

THE ANDHRA SUGARS LIMITED

Chemicals & Fertilisers Division : Saggonda - 534 318, Andhra Pradesh, India.



REF.No:CFS/4A/FORM-V/2019-20

Dt: 13-08-2020.

THE MEMBER SECRETARY,
A.P. POLLUTION CONTROL BOARD,
Head Office,
Near Sunrise Hospital, Kasturibaipet,
VIJAYAWADA.

* **By Regd Post with Ack. Due.** *

Sir,

Sub:- Submission of Environmental Statement in Form-V for the year 2019 – 20 of
M/s. The Andhra Sugars Limited, C & F Division, Saggonda – Reg.

Ref:- Consent Order No : APPCB/VSP/RJY/449/CFO/HO/2019 Dt:16/10/2019

With reference to the above subject matter, we are herewith submitting the
Annual Environmental Statement in Form – V for the year 2019 – 20, as per the
conditions under Air and Water Acts for M/s. The Andhra Sugars Limited, Chemicals &
Fertilisers Division, **Saggonda.**

Please acknowledge the receipt of the same.

Thanking you,

Yours faithfully,
For **The Andhra Sugars Limited,**
Chemicals & Fertilisers Divn.


ADMINISTRATIVE OFFICER

Encl: 1) Environmental Statement in Form - V : 2 Copies,
2) Analysis Reports on monthly Basis : 2 Copies.

Submitted through:

THE ENVIRONMENTAL ENGINEER,
A.P. Pollution Control Board, Regional Office,
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Near Power Pet Railway Station / Near Sivalayam,
Power Pet, **ELURU – 534 002**, W.G.Dt., A.P.

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FORM-V

Environmental Statement for the Financial Year Ending 2020

Part-A

i) Name and Address of the Owner/ Occupier of the Industry, Operation or Process	Shri P.Narendranath Chowdary, Chairman & Managing Director, The Andhra Sugars Ltd., Chemicals & Fertilisers Division, SAGGONDA- 534 318, West Godavari District.	
ii) Industry Category	Large Scale Industry ITC Code Nos. 281512 280110.00	
iii) Production Capacity	Caustic Soda	500 TPD
	Chlorine	240 TPD
	Hydrochloric Acid (on 33% basis)	1000 TPD
	Sodium Hypochlorite (on 100% basis)	40 TPD
	Hydrogen (Bottling)	2.83 TPD
	Sulphuric Acid	300 TPD
	Liquid hydrogen	1 TPD
	PAC	90 TPD
C.S.Flakes	140 TPD	
iv) Year of Establishment	1997	Caustic Soda Plant
	2005	Sulphuric Acid Plant
	2006	Liquid Hydrogen Plant
	2010	Poly Aluminium Chloride Plant
v) Date of last Environment Audit Report submitted	30-09-2019	

Part-B
Water and Raw Material Consumption

(A) Water Consumption	2018-2019 (KL)	2019-2020 (KL)
Process Water	4,11,513	4,37,674
Cooling Water	2,41,032	2,58,996
Domestic Water	3,258	3,418

PRODUCTION	2018-2019 (TPA)	2019-2020 (TPA)
Caustic Soda	122687.418	132146.827
Caustic Soda Flakes	13348.502	20752.051
Liq. Chlorine	46427.000	52044.000
HCl	181161.500	189592.542
Sodium Hypo (15%)	25799.921	25526.500
Hydrogen(bottling)	191.07	195.872
H2SO4	101358.557	92706.512
PAC	17543.000	15450.000
Liquid Hydrogen	16.870	69.100

Specific Consumption :	2018-2019	2019-2020
Process Water	3.354 m ³ / MT of Caustic	3.31 m ³ / MT of Caustic
Cooling Water	1.965 m ³ / MT of Caustic	1.960 m ³ / MT of Caustic
Domestic Water	0.027 m ³ / MT of Caustic	0.026 m ³ / MT of Caustic

(B) Raw Material Consumption :	2018-2019	2019-2020
Common Salt	1.540 M.T / M.T of Caustic	1.540 M.T / M.T of Caustic
Sulphur	0.334 M.T/ M.T of H2SO4	0.330 M.T/ M.T of H2SO4
Alumina	0.236 M.T/M.T of PAC 18%	0.244 M.T/M.T of PAC 18%
Hydrochloric Acid (33%)	0.577 M.T/M.T of PAC 18%	0.587 M.T/M.T of PAC 18%

**Part-C
Pollution Generated**

Pollution through	Quantity of Pollution Generated in 2019-2020	Percentage variation from prescribed limits
	KL	%
i) Bio-Degradable	1,01,055	Within the limit
ii) Domestic	3,418	Within the limit
Analysis of Bio-degradable Effluent	pH: 7.31 TSS: 25 mg/l TDS: 1051 mg/l BOD: 14 mg/l chlorides as Cl-: 476 mg/l	

(B) Stack Emissions :		
Chlorine	0.074 mg/ Nm3	All parameters are less than the prescribed limits
HCl	3.73 mg/ Nm3	
SPM	81 mg/ Nm3	

**Part-D
Hazardous Wastes**

S.No	Hazardous Waste	Total Quantity	
		2018-2019	2019-2020
a)	Spent V ₂ O ₅ Catalyst	1060 lit/ annum	1.0 MT
b)	ETP Sludge	2.39 MTPA	2.70 MT
c)	Waste Lube oil	1800 lit / annum	2000 lit / annum

**Part - E
Solid Wastes**

S.No	Solid Waste	Total Quantity (MT)	
		2018-2019	2019-2020
a)	Brine Sludge	2953.447	3169.982
b)	Saturators Sludge	181.56	186.310
c)	Sulphur Sludge	82.77	73.200
d)	Alumina Sludge	90.61	96.01

**Part – F
Characteristics of Hazardous / Solid Wastes**

	1.Brine Sludge
NaCl	13.04%
CaCO ₃	7.07%
Mg (OH) ₂	2.30%
BaSO ₄	35.74%
Moisture	39.93%
Insolubles	1.92%
	2. Saturator Sludge
NaCl	13.17%
Moisture	47.11%
Insolubles	39.72%
	3. Sulphur Sludge
Low Grade Sulphur & its Components :	27.55%
Insolubles	72.45%
	4. Alumina Sludge
Moisture	32.90%
Unreacted Alumina Hydrate as Al ₂ O ₃	67.10%

Part – G

Impact of the pollution control measures on conservation of natural resources and consequently on the cost of production.

We have achieved Zero Liquid Discharge of effluents by installing Reverse Osmosis plant. Due to which we are able to save the fresh water consumption of about 400-450 M³/day. However the cost of production has slightly increased due to Operation and maintenance cost like Power Consumption, Chemicals Consumption etc...

Part – H

Additional investment proposal for environmental protection including abatement of pollution

We are proposing to construct the new Brine sludge disposal pit (Secured Land Fill) to dispose the brine sludge.

Part – I

Any other particulars in respect of environmental protection and abatement of pollution.

We have Installed 2 nos of Uninterrupted Power Supply (UPS – 300 KVA & 160 KVA) for the 3 stage Chlorine scrubbing system in order to avoid stoppage of pumps even for short duration between the power failure and Emergency Power starts.

Date : 13-08-2020
Place : SAGGONDA

For **The Andhra Sugars Limited,**
Chemicals & Fertilisers Division


ADMINISTRATIVE OFFICER

2019 - 2020

The Andhra Sugars Limited,
SAGGONDA-534 318

HYPOCHLORITE PLANT STACK EMISSIONS

(Chlorine- mg/Nm³)
(APPCB Stipulated Standard – CL2 = 15mg/Nm³)
(Monthly Average Values)

Month & Year	Chlorine	
	Measured Value (mg/Nm ³)	Variation
Apr-2019	0.07	-14.93
May-2019	0.076	-14.924
June-2019	0.06	-14.94
July-2019	0.06	-14.94
Aug-2019	0.06	-14.94
Sept-2019	0.08	-14.92
Oct-2019	0.08	-14.92
Nov-2019	0.08	-14.92
Dec-2019	0.07	-14.93
Jan-2020	0.09	-14.91
Feb-2020	0.08	-14.92
Mar-2020	0.08	-14.92

BOILER STACK EMISSIONS

(SPM- mg/Nm³)
(APPCB Stipulated Standard –SPM = 115 mg/Nm³)
(Monthly Average Values)

Month & Year	SPM	
	Measured Value (mg/Nm ³)	Variation
Apr-2019	86	-29
May-2019	---	---
June-2019	78	-37
July-2019	82.5	-32.5
Aug-2019	---	---
Sept-2019	---	---
Oct-2019	79.5	-35.5
Nov-2019	82	-33
Dec-2019	76	-39
Jan-2020	81.5	-33.5
Feb-2020	82.5	-32.5
Mar-2020	81	-34.0

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HCL PLANT STACK EMISSIONS
(HCl - mg/Nm³)

(APPCB Stipulated Standard – HCL = 35mg/Nm³)
(Monthly Average Values)

Month & Year	Graphite-A	Graphite-B	Graphite-D	Graphite-E	Graphite-F	Graphite-G	Graphite-H
Apr-2019	2.64	---	---	3.77	4.03	3.94	4.36
May-2019	3.02	---	---	3.84	3.94	3.86	4.29
June-2019	2.27	---	---	3.86	3.89	3.94	4.44
July-2019	2.12	---	---	3.81	4.02	4.03	4.18
Aug-2019	2.19	---	---	4.06	4.12	3.94	3.99
Sept-2019	2.60	2.78	---	---	---	3.82	4.76
Oct-2019	2.54	3.0	---	---	4.33	4.02	4.32
Nov-2019	2.71	5.10	---	---	3.84	3.84	3.94
Dec-2019	2.56	4.10	---	---	5.11	4.26	---
Jan-2020	2.48	4.10	---	---	---	3.94	4.31
Feb-2020	2.35	4.46	---	---	3.81	4.0	4.73
Mar-2020	2.53	4.20	---	---	4.08	3.95	3.75

2019 - 2020

The Andhra Sugars Ltd.,
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PAC PLANT STACK EMISSIONS

(SPM- mg / NM³)

(Monthly Average)

Month & Year	SPM
Apr-2019	22.2
May-2019	26.1
June-2019	24.3
July-2019	27.5
Aug-2019	18.6
Sept-2019	20.2
Oct-2019	25.1
Nov-2019	26.4
Dec-2019	27.5
Jan-2020	30.0
Feb-2020	29.0
Mar-2020	27.6

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2019-2020

SULPHURIC ACID PLANT STACK EMISSIONS

(SO₂ – mg/Nm³) & (Acid Mist – mg/Nm³)

(Stipulated Standard – SO₂ = 1250 mg/Nm³)

(APPCB Stipulated Standard – Acid Mist = 40 mg/Nm³)

(Monthly Average)

MONTH & YEAR	SO ₂	Acid Mist
Apr-2019	332.40	5.60
May-2019	335.93	5.22
June-2019	283.24	5.36
July-2019	562.46	5.50
Aug-2019	570.58	4.92
Sept-2019	547.78	4.39
Oct-2019	451.71	4.29
Nov-2019	457.0	4.38
Dec-2019	479.38	4.33
Jan-2020	476.04	4.31
Feb-2020	453.17	4.33
Mar-2020	454.00	4.0

2019 - 2020

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TREATED EFFLUENT ANALYSIS

(Monthly average)

Month & Year	PH	S.S mg / L	T.D.S mg / L	B.O.D mg / L	Chlorides (as Cl) mg / l
Apr-2019	7.23	23	1003	16	438
May-2019	7.31	21	996	15	443
June-2019	7.33	22	896	14	407
July-2019	7.39	25	1057	16	467
Aug-2019	7.30	26	961	16	433
Sept-2019	7.25	29	1055	15	455
Oct-2019	7.13	28	1046	14	451
Nov-2019	7.02	25	1139	13	518
Dec-2019	7.66	26	1150	13	543
Jan-2020	7.37	23	1091	13	528
Feb-2020	7.36	24	1139	13	526
Mar-2020	7.37	24	1078	13	506