Coromandel Sugars.

Annexure-I
Additional Conditions

1. **This Consent for Operation is issued for the Period from 01.07.2021 to 30.06.2026.**
2. **This CFO is issued for manufacturing Sugar cane crushing of 4800 TCD and Co-gen of captive power 30 MW.**
3. The authorities have paid Rs. 10,00,000 /- as Consent fee for 5 years based on the CI of Rs. 29,76,870/-. The applicant shall pay the balance fee, if any, after the final notification of revised consent fee and as per the affidavit submitted by the industry.
4. The applicant shall comply with the quantity of water consumption, waste water generation and treatment and disposal of treated water for Sugar & Co generation plant as per the following table

Sl. No.	Process streams	Water Consumptions & discharge of effluents in KLD				Details of ETP Provided and final mode of discharge of treated effluent
		Consumption		Discharge		
		Sugar	Co-gen.	Sugar	Co-gen.	
1.	Domestic use (Toilet, Canteen etc.)	68	-	50	-	Shall be disposed to Septic and soak pits.
2.	Process	600	-	420	-	Shall be treated in ETP of capacity 1500 KLD with UASB technology and the treated water shall be used for on land irrigation within the premises.
3.	Washing	60	-	60	-	
4.	Boiler feed		550		156	
5.	DM plant back wash/ softner regeneration					
6.	Cooling tower/spray pond make up	23	17	276	53	
7.	Fire fighting	20	-	-	-	

5. The applicant shall treat the domestic sewage in Septic tank followed by soak pit. No overflow from the soak pit is allowed. The septic tank and soak pit shall be as per IS 2470, Part –I & Part – II.
6. The trade effluent generated from mill house, boiling house and spray pond i.e., overflow shall be treated in the ETP of capacity 1500 KLD. The ETP shall consists of the Grit Chamber, Bar Screen, Oil skimmer, Oil Collection tank, Neutralization tank. Equalization Tank, Buffer tank, UASB Digester, Primary Aeration tank, primary Clarifier, Secondary Aeration tank, Clarifier IIA, Clarifier II B, Collection tank, ACF and PSF, Polishing pond, Sludge drying beds.
7. The treated trade effluent shall be used for on land for irrigation within the premises owned by the industry and in the RD forms after conforming to the Standards as stipulated in **Annexure –A** attached with this Consent.
8. The quantity of excess hot water condensate after cooling from cooling tower shall be recycled. About 240KLD of excess condensate water shall be reused in the process at sugar mill their by fresh water consumption for the process to a tune from 600 KLDto 360 KLD can be reduced and the remaining 695KLD of water shall be used as spray pond make-up.
9. **The treated effluent shall be disposed on land for irrigation after complying with the following CPCB guidelines. The industry shall submit the point wise action taken report on all the conditions stipulated below:**

- The industry shall adopt "Controlled Land application of treated effluent, while utilizing the treated water for irrigation.
- The industry shall engage an agricultural scientist or tie-up with an agricultural university or institute for advice on the utilization or the rate of application of the treated effluent for irrigation considering the agro-climatic conditions.
- As seasons and the sowing periods of the crops put restrictions on the utilization of treated effluent for irrigation, the industry shall prepare a comprehensive Irrigation Management Plan (IMP), in consultation with the agricultural scientist or agriculture university/institute and submit to SPCBs/PCCs which should verify the same while issuing Consent to the industry.
- The industry shall prepare Comprehensive Irrigation Management Plan including following:
  - Areas to be covered under irrigation by using treated water.
  - Details like Survey numbers of land and their area to be covered in the treated water utilization.
  - Written agreement with the farmers to use the treated water in their land for irrigation scheme.
  - The quantity of treated effluent to be used in different periods of the year and crop wise utilization.
  - The treated effluent distribution system and arrangement for low/no demand period.
  - Agronomic plan for effective utilization of land.

- The command area used for utilization of treated effluent shall be as near as possible to the industry in order to facilitate easy monitoring and effective control on the application of treated effluent.
- The industry shall construct a distribution network of impervious conduits to cover the irrigated area.
- The industry shall construct impervious lined storage tank of minimum 15 days capacity for storage of treated effluent during low/no demand, based on the Irrigation Management Plan.
- The treated effluent used for Irrigation shall be analyzed regularly, i.e after every Month. The consolidated analysis results shall be submitted to the Board regularly.
- The treated effluent samples shall be collected at the point from where the effluent is discharged for irrigation.
- The physico-chemical characteristics of the soil under irrigation with treated effluent, should be monitored twice in a year to assess conditions in summer and post monsoon seasons, in order to determine the deterioration of soil quality. The consolidated analysis results shall be submitted to the Board regularly.
- The industry shall monitor the groundwater quality twice in a year.
- The ground water Samples shall be collected from the monitoring well established for sampling purpose only.
- The sampling points should be uniformly spread in the command area and near effluent storage area.
- The industry should carry out the analysis of various prescribed effluent/soil/ground water quality parameters from the NABL/EPA/ SPCBs/PCCs recognized/accredited laboratories.
- Analysis reports regarding compliance of effluent quality standards and status of soil and ground water quality shall be submitted to SPCBs/PCCs twice in a year, in first week of January and July.
- In case of observation of any deterioration in the soil and groundwater quality parameters during the assessment by agricultural scientist or agricultural university/institute, the

application of treated effluent shall be stopped immediately and the industry should inform the SPCB, accordingly.

- The industry shall be solely responsible for reclaiming the soil and water quality at their cost in the affected area.

10. The Effluent Treatment Plant shall be stabilized one month prior to the start of the crushing season and continue to operate one month after the crushing season.
11. The daily quantity of domestic effluent and trade effluent from the industry shall not exceed the limits as indicated in this consent order.
12. The applicant shall discharge the effluents only to the place mentioned in the Consent order and discharge of treated/untreated outside the premises in not permitted.
13. Analysis reports regarding compliance of effluent quality standards and status of soil and ground water quality shall be submitted to SPCBs/PCCs twice in a year, in first week of January and July.
14. In case of observation of any deterioration in the soil and groundwater quality parameters during the assessment by agricultural scientist or agricultural university/institute, the application of treated effluent shall be stopped immediately and the industry should inform the SPCB, accordingly.
15. The industry shall comply with all the conditions stipulated in the EC issued for sugar cane crushing; Co-generation of power plant and Molasses based Distillery.
16. The applicant shall store the molasses in covered steel tanks only with proper safety measures.
17. The applicant shall take suitable steps so that there will be reduction of the fresh water consumption as well as waste water generation from the industry.
18. The applicant shall use the entire bagasse generated from the sugar mill for co-generation boiler during the season and the fly ash shall be used for composting as filler material.
19. The applicant should use the existing closed conveyor system for transfer of bagasse to prevent the spread the fugitive emission.
20. The applicant shall not store untreated/partially treated effluents in the unlined lagoons.
21. Industry shall metal all the internal roads to control the fugitive emissions due to vehicular movement.
22. The applicant shall regularly monitor the ground water of the wells situated in agricultural where treated trade effluent is used for irrigation for water quality parameters and submit report.
23. Industry shall explore the possibility of treating the sewage by providing STP of required capacity as the total domestic sewage generation is 50 KLD. Industry shall submit the details of source of domestic sewage along with plan of action for providing STP.
24. The analysis of treated trade effluent shall never exceed the stipulated standard and in any case the treated effluent is exceeding the standard the applicant shall take appropriate step to maintain the ETP units to ensure treated water always complies with the stipulated standard.
25. Industry shall provide dyke wall of sufficient height for molasses storage tank.

B. DISCHARGE OF EMISSIONS UNDER THE AIR ACT:-

1 The discharge of emissions from the premises of the applicant shall pass through the air pollution control equipment and discharged through stacks/chimneys mentioned in **Annexure-B** where from the Board shall be free to collect the samples at any time in accordance with the provisions of the Act and Rules made there under.

2 Fugitive emission near manufacturing area has to be controlled by adopting advance technology.

3 If there is going to be any new air pollution sources in future, the project authorities shall apply and obtain consent for establishment for the same from the Board.

4 The applicant shall use Coal & Bagasse as fuel in the Boiler. The same shall be fed through closed conveyor system from the storage yard and shall provide water sprinkling measures for controlling fugitive emission.

5 The fly ash shall be collected in silo & the same shall be mixed with press mud & disposed to the farmers to use as manure in their agricultural fields. The Boiler bottom ash shall be used for filling low laying area without causing pollution to the ground water, soil and surrounding environment.

6 The applicant shall carryout the ambient air quality monitoring and submits the report to the Regional Office of the Board. The AAQM stations shall be carried out in all the established stations as per the requirement under the National Ambient Air Quality Monitoring Standards stipulated in Environmental (Protection) Rules, 1986. The industry shall furnish statistical analysis for annual average of pollutants at all the locations as per Ambient Air Quality standards Notification once in a year.

7 The analysis of stack monitoring shall never exceed the stipulated standard and in any case the stack analysis is exceeding the standard the applicant shall take appropriate step to maintain the air pollution control equipment to ensure stack emission always complies with the stipulated standard.

8 The applicant shall treat and dispose any liquid effluents produced in the course of control of air pollution by scrubbing, conditioning etc., of flue gases in accordance with the provisions of the Water (Prevention and Control of Pollution) Act, 1974. The details of such discharges shall be quantified and monitored immediately after commissioning and details of collection, treatment and disposal shall be furnished to the Board.

C. HAZARDOUS WASTES (MANAGEMENT, HANDLING & TRANSBOUNDRY MOVEMENT) RULES 2016:

1. The industry shall apply and obtain authorization under Hazardous Wastes (Management, Handling & Transboundry Movement) Rules 2016, and comply with the conditions of the authorization.
2. The applicant shall comply with the terms and conditions stipulated in authorization.

D. GENERAL CONDITIONS

1. The applicant shall not allow the discharge from the other premises to mix with the discharge from his premises.
2. The Storm water shall not be allowed to mix with the effluents on the upstream of the terminal manhole where the flow measuring devices are installed.
3. The Noise generated in the factory shall be within the prescribed limits of 75 dB (A) leq. During day time and 70 dB (A) leq during night time.
4. The applicant shall comply with the noise standards for work zone exposure for industrial workers as per the Factories Act/Noise Pollution (Regulation and Control) Rules, 2000.
5. There shall not be any complaint against the industry on water, air, noise pollution from the surrounding general public.
6. The applicant shall carryout intensive plantation/ thick vegetation all round to minimize air & noise pollution. The action taken report shall be submitted to the Board immediately.
7. The applicant shall not discharge treated water/untreated water in to the water body at any point of time.
8. The industry shall provide rain water harvesting system within the premises to conserve the Water Source.

9. The industry shall provide 15 days storage tank for storing treated trade effluent.
10. The applicant shall always ensure that the bagasse & boiler ash shall be stored in covered area which will avoid dust nuisance in the surrounding area during wind blow.
11. The applicant shall store the metal scrap, plastic waste, glass wool and other solid waste scientifically in a designated separate shed within the industrial premises and the same shall be handed over to authorized recycler/agency with proper approval from the Board.
12. The applicant shall store the used containers scientifically in a designated separate shed within the industrial premises and the same shall be handed over to authorized recycler/agency with proper approval from the Board.
13. The industry shall provide online emission monitoring system, effluent monitoring system and the data shall be connected to CPCB and SPCB server as per CPCB directions.
14. The industry shall provide separate energy meter to the ETP and flow meter to inlet and outlet of ETP.

For and on behalf of the KSPCB

SENIOR ENVIRONMENTAL OFFICER

ANNEXURE -A

Standards for using the treated trade effluent on land for irrigation/green belt development:

Sl. No.	Characteristics	Standards
1	pH	5.5 to 8.5
2	BOD, mg/l , (3 days at 270 C)	100
3	TSS, mg/l	100
4	Oil and Grease-mg/l	10
5	Total Dissolved Solids-mg/l	2100
6	Colour and odour	See Note

Note: All efforts should be made to remove colour and unpleasant odour as far as practicable.

TABLE
HYDRAULIC LOADING APPLICABLE FOR DIFERENT SOILS

Sl. No.	Soil Texture	Loading rate in M^3 /Hec/day
1	Sandy	225 to 280
2	Sandy Loam	170 to 225
3	Loam	110 to 170
4	Clay Loam	055 to 110
5	Clayey	035 to 055

SENIOR ENVIRONMENTAL OFFICER

The Air pollution sources, Chimney height and the control equipments provided by the industry shall be as below and the Air pollution sources mentioned in the main consent at Page No: 5 shall be replaced with this **Annexure-D**

Sl. No.	Chimney Attached to	Minimum Chimney Height to be Provided	Constituents to be controlled in the emission.	Tolerance limits Mg/NM3	Air Pollution Control equipment to be installed, in addition to Chimney height as per Col (3)	Date of which air pollution Control equipments shall be provided to achieve the stipulated tolerance limits and chimney heights conforming to stipulated heights.	Remarks
1	140 TPH Boiler	90 m AGL	PM	150	With ESP	At All Times	1. The emission rate of all chimneys shall be reported within 30 days. 2. Details of D.G. Sets if any like KVA rating fuel consumption in Kg/hr., Chimney height above roof level and dia to be furnished within 30 days. D.G. Sets and other noise generating machinery to be provided with Silencers /Mufflers to reduce the noise pollution. 3. There shall be no smell or odour nuisance from the industry. 4. There shall be no other sources of air pollution.
2	Coal crushing & screening plant	20 m AGL	PM	30	With Bag Filter	At All Times	
3	1000 KVA D.G. set.	13 m ARL	NO_x NHMC PM CO	710 ppmv 100 75 150	With acoustic enclosure	At All Times	
4	500 KVA D G set	5 m ARL	SOx	--	With acoustic enclosure	At All Times	
5	250 KVA D.G. set	5 m ARL	SOx	--	With acoustic enclosure	At All Times	
6	250 KVA D.G. set	5 m ARL	SOx	--	With acoustic enclosure	At All Times	

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