



F. No.J-11011/177/2011-IA-II (I)
Government of India
Ministry of Environment, Forest & Climate Change
Impact Assessment Division



Indira Paryavaran Bhavan,
Vayu Wing, 3rd Floor, Aliganj,
Jor Bagh Road, New Delhi-110 003

Dated: 21st February, 2020

To,

M/s The Fertilizers and Chemicals Travancore Ltd,
Ambalamedu, village Puthencruz, Tehsil Kunnathunad
District Ernakulam (Kerala)

Sub: Expansion of fertilizer manufacturing unit through modernization by M/s The Fertilizers and Chemicals Travancore Ltd (FACT) at Ambalamedu, village Puthencruz, Tehsil Kunnathunad District Ernakulam (Kerala) - Environmental Clearance - reg.

Sir,

This has reference to your online proposal No. IA/KL/IND2/122629/2019 dated 7th November, 2019 for environmental clearance to the above project.

2. The Ministry of Environment, Forest and Climate Change has examined the proposal for environmental clearance to the project for expansion of fertilizer manufacturing unit through modernization by M/s The Fertilizers and Chemicals Travancore Ltd (FACT) in an area of 332 acres at Ambalamedu, village Puthencruz, Tehsil Kunnathunad, District Ernakulam (Kerala).

3. The details of products and capacity as under:

S. No.	Product	Quantity Metric Ton Per Day		
		Existing	Proposed	Total
1	NPK Fertiliser	3000 MTPD (2000 MTPD +1000 MTPD)	650 MTPD	3650 MTPD (2000 MTPD + 1650 MTPD)
2	Ammonia Storage Tank	5000 MT	10000 MT	15000 MT (5000MT +10000MT)
3	Sulphuric Acid Storage	20000 MT (5000 MTx4 nos.)	10000 MT (5000MT X 2 nos.)	30000 MT (5000 MTX6 nos.)
4	Sulphuric Acid plant	1000 MTPD	-	1000 MTPD
5	Phosphoric Acid Plant	360 MTPD of P2O5	-	360 MTPD of P2O5

4. The existing plant area is 332 acres. The proposed expansion will be carried out in existing plant area. No additional land is required for the proposed project. Industry has already developed greenbelt in 33% of the total project area. The estimated project cost is Rs.480 crore. Total capital cost earmarked towards environmental pollution control measures is Rs.95 crore and the recurring cost (operation and maintenance) will be about Rs.1.28 crore per annum. Total Employment will be 50 persons as direct & 200 persons indirect after expansion.

5. There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Back water stretch of Chitrapuzha is at 1 km in west.

6. Total existing fresh water requirement is 7850 cum/day. No additional fresh water is required for the proposed expansion, which will be met from existing rain water collecting reservoir of 168 acre which is connected to Boothathanketu dam for supply of water during dry season. Effluent generation from the existing unit is 120 m³/day and no additional effluent will be generated from the proposed expansion. The wastewater generated will be treated in, already existing effluent treatment plant (ETP) capacity of 280 m³/hr. Treated effluent is passed through ammonia stripper. Treated effluent from stripper will contain ammoniacal nitrogen less than 50 ppm. The proposed plant will be based on Zero Liquid Discharge (ZLD) system. All the liquid effluents generated in the system are recycled in the process. Sewage shall be treated in existing Sewage Treatment Plant. Spent catalysts and used oil will be sold to authorized re-processors/recyclers.

Power requirement for proposed project operation will be 3.1 MW. The additional requirement will be met from Kerala State Electricity Board (KSEB) or open access. Existing unit has DG set of 110 kVA. Two additional DG sets of capacity 500 kVA and 1000 kVA will be provided.

Existing unit has 14 TPH FO/RLNG (Regasified Liquefied Natural Gas) fired boiler for start up and shutdown only. No additional boiler will be required. All fumes generated during the process will be scrubbed and stipulated emission levels of Kerala State Pollution Control Board (KSPCB)/Central Pollution Control Board (CPCB) are strictly adhered.

7. The project/activity is covered under category A of item 5 (a) 'Chemical fertilizers' of the schedule to the EIA Notification, 2006 and requires appraisal/approval at central level in the Ministry.

8. The proposal has been submitted for grant of environmental clearance under para 7(ii) of EIA Notification, 2006. There is no increase in the gaseous pollutants (Ammonia, SPM, Fluorine); the increase in the production is based on more efficient "Pipe Reactor Technology" rather than the old Conventional Slurry Granulation process.

9. The proposal was considered by the Expert Appraisal Committee (Industry-2) in its meeting held on December 30-31, 2019 and January 1, 2020, wherein the Committee recommended the project for grant of environmental clearance under para 7(ii) providing exemption from public hearing and preparation of EIA report subject to compliance of terms and conditions.

10. Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-2), Ministry of Environment, Forest and Climate change hereby accords environmental clearance to the project for **expansion of fertilizer manufacturing unit through modernization by M/s The Fertilizers and Chemicals Travancore Ltd (FACT)** in an area of

332 acres, located at Ambalamedu, village Puthencruz, Tehsil Kunnathunad, District Ernakulam (Kerala), under the provisions of the EIA Notification, 2006, subject to the compliance of terms and conditions as below:-

A. Specific conditions:

(i) ✓ Necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, shall be obtained from the State Pollution Control Board.

(ii) ✓ As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. The reuse of treated effluent in gardening/ horticulture shall not be considered as ZLD.

(iii) ✓ Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.

(iv) The gaseous emissions (SO₂, NO_x, NH₃ and HC) 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.

(v) To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines. Fugitive emissions shall be controlled at 99.5% with effective chillers.

(vi) Existing fresh water requirement is 7850 cum/day, which is met through Boothathanketu dam. No additional water shall be required for the proposed modernization.

(vii) Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system.

(viii) Natural gas shall be used as fuel in all the boilers.

(ix) Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.

(x) ✓ 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, 1989.

(xi) The company shall undertake waste minimization measures as below:-

(i) Metering and control of quantities of active ingredients to minimize waste.

(ii) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.

(iii) Use of automated filling to minimize spillage.

(iv) Use of Close Feed system into batch reactors.

- (v) Venting equipment through vapour recovery system.
- (vi) Use of high pressure hoses for equipment clearing to reduce wastewater generation.

(xii) The green belt of at least 5-10 m width shall be developed in nearly 35% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.

② (xiii) As committed, Rs. 3.6 Crores shall be allocated towards Corporate Environment Responsibility (CER). Item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.

(xiv) Safety and visual reality training shall be provided to employees.

(xv) ✓ For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.

(xvi) 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 norms.

(xvii) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

(xviii) ✓ Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

(xix) Process safety and risk assessment studies shall be further carried out using advanced models, and the mitigating measures shall be undertaken accordingly.

B. General Conditions:

(i) The Project Proponent shall obtain all other statutory/necessary permissions/recommendations/NOCs prior to start of construction/operation of the project, which inter alia include, permission/approvals under the Forest (Conservation) Act, 1980; the Wildlife (Protection) Act, 1972; the Coastal Regulation Zone Notification, 2019, as amended from time to time, and other Office Memoranda/Circular issued by the Ministry of Environment, Forest and Climate Change from time to time, as applicable to the project.

(ii) The project proponent shall ensure compliance of 'National Emission Standards', as applicable to the project, issued by the Ministry from time to time. The project proponent shall also abide by the rules/regulations issued by the CPCB/SPCB for control/abatement of pollution.

(iii) The project authorities shall adhere to the stipulations made by the State Pollution Control Board/Committee, Central Pollution Control Board, State Government and any other statutory authority.

(iv) The project proponent shall prepare a site specific conservation plan and wildlife management plan in case of the presence of Schedule-1 species in the study area, as

applicable to the project, and submit to Chief Wildlife Warden for approval. The recommendations shall be implemented in consultation with the State Forest/Wildlife Department in a time bound manner.

(v) No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change. 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.

(vi) The energy source for lighting purpose shall be preferably LED based, or advance having preference in energy conservation and environment betterment.

(vii) 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 each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.

(viii) 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.

(ix) 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).

(x) The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and to utilize the same for process requirements.

(xi) 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.

(xii) 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, and risk mitigation measures relating to the project shall be implemented.

(xiii) The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and administration and shall be implemented.

(xiv) The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.

(xv) A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

(xvi) The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change 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.

(xvii) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.

(xviii) 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&CC, 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.

(xix) 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&CC by e-mail.

(xx) 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 and at <https://parivesh.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.

(xxi) 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.

(xxii) This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

11. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

12. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.

13. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

14. The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 read with subsequent amendments therein.

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

(डा. आर. बी. लाल)

(Dr. R. B. LAL)

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
Min. of Environment, Forest and Climate Change
भारत सरकार, नई दिल्ली
Govt. of India, New Delhi

(Dr. R. B. Lal)

Scientist 'E'/Additional Director

Copy to:-

1. Principal Secretary, Department of Environment & Forest, Govt. of Kerala, Secretariat Annex Building, Room No.604, C Block, 6th Floor, Government Secretariat, **Thiruvananthapuram** (Kerala)
2. The APCCF, Ministry of Environment, Forest and Climate Change, Regional Office (Southern Zone) Kendriya Sadan, 4th Floor, E&F Wing, Koramangala II Block, **Bangalore-560034**
3. The Member Secretary, Central Pollution Control Board Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, **Delhi - 32**
4. The Member Secretary, Kerala State Pollution Control Board, Pattom P.O., **Thiruvananthapuram- 695004** (Kerala)
5. District Collector, **Ernakulam** (Tamil Nadu)
6. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor bagh Road, **New Delhi**
7. Guard File/Monitoring File/Record File/ Parivesh Portal

(Dr. R. B. Lal)

Scientist 'E'/Additional Director