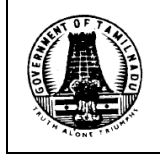


**Dr. R.ANNAMALAI,I.F.S.,**  
DIRECTOR OF ENVIRONMENT  
AND MEMBER SECRETARY



**STATE LEVEL ENVIRONMENT  
IMPACT ASSESSMENT AUTHORITY,  
TAMILNADU,**

Tamilnadu Pollution Control Board  
Premises,  
76, Mount Salai, Guindy,  
Chennai- 600 032.

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**No.SEIAA/TN/EC/5(f)/001/F-111/2008 Dated: 07.10.2008**

To,

The Chief Manager (Operations),  
M/s. Southern Petrochemical Industries  
Corporation Limited,  
Plot No. 3-5, NH-7,  
Maraimalai Nagar – 603 209.

Sub: Expansion of existing R&D unit to manufacture Bulk Drug at Plot No.3-5, NH-7, CMDA Industrial Estate, Maraimalai Nagar, Kancheepuram District - by M/s Southern Petrochemical Industries Corporation Limited - Environmental Clearance - Regarding.

Sir,

This has reference to your application No. SP/MMN/EIA/07/001, dated 11.06.2007 submitted to the Ministry of Environment & Forests, Govt. of India for Environmental Clearance. The Expert Appraisal Committee (I) of the Ministry had appraised the project during its meeting held on 24-26<sup>th</sup> October 2007 and issued TORs and also stated 'No public hearing/consultation is required for the project as per Section 7 III, Stage (3), Para (i)(b) of EIA Notification, 2006. You had submitted the EIA/EMP report to the Ministry vide your letter No. SP/MMN/EIA/08/001, dated 11.04.2008. The above application has been received by the SEIAA on 11.7.2008 from the Govt. of India vide Letter No J-11011/539/2007-1A-II(1) dated 19.06.08. Further in your letter dt. 11.7.2008 to the State Level Environment Impact Assessment Authority (SEIAA), Tamil Nadu, you have requested for Environmental Clearance. The proposal has been appraised as per the prescribed procedure in the light of provisions under the EIA Notification, 2006 on the basis of the mandatory documents enclosed with the application Viz., the Application Form- I, EIA report & EMP, by the State Level Expert Appraisal Committee in its meeting held on 25<sup>th</sup> – 26<sup>th</sup> August 2008.

It is noted, interalia that the project proposal involves expansion by conversion of the existing R & D unit for commercial operations located at Plot No. 3-5, CMDA Industrial Estate, Maraimalai Nagar, Chengalpattu Taluk, Kancheepuram District. Existing land area is 3.5 ha out of which greenbelt area is 1.0 ha. No ecologically sensitive area exists within 10 Km periphery of the project site. The project does not involve any Rehabilitation & Resettlement. The cost of the project is Rs. 10 Crores. The proposal involves manufacturing of the various products as follows -

S.No	Name of the Proposed Products	Capacity (Qty/Month)
<b>UNIT – I : API PLANT</b>		
01	Tramadol Hydrochloride	1500 Kgs
02	D-Penicillamine	200 Kgs
03	Terbutaline sulphate	150 Kgs
04	Alendronate sodium	150 Kgs
05	Risedronate sodium	50 Kgs
06	Ibandronate sodium	25 Kgs
07	Etidronate disodium	50 Kgs
08	N-(2-Hydroxy Ethyl) Pyrrolidine	1000 Kgs
09	Fexofenadine Hydrochloride	200 Kgs
10	Imidocarb Dipropoanate	60 Kgs
11	Topiramate	50 Kgs
12	Buparvaquone	40 Kgs
13	Ipriflavone	200 Kgs
14	Xylan polysulphate sodium & derivatives	40 Kgs
15	Curcumin	40 Kgs
16	Morantel Tartrate	200 Kgs
17	Disodium Pamidronate	50 Kgs
18	Sertraline Hydrochloride	100 Kgs
19	Irbesartan	50 Kgs
20	Venlafaxine Hydrochloride	100 Kgs
<b>UNIT – II : ENZYME PLANT</b>		
21	Botanical insect antifeedent	18.75 Tons
22	Rhizobium, Azospirillum, Actobacter	37.50 Tons
23	Detergent enzyme	4.10 Tons
24	Bating Enzyme	70.00 Tons
25	Food and other enzyme	4.10 Tons
26	Neem cake	18.75 Tons
<b>UNIT – III : FORMULATION PLANT</b>		
27	Tablets	200 lakhs nos
28	Capsules	80 lakhs Nos
29	Ointment/cream	10 lakhs Tubes
30	Syrup/suspension	30 lakhs Bottles
31	Powder	10 lakhs Sachets
32	Dry syrup	1 lakhs Bottles

It is proposed to upgrade the existing R&D Unit for commercial operations for the production of Active Pharma Ingredients and to establish Biotechnology and Formulation units which are now functioning outside this premises. Power requirement shall be met from TNEB grid and with backup D.G Sets of 3 Nos, 2 x 250 KVA & 1 x 150 KVA. The water requirement will be 150 KLD which will be met through existing bore wells. 125 KLD of trade effluent and 25 KLD of domestic effluent shall be generated during operation. The process effluent from R&D and API plant will be sent to Multiple Effect Evaporator and the condensate will be collected

in the treated effluent collection tank and the process effluent from the Enzyme (biotechnology) & Formulation plant will be treated by upgrading the existing Effluent treatment plant. The treated effluent will be passed through Reverse osmosis plant to achieve Zero discharge of trade effluent. The rejects will be disposed through Multiple Effect Evaporator. Domestic effluent of 25 KLD will be connected to CMDA sewer for treatment and disposal. Solid waste from the process, ETP & salts from Multiple Effect evaporator, will be sent to Treatment, Storage and Disposal Facility.

The project activity is listed at 5 (f) and is of B1 Category project in the Schedule of EIA Notification, 2006. Public Hearing/consultation, not required for the project as it is located in a notified industrial estate at Maraimalai Nagar, Kancheepuram District.

Based on the information submitted by you, the SEAC after due considerations of the relevant documents submitted by the Project Proponent have recommended to the SEIAA, Tamil Nadu to grant the Environmental Clearance to this project subject to certain conditions. The proposal was considered by SEIAA, Tamil Nadu in its meeting held on 24.09.2008 and as the public consultation is not required for the project, the SEIAA hereby accords Environmental Clearance to the above project under the provisions of EIA Notification dated 14th September, 2006 subject to the strict compliance of the terms and conditions as follows:

#### **A. SPECIFIC CONDITIONS - Environment Management Measures**

- i. The domestic effluent shall be connected to CMDA sewer as stated.
- ii. The process effluent from R & D and API plant shall be sent to Multiple Effect Evaporator and condensate shall be collected in the treated effluent collection tank. The process effluent from the enzyme (Bio-technology) and formulation plant shall be treated by upgrading the existing ETP. The treated effluent shall be processed through Reverse Osmosis plant to achieve Zero Discharge of Trade Effluent. The rejects shall be disposed through Multiple Effect Evaporator.
- iii. A stack of adequate height shall be provided for control and dispersion of pollutants from the boiler. SPM emission in the flue gas shall be less than 100 mg/Nm<sup>3</sup>.
- iv. HCl, SO<sub>2</sub>, Nitrogen and Carbon Dioxide emissions from the process vents shall be scrubbed in water and Caustic lye solution scrubbers and dilute HCl so formed shall be reused. SO<sub>2</sub> shall be scrubbed in the scrubber using Caustic lye solution and the scrubbing liquid shall be sent to ETP for treatment. Scrubber efficiency shall be minimum 99%.
- v. Levels of HC and VOC at various probable locations in the ambient air in and around the plant shall be monitored regularly.
- vi. Stringent odour control measures suggested in the EIA report (4.2 para) should be implemented to prevent totally odour nuisance to the neighbourhood population and industrial units in a complete and adequate manner.

- vii. The water requirement shall not exceed 150 KLD which shall be met from bore wells and necessary clearance shall be obtained from the Competent Authority.
- viii. Solid waste from process, ETP sludge, Salts from Multiple Effect evaporator shall be sent to TSDF, Gummidipoondi. Handling and disposal of Hazardous waste should comply with TNPCB norms.
- ix. Spent solvents shall be recovered as far as possible & recovery shall not be less than 98 percent. Solvent vapours emitted during purification process from purification tanks as fugitive emissions shall be reduced as far as possible. All venting equipment shall have vapour recovery system.
- x. The Proponent shall furnish an undertaking that they will abide by the conditions / recommendations mentioned in the EIA/RA report furnished by them.
- xi. 1.0 ha of land shall be developed and maintained as Green Belt and selection of plant species shall be as per CPCB Guidelines.

**B. GENERAL CONDITIONS:**

- i) It is mandatory for the project proponent to furnish to the SEIAA, Half yearly compliance report in hard and soft copies on 1<sup>st</sup> June and 1<sup>st</sup> December of each calendar year in respect of the conditions stipulated in the prior Environmental clearance.
- ii) The project authorities shall strictly adhere to the stipulations made by the Tamilnadu Pollution Control Board.
- iii) The Environmental Clearance does not relieve the applicant/proponent of his obligation/requirement to obtain other statutory and administrative clearance from other statutory and administrative authorities.
- iv) Without detracting from the responsibility of the proponent as stipulated in general condition B iii above, the applicant should obtain necessary permit/permission from the competent Authority notified under the Chennai Metropolitan Water Supply & Sewerage Board, in respect of Chennai city and the villages notified to come under its jurisdiction under the Chennai Metropolitan Area Ground Water (Regulation) Act, 1987 (Act 27 of 1987) / Central Ground Water Authority in respect of other areas of the State for the extraction of ground water/transport of water to the project for domestic/other uses during the construction and occupation stages in respect of residential buildings including multi-storied apartments and construction & operation stages in respect of other industrial, commercial and other projects/activities

- v) No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA. In case of deviations or alterations in the project proposal from those submitted for clearance, a fresh reference shall be made to the SEIAA to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- vi) At no time, the emissions shall exceed the prescribed limits. In the event of failure of any pollution control system adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieved.
- vii) The gaseous emissions (SO<sub>2</sub>, NO<sub>x</sub>, HCl, CO, CO<sub>2</sub>, VOC and HC) and Particulate matter along with RSPM levels from various process units shall conform to the standards prescribed by the concerned authorities from time to time. 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 respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency.
- viii) The locations of ambient air quality monitoring stations shall be decided in consultation with the Tamil Nadu Pollution Control Board and it shall be ensured that at least one station is installed in the up wind and another in the downwind direction as well as where maximum ground level concentrations are anticipated.
- ix) Dedicated scrubbers and stacks of appropriate height as per the Central Pollution Control Board guidelines shall be provided to control the emissions from various vents. The scrubbed water shall be sent to ETP for further treatment.
- x) All the storage tanks will be under negative pressure to avoid any leakages. Breather valves, N<sub>2</sub> blanketing and secondary condensers with Chilled Brine chilling system shall be provided for all the storage tanks to minimize vapour losses. All liquid raw material shall be stored in storage Tanks and Drums. Closed handling systems for chemicals and solvents will be provided. Magnetic seals will be provided for pumps/agitators for reactors for reduction of fugitive emissions. Solvent traps shall be installed wherever necessary. Reactor generating solvent vapors will be connected to condensers with receivers.
- xi) All venting equipment shall have vapour recovery system. All the pumps and other equipment's where there is a likelihood of HC leakages shall be provided with Leak Detection and Repair (LDAR) system and LEL indicators and Hydrocarbon detectors. Provision for immediate isolation of such equipment, in case of a leakage will also be made. The company shall provide a well defined Leak Detection and Repair (LDAR)

programme for quantification and control of fugitive emissions. The detectors sensitivity will be in ppm levels.

- xii) The company shall undertake following Waste Minimization measures.
- Metering and control of quantities of active ingredients to minimize waste.
  - Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
  - Use of automated filling to minimize spillage.
  - Use of Closed Feed system into batch reactors.
  - Venting equipment through vapour recovery system.
  - Use of high pressure hoses for equipment cleaning to reduce wastewater generation.
- xiii) Fugitive emissions in the work zone environment, product, and raw materials storage area shall be regularly monitored. The emissions shall conform to the limits imposed by the Tamil Nadu Pollution Control Boards/ Central Pollution Control Board.
- xiv) The project authorities shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October, 1994 and January, 2000 and Hazardous Wastes (Management and Handling) Rules, 1989, as amended from time to time. Authorization from the TNPCB shall be obtained for collection, treatment, storage, and disposal of hazardous wastes. All Transportation of Hazardous Chemicals shall be as per the MVA, 1989.
- xv) 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).
- xvi) Occupational health surveillance of the workers shall be carried out on a regular basis and records shall be maintained as per the Factories Act.
- xvii) 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.
- xviii) Usage of PPEs by all employees/ workers shall be ensured.
- xix) The company shall strictly follow all the recommendations mentioned in the Charter on Corporate Responsibility for Environmental Protection (CREP).
- xx) The Company shall harvest surface as well as rainwater from the rooftops of the buildings proposed in the expansion project and storm water drains

to recharge the ground water and use the same water for the various activities of the project to conserve fresh water.

- xxi) The project proponent shall also comply with all the environmental protection measures and safeguards proposed in the EIA/EMP report. All the recommendations made in respect of environmental management and risk mitigation measures relating to the project shall be implemented.
- xxii) The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- xxiii) A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.
- xxiv) The project proponent shall advertise in at least two local newspapers widely circulated in the region, one of which shall be in the vernacular language informing the public that
  - i) The project has been accorded Environmental Clearance.
  - ii) Copies of clearance letters are available with the Tamil Nadu Pollution Control Board.
  - iii) Environmental Clearance may also be seen on the website of the SEIAA.

The advertisement should be made within 7 days from the date of issue of the clearance letter and a copy of the same shall be forwarded to the SEIAA.

- xxv) The project authorities shall inform the Regional Office as well as the SEIAA, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
- xxvi) The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
- xxvii) The SEIAA reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions.
- xxviii) 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, Hazardous Wastes (Management and Handling) Rules, 2003 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

Member Secretary,  
State Level Environmental Impact  
Assessment Authority,  
Tamil Nadu.

Copy to:-

1. The Secretary to Government, Environment & Forests Dept,  
Govt.of Tamil Nadu, Fort St.George, Chennai-9.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan,  
CBD Cum-Office Complex, East Arjun Nagar, New Delhi 110032.
3. The Member Secretary, Tamil Nadu Pollution Control Board,  
76, Mount Salai, Guindy, Chennai-600 032.
4. The CCF, Regional Office, Ministry of Environment & Forest (SZ),  
Kendriya Sadan, IV floor, E&F wings, 17th Main Road,  
Koramangala II Block, Bangalore - 560034.
5. Monitoring Cell, I A Division, Ministry of Environment & Forests,  
Paryavaran Bhavan, CGO Complex, New Delhi 110003.
6. Stock File.