

**Compliance Report for 100 KL/D Ligno-cellulosic 2G Ethanol Plant at Village Baulsingha, Tehsil Bhatli, District Bargarh (Odisha) by M/s Bharat Petroleum Corporation Ltd.**

EC letter No.: F. No. IA-J-11011/351/2017-IA-II (I) dated 10<sup>th</sup> August, 2018

As per the stipulations given in the Environmental Clearance the detailed compliance status is given below:

**TERMS AND CONDITIONS**

<b>SR. NO.</b>	<b>TERMS AND CONDITION</b>	<b>STATUS APR.-SEPT. 2022</b>
i.	Ethanol shall be used exclusively for fuel blending only.	Noted. Plant is under construction. After commissioning, Ethanol shall be used exclusively for fuel blending only.
ii.	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.	Noted. Consent to Establish (CTE) has been obtained from State Pollution Control Board, Odisha vide Letter No. 11750 dtd. 29th September 2018. Consent to Operate shall be applied for and obtained before commissioning of plant.
iii.	As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.	Noted. Plant is designed for Zero Liquid discharge. Same shall be ensured after commissioning of plant.
iv.	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.	Noted. No hazardous waste shall be generated from Plant. Necessary authorizations required for solid waste, if any, shall be obtained.
v.	To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.	Noted. This has been considered in Plant design. The conditions shall be complied.
vi.	Total fresh water requirement shall not exceed 3192 cum/day, proposed to be met from Bargarh Canal.	Noted. The plant is under construction. The conditions shall be adhered.
vii.	Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through a separate conveyance system.	Noted. Plant is under construction. These conditions have been taken into consideration at the design stage and shall be implemented.

viii.	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.	Noted. The MSIHC Rules, 1989 and MVA, 1989 shall be complied.
ix.	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. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation	Noted. Waste minimization measures are being implemented in plant design. The conditions shall be complied.
x.	The green belt of 5-10 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. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.	Noted. Green belt shall be developed as per guidelines.
xi.	All the commitments made regarding issues raised during the public hearing/ consultation meeting shall be satisfactorily implemented.	Noted. All the commitments made during public hearing shall be satisfactorily implemented.
xii.	At least 1% of the total project cost shall be allocated for Corporate Environment Responsibility (CER) and the details along with time bound action plan shall be submitted to the Ministry's Regional Office.	Noted.  1% of the total project cost has been allocated for Corporate Environment Responsibility (CER). Plant is under construction.  <b>Following CER activity completed:</b> 1 Construction of Crematorium Platform and Other Facilities at Pipalmunda Village, Bargarh District has been completed along with construction of other facilities such as digging of tube well and installation of solar light. <b>Funds for following CER activities has been deposited with District Planning and Monitoring Cell (DPMU), Bargarh:</b> 1 Construction of additional class rooms, Boys/Girls toilets, boundary wall in the

		Primary School and Solar Street lights at Baulsingha village, Bargarh District. 2 Supply & Installation of Solar Street lights in the nearby Villages namely Tejagola and Raisobha.
xiii.	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.	Noted. The conditions are being implemented in plant design and shall be complied.
xiv.	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.	Noted. Adequate arrangement for protection of fire hazards is being implemented in plant design as per norms. The conditions shall be complied.
xv.	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	Noted. Being complied.
xvi.	There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.	Noted. Adequate parking space is under development. The conditions shall be complied.
xvii.	Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.	Noted. The conditions shall be complied.
xviii.	Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.	Noted. Continuous online monitoring systems for stack emissions have been provided in design and shall be implemented. This is a Zero Liquid Discharge plant hence no effluent shall be discharged from premises. The conditions shall be complied.
xix.	CO <sub>2</sub> generated from the process shall be bottled/made solid ice and sold to authorized vendors.	Noted. The conditions shall be complied.

### **GENERIC CONDITIONS**

<b>SR. NO.</b>	<b>GENERAL CONDITION</b>	<b>STATUS APR.-SEPT. 2022</b>
i.	The project authorities must strictly adhere to the stipulations made by the State pollution Control Board, Central Pollution Control Board, State Government and any other statutory authority.	Noted & being complied.

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.
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.	Noted. Ambient Air quality monitoring shall be done in consultation with SPCB.
iv.	The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.	Noted. The conditions shall be complied.
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).	Noted. The conditions shall be complied.
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.	Noted. Rain Water harvesting systems have been considered in plant design and shall be implemented.
vii.	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.	Noted. Being complied.
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	Noted. The condition shall be complied.

	the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.	
ix.	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. ESC activities shall be undertaken by involving local villages and administration.	Noted. All relevant measures/ESC activities shall be undertaken as per company guidelines.
x.	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.	Noted. Eco-developmental & community welfare measures shall be undertaken as per company guidelines.
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.	Noted. Sufficient funds has been earmarked to implement Environment Management Plan. The conditions shall be complied.
xii.	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, ZillaParishad/ Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.	EC has been published on BPCL Corporate Website. <a href="https://www.bharatpetroleum.com/Sustainability/Environmental-Clearance.aspx">https://www.bharatpetroleum.com/Sustainability/Environmental-Clearance.aspx</a>
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.	Noted. EC and six-monthly Compliance Reports has been published on BPCL Corporate Website.  Copy of the six-monthly Compliance Reports has been sent to SPCB, Regional office and Regional Office of the Ministry.  The condition shall be complied.
xiv.	The environmental statement for each financial year ending 31st 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	Noted.  The plant is under construction. Form-V shall be submitted annually after plant commissioning.

	compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.	
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.  Subsequent to obtaining Environment Clearance from MoEF&CC for project, the same was published in two newspapers (Times of India in English & Prameya in Odia) on 23 <sup>rd</sup> August 2018.  Copy of the advertisement was forwarded to Regional Office of the Ministry.
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.	Noted. Plant under construction.