

F. No. J-11011/221/2017- IA II(I)
Government of India
Ministry of Environment, Forest and Climate Change
(IA-II Division)

Indira Paryavaran Bhawan
Jorbagh Road, New Delhi - 3
Dated: 14th August, 2018

To,

M/s Hindustan Petroleum Corporation Limited
17, Jamshedji Tata Road,
Mumbai - 400 020 (Maharashtra)

Sub: Setting up 2G Ethanol Bio-refinery Plant of capacity 100 KLPD by M/s Hindustan Petroleum Corporation Limited at Village Nasibpura, Tehsil Talwandi Sabo, Bathinda (Punjab) - Environmental Clearance - reg.

Ref: Online proposal No.IA/PB/IND2/64593/2017 dated 18th July, 2018.

Sir,

This has reference to your online proposal No.IA/PB/IND2/64593/2017 dated 18th July, 2018 for environmental clearance to the above project, along with project documents namely, EIA/EMP report containing the public hearing details for the above mentioned project.

2. The Ministry of Environment, Forest and Climate Change has examined the proposal for environmental clearance to the project for setting up 2G Ethanol Bio-refinery plant of capacity 100 KLPD by M/s Hindustan Petroleum Corporation Limited in a total area of 15.1 ha at Village Nasibpura, Tehsil Talwandi Sabo, Bathinda (Punjab).

3. The details of the products and by-products are as under:-

S. No.	Product	Capacity
1	Ethanol	100 KLPD

By-Product		
1	CO ₂	80 TPD
2	Ash (with Silica)	60 TPD
3	Fuel Oil	0.3 KLPD
4	Methanol	0.03 KLPD

4. Total land area requirement will be 15.1 ha. Green belt will be developed in 4.98 ha, covering 33 % of total project area. Total estimated project cost is Rs.850 crore. The capital cost earmarked for environmental pollution control measures will be Rs.13.5 crore, and the recurring cost (operation & maintenance) will be about Rs.123 crore per annum.



5. There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc within the 10 km of the project site. Lasara drain is situated at a distance of 0.67 km in SE direction.

6. Total water requirement is estimated to be 4972 cum/day, out of which fresh water requirement of 1800 cum/day will be met from canal supply.

Total effluent generated from different industrial operations is estimated to be 3340 cum/day, which shall be treated through the RO and MEE. Treated water of 3172 cum/day shall be recycled to meet the process requirements. There will be no discharge of treated/ untreated waste water from the unit and thus ensuring zero liquid discharge.

Power requirement of 10.5 MW is proposed to be met from State Power Distribution Corporation Limited (SPDCL). Two DG sets of 500 KVA capacity each will be used during power failure. Adequate stack height shall be provided to the proposed DG sets as per CPCB norms.

Two rice straw/cotton stalk fired boilers of 35 TPH each will be installed. Electrostatic Precipitator (ESP) with a stack height of 70 m will be provided to control the particulate emissions within the statutory norms.

7. Details of solid waste/hazardous waste generation and its management are as under:-

(a) Hazardous Waste

Waste	Quantity	Disposal
Used Lubricants	0.5 MTM	CHWTSDF
Used Containers (Metal & Plastic)	1200 (Nos.)	Decontamination & Re-use or sell to Scrap vendors
HDPE/ LDTE/ Gunny Bags	800 (Nos.)	Decontamination & Re-use or sell to Scrap vendors

(b) Non-Hazardous Solid Waste

Waste	Qty.	Remarks
Mud	8 TPD	used in construction business.
Ash (comprising silica)	60 TPD (For Rice straw)	to be sold
Ash	19.2 TPD (For Cotton Stalk)	to be sold

8. The project/activity is covered under category A of item 5(g) 'Distilleries' of Schedule of Environment Impact Assessment (EIA) Notification, 2006, and requires appraisal at central level by the sectoral EAC in the Ministry.

9. The ToR for the project was granted on 19th July, 2017, and public hearing was conducted by the State Pollution Control Board on 2nd May, 2018.

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10. The proposal was considered by the Expert Appraisal Committee (Industry-2) in its 39th meeting held during 25-27 July, 2018. The project proponent and their accredited consultant M/s Ultratech, presented the EIA / EMP report as per the ToR. The Committee found the EIA / EMP Report to be satisfactory and complying with the ToR. The Committee has recommended the proposal for grant of environmental clearance.

11. Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-2), the Ministry of Environment, Forest and Climate change hereby accords environmental clearance to the project for setting up **2G Ethanol Bio-Refinery Plant of capacity 100 KLPD** by M/s Hindustan Petroleum Corporation Limited in a total area of 15.1 ha at Village Nasibpura, Tehsil Talwandi Sabo, Bathinda (Punjab), under the provisions of the EIA Notification, 2006, subject to the compliance of terms and conditions as below:-

- (a) The final product (Ethanol) shall be used exclusively for fuel blending only.
- (b) 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.
- (c) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.
- (d) 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.
- (e) 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.
- (f) Total fresh water requirement shall not exceed 1800 cum/day, proposed to be met from canal supply.
- (g) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through a separate conveyance system.
- (h) 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.
- (i) The company shall undertake waste minimization measures as below:-
 - (i) Metering and control of quantities of active ingredients to minimize waste.
 - (ii) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - (iii) Use of automated filling to minimize spillage.
 - (iv) Use of Close Feed system into batch reactors.
 - (v) Venting equipment through vapour recovery system.
 - (vi) Use of high pressure hoses for equipment clearing to reduce wastewater generation.



(j) 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.

(k) All the commitments made regarding issues raised during the public hearing/ consultation meeting shall be satisfactorily implemented.

(l) 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.

(m) 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.

(n) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.

(o) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

(p) 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.

(q) Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.

(r) 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.

(s) CO₂ generated from the process shall be bottled/made solid ice/value added products and sold to authorized vendors.

11.1 The grant of Environmental Clearance is further subject to compliance of other generic conditions as under:-

(i) The project authorities must strictly adhere to the stipulations made by the state Pollution Control Board (SPCB), State Government and/ or any other statutory authority.

(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.



(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 stations each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.

(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 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).

(vi) The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial operations within the plant.

(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.

(viii) The company shall 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, risk mitigation measures and public hearing shall be implemented.

(ix) The company shall undertake all measures for improving socio-economic conditions of the surrounding area. CSR activities shall be undertaken by involving local villagers, administration and other stake holders. Also eco-developmental measures shall be undertaken for overall improvement of the environment.

(x) A separate Environmental Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

(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.

(xii) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zila Parisad/ Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.

(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.

(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 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 <http://moef.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 a copy of the same shall be forwarded to the concerned Regional office of the Ministry.

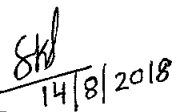
12. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

13. The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 read with subsequent amendments therein.


14/8/2018
(S. K. Srivastava)
Scientist E

Copy to: -

1. The Additional Principal Chief Conservator of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (NZ), Bays No.24-25, Sector 31-A, Dakshin Marg, Chandigarh - 160030
2. The Secretary, Department of Science, Technology & Environment, Government of Punjab, **Chandigarh**
3. The Member Secretary, Central Pollution Control Board, Parivesh Bhavan, East Arjun Nagar, **Delhi** - 32
4. The Member Secretary, Punjab Pollution Control Board, Vatavaran Bhawan, Nabha Road, Patiala, 147001 (Punjab)
5. Monitoring Cell, Ministry of Environment, Forest and Climate Change, **New Delhi**
6. Guard File/Monitoring File/Record File


14/8/2018
(S. K. Srivastava)
Scientist E