



தமிழ்நாடு மாசு கட்டுப்பாடு வாரியம் Tamilnadu Pollution Control Board

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2003-2004

ANNUAL REPORT

2003 - 2004



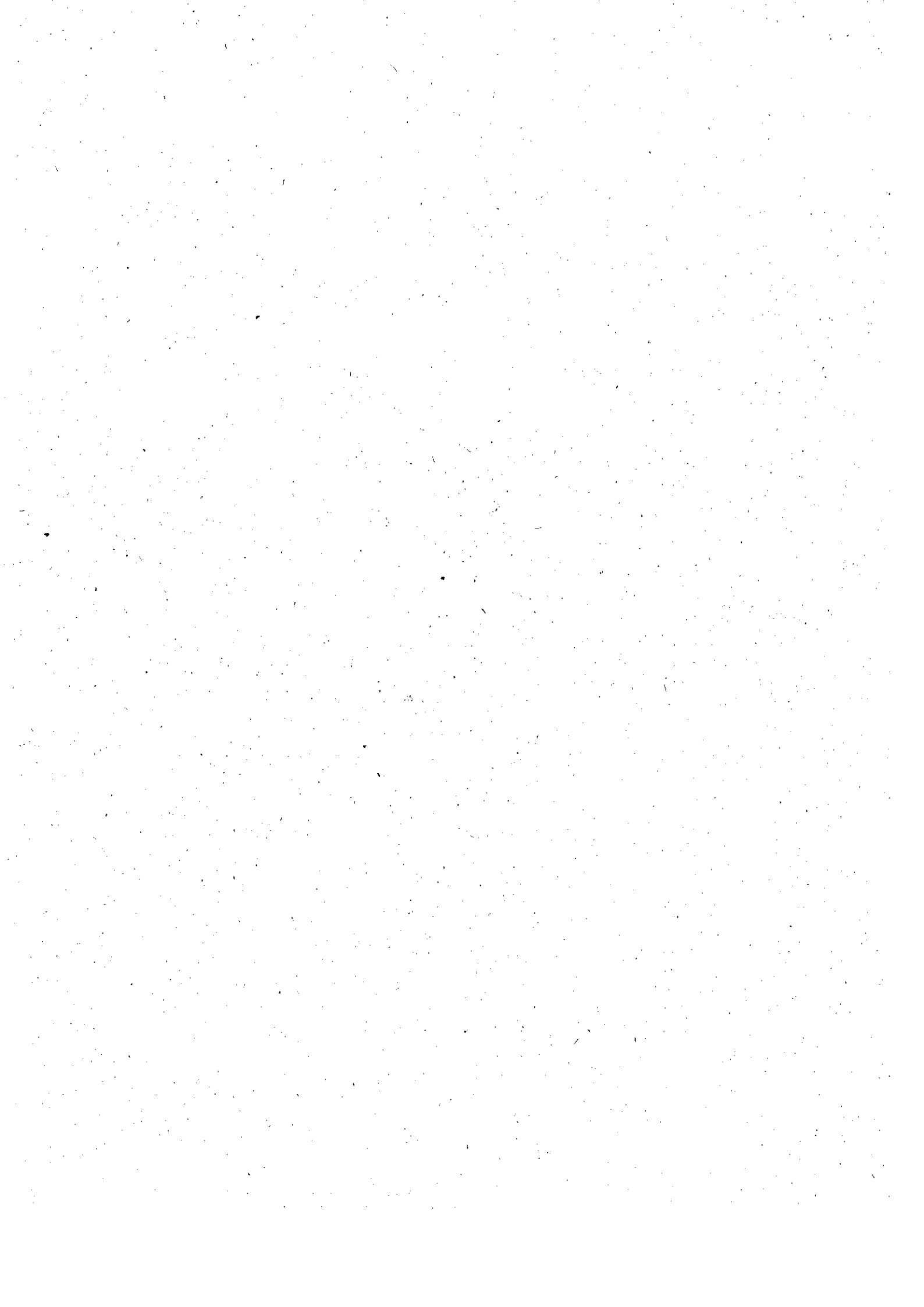
Tamil Nadu Pollution Control Board

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I.I. INTRODUCTION

The Tamil Nadu Prevention and Control of Water Pollution Board was constituted by the Government of Tamil Nadu on twenty seventh day of February, Nineteen eighty two in pursuance of the Water (Prevention and Control of Pollution) Act, 1974 (Central Act. 6 of 1974). The Board was later renamed as Tamil Nadu Pollution Control Board (TNPCB) in the year 1983. It enforces the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Water (Prevention and Control of Pollution) Cess Act, 1977, the Air (Prevention and Control of Pollution) Act, 1981, and the rules made under the Environment (Protection) Act, 1986 which includes

- The Environment (Protection) Rules, 1986
- The Hazardous Wastes (Management and Handling) Rules, 1989 as amended in 2000 and 2003
- The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 as amended in 1994 and 2000
- The Biomedical Waste (Management and Handling) Rules, 1998 as amended in 2000 and 2003
- The Plastics Manufacture, Sale and Usage Rules, 1999 as amended in 2003
- The Noise Pollution (Regulation and Control) Rules, 2000
- The Municipal Solid Wastes (Management and Handling) Rules, 2000
- The Batteries (Management and Handling) Rules, 2001

I.2. FUNCTIONS

The main functions of the TNPCB under the provisions of the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981 are as follows:

- To plan a comprehensive programme for the prevention, control and abatement of water and air pollution.
- To advise the State Government on any matter concerning the prevention, control or abatement of water and air pollution.
- To encourage, conduct and participate in investigations and research relating to problems of water, land and air pollution and the prevention, control or abatement thereof.
- To collect and disseminate information relating to water and air pollution and the prevention, control or abatement thereof.
- To inspect sewage and trade effluent treatment plants for their effectiveness and review plans, specifications for corrective measures.
- To inspect industrial plants or manufacturing process, any control equipment and to give directions to take steps for the prevention, control or abatement of air pollution.
- To inspect air pollution control areas for the purpose of assessment of quality of air therein and to take steps for the prevention, control or abatement of air pollution in such areas.
- To lay down, modify or annul effluent standards for the sewage and trade effluents and for the emission of air pollutants into the atmosphere from industrial plants and automobiles or for the discharge of any air pollutant into the atmosphere from any other source.
- To evolve best economically viable treatment technology for sewage and trade effluents.
- To evolve efficient methods of disposal of sewage and trade effluents on land.
- To collect samples of sewage and trade effluents and emissions of air pollutants and to analyze the same for specific parameters.
- To collaborate with Central Pollution Control Board in organizing the training of persons engaged or to be engaged in programmes relating to prevention, control or abatement of water and air pollution and to organise mass education programme relating thereto.
- To perform such other functions as may be prescribed by the State Government or Central Pollution Control Board.

2.1. CONSTITUTION OF TNPCB

The TNPCB is constituted by the State Government. It comprises of Chairperson, 5 officials nominated by the State Government, 5 persons to represent local authorities, 3 non-officials to represent the interests of agriculture, fishery or industry or trade, 2 persons to represent the companies or corporations owned by the State Government and a full time Member Secretary. The constitution of the TNPCB is given in Annexure - I.

2.2. ORGANISATIONAL SET UP

The TNPCB has established its organization structure with a two-tier system consisting of head-office at Chennai and district offices at districts with total staff strength of 726. There are 25 district offices, of which one is headed by Joint Chief Environmental Engineer, 19 are headed by District Environmental Engineers and 5 offices under the control of Assistant Environmental Engineers. The location of district offices are shown in Annexure - II.

The TNPCB has delegated powers to the Chairperson to grant consent to all "Green Site" applications received from new industries pertaining to red category of industries. The Board has delegated powers to Joint Chief Environmental Engineer, District Environmental Engineers and Assistant Environmental Engineers in the district offices to issue consent to establish and consent to operate to new orange and green category of industries and renew consent to orange, green and small red category of industries.

To assist the Board in monitoring the industries, 3 Advanced Environmental Laboratories, 10 District Environmental Laboratories and 1 Mobile Environmental Laboratory are functioning. These laboratories carry out analysis on samples of sewage, trade effluents, emissions and hazardous wastes.

The organization chart of the Board, staff strength and year wise growth of the Board are furnished in Annexure - III, IV and V.

3.1. ENVIRONMENTAL LEGISLATIONS.

The various environmental legislations with which the TNPCB is concerned are given below. Some legislations are implemented directly by the Board and some by other departments of the Government.

- The Water (Prevention and Control of Pollution) Act, 1974 as amended in 1978 & 1988.
- The Tamil Nadu Water (Prevention and Control of Pollution) Rules, 1983.
- The Water (Prevention and Control of Pollution) Cess Act, 1977, as amended in 1991.
- The Water (Prevention and Control of Pollution) Cess Rules, 1978 as amended in 1992.
- The Air (Prevention and Control of Pollution) Act, 1981 as amended in 1987.
- The Tamil Nadu Air (Prevention and Control of Pollution) Rules, 1983.
- The Environment (Protection) Act, 1986.
- The Environment (Protection) Rules, 1986 and its subsequent amendments.
- The Hazardous Wastes (Management and Handling) Rules, 1989 as amended in 2000 & 2003.
- Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 as amended in 1994 & 2000.
- The Manufacture, Use, Import, Export and Storage of Hazardous Micro organisms / Genetically Engineered Organisms or Cells Rules, 1989.
- The Public Liability Insurance Act, 1991 as amended in 1992.
- The Public Liability Insurance Rules, 1991.
- Coastal Regulation Zone Notification, 1991 as amended in 1994, 1997 & 2001.
- The Environment Impact Assessment Notification, 1994 as amended in 1997, 2000 & 2001.
- The National Environment Tribunal Act, 1995.
- The National Environment Appellate Authority Act, 1997.
- The National Environment Appellate Authority (Appeal) Rules, 1997.
- The Bio Medical Waste (Management and Handling) Rules, 1998 as amended in 2000 & 2003.
- Fly Ash Utilization Notification, 1999 as amended in 2003.
- The Plastics Manufacture, Sale and Usage Rules, 1999 as amended in 2003.
- The Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.
- The Municipal Solid Wastes (Management and Handling) Rules, 2000.
- Noise Pollution (Regulation and Control) Rules, 2000.
- Ozone Depleting Substances (Regulation and Control) Rules, 2000.
- The Batteries (Management and Handling) Rules, 2001.

3.2. MONITORING OF INDUSTRIES

With the increasing pace of industrialization in Tamil Nadu, the need for continuous monitoring of pollution due to industrial sources has become significant. Industries are required to provide pollution control measures to meet the standards prescribed by the Board. The field officers of the Board inspect industries under their jurisdiction periodically to assess the adequacy of pollution control measures provided by the industries to treat sewage, trade effluent and emissions and to monitor their performance. They also investigate complaints of pollution received from the public, organizations and the Government. For effective monitoring, Industries are categorized as Red, Orange, and Green according to their pollution potential. Depending upon the category and size, industries are monitored periodically.

3.3. PROCEDURE FOR ISSUE OF CONSENT

Industry requires to obtain consent for discharge of sewage/trade effluent into any stream or well or into sewer or land under the Water (Prevention and Control of Pollution) Act, 1974 and to operate the plant in air pollution control area under the Air (Prevention and Control of Pollution) Act, 1981. The consent is issued to industries in two stages: 'Consent to Establish' is issued depending upon the suitability of the site before the industry takes up the construction activity. 'Consent to Operate' is issued after the installation of suitable and adequate effluent treatment plant and air pollution control measures.

3.4. WATER POLLUTION CONTROL

The Water (Prevention and Control of Pollution) Act, 1974 as amended in 1988 is enacted to prevent and control water pollution and to preserve or maintain or restore the quality of water. As per the provisions of this Act, the local bodies and industries, which discharge sewage /trade effluent are required to apply and obtain the consent from the Board. The industries generating trade effluent are required to provide effluent treatment plant to treat their trade effluent to satisfy the standards prescribed by the Board. Industries are constantly monitored regarding the functioning of their effluent treatment plants and samples of treated sewage/trade effluent are collected regularly to assess the quality of effluent discharged and also to assess the efficiency of the effluent treatment plants provided. During the year 2003-2004, 15,494 samples of sewage and trade effluent from the industries were collected and analysed. The Board has issued 586 'Consent to Establish' orders and 985 'Consent to operate' orders under the Water (Prevention and Control of Pollution) Act, 1974 as amended during the year 2003-2004.

The Water (Prevention and Control of Pollution) Cess Act, 1977, provides for the levy and collection of cess on water consumed by persons carrying on certain industries and by local authorities with a view to augment the water resources and for the prevention and control of water pollution. The Board collects cess from the industries and local bodies and remits to the Ministry of Environment and Forests, Government of India, New Delhi every month. The cess assessed and collected for the financial year 2003-2004 is Rs. 1635.648 lakhs and Rs. 666.757 lakhs respectively. 80% of the cess-collected is reimbursed and utilised for awareness programmes, projects and training programmes.

3.5. AIR POLLUTION CONTROL

The Air (Prevention and Control of Pollution) Act, 1981 as amended in 1987 is enacted to prevent and control air pollution and preserve the air quality. As per the provisions of this Act, the entire State of Tamil Nadu has been declared as an 'Air Pollution Control Area'. Industries, which let out process emissions, are regularly monitored through inspections of the air pollution control measures provided by the units. Ambient air quality survey/ stack emission survey are conducted in and around the industries regularly to assess the quality of the emissions let out and on the basis of the report of analysis, the industries are instructed to carry out necessary corrective and improvement measures. During the year 2003-2004, ambient air quality surveys have been conducted in 687 industries. The Board has issued 584 'Consent to Establish' orders and 925 'Consent to Operate' orders under the Air (Prevention and Control of Pollution) Act, 1981 as amended during the year 2003-2004.

3.6. COMMON EFFLUENT TREATMENT PLANTS

The TNPCB plays an important role in the establishment of Common Effluent Treatment Plants (CETPs) for clusters of small polluting industries in various parts of the State. Small scale industries often express financial difficulties, lack of space and other reasons that prevent them from putting up required effluent treatment plant. Since a large number of these units are in clusters and also in small scale sector, the Board has launched a massive programme of motivating these industries to set up common effluent treatment plants. The Board assists the units in mobilization of financial resources and in the technical scrutiny of the proposals for the common effluent treatment plants.

3.6.1. FINANCIAL PATTERN OF CETP SCHEMES

Subsidy by Central Government	25% of the project cost.
Subsidy by State Government	25% of the project cost.
Beneficiary's Contributions	20% of the project cost by way of share-capital collections.
Financial Institution Loans	Balance by way of loans from the Financial Institutions such as IDBI. (30% of project cost)

3.6.2. STATUS OF COMMON EFFLUENT TREATMENT PLANTS

Common effluent treatment plants are formulated in the following sectors:

Tanneries	24 Schemes
Textile Bleaching & Dyeing Units	25 Schemes
Hotels & Lodges	1 Scheme

Out of 50 CETPs formulated, 33 CETPs are under operation and the remaining is under various stages of implementation. So far 14 CETP schemes for tanneries, 18 CETP schemes for textile dyeing units and 1 CETP scheme for hotels and lodges are under operation. 10 CETP schemes for tanneries and 2 CETP schemes for textile dyeing units are under various stages of implementation. Further, 5 CETP schemes for textile dyeing units are under initial stages of implementation. Details of common effluent treatment plant schemes and the subsidies so far received for the CETP schemes from the State and Central Government are furnished in the Annexure VI and VII.

3.7. MANAGEMENT OF HAZARDOUS WASTES AND CHEMICALS

The TNPCB is taking effective steps for handling and management of hazardous chemicals and treatment and disposal of hazardous wastes in an environmentally safe manner. The Board has identified 2117 units generating hazardous wastes for which 2000 authorization under the Hazardous Wastes(Management and Handling)Rules, 1989 as amended in 2000 and 2003 have been issued.

Industries located in Chennai, Kancheepuram and Thiruvallur districts have formed the Industrial Waste Management Association for establishing a common hazardous waste treatment, storage and disposal facility through a private operator. The site at Melakottaiyur Village, Chengalpattu Taluk, Kancheepuram district has been identified as a site for

establishing this facility. EIA study of the site has been completed. Public hearing for the proposed site has been planned during June 2004.

Besides, the Federation of common effluent treatment plants, Tiruppur has identified a site at Nallur village, Karupagoundarpalayam, Tiruppur taluk, Coimbatore district. Environmental Impact Assessment of the site has been completed. Public hearing of the site has been completed. The federation of CETPs 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.

3.8. MANAGEMENT OF BIOMEDICAL WASTE

The Biomedical Waste (Management & Handling) Rules, 1998 as amended applies to all persons who generate, collect, receive, store, transport, treat, dispose or handle biomedical waste in any form. As per the rule, authorisation is required for handling of biomedical wastes. It is the duty of the occupier of an institution generating the biomedical waste to take all steps to ensure that biomedical waste is handled without any adverse effect to human health and environment. Biomedical waste shall be treated and disposed in accordance with schedule I and in compliance with the standards prescribed in schedule-V of the said rules.

The Board has so far inventorised 1835 private hospitals, 317 Government hospitals in the State. All the health care facilities have been directed to go for common biomedical waste treatment and disposal facilities having autoclave, shredder, compactor, incinerator for anatomical waste and secure landfill facility. Site for 10 common facilities have been identified for the private sector health care units in the State at Thenmelpakkam village and Chennakuppam village in Kancheepuram district, Kandipedu village in Vellore district, T.Pudaiyur village in Cuddalore district, Orattukuppai village in Coimbatore district, Sengipatti village in Thanjavur district, Muthuvayal village in Ramanathapuram district, Coonoor in The Nilgiris district, Karandaneri village in Tirunelveli district and Thangayur village in Salem district.

In respect of biomedical wastes generated from Government hospitals, separate facilities are being envisaged in municipal corporations. For smaller towns 'on site' autoclaving and deep burial has to be done.

Two common facilities at Thenmelpakkam village and Chennakuppam village in Kancheepuram district are now under operation. The authorization for the other four facilities at Orattukuppai, Coonoor, Sengipatti and Kandipedu have been issued.

3.9. MANAGEMENT OF MUNICIPAL SOLID WASTES

With increasing urbanization and rising levels of municipal solid wastes generation, there is an urgent need to evolve scientific approaches to the management of municipal solid wastes. The Municipal Solid Wastes (Management and Handling) Rules, 2000 has been enacted for proper management of municipal solid wastes. Commissioners of corporations and municipalities and Executive officers of town panchayats have been addressed to comply with the implementation schedule prescribed in Schedule I of the rules. The Board is advocating the concept of segregation of wastes at source, reduction, recycle and reuse of waste. Municipal authorities have been asked to segregate the wastes as wet compostable waste, dry recyclable waste, inert wastes, construction debris and domestic hazardous waste.

Tiruppur municipality has started segregation of waste at source. A private agency has established a facility for composting the segregated waste of Tiruppur municipality. Further all the municipalities have started segregation of waste at source in some wards. The Board has issued NOC to 32 municipalities and one corporation for composting of municipal solid waste. A project on drawing up feasibility studies on solid waste management for the local bodies of Udhamandalam, Kodaikkanal, Palani, Thiruchendur, Kanyakumari, Rameswaram, Mamalapuram and Kuttralam which are all pilgrim/tourist centres, has been taken up at the cost of Rs 23.60 lakhs.

3.10. MANAGEMENT OF PLASTIC WASTES

The environmental problems arising due to indiscriminate use and disposal of throwaway plastic items have been recognized and the Board has embarked upon an intensive awareness campaign. The awareness campaign has focused on preventing the use of throw away plastic as well as eco friendly substitutes to plastic items. Billboards educating the people about the ill effects of throwaway plastics were displayed on MTC buses in Chennai. Besides, regular awareness programmes are conducted in schools, tourist and pilgrimage centres. Training has been imparted to self help groups for production of palm leaf plates and cups in Salem, Vellore and Cuddalore districts through the Central Palmgur and Palm Products institute of Village Industries Commission. The products are eco friendly alternatives to throw away plastics items like cups, plates, etc. The Nilgiris district, Hogenakkal, Kodaikannal, Rameshwaram, Valparai, Yelagiri, Yercaud and Thirmoorthy falls, etc., have been declared as throw away plastic free zones.

The Government of India, Ministry of Environment and Forests notified the Plastics Manufacture, Sale and Usage Rules, 1999 as amended in 2003 under the Environment (Protection) Act, 1986 to ensure that carry bags and containers used for packing food stuff

is not made of recycled plastics. As per the provision of the said rules, only virgin plastics, permitted additives and colour are to be used in plastic items used for packaging foodstuff. All District Collectors, local bodies, Commissioner of Police, Special Commissioner and Commissioner of Civil Supplies have been addressed to ensure compliance with the provisions of the said rules.

MONITORING NETWORK FOR AIR AND WATER QUALITY

4.1. AIR QUALITY MONITORING

With the increased industrial and commercial activities in the vicinity of major cities, the ambient air quality is affected by emissions from the industries and from the ever increasing vehicular population. As per the provisions of the Air (Prevention and Control of Pollution) Act, 1981, the entire State of Tamil Nadu has been declared as an 'Air Pollution Control Area'.

4.1.1. AMBIENT AIR QUALITY MONITORING IN CHENNAI CITY

The TNPCB is operating eight ambient air quality monitoring stations in Chennai under two monitoring programmes.

- National Air Quality Monitoring Programme (NAMP)
- Chennai Ambient Air Quality Monitoring Programme (CAAQM)

Under the NAMP, three ambient air quality monitoring stations are functioning on 24 hours basis, twice a week. The samples collected from the NAMP stations are analysed for the total suspended particulate matter (TSPM), respirable suspended particulate matter (RSPM) {RSPM is particulate matter less than 10 microns} and gaseous pollutants such as sulphur dioxide (SO_2) and oxides of nitrogen (NO_x).

Under the CAAQM, Tamil Nadu Pollution Control Board is operating five monitoring stations on 24 hours basis in all working days. The pollutants measured in the CAAQM stations are SO_2 , NO_x , TSPM, RSPM and lead (Pb) in all stations.

The eight ambient air quality monitoring stations in Chennai are: -

- | | | |
|-------------------------------|---|--------------------------------------|
| 1. Kathivakkam (NAMP) | - | Industrial area |
| 2. Manali (NAMP) | - | Industrial area |
| 3. Thiruvottriyur (NAMP) | - | Commercial and industrial mixed area |
| 4. Kilpauk (CAAQM) | - | Commercial (traffic inter-section) |
| 5. Thiyagarayar Nager (CAAQM) | - | Commercial (traffic inter-section) |
| 6. Vallalar Nagar (CAAQM) | - | Commercial (traffic inter-section) |
| 7. Anna Nager (CAAQM) | - | Residential area |
| 8. Adyar (CAAQM) | - | Residential area |

The air quality data collected under the NAMP during the year 2003-2004 indicates that the analysed parameters are found to be well controlled in the industrial area due to the effective monitoring of industrial emissions by the Board. The average values of pollutants recorded under the NAMP during the year 2003-2004 are given in Annexure - VIII A.

In Chennai city, the air pollutants such as sulphur dioxide, oxides of nitrogen and lead are found well within the standards at all the monitoring stations. But, the levels of other parameters TSPM and RSPM have exceeded the permissible limit. This could be mainly due to the resuspension of traffic dust generated from automobile emissions and the heavy vehicular traffic and pedestrians movement. The average values of pollutants recorded under the CAAQM during the year 2003-2004 are given in Annexure - VIII B.

4.1.2. AMBIENT AIR QUALITY MONITORING IN THOOTHUKUDI, COIMBATORE, SALEM, MADURAI AND TRICHY.

At Thoothukudi, the ambient air quality stations are functioning from the year 1988 in the following locations.

- | | | |
|-----------------------|---|-----------------|
| (a) Raja Agencies | - | Industrial zone |
| (b) Fisheries College | - | Industrial zone |
| (c) A.V.M Building | - | Mixed zone |

At Coimbatore, the ambient air quality stations are functioning from the year 1991 in the following locations.

- | | | |
|----------------------------------|---|------------------|
| (a) Collectorate Office Building | - | Mixed zone |
| (b) Ponniyarajapuram | - | Residential zone |
| (c) SIDCO Building | - | Industrial zone |

At Salem, the ambient air quality station is functioning from July 1996 in the following location.

- | | | |
|------------------------|---|------------|
| (a) Sowdeswari College | - | Mixed zone |
|------------------------|---|------------|

At Madurai, the ambient air quality stations are functioning from July 1996 in the following locations.

- | | | |
|---------------------------------|---|------------------|
| (a) Highway Project building | - | Residential zone |
| (b) Fenner India Ltd., Building | - | Industrial zone |
| (c) Kunnathur Chatram | - | Mixed zone |

At Trichy, the ambient air quality monitoring stations are functioning from 1997 under TAAQM on 24 hours basis in all working days in the following locations.

(a) Gandhi Market	-	Commercial area
(b) Main Guard Gate	-	Commercial area (Traffic intersection)
(c) Bishop Heber College	-	Mixed area
(d) Golden Rock	-	Residential area
(e) Central Bus Stand	-	Commercial area (Traffic intersection)

The ambient air quality data recorded during the year 2003-2004 indicates that the parameters such as sulphur dioxide, oxides of nitrogen, total suspended particulate matter and respirable suspended particulate matter are found to be well controlled at Thoothukudi, Coimbatore and Salem. At Kunnathur Chatram, Madurai the annual average values of TSPM, RSPM are found to exceed the permissible limits due to heavy commercial activities and traffic flow. The annual average values of pollutants recorded during the year 2003 -2004 are given in Annexure - VIII A.

The ambient air quality data collected from the TAAQM stations in Trichy indicates that the average concentration of SO₂ and NO_x values are found well within the prescribed standard and the RSPM and TSPM values are exceeding the standard prescribed by the Board. This could be attributed due to the increase in number of vehicles and the surface dust generated by vehicular movement but also due to the digging and laying activities for pipe lines, electrical cables and telephone cables. The annual average values of pollutants recorded during the year 2003 -2004 is given in Annexure VIII C.

4.2. VEHICULAR EMISSION MONITORING

4.2.1. VEHICLE EMISSION MONITORING IN AND AROUND CHENNAI CITY

The TNPCB is carrying out the vehicle emission monitoring since 1992 for testing the emissions from goods transport vehicles in and around Chennai city in three locations at Alandur, Vyasarpadi and Ambattur. During the year 2003-2004, 30,198 vehicles were tested. Among the total vehicles tested, 7021 vehicles did not comply with the emission standards during the first test. Vehicles that do not comply with the emission standards are instructed to carry out corrective measures to comply with the emission standards and then only emission under control certificates are issued. In addition, 120 private agencies have been authorised by the Transport Department in Chennai urban agglomeration area to check the emission levels of the vehicles.

4.2.2. VEHICLE EMISSION MONITORING IN THE DISTRICTS

The TNPCB is operating vehicle emission monitoring stations at Udthagamandalam and Katteri in Nilgiris district, at Dindigul and Palani in Dindigul district and at Chengalpattu in Kancheepuram district for testing and issuing emission under control certificates for transport vehicles. In these stations, a total number of 21200 vehicles were tested. Among them, 6185 vehicles did not comply with emission standards during the first test. The details of vehicles tested and number of vehicles, which have not complied with the standards, are shown in Annexure - VIII D.

4.2.3. MEASURES TAKEN TO REDUCE VEHICLE EMISSION

Emission check is made mandatory for all vehicles in Chennai city from 1.1.1998 and for cities like Coimbatore, Madurai, Salem and Trichy from the year 2000 onwards. Emission checking programme has been extended to other cities/towns of Tamil Nadu. For controlling vehicular emission, cleaner fuel like unleaded petrol, petrol with 3% benzene and low sulphur fuel (0.05%) have been introduced in Chennai Metropolitan area. Passenger cars complying with Bharat stage-II norms alone are registered in Chennai since July 2001. Action is being taken to introduce LPG as a cleaner fuel especially for autorickshaws. Eight LPG stations have been commissioned at Koyambedu, Guindy, Avadi, Mogappair, Kilpauk, Ambattur, M.K.B. Nagar and Walltax Road. Joint emission check up programme is carried out to improve maintenance of vehicles and reduce vehicular emission in co-ordination with the Transport Department. The Board in coordination with MTC has jointly established six emission testing centres at MTC depots located at Alandur, Anna Nagar, Adyar, Vadapalani, Ayanavaram and Tondaiarpur for testing emissions of MTC vehicles and issue of emission under control certification to those vehicles that are complied with emission standards.

4.3. WATER QUALITY MONITORING

The basic objective of the Water (Prevention and Control of Pollution) Act, 1974 is to maintain and restore the wholesomeness of water. To ensure this objective, regular monitoring of water quality is required. The TNPCB is monitoring the inland water quality under two major programmes namely.

- Monitoring of Indian National Aquatic Resources System (MINARS).
- Global Environmental Monitoring System (GEMS).

4.3.I. MONITORING OF WATER QUALITY UNDER MINARS & GEMS

Under the MINARS, the water quality of Thamiraparani, Palar and Vaigai rivers and lakes such as Uthagamandalam lake, Kodaikanal lake and Yercaud lake are being monitored. The water quality of river Cauvery is being monitored under the GEMS and MINARS. The programmes are funded by the Central Pollution Control Board, New Delhi.

4.3.1.1. CAUVERY RIVER

The Cauvery river is a major river in the State, which drains more than one third of the State. This river has been identified as a major river for studying the impact of pollution caused by various activities of domestic and industrial sectors.

The quality of river water is being monitored at 20 places along the river under GEMS (4 stations) and MINARS (16 stations). These places have been selected on the basis of the location of outlets for the discharge of industrial effluents and domestic wastes.

The physico-chemical and biological parameters are analysed at each of the monitoring stations. Sampling is done on monthly basis and analysis is done at the Advanced Environmental Laboratory, Salem. The mean values of water quality are furnished in Annexure IX A & B.

The water quality data reveals that the analysed parameters at sampling locations meets the standards prescribed for surface water quality under class 'C' (Designated best use for the drinking water source with conventional treatment followed by disinfection) except two locations.

Pollution abatement proposals for five stretches of the Cauvery river namely Tiruchirapalli, Erode, Bhavani, Pallipalayam and Komarapalaym as prepared by the Board are under various stages of implementation by the Tamil Nadu Water Supply and Drainage Board and by the concerned local bodies under the National River Action Plan. The implementation of the work is being coordinated by the Director of Environment, Chennai.

4.3.1.2. THAMIRAPARANI RIVER

The water quality of the Thamiraparani river is being monitored on a monthly basis at seven stations. The physico-chemical parameters and biological parameters are analysed in the District Environmental Laboratory at Tirunelveli and the details are given in Annexure -IX C. The parameters analysed meet the standards prescribed for surface water quality under class 'C'.

4.3.1.3. PALAR RIVER

In Palar river, the water quality is being monitored at municipal head works, Vaniyambadi. Sampling is done on every month and analysis is done at the Advanced Environmental Laboratory at Chennai for physico-chemical and bacteriological parameters and furnished in Annexure - IX

D. The analysed data revealed that the water quality of the river at the sample point meets the standards prescribed for surface water quality under class 'C'.

4.3.1.4. VAIGAI RIVER

The water quality of the Vaigai river is being monitored by collecting samples once in six months from the collection well of Thirubuvanam head works and analysed at Advanced Environmental Laboratory, Madurai for physico - chemical and bacteriological parameters. The water quality details are given in Annexure - IX D.

4.3.1.5. LAKES

Under the MINARS, three important lakes of Tamil Nadu at Udhamandalam, Kodaikanal and Yercaud have been identified and monitored by collecting samples once in three months. The mean values of water quality are furnished in Annexure - IX E.

The total coliform, bio chemical oxygen demand and faecal coliform in Udhamandalam lake are found to exceed the standards prescribed for. This could be due to the surface run off and sillage into the lake either directly or indirectly. A scheme for bio remediation of the lake water in Udhamandalam and Kodaikanal and sewerage scheme for Kodaikanal has been taken up with the assistance of Government of India under the coordination of the Director of Environment, Chennai.

4.4. MONITORING OF CHENNAI CITY WATERWAYS

The TNPCB is monitoring the Chennai city waterways namely the Cooum, Adyar, Buckingham Canal and Otteri Nullah to assess the level of pollution by collecting water samples every month both at water bodies and at industrial outlets as detailed below.

Sl.No.	Chennai city water ways	No. of sampling points	
		River	Industrial Outlets
1.	Adyar	5	9
2.	Cooum	11	5
3.	Buckingham canal	10	13
4.	Otteri Nullah	8	6

During the year 2003-2004, 1109 samples were collected and analysed at the Advanced Environmental Laboratory, Chennai.

In general, Chennai city waterways are contaminated by various organic and inorganic pollutants received from domestic, industrial and other man-made activities. The level of contamination of the pollutants is relatively high in Buckingham canal followed by Otteri Nullah, Cooum river and Adyar river. The Government of Tamil Nadu has launched a major scheme called 'Chennai City Rivers Conservation Project' with an estimated cost of Rs. 1700 Crores. For this project, the Ministry of Environment and Forests, Government of India has accorded approval for Rs. 491.52 crores under the National River Conservation Plan. Under the project various works related to macro drainage network, micro drainage network, interception, diversion and treatment of sewage and relocation of slums have been taken up by the respective department viz. Tamil Nadu Public Works Department, Chennai, Municipal Corporation, Chennai, Metropolitan Water Supply and Sewerage Board and Tamil Nadu Slum Clearance Board.

4.5. MONITORING OF 17 CATEGORIES OF HIGHLY POLLUTING INDUSTRIES

The TNPCB has special monitoring cell at its head office, Chennai to monitor the 17 categories of highly polluting industries, specified by Government of India. In Tamilnadu, 191 large and medium industries have been identified under 17 categories of highly polluting industries and these industries are being closely monitored. The details to highly polluting industries are given in Annexure - X.

4.6. OZONE MONITORING CELL

Ozone Monitoring Cell has been established in the head office, Chennai as per G.O. Ms. No. 212 dated 29.6.95. The main objectives are:

- To Survey, identify and to have an inventory of the industries in the State, producing or consuming Ozone Depleting Substances (ODS).
- Estimate the present demand and make future projections.
- Study the scope of the application of environmental friendly substitutes.
- Commit to phase-out Ozone Depleting Substances by the year 2010 for essential uses as agreed to by all the countries.

The Board has conducted a detailed survey of industries in the State producing or consuming ozone depleting substances. From the survey, 55 industries in the State have been identified to consume ozone depleting substances. Whenever the new industries approach the Board for consent, the consent orders are being issued with a condition that they should not use the ODS. The identified industries have been suggested on the adoption of alternatives with zero ODS depending on the controlled substance used. Government of Tamil Nadu in G.O Ms

No 232 E&F(EC2) Dept dated 30.12.2002 have formed a standing committee for the implementation of Montreal protocol for phasing out ODS.

4.7. LABORATORIES

The TNPCB has established 3 Advanced Environmental Laboratories, 10 District Environmental Laboratories and 1 Mobile Environmental Laboratory under section 17(2) of the Water (Prevention and Control of Pollution) Act, 1974, as amended in 1978 and in 1988 to assist in the monitoring of industries. Samples of effluents and emissions from industries are collected periodically and analysed. The details of samples analysed during the year 2003-2004 in laboratory wise are shown at Annexure - XI, XII & XIII.

ENVIRONMENTAL STANDARDS

One of the functions of the TNPCB is to lay down, modify or annul effluent standards for the sewage/trade effluents and for the emissions of air pollutants into the atmosphere from the industrial plants or any other source.

The Board has prescribed standards for the discharge of treated sewage/trade effluents depending upon the mode of disposal either into inland surface water, sewer, and marine coastal areas or on land. Treated effluent from the industries must satisfy the respective standards before its disposal.

Ambient Air Quality Standards and Emission Standards have been fixed for polluting industries. The Board monitors the industries so that they adhere to the prescribed effluent / emission standards.

6.1. LEGAL ACTION

The TNPCB is taking legal action against the defaulting industries. The Board has so far issued show cause notices to 28,008 industries and closure orders to 4,278 industries for not complying with the conditions prescribed by the Board. During the year 2003-2004, 3849 show cause notices and 161 closure notices have been issued.

6.2. GREEN BENCH

The Hon'ble High Court of Madras has constituted a 'Green Bench' during the year 1996 as per the directions of Hon'ble Supreme Court of India dated 28.8.96 in W.P(C) No.914/1991. The Green Bench deals with cases pertaining to tanneries and other environment related cases.

6.3. APPELLATE AUTHORITY

During 2003, the Government of Tamil Nadu reconstituted the appellate Authority under the chairmanship of Hon'ble Justice Thiru S.S. Subramani, retired Judge of Madras High Court vide G.O Ms No.124 E&F(ECI) Dept. dated 20.6.2003.

Any person aggrieved by an order made by the SPCB under Section 25,26 or 27 of the Water(Prevention and Control of Pollution) Act,1974 as amended in 1988 and the Air (Prevention and Control of Pollution) Act,1981 as amended in 1987 may within 30 days from the date on which the order is communicated to him, prefer an appeal to the said Authority.

During the year 2003-2004, 68 appeals have been filed by the aggrieved units in the Appellate Authority and the said Authority disposed 35 appeals.

7.1. BOARD MEETINGS

Five meetings of the Board were held during the period from April 2003 to March 2004. These details are listed below:

Sl.No.	No. of subjects placed	Meeting No.	Date
01	51	198	18.07.2003
02	34	199	19.09.2003
03	37	200	21.10.2003
04	14	201	12.12.2003
05	25	202	19.02.2004

7.2. IMPORTANT DECISIONS TAKEN DURING THE YEAR 2003-2004

- The Board decided to approve the proposal of purchase of AOX/TOX analyzer following due procedure for use in Advanced Environmental Laboratory, Chennai for analysis of absorbable organo halides and total organo halogens from the effluents arising from the industries such as pulp and paper, textile processing, tanneries, pharmaceuticals, pesticides, etc., at a cost of Rs. 20 lakhs from the Board fund, as it will improve the quality and image of Tamil Nadu Pollution Control Board, Laboratory.
- The Board decided to ratify the expenditure of Rs. 29 lakhs sanctioned and paid to 29 district collectors for creating Environmental awareness in Tourist places as announced by the Hon'ble Minister in the legislative assembly.
- The Board decided to approve the creation of development fund of Rs. 1,15,32,500 to finance part subsidies to M/s Kovai Telugupalayam Common Effluent Treatment Plant Private Ltd, Coimbatore as per the orders issued in G.O M.S No.37 Environment & Forests department dated 26.2.2003.
- The Board decided to approve the grant of fund sought for by the Karur Common Effluent Treatment Plants and Effluent Treatment Plants federations for their pilot study of on-site testing with pilot membrane for reuse and recycle system with Zero discharge of Textile processing Waste Water with 50% share on Rs.3.50 lakhs.
- The Board decided to approve the proposal for establishing six emission testing stations at MTC FC Depots at a cost of Rs.8.16 lakhs per annum and to meet out the same from Board funds.

- The Board decided to ratify the action of the Chairperson in having entered into tripartite agreement with California Air Resources Board (CARB), for establishment of fuel testing facility in Chennai as stipulated in G.O. Ms.No.57, Co-Operative, Food and Consumer Protection (C2) Department, dated 12.2.2004.
- The Board decided to approve the proposal to bear 25% of the total cost of the project of Thanjavur Municipality under eco city programme at Rs.33.125 lakhs (Rupees Thirty three lakhs and twelve thousand and five hundred only) by the Tamil Nadu Pollution Control Board from its fund.
- The Board decided to approve the proposal of procurement of instruments/equipments for monitoring of air quality in Chennai and other Cities (i.e.) Madurai, Salem, Coimbatore, Trichy and Tirunelveli at a total cost of Rs.161.00 lakhs (Rupees One hundred and sixty one lakhs only).

8.1. ENVIRONMENTAL TRAINING

One of the functions of the State Pollution Control Board, as enumerated under the provisions of the Water and Air Acts is to impart training on prevention, control or abatement of water and air pollution. Training is important for manpower development and to achieve work efficiency. Senior officers, engineers, scientists and ministerial staff are being given training regularly in various aspects of prevention, abatement and control of pollution.

An Environmental Pavilion has been established inside the premises of the Periyar Science and Technology Centre at Kotturpuram, Chennai to facilitate environmental training.¹ The pavilion has a permanent exhibition center and an auditorium with facilities like a public address system, a slide and over head-projector, and a 60 mm projector. Various school children in the State of Tamil Nadu visited the environmental pavilion during the year 2003-2004.

8.2. ENVIRONMENTAL TRAINING INSTITUTE

An Environmental Training Institute (ETI) has been established with financial assistance from DANIDA, Denmark in the year 1994 at head office, Guindy, Chennai. It is guided by a steering committee chaired by Chairperson, TNPCB. An advisory council provides technical support. The main objective of the training institute is to impart training to the industrial representatives, executives of municipalities and corporations, staff of the Board and non-governmental organizations on the following aspects:

- Improve awareness at all levels.
- Introduce the holistic approach to environment & sustainable development.
- Introduce the basic theories, concepts and methodologies of integrated environmental planning and management aiming a sustainable development.
- Promote public awareness and motivation to preserve and protect the environment through NGO's.
- Create cross-media awareness in industry, urban sector and the public on environmental hazards and adverse impact on quality of life.
- Pollution control at source by cleaner technology and improved processes of material and products.
- Improve environmental management capacity in the sector of industry and urban development.
- Develop the ability among professionals to communicate effectively.

During the year 2003-2004, the ETI has conducted 24 programmes and trained 1674 participants.

ENVIRONMENTAL AWARENESS AND PUBLIC PARTICIPATION

A pollution awareness and assistance cell is established in the head office, Guindy, Chennai to promote environmental awareness. Various awareness campaigns, workshops, rallies are being conducted regularly to highlight important environmental issues.

Realizing the environmental problems caused by indiscriminate use and disposal of plastic, awareness has been created regarding the need to eliminate the use of throwaway plastic items through various campaigns. Exhibitions on alternative materials to plastic and eco friendly products were arranged at schools, industrial complexes and important places.

A special awareness campaign was launched against air and noise pollution during festival seasons such as deepavali and bhogi. The noise level monitoring and air quality survey were conducted during deepavali in the important cities viz. Chennai, Salem, Madurai, Coimbatore, Vellore, Hosur, Tiruppur, Cuddalore, Tirunelveli and Trichy. A special ambient air quality survey on pre-bhogi, bhogi and post bhogi days were conducted in Chennai at seven places viz. Anna Nagar, Beasant Nagar, Kilpauk, Royapuram, Thiyagaraya Nagar, Vallalar Nagar and Viyasarpadi. These campaigns were quite successful.

A joint free emission checking campaign was organized with the Transport Department to check the emission level of MTC buses. During the campaigns, 362 buses were tested. Environmental awareness programmes and workshops on solid waste management, biomedical waste management, protection of ozone layer, rain water harvesting etc. were conducted at various dates during 2003-2004. Radio programme on ozone day was arranged on 8.9.2003 to illustrate the importance of the day on All India Radio, Coimbatore.

OTHER IMPORTANT MATTERS DEALT BY THE BOARD

10.1. PUBLIC HEARING

Some specific categories of industrial projects require environmental clearance from the Ministry of Environment and Forests, Government of India after obtaining NOC from the State Pollution Control Board. The environmental clearance involves environmental public hearing as per the notification issued by MOEF, GOI. Public hearing panels are constituted to effect public hearing. The panels, after conducting public hearings inviting suggestions and objections, on project from the public, will send its views to the Board. No Objection Certificates are issued to the industries to enable them to approach the Ministry of Environment and Forests, Government of India to get the environmental clearance. Public Hearings on various project are conducted in the respective Collectorates, since May 1998. As on 31.3.2004, 248 public hearings have been conducted. During 2003-2004, 34 public hearings were conducted.

10.2. GREEN AWARDS

The Government of Tamil Nadu has instituted green awards to encourage collectors to play a proactive role in promoting sustainable development in their districts. Green awards are given to the district collectors based on the assessment of their personnel contribution to the promotion of environmental protection and sustainable development. A committee has been constituted under the Chairmanship of Secretary, Environment & Forests department to decide the awards to the collectors. Green awards were distributed to the District collectors of Kanyakumari, Pudukkottai, Ramanathapuram, Salem, Thiruvannamalai and Vellore on 5.6.2003 by the Hon'ble Chief Minister of Tamil Nadu.

Green Innovators Award, instituted by the Government of Tamil Nadu for the industrial units which have contributed innovatively in tackling a major pollution problem in the textile processing industry was given to M/s Chemtech Processing, Tiruppur for the year 2003 -2004.

10.3. ENVIRONMENTAL ATLAS

The TNPCB in co-ordination with CPCB is implementing the programme of zoning atlas on environmental features. Initially, the Zoning Atlas was taken up for Thiruvallur and

Kancheepuram districts at a cost of Rs.6 lakhs. Subsequently, the preparation of district wise Environmental Atlas for the districts of Coimbatore, Vellore and Thoothukudi with a budget estimate of Rs 8.25 lakhs was taken up. Later, Environment Management Plan for Chennai city was taken up with a budget estimate of Rs.5 lakhs.

10.4. WATER CONSERVATION

As a water conservation measure, three major industries in Manali and Basin Bridge area are utilising about 25mld of city sewage in their plants after tertiary treatment for cooling purposes. A major petroleum refinery unit at Manali and more than ten dyeing units in the State including one major unit at Tiruppur have provided reverse osmosis plants for recovering the process water from the effluent. The recovered water is reused in the process. In sugar industries, water condensate from evaporators is reused. As a condition for issue of consent, industries have been instructed to provide rainwater harvesting arrangements. During the last two years 418 industries have set up rain water harvesting systems. 2,000 industries are in the process of setting up these systems. The roof top rainwater harvesting system has also been provided in the offices of the Tamil Nadu Pollution Control Board.

10.5. CLEANER TECHNOLOGIES

The TNPCB has involved in promoting a holistic approach of environment protection by going in for cleaner technologies options rather than mere end of pipe treatment. With active support and encouragement from the Board, industrial units in Tamil Nadu 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, 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.

10.6. WASTE MINIMISATION

With the adoption of cleaner technologies, there has been progress in waste recovery and waste minimisation. Examples include recovery of materials such as chrome from tannery effluent and ammonia from fertilizers. All the distilleries have gone for biocomposting of their effluents with press mud of sugar factories for achieving zero discharge of trade effluent.

A major textile dyeing unit at Tiruppur has also provided a salt recovery plant for reusing in the process.

10.7. ENERGY CONSERVATION

As a measure for fuel conservation and recovery, all the distilleries are recovering methane gas from their spent wash through anaerobic digestion. Major sugar factories have installed co-generation power plants. The sago units recover methane gas from their trade effluent through anaerobic digestion. A tannery in Melvisharam has installed a power generator using methane recovered from anaerobic digestion of fleshings from tannery. Other industrial units are encouraged to use less energy and this is being audited through the environmental statements of the unit.

10.8. ENVIRONMENTAL STATEMENT

Under the Rule 14 of the Environment (Protection) Rules, 1986, submission of Environmental Statement is made compulsory for every industry covered under the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981 or the Hazardous Wastes (Management & Handling) Rules, 1989. Industries are required to submit Environmental Statement for the financial year ending 31st March every year in Form-V before 30th September every year to the State Pollution Control Board. Environmental Statements have been obtained from all the 17 category of highly polluting industries to assess their water & energy consumption and efforts in reducing the pollution levels:

10.9. ENVIRONMENTAL AUDIT

For self auditing of the environmental management systems, all major industrial units have been asked to get the ISO 14001 certificates which are awarded after auditing the environmental management systems by an external agency. During the last two years 102 industries have obtained ISO14001 certification. 83 more industries are in the process of getting the certificates.

10.10. GREEN COVER PROGRAMME

As a measure of pollution check, industries have been directed to develop 25% of the land area as green belt with trees having a thick canopy cover. Accordingly, industries have taken action to plant adequate number of trees in and around industrial premises. Further, the TNPCB is also coordinating with Forest department, NGOs, and local bodies for implementing a centrally sponsored scheme of greening of Tamil Nadu by planting and

maintaining of saplings in five corporations namely Chennai, Coimbatore, Salem, Madurai and Tirunelveli and in all the municipalities of Tamil Nadu.

10.II. APPLIED RESEARCH AND DEVELOPMENT

The TNPCB has established an applied research and development wing in the Advanced Environmental Laboratory at Chennai for developing cleaner technologies that would reduce the generation of pollution. The Board has developed a research fund from the cess fund to grant financial assistance to recognized research institutions and universities for taking up research activities in the field of environmental pollution, pollution control and development of cleaner technologies. A committee has been formed to scrutinize and select suitable projects for assistance. So far, nine projects have been sanctioned with financial outlay of Rs.45.38 lakhs.

10.I2. EXTERNALLY AIDED PROJECTS

The TNPCB has signed an agreement on 24.11.2000 with the U.S Trade and Development Agency (USTDA) to conduct a feasibility study on industrial waste water recycling and reuse for the tanneries in the Vellore Region. The entire project cost is US \$ 1,80,100 (approximately Rs.81 lakhs). The study has been completed and the final report from the agency appointed by the USTDA is awaited.

10.I3. COMPLAINT CELL

An active 'Complaint cell' is functioning in the corporate office, Chennai to take appropriate action against complaints received from various individuals/organisation/NGOs etc., regarding water, air, noise and vehicular pollution. For easy access of the public and others, a separate telephone number 22353253 has been allotted for receiving complaints and guidance. The complaints are attended by calling reports along with the recommendations from the field officers of the Board. Action as required based on the reports have been taken then and there.

For attending environmental related complaints especially in Chennai city, a 'Green Squad' under the control of District officer, Chennai is functioning. Two patrolling vehicles and two two-wheelers have been provided to the Green Squad, which visits the complainant immediately as and when received and intimate the facts to the District officer, Chennai for action.

FINANCE AND ACCOUNTS OF THE BOARD

(PROVISIONAL FIGURES SUBJECT TO AUDIT)

[Rupees in Lakhs]

Opening Balance	547.29
Receipts	3835.52
Expenditure during the year 2003-2004	2707.31
Closing Balance as on 31.3.2004	1675.50
DETAILS	
RECEIPTS	
Grants from State Government	Nil
Grants from Central Government	Nil
Consent fees	1213.71
Analysis charges and other fees	307.62
Cess reimbursement	358.25
Sale of Application Forms & Books	8.47
Others	1200.75
Income received in advance	746.72
Total	3835.52
EXPENDITURE	
REVENUE:	
Salary and Allowances	1002.46
Lab Expenditure	11.24
Office Expenditure (Stationery, Rent, Vehicle, Telephone, Printing, Hospitality etc.)	279.86
Repair & Maintenance of Building & Vehicle	69.08
Fees to consultants & Auditors	2.46
Cess remittance to Govt. of India.	643.02
CAPTIAL	
Fixed Assets	445.36
Other Assets	243.18
Advances to staff	10.65
TOTAL	2707.31

ANNEXURE - I
LIST OF BOARD MEMBERS.

Sl. No.	Name and address	Position	Period	
			From	To
1.0	Tmt. Sheela Rani Chunkath, I. A. S., Chairperson, Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai -600 032.	Chairperson	03.07.2000	11.11.2003
1.1	Tmt. Girija Vaidyanathan, I.A.S., Chairperson, Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai -600 032.	Chairperson	12.11.2003	31.03.2004
OFFICIALS NOMINATED BY THE STATE GOVERNMENT				
2.0	Thiru. S.P.Elangovan, I.A.S., Secretary to Government, Environment & Forests Department, Fort St. George, Chennai - 9	Member	16.11.2002	31.03.2004
3.0	Dr. K.Satyagopal, I.A.S., Special Secretary to Government Finance Department, Fort St. George, Chennai - 9	Member	12.06.2001	31.03.2004
4.0	Thiru G. Santhanam, I.A.S., Director of Town & Country Planning, 804, Anna Salai, Guindy, Chennai -2	Member	05.03.2003	05.01.2004
4.1	Thiru P.R Bindhu Madhawan, I.A.S., Director of Town & Country Planning, 804, Anna Salai, Guindy, Chennai -2	Member	05.01.2004	31.03.2004
5.0	Thiru Hemant Kumar Sinha, I.A.S., Director of Municipal Administration, Ezhilagam Annexe Building, VI th floor, Chepauk, Chennai - 5	Member	28.09.2002	31.03.2004
6.0	Dr. P. Krishnamurthy, M.D., Director of Public Health and Preventive Medicine, Chennai - 6	Member	01.04.2001	31.03.2004

**Non-Official-Members nominated by the State Government
to represent Agriculture /Fisheries/Industries/Trade**

7.0	Dr. Zackaria Sait, Regional Chairman, Leather Exports Promotion Council, 476, Kilpauk Garden road, Kilpauk, Chennai - 10.	Member	02.06.2001	31.3.2004
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**Personnel Nominated by the State Government to represent the Companies controlled and
managed by the State Government**

8.0	Er.S.Natarajan, B.E(Engg), M.Sc., Member (Generation), Tamilnadu Electricity Board, 800, Anna Salai, Chennai - 2.	Member	01.01.2002	07.11.2003
8.1	Thiru A.A Sadagapan, B.E(Engg), M.Sc., Member (Generation), Tamilnadu Electricity Board, 800, Anna Salai, Chennai - 2.	Member	15.12.2003	31.03.2004
9.0	Thiru.N.Vasudevan, I.A.S., Managing Director., TWAD Board, Chennai-5	Member	25.08.2002	17.05.2003
9.1	Thiru. Karuthiah Pandian, I.A.S., Managing Director., TWAD Board, Chennai-5	Member	17.05.2003	31.03.2004

SPECIAL INVITEES

10.0	Dr. S. Balaji, I.F.S., Director, Department of Environment, 1 Floor, Panagal Building, Jones Road, Saidapet, Chennai-5	Special Invitee	24.05.2000	31.03.2004
11.0	Thiru. S.Karuthya Pandian, I.A.S., Director of Industries and Commerce, Chennai-5	Special Invitee	01.04.2003	17.05.2003
11.1	Thiru. N. Vasudevan, I.A.S., Director of Industries and Commerce, Chennai-5	Special Invitee	17.05.2003	31.03.2004

12.0	Thiru. T. Meenakshi Sundaram, General Manager, (P.F), SIPCOT, 19 A, Marshalls Road, Egmore, Chennai - 8.	Special Invitee	01.04.2001	31.03.2004
FULL TIME MEMBER SECRETARY				
13.0	Thiru. K. Sanjeevi, Member Secretary, Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai - 32.	Member- Secretary	01.12.2000	31.03.2004

Annexure II

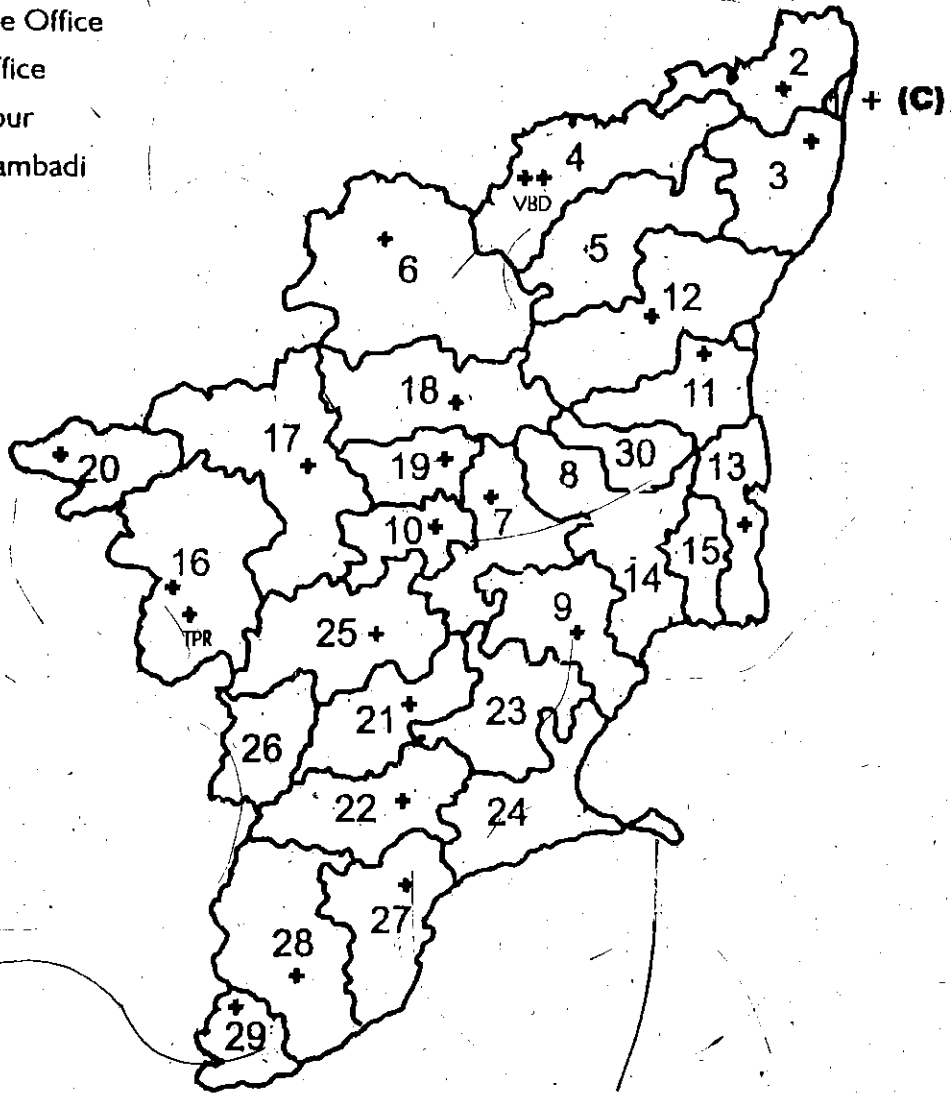
LOCATION OF DISTRICT OFFICES

(C) Corporate Office

+ District Office

TPR - Tiruppur

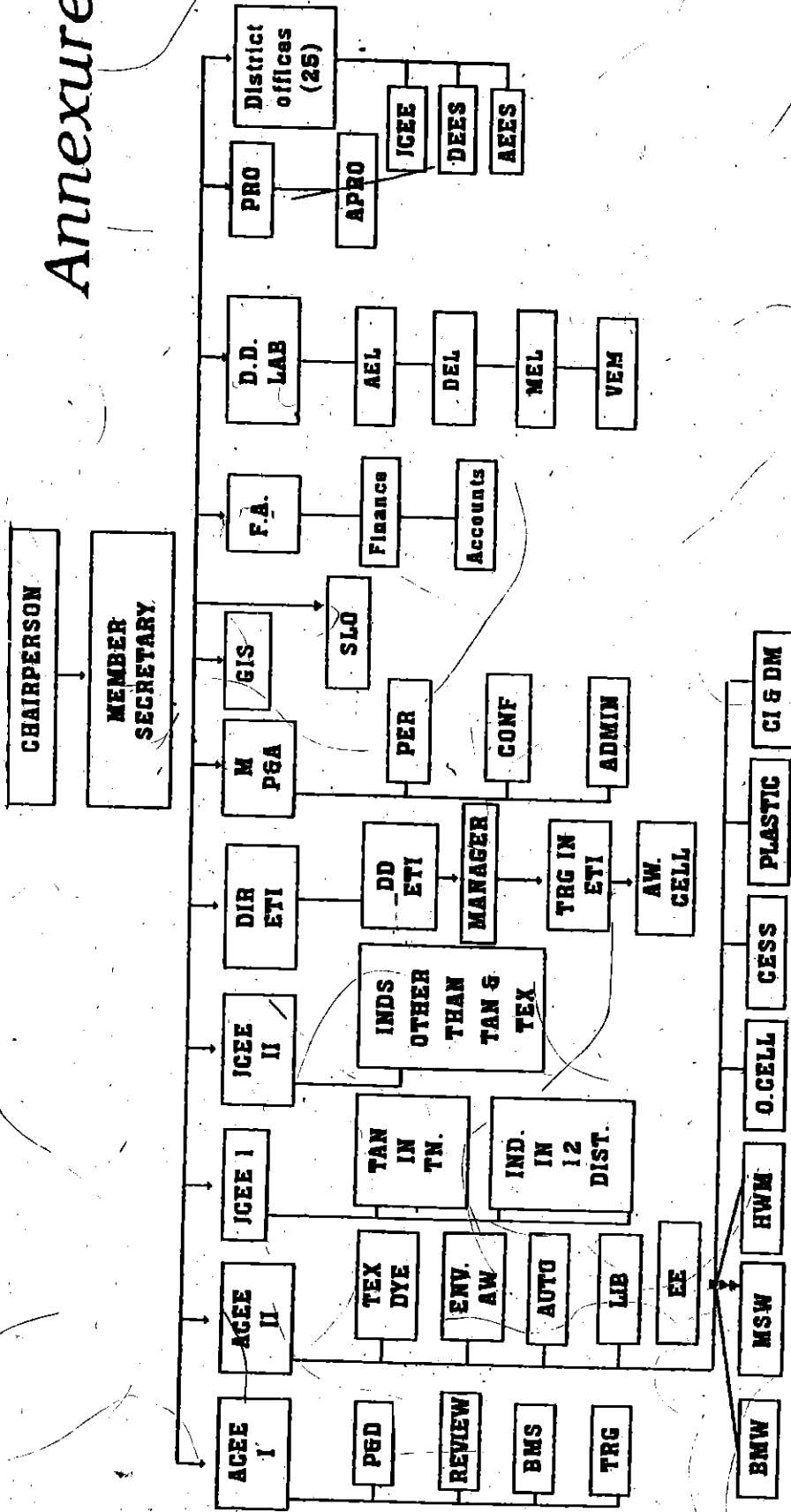
VBD - Vaniyambadi



DISTRICTS

- | | | |
|--------------------|------------------|------------------|
| 1. Chennai | 10. Karur | 20. The Nilgiris |
| 2. Tiruvallur | 11. Cuddalore | 21. Madurai |
| 3. Kancheepuram | 12. Villupuram | 22. Virudhunagar |
| 4. Vellore | 13. Nagapattinam | 23. Sivaganga |
| 5. Thiruvannamalai | 14. Thanjavur | 24. Ramnad |
| 6. Dharmapuri | 15. Tiruyarur | 25. Dindigul |
| 7. Trichy | 16. Coimbatore | 26. Theni |
| 8. Perambalur | 17. Erode | 27. Tuticorin |
| 9. Pudukottai | 18. Salem | 28. Tirunelveli |
| | 19. Namakkal | 29. Nagercoil |

Annexure III



- ACEE - Additional Chief Environmental Engineer
- JCEE - Joint Chief Environmental Engineer
- DIR (ETI) - Director (Environmental Training Institute)
- M(P&A) - Manager (Personnel & Administration)
- GIS - Geographic Information System
- SLO - Senior Law Officer
- FA - Financial Adviser
- DD(LAB) - Deputy Director (Laboratories)
- PRO - Public Relations Officer
- APRO - Assistant Public Relations Officer
- P&D - Projects and Development Section
- CIDM - Centre for Information & Data Management
- BMS - Board Meeting Section
- TRG - Training
- MSW - Municipal Solid Waste Management
- HWM - Hazardous Waste Management
- O.CELL - Ozone Cell
- CESS - Tanneries in Tamilnadu
- IND. IN 12 DISTRICTS - Industries in 12 Districts
- PER - Personnel
- CONF - Confidential
- ADMIN - Administration
- AEL - Advance Environmental Laboratory
- ICEE - Textile Dyeing Industries
- DEES - Environmental Awareness
- AEES - Automobiles
- LIB - Library
- ENV. AW - Environmental Awareness
- AUTO - Automobiles
- TEX DYE - Textile Dyeing Industries
- TAN IN TN. - Tanneries in Tamilnadu
- IND. IN 12 DIST. - Industries in 12 Districts
- INDS OTHER THAN TAN & TEX - Industries other than Tanneries and Textiles
- DD ETI - Deputy Director (Environmental Training Institute)
- MGR - Manager
- TRG IN ETI - Training in Environmental Training Institute
- AW. CELL - Air and Water Cell
- PER - Personnel
- CONF - Confidential
- ADMIN - Administration
- AEL - Advance Environmental Laboratory
- FIN - Finance
- ACC - Accounts
- SLO - Senior Law Officer
- FINANCE - Finance
- ACCOUNTS - Accounts
- AEL - Advance Environmental Laboratory
- DEL - District Environmental Laboratory
- MEL - Mobile Environmental Laboratory
- VEM - Vehicular Emission Monitoring
- ICEE - District Environmental Laboratory
- DEES - District Environmental Engineers
- AEES - Assistant Environmental Engineers

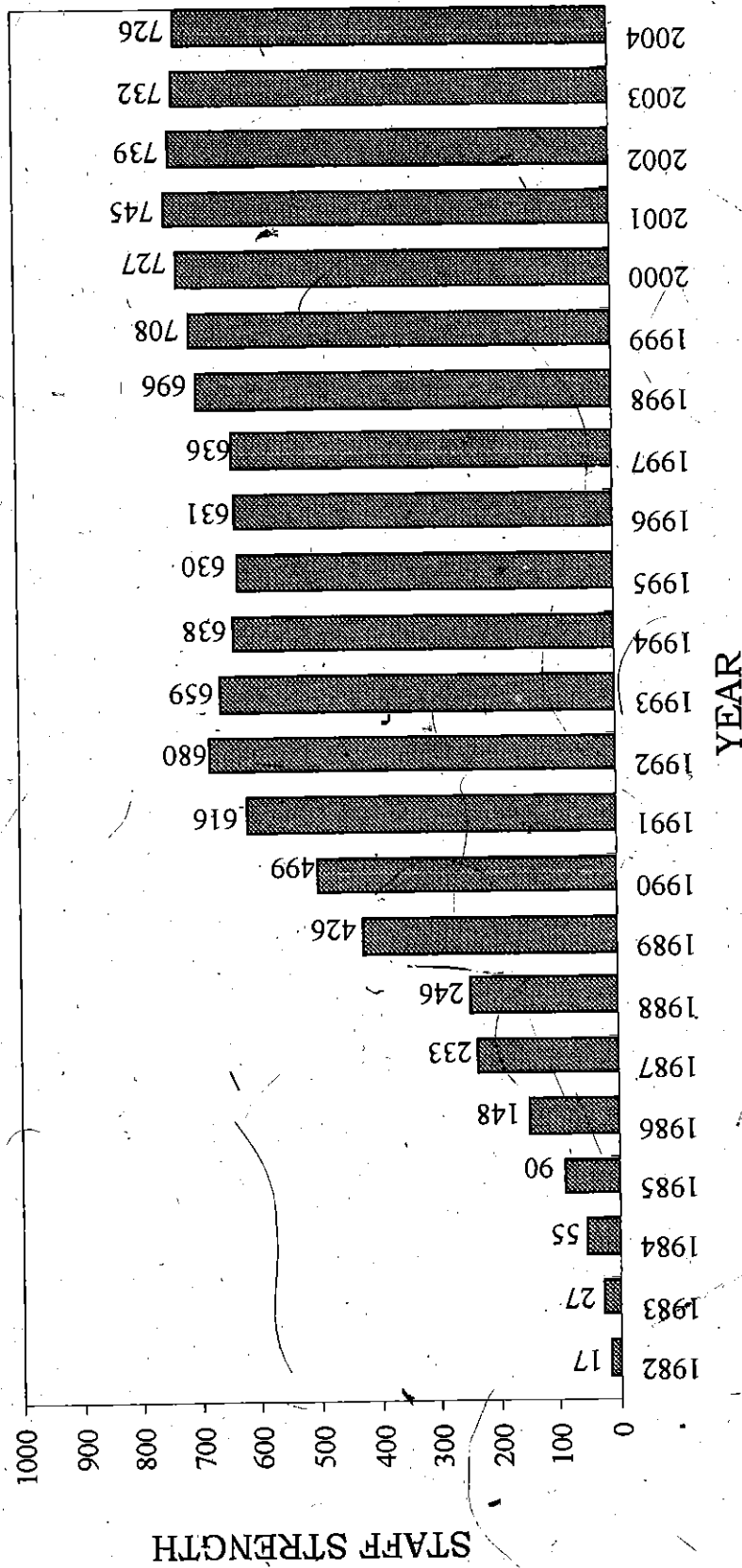
ANNEXURE - IV

STAFF STRENGTH

NAME OF THE POST	STRENGTH
Chairperson	1
Member Secretary	1
Engineering Service	145
Scientific Service	82
Scientific Supporting Staff	89
Personnel/Administration/Accounts/ Miscellaneous	408
Total	726
ENGINEERING SERVICE	
Additional Chief Environmental Engineer	2
Joint Chief Environmental Engineer	3
Joint Chief Environmental Engineer (i/c)	4
District Environmental Engineer	4
District Environmental Engineer(i/c)	18
Executive Engineer(Construction)	1
Assistant Environmental Engineer	7
Assistant Engineer	100
Assistant Engineer (Automobile)	1
Assistant Draughtsman	3
Technical Assistant	2
Sub-Total	145
SCIENTIFIC SERVICE	
Deputy Director (Labs)	2
Additional Manager	3
Deputy Manager (Lab)	21
Environmental Scientist	43
Senior Meteorologist	1
Meteorologist	2
Junior Environmental Scientist	10
Sub-Total	82
SCIENTIFIC SUPPORTING STAFF	
Electrical Supervisor	1
Field Assistant	61
Lab. Attendant	21
Electrician	6
Sub-Total	89

NAME OF THE POST	STRENGTH
PERSONNEL/ADMINISTRATION/ACCOUNTS / MISCELLANEOUS	
Financial Advisor	1
Deputy Director (I.A)	1
Manager	2
Additional Manager	5
Deputy Manager	12
Assistant Manager	24
Junior Programmer	1
General Assistant	93
Data Entry Operator	3
Assistant	39
Steno Typist	30
Typist	57
Librarian	2
Driver	60
Record Clerk	12
Telephone Operator	2
Office Assistant/Watchman	61
Despatch Rider	1
Cleaner	1
Sweeper	1
Sub-Total	408

**ANNEXURE - V
ORGANISATIONAL GROWTH FROM THE YEAR 1982 TO 2004**



ANNEXURE - VI

DETAILS OF CETP SCHEMES AT VARIOUS PLACES OF TAMILNADU

SL. No	LOCATION OF CETP	DISTRICT	NO.OF MEMBER TANNERIES	QUANTITY OF EFFLUENT (in KLD)	COST OF PROJECT (Rs.in Cr)
A. TANNERIES					
I. Under Operation:					
(1)	(2)	(3)	(4)	(5)	(6)
1	Pammal / Pallavaram	Kancheepuram	152	3000	7.03
2	Madhavaram-TALCO Industrial Estate	Thiruvallur	14	400	1.25
3	SIDCO-Ranipet, SIPCOT	Vellore	84	2500	2.95
4	Melvisharam	Vellore	32	3400	3.63
5	Thuthipet, Ambur	Vellore	40	1590	4.14
6	Ramji Nagar	Tiruchirapalli	4	525	0.60
7	Valayampet sector Vaniyambadi.	Vellore	108	3122	3.37
8	Udayenthiram, Vaniyambadi.	Vellore	10	220	0.70
9	Bakkalapalli, Pernampet.	Vellore	17	891	1.60
10	V.C Mottur, Ranipet	Vellore	76	4000	4.60
11	Dindigul	Dindigul	61	2533	5.00
12	Malligaithopu, Ambur	Vellore	8	1100	2.00
13	SIPCOT- SIDCO Phase -II, Ranipet	Vellore	15	1560	2.52
14	Melpudupet, Ranipet	Vellore	12	600	1.51
II. Under Progress:					
15	Chettithangal, Ranipet.	Vellore	6	600	1.39
16	Perumalpet, Vaniyambadi.	Vellore	18	4000	11.02
17	Pudur, Vaniyambadi.	Vellore	5	600	1.42
18	Valayampet, Vaniyambadi	Vellore	10	1470	2.00
19	Mittalam, Ambur	Vellore	4	1500	2.59
20	Gundur	Tiruchirapalli	5	1775	2.85
21	Chengalvarayanpattarai, Vaniyambadi	Vellore	6	400	1.80
22	V.Kota Road, Pernampet.	Vellore	47	2500	2.87
23	Sembattu, Trichy. -	Tiruchirapalli	14	2400	3.00
24	SIGC, Perundurai	Erode	25	2000	12.70

(1)	(2)	(3)	(4)	(5)	(6)
B. TEXTILE DYEING UNITS					
I. Under Operation					
1	Ayyampet -Muthialpet	Kancheepuram	65	1500	1.43
2	Andipalayam, Tiruppur.	Coimbatore	21	4500	2.15
3	Kunnangalpalayam, Tiruppur.	Coimbatore	19	4250	2.16
4	Angeripalayam, Tiruppur.	Coimbatore	80	8500	7.20
5	Chinnakarai, Tiruppur.	Coimbatore	31	5000	2.45
6	Kasipalayam, Tiruppur.	Coimbatore	19	4000	2.20
7	Mannarai, Tiruppur.	Coimbatore	32	4200	2.71
8	Veerapandi, Tiruppur.	Coimbatore	75	10000	6.75
9	Manickapurampudur, Tiruppur.	Coimbatore	11	1600	1.27
10	Karruppanpalayam	Karur	15	1300	1.63
11	R.K.Puram	Karur	48	1500	1.93
12	Andankoil	Karur	35	1900	2.14
13	Amaravathi Nagar	Karur	48	2400	2.44
14	Light House	Karur	46	1150	1.44
15	Thirumanilaiyur	Karur	57	2100	2.08
16	Sukkaliyur	Karur	66	1700	1.69
17	Sellandipalayam	Karur	137	2600	2.25
18	Perundurair	Erode	12	3600	10.32
II. Under Progress					
19	Telungupalayam	Coimbatore	45	3710	4.61
20	Ponnaiyarajapuram	Coimbatore	31	3000	4.08
III. Under Initial Stages					
21	Erumappalayam	Salem	27	1017	1.32
22	Vanavil nagar	Salem	24	900	1.26
23	Vanna Nagar	Namakkal	32	1200	1.47
24	Gugai	Salem	24	900	1.35
25	Komarapalayam	Namakkal	57	4959	3.39
C. HOTELS AND LODGES					
I. Under operation					
1	Kodaikanal	Dindigul	90	820	1.30

ANNEXURE - VII**FUNDS RECEIVED FOR THE CETP SCHEMES****[Rs.in Lakhs]**

SL.NO.	NAME OF CET P	FUND RECEIVED FROM		TOTAL
		GOVT. OF INDIA	GOVT. OF TAMILNADU	
YEAR 1991-92				
1	Pammal/Pallavaram	50.00	-	50.00
2	Erode (Tanneries)	50.00	-	50.00
3	Tiruppur	37.50	-	37.50
4	Ayyampet-Muthialpet	22.50	-	22.50
YEAR 1992-93				
1	Pammal/Pallavaram	-	50.00	50.00
2	Erode (Tanneries)	-	50.00	50.00
3	Tiruppur	-	37.50	37.50
4	Ayyampet-Muthialpet	-	22.50	22.50
5	Bhavani	-	7.50	7.50
6	Erode -I (Dyeing) B.P. Agraharam	-	15.00	15.00
7	Erode -II (Dyeing) Kasipalayam	-	17.50	17.50
8	Karur	-	21.14	21.14
YEAR 1995-96				
1	Bhavani	7.50	-	7.50
2	Erode -I (Dyeing) B.P. Agraharam	15.00	-	15.00
3	Erode -II (Dyeing) Kasipalayam	17.50	-	17.50
4	Karur	21.14	-	21.14
5	Ranipet SIDCO	25.00	50.00	75.00
6	Visharam	25.00	50.00	75.00
7	Bakkalapalli, Pernambut.	40.00	-	40.00
YEAR 1996-97				
1	R.K. Puram, Karur	-	48.22	48.22
2	Andankoil, Karur	-	50.00	50.00
3	Amaravathinagar, Karur.	-	50.00	50.00
4	Thiruvai, Karur.	-	50.00	50.00
5	SIPCOT- SIDCO Phase -II , Ranipet	-	50.00	50.00
6	Valayampet, Vaniyambadi.	-	50.00	50.00

7	Kodaikanal	-	32.50	32.50
8	Perumalpet	-	*50.00	50.00
9	Madhavaram- TALCO Industrial estate	-	\$ 50.00	50.00
10	Melpudupet, Ranipet.	-	37.78	37.78
11	Ranipet SIDCO	20.00	-	20.00
12	Melvisharam	20.00	-	20.00
YEAR 1997-98				
1	SIPCOT- SIDCO Phase-II	30.00	-	30.00
2	Madhavaram,	25.00	-	25.00
3	Ayyampettai - Muthialpettai	-	13.20	13.20
4	Chettithangal, Melvisharam.	-	34.85	34.85
5	Pernambut (Eruguthi Mullumedu)	-	38.50	38.50
6	Mittalam, Ambur	-	50.00	50.00
7	Pudur, Vaniyambadi	-	35.50	35.50
8	Maligaithope, Armbur.	-	50.00	50.00
9	M.C. Road, Ambur.	-	50.00	50.00
10	Tarawali, Ambur.	-	50.00	50.00
11	Gundur, Trichy.	-	50.00	50.00
12	Ramji Nagar, Trichy.	-	15.00	15.00
13	Andipalayam, Tiruppur.	-	50.00	50.00
14	Mannarai, Tiruppur	-	50.00	50.00
15	Manickapurampudur, Tiruppur	-	31.75	31.75
16	Kasipalayam, Tiruppur	-	50.00	50.00
17	Angeripalayam, Tiruppur	-	50.00	50.00
18	Veerapandi, Tiruppur.	-	12.50	12.50
19	Chinnakarai, Tiruppur	-	50.00	50.00
20	Kunnangalpalayam, Tiruppur	-	50.00	50.00
21	Light House Area, Karur	-	14.74	14.74
22	Sukkaliyur, Karur	-	42.13	42.13
23	Sellandipalayam, Karur	-	50.00	50.00
24	Karuppampalayam, Karur	-	27.00	27.00
YEAR 1998-1999				
1	SIPCOT-SIDCO Phase-II.	20.00	-	20.00
2	Andipalayam, Tiruppur	53.75	3.75	57.50
3	Mannarai, Tiruppur	50.00	17.75	67.75
4	Manikapurampudur	25.00	-	25.00
5	Angeripalayam,	50.00	130.00	180.00

	Tiruppur			
6	Veerapandi, Tiruppur	40.00	118.75	158.75
7	Chinnakarai, Tiruppur	50.00	11.25	61.25
8	Kasipalayam, Tiruppur	50.00	5.00	55.00
9	Kunnangalpalayam, Tiruppur	54.00	4.00	58.00
10	R.K.Puram, Karur	-	0.03	0.03
11	Amaravathi nagar, Karur.	-	11.00	11.00
12	Tiruvai, Karur	-	2.00	2.00
13	Andankoil, Karur.	-	3.59	3.59
14	Karuppampalayam, Karur	27.00	-	27.00
15	Sellandipalayam, Karur.	-	6.25	6.25
YEAR 1999-2000				
1	Manikapurmpudur, Tiruppur	6.75	-	6.75
2	Veerapandi, Tiruppur	128.75	-	128.75
3	Angeripalayam, Tiruppur	130.00	-	130.00
4	Kasipalayam, Tiruppur	5.00	-	5.00
5	Chinnakarai, Tiruppur	11.25	-	11.25
6	Mannarai, Tiruppur	17.75	-	17.75
7	Maligaithoppu, Ambur	50.00	-	50.00
8	Light house area, Karur	12.50	-	12.50
9	Perumalpet, Vaniyambadi	**50.00	-	50.00
10	R.K.Puram, Karur.	0.03	-	0.03
11	Chettithangal, Melvisharam	31.25	-	31.25
12	Melpudupet	1.25	-	1.25
YEAR 2000-2001				
1	Thiruvai, Karur	2.00	-	2.00
2	Pudur, Vaniyambadi.	10.00	-	10.00
3	Madavaram	6.25	-	6.25
4	Light house area, Karur	10.00	-	10.00
5	Karuppampalayam, Karur	-	13.66	13.66
YEAR 2001-2002				
1	Pudur, Vaniyambadi.	15.00	-	15.00
2	Light House Area, Karur	10.00	-	10.00
YEAR 2002-2003				
1	Pudur, Vaniyambadi	10.50	-	10.50

\$ Rs.18.75 lakhs has been returned to State Government.

* Rs 50 lakhs has been returned to State Government.

** Rs 50 lakhs has been returned to Government of India.

@ Rs 28.83 lakhs has been released to M/s Kovai Telungupalayam CETP scheme from TNPCB fund.

ANNEXURE - VIII A

AMBIENT AIR QUALITY MONITORING UNDER NAMP DURING 2003 -2004

Sl. No	District	Location	Category of area	Annual Average Concentration of Air Pollutants ($\mu\text{g}/\text{m}^3$)			
				SO ₂	NO _x	RSPM	TSPM
1	Chennai	Municipal Kalyanamandapam Kathivakkam	Industrial	24	32	90	163
		Govt. Higher Secondary School, Manali.	Industrial	22	34	109	214
		Municipal Office, Thiruvottiyur	Mixed	20	32	95	151
2	Coimbatore	Collectorate Office Building	Mixed	10	51	43	108
		Ponniyarajapuram	Residential	10	46	46	111
		SIDCO	Industrial	13	56	62	151
3	Thoothukudi	Raja Agencies	Industrial	20	22	29	35
		AVM Building	Mixed	19	20	34	41
		Fisheries College	Industrial	20	19	30	38
4	Madurai	Fennar (I) Ltd	Industrial	22	29	72	163
		Kunnathur Chatram	Mixed	9	31	154	416
		Highway Project Building	Residential	8	25	60	135
5	Salem	Sowdeswari College	Mixed	8	37	28	66
Permissible Limit($\mu\text{g}/\text{m}^3$)			Industrial	80	80	120	360
			Residential, Rural & other areas(Mixed)	60	60	60	140

ANNEXURE -VIII B

CHENNAI AMBIENT AIR QUALITY MONITORING DURING 2003 - 2004

Sl.No	Location	Category of area	Annual Average Concentration of Air Pollutants ($\mu\text{g}/\text{m}^3$)				
			SO ₂	NO _x	RSPM	TSPM	Pb
1	Anna Nagar	Residential	5	14	64	158	0.04
2	Adayar	Residential	4	10	41	102	0.01
3	Kilpauk	Commercial	7	25	108	345	0.05
4	Thiyagaraya Nagar	Commercial	6	24	86	319	0.05
5	Vallalar Nagar	Commercial	7	29	94	305	0.03
Permissible limit($\mu\text{g}/\text{m}^3$)			60	60	60	140	0.075

ANNEXURE - VIIIIC

TRICHY AMBIENT AIR QUALITY MONITORING DURING 2003 -2004

Sl.No	Location	Category of area	Annual Average Concentration of Air Pollutants ($\mu\text{g}/\text{m}^3$)			
			SO ₂	NO _x	RSPM	TSPM
1	Gandhi Market	Commercial	14	18	94	206
2	Main Guard Gate	Commercial (Traffic Intersection)	15	18	97	207
3	Bishop/Heber college,	Mixed residential	8	12	52	69
4	Golden Rock	Residential	10	13	70	88
5	Central Bus Stand	Commercial (Traffic Intersection)	14	17	91	197
Permissible limit($\mu\text{g}/\text{m}^3$)			60	60	60	140

ANNEXURE - VIIIID

DETAIL OF VEHICLES TESTED AT TNPCB VEM STATIONS DURING 2003-2004

STATION	No. of vehicles tested	Vehicles comply standards	Vehicles exceed standards during first test	Vehicles complied standards after rectification	Vehicles do not comply standards
Chennai	30198	23177	7021	5957	1064
Udagamandalam	5214	4264	950	823	127
Dindugal	5452	4440	1012	823	189
Palani	3117	1560	1657	1615	42
Chengalpattu	4501	2803	1698	1558	140
Katteri	2916	2048	868	764	104
Total	51398	38292	13206	11540	1666

ANNEXURE - IX A

**RIVER WATER QUALITY - CAUVERY RIVER
UNDER MINARS PROGRAMME - 2003-2004**

Sl. No.	Station	pH Range	Dissolved oxygen mg/l	Bio chemical oxygen demand mg/l	Chlorides mg/l	Sulphates mg/l	Nitrates mg/l	Total hardness mg/l	Faecal coliform MPN/100 ml	Total coliform MPN/100 ml
1	Pathrakaliamman koi	6.7-8.7	6.8	2.0	14	4	0.3	56	297	855
2	Trichy U/S	8.0-9.1	8.0	2.0	62	34	0.6	280	127	267
3	Grand Anaicut	7.6-9.1	7.0	2.0	85	30	0.4	300	656	2178
4	Sirumugai	7.1-8.5	7.8	2.4	12	3	2.2	40	263	977
5	Bhavani	7.5-9.0	6.0	2.0	49	45	0.4	192	458	1478
6	Karathattankudi	8.3	6.5	2.0	-	-	0.3	-	40	170
7	Madathukulam	7.3-7.6	8.0	2.0	-	-	0.2	-	293	1280
8	Erode	7.8-9.0	6.5	3.0	90	59	0.4	188	381	2096
9	Bhavani Sagar	7.3-9.0	6.6	2.0	40	3	0.4	220	422	896
10	R.N. Pudur	7.3-9.0	6.0	2.0	84	69	0.6	180	282	1649
11	P.Velur	7.7-8.9	7.0	2.5	60	37	0.4	330	323	988
12	Mohanur	7.2-8.8	7.0	2.0	54	19	0.2	220	461	1320
13	Trichy D/S	7.6-7.7	7.0	2.0	81	45	0.6	350	435	1450
14	Coleroon	7.8-8.3	7.5	2.0	8000	1387	0.3	5630	72	332
15	Pichavaram	7.4-8.7	7.0	4.0	2940	392	0.4	1290	51	249
16	Thirumukkudal	8.0-9.1	8.0	2.0	58	40	0.5	210	113	353
	ISI standards*	6.5-8.5	> 4	3.0	600	400	50	-	2000	5000

* Inland surface water quality standards under class C.

ANNEXURE - IX B

RIVER WATER QUALITY - CAUVERY RIVER
UNDER GEMS PROGRAMME - 2003-2004

Sl. No.	Station	pH Range	Dissolved Oxygen mg/l	Biochemical Oxygen Demand mg/l	Chlorides mg/l	Sulphates mg/l	Nitrates mg/l	Total Hardness mg/l	Faecal Coliform MPN/100 ml	Total Coliform MPN/100 ml
1	Musiri Ferry gate	8.1-8.4	8.0	2.0	62	40	0.1	260	60	150
2	Musiri bore well	6.7-7.5	6.3	2.0	-	-	0.5	-	175	510
3	Mettur	7.8-9.0	8.0	2.0	60	94	0.3	204	681	1895
4	Pallipalayam	7.3-9.2	6.0	3.0	28	21	0.3	248	329	2888
	ISI standards*	6.5 - 8.5	> 4	3.0	600	400	50	-	2000	5000

* Inland surface water quality standards under class C

ANNEXURE- IX C
RIVER WATER QUALITY - THAMIRAPARANI
UNDER MINARS PROGRAMME - 2003-2004

Sl.No	Sampling Station	pH Range	Dissolved Oxygen mg/l	Biochemical Oxygen Demand mg/l	Chlorides mg/l	Sulphates mg/l	Nitrates mg/l	Total Hardness mg/l	Faecal Coliform MPN/100 ml	Total Coliform MPN/100 ml
1	Papanasam	7.1-7.6	7.6	2.0	18	30	0.2	12	101	578
2	Ambasamudram	6.4-7.6	7.5	2.0	12	19	0.5	12	44	212
3	Thiruvaidaimarudur	6.4-7.5	7.2	2.0	14	23	0.6	7	9	34
4	Cheranmadevi	6.9-7.3	6.4	2.0	16	17	0.3	21	40	123
5	Murappanadu	6.9-8.5	6.3	2.0	-	-	0.2	-	10	48
6	Authoor	7.4-8.3	6.9	2.0	108	31	0.2	182	40	226
7	Kokirakulam	6.7-7.8	7.0	2.0	17	19	0.4	22	54	391
	ISI standards*	6.5-8.5	> 4	3.0	600	400	50	-	2000	5000

ANNEXURE - IX D
RIVER WATER QUALITY - PALAR / VAIGAI
UNDER MINARS PROGRAMME - 2003-2004

Ref. No	River	pH Range	Dissolved Oxygen mg/l	Biochemical Oxygen Demand mg/l	Chlorides mg/l	Sulphates mg/l	Nitrates mg/l	Total Hardness mg/l	Faecal Coliform MPN/100 ml	Total Coliform MPN/100 ml
1p	Palar \$	7.4-8.3	6.2	3.0	78	80	0.1	460	360	555
2p	Vaigai #	7.1-7.4	6.7	6.0	196	24	0.1	300	55	80
	ISI standards*	6.5-8.5	> 4	3.0	600	400	50	-	2000	5000

\$ Vaniyambodi water supply head works, Kodayanchi village
Collection well at Thirupuvanam for Madurai water supply scheme.
* Inland surface water quality standards under class C

ANNEXURE - IX E
LAKE WATER QUALITY
UNDER MINARS PROGRAMME - 2003-2004

Ref.	No.	Station	pH Range	Dissolved Oxygen mg/l	BioChemical Oxygen Demand mg/l	Chlorides mg/l	Sulphates mg/l	Nitrates mg/l	Total hardness mg/l	Faecal Coliform MPN/100 ml	Total Coliform MPN/100 ml
	1L	Uthagamandalam	7.1-8.7	5.0	18	59	4	0.9	112	15980	28050
	2L	Kodikanal	6.1-7.5	7.0	7.0	15	8	0.1	28	85	128
	3L	Yercaud	7.6-8.9	6.9	2.7	53	39	0.2	117	453	3327
		ISI standards*	6.5 - 8.5	> 4	3.0	600	400	50		2000	5000

* Inland surface water quality standards under class C

ANNEXURE -X

DETAILS OF 17 CATEGORY OF INDUSTRIES IN TAMILNADU

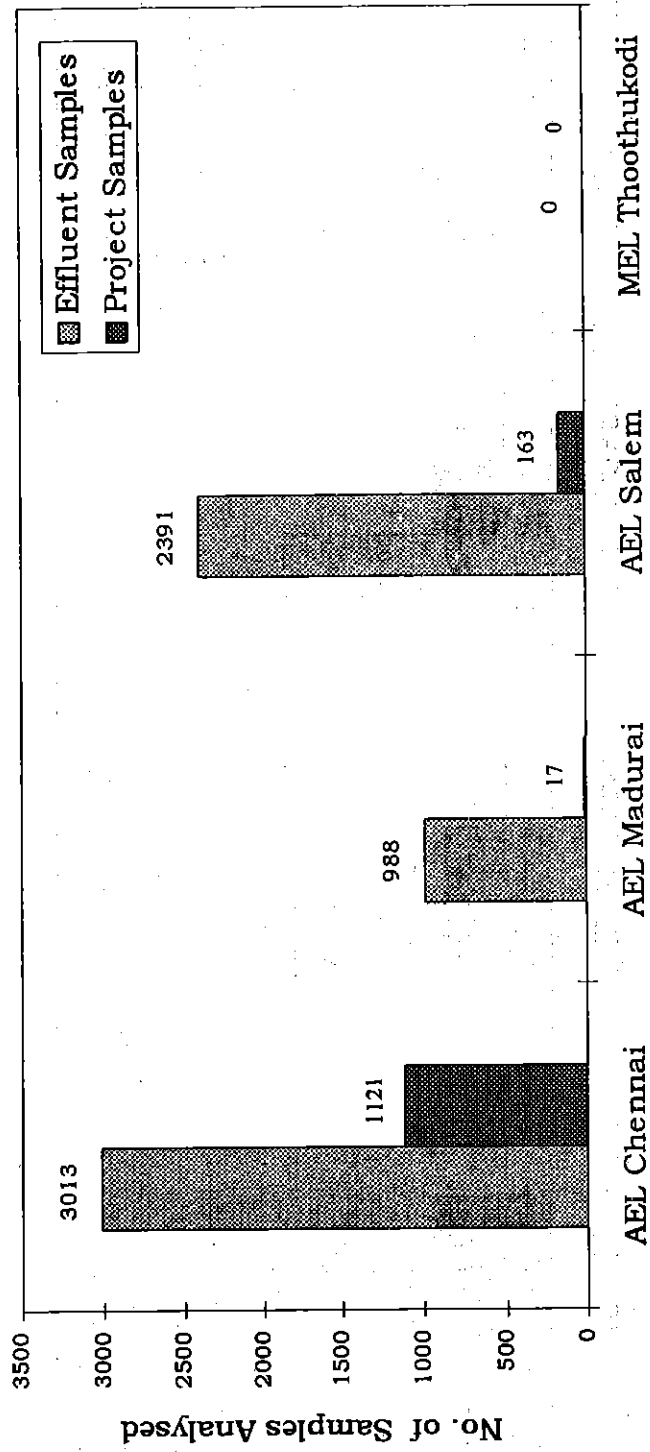
As on 31.03.2004

Sl.No.	Category	No. of Industries
1	Aluminium	1
2	Caustic Soda	3
3	Cement*	16
4	Copper Smelter	1
5	Distillery	15
6	Dyes & Dye Intermediate	1
7	Fertilizer	7
8	Integrated Iron & Steel	1
9	Tanneries	62
10	Pesticide	1
11	Petrochemicals	5
12	Basic Drugs & Pharmaceutical	16
13	Pulp & Paper**	5
14	Oil Refinery	3
15	Sugar	38
16	Thermal Power Plant	16
17	Zinc Smelter	0
	Total	191

* 200 Tpd and above.

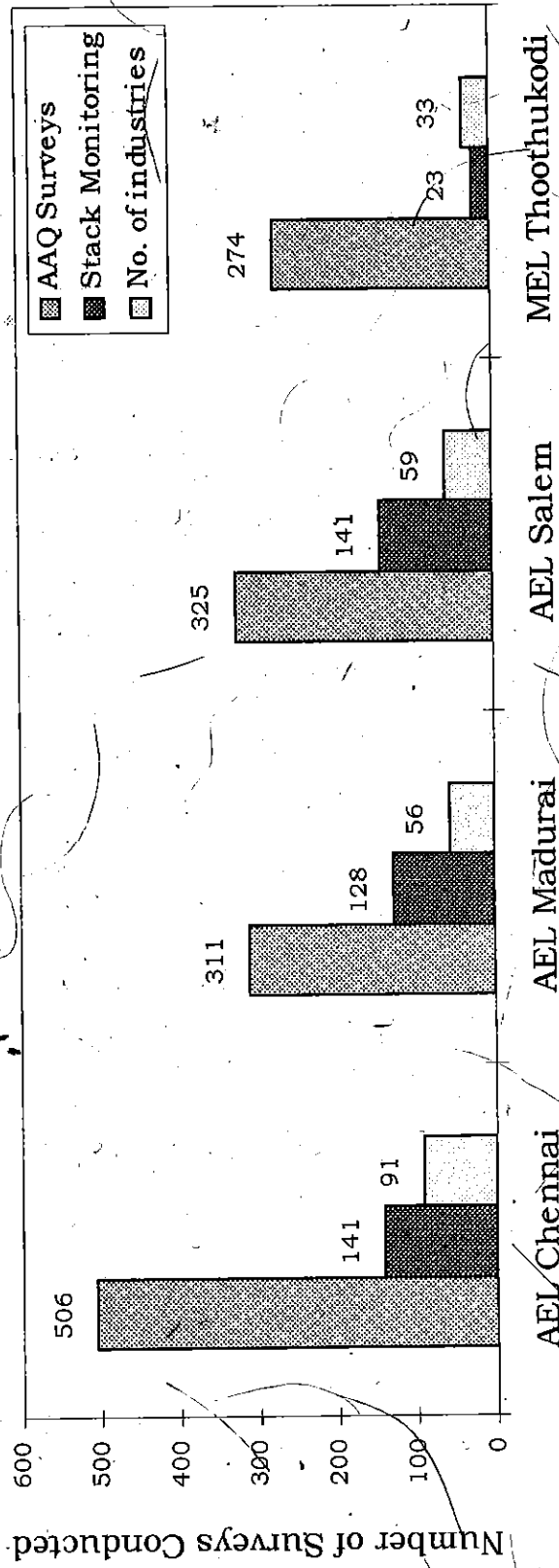
** 30 Tpd and above

ANNEXURE - XI (I)
PERFORMANCE OF ADVANCED ENVIRONMENTAL LABORATORIES(AEL) /MOBILE ENVIRONMENTAL LABORATORIES(MEL)
EFFLUENT / PROJECTS-SAMPLES ANALYSED DURING THE YEAR 2003 - 2004

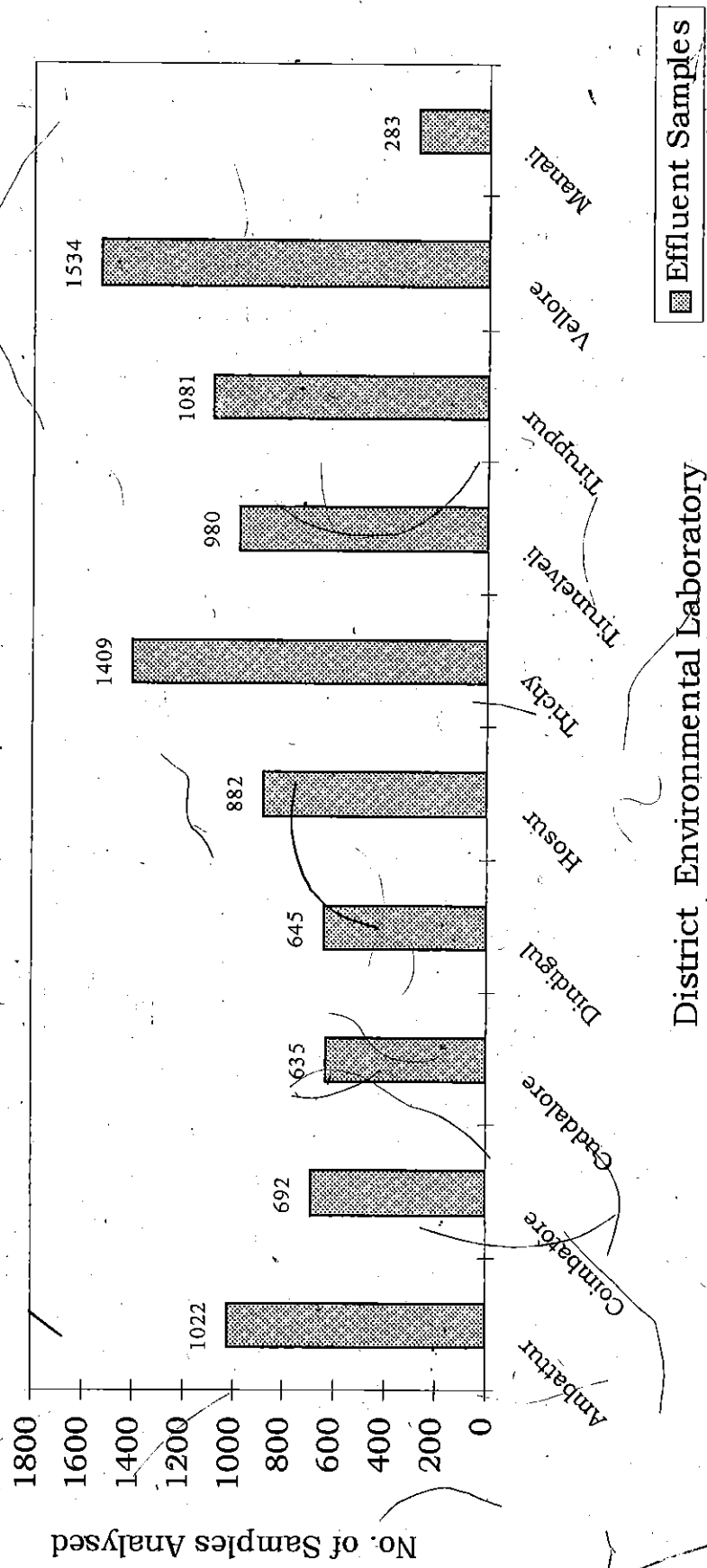


ANNEXURE -XI (ii)
PERFORMANCE OF ADVANCED ENVIRONMENTAL LABORATORIES(AEL) / MOBILE ENVIRONMENTAL LABORATORIES(MEL)

NUMBER OF SURVEYS CONDUCTED DURING THE YEAR 2003 - 2004

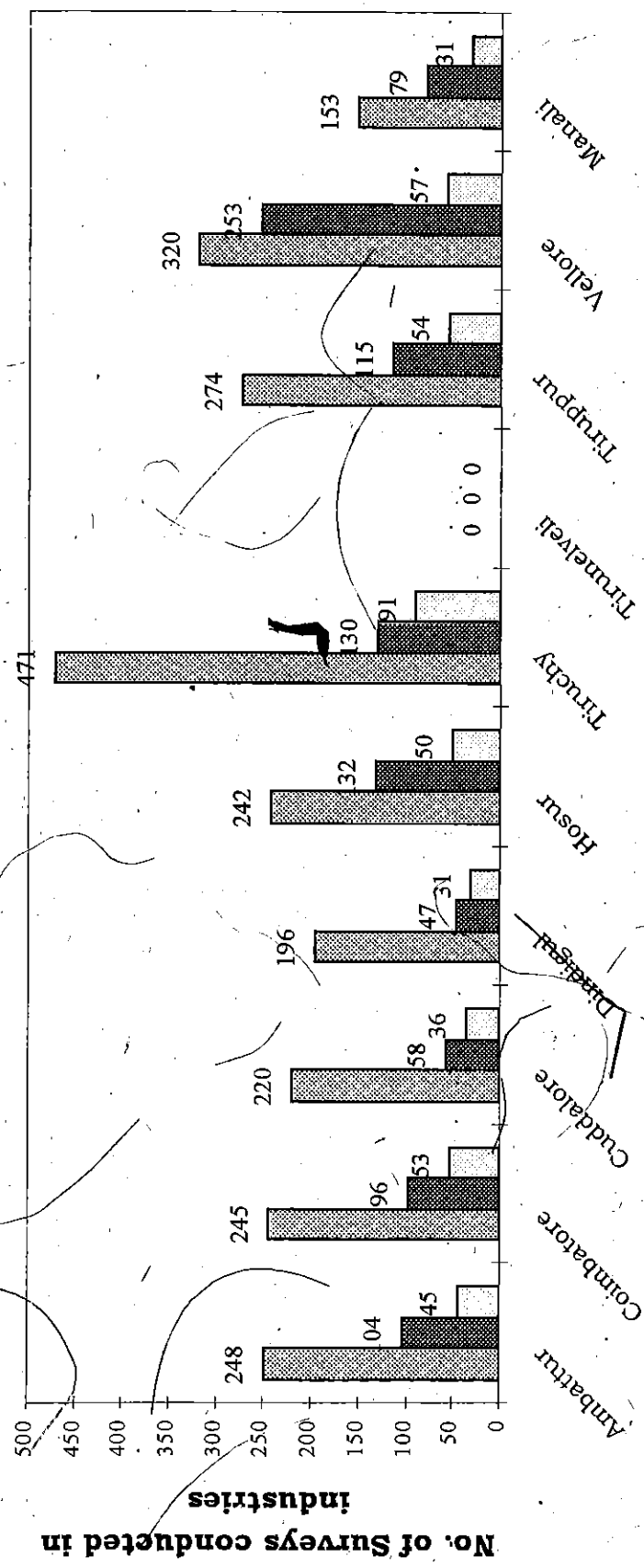


ANNEXURE - XII - (i)
PERFORMANCE OF DISTRICT ENVIRONMENTAL LABORATORIES(DEL)
EFFLUENT SAMPLES COLLECTED / ANALYSED DURING THE YEAR 2003 - 2004



District Environmental Laboratory

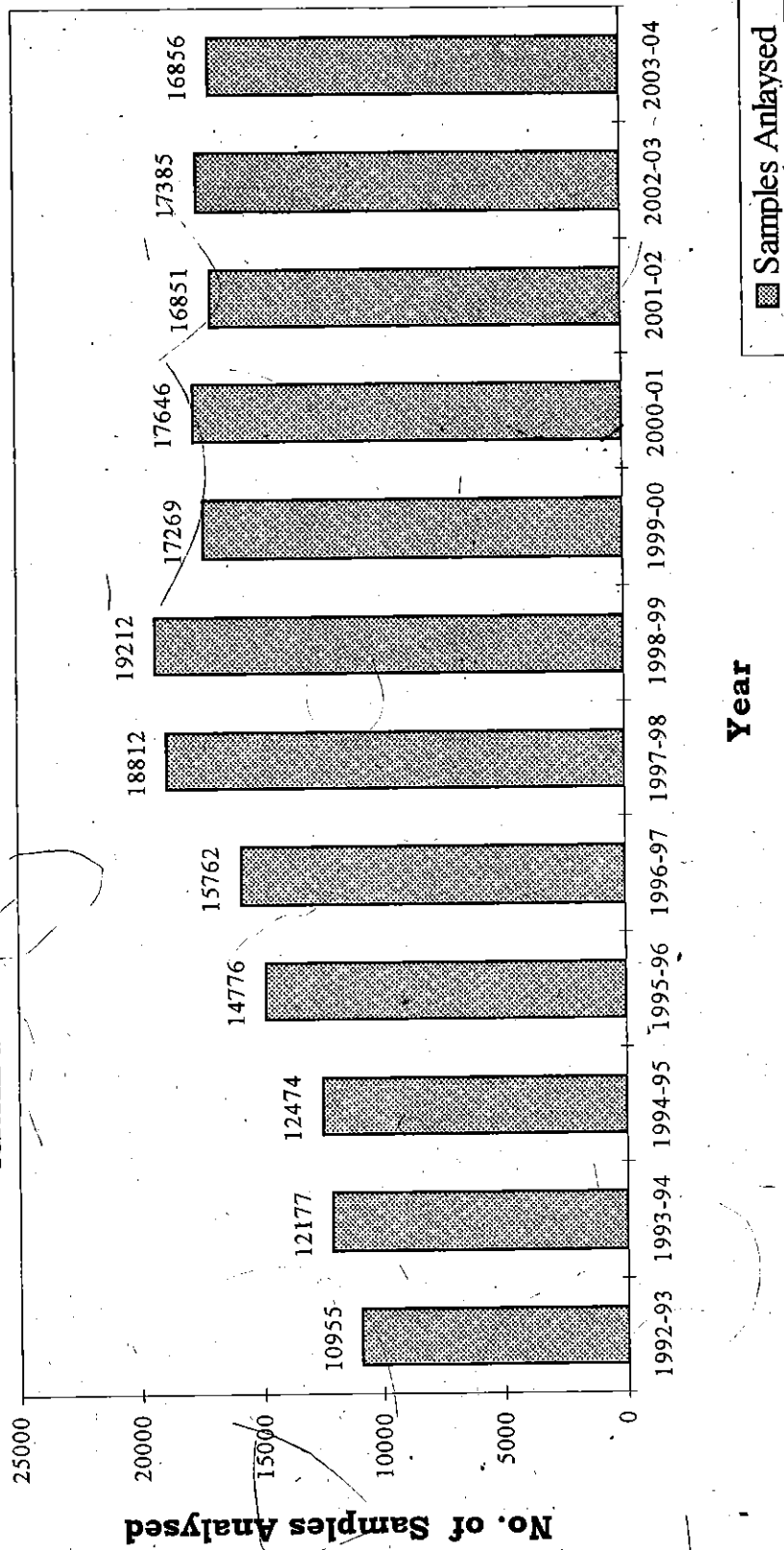
ANNEXURE - XII (ii)
PERFORMANCE OF DISTRICT ENVIRONMENTAL LABORATORIES(DEL)
NUMBER OF SURVEYS CONDUCTED DURING THE YEAR 2003 - 2004



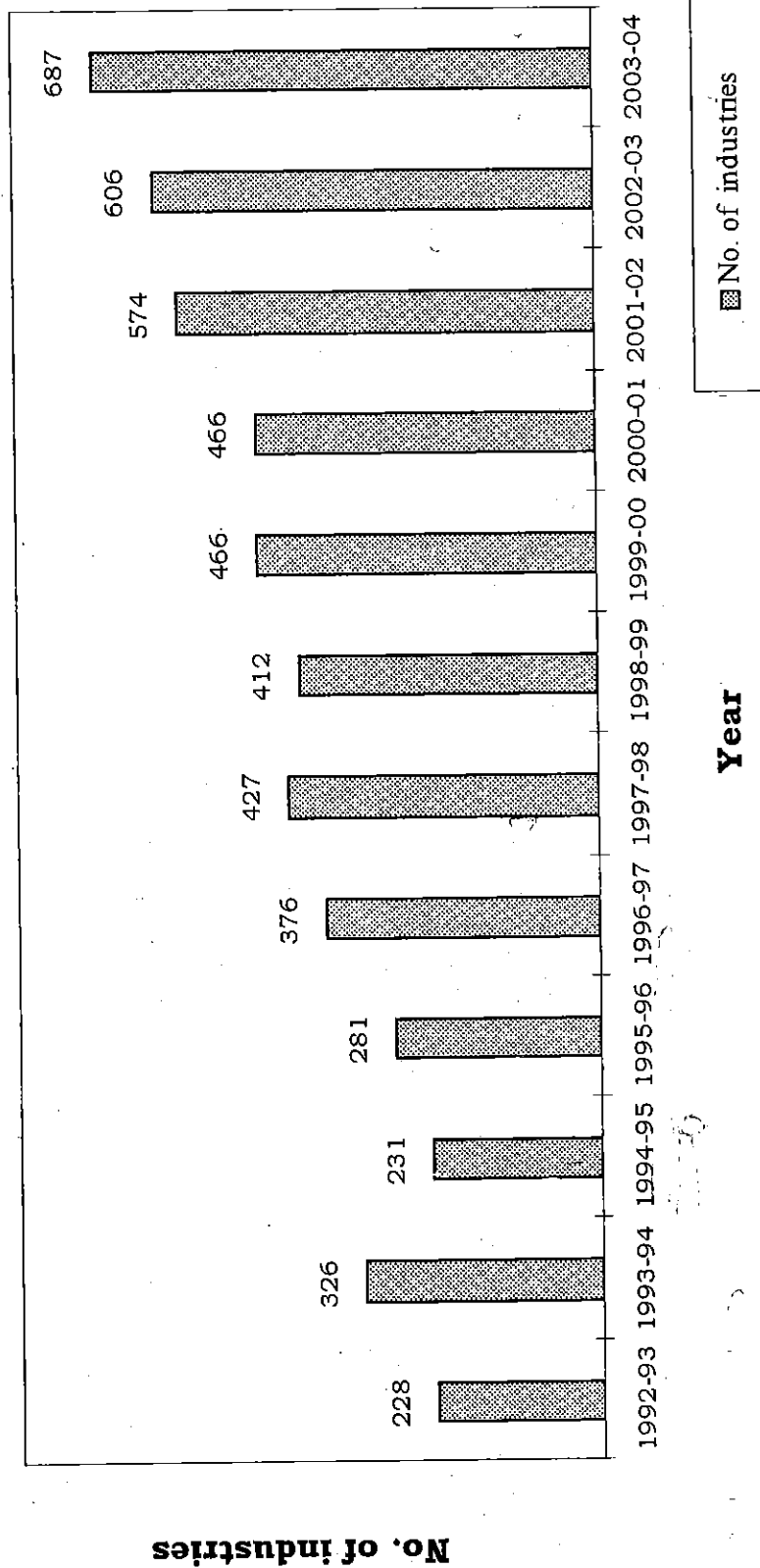
AAQ Surveys
 Stack Monitoring Surveys
 No. of industries

District Environmental Laboratory

**ANNEXURE - XIII (i)
 PERFORMANCE OF LABORATORIES
 NUMBER OF SEWAGE TRADE EFFLUENT / WATER SAMPLES
 ANALYSED FROM 1992 -93 TO 2003-2004**



**ANNEXURE - XIII-(ii)
 PERFORMANCE OF LABORATORIES
 NO OF INDUSTRIES WHEREIN AIR / STACK SURVEYS CONDUCTED
 FROM THE YEAR 1992-93 TO 2003-2004**



ACCOUNTS

VISWANATHAN & SWAMINATHAN

CHARTERED ACCOUNTANTS

Partners

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Fax:24353060

AUDITOR'S REPORT TO THE MEMBERS OF THE TAMILNADU POLLUTION CONTROL BOARD FOR THE YEAR ENDED 31st MARCH 2004

We have audited the attached Balance Sheet of Tamil Nadu Pollution Control Board as at March 31, 2004 and also the Receipts and payments account, Income and Expenditure Account for the year ended on that date annexed thereto.

These financial statements are the responsibility of the entity's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with the auditing standards generally accepted in India. Those Standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by the management as well as evaluating the overall financial statements presentation. We believe that our audit provides a reasonable basis for our opinion.

We report that

1. We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purposes of our audit.
2. In our opinion proper books of account as required by law have been kept by the corporation so far as it appears from our examination of those books.
3. The attached Balance Sheet, Receipts and Payments account, Income and Expenditure account which are set out as provided in Rule 36 of the Tamilnadu Water (prevention and control of pollution) Rules 1983 and dealt with by this report are in agreement with the books of accounts.
4. In our opinion and to the best of information and according to the explanations given to us, the said accounts read with the schedules thereto and the notes thereon attached here to subject to
 - i) Treatment of consent Fees as explained in point No. 1 (ii) a) of the Notes to the accounts.

ii) Re Instatement of Public Hearing amount to its correct carrying amount as explained in point No. I (ii) b) of Notes to Accounts.

iii) Method of providing Depreciation contrary to the standards laid down under Accounting Standard 2.

iv) Coverage of the Internal Audit as explained in point No. I (ii) c) of the Notes to the accounts.

v) Non adjustments of old advances amounting to Rs.1424888 as explained in point No. I (ii) d) of the notes to the accounts

vi) Reconciliation of Fixed Assets account as appearing in the General Ledger with their break up Balances as explained in point No. I (ii) e) of Notes to accounts.

Give the information required by the Tamil Nadu Water (prevention and control of pollution) Rules 1983, in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India:

- (a) In the case of Balance Sheet, of the State of affairs of the Board as at March 31, 2004; and
- (b) In the case of the Receipts and Payments account of the total receipts and payments of the Board for the year ended 31st March 2004
- (c) In the case of the Income and Expenditure account of the excess of Income over Expenditure for the year ended 31st March 2004

For **Viswanathan & Swaminathan**
Chartered Accountants

Sd/-

S.Sundararaman
(Partner)

Place : Chennai
Date : 17.08.2004

TAMIL NADU POLLUTION

Receipts and Payments for

See Rules 36 of Tamil Nadu Water

PREVIOUS YEAR	RECEIPTS	TOTAL OF SUB HEAD	TOTAL OF MAJOR HEADS
Rs. Ps.		Rs. Ps.	Rs. Ps.
	OPENING BALANCE		
51804323.67	a. Bank	54700183.22	
27295.00	b. Cash	29400.00	
4846220.40	c. Funds in Transit	7166279.40	61895862.62
	I. GRANTS RECEIVED		
-	a. From Government	0.00	
-	b. From other Agencies	0.00	
-	c. Schemes	440557.00	440557.00
	II. FEES		
-	a. Consultant Registration Fees	0.00	
788360.00	b. Cost of Application	851910.00	
102522901.00	c. Consent Fees	104002562.50	
27917229.36	d. Cess Collection	65654359.47	
1075500.00	e. Fees for handling H. Waste	301000.00	170809831.97
31268255.00	III. Services & Rental Charges (Lab Analysis Charges Sch - A)		36156310.00
63319816.00	IV INTEREST ON INVESTMENT		53799995.00
	V. MISCELLANEOUS		
2636881.50	a. Others (Schedule-B)	5923908.00	
16573126.00	b. Cess Re-imburement	35824662.00	
-	c. CPCB for Green Belt Scheme	200000.00	41948570.00
302779907.93	C/o		365051126.59

CONTROL BOARD, CHENNAI - 600 032.
the year ended 31st March 2004.

(Prevention and Control of Pollution) Rules 1983.

PREVIOUS YEAR		PAYMENTS	TOTAL OF SUB HEAD		TOTAL OF MAJOR HEADS	
Rs.	Ps.		Rs.	Ps.	Rs.	Ps.
		I. CAPITAL EXPENDITURE				
		a. Assets - Land Advance and Building Development		249200.00		
2075760.00				532251.00		
85933.00		b. Laboratory Equipment		40150.00		
-		c. Vehicles		188878.00		
116454.00		d. Furniture		878322.00		
524561.00		e. Office Appliance		37834.00		
74790.00		f. Library Books		13546.00		
6864.00		g. Electrical Installation			1940181.00	
		II. REVENUE EXPENDITURE				
		A. ADMINISTRATIVE				
		i. Salaries		85538725.70		
79289050.20		ii. Pension & Gratuity Contribution		9094869.00		
6316600.00		iv. Surrender Leave Salary		725328.00		
283779.00		v. Bonus		0.00		
-		vi. Medical Expenses		1506504.50		96865427.20
1520231.00						
		B. BOARD LABORATORY				
		i. Running Expenses of Lab.		115978.00		
448968.15		ii. Lab. Chemicals etc.,		975574.00		1091552.00
651496.00						
91394486.35		C/o			99897160.20	

TAMIL NADU POLLUTION

Receipts and Payments for

See Rules 36 of Tamil Nadu Water

PREVIOUS YEAR	RECEIPTS	TOTAL OF SUB HEAD	TOTAL OF MAJOR HEADS
Rs. Ps.		Rs. Ps.	Rs. Ps.
302779907.93	B/F		365051126.59
	VI. DEPOSITS & ADVANCES		
	i. Earnest Money Deposit	244292.50	
284237.00	ii. Security Deposit	14338.00	
143884.00	iii. Advance to Staff (Sch. - C)	485334.50	
53574000.00	iv. Short Term Deposit	550559562.00	
13570.00	v. Telephone Deposit	5199.00	
117539.00	vi. Rent Advance	29200.00	
1125.00	vii. Electricity Deposit	0.00	
8595.00	viii. Other Deposit	460417.00	551798343.00
40475664.00	VII. OTHERS (Schedule - D)		69971266.00
125000.00	VIII Environment Impact Study		0.00
436288.00	IX Building (Refund from PWD)		601084.00
397959809.93	Total		987421819.59

Chennai - 600 032
Date: 17/08/2004

Sd/-
Amelia G. Dare B.A.,
Financial Adviser

Sd/-
K. Sanjeevi M.E.(PH)
Member Secretary

CONTROL BOARD, CHENNAI - 600 032.

the year ended 31st March 2004.

(Prevention and Control of Pollution) Rules 1983.

PREVIOUS YEAR	PAYMENTS	TOTAL OF SUB HEAD		TOTAL OF MAJOR HEADS	
		Rs.	Ps.	Rs.	Ps.
Rs. Ps. 91394486.35	B/F				99897160.20
4079279.60	C. Running & Maintenance of Vehicle				4353106.45
	D. MAINTENANCE & REPAIRS				
4288137.00	i. Buildings, land & Rent	1364539.00			
14590.00	ii. Furniture & Fixture	32161.00			
429982.00	iii. Scientific instruments	841927.00			
455333.50	iv. Office Appliance	579426.00			
20397.25	v. Electrical Installation	54543.00			
96322.00	vi. Insurance of Assets	427643.00			
4110.00	vii. Other Assets	4400.00			3304639.00
1078000.00	E. Scheme				16615.00
1179456.00	F. Fees to Consultant and Specialists				33750.00
130483.00	G. Law Charges				172536.00
25000.00	H. Expenses for audit				25616.00
2100000.00	I. CPCB for Green Belt Scheme paid by Board				0.00
10450000.00	J. CETP REFUND TO CPCB	40852132.60			
33044096.11	III MISCELLANEOUS (Schedule-E)	64301762.00			105153894.60
28637411.00	a. Cess Remittance				
3720602.50	IV ADVANCE (Schedule - F)				3033395.00
	V Deposits				
152500000.00	a. Short Term Deposits	745486985.00			
2416261.00	b. Others (Schedule - G)	11079946.48			756566931.48
	VI CLOSING BALANCE				
54700183.22	Bank	13604020.36			
29400.00	Cash	20680.00			
7166279.40	Funds in Transit	1239475.50			14864175.86
397959809.93	Total				987421819.59

Subject to our report of even date & Schedules + Notes attached for M/s. Viswanathan & Swaminathan, Chartered Accountants

Sd/-
Girija Vaidyanathan I.A.S.
Chairperson

Sd/-
S. Sundara Raman
Partner

3-9847

ANNUAL STATEMENT Income and Expenditure Account

See Rules 36 of Tamil Nadu Water

PREVIOUS YEAR	EXPENDITURE	TOTAL OF SUB HEAD	TOTAL OF MAJOR HEADS
Rs. Ps.		Rs. Ps.	Rs. Ps.
	REVENUE EXPENDITURE		
	A. Administrative		
2171681.00	i. Pay of officers	2022777.00	
49757608.40	ii. Pay of Establishment	50264976.50	
33977956.30	iii. Allowance & Honororia (Schedule-H)	36830557.00	
14519179.00	iv. Contribution to Gratuity & Provision for Pension	18620458.00	
283779.00	v. Surrender Leave Salary	725328.00	108464096.50
656149.50	B. Running Expenses of Labs.		1887011.52
4361286.35	C. Running and Maintenance of Vehicle (Schedule-I)		4602692.70
14980.50	D. Maintenance and Repairs		
536130.50	i. Furniture & Fixtures	34411.00	
478001.00	ii. Lab. Equipments & Instruments	1445898.00	
52944.75	iii. Office Appliance	617539.00	
1001512.00	iv. Electrical Installation	57095.00	
8670.00	v. Building	1469855.00	
	vi. Others		3624798.00
1179456.00	E. Fees to Consultants and Specialists		35000.00
159850.00	F. Law Charges		179975.00
10670359.67	G. Depreciation (Form XV)		13285956.42
37324934.96	H. Miscellaneous (Schedule-J) S.W. Rev		44833918.10
26250.00	I. Fees for Audit		27750.00
10916288.28	J. Excess of income over Exp. 2003-04	114729369.26	
1508546.89	Prior Period Expenditure (Sch - JI)	87982024.36	87982024.36
	K. Excess of income over Exp. trf to B/S		26747344.90
267845564.10	Total		291670567.50

Chennai - 600 032
Date: 17/08/2004

Sd/-
Amelia G. Dare B.A.,
Financial Adviser

Sd/-
K. Sanjeevi M.E.(PH)
Member Secretary

OF ACCOUNT

for the year ended 31st March 2004.

(Prevention and Control of Pollution) Rules 1983.

PREVIOUS YEAR		INCOME	TOTAL OF SUB HEAD		TOTAL OF MAJOR HEADS	
Rs.	Ps.		Rs.	Ps.	Rs.	Ps.
		I. Grants received				
		i. From Government				
		ii. From other Agencies				
		Less: Amount utilised for Capital Expenditure				
		Net Grant available for Revenue Expenditure				
136950193.00		II. Fees (Schedule-K)				141864555.50
33889514.00		III Services & Rental Charges (Schedule-L)				37147397.00
642254.10		IV Miscellaneous Receipts				
16573126.00		i. Others (Schedule-M)	809673.00			36634310.00
		ii. Cess Reimbursement	35824637.00			
79790477.00		V Interest on Investment				76024305.00
		VI Prior Period Adj.Account				0.00
267845564.10		Total				291670567.50

Subject to our report of even date & schedules+ notes attached for M/s.Viswanathan & Swaminathan, Chartered Accountants

Sd/-

Girija Vaidyanathan I.A.S
Chairperson

Sd/-

S. Sundara Raman
Partner

ANNUAL STATEMENT
Balance Sheet as
See Rules 36 of Tamil Nadu Water

PREVIOUS YEAR	LIABILITIES	TOTAL OF SUB HEAD	TOTAL OF MAJOR HEADS
Rs. Ps.		Rs. Ps.	Rs. Ps.
	A. CAPITAL FUND		
	a. Grants		
50526922.18	i. Grants received from Govt. for capital exp. upto 01.04.2003	50526922.18	
	ii. Grants received from Govt. for capital exp. During the current year and utilised upto 31.3.2004	-	
	iii. Grants received towards specific schemes from other agencies	-	50526922.18
	b. Excess of Income over Expenditure		
697836624.12	i. As at 01.04.03	796327552.73	
(10670359.67)	ii. Less: Amount transferred to Depreciation Fund	(22471442.18)	
109161288.28	iii. Add: Surplus during the year	773856110.55 26747344.90	800603455.45
	B. Earmarked Fund (Schedule-T)		
105264462.50	a. Pension Fund	179200610.00	
131590921.07	b. Depreciation Fund	161957818.25	341158428.25
0.00	c. CETP Development Fund		8649500.00
	d. Earn leave encashment Fund		19646730.00
	C. Other Deposits		
2970427.33	a. Deposits for supply & works (Schedule -N)	4138219.83	
34666319.05	b. Refundable Performance Guarantee Deposits	34400126.05	38538345.88
	D. Amount Due		
696309246.23	a. Cess Payable	1167707548.89	
(389904.00)	Less: Provision	(1368936.86)	1166338612.03
19858092.74	b. Others (Schedule -O)		18594694.89
1837124039.83	C/o		2444056688.68

OF ACCOUNT
on 31st March 2004.

(Prevention and Control of Pollution) Rules 1983.

PREVIOUS YEAR		ASSETS	TOTAL OF SUB HEAD		TOTAL OF MAJOR HEADS	
Rs.	Ps.		Rs.	Ps.	Rs.	Ps.
		I. FIXED ASSETS				
8376224.65		a. Land Development				8625424.65
		b. Building under Construction				
6180000.00		i. Hosur		0.00		
5500000.00		ii. Tirunelveli		0.00		
8165000.00		iii. Trichy		0.00		
8870000.00		iv. Madurai		0.00		0.00
		c. Software Development				0.00
		II OTHER ASSETS				
55273755.33		a. As per Form XV				71986571.63
		b. Stock in hand				
961628.47		i. Lab Chemicals	855909.15			
854373.47		ii. Glassware	841306.39			
195537.33		iii. Misc. Stores	228171.56			
1035420.73		iv. Filter Paper	977851.38			2903238.48
		III SUNDRY DEBTORS				
1792813.00		a. Zoning Atlas Scheme				546378.00
		b. Cess Receivable				
529590137.90		i. From Industries	975278602.09			
164207462.55		ii. From Local Bodies	187543257.55			
			1162821859.64			
(389904.00)		Less: Provision for doubtful Debts <i>is</i> <i>and 850354.46 + 51882.40</i>	(1368936.86)			1161452922.78
		c. Amount Receivable - PWD				21434.00
		IV. ADVANCES & DEPOSITS				
74494138.20		a. Misc. amounts recoverable (Schedule - Q)	110642960.20			
4098224.50		b. Others amounts recoverable (Schedule - R)	3709894.00			
1672526.40		c. Deposits (Schedule - S)	1759266.40			116112120.60
870877338.53		C/o				1361648090.14

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ANNUAL STATEMENT
Balance Sheet as
See Rules 36 of Tamil Nadu Water

PREVIOUS YEAR	LIABILITIES	TOTAL OF SUB HEAD	TOTAL OF MAJOR HEADS
Rs. Ps.		Rs. Ps.	Rs. Ps.
1837124039.83	B/f		2444056688.68
264956.98	E. Environmental Impact Study		264956.98
39493323.00	F. Income received in advance (Schedule - P)		70728220.00
44473500.00	G. Subsidies for common Effluent treatment plants		44348500.00
1189893.34	H. Environmental Education Fund Reserve		1189893.34
500000.00	I. Emergency response centre		500000.00
492000.00	J. C P C B Green Belt		692000.00
1260194.00	K. Schemes		1684136.00
1924797907.15	Total		2563464395.00

Chennai - 600 032
Date: 17/08/2004

Sd/-
Amelia G. Dare B.A.,
Financial Adviser

Sd/-
K. Sanjeevi M.E.(PH)
Member Secretary

OF ACCOUNT

on 31st March 2004.

(Prevention and Control of Pollution) Rules 1983.

PREVIOUS YEAR		ASSETS	TOTAL OF SUB HEAD		TOTAL OF MAJOR HEADS	
Rs.	Ps.		Rs.	Ps.	Rs.	Ps.
870877338.53		B/f			1361648090.14	
		V. CASH				
		a. Deposits				
105264462.50		1 Pension Fund Investment	179200610.00			
131590921.07		2 Depreciation Fund Investment	161957818.25			
		3 Refundable Performance -				
34666319.05		Guarantee Deposit Investment	34400126.05			
447000.00		4 Model ETP for Sago Plant	447000.00			
720056003.38		5 Other term deposit	782650344.70			
		6 CETP Develop. Fund Investment	8649500.00			
		7 EL Encashment Fund Investment	19646730.00		1186952129.00	
54700183.22		b. Balance with Bank	13604020.36			
29400.00		c. Cash in Hand	20680.00			
7166279.40		d. Funds under Transit	1239475.50		4864175.86	
1924797907.15		Total			2563464395.00	

Subject to our report of even date & Schedules + notes attached
For M/s. Viswanathan & Swaminathan, Chartered Accountants

Girija Vaidyanathan I.A.S.
Chairperson

Sd/-
S. Sundara Ramah
Partner

FORM - XV

ANNUAL STATEMENT OF ACCOUNTS - FIXED ASSETS AS ON 31st MARCH 2004.

See Rules 36 of Tamil Nadu Water (Prevention and control of Pollution) rules 1983.

Sl. No.	Particulars of Assets	Percentage	Opening Balance on 01/04/2003		Additions and sales adjustment during the year		Total		Depreciation *		Closing Balance on 31/03/2004		Cumulative Depreciation as on 31/03/2004	
			Rs.	P.	Rs.	P.	Rs.	P.	Rs.	P.	Rs.	P.	Rs.	P.
1	Building	10.00%	33354966.60		28092482.00		61447448.60	14372416.12		47075032.48		63508392.12		
2	Computer	60.00%	1634936.80		1154814.00		2789750.80	1673850.48		115900.32		4215115.68		
3	Electrical Installations	15.00%	319908.55		13546.00		333454.55	50018.18		283436.37		1406896.74		
4	Furniture & Fixture	10.00%	6956127.90		184901.00		7141028.90	714102.89		6426926.01		9355586.22		
5	Lab Equipment	33.33%	3338318.24		8074658.00		11412976.24	3803944.98		7609031.26		52482061.88		
6	Library Books	10.00%	2552112.90		39126.00		2591238.90	259123.89		2332115.01		2371170.02		
7	Office Appliance	10.00%	4879765.80		760018.00		5639783.80	563978.38		5075805.42		6055167.72		
8	Vehicle	33.33%	2237618.54		864713.48		3102332.02	1034007.26		2068324.76		14667972.87		
	Total		55273755.33		39184258.48		94458013.81	22471442.18		71986571.63		154062363.25		

*Note : Current Yr. Depreciation = 13285956.42
 Prior Period Depreciation = 9185485.76
 Total Depreciation = 22471442.18

Sd/-
 Amelia G. Dare B.A., K. Sanjeevi M.E.(PH)
 Financial Adviser Member Secretary

Sd/-
 Girija Vaidyanathan I.A.S.,
 Chairperson

For M/S. Viswanathan & Swaminathan,
 Chartered Accountants

Sd/-
 S. Sundara Raman
 Partner

Chennai - 600 032
 Date/ 17/08/04

**SCHEDULE FORMING PART OF RECEIPTS AND PAYMENTS ACCOUNT
FOR THE YEAR ENDED ON 31st MARCH 2004.**

RECEIPTS

**SCHEDULE - A
Services & Rental Charges**

SL.NO	DESCRIPTION	Rs.	Ps.
1	A.A.Q.S	14062324.00	
2	Analysis Charges	15196965.00	
3	Cess Appeal Fees		1050.00
4	NAAQM	2207751.00	
5	Noise Level Measurement		10290.00
6	Stack Monitoring		15000.00
7	VEM Test Fees	4662930.00	
	TOTAL	36156310.00	

**SCHEDULE - B
MISCELLANEOUS RECEIPTS**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Amount received from Insurance	1362146.00	
2	E T I	480908.00	
3	Enlistment Fees	45000.00	
4	Interest on Loans / Advance	22063.00	
5	Miscellaneous Income	315143.00	
6	Pay Roll Receipt	83142.00	
7	Public Hearing	1230750.00	
8	Rent (Corporate Office)	103628.00	
9	Sale of legal Books	94160.00	
10	Zoning Atlas	2186968.00	
	TOTAL	5923908.00	

**SCHEDULE FORMING PART OF RECEIPTS AND PAYMENTS ACCOUNT
FOR THE YEAR ENDED ON 31st MARCH 2004.**

**SCHEDULE - C
ADVANCE TO STAFF (Receipts)**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Cycle Advance		1352.00
2	Festival Advance		15305.00
3	Handloom Advance		615.00
4	L T C Advance		90.00
5	Marriage Advance		450.00
6	Pay Advance		500.00
7	Telephone & Telex(Excess call)		66008.00
8	Temporary Advance		132181.50
9	Tour Advance		122453.00
10	Vehicle Advance		146380.00
	TOTAL		485334.50

**SCHEDULE - D
ADVANCES AND DEPOSITS (OTHERS) (RECEIVED)**

SL.NO	DESCRIPTION	Rs.	Ps.
1	A.A.Q.S received in advance		230996.00
2	Analysis fees received in advance		461070.00
3	Cess received in advance		3298181.00
4	Consent Fees received in advance		65861019.00
5	Sundry Creditors Others		120000.00
	TOTAL		69971266.00

**SCHEDULE FORMING PART OF RECEIPTS AND PAYMENTS ACCOUNT
FOR THE YEAR ENDED ON 31st MARCH 2004.**

PAYMENT

**SCHEDULE - E
MISCELLANEOUS**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Appellate Authority Expenses		93706.00
2	Advertisement and Publicity		142409.00
3	Bank interest and commission		65901.00
4	Bio Medical Waste Expenses		48713.00
5	C E T P Expenses		3008000.00
6	Consultant Registration -refund		15225.00
7	Contract Charges		4415580.00
8	Conveyance		364074.00
9	D E E Legal Sample		97765.00
10	Electricity/Water Charges		5825686.00
11	Entertainment		63887.00
12	Environmental Pavilion Expenses		259954.00
13	ETI Expenses		578735.00
14	Expenses of Audit		2066.00
15	Family Benefit Fund		189634.00
16	Land Maintenance Expenses		27172.00
17	LTC Expenses		33543.00
18	Miscellaneous Expenses		84388.00
19	Newspaper & periodicals		173986.00
20	Office Expenses		163754.80
21	Outstanding Expenses		2092378.90
22	Petty Cash Expenses		661203.45
23	Pollution Awareness Expenses		8530587.00
24	Postage/Telegram		868264.00
25	Printing and Stationery		1757921.00
26	Prior period adjustment account		40634.00
27	Property tax		507334.00
28	Public Hearing		685099.00
29	Rent		3606331.00
30	Staff Death claim paid		84205.00
31	Staff Welfare Expenses		825816.45
32	Tax Deducted at Source		1316376.00
33	Telephone and Telex		2058041.50
34	Trade Fair		241215.00
35	Training and Seminar		231124.00
36	Travelling expenses		1351963.50
37	Turn duty and Overtime Allow.		65670.00
38	Zoning Atlas Exp.		273790.00
	TOTAL		40852132.60

**SCHEDULE FORMING PART OF RECEIPTS AND PAYMENTS ACCOUNT
FOR THE YEAR ENDED ON 31st MARCH 2004.**

**SCHEDULE - F
ADVANCE TO STAFF (PAYMENT)**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Cycle Advance	12000.00	
2	Festival Advance	481200.00	
3	Handloom Advance	81144.00	
4	Imprest to Staff	64738.00	
5	L.T.C. Advance	48982.00	
6	Marriage Advance	10000.00	
7	Motor Vehicle Advance	557657.00	
8	Pay Advance	4300.00	
9	Temporary Advance	1245297.00	
10	Tour Advance	526077.00	
11	Transfer Travelling Advance	2000.00	
	TOTAL	3033395.00	

**SCHEDULE - G
DEPOSITS AND ADVANCES (PAID) (OTHERS)**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Advance to Suppliers	10230438.48	
2	Earnest Money Deposit (refund)	260918.50	
3	Electricity Deposit	44050.00	
4	Enlistment Deposit	5000.00	
5	Land Advance	54600.00	
6	Miscellenious Deposit	330.00	
7	Other Deposit (Custom deposit)	42698.00	
8	RPGD	266193.00	
9	Security Deposit (Refund)	167005.50	
10	Telephone Deposit	8713.00	
	TOTAL	11079946.48	

**SCHEDULE FORMING PART OF INCOME AND EXPENDITURE ACCOUNT
FOR THE YEAR ENDED ON 31st MARCH - 2004.**

EXPENDITURE

**SCHEDULE - H
ALLOWANCES AND HONORARIA**

SLNO	DESCRIPTION	Rs.	Ps.
1	Allowances	32986161.50	
2	Family Benefit Fund Contribution	140674.00	
3	Leave Travel Concession Expenses	75618.00	
4	Medical Reimbursement	1510188.50	
5	Travelling Expenses	2034460.00	
6	Turn Duty and Overtime Allowances	83455.00	
	Total	36830557.00	

**SCHEDULE - I
RUNNING AND MAINTENANCE OF VEHICLES**

SLNO	DESCRIPTION	Rs.	Ps.
1	Fuel	3289837.20	
2	Hire Charges	85155.00	
3	Insurance	147590.00	
4	Repairs	1080110.50	
	Total	4602692.70	

**SCHEDULE FORMING PART OF INCOME AND EXPENDITURE ACCOUNT
FOR THE YEAR ENDED ON 31st MARCH - 2004.**

**SCHEDULE - J
MISCELLANEOUS**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Advertisement & Publicity	81282.00	
2	Appellate Authority Expenses	364504.00	
3	Bank Charges	98413.40	
4	Bio-waste Management Expenses	47213.00	
5	Board Meeting Expenses	24985.00	
6	C E T P Expenses	11532500.00	
7	Contract Charges / Wages	4609599.00	
8	Conveyance Expenses	441887.00	
9	D E E's Legal Sample Expenses	203355.00	
10	Electricity & Water Charges	6480620.00	
11	Entertainment Expenses	132032.00	
12	Environmental Pavilion Expenses	289206.50	
13	Environmental Training Institute Expenses	1159729.00	
14	Expenses of audit	4045.00	
15	Insurance of Assets	427643.00	
16	Land Maintenance Expenses	27172.00	
17	Newspaper and Periodicals	239165.50	
18	Office Expenses	295986.55	
19	Pollution Awareness Expenses	7870816.00	
20	Postage & Telegram	908973.35	
21	Printing & Stationery	1959495.60	
22	Property Tax and Rates	507334.00	
23	Rent on Buildings	3711605.00	
24	Staff Welfare Expenses	880642.45	
25	Sundries	107880.50	
26	Telephone & Telex	1974808.25	
27	Trade Fair Expenses	241215.00	
28	Training and Seminar Expenses	211810.00	
	TOTAL	44833918.10	

**SCHEDULE - JI
PRIOR PERIOD EXPENSES.**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Pension Provision accrued	61149808.60	
2	Depreciation	9185485.76	
3	Earn Leave Encashment - accrued	17646730.00	
	TOTAL	87982024.36	

**SCHEDULE FORMING PART OF INCOME AND EXPENDITURE ACCOUNT
FOR THE YEAR ENDED ON 31st MARCH 2004.**

INCOME

**SCHEDULE - K
FEES**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Consent Fees	141012920.50	
2	Consent Forms	851635.00	
	TOTAL	141864555.50	

**SCHEDULE - L
SEVICE AND RENTAL CHARGES**

SL.NO	DESCRIPTION	Rs.	Ps.
1	AAQS	13814064.00	
2	Analysis Charges	15683865.00	
3	GEMS		0.00
4	Hazardous Waste Management Fees	316000.00	
5	NAAQM	2660248.00	
6	Noicse Level (Measurement)	10290.00	
7	VEM Test Fees	4662930.00	
	Total	37147397.00	

**SCHEDULE - M
MISCELLANEOUS**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Bio-Medical Waste Management Fees		0.00
2	Cess Appeal Fees		1075.00
3	Interest on Loans & Advance	312019.00	
4	Miscellaneous Income	404759.00	
5	Sale of Books		91820.00
	TOTAL	809673.00	

**SCHEDULE FORMING PART OF BALANCE SHEET
AS ON 31st MARCH 2004.**

LIABILITIES

**SCHEDULE - N
OTHER DEPOSITS**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Earnest Money Deposit		656415.20
2	Enlistment Deposits		249500.00
3	Others	-	1705562.00
4	Retention Money Deposits		283106.48
5	Security Deposits		1243636.15
	TOTAL		4138219.83

**SCHEDULE - O
SUNDRY CREDITORS**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Flag Day Collection		2000.00
2	Others		1209145.00
3	Outstanding Liability		5778879.49
4	Pay Roll Liabilities		463457.30
5	Public Hearing Fund		10950289.10
6	Staff Death/Retirement Claim/Payable		40800.00
7	Tax Deducted at Source (Officers)		26500.00
8	Tax Deducted at Source (Others)		123624.00
	TOTAL		18594694.89

**SCHEDULE - P
INCOME RECEIVED IN ADVANCE**

SL.NO	DESCRIPTION	Rs.	Ps.
1	AAQS		230996.00
2	Analysis Fees		436795.00
3	Cess Fees		3294110.00
4	Consent Fees		66766319.00
	TOTAL		70728220.00

**SCHEDULE FORMING PART OF BALANCE SHEET
AS ON 31st MARCH 2004.**

ASSETS

**SCHEDULE - Q
MISCELLANEOUS ADVANCES**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Advance to Suppliers		3108404.90
2	Insurance Claim Receivable		43243.00
3	Interest Receivable		101707739.00
4	Land Advance		4978135.00
5	Others		22668.00
6	Rent Advance		770069.15
7	Staff Welfare Fund		12701.15
	TOTAL		110642960.20

**SCHEDULE - R
ADVANCES TO STAFF**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Cycle Advance		11687.00
2	Festival Advance		285190.00
3	Handloom Advance		20185.00
4	Leave Travel Concession Advance		16642.00
5	Marriage Advance		53045.00
6	Miscellaneous Advance (P R L)		900.00
7	Motor Vehicle Advance		2855479.00
8	Pay Advance		2500.00
9	Personal Computer Advance		163165.00
10	Short Term Advance		1800.00
11	Staff Housing Scheme		12662.00
12	Temporary Advance		93471.00
13	Tour Advance		119068.00
14	Transfer Tour Advance		74100.00
	TOTAL		3709894.00

**SCHEDULE - S
DEPOSITS**

SL.NO	DESCRIPTION	Rs.	Ps.
1	Customs Deposit		46271.40
2	Electricity Deposit		645624.00
3	Gas Deposit (Miscellaneous deposit)		31746.00
4	Staff Higher Studies Deposit		4928.00
5	Telephone & Telex Deposit		1030697.00
	TOTAL		1759266.40

**SCHEDULE FORMING PART OF BALANCE SHEET
AS ON 31st MARCH 2004.**

**SCHEDULE-T
EARMARKED FUND**

SL.NO	DESCRIPTION	AMOUNT
1	Pension Fund	
	Opening balance as on 1.4.2004	105264462.50
	Add: Provision made during the year 2003-04	70977852.50
	Add: Interest earned from Pension Fund Investment <i>b/f</i>	6315868.00
		182558183.00
	Less: Pension paid during the year	-3357573
		179200610.00
2	Depreciation Fund	
	Opening balance as on 1.4.2004	131590921.07
	Add: Provision made during the year 2003-04	22471442.18
	Add: Interest earned from Dep. Inv. Fund <i>b/f</i>	7895455.00
		161957818.25

Notes Forming Part of the Accounts for the year ended 31st March 2004.

I. Accounting Policies and Convention:

(i) This account is prepared on the assumption of going concern concept.

(ii) Revenue Recognition: Revenues are recognised in the following manner:

a. Consent Fees:

On the basis of amount received which is taken in to account, if the consent, for which the amount is collected, relates to the period up to the period for which the Balance Sheet is drawn up, otherwise it is carried as liability.

b. Other Fees, Services Charges, Cess reimbursement and other Income:

On Cash basis.

c. Interest on Investments:

On accrual basis.

d. Expenses:

On accrual basis.

e. Revenue on Earmarked Funds:

Revenue accrued on earmarked funds are recognised on accrual basis and transferred to the respective fund account.

i) Investments : Investments are stated at the carrying cost.

ii) Fixed Assets : Fixed Assets are stated at their Historical Cost.

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iii) Depreciation : Depreciation is calculated on written down value by applying the following rates:

Building - 10%

Computer - 60%

Electrical Installations 15%

Furniture and Fixture-10%,

Lab Equipment 33.33%,

Library Books- 10%,

Office Appliance-10%,

Vehicle-33.33%.

Depreciation is charged for the full year irrespective of the date of addition. In respect of various works, depreciation is computed from date of completion as evidenced by the certificate from the Public Works Department.

iv) Stock on Hand : Stock of Lab chemicals, Misc. Stores & Filter papers are valued at cost. Cost is arrived under First in First out method.

v) Retirement Benefits :

a) Gratuity : Gratuity is administered by a separate trust managed by the Life Insurance Corporation of India. The contribution made against the fund is charged to revenue.

b) Pension & Earned Leave : Contribution to Pension & Earned Leave is provided in the accounts as per actuarial valuation to comply with the Accounting Standard 15 as against provision made on Estimated basis during the previous year. The additional charge to profit and loss account on account of the above is Rs.8,07,96,539. Fixed Deposits are earmarked and transferred to separate fund account to meet out the liability.

II Other Points :

a) Consent Fees

It is noted that demands regarding " Consent fees" are raised on the basis of Fixed Asset values as declared by the applicants in many cases. It was observed that no indication or note was available at Board Office indicating the basis of the levy as to whether fees has been computed on the value of assets indicated by Audited Balance Sheet, valuers certificates or the Board's assessment's as the case may be. The Board is collecting cess and consent fees, however necessary information/data is not available to determine whether all industries to which the provision of the Act applies have paid cess and consent fees. In the absence of such information, income from this head has been recognised on the basis of available records.

b) Public Hearing:

Amount collected towards public hearing after meeting out the expenses are treated as liability. The extend of amount to be taken to revenue are yet to be ascertained. The total amount pending as on 31.03.2004 is Rs. 10950289

c) Internal Audit

The Board has an Internal Audit System. In our view, the coverage and frequency of their visit is far from satisfactory.

d) Loans & Advances :

Loans and advances includes various advances listed below pending for adjustments for a long period of time

(i)	Advance to Supplier	1295829
(ii)	TTA advance & Pay advance	76100
(iii)	Others	22668
(iv)	Staff Higher Studies Deposit	4928
(v)	Staff Welfare Fund	12701
(vi)	Staff Housing Scheme	12662
	Total	<u>1424888</u>

e) Fixed Assets:

The Value of the Fixed Assets as shown by the Fixed Assets Register is not reconciled with the Balance as shown by the General Ledger. Identification numbers are also not available either in the records or painted on the Assets to cross check the same with the Asset register. Consequently, no control is exercised over the Fixed Assets either in its physical form or by its value and hence no adjustments are made in the accounts for the scrapped / missing assets.

f) Land Advances:

This represents amount paid towards the land cost at various municipalities and corporations amounting to Rs.4978138 which is yet to be capitalised under Land account.

g) Cess receivable includes disputed amount from the following industries / Local Bodies.

i) Ennore Thermal Power Station.	403730318
ii) North Chennai Thermal Power Station.	267489130
iii) Tuticorin Thermal Power Station.	296805093
iv) Local bodies.	187024676

h) Income Tax :

No provision for Income Tax has been made as the corporation is of the view that the Corporation is exempted from the provision of the Income Tax Act of 1961.

III) Contingent - Liability : Nil

IV) Previous year figures are regrouped and reclassified wherever considered necessary.

Place : Chennai

Date : 17.08.2004

For **Viswanathan & Swaminathan**
Chartered Accountants

Sd/-
S. Sundararaman
(Partner)



Tamilnadu Pollution Control Board

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