



Ref.: ABRPL/SECC/19/2020-21

Date: 16<sup>th</sup> December 2020

To  
**The Conservator of Forests (C)**  
Ministry of Environment, Forest and Climate Change  
North Eastern Regional Office  
Near MTC Central Workshop,  
Law-u-sib, Lumbatengen,  
SHILLONG -79 30 21

Sub: **Submission of Half Yearly Compliance report on Environment Stipulation of EC during the period April' 2020 to September' 2020 for Bio Refinery (Bamboo based Ethanol Project).**


Ref. No: F. No. J-11011/274/2015-IA II (I) dated 19<sup>th</sup> November 2019

Dear Sir,

Kindly find enclosed herewith the point wise Half Yearly Compliance Status for the period April' 2020 to September' 2020, pertaining to the conditions of EC for Bio Refinery (Bamboo based Ethanol Project), ABRPL vide letter No F.No.J- 11011/274/2015-IA II (I) dated 19 Nov, 2019 from MoEF& CC.

Thanking You,

Yours faithfully

  
Mohd. Zaffar Rizwani  
(Company Secretary)  
Assam Bio Refinery Private Limited

Encl.: As above



**C.C.to:**

1. **Central Pollution Control Board:** Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi, Delhi 110032.
2. **Assam State Pollution Control Board:** Milanpur, West Jyotinagar, Bamunimaidan, Guwahati, Assam 781004,
3. **Golaghat Regional Pollution Control Board:** Regional Office, Pollution Control Board, Assam College Tinali, Near Circiut House, Golaghat, PIN: 785621.

**COMPLIANCE STATUS ON THE CONDITIONS OF ENVIRONMENTAL CLEARANCE FOR SETTING UP BAMBOO BASED ETHANOL PROJECT OBTAINED VIDE LETTER F.NO. J-11011/274/2015-IA II (I) DATED 19<sup>TH</sup> NOVEMBER 2019 FROM MOEF&CC, NEW DELHI**

Sr. No.	Special Conditions	Remarks as on date status
10 (a)	The final product shall be used only as a bio-fuel and not at all for human consumption	Noted the final product bio-fuel shall be used for blending with petrol.
10 (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.	The Consent to Establish (CTE) was received from ASPCB dated 25 Jan 2019.
10 (c)	As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged.	Noted for Compliance.
10 (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.	Noted for Compliance.
10 (e)	National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608 (E) dated 21st July, 2010 and amended from time to time shall be followed.	Noted for Compliance.
10 (f)	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 for Compliance.
10 (g)	<p>Solvent management shall be carried out as follows:</p> <ol style="list-style-type: none"> <li>I. Reactor shall be connected to chilled brine condenser system.</li> <li>II. Reactor and solvent handling pump shall have mechanical seals to prevent leakage.</li> <li>III. The condenser shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.</li> <li>IV. Solvents shall be stored in a separate space specified with all safety measures.</li> <li>V. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.</li> <li>VI. Entire plant shall be flame proof. The solvent storage tanks shall be provided with breath valve to prevent losses.</li> </ol>	Noted for Compliance.



	VII. All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.	
10 (h)	Total fresh water requirement shall not exceed 2224 cum/day. Prior permission shall be obtained in this regard from the concerned regulatory authority.	Noted for Compliance.
10 (i)	Process effluent/any waste water shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.	Noted for Compliance.
10 (j)	Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys, etc. Flame arrester shall be provided on tank farm and the solvent transfer through pumps.	Noted for Compliance.
10 (k)	Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.	Noted for Compliance.
10 (l)	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 for Compliance.
10 (m)	Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust should be avoided.	Noted for Compliance.
10 (n)	The company shall undertake waste minimization measures as below: <ul style="list-style-type: none"> <li>i. Metering and control of quantities of active ingredients to minimize waste.</li> <li>ii. Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.</li> <li>iii. Use of automated filling to minimize spillage.</li> <li>iv. Use of Close Feed System into batch reactors.</li> <li>v. Venting equipment through vapor recovery system.</li> <li>vi. Use of high pressure hoses for equipment clearing to reduce wastewater generation.</li> </ul>	Noted for Compliance.
10 (o)	The green belt of at least 10m 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. As many as 25000 trees to be planted per year during first five years. Selection of Plant species	Noted for Compliance.



	shall be as per the CPCB guidelines in consultation with the State Forest Department.	
10 (p)	All the commitment made regarding issues raised during the Public Hearing/Consultation meeting held on 15 July, 2017 shall be satisfactory implemented.	Being Complied.
10 (q)	At least 2.5% of the total project cost shall be allocated for Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry Regional Office.	Noted for Compliance.
10 (r)	For the DG sets, emission limits and the stack height shall be in conformity with the extent regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.	The project is in under construction. There is no usage of DG sets for construction power.
10 (s)	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 for Compliance
10 (t)	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.	The project is in under construction. The Occupational health surveillance of the workers is undertaken as per BOCW norms.
10 (u)	Continuous online (24x7) monitoring system for stack emission 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. In case of the treated effluent to be utilized for irrigation/gardening, real time monitoring system shall be installed at the ETP outlet.	Noted for Compliance.
<b>S.NO</b>	<b>General Conditions</b>	<b>Remarks as on date status</b>
10 (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.	Being Complied.
10 (ii)	No further expansion or modification in the project shall be carried out without prior approval from the Ministry. 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 environment protection measures required if any.	Noted for Compliance.



10 (iii)	The locations of ambient air quality monitoring stations shall be decided in consultation with the SPCB and it shall be ensured that at least one stations is installed in the upwind and downwind direction as well as where maximum ground level concentration are anticipated.	The locations of ambient air quality monitoring stations is decided in consultation with ASPCB officials in April 2019.
10 (iv)	The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826 (E) date 16th November, 2009 shall be complied with.	Noted for Compliance
10 (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 PAR ules, 1 989 viz. 75 dBA( day time) and 70 dBA (night time).	Noted for Compliance.
10 (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.	Noted for Compliance.
10 (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 for compliance. Pre-employment and routine periodical medical examinations for all employees is undertaken as per BOCW norms.
10 (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.	Noted for Compliance.
10 (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.	Noted for Compliance.
10 (x)	A separate Environmental Management Cell equipped with full-fledged laboratory facilities must be setup to carry out the environmental management on monitoring functions.	Noted for Compliance.
10 (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 and Forests as well as the State Government along with the	Noted for Compliance.



	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.	
10 (xii)	A copy of clearance letter shall be sent by the proponent to concern Panchayat/Zila Parishad/Municipal Corporation/Urban Local Body and the local NGO if any, from whom suggestion/representation if, any, were received while processing the proposal.	Being Complied.
10 (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.	Being Complied. Six monthly report on status of compliance of the stipulated environmental conditions including the results of monitored data report submitted to MoEF&CC, the respective Zonal office of CPCB and SPCB and posted in company website.
10 (xiv)	The environmental statement for each financial year ending 31 <sup>st</sup> March in Form-V as is mandated to be submitted by the project proponent 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 conditions and shall also be sent to the respective Regional Offices of the MoEF by e-mail.	Being Complied.
10 (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 locally concerned and a copy of the same shall be forwarded to the Regional Office of the Ministry.	Being Complied. Public notice was published on 18.11.2017 in Dainik Janambhumi Pratidin, Assam Tribune and Sentinel. Copy of the notice published sent to MoEF RO on 29.11.2017



Report No.: ENV/ABRPL/EM/20-21/A-01  
Date : 19/09/2020

Order No.: Verbal  
Date : 03/09/2020

**ASSAM BIO REFINERY PRIVATE LIMITED**  
Numaligarh, Dist. – Golaghat (Assam)

### AMBIENT AIR QUALITY TEST RESULTS

Sl. No.	LOCATION(S) ↓	Date of Sampling	PM 2.5 (µg/m <sup>3</sup> )	PM 10 (µg/m <sup>3</sup> )	SO <sub>2</sub> (µg/m <sup>3</sup> )	NO <sub>2</sub> (µg/m <sup>3</sup> )
	LIMIT(S) →	---	60	100	80	80
01	Near Labour Rest Shed (ABRPL Project Campus West Side)	11.09.2020	30.4	77.9	6.3	10.8
02	Near Electric Sub-Station (ABRPL Project Campus East Side)	11.09.2020	27.6	71.4	5.6	9.2
03	Near Rajabari Village (ABRPL Project Campus North Side)	12.09.2020	21.8	58.7	4.1	7.9

Analysis Protocol: IS 5182



Checked By: Mr. Pankaj Baroi, ENVIROCON

**NOTE:**

1. Results reported are valid at the time of and under the prevailing conditions of measurement.
2. Results refer only to the particular parameters tested.
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**Core Services:** Environmental Monitoring & Data Generation, EIA & EMP, Environmental Audit & Allied Environmental Management jobs  
**Associate Services:** Certification by Competent Person (CIF), NDT, Hydraulic Testing, Chartered Engineer Services etc.

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**ASSAM BIO REFINERY PRIVATE LIMITED**  
Numaligarh, Dist. – Golaghat (Assam)

### **NOISE LEVEL MEASUREMENT RESULTS**

Sl. No.	Location(s)	Date Of Measurement	Result(s) (Day Time)		Result(s) (Night Time)	
			$L_{eq}$ (dB-A)	Limit (dB-A)	$L_{eq}$ (dB-A)	Limit (dB-A)
1	Near Piling Job of Tank Stand Area at ABRPL Project Site (South- West Side)	11.09.2020	71.5	75	57.3	70
2	Near Piling Job of Tank Stand Area at ABRPL Project Site (East Side Near Sub-Station)	11.09.2020	72.6	75	58.7	70
3	Near Rajabari Village (ABRPL Project Campus North Side)	12.09.2020	61.4	75	44.6	70



Checked By: Mr. Pankaj Baroi, ENVIROCON

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**ASSAM BIO REFINERY PRIVATE LIMITED**  
Numaligarh, Dist. – Golaghat (Assam)

### GROUND WATER ANALYSIS RESULTS

Sample Ref. No. : ABRPL/2020/DW-1209/01  
Collected On : 12-09-2020

Sample Source : Deep Tube Well, ABRPL  
Received On : 14-09-2020

Sample Type : Ground Water  
Collected By : ENVIROCON & Client

Sl. No.	Parameters	Results	Desirable Limit (IS:10500:2012)
01	Colour, Hazen Units, Max	1	5
02	Odour	Odourless	Agreeable
03	Taste	Acceptable	Agreeable
04	Turbidity, NTU, Max	0.3	1.0
05	pH	6.79	6.5 – 8.5
06	Total Dissolved Solids, mg/l, Max	84	500
07	Aluminium (as Al), mg/l, Max	ND	0.03
08	Boron (as B), mg/l, Max	ND	0.5
09	Calcium (as Ca), mg/l, Max	24	75
10	Chloride (as Cl), mg/l, Max	19	250
11	Copper (as Cu), mg/l, Max	ND	0.05
12	Fluorides (as F), mg/l, Max	0.16	1.0
13	Free Residual Chlorine, mg/l, Min	ND	0.2
14	Iron (as Fe), mg/l, Max	0.25	0.3
15	Magnesium (as Mg), mg/l, Max	3.7	30
16	Manganese (as Mn), mg/l, Max	ND	0.1
17	Zinc (as Zn), mg/l, Max	ND	5.0
18	Nitrate (as NO <sub>3</sub> ), mg/l, Max	3.2	45
19	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH), mg/l, Max	ND	0.001
20	Sulfate (as SO <sub>4</sub> ), mg/l, Max	18	200
21	Total Alkalinity(as CaCO <sub>3</sub> ), mg/l, Max	76	200
22	Total Hardness, (as CaCO <sub>3</sub> ), mg/l, Max	12	200
23	Cyanide (as CN), mg/l, Max	ND	0.05
24	Lead (as Pb), mg/l, Max	ND	0.01
25	Total Arsenic (as As), mg/l, Max	ND	0.01
26	Total Chromium, (as Cr), mg/l, Max	ND	0.05
27	E. Coli / 100 ml	Absent	Absent
28	Faecal Coliform	Absent	Absent

Analysis Protocol: IS 3025  
ND: Not Detected



Checked By: Mr. Pankaj Baroi, ENVIROCON

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