



Government of India
Ministry of Environment, Forest and Climate Change
(IA Division)

Indira Paryavaran Bhawan
Aliganj, Jor Bagh Road
New Delhi - 110 003

Yogendra Pal Singh
Scientist 'D'

F. No. J-11011/51/2016-IA.II (I)

Telefax: 91-11-24695365
E-mail : yogendra78@nic.in

Dated: 14th July, 2017

To,

The Head - Safety Health & Environment
(Shri Subrahmanyam)
M/s Coromandel International Limited,
Post Box No. 1116, Sriharipuram,
Malkapuram Post, Visakhapatnam
Andhra Pradesh

Sub: Enhancement of Phosphoric Acid production (from 700 MTPD to 1000 MTPD) P2O5 and other auxiliary facilities within the existing Fertilizer Complex, Sriharipuram, Vishakhapatnam District, Andhra Pradesh by M/s Coromandel International Limited (Formerly M/s Coromandel Fertilizer Limited) - Environmental Clearance - reg.

Ref.: Your online proposal no. IA/AP/IND2/49286/2016; dated 24th January, 2017.

Sir,

This has reference to your online proposal no. IA/AP/IND2/49286/2016; dated 24th January, 2017, submitting along with project documents including Form I, Terms of References, Pre-feasibility Report, EIA/EMP Report along with Public Hearing Report regarding above mentioned project.

2.0 The Ministry of Environment, Forests and Climate Change has examined the application. It is noted that proposal is for Enhancement of Phosphoric Acid production (from 700 MTPD to 1000 MTPD) P2O5 and other auxiliary facilities within the existing Fertilizer Complex, Sriharipuram, Vishakhapatnam district, Andhra Pradesh by M/s Coromandel International Limited (Formerly M/s Coromandel Fertilizer Limited). It is reported that no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Bay of Bengal is situated at a distance of 5.0 km from the project site. Narava Reserved Forest is located at 6.5 km, Yerrakonda Reserved Forest is located at 9 km and Kailasakonda Forest is located at 5 km from the plant boundary.

3.0 Existing land area is Total plot area is 438 Acres, of which 145 acres is developed as greenbelt. Total cost of the project is ₹ 225 Crore. The estimated cost of various environmental management programs in the proposed project is ₹ 26.42 Cr which is around 12% of proposed project cost. In order to achieve consented production of 3900 MTPD NP/NPK production, the facility intends to adopt the following modifications and upgrades in the upstream of the complex fertilize manufacturing units:

- Enhancing Phosphoric acid plant production capacity from 700 MTPD to 1000 MTPD P_2O_5 including evaporation section and fluorine recovery unit.
- De-bottlenecking the existing sulphuric acid plant-1 from 1400 MTPD to 1700 MTPD,
- De-bottlenecking the existing sulphuric acid plant -2 from 300MTPD to 400MTPD,
- Installing a 40MTPH coal fired boiler to meet the additional steam required for the increased evaporation capacity.
- Installing a 5 MW back pressure turbine in order to maximize the efficiency of steam utilization.
- Installing of storage facility for a capacity of 20000 MT (P_2O_5 solution) for phosphoric acid.
- Installation of 400 MTPD evaporation system for phosphoric acid including fluorine recovery system.
- Installing of storage facility for a capacity of 5000 MT for Sulphuric Acid (100% strength)

4.0 Power requirement will be increased from 14 MW to 20 MW. The facility has contracted grid power of 12 MW, 5 MW from APGPCL and in-house steam turbine capacity of 5MW. The net available power for the existing operation is in the order of 22 MW. Hence the available power is adequate to meet the total requirement of 20 MW post enhancement.

Imported coal fired boiler of 40 TPH will be installed with ESP and 56 m stack height. Due to installation of proposed FBC boiler and keeping the existing two LSHS fired boilers on stand-by mode, the SO_2 emissions from steam generating units will be reduced from the current levels of about 3400 Kg/day to as low as 1188 Kg/day during the post project scenario. Hence the overall SO_2 emissions from the plant will be reduced from the current consented value of about 5000 Kg/day to 3150 Kg/day during the post project scenario.

Fresh water requirement will be increased from 8700 m³/day to 12000 m³/day, which will be sourced from Greater Vishakhapatnam Municipal Corporation (GVMC). Sea water consumption will be increased from 63000 m³/day to 84600 m³/day.

The fertilizer complex is having a full-fledged Effluent Treatment Plant of capacity 75 m³ /hr (1800 m³ /day) comprising neutralization system, equalization tank, clariflocculators, reactors, buffer tank and filter press. The total effluent generation during the post up-gradation project scenario will be reduced due to adoption of clean process technologies. Hence the existing ETP will be adequate to meet the future needs. The total treated wastewater discharge into the existing industrial drain has been maintained less than 1800 m³/day as against the consented and permitted discharge quantity of 7890m³/day. Similarly the treated waste water discharge into the industrial drain will be limited to 1800 m³/day during the post project operations.

Domestic Effluent will be treated in a dedicated sewage treatment plant which is under construction. The treated water will be used for green belt and gardening purposes.

5.0 Public Hearing for the proposed project has been conducted by the Andhra Pradesh Pollution control board 8th December, 2016.

7.0 The proposal was considered by the Expert Appraisal Committee (Industry) in its 19th EAC meeting held during 6th -7th February, 2017. Project Proponent and the EIA Consultant namely M/s Cholamandalam MS Risk Services Limited, have presented EIA/EMP report as per the TOR. EAC has found the EIA/EMP Report to be satisfactory and in full consonance with the presented TORs. The Committee recommended the proposal for environmental clearance.

8.0 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 14th September 2006, subject to the compliance of the following Specific and General Conditions:

A. Specific Conditions:

- i. Green Belt of 10 M wide (Perennial trees) to be developed in three sides of plant periphery totaling 145 acre area.
- ii. The present fresh water requirement is 8700 m³/day. Additional fresh water for the proposed enhancement is to be limited to 1650 m³/day. The total fresh water requirement post enhancement shall not exceed 10350 m³/day. The present sea water requirement for once through cooling is 63000 m³/day and the same will be increased post enhancement to 84600 m³/day.
- iii. No ground water shall be used.
- iv. Post enhancement, the SO₂ emissions from Sulphuric acid plant-1 and sulphuric acid plant-2 shall be maintained at 1kg/MT and 0.65 kg/MT.
- v. Imported coal/ rice husk/bagasse fired boiler of 40 TPH will be installed with ESP and 56 m stack height with SO₂ emissions limited to 1188 Kg/day.
- vi. Existing two nos of LSHS fired boilers will be kept on standby mode.
- vii. The gaseous emissions (SO₂, NO_x, NH₃) 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 unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Stack emissions shall be monitored regularly.
- viii. Ambient air quality data shall be collected as per NAAQES standards notified by the Ministry vide G.S.R. No. 826(E) dated 16th September, 2009. The levels of PM₁₀, SO₂, NO_x, Ammonia, 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 concerned State Pollution Control Board (SPCB).
- ix. No process effluent shall be discharged in and around the project site. Process effluents shall be treated in ETP. Sewage shall be treated in STP. Both treated sewage water and process effluents shall be recycled/reused within factory premises to achieve zero discharge except during the rainy season.
- x. Risk assessment plan to be prepared and implemented.
- xi. 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 concerned SPCB.



- xii. 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.
- xiii. 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.
- xiv. 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.
- xv. The by-products which fall under the purview of the Hazardous Waste Rules, be handled as per the provisions of the said Rules and necessary permissions shall be obtained under the said rules.
- xvi. Spent catalysts and used oil shall be sold to authorized recyclers/re-processors only. 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.
- xvii. The company shall strictly follow all the recommendations mentioned in the Charter on Corporate Responsibility for Environmental Protection (CREP).
- xviii. All the commitments made during the Public Hearing/Public Consultation meeting held on 8th December, 2016 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xix. Remote operated valve placed on NH₃ line to avoid leakage/equipment check shall be performed to ensure that remote operated valve (ROV) is all time is functional.
- xx. At least 5 % of the total cost of the project 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 Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.
- xxi. Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- xxii. 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, mobile sewage treatment plant, 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.
- xxiii. An Environment Cell will be set up and a regular environmental manager having PG qualification in environmental sciences/environmental engineering to be appointed for looking after the environmental management practices in the plant.

B. GENERAL CONDITIONS:

- i. The project authorities must strictly adhere to the stipulations made by the state Pollution Control Board (SPCB), 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 station is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.
- iv. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
- 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 shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- vi. 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.
- vii. 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.
- 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 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.
- xiii. 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.
- 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 SPCB. 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 <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.
- 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.

9.0 The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.


10.0 The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions.

11.0 The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and rules.


14.7.2017
(Yogendra Pal Singh)
Scientist 'D'

Copy to:-

1. The Principal Secretary, Department of Environment, Forest, Science & Technology, Government of Andhra Pradesh, Hyderabad, Andhra Pradesh.
2. The Chief Conservator of Forests, Regional Office (Southern Zone, Bangalore) Kendriya Sadan, 4th Floor, E&F Wing, II Block Koramangala, Bangalore – 560 034.
3. The Chairman, Central Pollution Control Board Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
4. The Chairman, Andhra Pradesh Pollution Control Board, Paryavaran Bhawan, A-III, Industrial Estate, Sanath Nagar, Hyderabad, Andhra Pradesh.
5. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi.
6. Guard File/Monitoring File/Record File.


14.7.2017
(Yogendra Pal Singh)
Scientist 'D'