

F. No. J-11011/98/2012- IA II (I)  
Government of India  
Ministry of Environment and Forests

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Dated: 1<sup>st</sup> May 2014

To  
✓ Shri Amit Modi  
M/s Bihar Distillers & Bottlers Pvt.Ltd.  
SCO 140-141, Sector 34-A  
Chandigarh - 160022, Punjab  
E-mail : [amitmodi@cdblindia.com](mailto:amitmodi@cdblindia.com) [jmenviron@hotmail.com](mailto:jmenviron@hotmail.com) Fax No.: 0172 - 2602863

Subject : Grain/Molasses based Distillery (660 KLPD) with Co-generation Power Plant (20 MW) of M/s Bihar Distillers & Bottlers (P) Ltd. at village Devadi, District Bhojpur, Bihar- Environmental clearance - reg.

Sir,

This is with reference to this Ministry's grant of TOR dated 08.08.2012 and your letter no. BDBPL/2013/001 dated 12<sup>th</sup> February, 2013 along with project documents including EIA-EMP Report along with Public Hearing Report and subsequent communication vide your letter dated 19<sup>th</sup> August, 2013 on the above mentioned subject.

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

2. The Ministry of Environment and Forests has examined the application. It is noted that proposal is for setting up of Grain/Molasses based Distillery (660 KLPD) with Co-generation Power Plant (20 MW) at Village Devadi, District Bhojpur, Bihar by M/s Bihar Distillers & Bottlers (P) Ltd. Plot area is 18.21 ha (45 acres) of which greenbelt will be developed in 6.01 ha (14.8 acres). No National Parks/Biosphere sphere/Wild life sanctuaries are located within 10 km distance. River Malhar flows near the site. River Banas flows at a distance of 2.5 Km. Total cost of project is Rs. 150 crores. Rs. 25 crores and Rs. 2.5 crores/annum are earmarked toward capital cost and recurring cost. Distillery will be operated for 330 days.

3. Bagfilter along with stack of adequate height will be provided to rice husk/biogas fired boiler to control particulate emission within 50 mg/Nm<sup>3</sup>. Total fresh water requirement from ground water source will be 6520 m<sup>3</sup>/day for distillery and cogeneration unit. Spent wash generation from molasses and grain based distillery will be 8 Kl/Kl of alcohol produced and 6 Kl/Kl of alcohol produced respectively. Spent wash from molasses based distillery will be treated in the biomethanisation plant followed by concentration in multi-effect evaporator (MEE). Concentrate from MEE will be burnt in the cogeneration 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). DWGS will be dried in the dryer to form Distiller's Dry Grains with Soluble (DDGS). The condensate from MEE will be recycled back to the process. 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 plant premises. Fly ash from bagasse/biomass will be used as manure. Yeast sludge will be utilized for bio-composting. DWGS/DDGS will be sold as cattle feed. Waste/used oil will be sold to authorized recyclers / re-processors.

4. Public Hearing / Public Consultation meeting was conducted on 12<sup>th</sup> January, 2013.

5. The aforesaid proposal was considered by the Expert Appraisal Committee (Industry) in its meetings held during 11<sup>th</sup>–12<sup>th</sup> June, 2012, 10<sup>th</sup>–11<sup>th</sup> June, 2013 and 18<sup>th</sup>–20<sup>th</sup> November, 2013 respectively. Based on the documents furnished and presentation made by the project proponent and the EIA Consultant namely M/s J M Environet Pvt. Ltd., on the EIA-EMP Report and Public Hearing, the EAC(I) has recommended the project for environmental clearance.

6. Based on the recommendations of the EAC(I), the Ministry of Environment and Forests hereby accords environmental clearance to above-mentioned project under the provisions of EIA Notification dated 14<sup>th</sup> September 2006, subject to the compliance of the following Specific and General Conditions:

**A. SPECIFIC CONDITIONS:**

- i) Distillery (660 KLPD) unit shall be based on Molasses / Grain only and production of the plant shall never exceed the maximum capacity defined i.e. 660 KLPD.
- ii) Bagfilter along with stack of adequate height shall be provided to rice husk/biogas fired boiler to control particulate emission within 50 mg/Nm<sup>3</sup>. At no time, the emission levels shall go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency of the pollution control device has been achieved.
- iii) 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 Bihar State Pollution Control Board (BSPCB).
- iv) 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; and green belt development with suitable plantation in and around the treatment units to mitigate odour from the distillery unit.
- v) 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.
- 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 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 BSPCB. The levels of PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> 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.
- viii) Total fresh water requirement from ground water source shall not exceed 6520 m<sup>3</sup>/day for distillery and cogeneration unit and prior permission shall be obtained from Central Ground Water/State Ground Water Authority.
- ix) Water consumption shall be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.



- 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. The spent wash from molasses based distillery shall be treated through bio-methanation followed by evaporation in Multi-effect evaporator and burnt in boiler to achieve 'Zero' effluent discharge. No effluent shall be discharged outside the premises and 'Zero' discharge shall be maintained. Spent wash from grain based distillery shall be treated through decanter and concentrated in multi-effect evaporator (MEE) to form DWGS. DWGS shall be dried to form DDGS. Spent wash shall be stored in impervious pucca lagoons with proper lining with HDPE and shall be kept in proper condition to prevent ground water pollution. The storage of spent wash shall not exceed 5 days capacity.
- 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) Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area shall 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 shall be monitored. Sampling and trend analysis monitoring must be made on monthly basis and report submitted to the Ministry's Regional Office at Bhubaneswar and BSPCB.
- xiv) No storage of wet cake shall be done at site. An additional dryer shall be installed so that at any time wet cake is not sold then wet cake shall be converted into dry cake by operating additional dryer.
- xv) Rice husk storage shall be done in such a way that it does not get air borne or fly around due to wind.
- xvi) Boiler 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.
- xvii) 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.
- xviii) 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.
- xix) 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.
- xx) As proposed, green belt over 33 % of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xxi) All the commitment made regarding issues raised during the public hearing/consultation meeting held on 12<sup>th</sup> January, 2013 shall be satisfactorily implemented.
- xxii) At least 5 % of the total cost of the project (i.e. Rs 250 crores) shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office at

Bhubaneswar. Implementation of such program shall be ensured accordingly in a time bound manner.

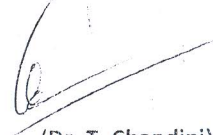
- xxiii) Provision shall be made for the housing for the construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structure to be removed 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 must strictly adhere to the stipulations made by the Bihar State Pollution Control Board (BSPCB), State Government and any other statutory authority.
- 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.

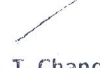


- xii. A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, ZilaParisad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
  - xiii. The project proponent 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 BSPCB. 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 31<sup>st</sup> 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.
7. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
  8. The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions.
  9. 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.

  
(Dr. T. Chandini)  
Director

**Copy to:**

1. The Principal Secretary, Forests & Environment Department, Government of Bihar, 1st Floor, N.H Bhawan, Vishweshwaraiya Complex, Bailey Road, Patna, Bihar-800001
2. Chief Conservator of Forests, Ministry of Environment & Forests, Regional Office, (EZ) A-3, Chandrashekharpur, Bhubaneswar-715023.
3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
4. The Chairman, Bihar State Pollution Control Board, Beltron Bhawan, 2<sup>nd</sup> Floor, Lal Bahadur Shastri Nagar, Patna - 800 023, Bihar.
5. The District Collector, District Bhojpur, Bihar.
6. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
7. Guard File/Monitoring File/Record File.

  
(Dr. T. Chandini)  
Director