



**GODAVARI BIOREFINERIES LTD.,
(SUGAR & CO-GEN DIVISION)
SAMEERWADI – 587 316**



**ENVIRONMENTAL STATEMENT
FOR THE FINANCIAL YEAR ENDING
MARCH – 2020**





Godavari
Biorefineries Ltd

GBL/SMR/QA&E/ KSPCB/ 2020 -21/ 470

Godavari Biorefineries Ltd

To,
The Member Secretary
Karnataka State Pollution Control Board
49, Parisara Bhavan,
4th & 5th floor, Church Street,
BANGALURU

Sugar & Co-gen Division
Date: 09.09.2020

Through: Regional Environmental Officer, KSPCB Bagalkot

Sub: Submission of Environmental Statement for the financial year ending
March-2020.

Respected Sir,

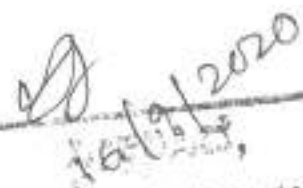
With reference to above subject, we are herewith submitting the Environmental
Statement for the financial year ending 31st March, 2020 for our Sugar and Co-
generation division in duplicate.

Kindly acknowledge the receipt of the same.

Thanking you

Yours Faithfully
For Godavari Biorefineries Limited


B R Bakshi
Director (Works)


16/9/2020
Regional Environmental Officer,
KSPCB Bagalkot

CC:
GM (Co-gen).



Works : P O Sameerwadi, Tal Mudhol, Dist Bagalkot, Karnataka State - 587 316: INDIA
Tel : (91-08350) 260046/ 47/ 48 Fax : (91-08350) 260037 Gram : "SUGAR MILLS" Sameerwadi

Regd. Office : Somaiya Bhavan, 45/47, Mahatma Gandhi Road, Fort, Mumbai - 400 001 INDIA.
Tel : (91-22) 2204 8272 / 2285 8430 Fax : (91-22) 2204 7297 www.somaiya.com

CIN No UBT120MH1966PLC009707 • KST No 0020R3-S w.e.f. 19-09-2002 • TR No 23102643219 w.e.f. 25-04-09


Somaiya
GROUP

GST No: 29AABCG2543C1ZZ

FORM - V

**ENVIRONMENTAL STATEMENT FOR THE FINANCIAL
YEAR ENDING THE 31ST MARCH - 2019**

PART - A

- 1) Name and address of the Occupier of the Industry operation or process : B R Bakshi, Director(W)
Godavari Biorefineries Ltd;
SAMEERWADI - 587316
Dist: Bagalkot
- 2) Production Capacity : 15000 TCD - Sugar Cane
- 3) Date of last statement submitted : 27 September, 2019
- 4) Year of Establishment : 1972

PART - B

i) (a) *WATER CONSUMPTION (Cu.M./day)*

Source	During previous financial Year 2018-19	During the Current financial Year 2019-20
Process	73.507	27.589
Cooling	19.386	10.969
Domestic	150.000	150.000
TOTAL	242.893	188.558

(b) *Water Consumption per unit of out-put.*

Name of Product	Water consumption per unit of products (Cu.M./MT of product)	
	During the previous 'financial Year 2018-19	During the Current financial Year 2019-20
Sugar - Cooling + Process	0.163	0.088
Domestic	0.308	0.427

ii) RAW MATERIALS CONSUMPTION:

Name of Raw Material	Name of Product	Consumption of raw material per unit of out-put (Kgs/Qtl of Sugar produced)	
		During the previous financial year 2018-19	During the Current financial year 2019-20
1. Sugar cane	Sugar	971.778	1191.556
2. Bagasse used as fuel		38.714	44.098
3. Lime			
a) Process		0.681	0.815
b) E.T.P. + Spray		0.292	0.349
4. Orthophosphoric Acid		0.062	0.074
5. Sulphur			
		0.199	0.272
6. Lubricants (Lts/qtl)		0.024	0.035

By - Products	Kgs/Qtl of Sugar produced	
	During the previous financial year 2018-19	During the Current financial year 2019-20
I. Molasses	59.016	45.643
II. Bagasse	280.622	338.458
III. Press - Mud	43.406	53.692

1. It can be seen from the above figures that the use of water for various purposes has been marginally lower due to centralized collecting system and is reclaimed. Further the higher per ton consumption is because of lower yeald and diversion of B-heavy molasse to distillery
2. Excess condensate is collected and cooled in a cooling tower and used as make up water, about 750-800 Cu.Mtr. per day is recycled.there by reducing demand on fresh water.
3. The water quantity is measured by water meters (3 Nos. provided) & one Mag' flow meter is for effluent measurement.

Thus, there is intensive recycling and re-use of hot condensate for process use and cooled condensate for make up, there by reducing demand of fresh water and minimisation of waste water.

PART-C
POLLUTANTS DISCHARGED TO ENVIRONMENT/UNIT OF OUT PUT.
(Parameters as specified in the consent issued)

Pollutants	Quantity of pollutants discharged (mass/day)	Concentration of pollutants discharged (kg/day)	Percentage of variation to prescribed standards with reasons
a) Waste water	About 89.6 Ltrs. Per MT of Cane crushed .	Seprately enclosed	All the parameters are meeting the standards and ETP is in operation.
b) Air	Below 150 mg/Nm ³	Seprately enclosed	No variation as per Central pollution controll board's standards for bagasse fired boilers.
c) Noise	Below 70 db during day Below 60 db during night	Seprately enclosed	within norms prescribed by CPCB

Remarks:

1. The quality of waste water discharged is well within the norms prescribed by the KSPCB
2. The ambient air quality and stack emission level are within the norms of K.S.P.C.B. for all the air pollution sources. The prescribed chimney height and Air pollution control equipments have been provided.
3. The capacity of ETP is 2500 CUM /per day. UASB reactor outlet is further treated in ASP / Extended aeration ETP after clarification, filtered in MB filter. Then disposed off on land for irrigation.

PART - D

HAZARDOUS WASTE

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

Hazardous Waste	Total Quantity (Kgs)	
	During the previous financial year 2018-19	During the Current financial year 2019-20
a) From Process	NIL	NIL
b) From Pollution control facilities	NIL	NIL
c) D.G.Set Engine oil	330	Nil

The oil is collected from DG sets is stored in closed barrels at Hazardous Waste storage Yard and used for cane carrier, belt conveyers lubrication

PART - E

SOLID WASTES

Parameters	During the previous financial year 2018-19	During the Current financial year 2019-20
	Total quantity in Tonnes	
a) From process (By-products)		
i) Bagasse	498786.414	433628.885
ii) Press - Mud	77150.72	68789.5
iii) Ash	1656.31	1410.33
b) From pollution control facilities	NIL	NIL
c) Quantity recycled or re-utilised within the unit		
i) Bagasse		
- Bagasse for boilers	61382.00853	56497.37
- Sold	NIL	NIL
ii) Press-Mud	77150.72	68789.5
iii) Ash - Disposed	1656.31	1410.33
* contains 55-65% moisture		

PART - F

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

D.G. set oil is mixed with bagasse and burnt in boilers.

By-products (Solids): Characteristics of Bagasse & Press-Mud.

Sl.No.	Parameter	Bagasse	Press-Mud
1	pH	7.4 - 7.7	6.5 - 7.1
2	Nitrogen %	0.1 - 0.3	1.03 - 1.48
3	Phosphorous %	0.2 - 0.3	2.3 - 3.1
4	Potassium %	0.05 - 0.07	0.52 - 0.88
5	Organic Carbon %	35.0 - 45.0	34.5.0 - 43.0

Bagasse is used as fuel in boilers.

Press-mud is sold to distillery division for making biocompost.

Ash is used for land filling, brick manufacturing and Biocompost.

PART - G

Impact of pollution control (abatement) measures taken on conservation of natural resources and consequently on the cost of production.

The treated effluent is utilised on land for irrigation purpose. The farmers also using treated effluent are benefited due to availability of nutrients in the waste. There is good return to the farmers by the way of recycling nutrients, and supplement their irrigation requirements when no water is available.

There is no significant impact on the cost of production.

PART - H

Additional measures/investment proposals for Environmental Protection including abatement of pollution and prevention of pollution.

We have done the maintenance of ETP plant and overhauling of all equipments and water lines involving a cost of 40.08 lakhs.

We were used new bacterial culture supplied by M/S Fermento Biotech Pvt Ltd. Which gave improved results even under shock load that involved culture cost of 0.45 lakhs.

The sugar factory effluent is treated in the well maintained effluent treatment plant. The sugar factory effluent is taken to holding tank after grit & oil separation units. after U.A.S.B. reactor . Then effluent is treated in two stages aeration treatment plant. (ASP). The treated effluent is used for irrigation purpose only.

The plantation has been taken up extensively for Green Belt development from beginning and new planting is done every year around the factory and ETP. The cumulative plantation in our complex is about 126 acres and maintaining healthy biodiversity.

Q.6. Briefly describe the safety precautions undertaken in the industry to prevent accidents including fire accidents ?

- R. i) Safety belts, Gas masks and ear plugs are provided and safety measures are followed to prevent accident.
ii) Fire extinguisher like soda ash, dry powder and foam type are installed at the different stations in the factory.
iii) Fire buckets with sand are provided.
iv) Fire fighter is always kept ready.

Q.7 If the expansion / modification is made, whether the consent from pollution control board and Environmental clearance is obtained ? If so, furnish the details.

R Expansion from 7500 T.C.D. to 15000 TCD is already completed , and consent from KSPC Board is obtained regularly.

Q.8. What is the capital investment of pollution control measures since the inception of the plant and also mention the details of operational and maintenance costs ?

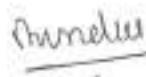
- R i) Capital Cost Rs.365.00 lakhs
ii) Operational & maintenance cost per anum Rs.40.08 lakhs.

Q.9. Whether the Environmental Management cell is established in industry ?

- | | |
|---|----------------|
| R <u>Yes.</u> Director (Works) | 1 No |
| General Manager (QA & E) | 1 No |
| Sr. Manager (Env) | 1 No |
| Dy. Manager (WTP) | 1 No. |
| Sr.Safety Officer | 1 No. |
| Chemists | 3 Nos. |
| Safety Supervisor | 1 No |
| Laboratory attendents | 2 Nos. |
| Laboratory space | 150 Sq.ft. |
| Approximate expenditure for setting up the laboratory | Rs. 6.5 lakhs. |

GODAVARI BIOREFINERIES LIMITED.


Sr. Manager (Env)


GM (QA & E)


Director (works)

**APPROXIMATE COST OF EQUIPMENTS AND OTHER LABORATORY
ACCESSORIES PURCHASED FOR ETP WORKS**

1. Balance, Electronic, top loading	8000.00
2. B.O.D. incubator	50000.00
3. Centrifuge	15000.00
4. COD reflux unit	5000.00
5. Conductivity meter	7000.00
6. Distillation plant	3000.00
7. Drying oven	15000.00
8. Kjeldahl's Assembly	8500.00
9. Magnetic Stirrer	4000.00
10. Microscope	12000.00
11. Muffle Furnace	5000.00
12. pH Meter	8000.00
13. Silica Crucibles	6000.00
14. Refrigerator	12000.00
15. Spectrophotometer	250000.00
16. Hot Air oven	20000.00
17. Fume Hood	200000.00

Others

a) Chemicals	20000.00
b) Glass Wares	25000.00
c) Contingencies	30000.00

The factory has already appointed the staff as per pattern and the cogen unit has procured high volume sampler for ambient Air quality and stack monitoring kit. Laboratory facilities are available for wastewater testing. Monthly water samples, stack and ambient air samples are analysed by Dr. Subbarao's Environmental Center, Sangli.



SEC

Dr. SUBBARAO'S ENVIRONMENT CENTER


"Arundhali", Opp. Sahayognagar, M.S.E.B. Road, Vishrambag, Sangli - 416 415.
 Phone : Sangli - 0233 - 2301857, (M) 9372109522, 9890992118, 9890454493
 E-mail : besubbarao@yahoo.com / bssharat@yahoo.com / bsnagjyoti@yahoo.com
 OGI - NABET Accredited ETA Consultant Organization - Certificate No.
 NABET / EIA / 1819 / RA 0057 valid upto June 12, 2019.

NABL Quality Assurance Laboratory Accreditation Certificate No. TC - 6121 valid upto 09-06-2019

TEST REPORT STACK EMISSIONS				
Report Ref. No.	SEC/Sugar/Stack-5/PR/12-19			
Report Date	24 th December 2019			
Name of industry	Godavari Biorefineries Ltd., Sameerwadi [Sugar Unit]			
Address	Sameerwadi – 587316, (Tq) Mudhol, (Dst) Bagalkot.			
Start Date of commencement of Sampling	11 th December 2019			
Start Time of commencement of Sampling	12:20 pm			
End Date of commencement of Sampling	11 th December 2019			
End Time of commencement of Sampling	12:50 pm			
Retention period of the remnant sample	30 days			
PARTICULARS OF STACK				
Stack attached to boiler	37.5 TPH			
Stack Diameter	1.98 m			
Stack Height	35.86 m			
Stack Temperature	124°C			
Stack Velocity of Flue Gases	8.8 m/s			
Type of Fuel	Bagasse			
POLLUTION PARAMETER RESULTS				
Parameter	Units	Results	Limits	Method Used
Particulate Matter (PM)	mg/Nm ³	109	150	IS 11255m(Part 1): 1985, Reaffirmed 2003
SO ₂	mg/Nm ³	48	100	IS-11255 (Part 2): 1985 Reaffirmed 2009
NO _x	mg/Nm ³	21	50	IS-11255 (Part 7): 2005 Reaffirmed 2012
Note: The test report shall not be reproduced except in full without written approval of the laboratory.				


Analyzed By




Authorized Signatory
Technical Manager/ Quality Manager



SEC

Dr. SUBBARAO'S ENVIRONMENT CENTER

"Arundhati", Opp. Sahaynagar, M.S.E.B. Road, Vishrambag, Sangli - 415 415,
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NABL Quality Assurance Laboratory Accreditation Certificate No. TC - 6121 valid upto 09-08-2019

TEST REPORT STACK EMISSIONS

Report Ref. No.	SEC/Sugar/Stack-5/QZ/01-20
Report Date	10 February 2020
Name of industry	Godavari Biorefineries Ltd., Sameerwadi [Sugar Unit]
Address	Sameerwadi - 587316, (Tq) Mudhol, (Dst) Bagalkot.
Start Date of commencement of Sampling	27 January 2020
Start Time of commencement of Sampling	11:10 am
End Date of commencement of Sampling	11 th December 2019
End Time of commencement of Sampling	11:40 am
Retention period of the remnant sample	30 days

PARTICULARS OF STACK

Stack attached to boiler	37.5 TPH
Stack Diameter	1.98 m
Stack Height	35.86 m
Stack Temperature	122°C
Stack Velocity of Flue Gases	8.9 m/s
Type of Fuel	Bagasse

POLLUTION PARAMETER RESULTS

Parameter	Units	Results	Limits	Method Used
Particulate Matter (PM)	mg/Nm ³	110	150	IS 11255m(Part 1): 1985, Reaffirmed 2003
SO ₂	mg/Nm ³	52	100	IS-11255 (Part 2): 1985 Reaffirmed 2009
NOx	mg/Nm ³	23	50	IS-11255 (Part 7): 2005 Reaffirmed 2012

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Analyzed By



Authorized Signatory
 Technical Manager/ Quality Manager



SEC

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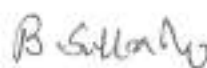
NABL Quality Assurance Laboratory Accreditation Certificate No. TC - 6121 valid upto 09-05-2019

AMBIENT AIR QUALITY REPORT

Report Ref. No. : SEC/AA-PR/12-19				End of Analysis : 23 rd December 2019				
Name of Industry/Customer: Godavari Biorefineries Ltd. [Sugar Unit]				Report Date : 24 th December 2019				
Address: A/p. Sameerwadi - 587316, (Tq) Mudhol, (Dst) Bagalkot.				Lab ID/Sample Ref. No. : AA-PR				
Date of Collection / Sampling : 11 th December 2019				Nature of Sample: Ambient Air				
Date of Receipt : 12 th December 2019				Sample Collected By: SEC Lab				
Sr. No.	Sampling Station	Wind Direction	Direction & Distance from stack	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	
				Limits	< 100µg/m ³	< 60µg/m ³	< 80µg/m ³	< 80µg/m ³
				Method of Testing	IS 5182 (Part 23): 2006	SEC/QAL/SOP/AIR/PM2.5/03	IS 5182 (Part 2): 2001	IS 5182 (Part 6): 2006
1.	Near Sugar Main Gate	Easterly	SW, 645 meters	69	33	09.00	12.00	


Analyzed By




Authorized Signatory
Technical Manager/ Quality Manager



SEC

Dr. SUBBARAO'S ENVIRONMENT CENTER

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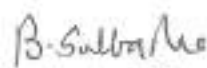
AMBIENT AIR QUALITY REPORT

Report Ref. No. : SEC/AA-QZ/01-20	End of Analysis : 08 February 2020
Name of Industry/Customer: Godavari Biorefineries Ltd. [Sugar Unit]	Report Date : 10 February 2020
Address: A/p. Sameerwadi - 587316, (Tq) Mudhol, (Dst) Bagalkot.	Lab ID/Sample Ref. No. : AA-QZ
Date of Collection / Sampling : 27 January 2020	Nature of Sample: Ambient Air
Date of Receipt : 28 January 2020	Sample Collected By: SEC Lab

Sr. No.	Sampling Station	Wind Direction	Direction & Distance from stack	Limits	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)
					< 100µg/m ³	< 60µg/m ³	< 80µg/m ³	< 80µg/m ³
					Method of Testing	IS 5182 (Part 23): 2006	SEC/QAL/SOP/AIR/PM2.5/03	IS 5182 (Part 2): 2001
1.	Near Sugar Main Gate	Easterly	SW, 645 meters		68	31	08.00	10.00
2.	Shivlingeshwar Temple	Easterly	SW, 1140 meters		57	22	06.00	08.00


Analyzed By




Authorized Signatory
Technical Manager/ Quality Manager



SEC

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NOISE LEVEL MEASUREMENT REPORT

Report Ref. No. : SEC/NL-PR/12-19	End of Analysis : 23 rd December 2019
Name of Industry/Customer: Godavari Biorefineries Ltd. [Sugar Unit]	Report Date : 24 th December 2019
Address: A/p. Sameerwadi - 587316, (Tq) Mudhol, (Dst) Bagalkot.	Lab ID/Sample Ref. No. : NL-PR
Date of Collection / Sampling : 11 th December 2019	Nature of Sample: Noise Level
Date of Receipt : 12 th December 2019	Sample Collected By: SEC Lab

Sr. No.	Location of recording Sound level	Standard Limit dB (A) Leq	Time	dB (A) Leq
1.	Sugar Main Gate	75	Day	58.2
		70	Night	50.7
2.	Cane Cutter	75	Day	71.4
		70	Night	67.6
3.	Mill House	75	Day	72.9
		70	Night	68.1
4.	Boiling House	75	Day	72.5
		70	Night	67.9
5.	Sugar Bagging House	75	Day	71.3
		70	Night	66.5


Analyzed By




Authorized Signatory
Technical Manager/ Quality Manager



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TEST REPORT

Report Ref. No. : SEC/W-PR/12-19	End of Analysis : 23 rd December 2019
Name of Industry/Customer: Godavari Biorefineries Ltd. [Sugar Unit]	Report Date : 24 th December 2019
Address: A/p. Sameerwadi - 587316, (Tq) Mudhol, (Dst) Bagalkot.	Lab ID/Sample Ref. No. : PR2
Date of Collection / Sampling : 11 th December 2019	Nature of Sample: Water
Date of Receipt : 12 th December 2019	Sample Collected By: SEC Lab
Date of Analysis: 12 th December 2019	Sample Quantity : 1 lit
Name of Sample : ETP Inlet	

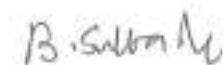
Sr. No.	Test Parameter	Result	Unit	Test Method
1	pH	5.12	-	IS:3025 (P-11) 1983
2	Chemical Oxygen Demand	670	mg/l	IS:3025 (P-58) 2006
3	B.O.D. (3 days at 27°C)	282	mg/l	IS:3025 (P-44) 1993
4	Total Dissolved Solids	1823	mg/l	IS:3025(P-16)1984
5	Total Suspended Solids	215	mg/l	IS:3025 (P-17) 1984
6	Chloride as Cl ⁻	308	mg/l	IS:3025 (P-32) 1988
7	Sulphate as SO ₄	170	mg/l	IS:3025 (P-24) 1986
8	Oil & Grease	ND	mg/l	IS:3025 (P-39) 1991 (RA 2003)

Remarks:

Thanking you,


Analysed By




Authorized Signatory
Technical Manager/ Quality Manager

Note:

1. The result pertains only for the sample tested.
2. The test result shall not be reproduced except in full, without written approval of the laboratory.
3. Sample is not drawn by Dr.Subbarao's Environment Centre, Sangli.
4. Retention period for the remnant shall be 30 days.
5. ND- Not Detected.

***END of Test Report ***



SEC

Dr. SUBBARAO'S ENVIRONMENT CENTER

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TEST REPORT

Report Ref. No. : SEC/W-PR/12-19	End of Analysis : 23 rd December 2019
Name of Industry/Customer: Godavari Biorefineries Ltd. [Sugar Unit]	Report Date : 24 th December 2019
Address: A/p. Sameerwadi - 587316, (Tq) Mudhol, (Dst) Bagalkot.	Lab ID/Sample Ref. No. : PR3
Date of Collection / Sampling : 11 th December 2019	Nature of Sample: Water
Date of Receipt : 12 th December 2019	Sample Collected By: SEC Lab
Date of Analysis: 12 th December 2019	Sample Quantity : 1 lit
Name of Sample : Sugar ETP Outlet	

Sr. No.	Test Parameter	Result	Unit	Standards	Test Method
1	pH	7.80	-	5.5-8.5	IS:3025 (P-11) 1983
2	Chemical Oxygen Demand	146	mg/l	250	IS:3025 (P-58) 2006
3	B.O.D. (3 days at 27°C)	49	mg/l	100	IS:3025 (P-44) 1993
4	Total Dissolved Solids	590	mg/l	2100	IS:3025(P-16)1984
5	Total Suspended Solids	54	mg/l	100	IS:3025 (P-17) 1984
6	Chloride as Cl ⁻	160	mg/l	600	IS:3025 (P-32) 1988
7	Sulphate as SO ₄	98	mg/l	1000	IS:3025 (P-24) 1986
8	Oil & Grease	ND	mg/l	10	IS:3025 (P-39) 1991 (RA 2003)

Remarks:

Thanking you,

Analysed By



B. Subbarao

Authorized Signatory
Technical Manager/ Quality Manager

Note:

1. The result pertains only for the sample tested.
2. The test result shall not be reproduced except in full, without written approval of the laboratory.
3. Sample is not drawn by Dr. Subbarao's Environment Centre, Sangli.
4. Retention period for the remnant shall be 30 days.
5. ND- Not Detected.

***END of Test Report ***



SEC

Dr. SUBBARAO'S ENVIRONMENT CENTER

"Anundhat", Opp. Sahaynagar, M.S.E.B. Road, Vishrambag, Sangli - 415 415.
Phone : Sangli - 0233 - 2301857, (M) 9372109522, 9890992118, 9890454493.
E-mail : bssubbarao@yahoo.com / bssharal@yahoo.com / bsnagjyoti@yahoo.com
DCI - NABET Accredited ETA Consultant Organization - Certificate No.
NABET / EIA / 1619 / RA 0057 valid upto June 12, 2019.

NABL Quality Assurance Laboratory Accreditation Certificate No. TC - 6121 valid upto 09-08-2019

TEST REPORT

Report Ref. No. : SEC/W-QZ/01-20	End of Analysis : 08 February 2020
Name of Industry/Customer: Godavari Biorefineries Ltd. [Sugar Unit]	Report Date : 10 February 2020
Address: A/p. Sameerwadi - 587316, (Tq) Mudhol, (Dst) Bagalkot.	Lab ID/Sample Ref. No. : QZ28
Date of Collection / Sampling : 28 January 2020	Nature of Sample: Water
Date of Receipt : 28 January 2020	Sample Collected By: SEC Lab
Date of Analysis: 29 January 2020	Sample Quantity : 1 lit
Name of Sample : Sugar ETP Outlet	

Sr. No.	Test Parameter	Result	Unit	Standards	Test Method
1	pH	7.62	-	5.5-8.5	IS:3025 (P-11) 1983
2	Chemical Oxygen Demand	140	mg/l	250	IS:3025 (P-58) 2006
3	B.O.D. (3 days at 27°C)	48	mg/l	100	IS:3025 (P-44) 1993
4	Total Dissolved Solids	530	mg/l	2100	IS:3025(P-16)1984
5	Total Suspended Solids	52	mg/l	100	IS:3025 (P-17) 1984
6	Chloride as Cl ⁻	145	mg/l	600	IS:3025 (P-32) 1988
7	Sulphate as SO ₄	90	mg/l	1000	IS:3025 (P-24) 1986
8	Oil & Grease	ND	mg/l	10	IS:3025 (P-39) 1991 (RA 2003)

Remarks:

Thanking you,

Analysed By



B. Subbarao
Authorized Signatory
Technical Manager/ Quality Manager

Note:

1. The result pertains only for the sample tested.
2. The test result shall not be reproduced except in full, without written approval of the laboratory.
3. Sample is not drawn by Dr. Subbarao's Environment Centre, Sangli.
4. Retention period for the remnant shall be 30 days.
5. ND- Not Detected.

***END of Test Report ***



SEC

Dr. SUBBARAO'S ENVIRONMENT CENTER

"Arundhal", Opp. Sahayognagar, M.S.E.B. Road, Vishrambag, Sangli - 416 415
 Phone : Sangli - 0233 - 2301857, (M) 9372109522, 9890992118, 9890454493
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 NABET / EIA / 1519 / RA 0057 valid upto June 12, 2019.

NABL Quality Assurance Laboratory Accredition Certificate No. TC - 6121 valid upto 09-08-2019

TEST REPORT

Report Ref. No. : SEC/W-PR/12-19	End of Analysis : 23 rd December 2019
Name of Industry/Customer: Godavari Biorefineries Ltd. [Sugar Unit]	Report Date : 24 th December 2019
Address: A/p. Sameerwadi - 587316, (Tq) Mudhol, (Dst) Bagalkot.	Lab ID/Sample Ref. No. : PR4
Date of Collection / Sampling : 11 th December 2019	Nature of Sample: Water
Date of Receipt : 12 th December 2019	Sample Collected By: SEC Lab
Date of Analysis: 12 th December 2019	Sample Quantity : 1 lit
Name of Sample & Location: Borewell Water [KIAAR Bore 120 Farm]	

Sr. No.	Test Parameter	Unit	Result	IS:2296 Standards	Test Method
1	*Color	Hazen	< 5	--	IS:3025 (P-4) 1983
2	*Odor	--	Agreeable	--	IS:3025 (P-5) 1983
3	pH	--	7.33	6.5 - 8.5	IS:3025 (P-11) 1983
4	Turbidity	NTU	0.1	--	IS:3025 (P-10) 1984
5	Total Alkalinity (as CaCO ₃)	mg/l	184	--	IS:3025 (P-23) 1986
6	Chemical Oxygen Demand	mg/l	12	--	IS:3025 (P-58) 2006
7	B.O.D. (3day's at 27°C)	mg/l	< 4	--	IS:3025 (P-44) 1993
8	Total Dissolved Solids	mg/l	414	2100	IS:3025 (P-16) 1984
9	Chlorides (as Cl)	mg/l	120	600	IS:3025 (P-32) 1988
10	Hardness (as CaCO ₃)	mg/l	381	--	IS:3025 (P-21) 1983
11	Calcium (as Ca)	mg/l	92	--	IS:3025 (P-40) 1991
12	Magnesium (as Mg)	mg/l	37	--	IS:3025 (P-46) 1994
13	Sodium (as Na)	mg/l	78.1	--	IS:3025 (P-45) 1993
14	Potassium (as K)	mg/l	1.2	--	IS:3025 (P-45) 1993
15	% Na (Max)	%	30.7	60	By Calculation
16	Sodium Absorption Ratio	---	1.73	26	By Calculation
17	Residual Sodium Carbonate	meq/l	-4.0	2.5	By Calculation
18	Electrical Conductivity	µmhos/cm	610	2250	IS:3025 (P-14) 1984

Remarks:

Thanking you,

Analysed By



B. Subbarao

Authorized Signatory
 Technical Manager/ Quality Manager

Note:

1. The result pertains only for the sample tested.
2. The test result shall not be reproduced except in full, without written approval of the laboratory.
3. Sample is not drawn by Dr. Subbarao's Environment Centre, Sangli.
4. Retention period for the remnant shall be 30 days.
5. ND- Not Detected.
6. * - Parameter not under NABL scope

***END of Test Report ***



SEC

Dr. SUBBARAO'S ENVIRONMENT CENTER

"Arundhat", Opp. Sahaynagar, M.S.E.B. Road, Vishrambag, Sangli - 416 415
Phone : Sangli - 0233 - 2301857, (M) 9372109522, 9890992118, 9890454493.
E-mail : bsubbarao@yahoo.com / bssharat@yahoo.com / bsnagjyoti@yahoo.com
QCI - NABET Accredited ETA Consultant Organization - Certificate No.
NABET / EIA / 1619 / RA 0057 valid upto June 12, 2019.

NABL Quality Assurance Laboratory Accreditation Certificate No. TC - 6121 valid upto 09-05-2019

TEST REPORT

Report Ref. No. : SEC/W-QZ/01-20	End of Analysis : 08 February 2020
Name of Industry/Customer: Godavari Biorefineries Ltd. [Sugar Unit]	Report Date : 10 February 2020
Address: A/p. Sameerwadi - 587316, (Tq) Mudhol, (Dst) Bagalkot.	Lab ID/Sample Ref. No. : QZ29
Date of Collection / Sampling : 28 January 2020	Nature of Sample: Water
Date of Receipt : 28 January 2020	Sample Collected By: SEC Lab
Date of Analysis: 29 January 2020	Sample Quantity : 1 lit
Name of Sample & Location: Borewell Water [Hanmanth Satyappa Banaj]	

Sr. No.	Test Parameter	Unit	Result	IS:2296 Standards	Test Method
1	*Color	Hazen	< 5	--	IS:3025 (P-4) 1983
2	*Odor	--	Agreeable	--	IS:3025 (P-5) 1983
3	pH	--	7.63	6.5 - 8.5	IS:3025 (P-11) 1983
4	Turbidity	NTU	0.1	--	IS:3025 (P-10) 1984
5	Total Alkalinity (as CaCO ₃)	mg/l	210	--	IS:3025 (P-23) 1986
6	Chemical Oxygen Demand	mg/l	31	--	IS:3025 (P-58) 2006
7	B.O.D. (3day's at 27°C)	mg/l	< 4	--	IS:3025 (P-44) 1993
8	Total Dissolved Solids	mg/l	590	2100	IS:3025 (P-16) 1984
9	Chlorides (as Cl)	mg/l	172	600	IS:3025 (P-32) 1988
10	Hardness (as CaCO ₃)	mg/l	604	--	IS:3025 (P-21) 1983
11	Calcium (as Ca)	mg/l	138	--	IS:3025 (P-40) 1991
12	Magnesium (as Mg)	mg/l	63	--	IS:3025 (P-46) 1994
13	Sodium (as Na)	mg/l	122.4	--	IS:3025 (P-45) 1993
14	Potassium (as K)	mg/l	4.2	--	IS:3025 (P-45) 1993
15	% Na (Max)	%	30.41	60	By Calculation
16	Sodium Absorption Ratio	---	2.16	26	By Calculation
17	Residual Sodium Carbonate	meq/l	-7.95	2.5	By Calculation
18	Electrical Conductivity	µmhos/cm	1140	2250	IS:3025 (P-14) 1984

Remarks:

Thanking you,

Analysed By



B. Satter
Authorized Signatory
Technical Manager/ Quality Manager

Note:

1. The result pertains only for the sample tested.
2. The test result shall not be reproduced except in full, without written approval of the laboratory.
3. Sample is not drawn by Dr. Subbarao's Environment Centre, Sangli.
4. Retention period for the remnant shall be 30 days.
5. ND- Not Detected.
6. * - Parameter not under NABL scope

***END of Test Report ***

GODAVARI BIOREFINERIES LIMITED

SAMEERWADI

ONLINE REPORT FOR THE MONTH DECEMBER-2019

Date (DD-MM-YY)	ETP-BOD-(mg/l)	ETP-pH-(pH)	ETP-Flow-(l/m)	ETP-COD-(mg/l)	ETP-TSS-(mg/l)
12-12-19	18.77	8.27	13.42	73.03	11.74
13-12-19	20.07	8.2	18.07	78.05	13.38
14-12-19	26.07	8.24	27.17	101.39	15.18
15-12-19	39.95	8.24	23.11	117.99	12.94
16-12-19	49.45	8.13	21.97	144.83	11.72
17-12-19	20.87	8.05	23.46	61.13	20.52
21-12-19	46.96	7.29	17.99	137.52	33.66
22-12-19	48.57	7.32	26.4	142.24	26.67
23-12-19	56.73	7.32	28.55	166.2	36.45
24-12-19	35.53	7.3	19.92	104.04	43.32
25-12-19	31.11	7.3	25.48	91.1	46.97
26-12-19	48.05	7.31	27.41	140.71	47.98
27-12-19	46.45	7.33	25.61	136	54.87
28-12-19	52.79	7.35	29.01	154.57	22.12
29-12-19	45.74	7.35	21.78	133.94	20.2
30-12-19	33.35	7.37	26.54	97.66	25.02
31-12-19	33.35	7.41	26.8	97.68	25.82
Avg	38.46	7.63	23.69	116.36	27.56
Max	56.73	8.27	29.01	166.2	54.87
Min	18.77	7.29	13.42	61.13	11.72

T. Lakshmi
Sr. Manager (Env)
03/01/20

GODAVARI BIOREFINERIES LIMITED						
SAMEERWADI						
ONLINE REPORT FOR THE MONTH JANUARY-2020						
Date (DD-MM-YYYY)	ETP-BOD-(mg/l)	ETP-pH-(pH)	ETP-Flow-(l/m)	ETP-COD-(mg/l)	ETP-TSS-(mg/l)	
01-01-20	39.54	7.41	23.25	115.8	28.03	
02-01-20	45.69	7.37	24.04	133.8	22.94	
03-01-20	44.5	7.37	30.38	130.32	21.48	
04-01-20	42.58	7.41	29.22	124.69	29.36	
05-01-20	43.94	7.45	31.88	128.64	28.07	
06-01-20	39.1	7.41	31.54	114.51	23.22	
07-01-20	41.15	7.41	33.02	120.51	21.07	
08-01-20	40.58	7.44	32.3	118.79	19.74	
09-01-20	34.25	7.39	30.68	100.3	19.6	
10-01-20	29.99	7.38	33.32	87.83	17.06	
11-01-20	29.96	7.38	28.91	87.73	14.92	
12-01-20	40.76	7.4	18.64	119.28	12.14	
13-01-20	61.59	7.41	21.62	180.33	11.64	
14-01-20	39.22	7.4	37.15	114.86	10.12	
15-01-20	31.28	7.37	35.3	91.63	8.67	
16-01-20	34.59	7.26	33.61	101.31	7.2	
17-01-20	59.17	7.23	36.47	173.27	5.72	
18-01-20	67.43	7.29	35.17	197.49	14.17	
19-01-20	49.47	7.33	32.77	144.87	53.4	
20-01-20	25.82	7.34	33.61	75.64	55.39	
21-01-20	52.17	7.76	33.14	152.74	20.26	
22-01-20	47.37	8.05	35.66	138.78	29.33	
23-01-20	39.15	8.15	32.39	114.63	19.45	
24-01-20	37.45	8	35.35	109.65	43.22	
25-01-20	38.76	7.23	39.13	113.51	21.44	
26-01-20	35.3	7.18	41.43	103.37	18.69	
27-01-20	31.6	7.17	43.08	92.53	16.07	
28-01-20	35.66	7.18	37.9	104.42	12.8	
29-01-20	31.42	7.68	42.6	92.02	13.61	
30-01-20	29.12	8.25	45.69	85.26	17.46	
31-01-20	29.61	8.25	44.63	86.7	15.92	
Avg	40.27	7.5	33.67	117.91	21.04	
Max	67.43	8.25	45.69	197.49	55.39	
Min	25.82	7.17	18.64	75.64	5.72	


 (Mr. Jambur)
 Sr. Manager (Env)

GODAVARI BIOREFINERIES LIMITED


Sameerwadi-587316, Dist. Bagalkot
 Report of analysis of treated effluent showing performance of the treatment plant for the month of December 2019


Sample Collected On : 13.12.2019
 Sample Tested On : 13.12.2019
 By the Laboratories : Godavari Biorefineries Ltd

Sr No	Polluting Parameters as mentioned in the conditions imported under the consent granted under section 25/26 of the water (prevention & control of the pollution) Act 1974	2	3	4	5	6
		Maximum Permissible Limits or range allowed As per consent conditions	Concentration of the range of parameters as per report	On which date there was break down or failure of the plant	On which date under performance was noticed	
1	Colour & odour	Sec note	48			
2	Suspended solids - mg/lit	Max 100	8.32			
3	pH value	Max 6 to 8.5	54			
4	BOD(5 days at 20 deg C) mg/lit	Max 100	Nil			
5	Oil & grease Mg/lit	Max 10	183			
6	Chlorides-(as Cl) mg/lit	Max 350	79			
7	Sulphates-(as SO4) Mg/lit	Max 1000	-			
8	Pesticides	Absent	1965			
9	Dissolved Solids	Max 2100				

Note: All efforts should be made to remove colour and unpleasant odour as per practica


 Sr. Manager (Environment)


 General Manager (QA & E)

Signature : 
 Date : 02.01.2020
 Address : Godavari Biorefineries Ltd,
 Sameerwadi-587316
 Dt. Bagalkot

GODAVARI BIOREFINERIES LIMITED

Sameerwadi-587316, Dist. Bagalkot

Report of analysis of treated effluent showing performance of the treatment plant for the month of January 2020

Sample Collected On : 22.01.2019
 Sample Tested On : 22.01.2019
 By the Laboratories : Godavari Biorefineries Ltd

Sr No	Polluting Parameters as mentioned in the conditions imported under the consent granted under section 25/26 of the water (prevention & control of the pollution) Act 1974	Maximum Permissible Limits or range allowed As per consent conditions	Concentration of the range of parameters as per report	On which date there was break down or failure of the plant	On which date performance was noticed
1	2	3	4	5	6
1	Colour & odour	See note	46		
2	Suspended solids - mg/lit	Max 100	8.19		
3	pH value	Max 6 to 8.5	42		
4	BOD(5 days at 20 deg C) mg/lit	Max 100	Nil		
5	Oil & grease Mg/lit	Max 10	160		
6	Chlorides (as Cl) mg/lit	Max 350	98		
7	Sulphates (as SO4) Mg/lit	Max 1000	-		
8	Pesticides	Absent			
9	Dissolved Solids	Max 2100	1980		


Note: All efforts should be made to remove colour and unpleasant odour as per practica


 Sr. Manager (Environment)



General Manager (QA & E)

Signature :
Date :


 Signature of Consumer
 01.02.2020

Godavari Biorefineries Ltd,
 Sameerwadi-587316
 Dt. Bagalkot

FORM - V
ENVIRONMENTAL STATEMENT FOR THE FINANCIAL
YEAR ENDING THE 31 ST MARCH - 2020

PART - A

- 1) Name and address of the Occupier of the Industry operation or process : B R Bakshi, Director(W) Godavari Biorefineries Ltd
 Division: Cogen
 SAMEERWADI - 587316
 Dist: Bagalkot
- 2) Production Capacity : 45.56 MW - Power
- 3) Date of last statement submitted : 27 September, 2019
- 4) Year of Establishment : 09.04.2002 / 07.01.2011

PART - B

1) (a) *Water Consumption (Cu.M./day)*

Source	During the Previous financial year 2018-19	During the Current financial year 2019-20
Process	373.88	454.02
Cooling	336.66	788.21
Domestic	2.47	2.46
T O T A L	713.01	1244.69

b) *Water Consumption per unit of out-put:*

Name of Product	consumption per unit of product output (Cu.M./MWh)	
	During the Previous financial year 2018 - 19	During the Current financial year 2019 - 20
Power Cooling + Process	2.09	3.04
Domestic	0.0072	0.006

ii) Raw Materials Consumption:

Name of Raw Material	Name of Product	Consumption of raw material per unit of out-put (Kgs/MWh of Power produced)	
		During the previous financial year 2018-19	During the Current financial year 2019-20
1. Bagasse used as fuel	POWER	2622.7	2739.42
2.TSP		0.0037	0.00324
3.Hydrazine Hydrate		0.0104	0.0056
4.PH Booster		0.0037	0.00476
5.Hydrochloric acid		2.1948	1.158
6.Caustic Lye		0.8268	0.6109
7.Non ferric Alum		0.036	0.073
8.Lubricants (Lts/MWh)		0.0189	0.014

PART-C

Pollutants discharged to environment/unit of out-put.

(Parameters as specified in the consent issued)

Pollutants	Quantity of pollutants discharged	Concentration of pollutants in discharges	Percentage of variation from prescribed standards with reasons
	(mass/day)	(mass/volume)	
a) Waste water	Below 3.5 Ltrs. per unit generated	Separately enclosed	All the parameters are meeting the standards and ETP is in operation. within norms prescribed by CPCB within norms prescribed by CPCB
b) Air	-- do --	-- do --	
c) Noise	-- do --	-- do --	

Remarks:

1. The quality of waste water discharged is well within the norms prescribed by the KSPCB
The analysis reports are enclosed for the month of January 2020 & February 2020.
2. The ambient air quality level and stack emission level are within the norms of K.S.P.C.B.The prescribed chimney height and air pollution control equipments have been provided.

The analysis reports are enclosed for the month of January 2020 & February 2020.

PART - D
Hazardous Wastes

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

Hazardous Waste	Total Quantity (Kgs)	
	During the previous financial year 18-19	During the Current financial year 19-20
a) From Process	NIL	NIL
b) From Pollution control facilities	NIL	NIL
c) D.G.Set Engine oil	NIL	NIL

PART - E
SOLID WASTES

Particulars	Total quantity in Tonnes	
	During the previous financial year 2018-19	During the Current financial year 2019-20
a) From Process		
i) Ash	3251.574	4087.935
b) From pollution control facilities		
c) (1) Quantity recycled or re-utilised within the unit	Yes	Yes
(2) Sold	NIL	NIL
(3) Disposed	3251.574	4087.935

PART - F

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

No Hazardous Waste is Generated. Ash is used for land filling.

PART - G

Impact of pollution control (abatement) measures taken on conservation of natural resources and consequently on the cost of production.

The treated effluent is used for energy plantations

There is no significant impact on the cost of production.

PART - H

Additional measures/investment proposal for Environmental Protection including abatement of pollution and prevention of pollution.

Maintenance of the ETP is carried out at the Cost of Rs.3.5 Lakh

The Cogen effluent is treated in the well maintained Effluent treatment plant.

The effluent from Sludge Sump is pumped to the ETP Clarifier. For any Suspended solids, Polyelectrolyte & alum dosing is being done at Clarifier.

The treated effluent is used for irrigation & green belt development purpose.

The plantation has been taken up extensively for Green Belt development from beginning and new planting is done every year around the factory and ETP.

ESP'S Operation & Maintenance will be carried at the Cost of 55 Lakhs

Cost incurred for Environmental monitoring and Management is 2.0 lakh.

Cost incurred for Solid waste disposal 4.75 Lakh.

PART I

*Any other particulars for improving the quality of Environment.
Please refer to the " Environmental Statement in Brief "*

ENVIRONMENTAL STATEMENT IN BRIEF

Name of the Factory : Godavari Biorefineries Ltd (Cogen)
SAMEERWADI - 587316.
Tal: Mudhol, Dist: Bagalkot.

Units of Effluent treatment plant : Aeration tank, Clarifier,
Treated water tank, Sludge Sump,
Transfer pump, Sludge Drying Beds

Q. 1. Whether water quantity measurement are made by installing water meter?

R. Yes, Water meters are installed. Water quantity is estimated as per water meter readings.

Q.2. Whether treated effluent samples are analysed regularly?

R. Yes, Treated effluent samples are analysed on daily basis.

Q.3. Whether upstream and down stream quality of river is tested regularly?

R. River water analysis is regularly carried out.

Q.4. Whether stack monitoring arrangements have been made ? And if so, whether Monitoring is done as per consent conditions ?

R. Yes.

Q.5. Whether ambient air quality and sound level measurements are carried out as per the consent conditions ?

R. Yes.

Q.6. Briefly describe the safety precautions undertaken in the industry to prevent accidents including fire accidents ?

- R. i) Safety belts, Gas masks are kept in tool room.
- ii) Fire extinguisher like soda ash, dry powder and foam type are installed at the power house.
- iii) Fire buckets with sand are provided.
- iv) Fire fighter is always kept ready.
- v) Safety showers are reconditioned and provided at hazards chemical handling area.

Q.7. If the expansion/Modification is made, whether the consent from pollution control board and Environmental clearance is obtained ? If so, furnish the details.

R. Consent from KSPCB is regularly obtained

Q.8. What is the capital investment of pollution control measures since the inception of the plant and also mention the details of operational and maintenance costs ?

R. Capital Cost	Rs.555.00 lakhs
Operational & maintenance cost per annum.	Rs.55.0 lakhs

Q.9. Whether the Environmental Management cell is established in industry ?

R. The Environment Management cell is already exists in Sugar unit. So cogen is also under same Environment Management Cell.



General manager (Co-gen)



Director (works)

**APPROXIMATE COST OF EQUIPMENTS AND OTHER LABORATORY ACCESSORIES
PURCHASED**

1. Electronic Balance	50000.00
2. Stack monitoring kit	50000.00
3. High volume Sampler	60000.00
4. Conductivity meter	36000.00
5. Drying oven	28000.00
6. Magnetic Stirrer	4000.00
7. Muffle Furnace	35000.00
8. pH Meter	36000.00
9. Silica Crucibles	6000.00
10. Spectrophotometer	450000.00
11. COD Reflux condenser	15000.00
12. Noise Meter	25000.00
13. IR moisture meter	25000.00
Others	
a) Chemicals	125000.00
b) Glass Wares	25000.00
c) Contingencies	30000.00

Laboratory facilities are available for waste water testing. Monthly water samples, stack and ambient air samples are analysed by Self & additionally by DR Subbaro's Environment Center Sangli.



SEC

Dr. SUBBARAO'S ENVIRONMENT CENTER

"Arundhal", Opp. Sahayognagar, M.S.E.B. Road, Vishrambag, Sangli - 416 415.
 Phone : Sangli - 0233 - 2301857, (M) 9372109522, 9890992118, 9890454493.
 E-mail : bssubbarao@yahoo.com / bssharat@yahoo.com / bsnagjyoti@yahoo.com
 QCI - NABET Accredited ETA Consultant Organization - Certificate No.
 NABET / EIA / 1819 / RA 0057 valid upto June 12, 2019.

NABL Quality Assurance Laboratory Accreditation Certificate No. TC - 6121 valid upto 09-08-2019

TEST REPORT STACK EMISSIONS

Report Ref. No.	SEC/Cogen/Stack-1/PR/01-20
Report Date	10 February 2020
Name of industry	Godavari Biorefineries Ltd., Sameerwadi [Co-gen Unit]
Address	Sameerwadi - 587316, (Tq) Mudhol, (Dst) Bagalkot.
Start Date of commencement of Sampling	27 January 2020
Start Time of commencement of Sampling	03:10 pm
End Date of commencement of Sampling	27 January 2020
End Time of commencement of Sampling	03:40 pm
Retention period of the remnant sample	30 days

PARTICULARS OF STACK

Stack attached to boiler	130 TPH
Stack Diameter	3.00 m
Stack Height	70 m
Stack Temperature	112°C
Stack Velocity of Flue Gases	10.2 m/s
Type of Fuel	Bagasse

POLLUTION PARAMETER RESULTS

Parameter	Units	Results	Limits	Method Used
Particulate Matter (PM)	mg/Nm ³	106	150	IS 11255m(Part 1): 1985, Reaffirmed 2003
SO ₂	mg/Nm ³	55	100	IS-11255 (Part 2): 1985 Reaffirmed 2009
NO _x	mg/Nm ³	23	50	IS-11255 (Part 7): 2005 Reaffirmed 2012

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Analyzed By



B. Subbarao
 Authorized Signatory
 Technical Manager/ Quality Manager



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NABL Quality Assurance Laboratory Accreditation Certificate No. TC - 6121 valid upto 09-06-2019

TEST REPORT STACK EMISSIONS

Report Ref. No.	SEC/Cogen/Stack-2/PR/01-20
Report Date	10 February 2020
Name of industry	Godavari Biorefineries Ltd., Sameerwadi [Co-gen Unit]
Address	Sameerwadi - 587316, (Tq) Mudhol, (Dst) Bagalkot.
Start Date of commencement of Sampling	27 January 2020
Start Time of commencement of Sampling	04:30 pm
End Date of commencement of Sampling	27 January 2020
End Time of commencement of Sampling	05:00 pm
Retention period of the remnant sample	30 days

PARTICULARS OF STACK

Stack attached to boiler	120 TPH
Stack Diameter	3.00 m
Stack Height	70 m
Stack Temperature	121°C
Stack Velocity of Flue Gases	10.2m/s
Type of Fuel	Bagasse

POLLUTION PARAMETER RESULTS

Parameter	Units	Results	Limits	Method Used
Particulate Matter (PM)	mg/Nm ³	98	150	IS 11255m(Part 1): 1985, Reaffirmed 2003
SO ₂	mg/Nm ³	47	100	IS-11255 (Part 2): 1985 Reaffirmed 2009
NO _x	mg/Nm ³	21	50	IS-11255 (Part 7): 2005 Reaffirmed 2012

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TEST REPORT STACK EMISSIONS				
Report Ref. No.	SEC/Cogen/Stack-1/RV/02-20			
Report Date	05 March 2020			
Name of industry	Godavari Biorefineries Ltd., Sameerwadi [Co-gen Unit]			
Address	Sameerwadi - 587316, (Tq) Mudhol, (Dst) Bagalkot.			
Start Date of commencement of Sampling	21 February 2020			
Start Time of commencement of Sampling	02:30 pm			
End Date of commencement of Sampling	21 February 2020			
End Time of commencement of Sampling	03:00 pm			
Retention period of the remnant sample	30 days			
PARTICULARS OF STACK				
Stack attached to boiler	130 TPH			
Stack Diameter	3.00 m			
Stack Height	70 m			
Stack Temperature	116°C			
Stack Velocity of Flue Gases	10.1 m/s			
Type of Fuel	Bagasse			
POLLUTION PARAMETER RESULTS				
Parameter	Units	Results	Limits	Method Used
Particulate Matter (PM)	mg/Nm ³	102	150	IS 11255m(Part 1): 1985, Reaffirmed 2003
SO ₂	mg/Nm ³	52	100	IS-11255 (Part 2): 1985 Reaffirmed 2009
NO _x	mg/Nm ³	21	50	IS-11255 (Part 7): 2005 Reaffirmed 2012
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NABL Quality Assurance Laboratory Accreditation Certificate No. TC - 8121 valid upto 09-08-2019

TEST REPORT STACK EMISSIONS				
Report Ref. No.	SEC/Cogen/Stack-2/RV/02-20			
Report Date	05 March 2020			
Name of industry	Godavari Biorefineries Ltd., Sameerwadi (Co-gen Unit)			
Address	Sameerwadi - 587316, (Tq) Mudhol, (Dst) Bagalkot.			
Start Date of commencement of Sampling	21 February 2020			
Start Time of commencement of Sampling	04:10 pm			
End Date of commencement of Sampling	21 February 2020			
End Time of commencement of Sampling	04:40 pm			
Retention period of the remnant sample	30 days			
PARTICULARS OF STACK				
Stack attached to boiler	120 TPH			
Stack Diameter	3.00 m			
Stack Height	70 m			
Stack Temperature	125°C			
Stack Velocity of Flue Gases	10.3m/s			
Type of Fuel	Bagasse			
POLLUTION PARAMETER RESULTS				
Parameter	Units	Results	Limits	Method Used
Particulate Matter (PM)	mg/Nm ³	108	150	IS 11255m(Part 1): 1985, Reaffirmed 2003
SO ₂	mg/Nm ³	55	100	IS-11255 (Part 2): 1985 Reaffirmed 2009
NO _x	mg/Nm ³	24	50	IS-11255 (Part 7): 2005 Reaffirmed 2012
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Technical Manager/ Quality Manager

Name of the Industry : 1 x 24 MW Cogen Power Plant , Godavari Biorefineries Ltd.		
Sl.no	Parameters	Results
1	Report Sl.No	07(2019 -20)
2	Stack Attached to	130 TPH Boiler
3	Date of Sampling	10.01.2020
4	Dimensions of Stack	Height - 70 mt, $\varnothing = 3.0$ mt
5	C/S area of Stack (A_{s1})	7.06 m ²
6	C/S area of sampling Location (A_{s1})	7.06 m ²
7	Manometer Reading (k) in mm	4.2 ($\Delta P = 4.2 \times 0.8 = 3.36$)
8	Stack Temperature $T_s = ^\circ C + 273$	125 + 273 = 398° K
9	Meter Temperature $T_m = ^\circ C + 273$	30 + 273 = 303° K
10	Velocity of flue gas $V_s = C \sqrt{K \times T_s}$	$0.175 \sqrt{3.36 \times 398} = 6.399$ mt / Sec
11	T_m / T_s	0.761
12	Nozzle diameter	3/8" = 0.375 inches
13	C/S area of Nozzle A_n (m ²)	7.13×10^{-5}
14	Rate of Sampling (LPM) $q = A_n \times V_s \times T_m / T_s \times 1000 \times 60$	$7.13 \times 10^{-5} \times 6.399 \times 0.761 \times 10^3 \times 60 = 20.83$
15	Period of Sampling in Minutes	15 Minutes
16	Volume of Sample in ltrs.	$20.83 \times 15 = 312.45$ ltrs
17	Volume of Sample in m ³	0.3124
18	Thimble No.	CO GEN - 07
19	Initial weight of Thimble in grams (W1)	4.012
20	Final Weight of Thimble in grams (W2)	4.045
21	W2 - W1	0.033
22	SPM mg/ Nm ³	105.63
23	Rate of Emission Nm ³ /Hr $A_{s1} \times V_s \times 3600 \times 298 / T_s$	



M.S. Godi
Dy Mgr



G. Suryaprakash Rao
GM- Cogen

Name of the Industry : 1 x 21.56 MW Cogen Power Plant , Godavari Biorefineries Ltd.		
Sl.no	Parameters	Results
1	Report Sl No.	08(2018-19)
2	Stack Attached to	120 TPH Boiler
3	Date of Sampling	10.01.2020
4	Dimensions of Stack	Height - 70 mt, ϕ = 3.0 mt
5	C/S area of Stack (A_{s1})	7.06 m ²
6	C/S area of sampling Location (A_{s1})	7.06 m ²
7	Manometer Reading (k.) in mm	4.01 ($\Delta P = 4.01 \times 0.8 = 3.208$)
8	Stack Temperature $T_s = ^\circ C + 273$	140 + 273 = 413 $^\circ K$
9	Meter Temperature $T_m = ^\circ C + 273$	29 + 273 = 302 $^\circ K$
10	Velocity of flue gas $V_s = C \sqrt{K \times T_s}$	0.175 $\sqrt{3.208 \times 413} = 6.18$ mt / Sec
11	T_m / T_s	0.731
12	Nozzle diameter	3/8" = 0.375 inches
13	C/S area of Nozzle A_n (m ²)	7.13 x 10 ⁻⁵
14	Rate of Sampling (LPM) $q = A_n \times V_s \times T_m / T_s \times 1000 \times 60$	7.13 x 10 ⁻⁵ x 6.18 x 0.731 x 10 ³ x 60 = 19.32
15	Period of Sampling in Minutes	15 Minutes
16	Volume of Sample in ltrs	19.32 x 15 = 289.8 ltrs
17	Volume of Sample in m ³	0.2898
18	Thimble No.	CO GEN - 08
19	Initial weight of Thimble in grams (W1)	4.024
20	Final Weight of Thimble in grams (W2)	4.05
21	W2 - W1	0.026
22	SPM mg / Nm ³	89.72
23	Rate of Emission Nm ³ /Hr	
	$A_{s1} \times V_s \times 3600 \times 298 / T_s$	



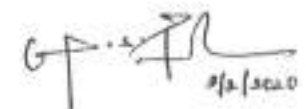
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Dy. Mgr

 3/2/2020

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GM- Cogen

Name of the Industry : 1 x 24 MW Cogen Power Plant , Godavari Biorefineries Ltd.		
Sl.no	Parameters	Results
1	Report Sl.No.	09/ 2019 -20)
2	Stack Attached to	130 TPH Boiler
3	Date of Sampling	24.01.2020
4	Dimensions of Stack	Height - 70 mt, $\phi = 3.0$ mt
5	C/S area of Stack (As1)	7.06 m ²
6	C/S area of sampling Location (As1)	7.06 m ²
7	Manometer Reading (k) in mm	4.2($\Delta P = 4.2 \times 0.8 = 3.36$)
8	Stack Temperature Ts = ° C + 273	125 + 273 = 398° K
9	Meter Temperature Tm = ° C + 273	30 + 273 = 303° K
10	Velocity of flue gas Vs = $C \sqrt{K X Ts}$	0.175 $\sqrt{3.36 \times 398} = 6.399$ mt / Sec
11	Tm / Ts	0.761
12	Nozzle diameter	3/8" = 0.375 inches
13	C/S area of Nozzle An (m2)	7.13 x 10 ⁻⁵
14	Rate of Sampling (LPM) $q = An \times Vs \times Tm / Ts \times 1000 \times 60$	7.13 x 10 ⁻⁵ x 6.399 x 0.761 x 10 ³ x 60 = 20.83
15	Period of Sampling in Minutes	15 Minutes
16	Volume of Sample in ltrs.	20.83 x 15 = 312.45 ltrs
17	Volume of Sample in m ³	0.3124
18	Thimble No.	CO GEN - 09
19	Initial weight of Thimble in grams (W1)	4.01
20	Final Weight of Thimble in grams (W2)	4.045
21	W2 - W1	0.035
22	SPM mg/ Nm ³	112.04
23	Rate of Emission Nm ³ /Hr	
	As1 x Vs x 3600 x 298 / Ts	


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24/1/2020

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STACK MONITORING DATA SHEET

Sl no	Parameters	Results
CONSTANT:		
	C/S AREA OF NOZZLE A_n (m^2)	
	C=0.18 (Enviro Monitech)	1/8" dia = 0.79×10^{-5}
	C=0.1751 (Enviro Tech)	1/4" dia = 3.17×10^{-5}
	C=0.99 (Micro)	3/8" dia = 7.13×10^{-5}
		1/2" dia = 12.67×10^{-4}
Name of the Industry : 1 x 21.56 MW Cogen Power Plant , Godavari Biorefineries Ltd.		
1	Report Sl.No.	10(2018-19)
2	Stack Attached to	120 TPH Boiler
3	Date of Sampling	24.01.2020
4	Dimensions of Stack	Height - 70 mt, \varnothing = 3.0 mt
5	C/S area of Stack (A_s)	7.06 m^2
6	C/S area of sampling Location (A_s)	7.06 m^2
7	Manometer Reading (k) in mm	4.01 ($\Delta P = 4.01 \times 0.8 = 3.208$)
8	Stack Temperature $T_s = ^\circ C + 273$	$140 + 273 = 413 ^\circ K$
9	Meter Temperature $T_m = ^\circ C + 273$	$29 + 273 = 302 ^\circ K$
10	Velocity of flue gas $V_s = C \sqrt{K \times T_s}$	$0.175 \sqrt{3.208 \times 413} = 6.18 \text{ mt / Sec}$
11	T_m / T_s	0.731
12	Nozzle diameter	3/8" = 0.375 inches
13	C/S area of Nozzle A_n (m^2)	7.13×10^{-5}
14	Rate of Sampling (LPM) $q = A_n \times V_s \times T_m / T_s \times 1000 \times 60$	$7.13 \times 10^{-5} \times 6.18 \times 0.731 \times 10^3 \times 60 = 19.32$
15	Period of Sampling in Minutes	15 Minutes
16	Volume of Sample in Itrs	$19.32 \times 15 = 289.8 \text{ Itrs}$
17	Volume of Sample in m^3	0.2898
18	Thimble No	CO GEN - 10
19	Initial weight of Thimble in grams (W1)	4.021
20	Final Weight of Thimble in grams (W2)	4.05
21	$W2 - W1$	0.029
22	SPM mg / Nm^3	100.07
23	Rate of Emission Nm^3/hr	
	$A_s \times V_s \times 3600 \times 298 / T_s$	


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Name of the Industry : 1 x 24 MW Cogen Power Plant , Godavari Biorefineries Ltd.		
Sl.no	Parameters	Results
1	Report Sl No.	11(2019 -20)
2	Stack Attached to	130 TPH Boiler
3	Date of Sampling	07.02.2020
4	Dimensions of Stack	Height - 70 mt, $\phi = 3.0$ mt
5	C/S area of Stack (A_{s1})	7.08 m ²
6	C/S area of sampling Location (A_{s1})	7.08 m ²
7	Manometer Reading (k) in mm	4.2 ($\Delta P = 4.2 \times 0.8 = 3.36$)
8	Stack Temperature $T_s = ^\circ C + 273$	125 + 273 = 398 ^o K
9	Meter Temperature $T_m = ^\circ C + 273$	30 + 273 = 303 ^o K
10	Velocity of flue gas $V_s = C \sqrt{K X T_s}$	0.175 $\sqrt{3.36 \times 398} = 6.399$ mt / Sec
11	T_m / T_s	0.761
12	Nozzle diameter	3/8" = 0.375 inches
13	C/S area of Nozzle A_n (m ²)	7.13 x 10 ⁻⁴
14	Rate of Sampling (LPM) : $q = A_n \times V_s \times T_m / T_s \times 1000 \times 60$	7.13 x 10 ⁻⁴ x 6.399 x 0.761 x 10 ³ x 60 = 20.83
15	Period of Sampling in Minutes	15 Minutes
16	Volume of Sample in ltrs	20.83 x 15 = 312.45 ltrs
17	Volume of Sample in m ³	0.3124
18	Thimble No.	CO GEN - 11
19	Initial weight of Thimble in grams (W1)	4.012
20	Final Weight of Thimble in grams (W2)	4.045
21	W2 - W1	0.033
22	SPM mg/ Nm ³	105.63
23	Rate of Emission Nm ³ /Hr	
	$A_{s1} \times V_s \times 3600 \times 298 / T_s$	


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Name of the Industry :1 x 21.56 MW Cogen Power Plant , Godavari Biorefineries Ltd.		
Sl.no	Parameters	Results
1	Report Sl.No.	12(2018-19)
2	Stack Attached to	120 TPH Boiler
3	Date of Sampling	07.02.2020
4	Dimensions of Stack	Height - 70 mt. ϕ = 3.0 mt
5	C/S area of Stack (As1)	7.06 m ²
6	C/S area of sampling Location (As1)	7.06 m ²
7	Manometer Reading (k) in mm	4.01($\Delta P = 4.01 \times 0.8 = 3.208$)
8	Stack Temperature $T_s = ^\circ C + 273$	140 + 273 = 413 $^\circ K$
9	Meter Temperature $T_m = ^\circ C + 273$	29 + 273 = 302 $^\circ K$
10	Velocity of flue gas $V_s = C \sqrt{K \times T_s}$	0.175 $\sqrt{3.208 \times 413} = 6.18$ mt / Sec
11	T_m / T_s	0.731
12	Nozzle diameter	3/8" = 0.375 inches
13	C/S area of Nozzle A_n (m ²)	7.13 x 10 ⁻⁵
14	Rate of Sampling (LPM) $q = A_n \times V_s \times T_m / T_s \times 1000 \times 60$	7.13 x 10 ⁻⁵ x 6.18 x 0.731 x 10 ³ x 60 = 19.32
15	Period of Sampling in Minutes	15 Minutes
16	Volume of Sample in ltrs	19.32 x 15 = 289.8 ltrs
17	Volume of Sample in m ³	0.2898
18	Thimble No.	CO GEN - 12
19	Initial weight of Thimble in grams (W1)	4.025
20	Final Weight of Thimble in grams (W2)	4.05
21	W2 - W1	0.025
22	SPM mg / Nm ³	86.27
23	Rate of Emission Nm ³ /Hr	
	$A_s1 \times V_s \times 3600 \times 298 / T_s$	


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Name of the Industry :1 x 24 MW Cogen Power Plant , Godavari Biorefineries Ltd.		
Sl.no	Parameters	Results
1	Report Sl.No.	13(2019 -20)
2	Stack Attached to	130 TPH Boiler
3	Date of Sampling	20.02.2020
4	Dimensions of Stack	Height - 70 mt, $\phi = 3.0$ mt
5	C/S area of Stack (A_{s1})	7.06 m ²
6	C/S area of sampling Location (A_{s1})	7.06 m ²
7	Manometer Reading (k) in mm	4.2($\Delta P = 4.2 \times 0.8 = 3.36$)
8	Stack Temperature $T_s = ^\circ C + 273$	125 + 273 = 398 ^o K
9	Meter Temperature $T_m = ^\circ C + 273$	30 + 273 = 303 ^o K
10	Velocity of flue gas $V_s = C \sqrt{K \times T_s}$	0.175 $\sqrt{3.36 \times 398} = 6.399$ mt / Sec
11	T_m / T_s	0.761
12	Nozzle diameter	3/8" = 0.375 inches
13	C/S area of Nozzle A_n (m ²)	7.13 x 10 ⁻⁵
14	Rate of Sampling (LPM) $q = A_n \times V_s \times T_m / T_s \times 1000 \times 60$	7.13 x 10 ⁻⁵ x 6.399 x 0.761 x 10 ³ x 60 = 20.83
15	Period of Sampling in Minutes	15 Minutes
16	Volume of Sample in ltrs	20.83 x 15 = 312.45 ltrs
17	Volume of Sample in m ³	0.3124
18	Thimble No.	CO GEN - 13
19	Initial weight of Thimble in grams (W1)	4.012
20	Final Weight of Thimble in grams (W2)	4.042
21	W2 - W1	0.03
22	SPM mg/ Nm ³	96.03
23	Rate of Emission Nm ³ /Hr	
	$A_{s1} \times V_s \times 3600 \times 298 / T_s$	


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Name of the Industry :1 x 21.56 MW Cogen Power Plant , Godavari Biorefineries Ltd.		
Sl.no	Parameters	Results
1	Report Sl No.	14(2018-19)
2	Stack Attached to	120 TPH Boiler
3	Date of Sampling	20.02.2020
4	Dimensions of Stack	Height - 70 mt, $\phi = 3.0$ mt
5	C/S area of Stack (A_{s1})	7.06 m ²
6	C/S area of sampling Location (A_{s1})	7.06 m ²
7	Manometer Reading (k) in mm	4.01($\Delta P = 4.01 \times 0.8 = 3.208$)
8	Stack Temperature $T_s = ^\circ C + 273$	140 + 273 = 413 ^o K
9	Meter Temperature $T_m = ^\circ C + 273$	29 + 273 = 302 ^o K
10	Velocity of flue gas $V_s = C \sqrt{K X T_s}$	0.175 $\sqrt{3.208 \times 413} = 6.18$ mt / Sec
11	T_m / T_s	0.731
12	Nozzle diameter	3/8" = 0.375 inches
13	C/S area of Nozzle A_n (m ²)	7.13 x 10 ⁻³
14	Rate of Sampling (LPM) $q = A_n \times V_s \times T_m / T_s \times 1000 \times 60$	7.13 x 10 ⁻³ x 6.18 x 0.731 x 10 ³ x 60 = 19.32
15	Period of Sampling in Minutes	15 Minutes
16	Volume of Sample in ltrs.	19.32 x 15 = 289.8 ltrs
17	Volume of Sample in m ³	0.2898
18	Thimble No.	CO GEN - 14
19	Initial weight of Thimble in grams (W1)	4.022
20	Final Weight of Thimble in grams (W2)	4.05
21	W2 - W1	0.028
22	SPM mg / Nm ³	96.62
23	Rate of Emission Nm ³ /Hr	
	$A_{s1} \times V_s \times 3600 \times 298 / T_s$	


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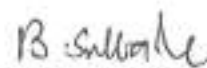
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AMBIENT AIR QUALITY REPORT

Report Ref. No. : SEC/AA-QZ/01-20				End of Analysis : 08 February 2020				
Name of Industry/Customer: Godavari Biorefineries Ltd. [Co-gen Unit]				Report Date : 10 February 2020				
Address: A/p. Sameerwadi - 587316, (Tq) Mudhol, (Dst) Bagalkot.				Lab ID/Sample Ref. No. : QZ-AA				
Date of Collection / Sampling : 27 January 2020				Nature of Sample: Ambient Air				
Date of Receipt : 28 January 2020				Sample Collected By: SEC Lab				
Sr. No.	Sampling Station	Wind Direction	Direction & Distance from stack	PM ₁₀ (µg/m ³)	PM _{2.5} (µg/m ³)	SO ₂ (µg/m ³)	NO _x (µg/m ³)	
				Limits	< 100µg/m ³	< 60µg/m ³	< 80µg/m ³	< 80µg/m ³
				Method of Testing	IS 5182 (Part 23): 2006	SEC/QAL/SOP/AIR/PM2.5/03	IS 5182 (Part 2): 2001	IS 5182 (Part 6): 2006
1.	Near Switch Yard	Easterly	E, 145 meters	79	33	12.00	15.00	


Analyzed By




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AMBIENT AIR QUALITY REPORT

Report Ref. No. : SEC/AA-RV/02-20				End of Analysis : 03 March 2020				
Name of Industry/Customer: Godavari Biorefineries Ltd. [Co-gen Unit]				Report Date : 05 March 2020				
Address: A/p. Sameerwadi - 587316, (Tq) Mudhol, (Dst) Bagalkot.				Lab ID/Sample Ref. No. : RV-AA				
Date of Collection / Sampling : 21 February 2020				Nature of Sample: Ambient Air				
Date of Receipt : 22 February 2020				Sample Collected By: SEC Lab				
Sr. No.	Sampling Station	Wind Direction	Direction & Distance from stack	PM ₁₀	PM _{2.5}	SO ₂	NO _x	
				(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	
				Limits	< 100µg/m ³	< 60µg/m ³	< 80µg/m ³	< 80µg/m ³
				Method of Testing	IS 5182 (Part 23): 2006	SEC/QAL/SOP/AIR/PM2.5/03	IS 5182 (Part 2): 2001	IS 5182 (Part 6): 2006
1.	Near Switch Yard	Easterly	E, 145 meters		73	30	11.00	14.00


Analyzed By





Authorized Signatory
Technical Manager/ Quality Manager

**45.56 MWH COGENERATION POWER PLANT GBL SAMEERWADI
AMBIENT AIR QUALITY MONITORING REPORTS
FOR THE MONTH JANUARY-2020**

SPM ANALYSIS REPORT	
Sampling station	Near Switch Yard
Period	10.00 am to 10.00 am
Direction/Distance	S.E to N.W/100 mts
Date of analysis	02.01.2020
Duration	24.00 Hrs
RESULTS	
Initial weight of the filter paper (wi)	2.11
Final weight of the filter paper (wf)	2.62
Difference in weight (grams)	0.51
Average air flow m ³ /hr	1.17
Ambient temperature degree centigrade	22
CALCULATION:	
SPM in mg/Nm ³	0.30271
SPM in micro gram/Nm ³	302.71


M.S. Godi


G. Suryaprakash Rao
GM Co-Gen

**45.56 MWH COGENERATION POWER PLANT GBL SAMEERWADI
AMBIENT AIR QUALITY MONITORING REPORTS
FOR THE MONTH JANUARY-2020**

SPM ANALYSIS REPORT	
Sampling station	Near Switch Yard
Period	10.00 am to 10.00 am
Direction/Distance	S.E to N.W/100 mts
Date of analysis	08.01.2020
Duration	24.00 Hrs
RESULTS	
Initial weight of the filter paper (wi)	2.13
Final weight of the filter paper (wf)	2.62
Difference in weight (grams)	0.49
Average air flow m ³ /hr	1.17
Ambient temperature degree centigrade	23
CALCULATION:	
SPM in mg/Nm ³	0.29084
SPM in micro gram/Nm ³	290.84


M.S. Godi


G. Suryaprakash Rao
GM Co-Gen

**45.56 MWH COGENERATION POWER PLANT GBL SAMEERWADI
AMBIENT AIR QUALITY MONITORING REPORTS
FOR THE MONTH JANUARY-2020**

SPM ANALYSIS REPORT	
Sampling station	Near Switch Yard
Period	10.00 am to 10.00 am
Direction/Distance	S.E to N.W/100 mts
Date of analysis	13.01.2020
Duration	24.00 Hrs
RESULTS	
Initial weight of the filter paper (wi)	2.15
Final weight of the filter paper (wf)	2.62
Difference in weight (grams)	0.47
Average air flow m ³ /hr	1.17
Ambient temperature degree centigrade	23
CALCULATION:	
SPM in mg/Nm ³	0.27896
SPM in micro gram/Nm ³	278.96



M.S.Godi



G.Suryaprakash Rao
GM Co-Gen

**45.56 MWH COGENERATION POWER PLANT GBL SAMEERWADI
AMBIENT AIR QUALITY MONITORING REPORTS
FOR THE MONTH JANUARY-2020**

SPM ANALYSIS REPORT	
Sampling station	Near Switch Yard
Period	10.00 am to 10.00 am
Direction/Distance	S.E to N.W/100 mts
Date of analysis	18.01.2020
Duration	24.00 Hrs
RESULTS	
Initial weight of the filter paper (wi)	2.1
Final weight of the filter paper (wf)	2.66
Difference in weight (grams)	0.56
Average air flow m ³ /hr	1.16
Ambient temperature degree centigrade	21
CALCULATION:	
SPM in mg/Nm ³	0.33525
SPM in micro gram/Nm ³	335.25


M.S. Godi


G. Suryaprakash Rao
GM Co-Gen



ಕರ್ನಾಟಕ ಸರ್ಕಾರ

ಕಾರ್ಖಾನೆಗಳು, ಬಾಯ್ಲರುಗಳು, ಕೈಗಾರಿಕಾ, ಸುರಕ್ಷತೆ ಮತ್ತು ಸ್ವಾಸ್ಥ್ಯ ಇಲಾಖೆ

ಸಂಖ್ಯೆ:ಬಾಲುನಿಬೆ/ಬಿಎಲ್ಆರ್/ಸಿಎಫ್‌ಎಸ್- 55 /2019-20

ಬಾಯ್ಲರುಗಳ ಉಪ ನಿರ್ದೇಶಕರ ಕಛೇರಿ

ಪ್ರಭು ನಿವಾಸ ಪ್ಲಾಟ್ ನಂ.14 ಕ್ಲಬ್ ರಸ್ತೆ
ಬೆಳಗಾವಿ-590001

ದೂರವಾಣಿ: 0831-2466033

ದಿನಾಂಕ: 22-08-2019

ಇವರಿಗೆ,

M/s Godavari Biore-fineries Ltd.
SAMEERWADI - 587316

ಮಾನ್ಯರ :

ವಿಷಯ : ನಿಮ್ಮ ಬಾಯ್ಲರ ಸಂಖ್ಯೆ: MYS - 2394 ಪ್ರಮಾಣ ಪತ್ರದ ಕುರಿತು.

ದಿನಾಂಕ: 16-08-2019 ರಂದು ತಮ್ಮ ಬಾಯ್ಲರನ್ನು ಪರಿವೀಕ್ಷಿಸಿದ, ಸದರಿ ಬಾಯ್ಲರಿಗೆ ದಿನಾಂಕ:-14-08-2020 ರವರೆಗೆ, ಈ ಕೆಳಗಿನ ಪರಶೋಧನೆ ನವೀಕರಿಸಿದ ಪ್ರಮಾಣಪತ್ರವನ್ನು ತಮ್ಮ ದಾಖಲೆಗೆ ಮತ್ತು ಬಾಯ್ಲರ್ ಮನೆಯಲ್ಲಿ ಪ್ರದರ್ಶಿಸಲು ಈ ಪತ್ರದ ಜೊತೆ ಲಗತ್ತಿಸಿ ಕಳುಹಿಸಿದೆ. ಅಲ್ಲದೆ ಸದರಿ ಮೂಲ ಪ್ರಮಾಣಪತ್ರ ತಲುಪಿದ್ದಕ್ಕೆ ಸ್ವೀಕೃತಿ ಪತ್ರ ಕಳುಹಿಸಲು ಕೋರಲಾಗಿದೆ.

1. ಈ ಬಾಯ್ಲರನ್ನು ಆರಿಕೃತ ಪ್ರಮಾಣ ಪತ್ರ ಪೊಂದಿದ ಬಿಎಲ್/1ನೇ ದರ್ಜೆ/2ನೇ ದರ್ಜೆ ಬಾಯ್ಲರ ಅಟೆಂಡೆಂಟ್/10ನೇ ಕ್ಲಾಸ್ ಪಾಸಾದವರ ಉಸ್ತುವಾರಿಯಲ್ಲಿಯೇ ನಡೆಸಬೇಕು ಹಾಗೂ ಈ ಬಗ್ಗೆ ದಾಖಲಿಸಬೇಕು.
2. ಬಾಯ್ಲರಿಗೆ ಶುದ್ಧೀಕರಿಸಿದ ಮೈದು ನೀರನ್ನ (ಫೀಡ್ ವಾಟರ್) ಬಳಸಬೇಕು.
3. ಬಾಯ್ಲರಿಗೆ ನಿಯತಕಾಲಿಕವಾಗಿ ಬ್ಲೋ-ಡೌನ್ ನೀಡಬೇಕು.
4. ಬಾಯ್ಲರಿನ ಸೇಫ್ಟಿ ವಾಲ್ವ್, ಲೇವೆಲ್ ಗೇಜು, ಆಟೋ ವಾಟರ್ ಲೇವೆಲ್ ಕಂಟ್ರೋಲರ್ ಇವುಗಳನ್ನು ಪ್ರತಿ ಪಾಳೆಯಲ್ಲಿ ಪರಿಶೀಲಿಸಬೇಕು .
5. ಬಾಯ್ಲರನ್ನು ಪ್ರಮಾಣೀಕರಿಸಿದ ಫೋಟೋಗಿಂಟ್ ಹೆಚ್ಚಿನ ಪ್ರತಿಯನ್ನು ನಡೆಸಬಾರದು.
6. ಬಾಯ್ಲರಿನ ಯಾವುದೇ ದುರಸ್ತಿ ಕೈಗೊಳ್ಳಬಾರದು.
7. ಬಾಯ್ಲರನ್ನು (ಫೈರ್ ಸೈಡ್ ಮತ್ತು ವಾಟರ್ ಸೈಡ್) ನಿಯತಕಾಲಿಕವಾಗಿ ಸ್ವಚ್ಛಗೊಳಿಸಬೇಕು.
8. ಬಾಯ್ಲರಿನ ಪ್ರಮಾಣ ಪತ್ರದ ಅವಧಿ ಮುಗಿಯುವ ಒಂದು ತಿಂಗಳ ಮುನ್ನವೇ ಪ್ರಮಾಣಪತ್ರ ನವೀಕರಣಕ್ಕೆ ಶುಲ್ಕ ಸಹಿತ ಅರ್ಜಿಯನ್ನು ನಮೂನೆ ಬಿ ನಲ್ಲಿ ಈ ಕಛೇರಿಗೆ ಸಲ್ಲಿಸಬೇಕು.

ಆದಕ :- ನಮೂನೆ-VI, ಮೂಲ ಪ್ರಮಾಣ ಪತ್ರ.

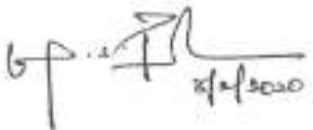
ತಮ್ಮ ವಿಶ್ವಾಸಿ
ಕೆ.ವಿ.ಪಾಲಯ್ಯ

ಬಾಯ್ಲರುಗಳ ಉಪ ನಿರ್ದೇಶಕರು
ಬೆಳಗಾವಿ ವಿಭಾಗ ಬೆಳಗಾವಿ.
ಬಾಯ್ಲರುಗಳ ಉಪನಿರ್ದೇಶಕರು
ಬೆಳಗಾವಿ ವಿಭಾಗ, ಬೆಳಗಾವಿ

**45.56 MWH COGENERATION POWER PLANT GBL SAMEERWADI
AMBIENT AIR QUALITY MONITORING REPORTS
FOR THE MONTH JANUARY-2020**

SPM ANALYSIS REPORT	
Sampling station	Near Switch Yard
Period	10.00 am to 10.00 am
Direction/Distance	S.E to N.W/100 mts
Date of analysis	25.01.2020
Duration	24.00 Hrs
RESULTS	
Initial weight of the filter paper (wi)	2.1
Final weight of the filter paper (wf)	2.68
Difference in weight (grams)	0.58
Average air flow m ³ /hr	1.16
Ambient temperature degree centigrade	24
CALCULATION:	
SPM in mg/Nm ³	0.34722
SPM in micro gram/Nm ³	347.22

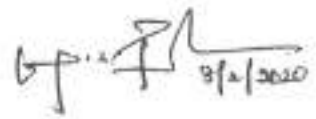

M.S. Godi


G. Suryaprakash Rao
GM Co-Gen

**45.56 MWH COGENERATION POWER PLANT GBI, SAMEERWADI
AMBIENT AIR QUALITY MONITORING REPORTS
FOR THE MONTH JANUARY-2020**

SPM ANALYSIS REPORT	
Sampling station	Near Switch Yard
Period	10.00 am to 10.00 am
Direction/Distance	S.E to N.W/100 mts
Date of analysis	31.01.2020
Duration	24.00 Hrs
RESULTS	
Initial weight of the filter paper (wi)	2.14
Final weight of the filter paper (wf)	2.68
Difference in weight (grams)	0.54
Average air flow m ³ /hr	1.16
Ambient temperature degree centigrade	24
CALCULATION:	
SPM in mg/Nm ³	0.32328
SPM in micro gram/Nm ³	323.28


M.S. Godi


G. Suryaprakash Rao
GM Co-Gen

45.56 MW CO- GENERATION POWER PLANT, GBL SAMEERWADI
SOUND LEVEL MONITORING REPORTS FOR THE MONTH OF FEBRUARY - 2020

Date: 09.03.2020

S.NO	DATE	STATION	DAY TIME (dB)	NIGHT TIME (dB)
1	05.02.2020	Near Switch yard	70	60
2	12.02.2020	Near Switch yard	70	65
3	20.02.2020	Near turbine hall	75	65
4	29.02.2020	Near turbine hall	70	65



M.S. Godi


G. Subrahprakash Rao

**45.56 MWH COGENERATION POWER PLANT GBL SAMEERWADI
AMBIENT AIR QUALITY MONITORING REPORTS
FOR THE MONTH FEBRUARY-2020**

SPM ANALYSIS REPORT	
Sampling station	Near Switch Yard
Period	10.00 am to 10.00 am
Direction/Distance	S.E to N.W/100 mts
Date of analysis	01.02.2020
Duration	24.00 Hrs
RESULTS	
Initial weight of the filter paper (wi)	2.1
Final weight of the filter paper (wf)	2.68
Difference in weight (grams)	0.58
Average air flow m ³ /hr	1.17
Ambient temperature degree centigrade	25
CALCULATION:	
SPM in mg/Nm ³	0.34425
SPM in micro gram/Nm ³	344.25


M.S. Godi


G. Surya Prakash Rao
GM Co-Gen

45.56 MWH COGENERATION POWER PLANT GBL SAMEERWADI
AMBIENT AIR QUALITY MONITORING REPORTS
FOR THE MONTH FEBRUARY-2020

SPM ANALYSIS REPORT	
Sampling station	Near Switch Yard
Period	10.00 am to 10.00 am
Direction/Distance	S.E to N,W/100 mts
Date of analysis	06.02.2020
Duration	24.00 Hrs
RESULTS	
Initial weight of the filter paper (wi)	2.12
Final weight of the filter paper (wf)	2.68
Difference in weight (grams)	0.56
Average air flow m ³ /hr	1.17
Ambient temperature degree centigrade	24
CALCULATION:	
SPM in mg/Nm ³	0.33238
SPM in micro gram/Nm ³	332.38


M.S. Godi


G. Suryaprakash Rao
GM Co-Gen

45.56 MWH COGENERATION POWER PLANT GBL SAMEERWADI
AMBIENT AIR QUALITY MONITORING REPORTS
FOR THE MONTH FEBRUARY-2020

SPM ANALYSIS REPORT	
Sampling station	Near Switch Yard
Period	10.00 am to 10.00 am
Direction/Distance	S.E to N.W/100 mts
Date of analysis	13.02.2020
Duration	24.00 Hrs
RESULTS	
Initial weight of the filter paper (wi)	2.16
Final weight of the filter paper (wf)	2.68
Difference in weight (grams)	0.52
Average air flow m ³ /hr	1.17
Ambient temperature degree centigrade	25
CALCULATION:	
SPM in mg/Nm ³	0.30864
SPM in micro gram/Nm ³	308.64

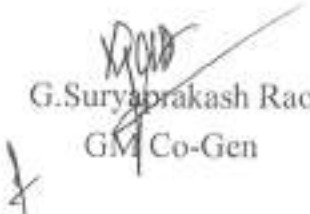

M.S. Godi


G. Suryaprakash Rao
GM Co-Gen

45.56 MWH COGENERATION POWER PLANT GBI. SAMEERWADI
AMBIENT AIR QUALITY MONITORING REPORTS
FOR THE MONTH FEBRUARY-2020

SPM ANALYSIS REPORT	
Sampling station	Near Switch Yard
Period	11.00 am to 11.00 am
Direction/Distance	S.E to N.W/100 mts
Date of analysis	19.02.2020
Duration	24.00 Hrs
RESULTS	
Initial weight of the filter paper (wi)	2.3
Final weight of the filter paper (wf)	2.68
Difference in weight (grams)	0.38
Average air flow m ³ /hr	1.17
Ambient temperature degree centigrade	25
CALCULATION:	
SPM in mg/Nm ³	0.22555
SPM in micro gram/Nm ³	225.55


M.S. Godi


G.Suryaprakash Rao
GM Co-Gen

**45.56 MWH COGENERATION POWER PLANT GBL SAMEERWADI
AMBIENT AIR QUALITY MONITORING REPORTS
FOR THE MONTH FEBRUARY-2020**

SPM ANALYSIS REPORT	
Sampling station	Near Switch Yard
Period	10.00 am to 10.00 am
Direction/Distance	S.E to N.W/100 mts
Date of analysis	24.02.2020
Duration	24.00 Hrs
RESULTS	
Initial weight of the filter paper (wi)	2.25
Final weight of the filter paper (wf)	2.68
Difference in weight (grams)	0.43
Average air flow m ³ /hr	1.16
Ambient temperature degree centigrade	25
CALCULATION:	
SPM in mg/Nm ³	0.25742
SPM in micro gram/Nm ³	257.42


M.S. Godi


G. Suryaprakash Rao
GM Co-Gen

45.56 MWH COGENERATION POWER PLANT GBL SAMEERWADI
AMBIENT AIR QUALITY MONITORING REPORTS
FOR THE MONTH FEBRUARY-2020

SPM ANALYSIS REPORT	
Sampling station	Near Switch Yard
Period	09.00 am to 09.00 am
Direction/Distance	S.E to N.W/100 mts
Date of analysis	29.02.2020
Duration	24.00 Hrs
RESULTS	
Initial weight of the filter paper (wi)	2.21
Final weight of the filter paper (wf)	2.68
Difference in weight (grams)	0.47
Average air flow m ³ /hr	1.16
Ambient temperature degree centigrade	26
CALCULATION:	
SPM in mg/Nm ³	0.28137
SPM in micro gram/Nm ³	281.37


M.S. Godi


G. Suryaprakash Rao
GM Co-Gen
✱



SEC

Dr. SUBBARAO'S ENVIRONMENT CENTER

"Arundhall", Opp. Sahaynagar, M.S.E.B. Road, Vishrambag, Sangli - 416 415
Phone : Sangli - 0233 - 2301857, (M) 9372109522, 9890992118, 9890454493.
E-mail : bssubbarao@yahoo.com / bssharal@yahoo.com / bsnagjyoti@yahoo.com
QCI - NABET Accredited ETA Consultant Organization - Certificate No.
NABET / EIA / 1619 / RA 0057 valid upto June 12, 2019.

NABL Quality Assurance Laboratory Accreditation Certificate No. TC - 6121 valid upto 09-08-2019

TEST REPORT

Report Ref. No. : SEC/W-QZ/01-20	End of Analysis : 08 February 2020
Name of Industry/Customer: Godavari Biorefineries Ltd. [Co-gen Unit]	Report Date : 10 February 2020
Address: A/p. Sameerwadi - 587316, (Tq) Mudhol, (Dst) Bagalkot.	Lab ID/Sample Ref. No. : QZ1
Date of Collection / Sampling : 28 January 2020	Nature of Sample: Water
Date of Receipt : 28 January 2020	Sample Collected By: SEC Lab
Date of Analysis: 29 January 2020	Sample Quantity : 1 lit
Name of Sample : Co-gen ETP Outlet	

Sr. No.	Test Parameter	Result	Unit	Test Method
1	pH	7.66	-	IS:3025 (P-11) 1983
2	Chemical Oxygen Demand	130	mg/l	IS:3025 (P-58) 2006
3	B.O.D. (3 days at 27°C)	47	mg/l	IS:3025 (P-44) 1993
4	Total Dissolved Solids	538	mg/l	IS:3025(P-16)1984
5	Total Suspended Solids	56	mg/l	IS:3025 (P-17) 1984
6	Chloride as Cl ⁻	131	mg/l	IS:3025 (P-32) 1988
7	Sulphate as SO ₄	85	mg/l	IS:3025 (P-24) 1986
8	Oil & Grease	ND	mg/l	IS:3025 (P-39) 1991 (RA 2003)

Remarks:

Thanking you,

Analysed By





Authorized Signatory
Technical Manager/ Quality Manager

Note:

1. The result pertains only for the sample tested.
2. The test result shall not be reproduced except in full, without written approval of the laboratory.
3. Sample is not drawn by Dr.Subbarao's Environment Centre, Sangli.
4. Retention period for the remnant shall be 30 days.
5. ND- Not Detected.

***END of Test Report ***



SEC

Dr. SUBBARAO'S ENVIRONMENT CENTER

"Arundhat", Opp. Sahayognagar, M.S.E.B. Road, Vishrambag, Sangli - 416 415
Phone : Sangli - 0233 - 2301857, (M) 9372109522, 9890992118, 9890454493.
E-mail : bssubbarao@yahoo.com / bssharal@yahoo.com / bshagiyoti@yahoo.com
OCI - NABET Accredited ETA Consultant Organization - Certificate No.
NABET / EIA / 1619 / RA 0057 valid upto June 12, 2019.

NABL Quality Assurance Laboratory Accreditation Certificate No. TC - 6121 valid upto 09-08-2019

TEST REPORT

Report Ref. No. : SEC/W-RV/02-20	End of Analysis : 03 March 2020
Name of Industry/Customer: Godavari Biorefineries Ltd. [Co-gen Unit]	Report Date : 05 March 2020
Address: A/p. Sameerwadi - 587316, (Tq) Mudhol, (Dst) Bagaikot.	Lab ID/Sample Ref. No. : RV1
Date of Collection / Sampling : 22 February 2020	Nature of Sample: Water
Date of Receipt : 22 February 2020	Sample Collected By: SEC Lab
Date of Analysis: 24 February 2020	Sample Quantity : 1 lit
Name of Sample : Co-gen ETP Outlet	

Sr. No.	Test Parameter	Result	Unit	Test Method
1	pH	8.10	-	IS:3025 (P-11) 1983
2	Chemical Oxygen Demand	133	mg/l	IS:3025 (P-58) 2006
3	B.O.D. (3 days at 27°C)	42	mg/l	IS:3025 (P-44) 1993
4	Total Dissolved Solids	540	mg/l	IS:3025(P-16)1984
5	Total Suspended Solids	57	mg/l	IS:3025 (P-17) 1984
6	Chloride as Cl ⁻	124	mg/l	IS:3025 (P-32) 1988
7	Sulphate as SO ₄	81	mg/l	IS:3025 (P-24) 1986
8	Oil & Grease	ND	mg/l	IS:3025 (P-39) 1991 (RA 2003)

Remarks:

Thanking you,

Analysed By



B. S. Satar

Authorized Signatory
Technical Manager/ Quality Manager

Note:

1. The result pertains only for the sample tested.
2. The test result shall not be reproduced except in full, without written approval of the laboratory.
3. Sample is not drawn by Dr. Subbarao's Environment Centre, Sangli.
4. Retention period for the remnant shall be 30 days.
5. ND- Not Detected.

***END of Test Report ***

AVERAGE ANALYSIS REPORT OF TREATED EFFLUENT SHOWING PERFORMANCE OF THE TREATMENT PLANT FOR THE MONTH OF JANUARY-2020

S.NO	Polluting parameters as mentioned in the conditions imported under the consent granted under section 25(26) of the water (prevention & control of the pollution) Act 1974	Maximum permissible limits or range allowed as per consent conditions	Concentration of the range of parameters as per report	Date of which There was breakdown or failure of the plant	Remarks On which under performance was noticed
1	2	3	4	5	6
1	Colour & Odour	Colourless & Odourless	Colourless & Odourless		
2	Suspended Solids - mg/lit (max)	100	1950-2000		
3	Conductivity uS/cm (max)	2250	7.8-8.2		
4	pH value	6.0 to 8.5	< 10		
5	B.O.D (5 days at 20 deg C)mg/lts(max)	100	< 10		
6	Oil & Grease - mg/lit(max)	10	190-230		
7	Chlorides (as Cl ⁻)-mg/lit (max)	350	250-270		
8	Sulphates (as SO ₄)-mg/l (max)	1000	Absent		
9	Pesticides	Absent	Absent		


M.S. Godil
Dy Manager


G. Suryaprakash Rao
GM - Cogeneration

G. Suryaprakash Rao
GM - Cogeneration


Signature of the consumer
The Godavari Biorefineries Ltd.