



**Allied Blenders
& Distillers**

ABD/RANGAPUR/DISTILLERY/TSPCB/2023-24/10

Date: 27.09.2024

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 - Rangapuram, Mandal - Peberu, District - Wanaparthy, State - Telangana 509104. Environmental Statement Form-V for FY 2023-2024 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
4. CFO Amendment Lr. No. TGPCB/RO-HYD/HO/CFO/2024. Dated: 12.07.2024

We reference to above, M/s Allied Blenders and Distillers Limited, at Survey No. 690/AA, 691/AA2 & 692, Village - Rangapuram, Mandal - Peberu, District - Wanaparthy, State - Telangana, we are herewith submitting the Environmental Statement Form-V for the for the period of April - 2023 to March - 2024 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 23-24



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)

2023-2024

For

**Existing Grain Based Distillery from 180 KLPD along with
Existing 6.5 MW Power Plant
at Village - Rangapuram, Mandal - Pebberu, 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 – 2024

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 2023-2024

STEPS IN ENVIRONMENTAL AUDITING

The activities in Environmental auditing are conducted in three main steps:

1. Pre-audit activities (home work)
2. Work at industry site (industry visit)
3. Post audit activities (work at site & home)

Audit team

The audit team is selected from officials of an organization and EMS consultant who have fair knowledge of Process and Tech-legal issues pertaining to the EHS.

1. Mr. Umasankar Padhi - Regional Manufacturing Head-South1
2. Mr. Sadanand Chikhale - Lead Distillery Operation
3. Mr. V. Srinivasa Rao – Environmental Engineer
4. Dr.B.B.S.V. Seshagiri Rao - EMS Lead Auditor

The Audit team audited the facility on 16.09.2024

PROJECT SETTING

The industry is located at Survey No. 690/AA, 691/AA2 & 692, Village -Rangapuram, Mandal - Pebberu, District - Wanaparthy, State - Telangana and TSPCB issued CFO & HWA order to the industry Consent Order No. 20234696127, Dated: 19.10.2023, Amendment Consent Lr No. TGPCB/RO/HYD/HO/CFO/2024, Dated: 12.07.2024 to produce the following products with a validity period up to 31.03.2028.

Sr. No.	Products	Capacity
1	Rectified Spirit /Ethanol / ENA	65,700 KLPA (180 x 365Days)
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.

ENA & By-Products Production details for the Month April 2023 to March 2024

Month	ENA in KL	Impure Sprit in KL	Fusel Oil in KL	CO2 in Metric Tons	DDGS/DWGS in Metric Tons
Apr-23	5758.913	116.958	0.6	1083.515	828.11
May-23	4898.118	110.104	0.56	1201.376	1087.6
Jun-23	2152.236	44.41	0.26	670.068	447.48
Jul-23	5741.347	112.265	0.31	1321.96	1206.17
Aug-23	5021.171	102.161	0.31	1307.74	1114.34
Sep-23	5429.523	119.546	0.3	1434.316	1150.57
Oct-23	4938.884	137.741	0.3	1358.652	1170.89
Nov-23	5499.038	106.541	2.1	944.98	1241.8
Dec-23	3786.383	78.555	3.1	638.57	873.47
Jan-24	5592.63	119.771	3.1	1226.91	1351.32
Feb-24	5331.439	83.918	2.9	1191.02	1219.6
Mar-24	5378.18	83.852	3.1	1002.4	1215.29
Total	59527.86	1215.822	16.94	13381.507	12906.64

WATER AUDIT**Water Consumption During details for the April 2023 to March 2024****Unit: KLM**

Water Consumption During details for the April 2023 to March 2024						
Month	Cooling Tower makeup	Boiler Feed	DM & Softner	Domestic use	Process Use & CO2 Plant	Total
Apr-23	24480	8220	1740	275.4	12570	47285.4
May-23	21112	7308	1540	305.04	9996	40261.04
Jun-23	14910	4452	1148	269.1	7546	28325.1
Jul-23	21266	9114	1891	282.72	13423	45976.72
Aug-23	18816	7056	2044	274.97	13300	41490.97
Sep-23	19980	7260	2070	253.2	10080	39643.2
Oct-23	18197	7347	1767	256.06	9424	36991.06
Nov-23	8040	7560	300	290.1	11820	28010.1
Dec-23	6300	4660	202	303.8	10695	22160.8
Jan-24	5425	7874	310	282.72	15841	29732.72
Feb-24	16675	7288	292.9	348	17719	42322.9
Mar-24	17491	7868	372	465	17493	43689

Spent wash, MEE & Effluent Water Details for the Month of April 2023 to March 2024

Month	MEE Feed (M3)	MEE CONDENSATE			MEE Syrup (M3)	Effluent Water			RO Reject (M3)
		Qty. Generated (M3)	Qty. Treated (M3)	Qty. Used in Process (M3)		ETP Feed (M3)	Qty. Used for Ash Quenching (M3)	Qty. Used for Cooling Tower Make-up (M3)	
Apr-23	20844	17936	17936	17936	2908	1530	4521	645	
May-23	17060	14769	14769	14769	2291	1547	4684	651	
Jun-23	9096	7777	7777	7777	1319	681	4690	540	
Jul-23	20079	16982	16982	16982	3097	1285	4801	651	
Aug-23	17386	14993	14993	14993	2393	1184	4575	589	
Sep-23	19344	16704	16704	16704	2640	1289	4980	651	
Oct-23	17965	15312	15312	15312	2653	1216	4638	682	
Nov-23	20347	17194	17194	17194	3153	1146	3402	1590	
Dec-23	13251	11212	11212	11212	2038.6	1178	4508	1643	
Jan-24	20148.6	17111.9	17111.9	17111.9	3036.7	1286	4140	1922	
Feb-24	19056.4	16306.9	16306.9	16306.9	2749.5	1320	2828	2373	
Mar-24	19209	16858.6	2377.4	16858.6	2377.4	1320	2934.5	1782.5	
Total	213786	183156.4	168675.2	183156.4	30656.2	14982	50701.5	13719.5	

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-23		May-23		Jun-23		Jul-23		Aug-23		Standards
			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	7.5	8.1	5.96	6.94	6.34	6.54	6.98	7.35	7.12	7.56	5.50 to 9.00
Total Suspended Solids at 105°C	mg/L	APHA 2540 D	346	40	86	32	62	32	78	47	63	36	100
Total Dissolved Solids at 180°C	mg/L	APHA 2540 C	1513	239	1319	372	1064	372	1486	428	1276	312	---
Chlorides as Cl ⁻	mg/L	APHA 4500 Cl ⁻ C	178	30	246	72	286	72	296	54	251	35	---
Sulphates as SO ₄ ²⁻	mg/L	APHA 4500 SO ₄ ²⁻ D	99	12	62	17	82	17	68	12	52	12	---
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	---
Total Solids	mg/L	APHA 2540 B	1852	272	1405	404	1126	404	1564	475	1339	348	---
Phosphates as P	mg/L	APHA 4500 PC	5.6	<1.0	4.8	<1.0	3.9	<1.0	2.8	<1.0	1.6	<1.0	---
Chemical Oxygen Demand	mg/L	APHA 5220 B	3589	64	2154	62	1864	48	1525	59	891	42	250
Biological Oxygen Demand	mg/L	IS 3025(P-44)	1236	10	646	18	558	14	452	18	262	12	30
Oil & Grease	mg/L	APHA 5520 B	3	<1.0	2.4	<1.0	1.8	<1.0	1.5	<1.0	1.2	<1.0	10
Nitrate Nitrogen as NO ₃ N	mg/L	APHA 4500 NO ₃ ⁻ B		14	<1.0	4.6	<1.0	6.2	2.3	8.6	1.8	5.2	1.2

Parameters	Units	Methods	Sep-23		Oct-23		Nov-23		Dec-23		Standards
			ETP (Inlet)	ETP (Outlet)	ETP (Inlet)	ETP (Outlet)	ETP (Inlet)	ETP (Outlet)	ETP (Inlet)	ETP (Outlet)	
pH	---	APHA 4500 H*B	6.83	7.24	7.02	7.72	7.08	7.76	7.05	7.79	5.50 to 9.00
Total Suspended Solids at 105°C	mg/L	APHA 2540 D	52	28	38	18	40	16	42	15	100
Total Dissolved Solids at 180°C	mg/L	APHA 2540 C	1436	263	1634	341	1689	321	1692	318	---
Chlorides as Cl ⁻	mg/L	APHA 4500 Cl-C	278	42	292	36	286	35	289	36	---
Sulphates as SO ₄ ²⁻	mg/L	APHA 4500 SO ₄ ²⁻ D	38	16	42	12	41	13	42	12	---
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	---
Total Solids	mg/L	APHA 2540 B	1488	291	1672	359	1726	337	1741	339	---
Phosphates as P	mg/L	APHA 4500 PC	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	---
Chemical Oxygen Demand	mg/L	APHA 5220 B	658	52	456	42	359	43	342	41	250
Biological Oxygen Demand	mg/L	IS 3025(P-44)	198	16	124	12	128	14	128	14	30
Oil & Grease	mg/L	APHA 5520 B	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	10
Nitrate Nitrogen as NO ₃ -N	mg/L	APHA 4500 NO ₃ B	1.3	6.4	2.6	4.7	1.8	4.5	1.6	4.2	1.2

Parameters	Units	Methods	Jan-24		Feb-24		Mar-24		Standards Inland Surface
			ETP (Inlet)	ETP (Outlet)	ETP (Inlet)	ETP (Outlet)	ETP (Inlet)	ETP (Outlet)	
pH	---	APHA 4500 H ⁺ B	7.06	7.81	7.09	7.84	7.06	7.81	5.50 to 9.00
Total Suspended Solids at 105°C	mg/L	APHA 2540 D	46	19	44	18	46	19	100
Total Dissolved Solids at 180°C	mg/L	APHA 2540 C	1702	324	1695	302	1702	324	---
Chlorides as Cl ⁻	mg/L	APHA 4500 Cl ⁻ C	281	33	276	31	281	33	---
Sulphates as SO ₄ ²⁻	mg/L	APHA 4500 SO ₄ ²⁻ D	44	13	48	12	44	13	---
Sulphide as S ²⁻	mg/L	APHA 4500 S ²⁻ F	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	---
Total Solids	mg/L	APHA 2540 B	1748	343	1739	333	1748	343	---
Phosphates as P	mg/L	APHA 4500 PC	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	---
Chemical Oxygen Demand	mg/L	APHA 5220 B	348	41	334	38	348	41	250
Biological Oxygen Demand	mg/L	IS 3025(P-44)	127	16	86	15	127	12	30
Oil & Grease	mg/L	APHA 5520 B	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	10
Nitrate Nitrogen as NO ₃ -N	mg/L	APHA 4500 NO ₃ ⁻ B	1.5	4.3	1.2	4.1	1.3	4.3	1.2

Our ZLD Plant performance in terms of Pollution load reduction is as given below TDS reduction 78.48 %, COD reduction 95.54 %, BOD reduction 95.79 %

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

Outlet No.	Outlets Description	Max Daily Discharge (KLD)	Point of Disposal
1	Process	585.71	Shall be sent to decanter and the thin slope shall be sent to MEE to concentrate and the condensate shall be treated in Ecophotox plant followed by reuse in the process and concentrate sent to dryer to get DDGS
2	ETP Tertiary (RO Rejects)	37.58	
3	Boiler Blow Down	32.61	1) Shall be treated in ETP followed by Tertiary treatment in UF & RO 2) RO rejects of MEE 3) RO permeate shall be used to dust suppression /ash conditioning and for onland for gardening within the premises
4	Cooling Bleed Off	140.25	
5	CO2 Recovery Plant	9.45	
6	Domestic	8.5	
7	Fermentation cleaning and Washing Purpose	90	Shall be recycled into the process

- Water Consumption for process @3.07 KL/KL product, Boiler feed 1.44KL/KL product, cooling tower feed is 3.23 KL/KL of Product, DM water 0.22 KL/KL of Product.
- Waste water Generation from Process is 3.59 KL/KL of Product,
- From Boiler blow down is 0.200KL/KL of Product
- From cooling tower blow down is 0.86 KL/KL of Product,
- From CO₂ Plant 0.058KL/KL of Product
- After treatment recycled water re used in to process @ 3.07KL/KL, Coolin tower feed water 0.85 KL/KL of Product and ash quenching is 0.25KL/KL of product. (Total recycled water is 4.18KL/KL of product. against the CFO amendment Order for recycling water 6.11KL/KL of ENA and fresh water consumption is 7.49 KL of KL of ENA Production against the CFO 13.33 KL/KL of Product.

ENVIRONMENTAL QUALITY

The basic aim of Environmental Quality Audit is to make industry aware of the benefits and promote low and non-waste technological methods of production which help in minimizing generation of residuals and thereby preserving environmental quality. Proper operation and maintenance practices also help in reducing emissions from the industry to arrest Environmental Quality deterioration. Environmental Quality is visualized through the following components.

1. Waste water
2. Air Quality
3. Noise
4. Solid Wastes

AIR QUALITY

The various air pollutants generated from the industry are grouped as under:

Stack Connected to	-	Boiler
Fuel	-	Coal/Rice husk
Total Height	Meters	54
Sampling Height	Meters	24.5
Stack Diameter	Meters	2.3
Stack Cross Sectional Area	m ²	4.1526
Ambient Temp (Ta)	K	312
Stack Temperature (Ts)	K	411
Velocity	m/sec	9.68
Flow Rate	m ³ /hr	144842

Stack Emissions attached to 50 TPH Boiler Month of April 2023 to March 2024

Months	SPM mg/Nm3	SO2 mg/Nm3	NOx mg/Nm3
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-23	74	112	136
May-23	64	82	108
Jun-23	57	69	92
Jul-23	42	58	86
Aug-23	41	67	92
Sep-23	46	58	79
Oct-23	54	52	67
Nov-23	58	49	61
Dec-23	61	48	59
Jan-24	63	49	57
Feb-24	43	68	74
Mar-24	41	52	50
Average	53.67	63.67	80.08

Avg. SPM levels are 53.33% less than the Standard limit

Avg. SO2 levels are 89.39 % less than the Standard limit

Avg. NOx levels are 89.99 % 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

Stack Emissions attached to 1500 kVA DG set Month of April 2023 to March 2024

Month	PM (mg/Nm ³)	Oxides of Nitrogen (mg/Nm ³)	Sulphur Dioxide(mg/Nm ³)
CPCB Guidelines as per GSR 771 (E)	<115 mg/Nm³	<600 mg/Nm³	<800 mg/Nm³
Method	IS-11255 (Part-1): 1985	IS-11255 (Part-7): 2005	IS-11255 (Part-2): 1985
Apr-23	54	55	43
May-23	62	72	57
Jun-23	52	64	89
Jul-23	46	58	72
Aug-23	42	63	82
Sep-23	48	69	76
Oct-23	45	57	68
Nov-23	43	52	64
Dec-23	45	51	66
Jan-24	43	54	62
Feb-24	45	52	65
Mar-24	45	56	68
Average	47.5	58.58	67.67

SPM levels are 58.70% less than the standard limit

SO₂ levels are 90.24% less than the Standard limit

NO_x levels are 91.54% less than the Standard limit

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, PM2.5, 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 2023-24Units: 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-23	68	33	34	33	59	26	30	35
May-23	62	29	18	29	53	24	23	30
Jun-23	68	34	23	31	62	28	19	27
Jul-23	58	28	17	28	54	24	19	25
Aug-23	49	24	15	24	62	32	17	27
Sep-23	56	32	13	19	54	30	80	80
Oct-23	62	36	14	21	56	34	12	17
Nov-23	65	32	12	22	53	28	13	18
Dec-23	63	31	14	24	51	29	12	19
Jan-24	65	30	16	26	56	28	13	18
Feb-24	68	31	21	26	53	29	26	18
Mar-24	65	30.1	16.5	26	56	28.4	16.5	18
Average	62.42	30.84	17.79	25.75	55.75	28.37	23.38	27.67

1. Avg.PM10-Near Main Gate is 62.42µgm/m³ and 37.58 % less than the Standard limit
2. Avg.PM10-Near Distillery area is 55.75 µgm/m³ and 44.25% less than the Standard limit
3. Avg.PM2.5-Near Main Gate is 30.84 µgm/m³ and 48.60% less than the Standard limit.
4. Avg.PM2.5-Near Distillery area is 28.37 µgm/m³ and 52.72 % less than the standard limit.
5. Avg.SO₂-Near Main Gate is 17.79 µgm/m³ and 77.76 % less than the Standard limit.
6. Avg.SO₂-Near Distillery area is 23.38 µgm/m³ and 70.78 % less than the Standard limit.
7. Avg.NO_x-Near Main Gate area is 25.75 µgm/m³ and 67,81 % less the Standard limit
8. Avg.NO_x-Near Distillery area is 27.67 µgm/m³ and 65.42 % less the Standard limit

Ambient Noise Quality for Year 2023-24

Month	Day time Unit: dB(A)									
	Milling Section	Fermentation Area	Boiler-DCS	Boiler Turbine Hall	CO ₂ Plant Area	WTP Area	Dryer Section	Security Area	ETP Area	Near DG Set Area
Apr-23	71.5	72	69.6	72.8	68.6	64.7	70.9	61.7	68.2	70.8
May-23	70.7	71.2	70.4	71.1	67.6	62.3	70.2	64.3	67.5	70.5
Jun-23	70.2	70.8	69.7	70.6	68.4	64.5	70.6	67.3	65.4	70.1
Jul-23	71.8	70.4	68.7	70.1	68.8	66.7	69.8	68.4	67.3	70.5
Aug-23	70.5	69.7	67.2	70.6	69.3	68.4	67.6	67.2	68.9	70.2
Sep-23	70.3	69.2	68.4	70.2	69.7	69.3	65.8	66.1	67.3	70.5
Oct-23	70.6	69.8	67.4	70.7	69.3	68.5	66.2	62.8	68.3	70.1
Nov-23	71.2	70.8	66.3	70.1	68.4	66.7	67.9	61.6	68.8	70.5
Dec-23	70.8	71.4	65.7	70.8	67.7	65.1	66.9	60.8	67.2	70.1
Jan-24	70.4	71.9	65	70.6	67.4	66.7	66.5	60.2	68.9	70.4
Feb-24	70.8	72.1	64.8	71.7	69.9	64.7	68.5	56.3	67.4	70.8
Mar-24	70.2	71.6	65.2	70.4	67.5	66.8	66.6	60.1	68.5	70.2
Average	70.8	70.9	67.4	70.6	68.6	66.2	68.1	63.1	67.8	70.4
	Night Time Unit: dB(A)									
Apr-23	68.3	68.6	57.4	71.4	65.1	60.3	65.6	51	61.5	66.3
May-23	67.2	66.8	62.7	69.7	62.4	53.5	67.4	52.5	58.6	64.2
Jun-23	65.3	64.6	60.7	65.4	59.3	57.4	63.5	55.3	53.7	61
Jul-23	67.3	65.3	62.7	67.4	54.2	55.3	58.7	54.5	53.8	63.4
Aug-23	65.4	63.2	60	64.3	55.7	56.5	53.4	54.2	57.6	61.8
Sep-23	63.5	61.7	58.7	63.2	56.4	54.5	51.6	50.8	53.3	62.2
Oct-23	64.7	59.8	60.2	61.4	53.2	49.5	46.4	52.5	45.2	47.3
Nov-23	66.3	60.4	61	62.7	52.3	48.4	45.1	49.3	44.2	48.4
Dec-23	65.1	61.2	60.3	63.9	51.2	47.3	44.2	50.5	45.5	47.3
Jan-24	66.2	61.4	60.8	62.4	51.8	48.1	43.2	49.6	46.5	45.8
Feb-24	65.1	66.5	59.3	66.8	53.5	51.6	42.1	48.4	45.3	52.6
Mar-24	66.8	61.2	60.7	62.5	51.3	48.5	43.2	49.6	46.1	45.2
Average	65.93	63.39	60.38	65.09	55.53	52.58	52.03	51.52	50.94	55.46

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 68.6 dB(A) (8.6% less than the Standard limit)
2. Avg. Ambient Noise levels at Boiler Turbine Hall during Day time is 70.6 dB(A) (5.8 % less than the Standard limit)

3. Avg. Ambient Noise levels at Fermentation area during Day time is 70.9 dB(A) (5.5 % less than the Standard limit)
4. Avg. Ambient Noise levels at ETP area during Day time is 67.8 dB(A) (9.6 % less than the Standard limit)
5. Avg. Ambient Noise levels at CO2 plant area during night time is 55.53 dB (A) (20.67% less than the standard limit)
6. Avg. Ambient Noise levels at Boiler Turbine Hall during the night time is 60.38 dB(A) (13.75 % less than the Standard limit)
7. Avg. Ambient Noise levels at Fermentation area during night time is 63.39 dB(A) (9.44% less than the Standard limit)
8. Avg. Ambient Noise levels at ETP area during night time is 50.94 dB(A) (27.23% 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.

ENVIRONMENT QUALITY MANAGEMENT

The importance of Environmental Quality Audit is to make the industry aware of its usefulness and to promote new methods or process which will reduce or eliminate the discharge of various residues which find its way in the form of pollutants like wastewater, solid waste or noise and thereby preserving environmental quality.

Proper operation and maintenance practices also help in reducing emissions from the industry to avoid environmental quality deterioration. There are four components in environmental quality audit namely,

- Water pollution
- Air pollution
- Solid Waste
- Noise

FORM V for the year 2023-24

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 - Pebberu, District - Wanaparthy, State - Telangana 509104.
ii.	Category	Red Category
iii.	List of Products	Rectified Spirit /Ethanol / ENA- 65700 KLPA Power Plant -6.5MW
iv.	Year of Establishment	2011
v.	Date of the last Environmental Submitted	27.09.2023

PART B**Water and Raw Material Consumption**

Avg. Water Consumption/Day for the FY 2023-2024 is as given below

Sr. No.	Purpose	Total water consumption-KLD
1	Process & CO2 Plant	410.70
2	Cooling Tower make up	527.92
3	Boiler feed	235.63
4	DM & softener	37.47
6	Domestic	9.87
Total		1221.61

Water consumption 1221.61 m³/day

Water Consumption Per Unit of Product

Name of Products	During the Previous Financial Year KL/T Product 2020-2021	During the Current Financial Year KL/T Product 2021-2022	During the Current Financial Year KL/T Product 2022-2023	During the Current Financial Year Product 2023-2024
Rectified Spirit /Ethanol/ENA	14.49 KL/KL of Product	11.98 KL/KL of Product	10.97KL/KL of Product	7.49 KL/KL of Product

Raw Materials Consumption

Name of the Raw Material	Raw Materials consumption 2020-21	Raw Materials consumption 2021-22	Raw Materials consumption 2022-23	Raw Materials consumption 2023-24
Maize / Jowar / Broken rice	2.11T/KL	2.094T/KL	2.064 T/KL	2.03 T/KL

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

1. Water Consumption for process @3.07 KL/KL product, Boiler feed 1.44KL/KL product, cooling tower feed is 3.23 KL/KL of Product, DM water 0.22 KL/KL of Product.
2. Waste water Generation from Process is 3.59KL/KL of Product,
3. From Boiler blow down is 0.200KL/KL of Product
4. From cooling tower blow down is 0.86 KL/KL of Product,
5. From CO₂ Plant 0.058KL/KL of Product
6. After treatment recycled water re used in to process @ 3.07KL/KL, Coolin tower feed water 0.85 KL/KL of Product and ash quenching is 0.25KL/KL of product. (Total recycled water is 4.18KL/KL of product. against the CFO amendment Order for recycling water 6.11KL/KL of ENA and freshwater consumption is 7.49 KL of KL of ENA Product against the CFO 13.33 KL of fresh water consumption per KL of ENA.
7. Our ZLD Plant performance in terms of Pollution load reduction is as given below
TDS reduction 78.48 %, COD reduction 95.54 %, BOD reduction 95.79 %

PART D
HAZARDOUS WASTES

(as specified under Hazardous Wastes (Management and Handling) Rules, 2016)

Hazardous Waste	Total Qty.	Total Qty.	Total Qty.	Total Qty.
	2020-21	2021-22	2022-23	2023-24
From Process	NIL	Nil	Nil	Nil
From Pollution Control Equipment	NIL	Nil	Nil	Nil
Waste oil	1600 LPA	1595 LPA	940 LPA	2440 LPA

PART E
SOLID WASTES

Coal Ash From Boiler	Total Qty.	Total Qty.	Total Qty.	Total Qty.
	2020-21	2021-22	2022-23	2023-24
	TPA	TPA	TPA	TPA
	2358.49	9002.335	10731	13516.97

PART F

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

1. Coal Ash: This is mainly produced from the boiler house and ash is disposed of by selling for brick making. The disposal quantity is about 13516.97 TPA during the year 2023-24
2. Waste Oil: waste oil generation @ 2440 LPA and same is disposal to authorized recyclers.
3. DDGS/DWGS Generation and Disposal is 12906.64 TPA during the year 2023-24
4. CO2 by product Generation and Disposal is 13381.507TPA during the year 2023-24

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 H

Additional measures/ investment proposal for environmental protection abatement of pollution, prevention of pollution. Investment under the Corporate Social Reasonability (CSR & Welfare) Details

Sr. No.	Financial Year	Purpose	Amount Contributed (Rs.)	Beneficiary
1	2023-2024	Contribution to Felicitate CM Cup 2023 at Wanaparthy	2,00,000	Donated towards District Level CM Cup'2023 at Balakistaiah Kreedha Pranganam, Wanaparthy Dist.
		Goshala at Wanaparthy Dist.	3,31,694	For supporting Cattle Grower with DWGS supply at Goshala, Wanaparthy Dist.
		Fertilizers to the farmers / per year	2,50,000	Supporting farmers at Rangapur Village, Wanaparthy Dist. for fertilizers
		Cleaning of Irrigation Canal with support of JCB	24,000	Supporting farmers at Rangapur Village, Wanaparthy Dist. for Water irrigation

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 wastewater 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 78.48 %, COD reduction 95.54 %, BOD reduction 95.75 %

Water Consumption for process @3.07 KL/KL product, Boiler feed 1.44KL/KL product, cooling tower feed is 3.23KL/KL of Product, DM water 0.22 KL/KL of Product.

Waste water Generation from Process is 3.59 KL/KL of Product,

From Boiler blow down is 0.200KL/KL of Product

From cooling tower blow down is 0.86 KL/KL of Product,

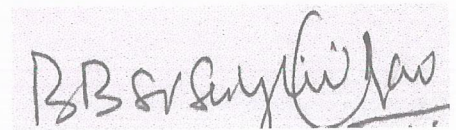
From CO₂ Plant 0.058KL/KL of Product

After treatment recycled water re used in to process @ 3.07KL/KL, Coolin tower feed water 0.85 KL/KL of Product and ash quenching is 0.25KL/KL of product. (Total recycled water is 4.18KL/KL of product. against the CFO amendment Order for recycling water 6.11KL/KL of ENA and freshwater consumption is 7.49 KL of KL of ENA Product against the CFO 13.33 KL of fresh water consumption per KL of ENA.

Our ZLD Plant performance in terms of Pollution load reduction is as given below TDS reduction 78.48 %, COD reduction 95.54 %, BOD reduction 95.79 %

2. Chimney of Coal fired Boiler (50 TPH) Stack diameter (2.3 m), Stack cross sectional area (4.1526 sq.m²), Exit velocity of flue gases (8.17 m/sec), Flow rate (122136 cum/hr).
3. Coal Consumption is 11.14 Tones/KL of ENA Production Per Day.
4. DG Stack emissions:
Avg. SPM levels are 58.70% less than the Standard limit
Avg. SO₂ levels are 91.54 % less than the Standard limit
Avg. NO_x levels are 90.24 % less than the Standard limit
5. Boiler Set Stack emissions:
SPM levels are 53.33% less than the standard limit
SO₂ levels are 89.39% less than the Standard limit
NO_x levels are 89.99% less than the Standard limit
6. Ambient Air Quality:
Avg.PM₁₀-Near Main Gate is 62.42 µgm/m³ and 37.58% less than the Standard limit
Avg.PM₁₀-Near Distillery area is 55.75 µgm/m³ and 44.25% less than the Standard limit
Avg.PM_{2.5}-Near Main Gate is 30.84 µgm/m³ and 48.60% less than the Standard limit.
Avg.PM_{2.5}-Near Distillery area is 28.37 µgm/m³ and 52.72% less than the standard limit.
Avg.SO₂-Near Main Gate is 17.79 µgm/m³ and 77.76 % less than the Standard limit.

- Avg. SO₂-Near Distillery area is 23.38 µgm/m³ and 70.78 % less than the Standard limit.
Avg. NO_x-Near Main Gate area is 25.75 µgm/m³ and 67.81% less the Standard limit
Avg. NO_x-Near Distillery area is 27.67 µgm/m³ and 65.42 % less the Standard limit
7. Noise levels data at various locations within the factory premises as follows,
Avg. Ambient Noise levels at CO₂ plant area during Day time is 68.6 dB(A) (8.6 % less than the Standard limit)
Avg. Ambient Noise levels at Boiler Turbine Hall during Day time is 70.6 dB(A) (5.8 % less than the Standard limit)
Avg. Ambient Noise levels at Fermentation area during Day time is 70.9 dB(A) (5.5% less than the Standard limit)
Avg. Ambient Noise levels at ETP area during Day time is 67.8 dB(A) (9.6 % less than the Standard limit)
Avg. Ambient Noise levels at CO₂ plant area during night time is 55.53 dB (A) (20.67% less than the standard limit)
Avg. Ambient Noise levels at Boiler Turbine Hall during the night time is 65.09dB(A) (7.01 % less than the Standard limit)
Avg. Ambient Noise levels at Fermentation area during night time is 63.39 dB(A) (9.44 % less than the Standard limit)
Avg. Ambient Noise levels at ETP area during night time is 50.94 dB(A) (27.23 % less than the Standard limit)
8. Coal & Husk Consumption for the year is 2023-24 is 56620.88TPA
9. Coal ash generation and disposal to Brick manufacturing units during the year 2023-24 is 13516.97TPA
10. Waste oil generation and disposal to authorized recyclers during the year 2023-24 is 2440 LPA
11. DDGS/DWGS generation and disposal quantity during the year 2023-24 is 12906.64TPA
12. CO₂ generation and disposal quantity during the year 2023-24 is 13381.50 TPA



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