



# Assam Bio Refinery Private Limited

CIN : U74999AS2018PTC018547

Ref.: ABRPL/EHS/2023/09/04

Date: 28<sup>th</sup> September 2023

To,  
**The Member Secretary**  
Pollution Control Board Assam,  
Bamunimaidam, Guwahati – 21.

Sub: Submission of Annual Environmental Statement for FY'2022-2023

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 **Annual Environmental Statement** in a prescribed format of Form V, for the Financial Year 2022-23 pertaining to the conditions of Environmental Clearance (EC) vide letter No F.No.J- 11011/274/2015-IA II (I) dated 6<sup>th</sup> November 2017 and subsequent amendment therein dated 19<sup>th</sup> November, 2019 and 5<sup>th</sup> January, 2021 issued in favour of Assam Bio Refinery Private Limited (ABRPL) for Bio Refinery (Bamboo based Ethanol Project) from MoEF& CC.

Thanking You,

Yours faithfully

*Sidhartha Sankar Kowndilya*  
28/09/2023

Sidhartha Sankar Kowndilya  
Assistant Manager-EHS,  
Assam Bio Refinery Private Limited.



**Encl.:** 1. Form V: Environmental Statement of Assam Bio-Refinery Private Limited.

C.C.to:

- Golaghat Regional Pollution Control Board:** Pollution Control Board, Assam College Tinali, Near Circuit House, Golaghat, PIN: 785621.
- The Conservator of Forests (C):** Ministry of Environment, Forest and Climate Change, Integrated Regional Office, 4<sup>th</sup> Floor, HOUSEFED Building, G.S.Road, Rukminigaon, Guwahati-781022

[FORM – V]

(See rule 14)

**Environmental Statement of ASSAM BIO-REFINERY PRIVATE LIMITED**  
**(Under construction phase – 82.1% of total Project construction complete till 31<sup>st</sup> Mar 2023)**  
**for the financial year - 2022-2023**

**PART – A**

- (i) Name and address of the owner/occupier of the industry operation or process : Assam Bio-Refinery Pvt. Ltd.  
Post-Box No.: 003, P.O.: NR Project  
Dist.: Golaghat, Assam, India  
PIN- 785699
- Registered Office : Assam Bio-Refinery Pvt. Ltd.  
NRL Building, 122A, G.S. Road  
Christianbasti  
Guwahati-781005
- (ii) Industry category Primary/(NIC code) : 20119 (Bio-ethanol & Acetic Acid), 20211 (Furfural), 35106 (Clean energy using biomass)  
Secondary / (NPC-MS Code) : 3413101(Bio-ethanol), 3414004(Acetic Acid), 3466299(Furfural), 1710002(Clean energy using biomass)
- (iii) Product Capacity : 49000 TPA(Bio-ethanol), 11000 TPA(Acetic Acid), 19000 TPA(furfural), 24 MW(Clean Energy using biomass)
- (iv) Year of establishment : 04<sup>th</sup> Jun 2018 (The project is under construction from Dec 2018).
- (v) Date of the last environmental statement submitted : 27<sup>th</sup> September, 2022.

**PART – B**

**Water and River Material Consumption**

**(1) Water consumption m3/d:**

Process	: NA
Cooling	: NA
Domestic	: NA

Name of Products	Process water consumption per unit of product output.	
	During the previous financial Year 2021-2022	During the current Financial Year 2022-2023
Nil	Nil	Nil

ii) **Raw Material Consumption**

*Name of raw materials	Name of products	Consumption of raw material per unit of output	
		During the previous financial year 2021-2022	During the current financial year 2022-2023
Nil (As in construction stage)	Nil	Nil	Nil

**PART - C**

Pollution discharged to environment/unit of output (Parameter as specified in the consent issued)

Pollutants	Quantity of pollutants discharged (mass/day)	Concentrations of pollutants in discharges (mass/volume)	Percentage of variation from prescribed standards with reasons
(a) Water	NA	NA	NA
(b) Air	NA	NA	NA

**Ambient Air Quality Monitoring, Ground Water analysis, and Noise level monitoring report attached as Annexure-I.**

**PART – D  
Hazardous Wastes**

(as specified under Hazardous Waste Management and Handling Rules, 1989)

Hazardous Waste	Total Quantity (Kg.)	
	During the previous Financial Year 2021-2022	During the current Financial year 2022-2023
(a) From Process	Nil	Nil
(b) From Pollution control facilities	Nil	Nil

**PART – E  
Solid Wastes**

Solid Wastes generated/ disposed	Total Quantity	
	During the previous financial year 2021-2022	During the current financial year 2022-2023
(a) From process	140 MT (construction waste)	15 MT (construction waste)
(b) From pollution control facility	Nil	Nil
(c) (i) Quantity recycled or re-utilized within the unit	Nil	Nil
(ii) Sold	129 MT	11 MT
(iii) Disposed	11 MT	4 MT

**PART – F**

Please specify the characterizations (in terms of the composition of quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

The solid waste generated inside ABRPL project site, which is under construction phase (82.1% of total construction activity till 31<sup>st</sup> Mar 2023) during FY 2022-2023, are of non-hazardous in nature and categorically those are non-incinerable but reusable/recyclable waste comprising of scrap metals and wood/plyboards. After collection of waste by individual contractors from their respective work areas, they take away their waste from the project site for proper disposal, reuse and recycling. Total amount of 11 MT scrap metal was sold to recyclers in FY'22-23.

## **PART – G**

Impact of the pollution abatement measures taken on the conservation of natural resources and the cost of production.

ABRPL aims to use all the synergies for sustainable and efficient utilization of resources and to maximize economic, environmental and social benefits. To ensure bamboo resource diversity and greenery, ABRPL encourages plantation of bamboo at the community level. The ABRPL in-house bamboo nursery has been catering free saplings to local communities. ABRPL has distributed more than 50000 bamboo saplings till date.

In addition, in order to provide Quality Planting Material (QPM) and aid plantation at a massive level, ABRPL has been working on community awareness and also has been promoting a mass-scale sapling production facility under the aegis of Numaligarh Refinery Limited. In addition, ABRPL has been working in close coordination with State Bamboo Development Agency (SBDA), North East Cane and Bamboo Development Agency (NECBDC) and many other state run agencies for popularization of Bamboo farming.

## **PART – H**

Additional measures/investment proposal for environmental protection including abatement of pollution, prevention of pollution.

1. Residual bamboo dust will be reused in fractionation unit through a dedicated dust suppression system.
2. Residual stillage (cake and syrup) will be re-utilised as secondary fuel in captive power plant.
3. Effluents collected from all process units shall be collected in underground closed vessels and these will be reused in operation.

## **PART – I**

Any other particulars for improving the quality of the environment.

Currently, Bamboo available in the region is of less value and is being valued as residue. So, in some places large bamboo growing areas are being cleared for alternate cultivation options like Tea, Rubber, etc. Such practice is tremendously changing the land use pattern as well as contributing to environmental degradation as a whole by use of agro-inputs which aid to emissions. In this regards, ABRPL is educating the farmers for use of standing bamboo and earning livelihoods by practicing scientific sustainable harvesting and also preventing forest degradation.

ABRPL is developing and promoting bamboo cultivation in its sourcing areas through various inhouse initiatives as well as government subsidiary schemes as follows:

1. A state of the art Bamboo Tissue Culture facility has been established under the aegis of NRL (major promoter of ABRPL) for mass multiplication of certified bamboo saplings.
2. ABRPL aims to provide these quality planting materials (QPM) at a subsidized rate for wider farmer acceptability.
3. ABRPL is closely working in association with State Bamboo Agency, NAFED and NERAMAC for promotion of 18 numbers of Bamboo FPOs (Farmer Producer Organisations) in Assam. Each of the FPOs will serve to increase bamboo green coverage by 300 hectare approximately.

## ANNEXURE - I

### Ambient Air Quality Monitoring, Noise level monitoring and Ground Water analysis report



Envirocon Building, I.O.C.L (AOD) New Market  
P.O.: Digboi, Dist.: Tinsukia, Assam – 786 171  
Ph: 03751-264414, 9435008657, 8876028672  
E-mail: envirocon@rediffmail.com

ISO 9001:2015 Certified  
ISO 45001:2018 Certified

Report No.: ENV/ABRPL/EM/22-23/AA-02  
Date : 25/03/2023

Report Issued To: **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	East Side: Near Seuj Dwar	15.03.2023	19.8	52.4	53	7.2
02	West Side: Near Acid-Alkali Neutralisation Pit	15.03.2023	17.2	46.8	6.1	7.8
03	North Side: Near Rajabari Village	15.03.2023	15.3	41.4	BDL	6.3

Analysis Protocol: IS 5182  
BDL: Below Detectable Limit



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.  
3. This test report shall not be reproduced except in full, without the written permission of ENVIROCON, I.O.C.L (AOD) New Market, Digboi – 786171, Assam.

**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.

Report No.: ENV/ABRPL/EM/22-23/N-02  
Date : 25/03/2023

Report Issued To : **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	East Side: Near Seuj Dwar	15.03.2023	62.3	75	47.2	70
2	West Side: Near Sub - Station Building	15.03.2023	63.4	75	48.1	70
3	North Side: Near Rajabari Village	15.03.2023	42.6	75	33.1	70



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/ABRPL/EM/22-23/GW-02  
Date : 25/03/2023

Report Issued To : **ASSAM BIO REFINERY PRIVATE LIMITED**  
Numaligarh, Dist. – Golaghat (Assam)

### GROUND WATER ANALYSIS RESULTS

Sample Ref. No. : ABRPL/2023/GW-1603/01      Sample Source : Deep Tube Well, ABRPL      Sample Type : Ground Water  
Collected On : 16-03-2023      Received On : 17-03-2023      Collected By : ENVIROCON & Client

Sl. No.	Parameters	Results	Desirable Limit (IS:10500:2012)
01	Colour, Hazen Units, Max	2	5
02	Odour	Odourless	Agreeable
03	Taste	Acceptable	Agreeable
04	Turbidity, NTU, Max	0.5	1.0
05	pH	6.69	6.5 – 8.5
06	Total Dissolved Solids, mg/l, Max	141	500
07	Aluminium (as Al), mg/l, Max	<0.01	0.03
08	Boron (as B), mg/l, Max	<0.01	0.5
09	Calcium (as Ca), mg/l, Max	28	75
10	Chloride (as Cl), mg/l, Max	5.6	250
11	Copper (as Cu), mg/l, Max	<0.001	0.05
12	Fluorides (as F), mg/l, Max	0.2	1.0
13	Free Residual Chlorine, mg/l, Min	<0.01	0.2
14	Iron (as Fe), mg/l, Max	0.25	0.3
15	Magnesium (as Mg), mg/l, Max	4	30
16	Manganese (as Mn), mg/l, Max	<0.001	0.1
17	Zinc (as Zn), mg/l, Max	<0.01	5.0
18	Nitrate (as NO <sub>3</sub> ), mg/l, Max	4.9	45
19	Phenolic Compounds (as C <sub>6</sub> H <sub>5</sub> OH), mg/l, Max	<0.001	0.001
20	Sulfate (as SO <sub>4</sub> ), mg/l, Max	64	200
21	Total Alkalinity (as CaCO <sub>3</sub> ), mg/l, Max	61	200
22	Total Hardness, (as CaCO <sub>3</sub> ), mg/l, Max	97	200
23	Cyanide (as CN), mg/l, Max	<0.001	0.05
24	Lead (as Pb), mg/l, Max	<0.001	0.01
25	Total Arsenic (as As), mg/l, Max	<0.001	0.01
26	Total Chromium, (as Cr), mg/l, Max	<0.001	0.05
27	E. Coli / 100 ml	Absent	Absent
28	Faecal Coliform	Absent	Absent

Analysis Protocol: IS 3025



Checked By: Mr. Pankaj Baroi, ENVIROCON

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