

F. No. J-11011/224/2008- IA II (I)
Government of India
Ministry of Environment and Forests
(I.A. Division)

Paryavaran Bhawan
CGO Complex, Lodhi Road
New Delhi - 110 003
E-mail : plahujarai@yahoo.com
Telefax: 011 - 2436 3973
Dated: March 17, 2009

To,
The Managing Director
M/s Kartik Agro Industries Pvt Ltd
Sector-18, Plot no. 65, Navanagar
Bangalore-587102, Karnataka

Sub: **Proposed molasses/grain based distillery unit of 65 KLPD capacity at Hooligere Village, Badami Taluk, Bagalkot district in Karnataka by M/s Kartik Agro Industries Pvt Ltd - environmental clearance reg.**

Sir,

This has reference to your letter No. nil dated 13th December, 2008 along with a copy of Environmental Impact Assessment Notification, 1994 /EMP and public hearing report on the above subject seeking environmental clearance under the EIA Notification, 2006.

2. The Ministry of Environment and Forests has examined the proposal. It is noted that M/s Kartik Agro Industries Pvt Ltd have proposed to set up a molasses/ grain-based 65 KLPD distillery unit to manufacture ethanol of RS, ENA and fuel grades and installation of captive Co-gen power plant consisting of 16 tonne/boiler and 1.25 MW capacity in district Bagalkot in Karnataka. The land acquired for the project is 40 acres, of which 12 acres has been earmarked for the green belt. Steam requirement will be met from the 16 TPH, rice husk, concentrated spent wash and agro based boiler. Power requirement will be met from the 1.25 MW cogeneration power plant. DG set of 500 KVA capacity will be installed. The River Ghataprabha is flowing at a distance of 12 km in the northern side of the plant. No eco-sensitive area is located within 10 km radius of the plant. The unit will operate for 330 days in a year. Total cost of the project is Rs. 45.00 crores. An amount of Rs. 11.00 lacs will be utilized on environmental protection measures.

3. Total water requirement for molasses and grain based process will be 1826 m³/d and 1862 m³/d respectively will be met from the ground water source and other sources like water with molasses /grain and condensate water from evaporator for use as cooling water make up. About 728 m³/d of spent wash from the molasses based process and 699 m³/d from the grain based process will be generated. Spent wash treatment will be bio-methanation followed by concentration in Multiple Effect Evaporator (MEE). The concentrated spent wash will be burnt as fuel in the boiler. The effluent from the cooling tower, boiler blowdown and plant washings (320 m³/d) from the molasses based process and grain based process (290m³/d) will be treated by activated sludge process and treated effluent will be used for green belt development. The domestic effluent (5 m³/d) will be disposed of in the septic tank followed by soak pit. The particulate emission from the boiler will be controlled by wet scrubber and emissions will be dispersed through stack of adequate height. The solid waste generation will be in the form of boiler ash (16 TPD) from molasses and 8 TPD of ash from the grain based which will be used as soil conditioner in the agriculture land. Fermenter sludge (4 TPD) from molasses based and 23 TPD from grain based will be concentrated in decanter, centrifuged, dried and sent for use as soil nutrient or as cattle feed.

4. All the molasses /grain based distilleries have been listed at Sl. no. 5 (g) in category 'A', as per the EIA notification, 2006 and have to be appraised by central Government. The Expert Appraisal Committee (I) considered the project in 91st Meeting held on 9-11th February, 2009. The Committee recommended the project for environmental clearance. Public hearing for the proposed project was conducted on 06.11.2008.

5. Based on the information submitted by project authorities, 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 strict compliance of the following Specific and General conditions:

A. SPECIFIC CONDITIONS:

- i. The company shall adopt continuous fermentation technology and spent wash generation from the molasses and grain based process shall not exceed 728 m³/d from the molasses based process and 699m³/d from the grain based process. The spent wash after bio methanation in the bio digester shall be concentrated in the Multi effect evaporator and the concentrated spent wash will be incinerated in the boiler to achieve zero discharge.
- ii. The spent wash shall be stored in impervious pucca lagoons. The spent wash lagoons shall have proper lining with HDPE and shall be kept in proper condition to prevent ground water pollution. As per the CPCB recommendation, storage for the concentrated spent wash shall not exceed 5 days capacity.
- iii. 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.
- iv. Particulate emissions from the 16 TPH boiler shall be controlled by installation of multi cyclone dust collectors or bag filters and emissions shall be dispersed through stack of height as per CPCB standards. The DG set shall be provided with acoustic enclosures to mitigate the noise pollution and emissions shall be dispersed through stack of height as per CPCB standards.
- v. The company shall obtain permission from the State Irrigation/Ground Water Department to draw the water as may be applicable to this case.
- vi. Green belt in 33% of the plant area shall be provided to mitigate the effects of fugitive emissions all around the plant and compost yard as per the CPCB guidelines in consultation with the local DFO.
- vii. Company shall adopt rainwater harvesting measures to recharge the ground water.

B. GENERAL CONDITIONS:

- i. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.
- ii. Ambient Air Quality Monitoring Stations shall be set up in the down wind direction as well as where maximum ground level concentration of SPM, SO₂, NO_x, are anticipated in consultation with the State Pollution Control Board.

- iii. Adequate number of influent and effluent quality monitoring stations shall be set up in consultation with the State Pollution Control Board. Regular monitoring should be carried out for relevant parameters.
- iv. The industry shall ensure that the treated effluent and stack emissions from the unit are within the norms stipulated under the EPA rules or SPCB whichever is more stringent. In case of process disturbances/failure of pollution control equipment adopted by the unit, the respective unit shall be shut down and shall not be restarted until the control measures are rectified to achieve the desired efficiency.
- v. 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 should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- vi. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA /EMP report.
- vii. 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 medical records of each employee shall be maintained separately.
- viii. A separate environmental management cell equipped with full fledged laboratory facilities must be set up to carry out the environmental management and monitoring functions.
- ix. The project authorities shall provide requisite funds for both recurring and non-recurring expenditure to implement the conditions stipulated by the non-recurring expenditure 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 provided shall not be diverted for any other purpose.
- x. The implementation of the project vis-à-vis environmental action plans will be monitored by Ministry's Regional Office at Bangalore /State Pollution Control Board/Central Pollution Control Board. A six monthly compliance status report along with the monitored data shall be submitted to the monitoring agencies.
- xi. 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 State Pollution Control Board/ Committee and may also be seen at Website of the Ministry of Environment and Forests at <http://envfor.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 Regional office.
- xii. 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 land development work.

6. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
7. The Ministry reserves the right to stipulate additional conditions if found necessary. The company will implement these conditions in a time bound manner.
8. Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Authority Act, 1997.
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 Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Wastes (Management, Handling and trans boundary) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules.


(Dr. P. L. Ahujarai)
Director

Copy to:

1. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
2. Chairman, Karnataka State Pollution Control Board, 6,7,8&9th Floor, (Public Utility Building) NSB building, Mahatma Gandhi Marg, Bangalore -560001, Karnataka.
3. Chief Conservator of Forests (Central), Regional Office (SZ), Kendriya Sadan, IVth Floor, E&F Wing, 17th Main Road, Koramangala, Bangalore-560034.
4. Secretary, State Department of Environment and Forests, Govt. of Karnataka, Bangalore.
5. Director, Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhawan, CGO Complex, New Delhi.
6. Guard File.
7. Monitoring File.
8. Record File.

1
(Dr. P. L. Ahujarai)
Director