



Assam Bio Refinery Private Limited

CIN : U74999AS2018PTC018547

Ref.: ABRPL/EHS/2022/09/04

Date: 27th September 2022

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

Sub: Submission of Annual Environmental Statement for FY'2021-2022

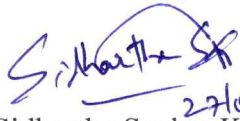
Ref. No: F. No. J-11011/274/2015-IA II (I) dated 19th November 2019

Dear Sir,

Kindly find enclosed herewith the **Annual Environmental Statement** in a prescribed format of Form V, for the Financial Year 2021-22 pertaining to the conditions of Environmental Clearance (EC) vide letter No F.No.J- 11011/274/2015-IA II (I) dated 6th November 2017 and subsequent amendment therein dated 19th November, 2019 and 5th 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


27/09/2022.

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:

1. **Golaghat Regional Pollution Control Board:** Pollution Control Board, Assam College Tinali, Near Circiut House, Golaghat, PIN: 785621.
2. **The Conservator of Forests (C):** Ministry of Environment, Forest and Climate Change, Integrated Regional Office, 4th 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 – 66.6% of total Project construction complete till 31st Mar 2022)
for the financial year - 2021-2022

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 : 04th Jun 2018 (The project is under construction from Dec 2018).
- (v) Date of the last environmental statement submitted : 23rd August, 2021.

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 2020-2021	During the current Financial Year 2021-2022
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	During the current financial year
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	During the current Financial year
(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 2020-2021	During the current financial year 2021-2022
(a) From process	7.2 MT (construction waste)	140 MT (construction waste)
(b) From pollution control facility	Nil	Nil
(c) (i) Quantity recycled or re-utilized within the unit	Nil	Nil
(ii) Sold	Nil	129 MT
(iii) Disposed	7.2 MT	11 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 (66.6% of total construction activity till 31st Mar 2022) during FY 2021-2022, 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 129 MT scrap metal was sold to recyclers in FY'21-22.

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 caters free saplings to local communities. ABRPL has distributed 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.

The Social forestry division of Golaghat district is being consulted for periphery plantation of the Biorefinery

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/21-22/AA-01

Date : 11/03/2022

Report Issued To: **ASSAM BIO REFINERY PRIVATE LIMITED**
Numalgarh, Dist - Golaghat (Assam)

AMBIENT AIR QUALITY TEST RESULTS

Sl. No.	LOCATION(S) ↓	Date of Sampling	PM 2.5 (µg/m ³)	PM 10 (µg/m ³)	SO ₂ (µg/m ³)	NO ₂ (µg/m ³)
	LIMIT(S) →	---	60	100	80	80
01	Near Labour Rest Shed (ABRPL Project Campus West Side)	04.03.2022	29.1	67.1	5.1	6.2
02	Near Electric Sub-Station (ABRPL Project Campus East Side)	04.03.2022	20.3	60.5	6.9	8.3
03	Near Rajabari Village (ABRPL Project Campus North Side)	05.03.2022	18.9	44.0	BDL	BDL

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 - 786 171, 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/21-22/N-01

Date : 11/03/2022

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	Near Piling Job of Tank Stand Area at ABRPL Project Site (South-West Side)	04.03.2022	69.1	75	60.4	70
2	Near Piling Job of Tank Stand Area at ABRPL Project Site (East Side Near Sub-Station)	04.03.2022	64.2	75	50.4	70
3	Near Rajabari Village (ABRPL Project Campus North Side)	05.03.2022	55.8	75	37.9	70



Checked By: Mr. Pankaj Baroi, ENVIROCON

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Report No.: ENV/ABRPL/EM/21-22/GW-01
Date : 11/03/2022

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

GROUND WATER ANALYSIS RESULTS

Sample Ref. No.: ABRPL/21-22/GW-11/01 Sample Source : Deep Tube Well, ABRPL Sample Type : Ground Water
Collected On : 05.03.2022 Received On : 07.03.2022 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	0.9	1.0
05	pH	6.60	6.5 - 8.5
06	Total Dissolved Solids, mg/l, Max	172	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	44	75
10	Chloride (as Cl), mg/l, Max	13	250
11	Copper (as Cu), mg/l, Max	ND	0.05
12	Fluorides (as F), mg/l, Max	0.2	1.0
13	Free Residual Chlorine, mg/l, Min	ND	0.2
14	Iron (as Fe), mg/l, Max	0.30	0.3
15	Magnesium (as Mg), mg/l, Max	8	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 ₃), mg/l, Max	4.2	45
19	Phenolic Compounds (as C ₆ H ₅ OH), mg/l, Max	ND	0.001
20	Sulfate (as SO ₄), mg/l, Max	66	200
21	Total Alkalinity (as CaCO ₃), mg/l, Max	40	200
22	Total Hardness, (as CaCO ₃), mg/l, Max	71	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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