Bilagi Sugar Mill

Annexure-I
Additional Conditions

1. **This consent for Operation is valid for a period from 01.07.2021 to 30.06.2026.**
2. **This CFO is issued for production of Sugar of capacity 10,000 TCD, Co-gen plant of capacity 38 MW.**
3. The authorities have paid Rs.7,50,000/- as Consent fee for 5 years based on the CI of 51.84 Crores. 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 all the conditions stipulated in Environmental Clearance vide No. SEIAA 10 IND 2018 Dated 18-09-2019 for Expansion of sugarcane crushing capacity from 5000TCD to 10,000TCD and Co-Generation of Power 38MW.
5. The water consumption and the waste water generation after the proposed Expansion activity for both domestic and industrial activity shall be as below:

Sl. NO.	Particulars	Water Consumption KLD	Waste Water Generation KLD	Method of Treatment adopted
1	Process (Sugar Plant)	1500	980	Treated in Effluent Treatment plant and used for irrigation purpose.
2	Water Treatment Plant, R.O. & U.F) for boiler & cooling make up (Cogen Plant)			
3	Domestic	3	2.4	Septic tank & Soak pit
Total		**1503**	**982.4**	

6. 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.
7. The applicant shall treat the condensate water in the CPU and the treated CPU effluent shall be recycled back to the process completely. The CPU of capacity 200m^3/hr KLD shall consist of Collection tank cum CT, Neutralization Tank, Lime Dosing tank, Anaerobic Bio Filter, Aeration Tank, Clarifier Tank, Chlorine Contact Tank, Treated Water Storage Tank, Sludge Drying Beds (08 No's).
8. The industry shall treat the trade effluent in the ETP of capacity 1000 KLD and the ETP consist of Screen chamber (Twin), Oil chamber (Twin), Neutralizer, Lime preparation vessel (MS) with provision to 1HP Agitator, Primary Clarifier with sludge discharge to sludge dry bed, Aeration tank-I, Secondary clarifier-1, Aeration tank-2, Secondary clarifier-2, Sludge Pits – 3 No's, Polishing Pond, Sludge dewatering sand Beds (06 No's), Pressure Sand Filter & Activated Carbon Filter, Monthly wash tank, Retention tank.
9. The treated trade effluent shall be used for irrigation (60 Acres) owned by the industry after confirming to the standards as per Annexure-A. The excess treated trade effluent shall be discharged in the neighboring farmer's land (140 acres).
10. **The treated effluent shall be disposed on land for irrigation after complying with the following 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.

11. The applicant shall not dig the new Bore wells within the premises.
12. 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.
13. The applicant shall commission and stabilize the ETP one month before the start of crushing season.

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. Progress made in this regard shall be furnished.
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.

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. The applicant shall comply with the terms and conditions stipulated in authorization.
2. The applicant shall dispose the empty raw material cans back to the supplier and shall maintain the manifesto to this process. The details shall be submitted to the Board.
3. The applicant shall sell the boiler ash to the farmers along with press mud and ETP sludge to use as manure in their lands for irrigation.

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 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.
3. There shall not be any complaint against the industry on water, air, noise pollution from the surrounding general public.
4. The applicant shall carryout intensive plantation/ thick vegetation all round, especially towards residential apartment to minimize air & noise pollution. The action taken report shall be submitted to the Board immediately.
5. 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.
6. 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.
7. The applicant shall submit storm water management plan & shall implement the same and submit the action taken report to the Board.
8. Industry shall provide dyke wall of sufficient height for molasses storage tank.
9. The industry shall provide metalled road for transportation of cane along with metalling of lateral roads.
10. The industry shall provide 15 days storage tank for storing treated trade effluent.
11. The industry shall provide acoustic enclosures to prevent the noise generation to 55 and 150 TPH boilers.
12. There shall not be any discharge of untreated/treated effluent outside the premises and the treated effluent shall be used for green belt development and gardening.

13. The applicant shall not discharge treated water/untreated water in to the water bodies at any point of time.
14. The applicant shall improve the house keeping within the industrial area.
15. All the lagoons shall be constructed above ground level.
16. The applicant shall provide the impervious collection sump to collect the molasses spillages.
17. The industry shall provide rain water harvesting system within the premises to conserve the Water Source.
18. The applicant shall always ensure that the bagasse & boiler ash shall not be stored in an open land, which may cause dust nuisance in the surrounding area during wind blow.
19. 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.
20. 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.
21. The applicant shall use the press mud and ETP sludge for the preparation of manure and the same shall be handed over to farmers for using in their land.
22. The applicant shall mix the boiler ash with the press mud and sell to farmers as manure and boiler ash shall be handed over to brick industries.

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: 4 shall be replaced with this Annexure-B

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	DG set of 250 KVA (HSD)	5m ARL	SO_2	---	With acoustic enclosure	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	DG set of 250 KVA (HSD)	5m ARL	SO_2	---	With acoustic enclosure	At All Times	
3	55 TPH Boiler	55 m AGL	PM	150	Wet scrubber	At All Times	
4	150 TPH Boiler	76 m AGL	PM	150	With ESP	At All Times	

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