Environment and Forest Department

Policy Note 2009-2010

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Tamil Nadu Pollution Control Board

3. TAMILNADU POLLUTION CONTROL BOARD

1.0 INTRODUCTION

Tamilnadu Pollution Control Board (TNPCB) has the responsibilities of enforcing the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Water (Prevention and Control of Pollution) Cess Act, 1977, Air (Prevention and Control of Pollution) Act, 1981, enacted in the Parliament and the rules made under the Environment (Protection) Act, 1986. Tamilnadu Pollution Control Board has headquarters in Chennai with District Offices all over the State.

2.0 CONSTITUTION OF TNPCB

In order to monitor the functioning of the Board and to take policy decision and guide the Board, a group of Board members has been formed. State Government nominates full time Chairman of the Board. Along with Chairman, 5 senior level Government Officials, 5 persons representing local bodies, 3 experts representing important sectors of agriculture, fishery and trade, 2 persons representing the companies or corporations and a full time Member Secretary are the members of the Board.

District Offices of the Board are located in 28 locations. The details of the location of District Office and the jurisdiction covered are given below

Sl. No	Location	Jurisdiction
1	District Environmental Engineer, Chennai	Chennai District.
2	District Environmental Engineer, Ambattur	Tiruvallur District (Part) (Ambattur and Ponneri Taluks).

3	District Environmental Engineer, Tiruvallur	Tiruvallur District (Part) (Tiruvallur, Gummidipoondi, Poonamalle, Tiruthani, Uthukkottai, Pallipattu Taluks).
4	District Environmental Engineer, Tambaram	Kancheepuram District (Part) (Tambaram, Chengelput, Thirukazhukundram, Cheyyur Taluks).
5	District Environmental Engineer, Sriperumbudur	Kancheepuram District (Part) (Sriperumbudur, Kancheepuram, Madurantagam, Uthiramerur Taluks)
6	District Environmental Engineer, Madurai	Madurai & Sivagangai Districts.
7	District Environmental Engineer, Virudhunagar	Virudhunagar & Ramanathapuram Districts.
8	District Environmental Engineer, Tirunelveli	Tirunelveli District,
9	District Environmental Engineer, Tuticorin	Tuticorin District.
10	District Environmental Engineer, Dindigul	Dindigul & Theni Districts.
11	District Environmental Engineer, Salem	Salem District.
12	District Environmental Engineer, Erode	Erode District (Part) (Erode, Bhavani, Sathyamangalam Taluks).
13	District Environmental Engineer, Perundurai	Erode District (Part) (Perundurai, Kankayam, Gopichettipalayam, Dharapuram Taluks).
14	District Environmental Engineer, Namakkal	Namakkal District.
15	District Environmental Engineer, Tiruppur	Coimbatore District (Part) (Avinashi, Palladam, & Tiruppur Taluks)
16	District Environmental Engineer, Coimbatore	Coimbatore District (Part) (Mettupalayam, Pollachi, Udumalpettai & Valparai Taluks)
17	District Environmental Engineer, Vellore	Arcot, Wallajah & Arakonam Taluks of Vellore District & Tiruvannamalai District.
18	District Environmental Engineer, Vaniyambadi	Vaniyambadi, Tirupattur and Katpadi Taluks of Vellore District.
19	District Environmental Engineer, Hosur	Krishnagiri & Dharmapuri Districts.
20	District Environmental Engineer, Tiruchirapalli	Tiruchirapalli and Perambalur Districts.
21	District Environmental Engineer, Karur	Karur District.
22	District Environmental Engineer, Cuddalore	Cuddalore District.

23	District Environmental Engineer, Pudukottai.	Pudukottai District.
24	Assistant Environmental Engineer, Udhagamandalam	The Nilgiris District.
25	Assistant Environmental Engineer, Thanjavur	Thanjavur District.
26	Assistant Environmental Engineer, Villupuram	Villupuram District.
27	Assistant Environmental Engineer, Nagapattinam	Nagapattinam & Tiruvarur Districts.
28	Assistant Environmental Engineer, Nagercoil	Kanyakumari District.

The total staff working in this Board is 744. Chief Engineers, District Environmental Engineers, Assistant Environmental Engineers, Scientists, Legal Officer form part of this total strength.

3.0 MONITORING OF INDUSTRIES AND ISSUE OF CONSENT

With the rapid industrialization in Tamilnadu, there has been a marked increase in the need for continuous monitoring of pollution of industrial activities. The field officers of the TNPCB inspect the industries under their jurisdiction periodically to assess the adequacy of pollution control measures undertaken by the industries to treat sewage, trade effluent and emissions and monitor their performance. As on 31.03.2009, TNPC Board has granted 29269 consent orders for operation under the Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 .

Industries had been categorised into 3 categories as red, orange and green based on the pollution load discharged. Highly polluting industries are classified as red category industries, medium polluting industries are classified as orange category industries and less polluting industries are classified as green category industries. From August 2007 onwards, the highly polluting red category industries have been split into ultra red and red category in order to have effective monitoring.

3.1 INSPECTION AND SAMPLE COLLECTION PERIODICITY

The field engineers in the District Office inspect the large scale ultra red industries every month and ordinary red category units once in three months. The medium scale red category units are inspected once in four months and the small scale red category units once in a year. Similarly the large and medium scale orange category units are inspected once in six months and the small scale orange category units once in two years. The less polluting green category units are inspected once in two years.

By analysing samples of trade effluent collected from industries, the operations of treatment units are monitored. Samples are collected for analysis once a month from the large scale ultra red and ordinary red category industries. In respect of medium scale red category units, samples are collected once in three months and in case of small scale red category units, samples are collected once in three to six months. With regard to orange category units, samples are collected once in four months from large scale units, once in six months from medium and small scale units. Samples collected are analyzed to monitor whether the quality of treated effluent satisfies the standards prescribed by the Board. If the quality of the effluent exceeds the standards prescribed by the Board, the units are instructed to operate the effluent treatment plant effectively. In case of repeated non compliance show cause notice is issued to the industry. If the industry continues to operate without proper treatment and reply to the show cause notice, the Board initiates action under the Water Act for closure of the industry and issues direction to TNEB for disconnection of power supply.

Industries are constantly insisted to continuously operate and maintain the pollution control measures. Industries are monitored for the continuous operation of pollution control measures and industries which have operated the pollution control devices to achieve board standards are issued with renewal of consent in time. Since the renewals are issued in time, the Board is encouraging the industries to comply with the conditions imposed in the renewal of consent.

3.2 HOT SPOT MONITORING

The TNPCB has identified 10 Hot spot areas based on the location of hazardous waste nature of the industries, high level of polluting industries and cluster of highly polluting industries. In these areas TNPCB has posted one Assistant Environmental Engineer for each area for effective monitoring and to contact local public directly. The ten locations are as follows:-

1. Manali
2. Cuddalore
3. Thoothukudi
4. Mettur
5. Ranipet
6. Sriperumpudur
7. IT Corridor at Perungudi
8. Perundurai
9. Gummidipoondi
10. Tiruppur

With regard to any pollution problem arising from the industries in these areas, the public can contact the locally available Board Engineers directly for taking corrective action.

4.0 SECTOR SPECIFIC TECHNICAL REPORT ON ENVIRONMENT

In order to develop a ready reckoner for various stakeholders' use, TNPCB is preparing sector wise document report for 23 sectors. This report will be ready in 2 months. The report will contain complete details on the new cleaner technology options, latest developments in pollution control technologies at the national and international level, pollution discharge standards, etc, for each sector.

5.0 COMMON EFFLUENT TREATMENT PLANTS

The TNPCB plays an important role in the establishment of Common Effluent Treatment Plants (CETPs) for clusters of small-scale industries in various parts of the State. Small-scale industries often express financial difficulties, lack of space and other reasons, which prevent them from putting up individual effluent treatment plants. The Board assists the units in mobilization of financial resources and in the technical scrutiny of the proposals for the establishment of common effluent treatment plants.

STATUS OF COMMON EFFLUENT TREATMENT PLANTS (CETP)

Common effluent treatment plants have been formulated in the following sectors:-

Tanneries	21 Schemes
Textile Bleaching & Dyeing Units	30 Schemes
Hotels & Lodges	1 Scheme

Out of these 52 CETPs formulated, 14 CETP schemes for tanneries, 19 CETP schemes for textile dyeing units and 1 CETP scheme for hotels and lodges are under operation. In addition, 7 CETP schemes for tanneries and 11 CETP schemes for textile dyeing units are under various stages of implementation.

6.0 WASTE MANAGEMENT

6.1 MANAGEMENT OF HAZARDOUS WASTE

The TNPCB is taking effective steps in handling and management of hazardous chemicals and treatment and disposal of hazardous wastes in an environmentally safe manner. The Board has identified and listed out 2532 units generating hazardous wastes under the Hazardous Wastes (Management and Handling) Rules, 1989 as amended in 2000 and 2003 as on 31.3.2009. These units are being subject to strict supervision. The Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 have been notified by the Ministry of Environment and Forest, Government of India on 24.9.2008. A common hazardous waste treatment storage and disposal facility (TSDF) is established at SIPCOT industrial estate, Gummidipoondi and it has commenced its operations. The federation of common effluent treatment plants, Tiruppur, has identified a site at Nallur village, Karupagoundarpalayam, Tiruppur taluk, Coimbatore district and the federation of CETPs & ETPs in Karur have identified a site at Mathagiri village, Krishnarayapuram taluk, Karur district for establishing a secure landfill facility for disposal of sludge generated from treatment of textile dyeing effluents. EIA studies and public hearing of the site have been completed. Work will be undertaken after obtaining local body clearance in the above two sites. To adopt recycling and reuse principles, cement industries are encouraged to utilize the sludge from CETPs as raw materials and a trial run is under process in Chettinad Cements at Puliyur. Similarly, the cement industries such as A.C.C, Madukarai and Grasim Industries, are conducting trial runs for utilizing paint sludge, tar waste, ETP sludge as incineration material. The Board has also issued authorization in this regard.

Moreover, action will be taken to establish a common hazardous waste treatment storage and disposal facility at SIPCOT, Perundurai, Erode District.

6.2 MANAGEMENT OF BIOMEDICAL WASTE

Government of India has notified the Biomedical Waste (Management and Handling) Rules 1998 as amended in 2000 under Environment (Protection) Act, 1986. As per the notification, biomedical wastes are to be segregated and disposed in an approved manner through a biomedical waste treatment and disposal facility. The Board has so far listed out 2479 private hospitals and 317 Government hospitals in the State for which biomedical waste treatment is necessary. Sites for 11 common facilities for bio-medical waste treatment and disposal have been identified for the private sector health care units in the State and all the 11 common facilities are under operation. To evaluate the performance of common bio-medical waste treatment and disposal facility, a monitoring team with District Environmental Engineers and Assistant Engineers has been formed.

Tamil Nadu Government have issued G.O. (4D) No.10, Health & Family Welfare(EAP 1/1)Department, dt.28.09.2007 for implementation of health care waste management in 29 District Headquarters Hospitals and 241 Sub District Hospitals, 41 Tertiary Care Hospitals, 130 upgraded Primary Health Centres and 8 ESI Hospitals in Tamilnadu. The Government Hospitals have joined the common bio medical waste treatment facility for safe disposal of bio medical waste.

6.3 MANAGEMENT OF MUNICIPAL SOLID WASTE

With increasing urbanization and rising levels of municipal solid wastes generation, there is an urgent need to evolve scientific approaches for the

management of municipal solid wastes. The Board is advocating the concept of segregation of wastes at source, reduction, recycle and reuse of waste. The Board has issued NOC to 109 Municipalities and one Corporation for composting of municipal solid waste and setting up waste processing facility. NOCs issued for 63 Municipalities have been converted as authorization. In the year 2007-2008 Board has granted a total sum of Rupees one crore for 8 Municipalities for implementation of solid waste management. A monitoring team headed by an Environmental Engineer has been formed to assess the present status of implementation of Municipal Solid Waste Rules, 2000. The team will furnish a report on the present status along with its recommendations.

6.4 MANAGEMENT OF PLASTIC WASTE

The environmental problems arising due to the indiscriminate use and disposal of throwaway plastic items is well known. The use of throwaway plastics has increased among the public which ultimately mix with municipal solid waste and cause environmental nuisance due to the non-biodegradable nature of plastics. In order to control and regulate the above, Tamilnadu Pollution Control Board is implementing the Plastic (Manufacture, Sale and Usage) Rules. As per the above Rules, the minimum thickness of carry bags manufactured shall be more than 20 microns.

Further, Tamilnadu Pollution Control Board will prepare a report during this financial year which will contain the inventories of the plastic recycling units and to formulate the methods for effectively implementing the Plastic (Manufacture, Sale and Usage) Rules.

6. 5 MANAGEMENT OF E- WASTE

TNPCB has taken several initiatives in the management of E-waste generated in Tamilnadu. A committee consisting of professors of Anna University, representatives of NGOs, an expert from National Metallurgical Laboratory has been formed towards the management of E-Waste generated in Tamilnadu. A workshop on E-waste was held to create awareness among the stakeholders. TNPCB has issued consent to 12 E-waste recyclers for segregation and recovery of PCB, IC, Iron Copper, Rubber, Glass etc., PCB/IC wastes are exported to foreign countries such as USA, Singapore and Malaysia to recover the heavy metal present in the said wastes. Other wastes are sent to authorized industries in the country for recycling them.

7. 0 MONITORING OF AIR & WATER QUALITY

7.1 AIR QUALITY MONITORING

With the increased industrial activities and vehicular pollution in the vicinity of major cities, the quality of the ambient air is affected. As per the Air (Prevention and Control of Pollution) Act, 1981, the entire State of Tamilnadu has been declared as air pollution control area. The Board is monitoring the ambient air quality in Chennai (3 stations), Coimbatore (3 stations), Thoothukudi (3 stations), Madurai (3 stations) and Salem (1 station) under the National Air Quality Monitoring Programme (NAMP). This monitoring programme is conducted with the financial assistance of Central Pollution Control Board. In addition to that, the Board has established 5 ambient air quality monitoring stations in Chennai City and 5 in Thiruchirapalli. These stations are monitoring the ambient air quality in thickly populated residential, commercial zones of these Cities. Besides these, TNPCB is also monitoring the Air Quality level in major cities / towns in Tamilnadu during the festival seasons like Deepavali & Bhogi. To strengthen the Air Quality Monitoring the Board has procured 5 Carbon

monoxide analyzer at a cost of Rs.25 lakhs to monitor Carbon monoxide level in the industrial and traffic prone areas. Further Board has also proposed to procure 5 Ozone monitor to measure the ground level ozone in industrial and commercial areas in Chennai, Coimbatore and Cuddalore.

7.2 VEHICLE EMISSION MONITORING

The TNPCB has established 3 vehicle emission monitoring stations one at Madhavaram and two at Ambattur and testing the emissions from goods carriages. The vehicles which do not satisfy the emission norms are instructed to rectify the defects to bring the emissions within the standards Pollution Under Control Certificate (PUC) are issued only after this is fulfilled. To test and issue PUC for vehicles other than Goods carriages 75 private emission testing stations were authorized by the Transport Department in Chennai City.

7.3 WATER QUALITY MONITORING

The basic objective of the Water (Prevention and Control of Pollution) Act, 1974 is to protect the quality of water resources. To ensure this objective, regular monitoring of water quality is required. The TNPCB is monitoring the Cauvery river water quality at 16 locations under Monitoring of Indian National Aquatic Resources (MINARS) programme and 4 locations under the Global Environmental Monitoring System (GEMS). Apart from this under MINARS programme, the rivers Thamiraparani, Palar and Vaigai and lakes such as Udhgamandalam lake, Kodaikanal lake and Yercaud lake are being monitored. In addition, TNPC Board is undertaking River Stretch Pollution studies for Cauvery, Thamiraparani, Palar and Vaigai rivers in association with reputed universities and educational institutions.

7.3.1 RIVER CAUVERY

Samples were collected from 20 stations and analysed. In general, the water quality is categorized for the designated best use of outdoor bathing, drinking water source with conventional treatment followed by disinfection and also for fish culture and wild life propagation.

7.3.2 THAMIRAPARANI RIVER

Samples were collected from 7 stations and analysed. The water quality of the river Thamirabarani is categorized for the designated best use of outdoor bathing, drinking water source with conventional treatment followed by disinfection.

7.3.3 PALAR RIVER

The water quality of the Palar river is being monitored by collecting the samples from the collection well of Vaniyambadi Municipal head works. The water quality of the infiltration well is categorized for the designated best use of out door bathing, drinking water source with conventional treatment followed by disinfection.

7.3.4 VAIGAI RIVER

The water quality of the Vaigai river is being monitored by collecting the samples from the collection well of Thirubuvanam head works. The water quality of the infiltration well is categorized for the designated best use of outdoor bathing, drinking water source with conventional treatment followed by disinfection.

7.3.5 LAKES

The water quality of the Udhagamandalam, Kodaikanal and Yercaud lakes are being monitored and are categorized for the designated best use of drinking water with conventional treatment followed by disinfection and fish culture and wild life propagation.

7.4 MONITORING OF CHENNAI WATER WAYS

Water ways of Adyar, Cooum, Buckingham Canal and Otteri Nullah are being monitored at 34 river stations and 24 industrial outlets.

8.0. OTHER ACTIVITIES OF THE BOARD

8.1 ENVIRONMENTAL TRAINING INSTITUTE

Environmental Training Institute **(**ETI) located at the Head Office is an organizational wing of TNPCB established in 1994. The main objective of the training institute is to impart training to staff of the Pollution Control Board, representatives of Industry and non-governmental organizations. During the year 2008-09, the Environmental Training Institute has conducted 14 training programmes, in which 611 participants have been trained as on 31.3.09.

8.2 ENVIRONMENTAL AWARENESS AND PUBLIC PARTICIPATION

An Awareness Cell is established in the head office, Chennai to promote environmental awareness. To highlight important environmental issues such as the noise and air pollution caused due to bursting of crackers during festival, air pollution caused due to burning of old materials during Bhogi, pollution due to vehicular emission, protection of ozone layer, municipal solid waste management, road safety, rain water harvesting, various awareness campaigns, workshops, rallies are being

conducted regularly. During 2008-09, this cell has carried out 46 awareness activities and has displayed environmental awareness display boards inside 409 government buses.

8.3 SPATIAL ENVIRONMENTAL PLANNING

The Spatial Environmental Planning Unit of Tamilnadu Pollution Control Board has taken up the Geographic Information System based Spatial Environmental Planning (SEP) activities with the technical and financial support of Central Pollution Control Board (CPCB) for better Environment Management from the year 2000 – 2001. These SEP activities include the preparation of District Environmental Atlas, State Environmental Atlas, Environmental Management Plan etc.,

So far the Board has prepared District Environmental Atlas for Coimbatore, Vellore, Thoothukudi, Thiruvallur, Kancheepuram, Villupuram, Cuddalore, Erode, Salem, Karur, Madurai, Namakkal, and Trichy districts and Environmental Management Plan for Chennai City.

Presently as per B.P.Ms.No.44 dated 19.11.2008, as the current year activities of Spatial Environmental Planning, the project on Preparation of District Environmental Atlas for Tirunelveli, Virudhunagar and Dindigul districts is under progress.

8.4 GREEN COVER PROGRAMME

As a measure to mitigate pollution, industries have been directed to develop 25% of the land area as a green belt with trees having a thick canopy cover. Accordingly, industries have taken action to plant adequate number of trees in and around the industrial premises. As per the announcement made in the State

Assembly during 2008-09, TNPC Board has also sanctioned a sum of Rs 1.5 crores to the Forest Department for green belt development to prevent pollution and implement a clean development mechanism in corporation and sub-urban areas joining 6 corporations. Also TNPCB has sanctioned Rs. 1.05 crores for green belt development in all the districts of Tamilnadu.

8.5 CLEANER TECHNOLOGIES

The TNPCB is involved in promoting a holistic approach of environment protection by cleaner technology options more than mere end-of-pipe treatment. With active support and encouragement from the Board, the industrial units in Tamilnadu have switched over to cleaner technologies such as adoption of membrane cell instead of mercury cell in caustic soda manufacturing, adoption of dry process instead of wet process to reduce air pollution in cement factories, utilization of 25 to 30% of fly ash in PPC cement manufacturing, adoption of double conversion and double absorption technology in sulphuric acid manufacturing, gas carburizing instead of cyanide salt in heat treatment and cyanide free electroplating. Pulp and paper industries are encouraged to go in for elemental chlorine free bleaching to reduce the formation of organo-chlorides including dioxins. Industries consuming ozone-depleting substances are systematically changing to environment friendly compounds.

8.6 LIBRARY

The TNPC Board Library was established during the year 1989. At present, it has a collection of about 10,301 books and reports. The Library subscribes to 79

Journals (English & Tamil), 9 Newspapers and 13 Magazines related to environment. Membership is open to all those involved in environmental concerns.

8.7 NEWS LETTER

TNPCB is publishing a news letter on quarterly basis, containing the news about the activities of the Board, environmental issues in various districts, poetry and essays on environmental issues etc. This news letter is widely circulated to Government departments, District Collectors and all State Pollution Control Boards.

9.0 INSTITUTIONAL STRENGTHENING AND CAPACITY BUILDING

In order to develop the infrastructure facilities of the Board, apart from the Corporate office own building at Guindy, TNPCB has constructed own buildings for district offices at Ambattur, Hosur, Madurai, Trichy, Tirunelveli, Vellore and Chennai. The office building at Thoothukudi has been completed and occupied from February 2009. The office building at Maraimalainagar is nearing completion. Three new district offices at Sriperumbudur, Thiruvallur and Perundurai are functioning from August 2008 as per the announcement made in the last year Budget session.

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