

No.J.11011/2359/2006-IA II(I)
Government of India
Ministry of Environment & Forests
I.A. Division

Email: plahujarai@yahoo.com
Telefax: 24363973
Paryavaran Bhawan,
C.G.O. Complex, Lodi Road,
New Delhi - 110 003
Dated June 4th, 2009

To

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M/s Madhucon sugars and power industries Limited
1-7-70, Jublipura,
Khammam-507003
Andhra Pradesh

Sub: 65 KLPD distillery unit along with 20 MW Co-generation Power Plant and expansion of sugar unit at Rajeswarapuram, Ammagudem post, Nelakondapalli Mandal, Khammam District in Andhra Pradesh by M/s Madhucon sugars and power industries Limited- reg amendment in environmental clearance.

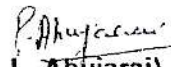
Sir,

This has reference to your letter no.MSPII/Co-gen/MOE&F/08-09 dated 9.2.2009 requesting the Ministry to amend the environmental clearance of even no. dated 27th August, 2007 for utilization of available capacity in the turbine and boiler and to get optimum capacity utilization. It is noted that, it is proposed to enhance cogeneration power plant capacity from 20MW to 24.2 MW and enhance boiler capacity from 110TPH to 120TPH using bagasse and coal as fuel.

2. The proposal was placed before the Expert Appraisal Committee (I) in the 93rd meeting held on 14-16th April, 2009. The committee has recommended for amendment in environmental clearance subject to stipulation of following additional specific conditions

- i. To control the particulate emissions from 120TPH bagasse and coal fired boiler, ESP shall be installed and emissions shall be dispersed through stack of adequate height as per CPCB/State Pollution Control Board standards. The emissions shall conform to the prescribed standards.
- ii. The boiler from the ash shall be used in the bio composting and surplus ash shall be sold to the brick manufacturers.
- iii. All the other conditions stipulated in the environmental clearance of even no. dated 27th August, 2007 shall remain the same.

3. This issues with the approval of the competent authority.


(Dr. P. L. Ahujarai)
Director

Copy to:

1. The Secretary, State Deptt. of Environment, Government of Andhra Pradesh, Mantralaya, Hyderabad.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
3. The Chairman, Andhra Pradesh State Pollution Control Board, 2nd Floor, HUDA Complex, Maitrivaram, S.R.Nagar, Hyderabad- 500 038.
4. The Chief Conservator of Forests (Central), Regional Office (SZ), Kendriya Sadan, IVth Floor, E&F Wing, 17th Main Road, Koramangala, Bangalore-560034.
5. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi- 110003.
6. Guard file./Record file./Monitoring file.

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(Dr. P. L. Ahujarai)
Director

m³/day of which fresh water requirement will be 150 m³/day and remaining 10 m³/day will be met from treated effluent. PP informed that industrial effluent will be segregated into high TDS/COD and low TDS/COD effluent streams. High TDS/COD effluent process stream will be evaporated in MEE and evaporated effluent will be incinerated. High TDS/COD effluent RO reject stream will be evaporated in MEE. Low TDS/COD effluent stream alongwith condensate will be treated in the ETP followed by RO. RO permeate (108 m³/day) will be recycled to cooling tower make up. However, the Committee suggested them to incorporate solvent steam stripper before MEE and ATFD after MEE to be installed.

After deliberation, the Committee sought following additional information:

- i) Incorporate solvent steam stripper before MEE and ATFD after MEE in the ETP scheme. Submit revised effluent treatment scheme.
- ii) Revised solid waste management plan including generation quantity and its management plan

The proposal was deferred till the desired information is submitted. The above information shall be provided with the uploading of minutes on the website and discussed internally.

42.6.6 Molasses/Grain based Distillery (65 KLD) alongwith CPP (24.2 MW) and production of 2.5 MW from spent wash incinerator boiler and expansion existing sugar unit at Rajeswarapuram Village, Nelakondapalli Mandal, district Khammam, Telangana State by M/s Madhucon Sugar and Power Industries-reg EC.

The project proponent and their consultant (M/s Environmental Engineers & Consultants in Pollution Control) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 30th Meeting of the Expert Appraisal Committee (Industry) held during 22nd to 23rd December, 2014 for preparation of EIA-EMP report. All molasses based distillery are listed at S.N. 5(g)* (i) under category 'A' and appraised at Central level.

M/s Madhucon Sugar and Power Industries has proposed for setting up of Molasses/Grain based Distillery (65 KLD) alongwith CPP (24.2 MW) and production of 2.5 MW from spent wash incinerator boiler at Rajeswarapuram Village, Nelakondapalli Mandal, district Khammam, Telangana. It is reported that no national park/sanctuary is located within 10 km distance. Palair Reservoir is located at a distance of 0.72 km. Total available land is 134 acres. Out of which distillery will be installed in the land area of 20 acres. Plant will be operated for 200 working days on molasses and 130 days on grain. Total working days of plant will be 330 days.

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during 28th December, 2014 to 26th January, 2015 and submitted baseline data indicates that ranges of concentrations of PM₁₀ (40.5 µg/m³ to 66.9 µg/m³), PM_{2.5} (16.2 µg/m³ to 26.8 µg/m³), SO₂ (9.6 µg/m³ to 15.9 µg/m³) and NO_x (8.8 µg/m³ to 13.9 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.65 µg/m³ and 0.43 µg/m³ with respect to PM₁₀ and PM_{2.5}. The resultant concentrations are within the NAAQS. Bagfilter

alongwith adequate stack height will be provided to spent wash/coal fired boiler. Fresh water requirement from ground water source/ Palair Canal will be 650 m³/day. Spent wash generation from molasses and grain based distillery will be 520 m³/day and 390 m³/day respectively. Spent wash from molasses based will be evaporated in MEE followed by incineration boiler to achieve zero discharge. 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). Spentlees, MEE condensate and utilities wastewater will be treated in the effluent treatment plant followed by tertiary treatment facility and treated effluent will be recycled/reused for cooling tower make up. Condensate, spentlees and utilities effluent will be treated and recycled/reused in fermentation process and cooling tower make up. No effluent will be discharged outside the factory premises and 'Zero' effluent discharge concept will be implemented. DDGS will be used as cattle feed and Fly ash will be sent to brick manufacturing unit.

After detailed deliberations, the Committee found EIA/EMP report satisfactory and suggested to stipulate following specific conditions alongwith other environmental conditions while considering for accord of environmental clearance:

- i) Distillery unit shall be based on Molasses/Grain based Distillery (65 KLD) and production of the plant shall not exceed the maximum capacity defined i.e. shall never exceed to 60 KLPD.
- ii) Bagfilter alongwith adequate stack height will be provided to spent wash/coal fired boiler. The stack emissions from various units shall conform to the standards prescribed under the Environment (Protection) Act. 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 Karnataka State Pollution Control Board (SPCB).
- iv) 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.
- v) Total fresh water requirement from ground water source/ Palair Canal shall not exceed 650 m³/day for distillery and cogeneration unit and prior permission for drawl of water shall be obtained from the competent authorities.
- vi) Spent wash generation from molasses and grain based distillery shall not exceed 8 Kl/Kl of alcohol produced and 6 Kl/Kl of alcohol produced respectively. Spent wash from molasses based distillery shall be concentrated in MEE. Concentrate from MEE shall be incinerated in cogeneration 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 should be treated in effluent treatment plant (ETP) and water quality of treated effluent should meet the norms prescribed by CPCB/SPCB and recycle/ reuse.

- vii) Wastewater generation from the sugar unit shall not exceed 100 litres per tonne of cane crushed. Effluent from sugar unit shall be treated in the effluent treatment plant (ETP). Water quality of treated effluent shall be monitored regularly. In any case, no wastewater/treated effluent shall be discharged into river/natural stream. Domestic effluent shall be treated in treatment plant.
- viii) As proposed, no effluent from distillery and co-generation power plant shall be discharged outside the premises and Zero discharge shall be adopted.
- ix) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- x) Spent wash for molasses should be stored in impervious RCC lagoon with HDPE lining as per CPCB guidelines and should be kept in proper condition to prevent ground water pollution. Storage capacity of spent wash lagoon should be for 5 days.
- xi) 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 SPCB.
- xii) Bagasse/biomass storage shall be done in such a way that it does not get air borne or fly around due to wind.
- xiii) Dedicated parking facility for loading and unloading of material 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.
- xiv) Adequate housekeeping arrangements to be made in sugar as well in distillery unit in the working zone.
- xv) 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.
- xvi) At least 2.5 % of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program should be ensured accordingly in a time bound manner.