

ADDITIONAL CONDITIONS TO ACCOMPANY CONSENT ORDER CONSENT ORDER OF M/S. NIRANI SUGARS LTD., (DISTILLERY), SY. No. 18 & 19, MALAPUR VILLAGE, MUDHOL TALUK, BAGALKOT DISTRICT.

The consent is valid for the manufacture of:

Products	Maximum Capacity
Distillery plant:	120 KLD
1. Rectified spirit	114 KLD or
2. Extra Neutral Alcohol	111 KLD
3. Anhydrous Alcohol from Rectified spirit	107 KLD
4. Impure spirit	6 KLD
5. Fuel Oil	0.520 KLD

The Consent is granted for the period from 01.07.2016 to 30.06.2021.

**Consent fees : Rs. 7,50,000/- under both Water Act & Air Act
Capital investment: Rs. 148.26 crores**

RTGS No: AXTB162421924981 – Rs. 7,50,000/- dt: 29.08.2016.

A. TREATMENT AND DISPOSAL OF EFFLUENTS UNDER THE WATER ACT.

- The daily quantity of effluent discharged shall not exceed the limits and shall not contain the constituents in excess of the tolerance limits laid down as indicated in the table below. The applicant shall monitor the quality of effluents for the parameters stipulated as per the frequency indicated.

Sl. No.	Description	Permitted Quantity of discharge	Place of discharge and Limits specified
1	Trade effluent (Spent wash)	1050 M ³ /day	<ul style="list-style-type: none"> The spent wash shall be concentrated in Multiple Effect Evaporator (MEE) and the concentrate shall be incinerated in the boiler The condensate shall be taken to condensate polishing unit & treated in RO. The permeate generated from RO shall be re-used in the process and RO rejects shall be used for composting along with yeast sludge and spent wash generated during maintenance of incineration boiler
2	Domestic effluent	5 M ³ /d	Septic tank and soak pit


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2. The spent wash shall be concentrated in Multiple Effect Evaporator (MEE) and the concentrate shall be incinerated in the boiler.
3. The applicant shall record the quantity of spent wash and other effluents generated and maintain a record. The recorded data shall be sent to the jurisdictional Regional Officer on monthly basis.
4. The concentrated spent wash shall be stored in **impervious concrete lagoon** only.
5. Entire quantity of spent lees shall be recycled.
6. The condensate from MEE shall be taken to condensate polishing unit consisting of R.O. The permeate shall be re-used in the process. R.O rejects shall be used for composting along with yeast sludge and spent wash generated during maintenance of incineration boiler.
7. The non-process effluent streams like boiler blow down, cooling water, DM plant backwash and service water, etc., shall be treated in the ETP and used for gardening/ dust suppression/ ash conditioning/ irrigation purpose and shall conform to the standards stipulated as per **Annexure-I**
8. The applicant shall ensure that no spent wash/ effluent are bypassed on land or into stream.
9. There shall not be any discharge of treated/ untreated spent wash outside the factory premises.
10. The discharge of trade effluent other than spent wash & spent lees shall pass through terminal manhole/ manholes where from the Board shall be free to collect samples at any time in accordance with the provisions of the Act or Rules made there under.
11. Industry shall provide a separate drainage system for storm water management.

(a) **COMPOSTING:**

1. Composting shall be carried out with press mud and spent wash generated **during the maintenance of incineration Boiler**, effluents from floor wash, fermenter wash & yeast sludge, as per the CPCB protocol. And the compost quality shall meet the standards as stipulated under **Annexure II**.
2. The applicant shall ensure that the composting activity is carried in a manner so as not to cause surface or sub-surface water pollution.
3. Leachate shall be collected in impervious leachate collection tank through garland canal provided all round the compost yard.
4. Leachate tank capacity shall be such that it shall hold the rain water from the compost yard completely and this shall be taken to 30 days holding tank and used for composting along with the fresh effluent.


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5. The applicant shall synchronize the generation of spent wash and composting activity in such a way that composting is avoided during rainy period. Storage of any material/ press mud/ compost in the compost yard during rainy period shall be avoided. The applicant shall get the quality of the compost tested through Board empanelled laboratories and maintain a record of each cycle.

(b) SELF MONITORING AND REPORTING BY THE INDUSTRY:

1. The applicant shall at his own cost get the samples of bio-methanated spent wash and analyse the same once in 15 days for pH, EC and total volatile solids.
2. Monthly extract of daily product manufactured, no. of days of operation & effluent discharge shall be submitted to the Regional Officer regularly every month & once in six months production details, duly certified by Excise Superintendent shall be submitted to Regional Office and the Board.
3. The applicant shall analyse finished compost from **each cycle** for the parameters moisture, organic carbon, P, N, K, and C/N ratio. In addition EC of the water extract of the compost shall also be monitored.
4. The effect of composting operations on ground water quality shall be monitored by analyzing samples every six months from five hand pumps about 50 M from the compost yard encircling the entire area.
5. The applicant shall maintain at least 3 water quality stations/ hand pumps as background stations at a sufficient distance from the compost yard and shall be monitored every six months.
6. The applicant shall take all necessary measures to avoid odour nuisance both from the process and from the effluent handling.
7. Piezometers shall be installed to study the long-term impact on ground water quality around the compost yard.
8. **(a) The applicant shall maintain the on line continuous stack emission monitoring system for measurement of emissions parameter like PM and monitoring data shall be connected & up loaded to KSPCB and CPCB's servers.**
(b) The applicant monitor the treated effluent through on line continuous effluent quality monitoring system at the out let of sugar plant ETP for the measurement of parameters flow, pH, COD, BOD, TSS and monitoring data shall be connected & up loaded to KSPCB and CPCB's servers .
(c) Once in a month by 5th, the max, min & Avg values and also the number of time, the exigencies recorded shall be submitted to R.O

B. DISCHARGE OF EMISSIONS UNDER THE AIR ACT

1. The hourly rate of emissions discharged and the tolerance limits of the constituents forming the emissions in each of the chimneys/ stacks shall not exceed the limits laid down in **Annexure-III**.
2. The applicant shall operate the air pollution control equipment as specified in the **Annexure-III** continuously, so as to ensure that the emission does not exceed the limits specified. The operation of the control equipment shall be synchronized with the operation of the emission source.


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3. The applicant shall provide port holes for sampling the emissions and access platforms for carrying out stack sampling and provide electrical outlet points and other arrangements for all chimneys/ stacks and other sources of emissions, so as to collect samples of emissions by the Board or the applicant at any time in accordance with the provisions of the Act and Rules made there in.
4. The industry shall ensure that the ambient air quality in its premises shall conform to the National Ambient Air Quality Standards specified in Environment (Protection) Rules.
5. The applicant shall take all necessary efforts to control odour nuisance caused due to emissions from the industry.
6. If there are 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.
7. The industry shall use only one type of fuel at a time and the ash generated during the use of coal shall be collected separately and disposed as per fly ash Notification, dated: 03.11.2009.
8. The applicant shall comply with the fly ash Notification, dated: 03.11.2009 issued from MoEF.

C. MOLASSES STORAGE:

1. The applicant shall continue to store the molasses in covered steel tanks only.
2. The applicant shall obtain permission from the Board to dispose-off the spoiled molasses and shall be disposed-off in the manner as will be specified by the Board.

D. HAZARDOUS WASTE (MANAGEMENT & TRANSBOUNDARY MOVEMENT) RULES, 2016.

The applicant shall comply with the Hazardous Waste (Management & Trans boundary Movement) Rules, 2016.

E. SOLID WASTE MANAGEMENT

The applicant shall dispose-off the yeast sludge scientifically by proper collections, dewatering in the rotary dewatering machine storage **on an impervious bed and shall be composted along with spent wash**. Separate log book for the quality of yeast sludge disposed shall be maintained and the same shall be got verified by the Regional Officer during inspection.

Waste	Quantity in MT	Mode of disposal
Bottom Ash	1314	Shall Given to farmers/brick manufactureres
Fly Ash	450	
Yeast Sludge	360	Shall be used for composting & handed over to cattle feed manufactureres

F. STORM WATER MANAGEMENT

1. The applicant shall not allow the storm water to mix with the effluent/ compost/ press mud in compost yard and shall take adequate precautions during rainy season.
2. The applicant shall implement rain water harvesting system.


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G. GENERAL

1. This consent for discharging sewage and/or trade effluents from the factory shall not be taken or construed as the Board's permission to continue to discharge the sewage and/or trade effluents from the factory into the place (as mentioned in this consent Order) which pollutes the water there-in endangering the life and property of the persons using the said water before, during or after the periods indicated in the Terms and Conditions of this Consent Order.
2. The applicant shall not change or alter either the quality or quantity or rate of emission or install/ replace or alter the air pollution control equipment, change in raw material or manufacturing process resulting in change in quality and/or quantity of emissions without the prior permission of the Board.
3. The industry shall not change or alter (a) raw materials or manufacturing process, (b) change the products or product mix (c) the quality, quantity or rate of discharge/ emissions and (d) install/replace/alter the water or air pollution control equipments without the prior approval of the Board.
4. The applicant shall not store any raw materials on naked ground.
5. The applicant shall appoint a qualified environmental engineer/ scientist for environment management in the factory and also establish an environmental cell.
6. Applicant shall maintain the Environmental Management System in conformity with ISO 14001:2004 standards.
7. The applicant shall comply with the guidelines under Corporate Responsibilities for Environment Protection (CREP) 2003 issued by Ministry of Environmental Forests and CPCB.
8. The applicant shall continue the self monitoring system for monitoring the effluents and emissions.
9. The applicant shall maintain register recording the ambient air quality, stack monitoring and analysis report of treated effluents. The register shall be open for inspection by the Board Officers at all time.
10. An inspection Book shall be opened and made available to the Board Officers during their visit to the factory.
11. The industry shall transport and store the raw materials in a manner so as not to cause any damage to environment, life and property. The applicant shall be solely responsible for any damages to environment.
12. Industry shall comply with all the consent conditions and furnish report within 30 days to the Regional Office.
13. The applicant shall display EC, Environmental Statement and Consent orders in the website of the industry and update regularly.


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ANNEXURE – I

STANDARDS FOR DISCHARGE OF LIQUID WASTE ON LAND FOR IRRIGATION

Sl. No.	Characteristics.	Tolerance limits.
1	Colour and Odour.	See Note.
2	Suspended Solids mg/l. Max.	100
3	pH value.	5.5 to 8.5
4	Oil and Grease mg/l. Max.	10
5	Bio-chemical Oxygen Demand, mg/l. (3 days at 27°C) Max.	100
6	Total dissolved Solids (TDS), mg/l	2100

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

TABLE

HYDRAULIC LOADING APPLICABLE FOR DIFFERENT 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

ANNEXURE – II

COMPOST QUALITY

Sl. No.	Parameter	Standard
1	Moisture content	< 35%
2	Organic carbon	20 – 25%
3	Phosphorous	1.5 – 2.0%
4	Nitrogen	1.5 – 2.0%
5	Potassium	2.0 – 3.5%
6	C : N Ratio	< 17


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ANNEXURE – III

Chimney	Chimney Attached to	Minimum Chimney Height to be Provided above ground level (AGL)/ roof level (ARL) in m	Rate of emission Nm ³ /Hr.	Constituents to be controlled in the emission.	Tolerance limits Mg/Nm ³	Air Pollution Control equipment to be installed, in addition to Chimney height as per Col (3)
1	2	3	4	5	6	7
1.	32 TPH Boiler (bagasse, spent wash concentrate & coal fired)	68 M AGL	-	PM	150	ESP


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Copy to Regional officer, Bagalkot for information and ensure compliance to following directions issued by CPCB.

While issuing Consent to operate or renewing CTO to a plant, industry or process under the Water Act and Air Act & installation handling hazardous substance (s) beyond the prescribed threshold limits as listed under the PLI Act, 1991, the SPCB shall ensure compliance to the following from the occupier ;

1. Details on current PLI policy would be compulsorily sought (as a checklist).
2. Shall seek a copy of successive Public liability Insurance Policies (year wise) since undertaking the use, trade or sewage of listed hazardous chemicals as under the PLI Act, 1991.
3. Shall seek a copy of Form III of ERF scheme under the PLI Act, 1991.
4. The SPCBs shall seek a copy of on-site emergency plan.

