

F. No. J-11011/280/2013-IA-II (I)
Government of India
Ministry of Environment, Forests and Climate Change
(I.A. Division)

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Date: 15th May, 2015

To,

Shri Muthukrishnan Ravi, Managing Director
M/s Tamil Nadu Petroproducts Ltd.
Manali, Chennai, Tamil Nadu.

E-mail : pramod@tnpetro.com; Telefax: 044-25941139;

Subject: Product Mix Change at existing Epichlorohydrin Plant, Manali, Chennai, Tamil Nadu by M/s Tamil Nadu Petroproducts Ltd. – Environmental Clearance reg.

Ref.: Your letter no. nil dated 29th January, 2015.

Sir,

This has reference to your letter dated 29th January, 2015 alongwith project documents including Form I, Terms of References, Pre-feasibility Report, EIA/EMP Report regarding above mentioned project.

2.0 The Ministry of Environment, Forests and Climate Change has examined the application. It is noted that the proposal is for Product Mix Change at existing Epichlorohydrin Plant, Manali, Chennai, Tamil Nadu by M/s Tamil Nadu Petroproducts Ltd. TPL has established facilities to make Epichlorohydrin (ECH) in the year 1995. Which is used as a key material in the manufacture of epoxy resins, pesticides and pharmaceutical formulations. Total plot area is 38.72 acre. Cost of project is Rs. 12.96 Crore. It is reported that no wildlife sanctuary is located within 10 km distance. Project is located at 3.5 km away from sea. Water bodies such as Buckingham canal (0.5 Km), Surplus canal (0.02 Km), Saththankadu Lake (2.17 Km), Madhavaram Lake (3.35 Km), Kadapakkam Pan. Following products will be manufactured:

S.N	Product	Existing (MTPD)	Proposed (MTPD)
1	Epichlorohydrin	30.3	--
2	Hydrochloric Acid	17.3	--
3	Chlorinated Organics	13.3	6.75
4	Propylene Oxide	--	45

3.0 Caustic scrubber will be provided to control process emissions viz. Cl₂. A proper Leak Detection and Repair (LDAR) Program will be implemented to reduce the fugitive emissions. Total water requirement will be 2150 m³/day of which fresh water requirement from CMWSSB will be 1650 m³/day and remaining water requirement (500 m³/day) will be met from treated effluent.



Effluent generation will be 1805 m³/day and treated in the effluent treatment plant (ETP) comprising primary and secondary facilities. Treated effluent will be discharged to deep sea through a separate conveyance pipeline after conforming to the standards prescribed for the effluent discharge. Sewage is treated in the sewage treatment plant (STP). Treated sewage will be used for horticulture purpose. ETP sludge will be sent to TSDF. Waste oil and used batteries will be sold to authorized recyclers/re-processors.

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 petrochemical based processing units located inside the notified industrial area/estate are listed at S.N. 5(e) under category 'B'. However, applicability of general condition due to project location within 10 km distance from CPA, proposal is treated as category 'A' and appraised by Expert Appraisal Committee (I).

6.0 The proposal was considered by the Expert Appraisal Committee (Industry) in its 7th and 34th meetings held during 19th – 20th December, 2013 and 17th-19th February, 2015 respectively. Project Proponent and the EIA Consultant namely (En-Vision Enviro Engineers Pvt. Ltd. and Hubert Enviro Care System), have presented EIA / EMP report as per the TOR. EAC has found the EIA Study / EMP Report to be adequate and in full consonance with the presented TORs. The Committee recommended the proposal for environmental clearance.

7.0 Based on the information submitted by the project proponent, the Ministry of Environment, Forest and Climate Change 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) Caustic scrubber shall be provided to control Chlorine emissions. The scrubbed water should be sent to ETP for further treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. Scrubbers vent shall be provided with on-line detection and alarm system to indicate higher than permissible value of controlled parameters. At no time, the emission levels shall go beyond the prescribed standards. The system should be interlocked with the pollution control equipments so that in case of any increase in pollutants beyond permissible limits, plant should be automatically stopped.
- ii) Ambient air quality data shall be collected as per NAAQS standards notified by the Ministry vide G.S.R. No. 826(E) dated 16th September, 2009. The levels of PM₁₀, PM_{2.5}, SO₂, NO_x, CO, Cl₂, VOC and HC (Methane and Non-methane) shall be monitored in the ambient air and emissions from the stacks 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 Tamil Nadu Pollution Control Board (TNPCB).
- 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. All necessary steps should be taken for monitoring of Chlorine as well as VOCs in the proposed plant.

- iv) 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.
- v) Leak Detection and Repair programme shall be prepared and implemented to control HC/VOC emissions. Focus shall be given to prevent fugitive emissions for which preventive maintenance of pumps, valves, pipelines are required. Proper maintenance of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to. Fugitive emissions of HC from product storage tank yards etc. must be regularly monitored. Sensors for detecting HC leakage shall be provided at strategic locations. Company shall protect their equipments from aging.
- vi) Alarm for chlorine leakage if any in the liquid chlorine storage area is provided alongwith automatic start of the scrubbing system.
- vii) Total water requirement from CMWSSB water supply shall not exceed 1650 m³/day and prior permission should be obtained from the Competent authority.
- viii) As proposed, industrial effluent shall be treated in ETP. Treated effluent from ETP shall be discharged to sea after conforming to the standards prescribed for the effluent discharge and obtaining permission from the TNPCB. Domestic sewage should be treated in STP.
- ix) Treated effluent should be passed through guard pond. Monitoring (24 x 7) through online pH meter, flow meter and TOC analyzer should be installed. The data to be made available to the respective SPCB and in the Company's website.
- x) 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 and prior permission from TNPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire fighting facilities in case of emergency.
- xi) 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.
- xii) 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. Fire hydrant system shall be provided alongwith fire monitor and flame detection system in the process as well as storage areas.
- xiii) All the recommendations made in the risk assessment report should be satisfactorily implemented.

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- xiv) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- xv) As proposed, greenbelt should be developed at least 48561 m² area in and around the plant premises to mitigate the effects of fugitive emissions all around the plant as per the CPCB guidelines in consultation with DFO. Selection of plant species should be as per the CPCB guidelines.
- xvi) 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 State Government and T.N. 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 station 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.

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- 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/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, Zila Parishad/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 T.N. 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 <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 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.

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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 Transboundary Movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

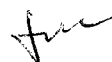
11.0 Environment Clearance is issued to M/s Tamil Nadu Petroproducts Ltd. for product mix change at existing epichlorohydrin Plant, Manali, Chennai, Tamil Nadu.



(Lalit Bokolia)
Additional Director

Copy to :-

1. The Principal Secretary, Department of Environment, Ground Floor, Panagal Buildings 1, Jeenis Road, Saidapet, Chennai - 600 015.
2. The Chief Conservator of Forests, Regional Office (Southern Zone, Bangalore) Kendriya Sadan, 4th Floor, E&F Wing, II Block Koramangala, Bangalore-560034.
3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
4. The Chairman, Tamil Nadu Pollution Control Board, Corporate Office, 76, Anna Salai, Guindy, Chennai - 600 032.
5. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhavan, Jor Bagh, New Delhi-110003.
6. Guard File/Monitoring File/Notice Board.



(Lalit Bokolia)
Additional Director