



**Allied Blenders
& Distillers**

ABD/RANGAPUR/DISTILLERY/TSPCB/2023-24/16

Date: 27.09.2023

To,
The Environmental Engineer,
Regional Office, Telangana State Pollution Control Board,
4th Floor, Collectorate Office, Lakidikapul,
Hyderabad, Telangana- 500004

Dear Sir/Madam,

Subject: M/s Allied Blenders and Distillers Limited, at Survey No. 690/AA, 691/AA2 & 692, Village - Rangapur, Mandal - Pebbair, District - Wanaparthy, State - Telangana 509104. Environmental Statement Form-V for FY 2022-2023 Submission - Regarding.

Refer: 1. Consent Order No. 210822768023, Dated: 24.03.2021
2. Amendment Consent Order No. 210822768023/484, Dated: 08.12.2021
3. Name Change Order No. 21082276802-1626, Dated: 29.12.2022

We reference to above, M/s Allied Blenders and Distillers Limited, at Survey No. 690/AA, 691/AA2 & 692, Village - Rangapur, Mandal - Pebbair, District - Wanaparthy, State - Telangana, we are herewith submitting the Environmental Statement Form-V for the for the period of April - 2022 to March - 2023 for the Distillery, Rangapur Unit.

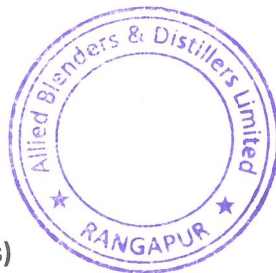
Kindly acknowledge the receipt of the same.

Thanking you.

Yours Faithfully,

M/s. Allied Blenders and Distillers Limited

Sadanand Chikhale
(Lead Distillery Operations)



Enclosure: Form V for FY 22-23



Allied Blenders And Distillers Limited

Distillery: Survey No : 692, Rangapur Village, Pebbair Mandal, Wanaparthy District, Telangana - 509 104.
Registered Office : 394/C, Ground Floor, Lamington Chambers, Lamington Road, Mumbai - 400004. India.
Website : www.abdindia.com info@abdindia.com CIN No. : U15511MH2008PLC187368

Environmental Statement

(Form-V)

2022-2023

For

**Existing Grain Based Distillery from 150 KLPD along with
Existing 6.5 MW Power Plant
at Village - Rangapur, Mandal - Pebbair, District - Wanaparthy,
State-Telangana Pin Code - 509104**



M/s. Allied Blenders and Distillers Limited

Submitted to:

Regional office

Telangana State Pollution Control Board

4th Floor, Collectorate Office, Lakidikapul,

Hyderabad, Telangana– 500004

September – 2023

Environment Statement

An Environmental audit is a thorough self-examination of a Company's practices of pollution Control and environment protection. An "Audit" is now a legally defined activity which differs from the normal environmental reviews that were hitherto produced. The statutory audit expects evaluation of efforts for resource conservation during the period under review, but does not feel satisfied unless this is reflected positively in lowering of the manufacturing cost. The statutory audit therefore suggests that this be followed by an advanced environmental audit to follow the Rule 14, not merely in letter but also in spirit.

Environmental Audit (EA) was first notified under the Environment (Protection) Act, 1986, by the Ministry of Environment and Forests, Government of India. By an Amendment, in the year 1993, the term for the document has been revised from "Environment Audit Report" to "Environment Statement". Environment Statement has to be submitted by every person carrying on an industry operation or process requiring consent under section 25 of the water (Prevention and Control of Pollution) Act 1974 or under section 21 of the Air (Prevention and Control of Pollution) Act of 1981 or both or authorization under the Hazardous wastes (Management and Handling) Rules of 1989 issued under the environment (protection) Act of 1986.

The statement has to be submitted to the concerned pollution control board for the period ending on 31st March in Prescribed format by 30th September every year beginning from 1993.

The prescribed Performa has nine parts and covers items like water and raw material consumption, pollution discharged to environment per unit of output of the parameters specified in the consent, hazardous waste from pollution control facilities, solid waste from the process and from the pollution control facilities, impact of pollution abatement measures on the conservation of natural resources and on cost of production.

Realizing the necessity and recognizing the importance of Environment statement, M/s Allied Blenders and Distillers Limited has given work permit to Dr.B.B.S.V.Seshagiri Rao to undertake the Environment Audit Studies for the year 2022-2023

PROJECT SETTING

The industry is located at Survey No. 690/AA, 691/AA2 & 692, Village -Rangapur, Mandal - Pebbair, District - Wanaparthy, State - Telangana and TSPCB issued CFO & HWA order to the industry Consent Order No. 210822768023, Dated: 24.03.2021, Amendment Consent Order No. 210822768023/484, Dated: 08.12.2021 and Name Change Order No. 21082276802-1626, Dated: 29.12.2022 to produce the following products with a validity period up to 31.03.2026.

Sr. No.	Products	Capacity
1	Rectified Spirit /Ethanol / ENA (Grain based — Maize / Jowar / Broken rice — 380 TPD)	150 KLD (150 x 365Days) 54,750 KLA
2	Electricity	6.5 MW

The industry has complied with emissions limits for Boiler and DG set and also complied with all the rules and regulations specified in water (P&C) of P Act, 1974, Air (P&C) P Act, 1981 and Hazardous waste rules.

MATERIAL AUDIT

Material Audit is very important component in Environment statement and is a basis for development of raw material balance of an industry for process highlighting the proposed utilization of raw materials during which reuse by product recovery and reduction of losses can be thought of. It is a useful mechanism to study the plant operations, check performance against design and to identify sources of raw materials loss which will be the basis for implementing the conservation measures. In the present case the main raw material used in the manufacture of broken rice/maize etc.

Precautionary steps may be taken to optimize the production of the ENA per Kg of Maize / Jowar / Broken rice. Necessary action may have to be initiated right from procurement, process Transportation Storage and in production.

WATER AUDIT**Water Consumption During details for the April 2022 to March 2023**

Unit: KLM

Month	Cooling Tower makeup	Boiler Feed	DM & Softner	Domestic use	Process Use & CO ₂ Plant	Total
Apr-22	16524	5491	1564	154.7	7922	31656
May-22	26151	7705	2162	209.76	11385	47613
Jun-22	31260	9390	2610	281.4	14580	58121
Jul-22	27378	8451	2322	289	12879	51319
Aug-22	26520	8040	2190	273.9	14190	51214
Sep-22	24060	9090	2259	278.4	14160	49847
Oct-22	25048	9703	2449	291.4	15004	52495
Nov-22	26070	9930	2460	268.5	15270	53999
Dec-22	18221	6232	1596	182.78	11096	37328
Jan-23	18576	5456	1456	295.43	9568	35351
Feb-23	25194	8164	1872	238.42	14612	50080
Mar-23	24300	7800	1900	301.01	13925	48226

Waste Water Quality Monitoring

Sample of waste water was collected from the site for the assessment of impacts of the Plant on discharge point.

Parameters	Units	Methods	Apr-22		May-22		Jun-22		Jul-22		Aug-22		Sep-22		Standards
			(ETP Inlet)	(ETP Outlet)	(ETP Inlet)	(ETP Outlet)	(ETP Inlet)	(ETP Outlet)	(ETP Inlet)	(ETP Outlet)	(ETP Inlet)	(ETP Outlet)	(ETP Inlet)	(ETP Outlet)	
pH	---	APHA 4500 H+B	5.26	7.34	5.32	7.38	5.34	7.39	5.36	7.48	5.35	7.32	5.7	7.4	5.50 to 9.00
Total Suspended Solids at 105°C	mg/L	APHA 2540 D	198	24	197	26	195	24	195	23	195	27	129	29	100
Total Dissolved Solids at 180°C	mg/L	APHA 2540 C	1279	52	1284	54	1275	53	1256	51	1282	53	774	158	---
Chlorides as Cl ⁻	mg/L	APHA 4500 Cl-C	374	21	377	22	378	24	368	22	372	21	185	34	---
Sulphates as SO ₄ ²⁻	mg/L	APHA 4500 SO ₄ ²⁻ -D	92	<1.0	93	<1.0	95	<1.0	91	<1.0	92	<1.0	148	<1.0	---
Sulphide as S ²⁻	mg/L	APHA 4500 S ²⁻ -F	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	---
Total Solids	mg/L	APHA 2540 B	1477	76	1482	79	1470	77	1451	75	1477	80	903	187	---
Phosphates as P	mg/L	APHA 4500 PC	8.5	<1	8.6	<1	8.5	<1	8.4	<1	8.5	<1	<1	<1	---
Chemical Oxygen Demand	mg/L	APHA 5220 B	2874	74	3483	72	3479	75	2865	72	3481	71	3426	62	250
Biological Oxygen Demand	mg/L	IS 3025(P-44)	862.2	22.2	1080	23	1043	22.5	860	21	1076	22	1027	18	30
Oil & Grease	mg/L	APHA 5520 B	1.4	<1.0	1.4	<1.0	1.3	<1.0	1.3	<1.0	1.3	<1.0	1.3	<1.0	10
Nitrate Nitrogen as NO ₃ N	mg/L	APHA 4500 NO ₃ B	2.6	<1	2.7	<1	2.6	<1	2.5	<1	2.6	<1	12	<1	50

Waste water Generation and treatment /Day**Unit: KLD**

Outlet No.	Outlets Description	Max. Daily Discharge KLD As per CFO	Point of Disposal
1	Spent Wash	900	Multiple effect Evaporator to Concentrate the solids to 30% and then to Decanter further to 90% Solids and Condensate water is re-used in the Process
2	RO-II Rejects	26.72	
3	Boiler Blow Down	56.0	Boiler blow down and Cooling Tower blow down, DM Plant & softener regeneration & CO2 Recovery Plant effluent are treated in the Zero liquid discharge system (ZLD) i.e UASB, Aeration-1&II, Clarifier, MGF, ACF, ultrafiltration followed by Ro-I&II and MEE and treated water shall be re used in the Cooling tower make up
4	Cooling Tower Blow Down	75.0	
5	DM Plant & Softener regeneration	100.0	
6	CO2 Recovery Plant	10.0	
7	Domestic waste water	8.0	Septic Tank followed by Soak Pit

1. Water Consumption for process @2.99KL/KL product, Boiler feed 1.84KL/KL product, cooling tower feed is 5.59KL/KL of Product, DM water 0.48KL/KL of Product.
2. Waste water Generation from Process is 3.79KL/KL of Product,
3. From Boiler blow down is 0.370KL/KL of Product
4. From cooling tower blow down is 0.48KL/KL of Product,
5. From DM Plant 0.62KL /KL of Product,
6. From CO₂ Plant 0.069KL/KL of Product
7. After treatment recycled water re used in to process @3.31KL/KL, Coolin tower feed water 1.10KL/KL of Product and ash quenching is 0.30KL/KL of product. (Total recycled water is 5.08KL/KL of product. against the CFO amendment Order for recycling water 7.7KL/KL of ENA and fresh water consumption is 10.97KL of KL of ENA Product against the CFO 15.99KL of fresh water consumption per KL of ENA.

Stack Emissions attached to 50 TPH Boiler Month of April 2022 to March 2022

Months	SPM mg/Nm ³	SO ₂ mg/Nm ³	NO _x mg/Nm ³
CPCB Guideline as per CFO	<115	<600	<800
Method	IS-11255 (Part-1): 1985	IS-11255 (Part-7): 2005	IS-11255 (Part-2): 1985
Apr-22	58	96	118
May-22	52	95	116
Jun-22	53	96	114
Jul-22	58	96	118
Aug-22	51	94	113
Sep-22	52	91	110
Oct-22	64	91	116
Nov-22	68	101	122
Dec-22	74	106	134
Jan-23	66	98	120
Feb-23	77	109	138
Mar-23	61	98	120
Average	58	96	118

Avg. SPM levels are 49.56% less than the Standard limit

Avg. SO₂ levels are 84.00% less than the Standard limit

Avg. NO_x levels are 85.25 % less than the Standard limit

Stack Connected to	--	1500 kVA D.G. Set.
Stack Height	Meters	12.0
Stack Diameter	Meters	0.25
Stack Cross Sectional Area	Sq. m	0.049
Temperature	K	379
Velocity	m/s	9.7
Flow Rate	m ³ /hr	6970

AMBIENT AIR QUALITY

Ambient air quality survey was also carried out to know the general atmosphere conditions prevailing in the vicinity of the industry. Three permanent points were located and monitored regularly every month. The results show that there is not much of a difference in both the conditions as can be seen from the results are given below indicates low concentration of PM₁₀, PM_{2.5}, SO₂ and NO_x compared to ambient air quality standards. Fugitive emissions were also tested every month from various dust generating points and the dust concentration was found to be within the stipulated limits.

Ambient Air Quality for Year 2022-23Units: µgm/m³

Month	Near Main Gate				Near Distillation			
	PM10	PM2.5	SO2	NOX	PM10	PM2.5	SO2	NOX
NAAQS	100	60	80	80	100	60	80	80
Apr-22	68	36	35	29	52	27	38	26
May-22	67	36	33	27	52	24	31	26
Jun-22	65	35	34	26	53	26	32	25
Jul-22	65	35	34	26	53	26	32	25
Aug-22	65	32	34	26	51	26	30	25
Sep-22	59	31	33	29	47	28	29	27
Oct-22	63	35	36	28	54	29	39	26
Nov-22	66	32	38	36	60	26	32	30
Dec-22	65	33	33	36	62	29	32	37
Jan-23	69	33.2	44	37.4	64	31.6	32	35.2
Feb-23	66	34	36	32	61	28	31	34
Mar-23	68	36	35	29	55	27	33	29
Average	65	34	35	30	52	27	38	26

1. Avg.PM₁₀-Near Main Gate is 65µgm/m³ and 35% less than the Standard limit
2. Avg.PM₁₀-Near Distillery area is 52 µgm/m³ and 48% less than the Standard limit
3. Avg.PM_{2.5}-Near Main Gate is 34µgm/m³ and 43.33% less than the Standard limit.
4. Avg.PM_{2.5}-Near Distillery area is 27.0 µgm/m³ and 55% less than the standard limit.
5. Avg.SO₂-Near Main Gate is 35µgm/m³ and 56.25% less than the Standard limit.

Noise levels data at various locations within the factory premises as follows,

1. Avg. Ambient Noise levels at CO2 plant area during Day time is 69.69 dB(A) (7.08% less than the Standard limit)
2. Avg. Ambient Noise levels at Boiler Turbine Hall during Day time is 70.46 dB(A) (6.05% less than the Standard limit)
3. Avg. Ambient Noise levels at Fermentation area during Day time is 69.69 dB(A) (7.08 % less than the Standard limit)
4. Avg. Ambient Noise levels at ETP area during Day time is 57.08 dB(A) (23.89% less than the Standard limit)
5. Avg. Ambient Noise levels at CO2 plant area during night time is 62.77 dB (A) (10.32% less than the standard limit)
6. Avg. Ambient Noise levels at Boiler Turbine Hall during the night time is 64.45dB(A) (7.92% less than the Standard limit)
7. Avg. Ambient Noise levels at Fermentation area during night time is 64.05 dB(A) (78.5% less than the Standard limit)
8. Avg. Ambient Noise levels at ETP area during night time is 51.56dB(A) (26.34% less than the Standard limit)

ENVIRONMENTAL QUALITY AUDIT

Ambient Air Quality monitoring was carried out to assess the status of existing air quality within the industries complex as well as nearby vegetation area. Three air pollution parameters namely PM10, PM2.5, SO₂ and NO_x were measured during the survey. In order to assess the stack emissions, stack monitoring was carried out from a chimney of coal fired boilers as well from diesel generating sets. Monitoring and analysis of water and waste water discharges from disposal points were carried out. Work zone monitoring was carried out to know exposure concentrations. Noise levels were measured after identifying critical noise zones. Existing facilities for handling/disposal of solid waste were evaluated critically.

FORM V for the year 2022-23

Environmental Statement for the financial year ending on 31st March on or before 30th of September every year.

PART -A

i.	Name and address of the owner/ Occupier of the industry operation or process	Mr. Arun Barik (Executive Director) M/s Allied Blenders and Distillers Limited at Survey No. 690/AA, 691/AA2 & 692, Village - Rangapur, Mandal - Pebbair, District - Wanaparthy, State - Telangana 509104.
ii.	Category	Red Category
iii.	List of Products	Rectified Spirit /Ethanol / ENA- 54750 KLA Power Plant -6.5MW
iv.	Year of Establishment	2011
v.	Date of the last Environmental Submitted	29.09.2022

PART C**POLLUTION GENERATED****(Parameters as Specified in the Consent Issues)**

1. Water Consumption for process @2.99KL/KL product, Boiler feed 1.84KL/KL product, Cooling tower feed is 5.59KL/KL of Product, DM water 0.48KL/KL of Product.
2. Waste water Generation from Process is 3.79KL/KL of Product,
3. From Boiler blow down is 0.370KL/KL of Product
4. From cooling tower blow down is 0.48KL/KL of Product,
5. From DM Plant 0.62KL /KL of Product,
6. From CO₂ Plant 0.069KL/KL of Product
7. After treatment recycled water re used in to process @3.31KL/KL, Coolin tower feed water 1.10KL/KL of Product and ash quenching is 0.30KL/KL of product. (Total recycled water is 5.08KL/KL of product. against the CFO amendment Order for recycling water 7.7KL/KL of ENA and fresh water consumption is 10.97KL of KL of ENA Product against the CFO 15.99KL of fresh water consumption per KL of ENA.
8. Our ZLD Plant performance in terms of Pollution load reduction is as given below TDS reduction 88%, COD reduction 97.30 %, BOD reduction 98.25%

PART G

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

M/s. ABDL has taken a number of pollution control measures with respect to Water, Air, Solid Waste and also in development of greenery within the factory premises.

Waste Water Management:

Influent and treated water quality monitoring are being done on regular basis and records are maintained in our laboratory in consultation with state pollution control board vendor M/s Re Sustainability Limited recognized with MoEF&CC & NABL.

Air Pollution

The Unit has monitoring parameters on daily basis and maintained the laboratory record. The Unit has all parameters monitoring systems (Online monitoring of Stack emission and effluent water) noise level monitoring and AAQ monitoring done once in a month by state pollution control board approved laboratory and reports are enclosed. The Unit has online continuous stack emission and treated water meters are connected with State pollution control board's website and CPCB website

The various solid wastes as mentioned in PART F are disposed-off by selling. The factory is very rich in greenery with various types of trees growing within the compound in a healthy manner.

The Unit has 5 first Aid stations at different locations in the Plant and 12 Trained & certified First Aiders. The Plant is covered in 30 Acres land and the Unit and out of which 10.81 Acres of land greenbelt development is being done.

The Unit has already obtained the permission for the withdrawal of water from Krishna River from the irrigation Department, Government of Telangana & Revenue Divisional office, Wanaparthy.

Hence, There Is No Significant Impact Since Major Pollutants Are Not Generated.

PART I**Miscellaneous**

Any other particulars for improving the quality of the environment.

The Unit is monitoring noise level by Re Sustainability Limited in consultation with State Pollution Control Boards Vendor M/S Re Sustainability Limited recognized with MoEF&CC, NABL once in a month at 6 different locations within the premises. The unit has adopted Zero liquid discharge system (ZLD) for treatment of waste water and same treated water is recycled and re-used in to Cooling tower make up and ash quenching purpose.

Treated water Parameters and Pollution loads

Our ZLD Plant performance in terms of Pollution load reduction is as given below TDS reduction 88%, COD reduction 97.30 %, BOD reduction 98.25%

Audit Observations:

1. Average Production of ENA & IS together total production per day is 143.54 KLD against CFO 150 KLD. 4.30% is less than the Permitted Production /Day, Avg. Fusel oil produced as by Product is 0.053KLD, Avg.CO₂ Produced as by Product is 31.14 TPD, & DDGS Produced as by produced is 49.15 TPD

Water Consumption for process @2.99KL/KL product, Boiler feed 1.84KL/KL product, cooling tower feed is 5.59KL/KL of Product, DM water 0.48KL/KL of Product.

Waste water Generation from Process is 3.79KL/KL of Product,

From Boiler blow down is 0.370KL/KL of Product

From cooling tower blow down is 0.48KL/KL of Product,

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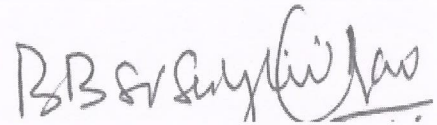
From CO₂ Plant 0.069KL/KL of Product

After treatment recycled water re used in to process @3.31KL/KL, Coolin tower feed water 1.10KL/KL of Product and ash quenching is 0.30KL/KL of product. (Total recycled water is 5.08KL/KL of product. against the CFO amendment Order for recycling water 7.7KL/KL of ENA and fresh water consumption is 10.97KL of KL of ENA Product against the CFO 15.99KL of fresh water consumption per KL of ENA.

Avg. Ambient Noise levels at Fermentation area during night time is 67.1 dB(A) (4.14% less than the Standard limit)

Avg. Ambient Noise levels at ETP area during night time is 63.96dB(A) (8.7% less than the Standard limit)

8. Coal & Husk Consumption for the year is 2022-23 is 64694TPA
9. Coal ash generation and disposal to Brick manufacturing units during the year 2022-23 is 10731.0TPA
10. Waste oil generation and disposal to authorized recyclers during the year 2022-23 is 940 LPA
11. DDGS generation and disposal quantity during the year 2022-23 is 17695.4TPA
12. CO₂ generation and disposal quantity during the year 2022-23 is 11213.6 TPA



Dr. B. B. S. V. Seshagiri Rao
M.sc.(Env.Sci)., L.L.M., PGDEHS., Ph.D
Lead Auditor QMS & EMS