

F. No. J-11011/565/2010- IA II (I)
Government of India
Ministry of Environment and Forests
(I.A. Division)

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Dated 31st December, 2012

To,

Shri T.S. Raghupathy (Director)
M/s Coromandel Sugars Ltd
'CoromandelTowers' 93, Karpagam Avenue
Santhome High Road R.A. Puram
Chennai – 600 028, T.N.

E-mail : cpk@indiacements.co.in; Fax No. : 044 28520455

Subject: Molasses/Grain based Distillery (45 KLD), Co-generation Plant (30 MW) and Captive Power Plant (1.5 MW) at S.F. No. 51, Village Makavalli, Tehsil Krishnarajpet, District Mandya, Karnataka by M/s Coromandel Sugars Ltd. - Environmental clearance reg.

Ref. : Your letter no. nil dated 12th March, 2012.

Sir,

Kindly refer your letter dated 30th October, 2010 alongwith project documents including Form I, Terms of References, Pre-feasibility Report, EIA/EMP Report alongwith Public Hearing Report and subsequent communication vide your letter dated 27th September, 2012 on the above mentioned subject.

2.0 The Ministry of Environment and Forests has examined the application. It is noted that proposal is for setting up of the molasses/grain based Distillery (45 KLD), Co-generation Plant (30 MW) and Captive Power Plant (1.5 MW) at S.F. No. 51, Village Makavalli, Tehsil Krishnarajpet, District Mandya, Karnataka by M/s Coromandel Sugars Ltd. No R & R is involved. No national park/wildlife sanctuary/reserve forest is located within 10 Km distance of the project site. Total plot area is 24.5 acres, which include co-generation unit (14.7 acres) and distillery unit (9.8 acres) respectively. Green belt will be developed in 8.33 acres of area. Project cost of co-generation power plant and distillery unit is Rs. 100.00 Crores and Rs. 60.00 Crores respectively. Number of days of operation of distillery will be 300 days. The raw materials used will be cane molasses, maize, nutrients, antifoam oil and sulphuric acid.

3.0 Electrostatic precipitator (ESP) alongwith stack of adequate height will be provided to bagasse/coal fired boiler (140 TPH) and bag filter alongwith stack of adequate height will be provided to boiler (18 TPH) to control particulate emission within 50 mg/Nm³. Total fresh water requirement from River Hemavathi will be 450 m³/day for the distillery and 900 m³/day for cogeneration unit (30 MW + 1.5 MW). Spent wash generation from molasses and grain based distillery will be 8 KI/KI of alcohol and 6 KI/KI of alcohol respectively. Spent wash from molasses based distillery will be concentrated and incinerated in the incineration boiler to achieve zero discharge. Spent wash from grain based will be treated through decanter and concentrated in multi-effect evaporator (MEE) to form Distiller's Wet Grains with Soluble (DWGS). Spentlees, effluent from utilities and cogeneration unit will be treated in effluent

treatment plant (ETP). Treated effluent will be recycled/reused within factory premises. No effluent will be discharged outside the premises. Storage capacity for spent wash lagoon will not be more than 5 days. Fly ash from bagasse will be used as manure. Fly ash from coal will be sent to cement industries/brick manufacturers. Yeast sludge will be utilized for bio-composting. DWGS will be sold as cattle feed. Waste/used oil will be sold to authorized recyclers / re-processors.

4.0 Public Hearing / Public Consultation meeting was conducted on 9th December, 2011.

5.0 All molasses based distilleries are listed at S.N. 5 (g) (i) under category 'A' and appraised at Central level.

6.0 The proposal was considered by the Expert Appraisal Committee (Industry) in its 20th and 1st meetings held during 3rd–4th March, 2011 and 24th -25th September, 2012 respectively. The Committee recommended the proposal for environmental clearance.

7.0 Based on the information submitted by the project proponent, the Ministry of Environment and Forests hereby accords environmental clearance to above project under the provisions of EIA Notification dated 14th September 2006, subject to the compliance of the following Specific and General Conditions:

A. SPECIFIC CONDITIONS:

- 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.
- ii) Measures shall be taken to mitigate PM₁₀ levels in the ambient air. As proposed, Electrostatic precipitator (ESP) alongwith stack of adequate height shall be provided to boiler (140 TPH) to control particulate emissions within 50 mg/Nm³. Bag filter alongwith 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.
- iii) The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 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).
- 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 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.
- 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.
- 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, PM_{2.5}, SO₂, NO_x 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.
- 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 cogeneration unit (30 MW + 1.5 MW) and prior permission for draw of water shall be obtained from the competent authorities. No ground water shall be used.
- x) Spent wash generation from molasses and grain based distillery shall not exceed 8 KI/KI of alcohol and 6 KI/KI 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 cogeneration 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.
- xi) As proposed, no effluent from distillery and co-generation power plant shall be discharged outside the premises and Zero discharge shall be adopted.
- xii) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- 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. 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 a 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.

- xv) Bagasse storage shall be done in such a way that it does not get air borne or fly around due to wind.
- xvi) The Calorific value of the imported coal used shall not less than 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.
- 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 alongwith the storm water. Direct exposure of workers to fly ash & dust shall be avoided. Bagasse ash and coal ash shall be stored separately.
- 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.
- 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.
- 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.
- 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.
- 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.
- xxiii) All the issues raised during the public hearing/consultation meeting held on 9th December, 2011 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- 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.
- 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 bring 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.

- 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.

B. GENERAL CONDITIONS:

- i. The project authorities shall strictly adhere to the stipulations made by the Karnataka State Pollution Control Board.
- 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 adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- iii. The locations of ambient air quality 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.
- iv. The overall noise levels 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. 75 dBA (day time) and 70 dBA (night time).
- v. The Company shall harvest rainwater from the roof tops of the 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.
- vi. Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment 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.
- 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.
- 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 villages and administration.
- ix. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- 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.

- xi. The company shall earmark sufficient funds towards capital cost and recurring cost per annum to 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 Panchayat, ZilaParisad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
- 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 e-mail) 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.
- xiv. The environmental statement for 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.
- xv. The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the 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 newspapers 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 the Ministry.
- 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.

8.0 The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

9.0 The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions.

10.0 The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Water Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

(A.N. Singh)
Dy. Director (S)

Copy to:-

1. The Secretary, Department of Environment & Ecology, Govt. of Karnataka, Room No. 708, Gate 2, Multi Storied Building, Dr. AmbedkarVeedhi, Bangalore - 560 001 secyenv-fee@karnataka.gov.in
2. The Chief Conservator of Forests, Regional Office (Southern Zone, Bangalore)KendriyaSadan, 4th

Floor, E&F Wing, II Block Koramangala, Bangalore-560034.

3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
4. The Chairman, Karnataka State Pollution Control Board, #49, Parisara Bhavana, Church Street, Bangalore-01 (Karnataka).
5. The District Collector, District Mandya, Karnataka.
6. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
7. Guard File/Monitoring File/Record File.

(A.N. Singh)
Dy. Director (S)