



# INDIA GLYCOLS LIMITED



Works & Registered Office : A-1, Industrial Area, Bazpur Road, Kashipur - 244713, Distt. Udham Singh Nagar (Uttarakhand)  
Tel. No.: +91 5947 269000 / 269500 / 275320, +91 9411108202, Fax No.: +91 5947 275315, 269535  
Website : www.indiaglycols.com

Ref: AG/MoEF & CC/EC COMP/LIGNO/2019/02

Dated: November 28<sup>th</sup>, 2019

To,

**Dr. S.C. Katiyar, Scientist 'E', GOI  
Ministry of Environment, Forest & Climate Change  
Regional Office (North Central Zone)  
25, Subhash Road, Dehradun - 248001**

**Subject: Six Monthly Compliance Report of the Conditions of Environmental Clearance for  
Production of Ethanol in Lignocellulosic Biomass based Pilot Plant (10.0 MTPD).**

Dear Sir,


Please find enclosed herewith the Compliance Report of the Conditions of Environmental Clearance for Production of Ethanol in Lignocellulosic Biomass based Pilot Plant (10 MTPD) at A - 1, Industrial Area, Bazpur Road, Kashipur, District - Udham Singh Nagar, Uttarakhand by M/s India Glycols Limited for the Period of April, 2019 to September, 2019 along with dully filled Data - Sheet.

We assure you that we are complying with all the conditions stipulated in the EC given by Ministry of Environment, Forests & Climate Change, New Delhi.

We hope that the given data would be sufficient to meet the requirement.

Thanking You,

Yours Faithfully  
for M/s INDIA GLYCOLS LIMITED

  
(Dr. Ashutosh Gautam)  
Head (Environment)



Encl.: Compliance Report for the Period of April, 2019 to September, 2019

CC: CPCB, Zonal Office (North), PICUP Bhawan, Vibhuti Khand, Gomti Nagar, Lucknow  
226010  
UEPPCB, "Goura Devi Paryavaran Bhawan", 46 B, I.T. Park, Sahastradhara Road  
Dehradun - 248001, Uttarakhand

CORPORATE OFFICE : 3A, Shakespeare Sarani, Kolkata - 700071, Phone : +91 33 22823586 Fax : +91 33 22823585

HEAD OFFICE : Plot No. 2-B, Sector -126, NOIDA-201304, Distt. Gautam Budh Nagar, Uttar Pradesh, Tel. : +91 120 6860000, 3090100, 3090200  
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CIN : L24111UR1983PLC009097

M/s INDIA GLYCOLS LIMITED

**Name of the Project: Production of Ethanol in Lignocellulosic Biomass based Pilot Plant (10 MTPD) at A – 1 Industrial Area, Bazpur Road, Kashipur, Distt. Udham Singh Nagar, Uttarakhand.**

**Clearance Letter No: J-11011/488/2010-IA II (I) Dated 22.03.2013**

**Period of Compliance Report: April, 2019 to September, 2019**

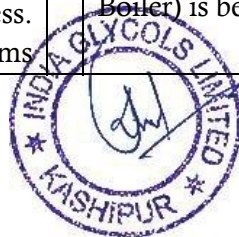
ENVIRONMENTAL CLEARANCE COMPLIANCE REPORT


SPECIFIC CONDITIONS:

Sl. No.	Conditions	: Compliance Status
i.	Ethanol Production shall be based on Lignocellulosic Biomass.	: Any one of the Agricultural Waste i.e. Lignocellulosic Biomass which may be Rice Straw, Wheat Straw, Bagasse, or Grasses (10.0 MT/day) is being used for Ethanol production through Pilot Plant.
ii.	As proposed, Utilities such as Boiler, Heater etc. shall be sourced from existing Unit.	: Steam requirement (36.0 MT) for the Pilot plant is being imported from the existing plant; therefore no additional air pollution takes place from the Pilot Plant.
iii.	Ammonia vapour shall be passed through chilled water for ammonia condensation followed by scrubber. The recovered ammonia shall be reused into the process.	: Treated biomass slurry is heated up to 180°C in presence of ammonia solution where biomass slurry goes for filtration & its vapours is being pass through chiller for ammonia condensation followed by scrubbing. The condensed or recovered ammonia is being 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	: Plant has been equipped with closed storage, closed handling & conveyance of Chemicals / material. Water sprinkling has been adopted for dust suppression, if required.



	separator & 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 material storage areas etc. shall be regularly monitored & records should be maintained. The emissions shall confirm to the limits imposed by UEPPCB.	No fugitive emissions in the work zone.
v.	The company shall upload the status 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 PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>x</sub> , 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.	: Agreed & Six Monthly Compliances Reports are being submitted to the respective Offices regularly.  Photo copy of ambient air quality monitoring report is enclosed as ( <u>Annexure – I</u> ).
vi.	Total fresh water requirement from ground water shall not exceed 31 m <sup>3</sup> /day and prior permission for drawl of ground water shall be obtained from CGWA/SGWA.	: Requirement of fresh water is being fulfilled by the existing sources i.e. borewell. Permission for withdrawal of ground water from CGWA is attached as ( <u>Annexure – II</u> )
vii.	Water consumption shall be reduced by adopting 3 R's (Reduce, reuse and recycle) concept in the process.	: It is being adopted. Steam Condensate is being reuse into the Process, while Fermenter washing is being recycled into 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	: Agreed, Effluent generated from fermenter washing and lignin separation, is being recycled into process.  Existing facility for effluent treatment (MEE followed by Slop Boiler) is being utilized for achieving Zero discharge.



	prescribed by CPCB/SPCB and recycle/reuse.	
<b>ix.</b>	No effluent from distillery shall be discharged outside the factory premises and 'zero' effluent discharge concept shall be adopted.	: We have maintained ZLD.
<b>x.</b>	Process effluent / any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.	: Process effluent / any waste water are being handled separately by closed pipeline.
<b>xi.</b>	Spent wash should be stored in impervious lagoon with HDPE lining as per CPCB guidelines and should be kept in proper condition should be for 5 days.	: Spent wash is being concentrated in MEE followed by incinerator in the existing plant to achieve zero discharge. Existing storage facility is being utilized.
<b>xii.</b>	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 basis and report submitted to SPCB and this ministry. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphates and total dissolved solids shall be monitored and report submitted to the ministry's regional office at Lucknow and UEPPCB.	: Ground water quality monitoring is being done by providing piezometers and Sampling / trend analysis monitoring is being done.  Ground Water Monitoring Reports are being submitted to the respective offices and enclosed as - <b><i>(Annexure – III)</i></b>
<b>xiii.</b>	Fire fighting system shall be as per the norms and cover all areas where alcohol is produced, handed and stored, Provision of foam system for firefighting shall be made to control fire from the alcohol storage tank. 	: Fire fighting system has been installed & maintained as per the norms. Fire Hydrants / Extinguishers are installed at strategic points all over the premises, checked at regular intervals and records are maintained. Training / Awareness program on safety for each employee is being conducted on regular basis. On-site preparedness plan is already in place. Periodically mock drills are being done also.
<b>xiv.</b>	Occupational health surveillance programme shall be	: First aid facilities have been provided for the Staff Personals.

	undertaken as regular exercise for all the employees. The first aid facilities in the occupational health center shall be strengthened and the regular medical test records of each employee shall be maintained separately.		One vehicle is always on standby for instant mobilization during emergency. The workers have been provided with the training for the First aid measures in case of accident. Medical check-up of the workers is being done periodically.
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.	:	Agreed.
xvi.	The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to ensure sufficient ground water recharge.	:	Roof top rain water harvesting has been implemented by the Industry and a natural pond is also available in the premises for recharge the ground water. Piezometer is also installed to monitor the ground water level. <i>(Annexure – IV)</i>
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 structures 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.	:	All the measures were adopted during Construction Phase.


**GENERAL CONDITIONS:**

i.	The project authorities shall strictly adhere to the stipulations made by the UEPPCB and the State Government.	:	We are strictly complying with all the stipulation made by UEPPCB in the CCA. <i>(Annexure – V)</i>
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	:	Further Expansion or Modifications in the Plant will not be carried out without prior approval of the Ministry of Environment, Forests & Climate Change (MoEF & CC).

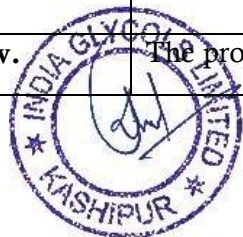


	Clearance, a fresh reference shall be made to the ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	
iii.	The locations of ambient air quality monitoring stations shall be decided in consultation with the UEPPCB and it shall be ensured that at least one station is installed in the upwind and downwind direction as well as where maximum level concentration are anticipated.	: Location for ambient air quality monitoring has been already decided in consultation with SPCB, to monitor SPM, SO <sub>2</sub> , NO <sub>x</sub> , in the up wind & downwind direction as well as where maximum ground level concentrations are anticipated. ( <u>Annexure – VI</u> )
iv.	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise controls 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 viz. 75 dBA (day time) and 70 dBA (night time).	: All the measures have been implemented to keep noise levels in and around factory premises within the permissible norms. Noise monitoring is done by EMC/ F&S. Company has provided all the noise control measures including Acoustic Hoods, Silencers, Enclosures and green belt etc. Noise level at Plant Site is enclosed as – ( <u>Annexure –VII</u> )
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.	: No Hazardous waste generation takes place during the Process.
vi.	During transfer of materials, spillages shall be avoided and gullies drains be constructed to avoid mixing of accidental spillages with domestic wastewater and storm water drains.	: Agreed.
vii.	Usage of Personnel Protection Equipment's by all employees / workers shall be ensured.	: Company ensures that all employee / workers use PPEs. Safety PPEs such as Helmets, Safety Boots, Hand Gloves, Mask, Goggles and Apron are provided while dealing with the Raw Materials / Product.



<p><b>viii.</b></p>	<p>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.</p>	<p>:</p> <p>For safe Storage, Handling &amp; use of Chemicals following measures are being adopted:-</p> <ul style="list-style-type: none"> <li>▪ Training / Awareness program on safety for each employee is being conducted on regular basis.</li> <li>▪ On-site preparedness plan is already in place.</li> <li>▪ Fire Extinguishers are installed at strategic points all over the premises, checked at regular intervals and records are maintained.</li> <li>▪ First aid facilities have been provided for the Staff Personals.</li> <li>▪ One vehicle is always on standby for instant mobilization during emergency.</li> <li>▪ The workers have been provided with the training for the First aid measures in case of accident.</li> <li>▪ Medical check-up of the workers is being done periodically.</li> </ul>
<p><b>ix.</b></p>	<p>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.</p>	<p>:</p> <p>All the environmental protection measures as proposed in the Project Report have been implemented &amp; recommendations for environmental management and risk mitigation have been implemented also. To ensure the public safety, Company has already taken Public Liability Insurance. <u>(Annexure –VIII)</u></p>
<p><b>x.</b></p>	<p>The company shall undertake CSR activities and all relevant measures for providing the socio economic conditions of the surroundings area.</p> <div style="text-align: center;">  </div>	<p>:</p> <p>The Company's Directors and Employees contribute time and resources to the Company's various CSR initiatives. <u>(Annexure – IX)</u></p> <p>IGL is actively involved to render the CSR activities in the surrounding areas for Health, Education, Community Welfare &amp; Environment. Periodic assessment of the implemented schemes is being carried out also to assess the success of such schemes.</p>

xi.	The company shall undertake eco-development measures including community welfare measures in the project area for the overall improvement of the Environment.	: The company has undertaken various eco-developmental measures such as: <ul style="list-style-type: none"> <li>▪ Free Medical Assistance.</li> <li>▪ Free distribution of Medicine.</li> <li>▪ Organizing Blood donation Camps.</li> <li>▪ Facilitating Tree Plantation.</li> <li>▪ Facilitating the construction of Roads, Bridges and Drains.</li> <li>▪ Installing Street Lamps and Hand Pumps for drinking water in areas around the Company's facilities</li> </ul>
xii.	A separate environment Management Cell equipped with full-fledged laboratory facilities shall be set up to carry out the Environment Management and Monitoring Functions.	: The management has a clear environmental policy. The Unit is already having Environmental Management Division headed by the Environment Experts. Separate environmental Management Division is already working as per details given in ( <i>Annexure – X</i> ).
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.	: Sufficient funds have been arranged by the management as per the requirement to implement the conditions stipulated by MoEF & CC & SPCB. In addition recurring funds are allocated every year to meet the requirement of running plant effectively. Wherever funds required, are easily available.
xiv.	A copy of the 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 who suggestions / representations, if any were received while processing the proposal.	: A copy of the Clearance Letter has been already sent by the proponent to all the concerned authorities.
xv.	The project proponent shall also submit six monthly reports on	: We are regularly submitting the status of compliance of the





	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 the environmental clearance and six monthly compliance status report shall be posted on the website of the company.		stipulated Environmental clearance conditions including results of monitored data.
<b>xvi.</b>	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.	:	Agreed.
<b>xvii.</b>	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 advertisement within seven days from the date of issue of the clearance letter, at least in two local newspaper 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.	:	Information about Environmental Clearance has been already published.  <i>(Annexure – XI)</i>
<b>xviii.</b>	The project authorities shall inform the regional Office as well as the Ministry, the date of financial closure and the final approval of the project by the concerned authorities and the date of start of the project.	:	We have already informed to the concerned authorities with the relevant informations.

