed below:</p> <ul style="list-style-type: none"> <li>• Approach roads to Sajiyali village and Sambhra village: The proposal for providing approach road to Sajiyali village and Sambhra village received from GOR. The contract has been awarded and work has been started. Estimated cost is Rs. 14.05 Crs + GST</li> <li>• Construction of Hospital: Letter of allotment of land has been received from GOR. Project Management Consultant, M/s EIL is working on Cost estimation.</li> </ul>

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		<ul style="list-style-type: none"> <li>• Construction of School: Letter of allotment of land has been received from GOR. Project Management Consultant, M/s EIL is working on Cost estimation.</li> <li>• Development of Avenue plantation for a distance of 90 Km is being planned and inputs regarding the list of avenues/roads in the nearby villages is being sought from DC, Barmer (GOR).</li> </ul> <p>A More detailed action plan of CER activities considering applicable public hearing activities and basis activities identifies as per CER Circular dated May 1, 2018 of MOEF&amp;CC is underway in consultation with GOR and shall be submitted in due course.</p>
(xvi)	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.	Shall be complied with.
(xvii)	The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.	Shall be complied with.
(xviii)	Continuous online (24x7) monitoring system. Both for emissions and the effluent shall be installed within the plant site for measurement of discharge and pollutants concentration. Data shall be uploaded on the company's website and provided to the respective RO's of MoEF&CC, CPCB and SPCB.	Shall be complied with.
(xix)	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Shall be complied with during the operation phase of the project.
(xx)	Wetland habitat shall be provided for migratory bird namely, Demoiselle crane, at the reservoir and green belt areas.	<p>Shall be complied with.</p> <p>The Pachpadra lake is a rain water lake formed mostly during rainy seasons and it has created a natural wetland habitation which attracts migratory bird like Demoiselle cranes. This natural habitation is not affected and no impact on migratory birds has been noticed during a recent site visit and survey carried out in the vicinity of the project site and in and around Pachpadra lake by Biological expert from Environment Consultant M/s EIL. This action on the natural wetland can be further enhanced or developed by taking guidance from subject matter expert agency in future as we progress.</p>
(xxi)	At least 10 natural surface water bodies shall be rejuvenated and developed as complete eco-system with the tree plantation development and growth using satellite imageries.	<p>Shall be complied with.</p> <p>Water body identified in the study region for rejuvenation as of now is water pond named "Sarla Nada "situated outside the proposed site of residential township of HRRL. A proposal from GOR regarding the development of the Sarla Nada is being pursued and under discussion with District Collector – Barmer. In addition to the above, a comprehensive list of 15 more water</p>

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		bodies is identified and submitted to DC Barmer for concurrence. Upon approval, further necessary action will be taken to develop and rejuvenate them.
(xxii)	The international boundary is reportedly at a distance of 100-150 km from the project site. In view of the security apprehensions, necessary permission required, if any, shall be obtained from the Ministry of Defense and/or Ministry of Home Affairs.	NOC has been issued by the IAF HQ SWAC vide letter SWAC/S2551/4/9/ATC dated 9th Aug 2018 and its amendment letter dated 27 <sup>th</sup> May 2019.
<b>15.1</b>	<b>Compliance of other general conditions</b>	
(i)	The project authorities must strictly adhere to the stipulations made by the State Government, Central Pollution Control Board, State Pollution Control Board and any other statutory authority.	Noted and shall be complied with. Stipulation of RSPCB vide CTE dated January 8, 2018 shall be complied with.
(ii)	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.	Noted and shall be complied with.
(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 each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.	The locations of ambient air quality monitoring stations have been decided in consultation with the Rajasthan State Pollution Control Board (RSPCB). Three (03) nos. of continuous ambient air quality monitoring stations will be installed. One no. station each will be installed in the upwind, downwind direction and where maximum ground level concentrations are anticipated.
Q	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.	Shall be complied with.
(v)	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).	Necessary specification details shall be included in all the Engineering, Procurement & Construction (EPC) Contracts for implementation.
(vi)	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.	All water will be collected through storm water system for recharging the ground water.
(vii)	Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical	Shall be complied with.

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	examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.	
(viii)	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.	Shall be complied with.
(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.	Shall be complied with.
(x)	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.	Shall be complied with.
(xi)	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.	Fund provision has been envisaged for capital /recurring cost towards environment pollution control measures.
(xii)	A copy of 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.	Complied. EC letter sent to following agencies: BDO - Panchayat Samiti – Balotra, CEO, Zilla Parishad – Barmer, Sarpanch - Sambhra Village, Sarpanch - SRK Village, RSPCB RO-Jodhpur, vide our letter dated October 5 and 9, 2017.
(xiii)	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.	The compliance status is being submitted regularly on six monthly basis (April to September by 1st December and from October to March by 1st June) as per EIA notification dated 14.09.2006 after grant of EC in Sept, 2017. The 6 <sup>th</sup> six monthly report for April 2020 to September 2020 was submitted in December 2020 to all statutory authorities and posted on HRRL website. The 7 <sup>th</sup> six monthly report for October 2020 to March 2021 is being submitted.
(xiv)	The environmental statement for each financial year ending 31 <sup>st</sup> 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.	Shall be complied. Form-V, Environmental statement shall be submitted to Rajasthan State Pollution Control Board after the Consent to Operate (CTO) is obtained before commissioning of the Project.

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(xv)	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://moef.nic.in">http://moef.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.	Complied. Environmental Clearance has been advertised on September 27, 2017 in Times of India (English) and Rajasthan Patrika (Hindi) Newspapers. A copy of the same has been sent to MoEF&CC Regional Office at Lucknow vide HPCL letter dated October 5, 2017.
(xvi)	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.	Final approval of the project from MoPNG has been obtained on 9th October 2017. Financial closure was completed on 28 <sup>th</sup> January 2019. Detail Engineering Design of the process units is in progress.
16	The Ministry may revoke or suspend the clearance, at subsequent stages, if implementation of any of the above conditions is not satisfactory.	Noted
17	The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions.	Noted
18	The above conditions will be enforced, inter alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Water Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Trans boundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	Noted

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