

F. No. J-11011/348/2014-IA II (I)  
Government of India  
Ministry of Environment, Forest & Climate Change  
(I.A. Division)

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To,  
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**Subject: Expansion of Grain Based Distillery from 100 KLPD to 200 KLPD and Cogeneration Power Plant (from 5 MW to 10 MW) at Village Machchana and Sangat Kalan, Tehsil and District Bathinda, Punjab by M/s BCL Industries and Infrastructure Ltd. - Environmental Clearance reg.**

**Ref.: Your online proposal no. IA/PB/IND2/27543/2014 dated 8<sup>th</sup> May, 2015.**

Sir,

This has reference to your online proposal no IA/PB/IND2/27543/2014 dated 8<sup>th</sup> May, 2015 alongwith project documents including Form I, Terms of References, Pre-feasibility Report, EIAIEMP Report alongwith Public Hearing Report regarding above mentioned project.

2.0 The Ministry of Environment, Forest & Climate Change has examined the application. It is noted that proposal is for expansion of Grain Based Distillery from 100 KLPD to 200 KLPD and Cogeneration Power Plant (from 5 MW to 10 MW) at Village Machchana and Sangat Kalan, Tehsil and District Bathinda, Punjab. Total plot area is 141600 m<sup>2</sup> of which greenbelt will be developed in 89000 m<sup>2</sup>. Cost of project is Rs. 45.10 crore. Out of which, Rs. 7.35 Crore and Rs. 2.75 Crore are earmarked towards capital cost and recurring cost per annum for implementation of environmental management plan. It is reported that no eco-sensitive area such as national park/wildlife sanctuary/biosphere reserves/ reserve forest is located within 10 km distance. Distillery unit will be operated for 330 days in a year. Phase wise daily production of products and by-products from the distillery plant is given below:-

S.N.	Product	Unit	Existing capacity	Proposed additional capacity	Total
1	ENA/RS	KL	100	100	200
2	Byproducts				
i	CO2	MT	80	80	160
ii	Fusel Oil	MT	1	1	2

iii	DDGS	MT	50	50	100
iv	Corn Oil (in case of maize used as raw material)	MT	5	5	10

Phase wise daily production of IMFL/country liquor from the bottling plant is given below:

S.N.	Item	Unit	Existing capacity	Proposed Additional Capacity	Total
1	IMFL/Country Liquor	Cases	8000	8000	16000

3.0 ESP alongwith stack of adequate height will be provided to additional biomass/coal fired boiler (35 TPH) to control particulate emissions. Fresh water requirement from canal water will be increased from 675 m<sup>3</sup>/day to 1350 m<sup>3</sup>/day after expansion. Spent wash generation will be 575 m<sup>3</sup>/day, spent lees generation will be 150 m<sup>3</sup>/day and MEE condensate will be 395 m<sup>3</sup>/day from the proposed expansion. Spent wash from grain based distillery will be passed through decanter and concentrated in multi-effect evaporator (MEE). Thick syrup and wet cake will be mixed together to form Distiller's Wet Grains with Soluble (DWGS) to achieve zero discharge. DWGS will be dried to form Distiller's Dry Grains with Soluble (DDGS). Out of total generation of 545 m<sup>3</sup>/day of condensate generation, 495 m<sup>3</sup>/day will be directly reused in the liquefaction process. Effluent from spentlees, utilities effluent and evaporator Condensate (50 m<sup>3</sup>/day) will be treated in effluent treatment plant and recycled/reused in process. No effluent will be discharged outside the plant premises and 'Zero' effluent discharge concept will be followed. DDGS will be sent to cattle feed. Fly ash will be used for brick manufacturing. Spent oil/waste oil will be sent to authorized recyclers/re-processors.

4.0 Public hearing/public consultation meeting was conducted on 20<sup>th</sup> March, 2015.

5.0 All cane juice/non-molasses based distillery (>60 KLD) are listed at S.N. 5(g) (ii) under category 'A' and appraised at Central level.

6.0 The proposal was considered by the Expert Appraisal Committee (Industry) in its 28<sup>th</sup>, 46<sup>th</sup> and 2<sup>nd</sup> meetings held during 1<sup>st</sup> -2<sup>nd</sup> December, 2014, 20<sup>th</sup>-21<sup>st</sup> August, 2015 and 16<sup>th</sup>-17<sup>th</sup> December, 2015 respectively. The Committee recommended the proposal for environmental clearance. Project Proponent and the EIA Consultant namely Ace Engineers and Consultants, stay order as per Court case No CWP No. 19598 of 2012, have presented EIA / EMP report as per the TOR. EAC has found the EIA / EMP Report and additional information to be satisfactory and in full consonance with the presented TORs. 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 14<sup>th</sup> September 2006, subject to the compliance of the following Specific and General Conditions:

**A. Specific Conditions:**

- i) Environment clearance accorded is for grain based distillery unit (200 KLPD) only and no molasses based distillery unit shall be operated without prior permission from the Ministry.
- ii) ESP alongwith stack of adequate height shall be provided to additional biomass/coal

fired boiler (35 TPH) to control particulate emission within 50mg/Nm<sup>3</sup>. At no time, the emission levels should 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.

- 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 imposed by Punjab Pollution Control Board (PPCB).
- iv) Pucca approach road to project site shall be constructed prior to commencing construction activity of the main distillery so as to avoid fugitive emissions.
- 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) 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 Regional Office of MOEF, the respective Zonal office of CPCB and the PPCB. The levels of PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO 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.
- vii) Total fresh water requirement from surface water supply shall not exceed 1350 m<sup>3</sup>/day for distillery and cogeneration unit after expansion. Water consumption shall be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.
- viii) Spent wash generation shall not exceed 6 Kl/Kl of alcohol. Spent wash shall be treated through decanter and concentrated in multi-effect evaporator (MEE) to form DWGS. DWGS will be sent to dryer to form DOGS. The condensate, spentlees and utilities effluent shall be treated in the ETP comprising tertiary treatment. Treated effluent will be used for make up water of cooling towers and water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB and recycle/reuse.
- ix) No effluent from distillery and co-generation power plant shall be discharged outside the factory premises and 'Zero' effluent discharge concept shall be adopted.
- x) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- xi) Automatic /online monitoring system (24x7 monitoring devices) for flow measurement and relevant pollutants in the treatment system to be installed. The data to be made available to the respective SPCS and in the Company's website.
- xii) Spent wash shall be stored in the steel tank with maximum capacity for 5 days for emergency situation.
- xiii) Adequate numbers of ground water quality monitoring stations by providing piezometers

