

F. No. J-11011/34/2010- IA II (I)
Government of India
Ministry of Environment and Forests
(I.A. Division)



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Dated 6th February, 2013

To,

Shri K.Prabhakar Rao, Director (Works)
M/s Mangalore Chemicals & Fertilizer Ltd. (MCF)
Panambur, Mangalore-575 010, Karnataka

E-mail: admin_wo@mangalorechemicals.com ; Fax No.- 0824-240 7938.

Subject : Conversion of Feed Stock from Naphtha to NG/RLNG in the Fertilizer Plant and Fuel from Furnace Oil to NG/RLNG in Steam Generating Boilers and Captive Power Plant and Enhancement in the production of Ammonia, Urea and Ammonium bicarbonate at Panambur, Taluk Mangalore, District Dakshin Kannada, Karnataka by M/s Mangalore Chemicals and Fertilizers Ltd. – Environmental Clearance reg.

Ref : Your letter No.10602/ENVCLR/1009 dated 10th February, 2012.

Sir,

Kindly refer to your letter dated 10th February, 2012 alongwith project documents including Form I, Terms of References, Pre-feasibility Report, EIA/EMP Report and subsequent submission of additional information vide letter dated 3rd July, 2012, 4th August, 2012, 3rd September, 2012 and 6th November, 2012 regarding above mentioned project.

2.0 The Ministry of Environment and Forests has examined the application. It is noted that proposal is for Conversion of Feed Stock from Naphtha to NG/RLNG in the Fertilizer Plant and Fuel from Furnace Oil to NG/RLNG in Steam Generating Boilers and Captive Power Plant and Enhancement in the production of Ammonia, Urea and Ammonium bicarbonate at Panambur, Taluk Mangalore, District Dakshin Kannada, Karnataka by M/s Mangalore Chemicals and Fertilizers Ltd. The fertilizer plant is located in Baikampady Industrial Area, Mangalore. No national park/wildlife sanctuary/ tiger reserves/elephant reserves are located within 10 km. River Gurupura is flowing at a distance of 0.50 Km. No additional land is required for the proposed expansion. Project cost for expansion is Rs. 435 Crore. Natural gas will be supplied through pipelines of GAIL. Due to conversion of fuel from Naphtha to NG/RLNG, there will be increased in production capacity of Ammonia, Urea and Ammonia Bicarbonate by modernization and replacement of equipments as per details given below:

S.N.	Product	Existing Production Capacity (TPA)	Proposed Production Capacity (TPA)
1.	Ammonia	2,40,900	2,47,500
2.	Urea	4,19,750	4,29,000
3	Ammonium Bicarbonate (ABC)	15,330	24,750
4	Captive Power Plant	8 DG sets (6.0 MW each)	6 Gas based generator sets of 8.7 MW each

Following equipments will be replaced/installed:

S.N.	Equipment	Location	Type of installation
1	6 Gas Generator sets	CPP	Replacement of existing DG sets.
2	NG feed preheater	Ammonia Plant	New Installation
3	Pre-reformer	Ammonia Plant	New Installation
4	Furnace for pre-heating of Steam and NG feed to performer	Ammonia Plant	New Installation
5	Reformer inlet header and pigtail	Ammonia Plant	Replacement
6	Reformer burners, Fired heater burners and boiler burners	Ammonia Plant	Replacement
7	Flue Gas boiler	Ammonia Plant	Replacement
8	New Process air compressor (motor driven) in parallel to existing one to be installed	Ammonia Plant	New Installation
9	Bicarbonate Tower and Centrifuge Hydraulic Turbine	ABC Plant	New Installation

3.0 Adequate stack height will be provided to Ammonia plant reformer, NG/ RLNG based gas Generator and Prilling Tower. Low NOx burners shall be provided to control NOx emissions. Water requirement from Mangalore City Corporation will be 8448 m³/day after NG conversion. There will be no additional water requirement due to NG conversion project. Industrial wastewater will be treated in the effluent treatment plant (ETP). Urea plant process condensate will be treated in a deep hydrolyser followed by stripping. Ammonia plant process condensate (APC) shall be stripped with steam. Treated condensate shall be recycled/reused in the process. Utilities wastewater shall be treated in the ETP and treated effluent shall be recycled/ reused. Sewage will be treated in sewage treatment plant (STP) and treated water will be recycled/reused within factory premises to achieve zero discharge except rainy season. Spent catalysts and used oil will be sold to authorized re-processors/recyclers.

4.0 Public hearing was exempted as per section 7 (i), (iii) Stage (3), Para (i)(b) of EIA Notification, 2006.

5.0 All the Fertilizer Plant are listed at S.N. 5(a) under Category 'A' and appraised at the Central level.

6.0 The proposal was considered by the Expert Appraisal Committee (Industry-2) in its 18th, 33rd, 1st and 2nd meetings held during 20th-21st January, 2011, 21st-22nd March, 2012, 24th-25th September, 2012 and 29th-31st October, 2012 respectively. The Committee recommended the proposal for environmental clearance.

7.0 Based on the information submitted by the project proponent and presentation made before the EAC by you and the EIA Consultant (Tata Consulting Engineers Ltd., Mumbai), 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) All the conditions stipulated in environmental clearance No. J-11011/105/2007-IA (II) dated 18th July, 2007, No. J-11011/113/2009-IA (II) dated 3rd June, 2009 and

SEIAA:8:IND:2009 dated 30th July, 2009 accorded for the existing projects shall be implemented.

- ii) The gaseous emissions (SO_2 , NO_x , NH_3 , HC and Urea dust) and particulate matter from various process units shall conform to the norms prescribed by the CPCB/SPCB from time to time. 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 units shall not be restarted until the control measures are rectified to achieve the desired efficiency. Stack emissions shall be monitored regularly.
- iii) Adequate stack height shall be provided to Ammonia plant reformer, NG/ RLNG fired gas turbine and Prilling Tower. Low NO_x burners shall be provided to control NO_x emissions.
- iv) In Urea Plant, particulate emissions shall not exceed 150 mg/Nm^3 . Monitoring of Prilling Tower shall be carried out as per CPCB guidelines.
- v) Ambient air quality data shall be collected as per NAAQS standards notified by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009. The levels of PM_{10} (Urea dust), SO_2 , NO_x , Ammonia, Ozone, CO and HC shall be monitored in the ambient air and displayed at a convenient location near the main gate of the company and at important public places. The company shall upload the 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 Karnataka State Pollution Control Board (KSPCB).
- vi) 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. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions should conform to the limits stipulated by the KSPCB.
- vii) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.
- viii) Water requirement from Mangalore City Corporation after NG conversion shall not exceed $8448 \text{ m}^3/\text{day}$ and prior permission shall be obtained from the Competent Authority and a copy submitted to the Ministry's Regional Office at Bangalore.
- ix) Industrial wastewater shall be treated in the ETP. As proposed, Urea plant process condensate shall be treated in a deep hydrolyser followed by stripping. Ammonia plant process condensate (APC) shall be stripped with steam. Treated condensate shall be recycled/reused in the process. Utilities wastewater shall be treated in the ETP and treated effluent shall be recycled/ reused. Treated effluent shall also be monitored for the parameters namely ammoniacal nitrogen, Nitrate, Fluoride, pH etc. As proposed, no effluent shall be discharged outside the factory premises and zero discharge concept shall be adopted. Sewage shall be treated in STP and treated water shall be recycled/reused within factory premises to achieve zero discharge except rainy season.
- x) All the effluents after treatment shall be routed to a properly lined guard pond for equalization and final control. In the guard pond, automatic monitoring system for flow, and relevant pollutants (i.e. pH, ammoniacal nitrogen, nitrate nitrogen etc) shall be provided with high level alarm system.
- xi) Regular monitoring of ground water by installing peizometric wells around the guard pond and sludge disposal sites shall be periodically monitored and report shall be submitted to the concerned Regional Office of the Ministry, CPCB and SPCB.

- xii) The company shall construct the garland drain all around the project site to prevent runoff of any chemicals containing waste into the nearby water bodies. Effluent shall be properly treated and treated wastewater shall conform to CPCB standards.
- xiii) The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes. Measures shall be taken for fire fighting facilities in case of emergency.
- xiv) Spent catalysts and used oil shall be sold to authorized recyclers/re-processors only.
- xv) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All Transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- xvi) The company shall strictly follow all the recommendations mentioned in the Charter on Corporate Responsibility for Environmental Protection (CREP).
- xvii) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the applicable norms.
- xviii) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- xix) Green belt shall be developed in 33 % of the plant area. Selection of plant species shall be as per the CPCB guidelines.
- xx) 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. Usage of Personnel Protection Equipments (PPEs) by all employees/ workers shall be ensured.
- viii. 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.
- ix. 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.
- x. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- xi. A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.
- xii. The company shall earmark sufficient funds toward capital cost and recurring cost respectively 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.
- xiii. A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zila Parisad/Municipal Corporation, Urban local Body and the local NGO, if any, from who suggestions/ representations, if any, were received while processing the proposal.
- xiv. 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 the Karnataka State Pollution Control Board. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
- xv. 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.
- xvi. 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 www.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.

xvii. 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 alongwith 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 PariveshBhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
4. The Chairman, Karnataka State Pollution Control Board, #49, ParisaraBhavana, Church Street, Bangalore-01 (Karnataka).
5. Monitoring Cell, Ministry of Environment and Forests, ParyavaranBhavan, CGO Complex, New Delhi.
6. Guard File/Monitoring File/Record File.


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