ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR 2023-2024

PREPARED FOR

M/s. Sangamnath Sugars Limited

Sy. Nos. 24, 25/4, 25/5, 25/6, 32/1, 32/2 of Byalihal Village 219, 221, 222/1A, 222/1B, 223/1, 223/2, 224/1, 224/2, 224/3, 224/4, 224/5 of B K Yeragal, Sindahgi Taluk, Vijapura District, Karnataka

Prepared by

ENVIRONMENTAL HEALTH & SAFETY CONSULTANTS PVT LTD
(No.13/2, 1st Main Road, Near Fire Station, Industrial Town, Rajajinagar
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QCI/NABET/EIA/2124/RA0241

1 Introduction

1.1 Environmental Audit –An Overview

Like financial auditing which is conducted every year to have an accountability of the financial inflows and outflows, profit etc, Environmental Auditing is a new concept, which would give the accountability of the issues related to the Environment. Environmental Audit is an exercise of self- assessment to minimize the generation of wastes and pollution potential. This would help in comparing the data gathered together in the subsequent years of raw material consumption and water consumption and this would help in reducing the same to the best possible extent.

Environmental Audit is a technique being introduced for integrating the interest of the industry and the environment, so that these could be mutually supportive. This technique is basically a part of industries internal procedures in meeting their responsibilities towards a better environment. Also the policy statement for abatement of pollution by the Government of India provides for submission of environment statement by all concerned industries, which would subsequently evolve into an environmental audit.

1.2 Objectives

1. To determine the mass balance of various materials used and the performance of various process equipment so as to identify usage of materials in excess than required.
2. To identify the areas of water usage and wastewater generation and to determine the characteristics of wastewater.
3. To determine the solid wastes and Hazardous wastes generated, their sources, quantities and characteristics.
4. To determine the possibility of wastes minimization, recovery and re-cycling of wastes.
5. To determine the performance of the existing waste treatment/control system so as to modify or install additional or alternative control equipment accordingly.
6. To determine the impact on the surrounding environment (Ground water, stream, residential area, agricultural area, sensitive zone, and solid waste from the industry and accordingly identify suitable preventive measures if necessary.

7. To verify compliance with the standards and conditions prescribed by the regulatory bodies under the Water Act, the Air Act and the environmental (Protection) Act.
8. To check the effectiveness of:
    a. Organization setup of the industry for decision-making and environmental management with special reference to their "Technical" view point, 'Attitudinal' view point and training.
    b. Environmental policy of the company.

The submission of an Environmental Statement is applicable to the following:

a) Those who require consent under Water (Prevention and Control of Pollution), Act, 1974.

b) Those who require consent under Air (Prevention and Control of Pollution), Act, 1981.

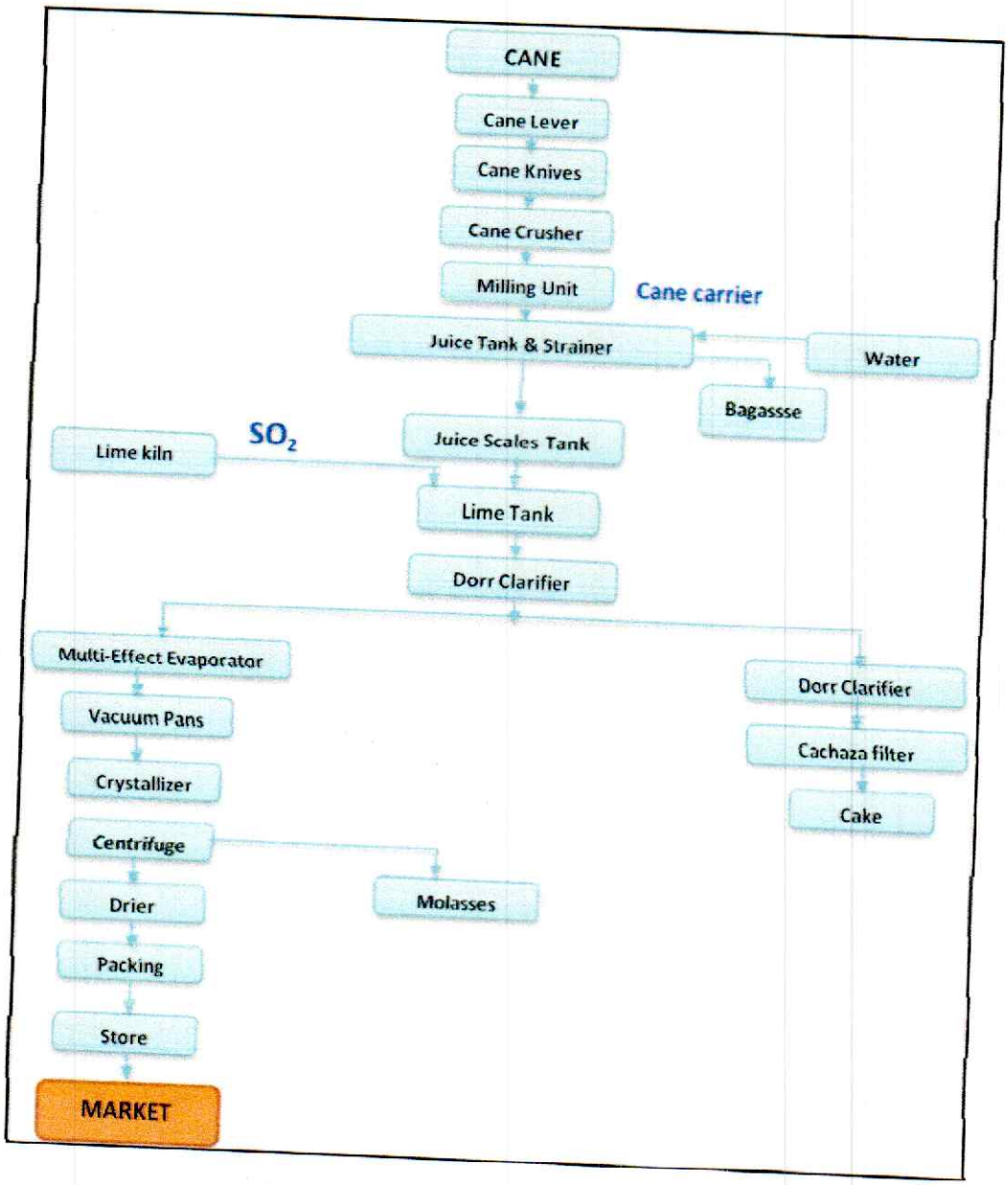
c) Those who require authorization under Hazardous Wastes (Management and Handling) Rules, 1989.

2.0 Project Details

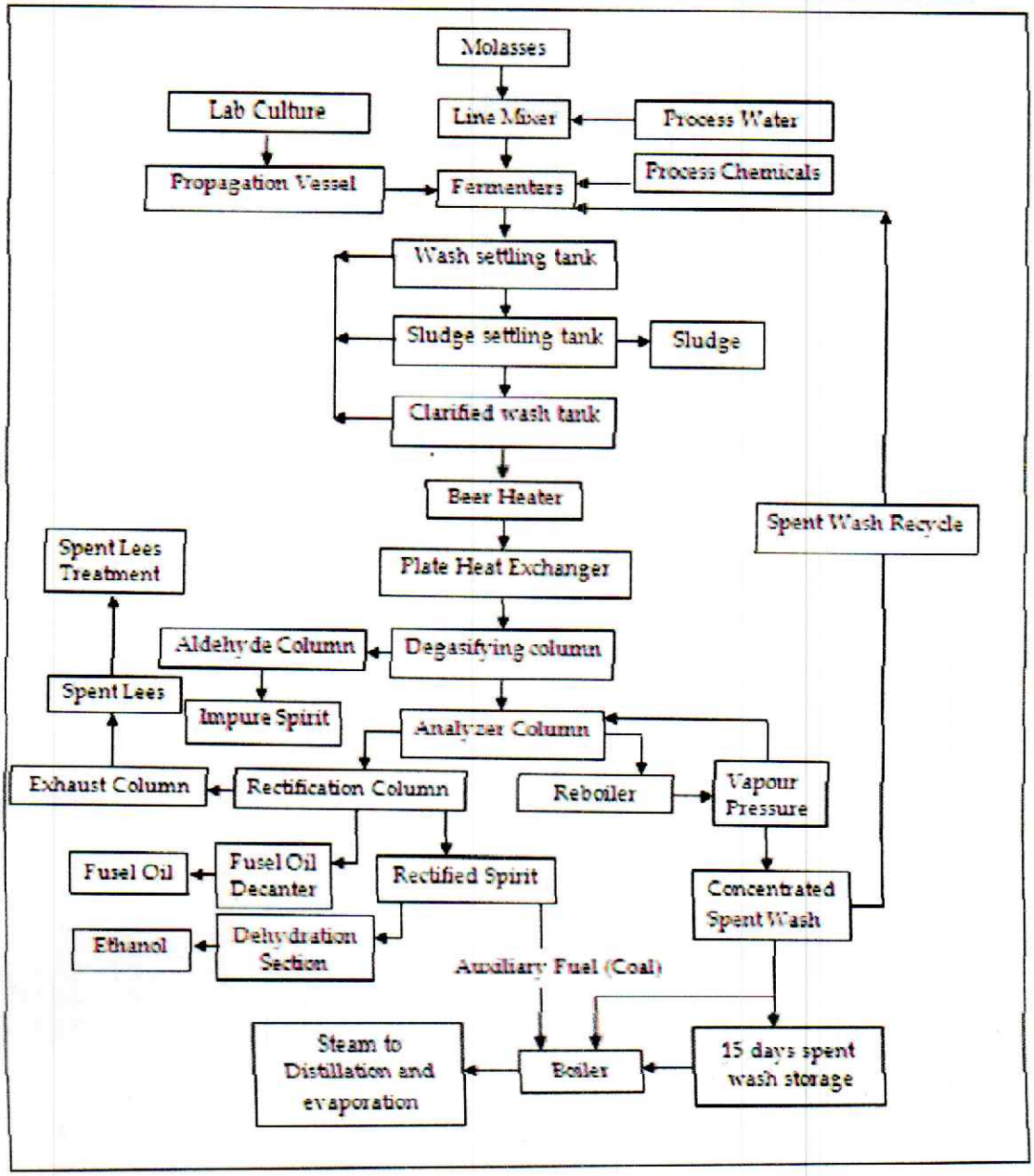
M/s Sangamnath Sugars Ltd. had obtained Environmental Clearance from SEIAA (State Level Environmental Impact Assessment Authority), Govt. of Karnataka vide File No. SEIAA 27 IND 2019 Dt: 01.10.2019 for "10000 TCD Sugar Unit, 38 MW/Hr Cogeneration Unit and 90 KLPD Distillery along with Incineration Boiler to Generate 3MW/Hr Power at Sy. Nos. 24, 25/4, 25/5, 25/6, 32/1, 32/2 of Byalihal Village 219, 221, 222/1A, 222/1B, 223/1, 223/2, 224/1, 224/2, 224/3, 224/4, 224/5 of B K Yeragal, Sindahgi Taluk, Vijapura District, Karnataka.

Later on, the industry obtained Consent for Establishsmnet from KSPCB on 27.07.2020 vide file No. CTE-319266 for EC obtained capacities and currently operating with valid CFO vide letter No. AW-329274 dated 19.01.2022.

Out of 10,000 TCD Sugar Unit, 38 MW Co-generation unit and 90 KLPD Distillery along with Incineration Boiler to generate 3 MW Power/Hr Cuurently the industry is running only for 7500 TCD Sugar Crushing Unit and 20 MW/Hr Co-generation Unit and remaning 2500 TCD Sugar Crushing Unit and 18 Mw/Hr Co-generation Unit , 90 KLPD Distillery along with Incineration Boiler to generate 3 MW Power/Hr work is completed & Boiler trail to be done .



Process flow chart- from Sugar cane Section



Process Flow diagram of distillery (90 KLPD)

3.0 Environmental Pollution Control in the Industry

3.1 Water Pollution

Effluent from the sugar complex is treated in ETP of 1000 KLD capacity (based on UASB technology) and the treated effluent only after conforming to KSPCB discharge standards is re-used for onland for irrigation/gardening/greenbelt development purposes. This is being ensured through implementation of Continuous Online Effluent Monitoring System (CEMS) as mandated under CPCB directions for parameters viz., pH, BOD, TSS & COD. This is ensure to take remedial action immediately for effective treatment. This will also help in minimizing the residual impacts on the water environment of the region.

Distillery (90 KLD) proposal in the complex will adopt ZLD system for treatment of spent wash through evaporation, concentration and incineration.

STP of 20 KLD will be installed to treat the domestic sewage.

Additionally, monthly checks of quality of the treated effluent (from ETP outlet) will be ensured from NABL/MoEF recognized Labs for understanding the trends/variations in the discharge quality parameters (stipulated by KSPCB) before subjected to discharge for various reuse purposes.

3.2 Air Pollution

The main sources of Air Pollution in the industry will be the operation of Boilers. ESP is provided to 120 TPH boiler with stack height of 72 mt and 32 TPH boiler will be connected to 75 mt chimney. From the air quality modeling studies, it is found that, impact on air quality will be minimum during this stage with the installation of APC.

Greenbelt development of 33% of total land is creating aesthetic environment and also acts as a pollution sink for pollutant emissions. Stacks/chimneys will be provided to incineration boiler and D.G. sets as per KSPCB Norms.

3.3 Noise Environment

- The main source of noise generation is due to operation of DG set (diesel/CNG based), Mill House, Boiler feeder water pump, Cooling Tower, etc.,

- Movement of vehicles for unloading of construction materials, handling of equipments during construction phase, etc., Sugar cane tractor trailers during operation Phase.
- Personal protective equipment like ear plugs etc distributed to all and compulsorily employees are made to use the same.
- Acoustic hoods, silencers are provided at all noise generating locations and this noise generating sources are kept under enclosures.

3.4 Solid Wastes

Sl No	Solid waste	Quantity TPM	Method of collection	Mitigation measures	
				Method of Storage	Mode of disposal
Solid waste					
1	Bagasse	90000	Mechanical conveyor	Bagasse storage yard	Sent to cogeneration unit to use as fuel as boiler
2	Boiler- Ash	300	Mechanical conveyor into common silo for further disposal	Ash storage yard	Fly ash/Boiler Ash brick manufacturing
3	Incineration Boiler Ash	690	Mechanical conveyor into common silo for further disposal	Ash storage yard	
3	Press mud	12,000	Mechanical conveyor	Storage yard	Mixed in required proportions and used as manure.
4	Sludge from ETP	1.5	Sludge drying beds	Storage yard	
5	Yeast sludge	216	Mechanical conveyor	Storage yard	
6	Lime Grit	9	Mechanical screw conveyor	Storage yard	Used in low lying areas/ construction purpose
7	Domestic solid waste	2.64	Collection bins	Segregated. Domestic organic solid waste will be composted, while the inorganic solid waste will be handed over to nearby Gram Panchayat.	Nearby municipal agencies & recyclers.

3.5 Hazardous Wastes

Sl No	Solid waste	Quantity MT/A	Method of collection	Mitigation measures	
				Method of Storage	Mode of disposal
Hazardous waste					
1	Used Spent oil	0.237	Stored in leak proof sealed barrels	Hazardous waste storage area	Used as lubricants within the industry
2	Waste Residues Contating Oil	0.400			
3	Empty barrels/containers/liners contaminated with hazardous chemicals /wastes	3.000	Stored in leak proof sealed barrels	Hazardous waste storage area	

3.6 House Keeping Practices

- Conducting periodic survey.
- Provide clear direction to properly maintain the servicing area.
- Providing sufficient time to perform housekeeping at the work area.
- First aid tool kit available in the station for treating minor causalities.
- Sufficient area to store materials.
- Industry is having designated separate storage area for solid waste.

4.0 Pollution Measures and Conservation of Nature

The part of Environmental statement relates to the audit of impact of pollution abatement measures on the conservation of natural resources and consequently on the cost of production. It is the most important component of Environmental Statement as it seeks to ensure optimal and rational utilization of the natural resources to prevent and abate pollution and reduce the cost of production.

The pollution control measures employed by the company apart from achieving prevention and control of pollution, it has its own environmental policy for conservation of scarce natural resources and significant reduction in the cost of production and reducing the quantity of waste generated, efficient recycling and reuse.

4.1 The Environmental Policy

The company is committed to continual improvement in its Environmental performance through.

- Compliance with legislative requirements
- Prevention of pollution to reduce impact on Air, Water and Soil.
- Conservation of natural resources for sustained development.
- Substitution of chemicals which are not eco-friendly.
- Education, Training and Motivation of personnel to carry out their tasks in an environmentally responsible manner.
- Plantation of trees for ecological balance.
- Regular reviews and audits of the Environmental Management Systems.

ENVIRONMENTAL STATEMENT FORM-V
(See rule 14)

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING 31ST MARCH 2021

PART- A

1	Name and Address of the owner/ Occupier of the industry	M/s. Sangamnath Sugars Limited Sy. Nos. 24, 25/4, 25/5, 25/6, 32/1, 32/2 of Byalihal Village 219, 221, 222/1A, 222/1B, 223/1, 223/2, 224/1, 224/2, 224/3, 224/4, 224/5 of B K Yeragal, Sindahgi Taluk, Vijapura District, Karnataka
2	Production capacity	10000 TCD Sugar Unit, 38 MW/Hr Cogeneration Unit and 90 KLPD Distillery along with Incineration Boiler to Generate 3MW/Hr Power
3	Industry category Primary-(STC Code) Secondary- (STC Code)	Size: Large , Category : Red
4	Year of Establishment	2022
5	Man Power	350
6	Date of Last Environmental Statement submitted	29.09.2023

PART-B

Water and Raw Material Consumption

i. Water Consumption in KL/day

Water Consumption	During the previous financial year 2022-23 (KL/d)	During the current financial year 2023-24 (KL/d)
Indusrial	380	445
Domestic	21	24.5

Water Consumption per unit of output (KL/day)

Name of the products	Water Consumption per unit of products	
	During the previous financial year 2022-23	During the current financial year 2023-24
Sugar cane crushing	598788.906 MT	690144.689 MT
Captive power generation	18671600 KWH	21429577 KWH
Ethanol	-	-
Power from Incineration Boiler	-	-

ii. Raw Material Consumption

Sl.No.	Name of the Raw Materials	Name of product	Raw Material Consumption T/M	
			2022-2023	2023-2024
1	Sugarcane	Sugar	598788.906 MT	690144.689 MT
2	Sulphur		311	362
3	Lime		1018	902
4	Caustic Soda flakes		4.3	4.95
5	Lubricants (Wheel bearing greases, lubricating oils etc.), KL/d		6.12	7.0
6	HCl, KL/d		0.08	0.09
7	OP acid, KL/d		1.01	0.08
8	Bagasse	Co-generation	81925.209	96948.846
9	C-Molasses/B-Molasses/ Canc juice	Distillery	-	-
10	Sulphuric Acid		-	-
11	Nutrients N, P		-	-
12	Turkey Red Oil (TRO)		-	-
13	Biocides		-	-
14	Concentrated Spent wash	Boiler	-	-
15	Indian Coal		-	-

* Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw materials used.

PART-C

Pollution discharged to environment/unit of output
(Parameter as specified in the consent issued)

a) Water Pollution Load

- Trade Effluent from sugar and co-generation Plant is being treated in ETP of Capacity 1000 KLD. The ETP Treated and Untreated Effluent test reports are attached as **Annexure-1.**
- Domestic sewage is being treated in in the STP of Capacity 20 KLD.

Pollutants	Discharge of pollutants mg/L	Concentration of Pollutants discharged mg/L	Percentage of variation from prescribed standards with reasons.
pH	6.51	0.065	Not Specified
BOD_3 days	1000	10	
Total dissolved solids	2541	25.41	
Suspended solids	109	1.09	

Note:
1) Source of data: Test Report EHSRDC Bangalore. The ETP treated and untreated water results are attached as **Annexure - 1.**
2) As per NAAQ standards, the measured values for the above parameters are within the standards.

b) Air Pollution Load

- Emissions from DG Sets lead through chimney height of minimum 30 m AGL.
- ESP is provided to 120 TPH boiler with stack height of 70 mt and 32 TPH boiler will be connected to 75 mt chimney.

Source Emission from Boiler 120 TPH

Air Pollutants	Quantity of pollutants Discharged (Nm^3/h)	Concentration of Pollutants discharged (mg/Nm^3)	Percentage of variation from prescribed standards with reasons.
PM	192743.55	241.42	Not Specified
SO_2		100.56	
NO_2		75.86	
Carbon monoxide		323.10	

Note:
1) Source of data: Test Report EHSRDC Belgaum. Source Emission test report is attached as **Annexure - 2.**

PART-D

Hazardous Wastes

(As specified under Hazardous Wastes management & Handling Rules, 1989)

Hazardous Waste	Total Quantity (Ltrs/year)	
	During the previous financial year 2022-23	During the current financial year 2023-24
a) From Process	• Used oil from DG sets – 0.2 MT/A • Wastes Residues Containing Oil – 0.100 MT/A • (Discarded Containers) Empty barrels/containers/liners contaminated with hazardous chemicals /wastes – 3 MT/A	• Used oil from DG sets 0.28 MT/A • Wastes Residues Containing Oil 0.14 MT/A • (Discarded Containers) Empty barrels/containers/liners contaminated with hazardous chemicals /wastes 3.15 MT/A
b) From Pollution Control facilities	Nil	Nil

PART-E

SOLID WASTES

Name of raw materials	Total Quantity	
	During the previous financial year 2022-2023	During the current financial year 2023-24
a. From Process	• Sludge from ETP-0.052 TPD • Domestic solid waste-0.09 TPD • Press Mud- 142 TPD • Lime Grit-0.4 TPD	• Sludge from ETP-0.060 TPD • Domestic solid waste- 0.10 TPD • Press Mud - 181.4 TPD • Lime Grit- 0.4 TPD
b. From Pollution Control facility	• Boiler Ash- 24.29 TPD • Bagasse- 1032.31 TPD	• Boiler Ash – 19.76 TPD • Bagasse – 1608.37TPD
c. Quantity recycled or reutilized within the unit	Nil	Nil

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.

A. Solid Wastes:

- **Domestic Solid Waste**: The generated domestic Garbage of 0.10 Kg/day will be handed over to nearby municipal agencies & recyclers.
- **Press Mud:** Press mud of 181.4 TPD is mixed in required proportions and used as manure.
- **ETP Sludge:** ETP sludge of 0.06 TPD is mixed in required proportions and used as manure.
- **Lime Grit:** Lime Grit of 0.40 TPD is used in low lying areas for construction purpose.
- **Boiler Ash:** Boiler ash of 19.76 TPD is used for manufacturing of fly ash brick.
- **Bagasse:** Bagasse of 1608.37 TPD is sent to cogeneration unit to use as fuel for boiler.

B. Hazardous Wastes:

- Used oil of about 0.28 MT/A generated from the DG set is being collected and stored in leak proof sealed barrels and used within the industry for lubricating external parts of machines.
- Waste residues containing oil of 0.400 MT/Annum Stored in leak proof sealed barrels and it is used as lubricants within the industry.
- Empty barrels/containers/liners contaminated with hazardous chemicals/wastes of 3.5 MT/Annum.

PART-G

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

The only natural resource consumed is water for Domestic and Industrial purpose.

a. Water Pollution Control Devices:

- The domestic sewage is treated in STP of 20 KLD whereas trade effluents are discharged to ETP of 1000 KLD capacity and the treated effluent only after conforming to KSPCB discharge standards will be re-used for onland for irrigation/gardening/greenbelt development purposes.

b. Air Pollution Control Devices:

- ESP will be provided to 120 TPH with stack height of 70 mt and 32 TPH boiler will be connected to 75 mt chimney. From the air quality modeling studies, it is found

that, impact on air quality will be minimum during this stage with the installation of APC.

- Stacks/chimneys is be provided to incineration boiler and DG sets as per KSPCB Norms.
- Continuous online monitoring of stack is installed to know the emission level. The same is connected to KSPCB/CPCB server.

c. Greenbelt:

33% Greenbelt development is creating aesthetic environment and also acts as a pollution sink for pollutant emissions.

d. Energy and Natural Resources Conservation:

The implementation of Rain Water Harvesting Scheme helping in increasing the ground water level of the area.

e. Waste Minimization:

- Waste minimization is an integral part of production process in M/s Sangamnath Sugars Ltd. All possible measures have been implemented to minimize the waste.
- Fly ash/Boiler Ash can be utilized for the production of bricks.

PART-H

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

- Environment protection and pollution controls have been the priority for the industry. Any suggestions or improvements made by the Karnataka State pollution control Board (KSPCB) will be accepted and implemented as required.
- Environmental monitoring is an important parameter to assess prevailing status of environment during operational phase.
- The monitoring and analysis data could be useful to determine, performance of pollution control strategies as advised by implementing authorities and work to bring down the pollution level, or installation of any new and additional control measures, if required.
- Present status of air quality assessment would help to judge effectiveness of pollution control measures and strategies.

PART-I

MISCELLANEOUS:

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

- Constant efforts will be made to adopt the updated technologies in reducing the water consumption and the pollutants generation from the industry to avoid negative impact on the Environment.
- The Industry has made elaborate arrangements to provide safe and attractive work places for all employees. Personal protective equipment's like ear plugs etc, are provided to the employees.
- Development of greenbelt within the plant premises covering a 33% of total area. This is creating a healthy environment and also acts as a pollution sink. Further avi-fauna population of the area will also increase.

Annexure - I

ETP Test Reports

EHS R&D
ENVIRONMENTAL HEALTH AND SAFETY RESEARCH & DEVELOPMENT CENTRE
080 23012100
76194 76407
E : ehsrdc2010@gmail.com
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ENVIRONMENTAL HEALTH AND SAFETY RESEARCH AND DEVELOPMENT CENTRE
(Recognised under section 12 of the Environment (Protection) Act, 1986) New Delhi.
ಎನ್ವಿರಾನ್‌ಮೆಂಟಲ್ ಹೆಲ್ತ್ ಅಂಡ್ ಸೇಫ್ಟಿ ರಿಸರ್ಚ್ ಅಂಡ್ ಡೆವಲಪ್‌ಮೆಂಟ್ ಸೆಂಟರ್
(ಪರಿಸರ (ಸಂರಕ್ಷಣಾ) ಕಾಯ್ದೆ, 1986 ರ ಕಲಂ 12 ರಲ್ಲಿ ಮಾನ್ಯತೆ ಪಡೆದ ಪ್ರಯೋಗಾಲಯ) ನವ ದೆಹಲಿ.
एनवायरमेंटल हेल्थ एण्ड सेफ्टी रिसर्च एण्ड डेवलेपमेंट सेंटर
(पर्यावरण (संरक्षण) अधिनियम, 1986 अनुभाग 12 की धारा मान्यता प्राप्त प्रयोगशाला) न्यु दिल्ली.
TC-5822
ISO 9001 : 2015, ISO 14001 : 2015 & ISO 45001 : 2018, ISO / IEC 17025 : 2017 Accredited Testing Laboratory by NABL

EHSRDC / GEN / F / 29 / 01 / 00

Test Report

ANALYSIS REPORT OF WASTEWATER QUALITY

1.	**Name of the Project**	:	**M/s Sangamnath Sugar Ltd.** Byslihal village, Sindagi taluk, Vijayapura district, Karnataka.
2.	**Sample Collected by**	:	M/s. Environmental Health and Safety Research & Development Centre, Bangalore – 560 010.
3.	**Date of Collection**	:	14.01.2024
4.	**Particulars of Sample Collected**	:	ETP Untreated Water, Grab Sampling
5.	***Date of Sample Receipt***	:	20.01.2024
6.	**Sample Number**	:	EHSRDC/SSL/W/24/01/16040
7.	**Analysis started on**	:	20.01.2024
8.	**Analysis Completed on**	:	25.01.2024
9.	**Page No.**	:	1 of 2
10.	**Report Issued on**	:	25.01.2024
11.	**Protocol**	:	APHA,24th Edition/IS: Standard
12.	**ULR No**	:	TC582224000016040F

SI. No	Parameters	Test Method	Unit	Result
1.	pH	APHA4500H+ B	-	5.36
2.	B.O.D (3 days @ 27°C)	APHA5210 B	mg/L	1300
3.	Total Suspended Solids	APHA 2540 D	mg/L	120
4.	Colour	IS 3025(Part 4):1983	Hazen	<1
5.	Odour	IS 3025(Part 5):1983	-	Disagreeable
6.	Total Dissolved Solids	APHA 2540 C	mg/L	1824
7.	Oil & Grease	APHA 5520 B	mg/L	BDL
Note: BOD- Biochemical Oxygen Demand.				

End of Report

Suprilha. S.
Analysed by

A. Chivemetta
Verified by

Nethravathi.L
(Authorized Signatory)

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TC-5822
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ehsrdc2010@ehsrdc.in
W : www.ehsrdc.in
080 23012100
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EHSRDC / GEN / F / 29 / 01 / 00

Test Report

ANALYSIS REPORT OF WASTEWATER QUALITY

1.	**Name of the Project**	:	**M/s Sangamnath Sugar Ltd.** Byslihal village, Sindagi taluk, Vijayapura district, Karnataka.
2.	**Sample Collected by**	:	M/s. Environmental Health and Safety Research & Development Centre, Bangalore – 560 010.
3.	**Date of Collection**	:	14.01.2024
4.	**Particulars of Sample Collected**	:	ETP Treated Water, Grab Sampling
5.	**Date of Sample Receipt**	:	20.01.2024
6.	**Sample Number**	:	EHSRDC/SSL/W/24/01/16041
7.	**Analysis started on**	:	20.01.2024
8.	**Analysis Completed on**	:	25.01.2024
9.	**Page No.**	:	1 of 2
10.	**Report Issued on**	:	25.01.2024
11.	**Protocol**	:	APHA,24th Edition/IS: Standard
12.	**ULR No**	:	TC582224000016041F

Sl. No	Parameters	Test Method	Unit	Result	KSPCB Tolerance Limit
1.	pH	APHA4500H+ B	-	7.82	5.5 to 8.5
2.	B.O.D (3 days @ 27°C)	APHA5210 B	mg/L	32	100
3.	Total Suspended Solids	APHA 2540 D	mg/L	21	100
4.	Colour	IS 3025(Part 4):1983	Hazen	<1	All efforts should be made to remove colour and unpleasant odour as far as practicable
5.	Odour	IS 3025(Part 5):1983	-	Agreeable	
6.	Total Dissolved Solids	APHA 2540 C	mg/L	1189	2100
7.	Oil & Grease	APHA 5520 B	mg/L	BDL	10

Note: BOD- Biochemical Oxygen Demand.

INFERENCE	**As per KSPCB Tolerance Limit:** - The measured values for the above parameters for those standards have been specified are within the said standards.

End of Report

Suvitha S.
Analysed by

Verified by

Nethravathi.L
(Authorized Signatory)

See NOTE overleaf

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TC-5822
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ISO 9001 : 2015, ISO 14001 : 2015 & ISO 45001 : 2018, ISO / IEC 17025 : 2017 Accredited Testing Laboratory by NABL

EHSRDC / GEN / F / 29 / 01 / 00

Test Report

ANALYSIS REPORT OF WASTEWATER QUALITY

1.	**Name of the Project**	:	**M/s Sangamnath Sugar Ltd.** Byslihal village, Sindagi taluk, Vijayapura district, Karnataka.
2.	**Sample Collected by**	:	M/s. Environmental Health and Safety Research & Development Centre, Bangalore – 560 010.
3.	**Date of Collection**	:	10.02.2024
4.	**Particulars of Sample Collected**	:	ETP Untreated Water, Grab Sampling
5.	**Date of Sample Receipt**	:	14.02.2024
6.	**Sample Number**	:	EHSRDC/SSL/W/24/02/17992
7.	**Analysis started on**	:	14.02.2024
8.	**Analysis Completed on**	:	19.02.2024
9.	**Page No.**	:	1 of 1
10.	**Report Issued on**	:	19.02.2024
11.	**Protocol**	:	APHA,24th Edition/IS: Standard
12.	**ULR No**	:	TC582224000017992F

Sl. No	Parameters	Test Method	Unit	Result
1.	pH	APHA4500H+ B	-	6.51
2.	B.O.D (3 days @ 27°C)	APHA5210 B	mg/L	1000
3.	*Total Suspended Solids*	APHA 2540 D	mg/L	109
4.	Colour	IS 3025(Part 4):1983	Hazen	<1
5.	*Odour*	IS 3025(Part 5):1983	-	Disagreeable
6.	Total Dissolved Solids	APHA 2540 C	mg/L	2541
7.	Oil & Grease	APHA 5520 B	mg/L	BDL

Note: BOD- Biochemical Oxygen Demand.

End of Report

Suprittha S
Analysed by

Verified by

Nethravathi.L
(Authorized Signatory)

See NOTE overleaf

ENVIRONMENTAL HEALTH AND SAFETY RESEARCH AND DEVELOPMENT CENTRE
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ಎನ್ವಿರಾನ್‌ಮೆಂಟಲ್ ಹೆಲ್ತ್ ಅಂಡ್ ಸೇಫ್ಟಿ ರಿಸರ್ಚ್ ಅಂಡ್ ಡೆವಲಪ್‌ಮೆಂಟ್ ಸೆಂಟರ್
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EHSRDC / GEN / F / 29 / 01 / 00

Test Report

ANALYSIS REPORT OF WASTEWATER QUALITY

1.	***Name of the Project***	:	**M/s Sangamnath Sugar Ltd.** Byslihal village, Sindagi taluk, Vijayapura district, Karnataka.
2.	**Sample Collected by**	:	M/s. Environmental Health and Safety Research & Development Centre, Bangalore – 560 010.
3.	**Date of Collection**	:	10.02.2024
4.	**Particulars of Sample Collected**	:	ETP Treated Water, Grab Sampling
5.	**Date of Sample Receipt**	:	14.02.2024
6.	**Sample Number**	:	EHSRDC/SSL/W/24/02/17993
7.	**Analysis started on**	:	14.02.2024
8.	**Analysis Completed on**	:	19.02.2024
9.	**Page No.**	:	1 of 2
10.	**Report Issued on**	:	19.02.2024
11.	**Protocol**	:	APHA,24th Edition/IS: Standard
12.	**ULR No**	:	TC582224000017993F

Sl. No	Parameters	Test Method	Unit	Result	KSPCB Tolerance Limit
1.	pH	APHA4500H+ B	-	7.62	5.5 to 8.5
2.	B.O.D (3 days @ 27°C)	APHA5210 B	mg/L	30	100
3.	Total Suspended Solids	APHA 2540 D	mg/L	12	100
4.	Colour	IS 3025(Part 4):1983	Hazen	<1	All efforts should be made to remove colour and unpleasant odour as far as practicable
5.	Odour	IS 3025(Part 5):1983	-	Agreeable	
6.	Total Dissolved Solids	APHA 2540 C	mg/L	2065	2100
7.	Oil & Grease	APHA 5520 B	mg/L	BDL	10
Note: BOD- Biochemical Oxygen Demand.					

INFERENCE	**As per KSPCB Tolerance Limit:** - The measured values for the above parameters for those standards have been specified are within the said standards.

End of Report

Supritha. S
Analysed by

A. Ethiraj
Verified by

Nethravathi.L
(Authorized Signatory)

See NOTE overleaf

Annexure - II

Source Emission Test Reports

ENVIRONMENTAL HEALTH AND SAFETY RESEARCH AND DEVELOPMENT CENTRE
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Test Report

ANALYSIS REPORT FOR SOURCE EMISSION

1.	**Name of the Project**	:	**M/s Sangamnath Sugar Ltd.** Byslihal village, Sindagi taluk, Vijayapur district, Karnataka.
2.	**Stack ID**	:	Boiler 100 TPH
3.	**Sample Collected by**	:	M/s. Environmental Health and Safety Research & Development Centre, Bangalore – 560 010.
4.	**Date of Collection**	:	10.02.2024
5.	**Particulars of Sample Collected**	:	Emissions from stack collected through Stack Sampler VSS1
6.	**Date of Sample Receipt**	:	14.02.2024
7.	**Sample Number**	:	EHSRDC/SSL/S/24/02/17987
8.	**Report Issued on**	:	19.02.2024
9.	**Page No**	:	1 of 1

GENERAL DETAILS

Date of Monitoring	10.02.2024
Ambient Temperature (0C)	28
Stack Temperature (0C)	136
Velocity (m/s)	7.57
Diameter (m)	3.50
Cross Sectional Area in meter square (m2)	9.616
Quantity of flue gas discharged into atmosphere (Nm3/h)	192743.55
Dust Emission Rate (Kg/hr)	10.059

RESULTS

Parameters	Protocol	Unit	Result	KSPCB Tolerance Limits
Particulate Matter	IS: 11255, part 1	mg/Nm^3	52.19	75
Oxides of Nitrogen as NO_2	IS: 11255, part 7	mg/Nm^3	21.74	710
Sulphur Dioxide	IS. 11255, part 2	mg/Nm^3	16.40	Not Specified
Carbon Monoxide	EHSRDC/SOP/Air/029	mg/Nm^3	69.86	150
Non-Methane Hydrocarbon	Flue Gas Analyzer	mg/Nm^3	BDL	150

INFERENCE	**As per KSPCB Tolerance Limits,** the measured values for the above parameters within the said standards.

End of Report

Analysed by

Verified by

Nethravathi.L
(Authorized Signatory)