

Environmental Statement Form -V

(See rule 14)

Environmental Statement for the financial year ending on 31st March 2021**Part - A**

01	Name and address of the Owner / Occupier of the Industry. Operation or Process	Mr. Mukesh Kumar Executive Director Vishwaraj Sugar Industries Limited., Bellad-Bagewadi - 591 305 Tal: Hukkeri Dist: Belgaum																											
02	Industry Category Primary (STC code) Secondary (STC code)	Red																											
03	Production Category - Units.	<table> <thead> <tr> <th>Production</th> <th>Units</th> <th>Capacity</th> </tr> </thead> <tbody> <tr> <td>Sugar Cane Crushing</td> <td>TCD</td> <td>11000</td> </tr> <tr> <td>Co-Generation</td> <td>MW/hr</td> <td>39</td> </tr> <tr> <td>Distillery --- R S</td> <td>KLPD</td> <td>100</td> </tr> <tr> <td>ENA</td> <td>KLPD</td> <td>30</td> </tr> <tr> <td>Anhydrous Ethanol</td> <td>KLPD</td> <td>96</td> </tr> <tr> <td>IML Bottling</td> <td>Boxes/Day</td> <td>5000</td> </tr> <tr> <td>Natural Alcohol Vinegar</td> <td>KLPD</td> <td>75</td> </tr> <tr> <td>Carbon di Oxide Plant</td> <td>MTPD</td> <td>15</td> </tr> </tbody> </table>	Production	Units	Capacity	Sugar Cane Crushing	TCD	11000	Co-Generation	MW/hr	39	Distillery --- R S	KLPD	100	ENA	KLPD	30	Anhydrous Ethanol	KLPD	96	IML Bottling	Boxes/Day	5000	Natural Alcohol Vinegar	KLPD	75	Carbon di Oxide Plant	MTPD	15
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05	Date of last Environmental Statement submitted	September 2020																											

Part - B**Water and Raw Material Consumption****1. Water consumption in cum/day**

Sr No	Operation	During the previous year 2019-20	During the current Financial year 2020-21
Sugar			
01	Process	190	185
02	Domestic	10	10
Co-Generation			
01	Cooling and Boiler feed	205	200

Distillery			
01	Process	220	380
02	Cooling	30	50
03	Domestic	4.95	5.0
IML Bottling			
01	Process	10	NIL
Natural Alcohol Vinegar			
01	Process	180	180
03	Domestic	1	1

2. Process Water Consumption per product output

SR No	Name of Product	Unit	Process water consumption per unit of product	
			During previous F/Y 2019-20	During current F/Y 2020-21
01	Sugar	m3/Ton	0.2418	0.29
02	Power	m3/MW	0.469	0.47
03	Distillery	m3/KL	6.34	4.32
04	IML Bottling	m3/Box	0.002177	NIL
05	Vinegar	m3/KL	5.522	4.16

Raw Material Consumption

Sr No	Name of Raw Material	Units	Consumption of Raw Material Per Unit of output	
			2019-20	2020-21
Sugar				
01	Sugar cane	MT/MT	9.10	11.45
02	Lime	MT/MT	0.01	0.009
03	Sulphur	MT/MT	0.0029	0.0028
04	Mill Sanitation	MT/MT	0.00010	0.000072
05	Anti Scaling	MT/MT	NIL	-
06	Magnaflock	MT/MT	0.00002527	0.00003834
07	Turkey red oil	MT/MT	0.0000077	0.00000547
08	Viscosity reducer	MT/MT	0.0000337	0.00002394
09	Color Coagulant	MT/MT	0.0000272	0.0000299
10	Bleaching Powder	MT/MT	0.00000064	0.00000064
11	Caustic Soda	MT/MT	0.000325	0.000563
Cogen power/unit				
01	Bagasse	MT/Mwh	3.24	2.66
02	Coal	MT/Mwh	0.0339	0.00952
Distillery				
01	Molasses B Heavy	MT/KL	3.62	3.33
	Syrup	MT/KL	NIL	3.20
02	Coal	MT/KL	1.72	0.589
IML Bottling				
01	Rectified Spirit	KL/Box	0.004	NIL
Natural Alcohol Vinegar				
01	Spirit	KL/KL	0.141	0.17

Part - C**Pollution discharged to Environment/unit of output**

Sl No	Pollutants	Quantity of pollutants Discharged	Concentration Discharged (mass/volume)	Percent of variation prescribed standard with reasons
Sugar				
01	Wastewater(COD)	119 kg of COD/Day	161 mg/lit	Below Standard norms.(250 mg/l for COD & 100 mg/l for BOD)
02	Wastewater(BOD)	46.62 kg of BOD/Day	63 mg/lit	
02	Air mg/Nm ³ (PM)	604.08 Kg/day	82 mg/Nm ³	Below Standard norms(< 150 mg/Nm ³)
Distillery				
01	Waste Water	24.8 kg of COD/Day 9.72 kg of BOD/Day	155 mg/lit 60.78 mg/lit	Below Standard norms.(250 mg/l for COD & 100 mg/l for BOD)
02	Air mg/Nm ³ (PM)	19.792 kg/ day	61 mg/Nm ³	Below Standard norms(< 150 mg/Nm ³)
IML Bottling				
01	Waste Water	--	--	No Production

Part - D**HAZARDOUS WASTES**

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

Sl No	Hazardous Wastes	Total Quantity (Tones)	
		During the previous year 2019-20	During the current Financial year 2020-21
01	From Process	--	0.1 MT
02	From Pollution Control Facilities	(5.1 spent oil from ETP) =0.49 MT	(5.1 spent oil from ETP) = 0.1MT

Part - E**SOLID WASTES**

Sl No	Solid wastes	Total Quantity in MT	
		During the previous Financial year 2019-20	During the current Financial year 2020-21
From Process (By-Products)			
01	Bagasse	138728.022	257706.79
	Press mud	23311.08	26514.2
	Ash	2080	3523
From Pollution Control Facilities			
02	Biological Sludge (MT)	85.00	110

	Oil and Grease (MT)	0.490	0.2
03	Quantity recycled or reutilized within the unit		
	Bagasse as Fuel (MT)	138728.022	234929
	Press mud for compost (MT)	23311.08	26514.2
	Spent wash for compost (KL)	7538	56146
	Ash for compost (MT)	2080	3523
	Biological sludge as seed in composting (MT)	85	110
	Waste oil & Grease-(Qty in MT) Supplied to the recycler	0.490	0.2

Part - F

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

Hazardous Wastes: The Spent oil of 0.2MT is sold to recycler. The ash is used in compost manufacturing.

Solid waste Characteristics: By-Products (Solid waste) Bagasse and Pressmud

SI No	Parameters	Press mud
01	pH	6.6 - 7.6
02	Nitrogen %	1.1 - 1.3
03	Phosphorous %	2.1 - 2.3
04	Potassium %	0.5 - 0.7
05	Organic Carbon	31 - 44

Part - G

Impact of the pollution control measure taken on conservation of natural resources and consequently on the cost of production

The effluent after treatment is disposed for irrigation and gardening. The plantation details are enclosed. The irrigation management plan is enclosed. The cost of production is increased by 100 rupees per MT of sugar production and Rs two per Liter of R.S. Production. The Investment for pollution control measures are ...28....Lakhs

Emission Control Measures---10 Lakhs
 Water and Waste water management----5 lakhs
 Solid Waste management--- 5 Lakhs
 Green House Drive ----5 Lakhs
 Monitoring Aspects----2 Lakhs
 Environment Cell & PR---1 Lakhs

Part - H

Additional measures / investment proposal for environmental protection including abatement of pollution

100 KLPD Distillery productions started and CPU is commissioned. The treated condensates are used as makeup water for cooling towers.

Part - I

Miscellaneous:

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

The Condensate Polishing Unit (CPU) for recycling the excess vapor condensate generated from sugar unit is reused in sugar and distillery process which reduce the raw water consumption in sugar unit. Chemical treatment for spentwash is being tried and the results are awaited.

Plantation (Plantation Details during the year 2020-21)

Sl No	Name of the trees	Number planted
1	Bougainvillea	115
2	Coconut	14
3	Kanagale	15
4	Teak	42
5	Akesia	102
6	Daswal	18
7	Simorobha	15
8	Custard Apple	14
9	Peru	24
10	Lemon	08
11	Hibiscus	74
12	Bottle Brush	88
13	Sandal	54
14	Mango	18
15	Neem	37
16	Tamarind	39
17	Pongamia	98
18	Chikku	10
19	Kolias	33
20	Almond	94
21	Hebbat	42
22	Sivani	21
23	Honni	45
24	Sisavi	38
25	Casuarina	40
26	Cherry	05
27	Silver Oak	27
28	Sisama	11
29	Hameliya	74
30	Jakrapa	24
TOTAL		1239