

F. No. J-11011/488/2010- IA II (I)
Government of India
Ministry of Environment and Forests
(I.A. Division)

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CGO Complex, Lodhi Road
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Dated 22nd March, 2013

To,

Dr. Ashutosh Gautam, Joint General Manager (Environment)
M/s India Glycols Ltd.
A-1, Industrial Area, Bazpur Road, Kashipur-244713
District Udham Singh Nagar, Uttarakhand

E-mail : ashutosh.gautam@indiaglycols.com; Fax No.: 05947-275315, 275192.

Subject: Production of Ethanol in Lignocellulosic Biomass Pilot Plant (10 MTPD) at A-1, Industrial Area, Bazpur Road, Kashipur, Uttarakhand by M/s India Glycols Ltd. – Environmental Clearance reg.

Ref. : Your letter no. MoEF/AG/EC/IGL/Pilot Plant dated 30th April, 2012.

Sir,

Kindly refer to your letter dated 30th April, 2012 alongwith project documents including Form I, Terms of References, Pre-feasibility Report, EIA/EMP Report alongwith Public Hearing Report regarding above mentioned project.

2.0 The Ministry of Environment and Forests has examined the application. It is noted that proposal is for production of Ethanol in Lignocellulosic Biomass Pilot Plant (10 MTPD) at A-1, Industrial Area, Bazpur Road, Kashipur, Uttarakhand by M/s India Glycols Ltd. Land requirement for the proposed project is 772.00 m², which is proposed to locate within the existing plant area of 7,21,312 m². Total cost of the project is Rs. 10.00 Crore. No national park/wild life sanctuary/biosphere reserve is located within 10 km. Lignocellulosic Biomass Pilot Plant (10 MTPD) will produce 3 KLPD ethanol. Technology is sponsored by DBT-ICT Centre for energy biosciences, Mumbai. Utilities such as boiler, heater and DG set will not be installed and sourced from the existing unit.

3.0 Ammonia vapour will be passed through chilled water for ammonia condensation followed by scrubber. The recovered ammonia will be reused into the process. Total fresh water requirement from ground water source will be 31 m³/day. Spent wash generation will be 24 m³/day. Spent wash will be concentrated in Multi-effect evaporators (MEE) followed by incinerator in the existing plant. No effluent will be discharged outside the factory premises and 'zero' discharge concept will be maintained. Storage capacity for spent wash lagoon will be 5 days. Spent oil will be sold to authorized recyclers/re-processors.

4.0 Public hearing/public consultation meeting was conducted on 2nd April, 2012.

5.0 All non molasses based distillery (<30 KLD) are listed at S.N. 5(g) (ii) under category 'B' and appraised at State level. However, applicability of specific condition due to locations of the project within

10 km of Intestate Boundary of U.P, proposal has been appraised by the Expert Appraisal Committee (I) in the Centre.

6.0 The proposal was considered by the reconstituted Expert Appraisal Committee (Industry) in its 17th and 2nd meetings held during 22nd–23rd December, 2010 and 29th – 31st October, 2012 respectively. The Committee recommended the proposal for environmental clearance.

7.0 Based on the information submitted by the project proponent, the Ministry of Environment and Forests hereby accords environmental clearance to above project under the provisions of EIA Notification dated 14th September 2006, subject to the compliance of the following Specific and General Conditions:

A. SPECIFIC CONDITIONS:

- i) Ethanol production shall be based on Lignocellulosic Biomass.
- ii) As proposed, utilities such as boiler, heater etc shall be sourced from the existing unit.
- iii) Ammonia vapour shall be passed through chilled water for ammonia condensation followed by scrubber. The recovered ammonia shall be reused into the process.
- iv) In plant, control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi-cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored and records should be maintained. The emissions shall conform to the limits imposed by UEPPCB.
- v) The company shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on its website and shall update the same periodically. It shall simultaneously be sent to the Regional office of MOEF, the respective Zonal office of CPCB and the UEPPCB. The levels of PM₁₀, SO₂, NO_x, CO and HC (Methane) in ambient air shall be monitored and displayed at a convenient location near the main gate of the company and at important public places.
- vi) Total fresh water requirement from ground water shall not exceed 31 m³/day and prior permission for drawl of ground water shall be obtained from the CGWA/SGWA.
- vii) Water consumption shall be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.
- viii) Spent wash generation shall not exceed 8 Kl/Kl of alcohol respectively. Spent wash shall be concentrated in MEE followed by incinerator in the existing plant to achieve zero discharge. Effluent generation shall be from fermenter washing and lignin separation, which shall be recycled into process. Water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB and recycle/reuse.
- ix) No effluent from distillery shall be discharged outside the factory premises and 'Zero' effluent discharge concept shall be adopted.
- x) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.

- xi) Spent wash should be stored in impervious lagoon with HDPE lining as per CPCB guidelines and should be kept in proper condition to prevent ground water pollution. Storage capacity of spent wash lagoon should be for 5 days.
- xii) Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area shall be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and total dissolved solids shall be monitored and report submitted to the Ministry's Regional Office at Lucknow and UEPPCB.
- xiii) Fire fighting system shall be as per the norms and cover all areas where alcohol is produced, handled and stored. Provision of foam system for fire fighting shall be made to control fire from the alcohol storage tank.
- xiv) Occupational health surveillance programme shall be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre shall be strengthened and the regular medical test records of each employee shall be maintained separately.
- xv) All the commitment made regarding issues raised during the public hearing/consultation meeting held on 2nd April, 2012 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xvi) The Company shall harvest rainwater from the roof-tops of the buildings and storm water drains to ensure sufficient ground water recharge.
- xvii) Provision shall be made for the housing for the construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structure to be removed after the completion of the project. All the construction wastes shall be managed so that there is no impact on the surrounding environment.

B. GENERAL CONDITIONS:

- i. The project authorities shall strictly adhere to the stipulations made by the UEPPCB and the State Government.
- 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.
- iii. The locations of ambient air quality monitoring stations shall be decided in consultation with the UEPPCB 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.
- 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).

- v. The Company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 and its amendment time to time and prior permission from UEPPCB shall be obtained for disposal of solid / hazardous waste including boiler ash.
- 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 drains.
- vii. Usage of Personnel Protection Equipments by all employees/ workers shall be ensured.
- 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.
- ix. The company shall also comply with all 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.
- x. The company shall undertake CSR activities and all relevant measures for improving the socio-economic conditions of the surrounding area.
- xi. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- 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.
- xiii. The company shall earmark sufficient fund 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.
- xiv. A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, ZilaParisad/Municipal Corporation, Urban local Body and the local NGO, if any, from who suggestions/ representations, if any, were received while processing the proposal.
- 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 UEPPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
- xvi. The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the UEPPCB 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.

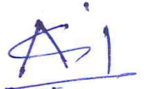
xvii. The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry at <http://moef.nic.in>. This shall be advertised within 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.

xviii. 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.

8.0 The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

9.0 The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions.

10.0 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 Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules.



(A.N. Singh)
Dy. Director (S)

Copy to :-

1. Secretary, State Department of Environment, Government of Uttaranchal, Dehradun, Uttaranchal
2. The Chief Conservator of Forests, Regional Office (Central Zone, Lucknow), Kendriya Bhavan, 5th Floor, Sector-H, Aliganj, Lucknow-226024 .
3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
4. The Member Secretary, Uttaranchal Environment Protection & Pollution Control Board, Paryavaran Bhawan, E-115, Nehru Nagar Colony, Dehradun, Uttaranchal.
5. Adviser, IA II(I), Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
6. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
7. Guard File/Monitoring File/Record File



(A.N. Singh)
Dy. Director (S)