# Additional Specific Conditions (Vide letter No. Dated 30<sup>th</sup> March 2016)

Additional Specific Conditions	Compliance
Bag filters shall be provided to the existing 2x45 TPH	Existing 2 x 45 TPH
boilers in place of ventury scrubbers to control particulate	boilers are isolated from
emissions.	operations.
Effluent from the existing sugar unit shall be treated in	Complied
the efficient ETP and treated effluent shall be	
recycled/reused in the process in order to reduce the	
overall fresh water requirement for the entire project	
No effluent shall be discharged outside the premises and	Complied
'Zero" discharge shall be maintained.	
Automatic / online monitoring system (24x7 monitoring	Complied
devices) for air pollution as well as water pollution in	
respect of flow measurement and relevant pollutants in	
the treatment system to be installed. The data to be	
made available to the respective SPC B and in the	
company's website.	
Bagasse/biomass/Coal storage in the existing sugar unit	Complied
shall be done in such a way that it does not get air borne	
of fly around due to wind.	
Boiler ash in the sugar unit shall be stored separately as	Complied
per CPCB guidelines so that it shall not adversely affect	
the air quality, becoming air borne by wind or water	
regime during rainy season by flowing along with the	
storm water. Direct exposure of workers to fly ash & dust	
shall be avoided. Bagasse ash and coal ash shall be stored	
separately.	
	Bag filters shall be provided to the existing 2x45 TPH boilers in place of ventury scrubbers to control particulate emissions.  Effluent from the existing sugar unit shall be treated in the efficient ETP and treated effluent shall be recycled/reused in the process in order to reduce the overall fresh water requirement for the entire project  No effluent shall be discharged outside the premises and 'Zero" discharge shall be maintained.  Automatic / online monitoring system (24x7 monitoring devices) for air pollution as well as water pollution in respect of flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPC B and in the company's website.  Bagasse/biomass/Coal storage in the existing sugar unit shall be done in such a way that it does not get air borne of fly around due to wind.  Boiler ash in the sugar unit shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust shall be avoided. Bagasse ash and coal ash shall be stored

## Specific Conditions (Vide Letter No. Dated 31<sup>st</sup> December 2012)

S.No	Specific Conditions	Compliance Details
(i)	Distillery unit shall be based on Molasses (45 KLPD) / Grain (45 KLPD) only and production of the plant shall not exceed the maximum capacity defined i.e. shall never exceed 45 KLPD.	Project kept in abeyance. Hence NA.
(ii)	Measures shall be taken to mitigate PM10 levels in the ambient air. As proposed, Electrostatic precipitator (ESP) along with stack of adequate height shall be provided to boiler (140 TPH) to control particulate emissions within 50 mg/Nm3. Bag filter along with stack of adequate height shall be provided to boiler (18 TPH) to control particulate emissions within 50 mg/Nm3. At no time, the emission levels shall go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Efficiency of pollution control device shall be monitored regularly. Stack monitoring report shall be submitted to the Ministry's Regional office at Bangalore	Complied. ESP with four field along with chimney of 90mtr ht .
(iii)	The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R No. 826 (E) dated 16 <sup>th</sup> November 2009 shall be followed.	Complied and Board directions shall be followed.
(iv)	In plant, control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling & conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. Shall be regularly monitored and records shall be maintained. The emissions shall conform to the limits prescribed by Karnataka State Pollution Control Board (KSPCB).	Complied and Board directions shall be followed.
(v)	Company shall follow good management practices viz. Collection of waste yeast sludge from fermentation section in a closed system and proper disposal, reduced volume of effluent by adopting strategic approaches, closed drains carrying spent wash to the treatment units, minimization of fugitive emissions from anaerobic treatment; proper collection & handling of excess sludge generated from the anaerobic & aerobic treatment units; minimum retention of treated & untreated spent wash in the lagoons; effective composting of the spent wash by	Project kept in abeyance. Hence NA.

	controlled effluent spraying through mechanical system to avoid spillages & over application, blending of sludge in correct proportion with press mud; and properly finished compost and green belt development with suitable	
	plantation in and around the treatment units to mitigate odour from the distillery unit.	
(vi)	Pucca approach road to project site shall be constructed prior to commencing construction activity of the main distillery so as to avoid fugitive emissions.	Project kept in abeyance. Hence NA.
(vii)	The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB guidelines. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.	Complied
(viii)	The company shall upload the status of compliance of the stipulated environmental clearance conditions, including results of monitored data on its website and shall update the same periodically. It shall simultaneously be sent to the respective Regional Office of MOEF, the respective Zonal office of CPCB and the KSPCB. The levels of PM10, PM2.5, SO2, NOx and HC (methane) in ambient air shall be monitored and displayed at a convenient location near the main gate of the company and at important public places.	Complied
(ix)	Total fresh water requirement from River Hemavathi shall not exceed 10 KL/KL of alcohol (i.e. 450 m3/day) for distillery and 900 m3/day for co generation unit (30MW + 1.5 MW) and prior permission of drawl of water shall be obtained from the competent authorities. No ground water shall be used.	Complied and Shall be followed as per guidelines by TAC.
(x)	Spent wash generation from molasses and grain based distillery shall not exceed 8 kL/KL of alcohol and 6 KL/KL of alcohol respectively. Spent wash from molasses based distillery shall after concentration be incinerated in the incineration boiler to achieve zero discharge. Spent wash from grain based shall be treated through decanter and concentrated in multi-effect evaporator (MEE) to form DWGS. DWGS shall be dried in the dryer to form DDGS. Spentlees, effluent from utilities and co generation unit shall be treated in effluent treatment plant (ETP) and water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB and recycle/reuse.	Project kept in abeyance. Hence NA.
(xi)	As proposed, no effluent from distillery and co generation power plant shall be discharged outside the premises and Zero discharge shall be adopted.	Complied. (Distillery project kept in abeyance)
(xii)	Process effluent / any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.	Complied
(xiii)	Spent wash shall be stored in impervious lagoon with HDPE lining as per CPCB guidelines and shall be kept in proper condition to prevent ground water pollution.	Project kept in abeyance. Hence NA.

	Storage canacity of sport wash lagger should be for E	
	Storage capacity of spent wash lagoon should be for 5 days.	
(xiv)	Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area should be set up. Sampling and trend analysis monitoring must be made on monthly basis and report submitted to SPCB and this Ministry. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and total dissolved solids should be monitored. Sampling and trend analysis monitoring must be made on monthly basis and report submitted to the Ministry's Regional Office at Bangalore and KSPCB.	Complied and report attached.
(Xv)	Bagasse storage shall be done in such a way that it does not get air borne or fly around due to wind.	Complied
(xvi)	The calorific value of the imported coal used shall not less that 5500-5800 Kcal/kg. Sulphur and ash content in the coal shall be less than 1 % and 3 % respectively. In case of variation in coal quality, it should be reported to the MoEF for suitable amendment to this specific condition.	Complied
(xvii)	Fly ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust shall be avoided. Bagasse ash and coal ash shall be stored separately.	Complied. Fly ash management being done as per board direction. As per board the fuel will be used as blend (85 % bagasse +15 % coal), thus ash will be combined. However ash can be stored separately, when fuel is used 100 % individually.
(xviii)	Fire fighting system shall be as per the norms and cover all areas where alcohol is produced, handled and stored. Provision of foam system for fire fighting shall be made to control fire from the alcohol storage tank.	Project kept in abeyance. Hence NA.
(xix)	Risk Assessment shall be carried to assess the fire and explosion risk due to storage of alcohol and report submitted to the Ministry and its Regional office at Bangalore within Six months.	Project kept in abeyance. Hence NA.
(xx)	Occupational health surveillance programme shall be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre shall be strengthened and the regular medical test records of each employee shall be maintained separately.	Complied
(xxi)	Dedicated parking facility for loading and unloading of materials shall be provided in the factory premises. Unit shall develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.	Complied. Parking facility for loading and unloading vehicles provided.

(xxii)	Green belt shall be developed in 8.33 acres out of 24.5 acres to mitigate the effects of fugitive emissions all around the plant as per CPCB guidelines in consultation with the local DFO. Thick green belt with suitable plant species shall be developed around the proposed distillery to mitigate the odour problem.	Complied. Thick green belt area is being developed on continual basis.
(xxiii)	All the issues raised during the public hearing / consultation meeting held on 9 <sup>th</sup> December 2011 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.	Complied.
(xxiv)	At least 5% of the total cost of the project shall be earmarked towards the Enterprise social commitment based on public hearing issues and item wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.	Complied. CSR activities done on continual basis.
(xxv)	The company shall submit within three months their policy towards corporate Environment responsibility which shall inter-alia address (i) standard operating process / procedure to being into focus any infringement/deviation/violation of environmental or forest norms/conditions. (ii) Hierarchical system or Administrative order of the company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) system of reporting of non compliance/violation environmental norms to the Board of Directors of the company and / or stakeholders or shareholders.	Complied. Policy towards corporate environment responsibility implemented.
(xxvi)	Provision shall be made for the housing for the construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structure to be removed after the completion of the project. All the construction wastes shall be managed so that there is no impact on the surrounding environment.	All the board directions followed.

#### **General Conditions**

S.No	General Conditions	Compliance Details
(i)	The project authorities shall strictly adhere to the stipulations made by the Karnataka State Pollution Control Board.	Complied.
(ii)	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the	Board directions shall be followed.

	adequacy of conditions imposed and to add additional environmental protection measures required, if any	
(iii)	The locations of ambient air quantity monitoring stations shall be decided in consultation with the State Pollution Control Board(SPCB) and it shall be ensured that at least one stations is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.	Complied
(iv)	The overall noise level in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc., on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection)Act, 1986 Rules, 1989 viz 75dBA(day time) and 70dBA(night time)	Complied
(v)	The Company shall harvest rainwater from the roof tops of buildings and storm water drains to recharge the ground water and use the same water for the process activities of the project to conserve fresh water.	Complied. Rain water harvest recharge system in place
(vi)	Training shall be imparted to all employees on safety and health aspects of chemicals handling. Preemployment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.	Complied. Board directions shall be followed on continual basis.
(vii)	The company shall also comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, risk mitigation measures and public hearing relating to the project shall be implemented.	Board directions are being followed.
(viii)	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CSR activities shall be undertaken by involving local villagers and administration.	Being taken up
(ix)	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.	Being taken up
(x)	A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.	complied
(xi)	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to	Being followed.

	implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/pollution control measures shall not be diverted for any other purpose.	
(xii)	A Copy of the clearance letter shall be sent by the project proponent to concerned Panchayath, Zilla Parishath/Municipal Corporation, Urban local Body and the Local NGO, if any, from whom suggestions/representations, if any, were received while processing the proposal.	Complied.
(xiii)	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by email) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and KSPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.	Board directions shall be followed.
(xiv)	The environmental statement of each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules. 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.	Board directions shall be followed.
(xv)	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of clearance letter are available with the SPCB/Committee and may also be seen at Website of Ministry at http://moef.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local news papers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of Ministry.	Board directions shall be followed.
(xvi)	The project authorities shall inform the Regional Office as well as the Ministry. The date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	Co gen power plant project completed and commissioned on 10.10.2017. Distillery project kept in abeyance.

## M/S Coromandel Sugars Ltd, Makavalli

CRUSHING SEASON 2017-2018 ( July 2017 to Dec 2017 )

**KSPCB LAB RESULTS (Legal samples)** 

				<u> </u>	
Stack Analysis Result		DATE	05.09.2017	24.10.2017	
1	Particulate matter	50 mg/nm <sup>3</sup>	60	40	
Treat	ed Water Ana	lysis Result			
S. No	Parameters	Norms	05.09.2017	24.10.2017	
1	TSS	100 mg/l	20	70	
2	Oil & Grease	10 mg/l	BDL	BDL	
3	BOD	100 mg/l	8	14	
4	TDS	2100 mg/l	880	880	
GANESH LAR MYSORE					

4

TDS

Stack A Result	Analysis	Month	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
1	Particulate matter	50 mg/nm <sup>3</sup>	45.6	42.4	47.2	46.6	45.9	42.40
Treated	d Water Analy	ysis Result						
S. No	Parameters	Norms	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	
1	TSS	100 mg/L	2	5	4	4	12	
2	Oil & Grease	10 mg/L	BDL	BDL	BDL	BDL	BDL	
3	BOD	100 mg/L	9	10	5	5	9	

1112

612

904

784

1032

## **AAQ Monitoring Results by Coromandel Sugars Ltd**

2100 mg/L

Location	02/11/2017		04/12	2/2017	15/12	2/2017	23/12	2/2017
	PM 10	PM 2.5	PM 10	PM 2.5	PM 10	PM 2.5	PM 10	PM 2.5
ETP Area	72.87	50.16	19.10	17.50	57.00	20.70	51.00	35.10
Main Gate	88.38	29.00	59.00	42.59	66.54	20.90	78.40	24.04
VP Bungalow	61.72	50.88	39.50	18.69	76.58	29.25	58.60	23.00