



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-Ethanol/2019/02

Dated: November 28th, 2019

To,

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

Subject: Six Monthly Compliance Report of the Conditions of Environmental Clearance for Expansion of Distillery Unit by M/s India Glycols Limited at A – 1, Industrial Area Bazpur Road, Kashipur, District Udham Singh Nagar, Uttarakhand.

Dear Sir,

Please find enclosed herewith the Compliance Report of the Conditions of Environmental Clearance for the Expansion of Distillery Unit at A – 1, Industrial Area, Bazpur Road, Kashipur, District – Udham Singh Nagar, Uttarakhand by M/s India Glycols Limited for the Period April, 2019 to September, 2019 along with dully filled Data – Sheet.

We assure you that we are complying with all the conditions as stipulated in the EC accorded by Ministry of Environment & Forests, GOI, 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

Himal
02/12/19

PROJECT CODE: UTK-1-1-2004

Name of the Project: Ethanol Plant (Capacity - 425 KL/Day) of M/s India Glycols Limited.

Clearance Letter No: J-11011/219/2003-IA.II DATED 24.06.2004 & J-11011/219/2003-IA11 (1) DATED 11.07.2006Period of Compliance Report: April, 2019 to September, 2019

SPECIFIC CONDITIONS:

S. No.	CONDITIONS	:	COMPLIANCE STATUS
1).	Out of 425 KLPD Distillery Unit, capacity for the Molasses based is 325 KLPD and Cane Juice based is 100 KLPD.	:	Alcohol production from Molasses - 157.00 KLPD Alcohol production from Cane Juice - NIL Details of Month wise production is enclosed as <u>Annexure - I</u>
2).	Total effluent generation with the approved scheme without reboiler is 4600 m ³ /d, of which 3900 m ³ /d is from the molasses based route and 700 m ³ /d from cane juice process. Effluent generation after installation of RO plant is 3880 m ³ /d. Out of 3880 m ³ /d of effluent generation, 1960 m ³ /d are utilized for ferti-irrigation and remaining 1920 m ³ /d are composted with press mud. With the present approved scheme, 51% of effluent is treated by ferti-irrigation and 49% by bio-composting.	:	NA
3).	Effluent generation after reboiler from the molasses based operation will be 3250 instead of 3900 m ³ /d. The effluent from the cane juice based will be 700 m ³ /d, thus total effluent generation after installation of re-boiler will be 3950 m ³ /d. Total effluent generation after installation of RO will be 3650 m ³ /d. With the	:	Effluent generation - 1287.44 MT/day Utilization in RO - 0.00 % Utilization in Evaporator - 100.00 % Utilization in Bio composting - 0.00 % Details as per <u>Annexure - II</u>




	revised effluent treatment scheme, total effluent generation from molasses and cane juice would be 3650 m ³ /d i.e. 2950 m ³ /d from molasses based route and 700 m ³ /d from cane juice based route. Out of 3650 m ³ /d of effluent generation, 1800 m ³ /d will be concentrated in evaporator, 1100 m ³ /d will be used for ferti-irrigation and 750 m ³ /d for bio-composting. The revised scheme envisages evaporation of spent wash (49%), utilization of effluent for ferti-irrigation (30%) and bio-composting of spent wash (21%).		
4).	The Industry should ensure that the treated effluent and stack emissions from the unit are within the norms stipulated under EPA rules or SPCB, which is more stringent. In case of process disturbance / failure of pollution control equipments adopted by the unit, the respective unit should be shutdown and should not be restarted until the control measures are rectified to achieve the desired efficiency.	:	<p>Steam is being sourced from Slop fired Boiler (Capacity- 50.0 TPH).</p> <p>We are achieving ZLD through MEE & Incineration Boiler.</p> <p>Stack emission monitoring report is attached as <u>Annexure - XI</u></p>
5).	The company shall adopt batch type and continuous fermentation technology. Out of the expanded capacity of 220 KLD, 120 KLD shall be manufactured from molasses and 100 KLD from cane juice.	:	See Clarification of Sr. No. 1
6).	The quantity of spent wash generated from expanded capacity of 220 KLD shall not exceed 2140 m ³ /d (1440 m ³ /d from manufacture of 120 KLD of alcohol from molasses, and 700 m ³ /d from manufacture of 100 KLD of alcohol from cane juice). Out of the 2140 m ³ /d of effluent generated, 1440 m ³ /d of effluent after primary treatment (biomethanation), shall be processed through reverse osmosis, and 50 % of the clear effluent recovered (i.e. 720 m ³ /d) shall be recycled to the process. The remaining 720 m ³ /d	:	<p>NA.</p> <p>See Clarification of Sr. No. 3</p>



	from reverse osmosis shall be stored in a dedicated storage lagoon for RO reject and used for biocomposting. Spentwash storage shall not be for more than 30 days. The entire effluent from cane juice process (i.e. 700 m ³ /d which is equivalent to 59 KLD of molasses based distillery) shall be treated by secondary aerobic treatment. The treated effluent shall be stored in a separate lagoon, and used for ferti-irrigation.		
7).	The company shall achieve zero discharge for the existing distillery capacity of 205 KLD by December 2005, by under taking ferti-irrigation and bio composting, in accordance with the action plan submitted in the affidavit by the company on 22.4.04 to this ministry.	:	Zero discharge achieved through MEE & Incineration.
8).	The company shall earmark a separate area of 40 acres of land for existing capacity and 21 acres for augmented capacity, for biocomposting, on the basis of 1250 MT/press mud/acre/cycle, as per the action plan submitted in the affidavit. The quality of manure produced shall meet the CPCB norms.	:	Bio composting is not in Operation.
9).	The company shall follow CPCB protocol for ferti-irrigation, and shall accordingly arrange for land requirement of 2344 acres for existing capacity, and 1317 acres for expanded capacity, for ferti-irrigation, as per the action plan submitted in the affidavit. The effluent to be used for ferti-irrigation shall meet the CPCB norms of BOD < 100 mg/L and TDS < 2100 mg/L.	:	Company has stopped controlled land application.
10).	The company shall monitor the soil and ground water quality in the compost and project area on a regular basis and submitted half-yearly reports to SPCB and the Ministry.	:	The soil & ground water quality is being monitored regularly. The reports are being submitted regularly. (Annexure - III)



11).	The distillery shall not be operated for more than 330 days for molasses route, and 240 days for cane juice process, considering that alcohol is produced for captive consumption for production of specialty chemicals.	:	The distillery is being operated as per the directions.
12).	In the event of non-availability/less availability of press mud for bio composting, the company shall ensure zero discharge by adopting either of these measures (a) installing additional RO units; (b) by increasing alcohol production from cane juice process and reducing alcohol production from molasses route; and (c) by increasing ferti-irrigation only for cane juice process. If the company is unable to achieve zero discharge by adopting these measures, the company shall reduce alcohol production proportionately.	:	Presently, we are achieving zero liquid discharge through Evaporation (MEE) and incineration boiler (equivalent to 240 KLPD distillery capacity).
13).	The company shall modify the existing anaerobic digesters and rectify the shortfalls in secondary treatment plant.	:	Anaerobic Digesters are operated on a low feed rate (8-10 m ³ /hr). Biogas is being used as blast gas in MEG process.
14).	As reflected in the EIA/EMP, green belt of adequate width and density shall be provided to mitigate the effects of fugitive emissions all around the plant as per the CPCB guidelines in consultation with the local DFO. 	:	Green belt has been developed more than 33% of the land area & it being strengthened regularly by planting new saplings. Approx. 100000 plants have been planted in existing land. The species planted are as per directions of local DFO. No fugitive emissions from the plant. We are regularly assessing the survival rate of the planted saplings & are planting new saplings on regularly basis in consultation with local DFO. Survival rate of the Plants is observed as 80 - 90%. <u>(Annexure - IV)</u>
15).	Occupational health surveillance programme shall be undertaken as a regular exercise for all the employees and their medical	:	Occupational health surveillance programme is under practice.

	records maintained.		
16).	The company shall not commence production for the expanded capacity till a Sub-Committee visits the unit to ensure that all systems, as stipulated to achieve zero discharge, are in place.		A Sub-Committee comprising Sh. R.K. Garg, Dr. P.L. Ahujarai, Sh. B.P. Shukla & Sh. Purshotam Sakhare visited the site on 26-27 May 2006 to ensure that all systems, as stipulated to achieve zero discharge, are in place.

GENERAL CONDITIONS:

S. No.	CONDITIONS	:	COMPLIANCE STATUS
1).	The project authorities must strictly adhere to the stipulations made by the Uttaranchal Pollution Control Board and the State Government.	:	IGL is strictly following the stipulations made by UEPPCB. Air/Water consent for Ethanol plant for the period April 2018 - March 2023 was granted by UEPPCB, Dehradun. We are quarterly submitting the CCA compliance report. <u>(Annexure - V).</u>
2).	No further expansion or modifications in the plant should be carried out with out prior approval of the Ministry of Environment and Forests.	:	No further expansion will be carried out with out prior approval of MoEF & CC.
3).	Ambient Air Quality Monitoring Station should be set up in the down wind directions as well as where maximum ground level concentration of SPM, SO ₂ , NO _x are anticipated in consultation with the State Pollution Control Board	:	Ambient Air Quality Monitoring Stations are set up in consultation with the State Pollution Control Board and regular monitoring is being carried out. <u>(Annexure - VI)</u>
4).	Adequate Number of influent and effluent quality monitoring stations should be set up in consultation with State Pollution Control Board. Regular monitoring should be carried out for	:	Achieving ZLD.



	relevant parameters.		
5).	The overall noise levels in and around the plant area should be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures, etc. on all the sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA rules, 1989 (ie) 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 being done regularly by EMC/ F&S. <u>(Annexure - VII)</u>
6).	The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA report.	:	All the environmental protection measures and safeguards recommended in the EIA Report have been implemented. <u>(Annexure - VIII)</u>
7).	A separate environment management cell equipped with full fledged laboratory facilities must be set up to carry out the environmental management and monitoring functions. The project authorities will provide adequate funds both recurring and non recurring 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 provided should not be diverted for any purpose.	:	Separate Environment Management Division is already in functional. <u>(Annexure - IX)</u> . So far ₹ 140.57 Crores spent as capital expenditure to implement the stipulated conditions. In addition recurring funds are allocated every year to meet the requirement of running plant effectively. Wherever funds required, are easily available. Public liability insurance is attached as per <u>(Annexure - X)</u>
8).	The implementation of the project vis-à-vis environmental action plans will be monitored by Ministry's Regional Office at Lucknow/ State Pollution Control Board, Central Pollution control Board. A six monthly compliance status report along with the monitoring data should be submitted to the monitoring agencies.	:	Last Site inspection was carried out on 31 st July, 2019 by Dr. S.C. Katiyar, Scientist E, GOI, MoEF & CC, Regional Office North-Central Zone, 25, Subhash Road, Dehradun. Regular compliance status report is being submitted to RO, MoEF & CC.



9).	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 State Pollution Control Board/Committee and may also be seen at website of the Ministry of Environment & Forests at http://envfor.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 Regional Office.	:	NA
10).	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 land development work.	:	NA



COMPLIANCE OF CONDITIONS UNDER ENVIRONMENT MANAGEMENT PLAN OF EIA

Point No. 1

Compliance to protocol for utilization of distillery effluent is being strictly followed.

Point No. 2

Green belt development is in progress. More than 100000 plants have been planted so far in existing land, covering an area of 25.0 ha at site and 10.0 ha at Dabhora Storage lagoon land. In the coming season more saplings will be planted.

Point No. 3

Monitoring of stacks for NO_x, SO₂ and SPM is being done regularly on monthly basis. Analysis reports are enclosed as **(Annexure – XI)**.

Regular AAQ monitoring for No_x, SO₂ and PM_{2.5} & PM₁₀ at five locations are being done regularly on monthly basis by EMD & quarterly through MoEF approved Laboratory. Analysis reports are attached as **(Annexure – VI)**.

Monitoring of ground water quality at dabhora storage lagoon is done regularly on monthly basis. Analysis report is attached as **(Annexure - III)**

Point No. 4

The management has a clear environmental policy. The Unit is already having environmental management Division headed by the Environment experts & safety cell headed by the safety experts. To ensure the public safety, the company has already taken public liability insurance of 5.0 Crores. A copy of the sum is enclosed as **(Annexure – X)**.

Point No. 5

A full flanged NABL accredited environmental laboratory is already working with all the facilities & equipment's.

Point No. 6

At the end of every financial year environmental audit statement is prepared by the Environment Management Division & submitted to Uttarakhand Environment Protection & Pollution Control Board.

